Water and Wastewater Utility Master Plan

City of Dunnellon Utilities Department

Marion County, Florida

Prepared for:
The City of Dunnellon
Prepared by:
Kimley-Horn and Associates, Inc.
042382024
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Suite 200
1823 SE Fort King Street
Ocala, Florida 34471
352/438-3000 TEL

THIS IS TO CERTIFY THAT THE ENCLOSED ENGINEERING CALCULATIONS WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

MALCOLM LEWIS BRYANT
LICENSE
No. 65582
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Malcolm L. Bryant, PE
Florida Registration Number 65582
CA 00000696

Date: 9/5/2012

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List of Acronyms

AADF	Annual Average Daily Flow
AAFF	Average Available Fire Flow
AWS	Alternative Water Supply
BEBR	Bureau of Economic and Business Research
CDBG	Community Development Block Grant
CR	County Road
CRA	Community Redevelopment Agency
CWSRF	Clean Water State Revolving Fund
ERU	Equivalent Residential Unit
FDEP	Florida Department of Environmental Protection
fps	Feet Per Second
GIS	Geographic Information System
gpcd	Gallons per Capita Day
GPD	Gallons per Day
gpm	Gallons per Minutes
GST	Ground Storage Tank
HOA	Homeowners Association
hp	Horsepower
HSP	High Service Pumps
I&I	Infiltration & Inflow
LDC	Land Development Code
LF	Linear Feet
LSSA	Lift Station Service Area
MDF	Maximum Daily Flow
MG	Million Gallons
mg/L	Milligram per Liter
MGD	Million Gallons per Day
MOR	Monthly Operating Report
PAR	Public Access Reuse
PRV	Pressure Reducing Valve
psi	Pounds per square inch
PVC	Polyvinyl Chloride
PWS	Potable Water System
RBS	Rainbow Springs
RFP	Request for Proposal
RIB	Rapid Infiltration Basin
SCADA	Supervisory Control and Data Acquisition
SE	Southeast
SRF	State Revolving Fund
SWFWMD	Southwest Florida Water Management District
WMD	Water Management District
WTP	Water Treatment Plant
WUCA	Water Use Caution Area
WUP	Water Use Permit
WWTF	Wastewater Treatment Facility

Executive Summary

The City of Dunnellon has offered utilities to residents since the early 1900s. Until 2011, the City of Dunnellon's active service area was limited to the City limits and portions of the Chatmire neighborhood. Recently, the City took over ownership and operation of water and wastewater systems in Rio Vista, Rainbow Springs (RBS), and Juliette Falls. Through the acquisition of these systems, the City's active customer base increased from approximately 1,100 customers to approximately 3,000. Additional growth is anticipated within the City's utility service territory. To assess the existing systems and plan for future growth, the City desires to have a comprehensive plan for the water and wastewater utility systems. This master plan and accompanying hydraulic modeling was assembled to assist the City in understanding limitations of the existing systems and identifying capital improvement projects for the water and wastewater utility systems.

Population growth within the City of Dunnellon utility service territory is anticipated to occur in two ways. First, there will be fluctuations in population within the areas currently served by the City (infill growth). Secondly, there will be population changes driven through potential new developments around the City. The infill growth is expected to be a smaller portion of the overall service territory growth. In fact, the projected infill growth only amounts to an increase of approximately 400 residents over the next 20 years, while potential new development is anticipated to add another 8,100 residents over the next 20 years. The primary source of new development growth is attributed to four developments. These potential new developments are: Rainbow River Ranches, Blue Run Ranches (the McBride Property), the Boger Property, and the Pruitt Property. It is important to note that at the writing of this report, only Rainbow River Ranches and Blue Run Ranches have approved development rights with densities greater than agricultural. Additionally, development of these properties may not occur for quite some time. Nonetheless, population growth based on State average rates and assumed development intent were developed.

Existing Water System-

With the recent utility acquisitions, the City of Dunnellon has greatly increased the active service area and population served. Currently, the City operates and maintains the following infrastructure:

- Five water treatment plants (WTPs)
- Four wastewater treatment facilities (WWTFs)
- Four water distribution systems consisting of approximately 406,000 feet (76.9 miles) of total pipe
- Four wastewater collection/conveyance systems consisting of approximately 235,000 feet (44.5 miles) of gravity sewer mains and 66,000 feet (12.5 miles) of force mains
- 955 manholes
- 37 wastewater lift stations

The combined capacity of the City's WWTFs is 0.675 million gallons per day (MGD). In 2011, the City's systems treated approximately 0.282 MGD (annual average daily basis) of wastewater. The City's potable water system is permitted to withdraw approximately 1.600 MGD on an annual average daily basis. The water treatment system has a combined treatment capacity of 4.533

MGD (maximum day demand). In 2011, the City's systems provided approximately 1.136 MGD annual average daily basis. However, as of February 2012, water use in the RBS system dropped by approximately 40%. It is presumed that this decline in water use is the result of a tiered rate structure implemented by the City at the beginning of 2012.

Water System Analysis

The City operates one WTP in the City, one WTP in the RBS neighborhood, two WTPs in the Rio Vista neighborhood, and one WTP in the Juliette Falls neighborhood. All five of the WTPs are operating within their respective Florida Department of Environmental Protection (FDEP) permitted capacities based on average daily flows.

A hydraulic model was developed and calibrated for the City's existing water systems. Calibration of the model was done using fire flow data recorded in the field. The existing system was modeled using present day maximum daily demands. The results of the model show that the City's systems overall are not experiencing pressure problems. However, the model is predicting weakness in the available fire flows throughout the City. This is confirmed with field measured fire flow data that was acquired for the model calibration.

The results of the base model were used to identify capital improvement projects (i.e., water main extensions, water main looping, and in water main upsizing) that would improve the hydraulic performance of the City's water system. These improvements were added to the model and simulations were run to analyze the effectiveness of the improvement. Options were also analyzed for interconnecting the systems to increase redundancy in the overall system. This will allow the systems that were previously isolated to provide backup to each other.

The model results confirm that the east side of the City is experiencing low available fire flows. Specific options to improve the fire flow rates were analyzed with the hydraulic model. It was determined that connecting the Dunnellon Heights neighborhood to the Dunnellon Airport water distribution system (owned and operated by Marion County Utilities) would provide adequate fire protection for customers east of the Rainbow River. Additionally, a future new water treatment plant constructed east of the Rainbow River is recommended to provide system reliability and accommodate future water demands as future growth occurs. To improve fire flow rates and system reliability for residents in the Blue Cove area west of the Rainbow River, construction of a water main interconnect along East McKinney Avenue from US 41 to Bostick Street is recommended.

The existing distribution system within the City of Dunnellon system was constructed more than 80 years ago. Many of the original pipes were constructed of ferrous materials that deteriorate with age and have begun to fail. Therefore, a program to gradually replace the aging infrastructure is included in the capital improvement recommendations. Most important in this list is the SR 41/Illinois Street water main. This water main is one of the older lines in the City and has a history of failure. Furthermore, this line serves as the primary connection to the distribution system east of SR 41.Failure of the SR 41/Illinois Street water main would result in significant service interruption to most of the residents east of SR 41.

In contrast to the City's system, the distribution systems in RBS, Rio Vista, and Juliette Falls are relatively newer than the City's and are not experiencing as many maintenance issues. The capital improvement list for these areas is primarily intended to improve system reliability and service to existing customers. System improvements identified for these areas include connecting the Rio Vista and RBS systems and establishing a fire hydrant installation program for the RBS system.

Wastewater System Analysis

The City currently operates four wastewater treatment facilities (WWTFs)—one in the City, one in the RBS neighborhood, one in the Rio Vista neighborhood, and one in the Juliette Falls neighborhood. The Rio Vista WWTF is currently operating without an active permit and is under Court Order (Case # 42-2008-CA-002086) requiring connection to the RBS WWTF. At the writing of this report, the City is in the process of developing construction documents and acquiring funding to decommission the Rio Vista WWTF. The flows coming from the Rio Vista neighborhood will be routed to the RBS WWTF through a new force main once the Rio Vista plant is decommissioned.

Comparing the anticipated population growth to the existing treatment plant capacity demonstrates that the City's existing treatment facilities should be able to accommodate future growth until approximately 2026 (14 years). This projection assumes that no wastewater flows generated by the Pruitt Property would be treated by the existing City facilities. Should the existing City system include flow projections from the Pruitt Property, the system can accommodate future flows until approximately 2021 (nine years). Beyond this time, the City will have to either construct a new WWTF or expand an existing facility.

The City has a couple of options for handling wastewater flows in the future. One of these options includes constructing a new regional WWTF on the Pruitt Property. The timing of the Pruitt WWTF would be based mainly on the growth in the McBride, Boger, and Pruitt Properties. If the growth in these developments is less than projected, the need for the Pruitt WWTF can be delayed. If growth occurs as projected, a new WWTF (or existing WWTF expansion) will need to be constructed by 2021 if a portion of the City flows are rerouted to the RBS WWTF. However, if City flows are not rerouted, the new Pruitt WWTF would have to be constructed by 2019 (seven-year projection).

A second option for handling future wastewater flows is through using the RBS plant by rerouting existing Dunnellon WWTF flows to the RBS WWTF. The City could reroute just the service area west of the Rainbow River to create capacity in the Dunnellon WWTF to handle projected demands from future growth east of the Rainbow River. However, this scenario will require expanding the RBS WWTF by approximately 0.100 MGD to handle the projected demands through 2032 (20-year projection). Additionally, this scenario will allow the City to abandon the force main crossing the Rainbow River.

Capital Improvements

Based on the modeling, field observations, and discussions with City staff, a comprehensive list of capital improvements was developed for implementation over the next five years. The list includes items that are hydraulically necessary, maintenance items, service and reliability upgrades, and improvements to aging infrastructure. That list includes a planning level cost estimate for budgeting purposes. The list consists of major water and wastewater projects and is provided for guidance to assist the City in developing a capital improvement plan. The implementation is at the discretion of the City and is subject to the availability of funds. Some potential funding sources were also identified. The following table is a summary of the identified capital improvements.

Engineer's Opinion of Probable Cost City of Dunnellon Utility Capital Improvements		
Item	**Project**	**Amount**
	Water System Improvements	
1	New Generator for Rainbow Springs WTP	$60,000
2	Water Meter Replacement	$754,000
3	Rainbow Springs Fire Hydrant Program	$1,731,000
4	Water main Replacement Program	$150,000/year
5	Rainbow Springs Service Line Replacement	$92,400
6	Rainbow Springs/City of Dunnellon Interconnect	$501,000
7	City of Dunnellon CRA Fire Hydrant Program	$546,000
8	CR 484 12" Water Main Extension	$1,480,000
9	New Water Treatment Plant - Phase 1	$1,050,000
10	E. McKinney Interconnect	$139,000
11	Pennsylvania Avenue Water Main Replacement	$322,000
12	Powell Road 6" Water Main Extension	$39,000
13	West McKinney Water Main Extension	$73,000
14	South Ohio Street 6" Water Main Extension	$74,000
15	Brooks Street Water Main Extension	$121,000
16	SR 41 Water Main Replacement	$227,000
17	Well #1 Chlorine Contact Time Issue	$50,000
18	Isolation Valve Program	$28,000.00/year
19	Rolling Hills Road 6" to 8" Water Main Upgrade	$155,000
20	Hytovick Water Main Relocation	$114,000
21	The Granada Water Main Extension	$97,000
22	Rio Vista/Rainbow Springs Interconnect	$65,000
	Sanitary Sewer Improvements	
1	Rainbow Springs Lift Station Improvements	$500,300
2	Infiltration and Inflow Study	$67,500
3	Infiltration and Inflow Repairs	Annual TBD
4	Rio Vista WWTF Decommissioning	$803,000
	System-wide Improvements	
1	SCADA System Phase 1	$206,000
2	SCADA System Phase 2	$160,000
3	SCADA System Phase 3	$370,000
Grand Total		**$9,797,200.00**

1.0 Introduction

1.1 Background

The City of Dunnellon (City) is located in the southwest corner of Marion County, Florida. In accordance with State Statute Chapter 180, the City has established a water and wastewater service territory that generally extends five miles beyond the City limits. The City owns and operates the potable water and sanitary sewer systems located within the City limits and the Rainbow Springs (RBS), Rio Vista, and Juliette Falls neighborhoods. The City is anticipating growth and desires to have a plan to improve and expand the utility infrastructure to adequately meet future demands.

This master plan and accompanying hydraulic modeling was assembled to assist the City in identifying and selecting capital improvement projects to efficiently and cost-effectively meet the demands of current and future patrons.

1.2 Scope and Objectives

The primary objective of this report is to assess the performance of the existing potable water and sanitary sewer systems currently owned and operated by the City of Dunnellon and plan for system improvements/expansions that are needed to meet the anticipated 5-year, 10-year, and 20-year demands.

Water System Objectives:

- Gather and summarize the current permitting status and regulatory issues affecting the water treatment and distribution systems
- Gather existing system information and develop a master computer model of the City's potable water system
- Identify the water supply, treatment, and storage capacity of the City's existing system
- Develop hydraulic standards for the City's water distribution system
- Develop potable water demand projections (5-year, 10-year, and 20-year)
- Evaluate the water distribution system under present year conditions and for 5-year, 10-year, and 20-year growth projections
- Identify necessary improvements within the water supply, treatment, and storage capacity under the present year, 5-year, 10-year, and 20-year demand projections

Sanitary System Objectives:

- Gather and summarize the current permitting status and regulatory issues affecting the wastewater conveyance and treatment systems
- Create a system inventory of the existing wastewater lift stations
- Identify the wastewater treatment and effluent disposal capacity of the City's existing wastewater treatment system (this evaluation was limited to the review of previously prepared capacity analysis reports and WWTF expansion plans)
- Develop hydraulic standards for the City's sanitary sewer system
- Develop sanitary sewer flow projections (5-year, 10-year, and 20-year)
- Evaluate affected portions of the City's existing lift station infrastructure under present year conditions and for the 5-year, 10-year, and 20-year growth projections

- For each demand projection (present year, 5-year, and 20-year), make collection system improvement recommendations that are required for the system to meet the hydraulic standards under the scenarios above
- Identify opportunities for lift station, low pressure system, and gravity system consolidation based on present and future demands

2.0 Service Area Description

The City of Dunnellon (City) is located in the southwest corner of Marion County, Florida. In accordance with State Statute Chapter 180, the City established a water and wastewater service territory (by City Ordinance 96-10) that generally extends five miles beyond the City limits. See Exhibit 2-1 for a map of the present City of Dunnellon Service Territory. Within the established service territory, the City owns and operates the potable water and sanitary sewer systems located within the City limits and the Rainbow Springs (RBS), Rio Vista, and Juliette Falls neighborhoods.

2.1 System History

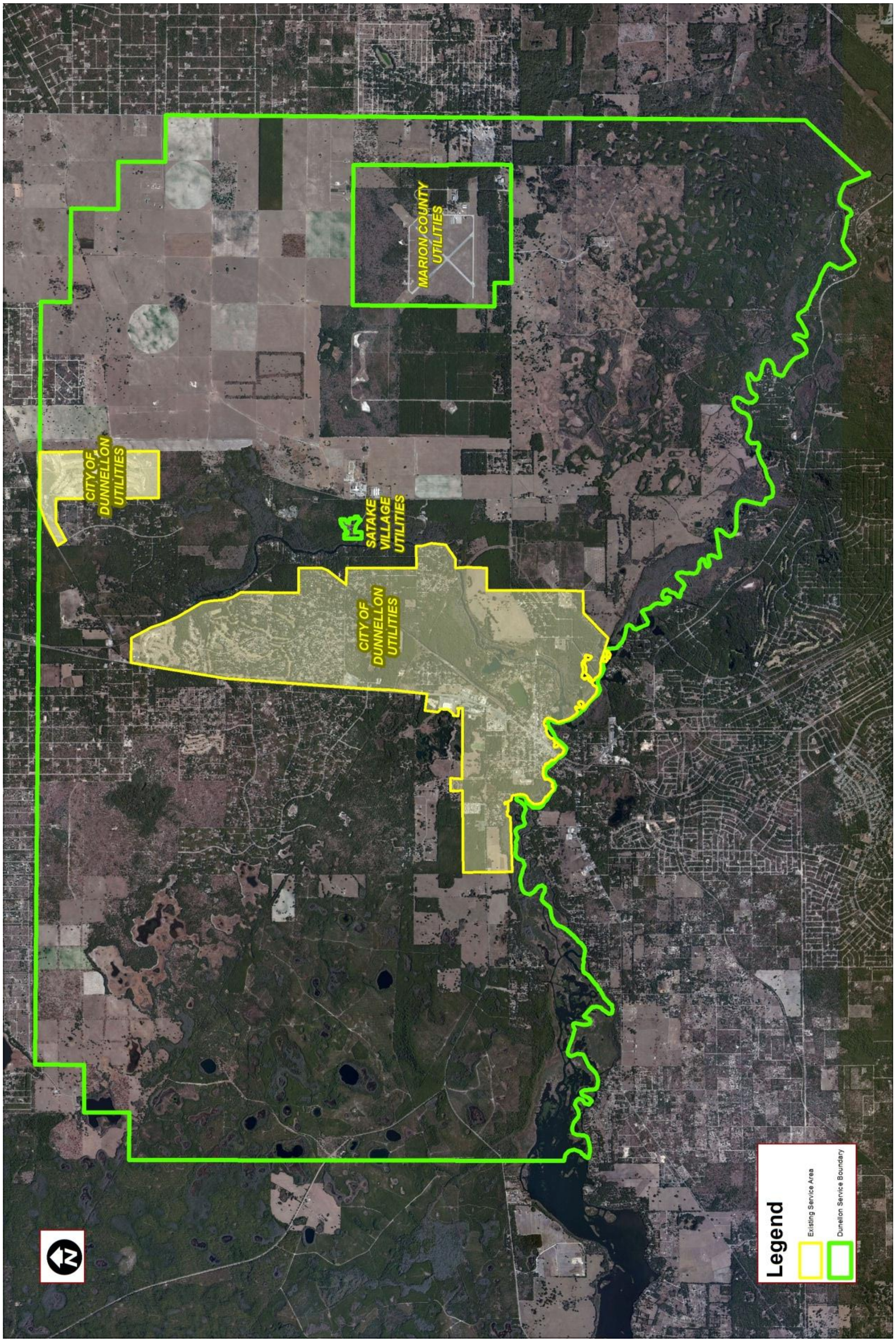
The City of Dunnellon has offered utilities to residents since the early 1900s. City records state that piping in the downtown area dates as far back as 1908. Until 2011, the City of Dunnellon's active service area was limited to the City limits and portions of the Chatmire neighborhood. In early 2011, the City provided service to approximately 1,110 customers. Later that year (August 2011), the City took over ownership and operation of the Rio Vista water and wastewater utility system. This system is a residential development located along the Rainbow River due north of the City of Dunnellon city limits and just south of the RBS development. The development consists of two subdivisions—Rio Vista and Rio Vista Estates. Rio Visa consists of approximately 258 quarter-acre and half-acre lots with paved roads. Approximately 35% of the lots in the Rio Vista subdivision are vacant. Approximately 50% of the Rio Vista residents are full-time and the other 50% are seasonal (mostly winter occupants). Rio Vista Estates consists of approximately 43 two- to four- acre lots and lime rock roads. The Rio Vista Estates subdivision is approximately 60% built out with mostly full-time residents. There are approximately 227 active water customers and 40 active wastewater customers in both subdivisions.

The City of Dunnellon acquired the RBS public water supply system from Rainbow Springs Utilities (RSU) in December of 2011. The Villages of Rainbow Springs (RBS) is a residential development located approximately one mile north of the City of Dunnellon. RBS is a golf course community consisting of single-family homes and detached villas. The RSU system currently provides water and wastewater service to approximately 1,600 homes within the RBS community. According to the 2010 PSC annual report, the RBS utility began in 1965 as a private utility system serving the RBS attraction. In 1978, the RBS development began construction under a phased development plan.

In January 2012, the City of Dunnellon purchased the Juliette Falls water and wastewater utility systems. Juliette Falls is a residential development located approximately five miles northeast of the City of Dunnellon. The development is a golf course community consisting of single-family homes. The Juliette Falls Homeowners Association, Inc. (HOA) previously provided water and wastewater service to approximately 295 platted lots and a golf course clubhouse. Currently, 30 lots have been developed. The remaining 265 platted lots are vacant. At ultimate buildout, the community is planned for 542 homes. The Juliette Falls development (first phase) was constructed in 2005 and 2006.

Through the acquisition of the Rio Vista, RBS, and Juliette Falls utility systems, the City's active customer base had increased from 1,110 customers in early 2011 to approximately 3,000 water customers by the end of January 2012.

Exhibit 2-1: City of Dunnellon Existing Service Territory



3.0 Population Projections

3.1 Introduction

This section will highlight the projected population growth and future demands anticipated for the City's water and wastewater systems. Growth is an important element of the master plan because it provides the road map necessary to identify sizes and spatial orientation of additional demands that will be placed on the utility infrastructure. Identifying these demands allows for planning capital improvements that will efficiently and cost-effectively service these customers. There will be changes in the population served by the City of Dunnellon in two ways. First, there will be fluctuations in population within the areas currently served by the City. Secondly, there will be population changes driven through the physical expansion of the City limits.

3.2 Methodology for Determining Growth

The basis used for determining the total permanent population growth was a model developed by the Southwest Florida Water Management District (SWFWMD). SWFWMD's growth model is based in ArcGIS and is a combination of the population projections made by the University of Florida's Bureau of Economic and Business Research (BEBR) medium growth projections and the U.S. census block-level data. The SWFWMD model has population data at the parcel level for the entire county, which allows for projecting populations for any service area. The populations are projected by SWFWMD for the following years: 2010, 2015, 2020, 2025, 2030, and 2035. Using linear interpolation, the projected growth for the 5-year (2017), 10-year (2022), and 20-year (2032) periods were determined.

For future population projections within the City's service territory, growth was broken down and analyzed in three classifications:1) Population growth within the areas currently connected to City utilities (no physical expansion), 2) Infill population growth within the City's service territory that can be added to the City's utility system by physically expanding the system, and 3) Population growth occurring in new developments planned within the City's service territory that would require expansion to connect. Table 3-1 summarizes the projected populations. A more detailed discussion of the subareas is included in subsequent sections.

Table 3-1 : Permanent Population Projections				
	2012 (Present)	5-year (2017)	10-year (2022)	20-year (2032)
City	**1733**	**1779**	**1828**	**1927**
Rainbow Springs	**2372**	**2386**	**2408**	**2444**
Rio Vista	**338**	**342**	**349**	**359**
Juliette Falls	**45**	**56**	**72**	**101**
Chatmire Neighborhood	**187**	**190**	**195**	**204**
Rainbow River Ranches	**0**	**56**	**297**	**557**
McBride Development	**0**	**0**	**236**	**884**
Pruitt Property	**0**	**0**	**1664**	**6238**
Boger Property	**0**	**0**	**120**	**449**
Total	**4,675**	**4,809**	**7,169**	**13,163**

3.2.1 City of Dunnellon

To establish the basic demand growth, no physical expansion of the City's network was assumed. In other words, it was assumed that no new pipes would be constructed to service new customers; only property with current access to the City's Utilities would be considered. For this scenario, the population data provided by the SWFWMD was reduced to only the parcels that fell within 200 feet of an existing service line. It should be noted that the properties in the Chatmire neighborhood were treated separately from the City's population because those parcels are only serviced by water; including Chatmire would have skewed the City's demand for wastewater. For discussion on the growth for Chatmire, see the subsequent section.

3.2.2 Rainbow Springs (RBS)

Population growth within the RBS neighborhood was determined using the same methodology that was used for the City. The SWFWMD parcel level data was reduced to the parcels with the neighborhood and the 2017, 2022, and 2032 projections were calculated using linear interpolation of the SWFWMD population projections.

3.2.3 Rio Vista

Population growth within the Rio Vista neighborhood was determined using the same methodology that was used for the City. The SWFWMD parcel level data was reduced to the parcels with the neighborhood and the 2017, 2022, and 2032 projections were calculated using liner interpolation of the SWFWMD population projections.

3.2.4 Juliette Falls

Population growth within the Juliette Falls neighborhood was determined using the same methodology that was used for the City. The SWFWMD parcel level data was reduced to the parcels with the neighborhood and the 2017, 2022, and 2032 projections were calculated using linear interpolation of the SWFWMD population projections.

3.2.5 Chatmire Neighborhood

Population growth within the Chatmire neighborhood was determined using the same methodology that was used for the City. The SWFWMD parcel level data was reduced to the parcels within the neighborhood and the 2017, 2022, and 2032 projections were calculated using linear interpolation of the SWFWMD population projections. The population of Chatmire is currently serviced with water, but not with sanitary sewer. The City currently has construction documents to provide sanitary sewer for the neighborhood. However, the City decided to postpone construction of the sanitary sewer infrastructure until a future date not yet determined.

3.2.6 Rainbow River Ranches Development

Rainbow River Ranches is a mixed-use development planned for approximately 257 acres just east of the Rainbow River and north of CR 484. The current plan for Rainbow River Ranches includes 255 single-family lots, 56 multi-family units, 10 acres of commercial development, 5.8 acres reserved for a clubhouse and/or recreation site, and 1.4 acres of RV/boat storage space. See Exhibit 3-1 for a location map of the Rainbow River Ranches Development

The estimated population for the development is 743 residents at buildout (based on 2.39 residents per dwelling unit). For projecting the pace of building for the 5-year, 10-year, and 20-year, a percentage of buildout was estimated for each of the time periods. It was estimated that for the 5-year, 10-year, and 20-year timelines a 15%, 40%, and 75% buildout would be expected. The buildout numbers are slightly aggressive as a percentage, but due to the development size and location, are reasonable overall. See Table 3-1 for the projected populations.

3.2.7 McBride Development (Blue Run Ranches)

The McBride Development is located east of the existing City limits on the north side of CR 484. The property, which is approximately 1,250 acres, will be developed into low-density residential lots and commercial with frontage on CR 484. See Exhibit 3-1 for a location map of the McBride Development.

The projected population increase associated with this development is approximately 5,900 residents at full buildout. For projecting the pace of building for the 5-year, 10-year, and 20-year, a percentage of buildout was estimated for each of the time periods. It was estimated that for the 5-year, 10-year and 20-year timelines, a 0%, 4%, and 15% buildout would be expected. The buildout numbers may seem very conservative as a percentage, but due to the development size and location, are reasonable projections overall. See Table 3-1 for the projected populations.

3.2.8 Pruitt Property

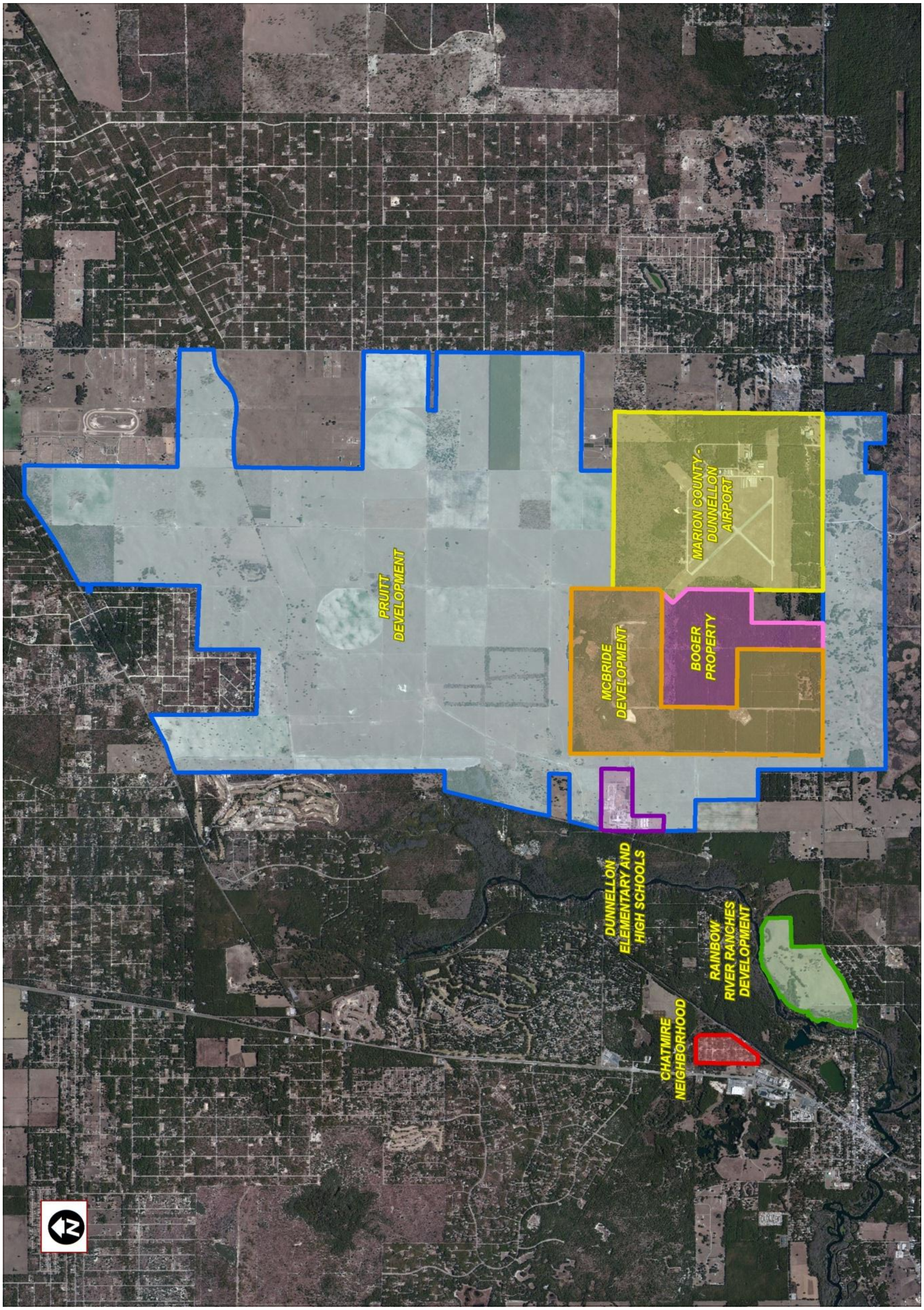
The Pruitt Property is located east and north of the existing City limits. As of the writing of this report, the land planning and annexation plans for the Pruitt Property were ongoing. The property, which is approximately 8,698 acres, is planned to be subdivided and developed as a mixed-use development. There will be approximately 4,936 acres of residential, 265 acres of employment center, 259 acres of commercial, and 783 acres of mixed-use that will front CR 484 and SR 40. The remaining 2,454 acres will be used for open space, utilities, right-of-way, and civic uses. See Exhibit 3-1 for a location map of the Pruitt Property.

The projected population increase associated with this development is approximately 41,600 residents at full buildout. For projecting the pace of building for the 5-year, 10-year, and 20-year, a percentage of buildout was estimated for each of the time periods. It was estimated that for the 5-year, 10-year and 20-year timelines, a 0%, 4%, and 15% buildout would be expected. The buildout numbers may seem conservative as a percentage, but due to the development size and location, are reasonable projections overall. See Table 3-1 for the projected populations.

3.2.9 Boger Property

The Boger Property is within the City of Dunnellon's utility service territory.It is approximately 500 acres located east of Dunnellon on CR 484. This property is currently zoned for agricultural use. The Ciy may offer utility services to the property in the future and, therefore, would like to consider it in the growth and demand projections of this master plan. There are currently no land plans or development documents for the Boger Property to establish growth projections. Therefore, for the purposes of this master plan, it was assumed that the property will be developed similar to the McBride Development. A 0%, 4%, and 15% buildout was estimated for the 5-year, 10-year, and 20-year time periods. See Exhibit 3-1 for a location map of the Boger Property.

Exhibit 3-1: Utility Expansion Areas



4.0 Existing Water System

4.1 Introduction

This section discusses the existing potable water systems owned and operated by the City of Dunnellon. The City currently owns and operates the following four separate water systems:

1. City of Dunnellon Water System
2. Rainbow Springs (RBS) Water System
3. Juliette Falls Water System
4. Rio Vista Water System

Each potable water system is served by independent water supply wells and treatment systems. Currently, none of these systems are interconnected. The potable water supply wells are permitted by the Southwest Florida Water Management District (SWFWMD). The SWFWMD issues water use permits (WUPs) that allocate an allowable water withdrawal quantity for the system. The City of Dunnellon currently operates under two WUPs. Construction, operation, and modifications of the water treatment facilities are controlled by the Florida Department of Environmental Protection (FDEP). The existing water treatment plants (WTPs) were all constructed under FDEP permits. As a condition of the FDEP construction permits, the City must submit Monthly Operating Reports (MORs) that document the daily quantity of finished water produced. Operation of these facilities is monitored by the FDEP through annual sanitary survey compliance inspections and review of reports submitted by the City.

4.2 Water Supply Permits

The FDEP is responsible for permitting the design and construction of new potable water supply systems that provide water to 25 or more people for at least 60 days each year or serves 15 or more service connections. Very small water systems that do not fit the above description are regulated by the Florida Department of Health and the county health departments. The construction of potable water supply wells, both public and private, and the quantities of water that may be extracted, are regulated by SWFWMD. Construction of individual private water wells are regulated by the county health departments.

SWFWMD is responsible for permitting and monitoring the quantities of groundwater pumped to potable water supply systems in the City of Dunnellon. The City of Dunnellon water systems are currently being operated under two separate WUPs. The first permit (Permit No. 20008339) permits the water withdrawals and treatment plants serving RBS, Rio Vista, and City systems. The Juliette Falls Public Water Supply wells are on a separate WUP. The Juliette Falls Public Water Supply is currently being operated under a small general water use permit (Permit No. 20 020213.000). Table 4-1, below summarizes information regarding the City's WUPs issued by SWFWMD.

Table 4-1 : Water System Permits

Permit Number	Permit Type	Issuing Agency	Wells District/User	Service Area (s)	Date of Issue	Date of Expiration
20008339.006	Individual Water Use Permit	SWFWMD	1 / 1 2 / 2 3 / 3	City of Dunnellon	04/19/12	10/23/14
		SWFWMD	5 / 5 6 / 6	Rio Visa Neighborhood		
		SWFWMD	7 / 7 8 / 8 9 / 9 10 / 10(Prop.) 11 / 11 (Prop.)	Rainbow Springs Neighborhoods		
20 020213.000	Small General Water Use Permit	SWFWMD	W-39 / 1 W-40 / 2	Juliette Falls Neighborhood	01/31/12	01/31/22

The City of Dunnellon lies within the Withlacoochee Watershed Northern Planning Region of the SWFWMD. According to SWFWMD website, the City of Dunnellon is restricted to irrigation restrictions two days per week. Also, none of the wells owned and operated by the City fall within a Water Use Caution Area (WUCA). WUCAs are defined by the district as "a geographic region within the District which exhibits resource problems, or is predicted to exhibit resource problems, and for which special regulations are enacted by the Governing Board."

4.3 Existing Water Treatment and Distribution Systems

The City currently owns and operates the following four separate water systems:

1. City of Dunnellon Water System
2. Rainbow Springs Water System
3. Juliette Falls Water System
4. Rio Vista Water System

Each potable water system is served by independent water supply wells and treatment systems. Currently, none of these systems are interconnected. The following is a brief description of each separate water system.

4.3.1 City of Dunnellon Water System

The City of Dunnellon system serves primarily customers within the City limits along with the residents of Chatmire Estates. The City's system is identified by the FDEP as PWS-ID No. 642-4073. The system serves a total population of approximately 1,922 City residents with approximately 1,120 connections. The design capacity of the system is 1,366,000 gallons per day (GPD) maximum day demand. The City's water system consists of two public supply wells and one elevated storage tank (EST) WTP. The wells are permitted to pump an average daily flow (ADF) of 448,000 GPD with a peak flow of 583,000 GPD. The distribution network has approximately 200,000 linear feet (LF) of water main varying from 2" to 14" in diameter. The water main pipe material is variable, but generally consists of polyvinyl chloride (PVC), ductile iron, cast iron, asbestos cement, or pit cast iron. According to the FDEP Sanitary Survey Report dated August 9, 2011, no deficiencies were observed for the City's potable water system. See Exhibit 4-1 for a map of the City of Dunnellon water distribution system.

The City's water supply and treatment system consists of the following components.

Table 4-2 : City of Dunnellon Water Treatment Components

Component	Size/Capacity	Status
Water Supply Well #1	8" diameter/400 gpm*	Active
Water Supply Well #2	8" diameter/500 gpm*	Active
Cedar Street Water Tower	250,000 gallons	Active
Water Use Permit	0.448 MGD**	Expires 10/23/2014

**gpm = gallons per minute;*
***MGD = million gallons per day*

Based on the 2011 MOR data, the City produced 300,338 GPD annual average in 2011. The adjusted per capita water use was 148.6 GPD in 2011. The following is a summary of the City's water demands based on the 2011 MOR data.

Fire Flow Rate:	1,000 gpm
Fire Flow Duration:*	2 hours
Fire Flow Demand:*	120,000 gallons (1,000 gpm x 2 hrs.)
Fire Flow Replenishment Rate:*	84 gpm (120,000 gallons in 24 hrs.)
Average Day Demand:	210 gpm (approximately)
Maximum Day Demand:	420 gpm
Peak Hour Water Demand:	840 gpm
Per Capita Water LOS:	125 GPD/person
Average Household Size:	2.0 pph
Water ERU:	250 GPD/ERU

Since the City has not established a specific fire flow requirement for residential structures, the requirements listed in the Marion County Land Development Code (LDC) were assumed for this analysis. It is assumed that occupancies requiring fire flows of 1,500 gpm or greater will be required to have automatic fire sprinkler systems. Therefore, the fire flow requirements for the City are assumed to be 1,000 gpm for two consecutive hours.

Per the City's LDC, the established water level of service (LOS) is 125 GPD per person. According to the 2010 census data, the City of Dunnellon's average household size is approximately 2.00 people per household (pph). Therefore, one equivalent residential unit is equal (ERU) to 2 pph x 125 GPD/person = 250 GPD/ERU. According to interviews with City Staff, there are no water capacity reservations at this time.

<u>Well Capacity</u> – According to FDEP Rule 62-555.315 (3), the total well capacity for a water system using only groundwater shall equal at least the system's design maximum day water demand (including design fire flow demand if fire protection is being provided). The current maximum day demand is 420 gpm (approximately 604,000 GPD) and the fire flow demand is 120,000 gallons of storage.

In addition, for community systems serving 350 or more persons (or 150 or more service connections), the total well capacity with the largest producing well out of operation shall be equal to the design ADF and preferably the design maximum daily flow (MDF). The current average day demand is 210 gpm (approximately 302,000 GPD).

> **Current Well Capacity = 900 gpm** (both wells)**; 400 gpm** (with largest well out of service)
>
> **FDEP Required Well Capacity = 504 gpm** (both wells)**; 210 gpm ADF and 420 gpm MDF (**with largest well out of service)
>
> **Additional Available Well Capacity = 396 gpm** (both wells in service); **190 gpm ADF and 0 gpm MDF** (with largest well out of service)

The total available well capacity is limited by the available capacity with the largest well out of service. As seen above, the City has approximately 190 gpm (274,000 GPD) of additional well capacity at the ADF rates. However, the City does not enough well capacity available to meet the City's MDFs as preferred by the FDEP rule.

Water Storage Capacity – According to FDEP Rule 62-555.320 (19), the total useful finished-water storage capacity (excluding any storage capacity for fire protection) connected to a water system shall at least equal 25% of the system's maximum day water demand. The City's current maximum day demand is approximately 604,000 gallons.

FDEP Rule 62-555.320 (19) also requires additional finished water storage capacity to meet the design fire flow rate for the design fire flow duration. The assumed fire flow rate is 1,000 gpm and the design fire flow duration is 2 hours. The fire flow rate times fire flow duration is 120,000 gallons.

> **Current Finished Water Storage Capacity = 250,000 gallons**
>
> **FDEP Required Finished Water Storage Capacity = 271,200 gallons**
>
> (25% MDF = 151,000 gallons; Fire flow rate for 2 hrs = 120,000 gallons)
>
> **Additional Available Finished Water Storage Capacity = 0 gallons**

The City's Cedar Street elevated storage tank does not provide enough finished water storage capacity to meet 25% of the MDF plus the fire flow rate times the fire flow duration. However, the FDEP can allow less finished water storage capacity to be provided if the total available storage capacity is sufficient for operational equalization or, when combined with the water system's pumping capacity, can meet the peak hour water demand (plus fire flow demand) for four consecutive hours. The City's system appears to meet both of these options. Nonetheless, for the purpose of this evaluation, the City does not have additional available finished water storage capacity without specific approval by the FDEP.

Pumping Capacity – According to FDEP Rule 62-555.320 (15) (b), where elevated finished drinking water storage is provided, the total capacity of all high service pumping stations shall be sufficient to meet the maximum day water demand (including design fire flow demand) and to maintain a minimum system pressure of 20 pounds per square inch. When elevated storage tanks have sufficient volume to provide the fire flow rate (i.e., 1,000 gpm) for the design fire flow duration (i.e., two hours), FDEP requires the available pumping capacity to meet the maximum day demand plus the fire flow replenishment rate. Therefore, the maximum day water demand plus fire flow demand is 504 gpm (420 gpm MDF plus 84 gpm fire flow replenishment rate).

In addition, per FDEP Rule 62-555.320 (15) (b), the total capacity of the high service pumps (HSPs) combined with the useful elevated finished water storage capacity shall be sufficient to meet the water system's peak-hour water demand for at least four consecutive hours and, if fire protection is being provided, be sufficient to meet the water system's design fire flow rate plus maximum day demand for the design fire flow duration. The City's peak hour water demand is approximately 840 gpm.

Current Pumping Capacity = 900 gpm (both well pumps)

FDEP Required Pumping Capacity = 504 gpm (MDF plus fire flow demand)**;**

Additional Available Pumping Capacity = 396 gpm (570,000 GPD MDF or 285,000 GPD ADF)

The City's pumping capacity meets the FDEP requirement. An additional 396 gpm MDF of pumping capacity is available for future development. Also, to meet the requirements of FDEP Rule 62-555.320 (15) (c), the City must provide an installed or uninstalled standby pump of sufficient capacity to replace the largest pump.

Available Water Capacity Evaluation – According to the 2011 MOR data, the City is withdrawing approximately 0.302 million gallons per day (MGD) of the 0.448 MGD permitted by SWFWMD. Therefore, approximately 0.146 MGD is available for consumption without exceeding the City's current WUP. However, the City's water treatment and supply system needs improvements before additional capacity is available. The City's potable well pump capacity should be increased by 20 gallons per minute to meet the systems current maximum day demand with the largest well pump out of service. Also, an additional 21,200 gallons of finished water storage is needed to meet the FDEP required storage volume. Additional improvements will be required to serve future developments within the City's public service territory. The scope and nature of the improvements are dependent on the type and size of additional development.

4.3.2 Rainbow Springs Water System

The Rainbow Springs (RBS) water supply system serves primarily customers within the Rainbow Springs residential development. The RBS system is identified by the FDEP as PWS-ID No. 642-2679. The system serves approximately 1,600 connections with a design capacity of 1,500,000 GPD (maximum day demand). The RBS water system consists of three public supply wells and one ground storage tank (GST) water treatment plant. The wells are permitted to pump an ADF of 1,036,982 gallons per day (GPD) with a peak flow of 1,659,172 GPD. The distribution network has approximately 155,000 LF of water main varying from 2" to 12" in diameter. The water main pipe material is variable, but generally consists of PVC and ductile iron. Sanitary Survey Report dated July 29, 2010, no deficiencies were observed for the RBS Potable Water System. See Exhibit 4-2 for a map of RBS water distribution system.

The RBS public water supply and treatment system consists of the following components. The water treatment plant is located on SW 196th Avenue Road, northwest of the intersection with SW 93rd Lane. Water from the supply wells is pumped into a 500,000 gallon capacity concrete ground storage tank (above ground) and pumped into the distribution system by three HSPs. Raw water is treated by gas chlorine disinfection. No other water treatment is provided.

Table 4-3: Rainbow Springs Water Treatment Components

Component	Size/Capacity	Status
Water Supply Well #7	10" diameter/450 gpm*	Active
Water Supply Well #8	12" diameter/950 gpm*	Active
Water Supply Well #8	12" diameter/1000 gpm*	Active
Ground Storage Tank	500,000 gallons	Active
Hydropneumatic Tank	10,000	Active
Jockey Pump #1	550 gpm	Active
High Service Pump #2	750 gpm	Active
High Service Pump #3	750 gpm	Active
Water Use Permit	1.037 MGD**	Expires 10/23/2014

**gpm =gallons per day*
***MGD = million gallons per day*

Based on the 2011 MOR data, the RBS system provided 740,000 gallons per day (GPD) annual average water service in 2011. The estimated per capita water use is 245 GPD in 2011 (based on an assumed population of 3,018). The following is a summary of the City's water demands based on the 2011 MOR data.

Fire Flow Rate:	1,000 gpm
Fire Flow Duration:	2 hours
Fire Flow Demand:	120,000 gallons (1,000 gpm x 2 hrs.)
Fire Flow Replenishment Rate:	84 gpm (120,000 gallons in 24 hrs.)
Average Day Demand:	515 gpm (approximately)
Maximum Day Demand (using 2.0 MDF):	1,030 gpm
Peak Hour Water Demand (using 4.0 PHF):	2,060 gpm

Well Capacity – According to FDEP Rule 62-555.320 (6), the total well capacity for a water system using only groundwater shall equal at least the system's design maximum day water demand (including design fire flow demand if fire protection is being provided). The current maximum day demand is 1,030 gpm (approximately 1.483 MGD) and the fire flow demand is 1,000 gpm.

In addition, for community systems serving 350 or more persons (or 150 or more service connections), the total well capacity with the largest producing well out of operation shall be equal to the design ADF and preferably the design MDF. The current average day demand is 515 gpm (approximately 0.742 MGD).

Current Well Capacity = 2,400 gpm (all wells)**; 1,400 gpm** (with largest well out of service)

FDEP Required Well Capacity = 2,030 gpm (all wells)**; 515 gpm ADF and 1,030 gpm MDF (**with largest well out of service)

Additional Available Well Capacity = 370 gpm (both wells in service); **885 gpm ADF and 370 gpm MDF** (with largest well out of service)

The total available well capacity is limited by the total well capacity and/or the available capacity with the largest well out of service at max day flow conditions. As seen above, the RBS system has approximately 370 gpm of additional well capacity.

Water Storage Capacity – According to FDEP Rule 62-555.320 (19), the total useful finished-water storage capacity (excluding any storage capacity for fire protection) connected to a water system shall at least equal 25% of the system's maximum day water demand. The City's current maximum day demand is approximately 1,480,000 gallons per day.

FDEP Rule 62-555.320 (19) also requires additional finished water storage capacity to meet the design fire flow rate for the design fire flow duration. The assumed fire flow rate is 1,000 gpm and the design fire flow duration is two hours. The fire flow rate times fire flow duration is 120,000 gallons.

Current Finished Water Storage Capacity = 500,000 gallons

FDEP Required Finished Water Storage Capacity = 490,000 gallons

(25% MDF = 370,000 gallons; Fire flow rate for 2 hrs = 120,000 gallons)

Additional Available Finished Water Storage Capacity = 10,000 gallons

The RBS ground storage tank provides enough finished water storage capacity to meet 25% of the MDF plus the fire flow rate times the fire flow duration.

Pumping Capacity – According to FDEP Rule 62-555.320 (15) (a), unless elevated finished drinking water storage is provided, the total capacity of all high-service pumping stations connected to a water system, or the capacity of booster pumping stations, shall be sufficient to meet at least the maximum day water demand (including design fire flow demand) and to maintain a minimum system pressure of 20 pounds per square inch.

In addition, per FDEP Rule 62-555.320 (15) (b), the total capacity of the high-service pumps combined with the useful elevated finished water storage capacity shall be sufficient to meet the water system's peak-hour water demand for at least four consecutive hours and, if fire protection is being provided, be sufficient to meet the water system's design fire flow rate plus maximum day demand for the design fire flow duration. The RBS system peak hour water demand is estimated to be approximately 2,056 gpm (4 PHF x 514 gpm average day demand = 2,056 gpm).

Current Pumping Capacity = 2,050 gpm (all high service pumps)

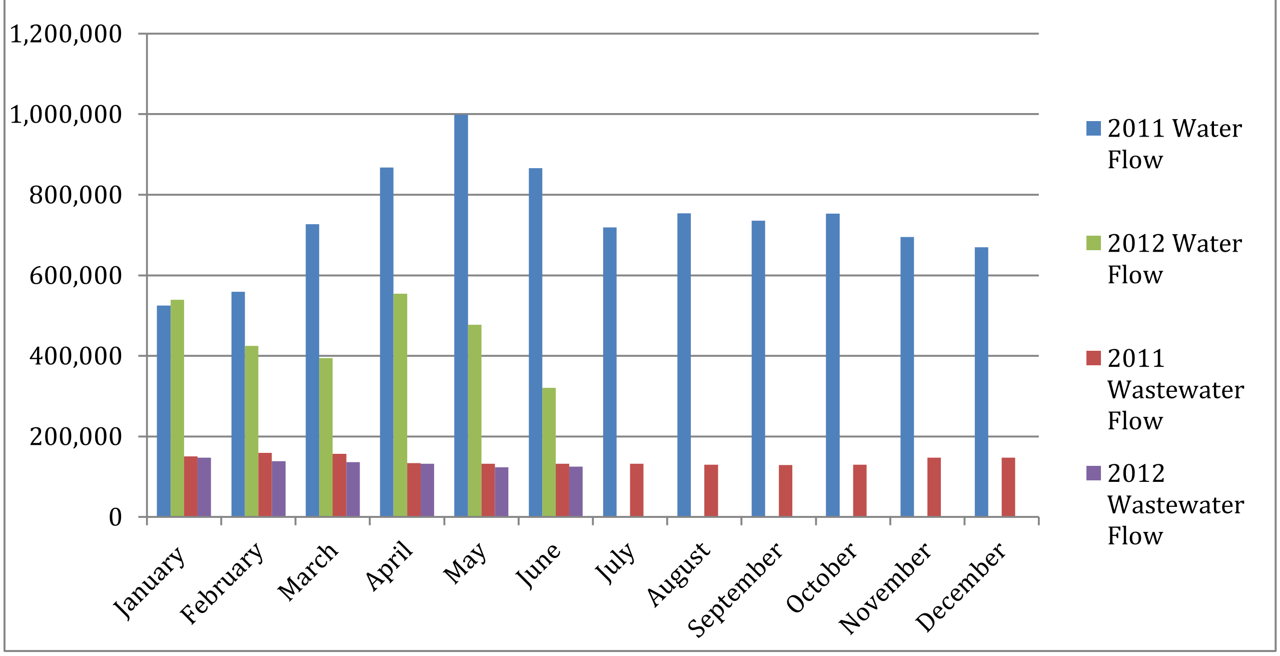
FDEP Required Pumping Capacity = 2,056 gpm (peak hour demand)**; 2,028 gpm** (max day plus fire flow)

Additional Available Pumping Capacity = 0 gpm (570,000 GPD MDF or 285,000 GPD ADF)

At the estimated peak hour flow (PHF) rate of 2,056 (based on 2011 MOR data), the RBS pumping capacity does not meet the FDEP requirement. However, the peak hour flow assumed in this analysis was based on a "rule of thumb" peak hour factor. Historically, the existing pumps have been able to meet all demands, including peak hour demands. Additionally, since the City of Dunnellon acquired the RBS system, a decrease in the water demand has been noticed. In fact, from February 2012 through June 2012, the water demand has dropped by an average of approximately 40% from the same month demands of 2011. This trend can be directly attributed the tiered rate structure that was implemented when the City took over the system. Given this trend the RBS water demands, the existing water supply, treatment, and pumping system should be adequate to serve the current demands. See Table 4-4 below for a graphical presentation of the recent water and wastewater demands of the RBS system.

<u>Available Water Capacity Evaluation</u> – According to the 2011 MOR data, the RBS system is withdrawing approximately 0.740 MGD of the 1.037 MGD permitted by SWFWMD. Therefore, approximately 0.297 MGD is available for consumption without exceeding the current WUP. Furthermore, given the recent declining trend in water use throughout the RBS system, additional available capacity is expected in 2012.

Table 4-4: Rainbow Springs Historic Water and Wastewater Flows



4.3.3 Juliette Falls Water System

The City of Dunnellon acquired the Juliette Falls public water supply system from Vikings, LLC in December of 2011. The Juliette Falls system is identified by the FDEP as PWS-ID No. 642-4804. The system currently serves approximately 30 residential connections, along with a sales office, clubhouse/restaurant, and golf maintenance facility. According to the 2005 FDEP PWS construction permit, the Juliette Falls WTP has a design capacity of 1.44 MGD.

The Juliette Falls public water supply system consists of two 12" potable water wells equipped with 1,000-gpm vertical turbine pumps. Water from the supply wells is pumped into two 10,000-gallon capacity hydropneumatic tanks which feed the distribution system. Raw water is treated by NaOCl (sodium hypochlorite) disinfection feed system. The treated water from the Juliette Falls WTP is conveyed by a network of PVC pipes of various sizes. Within the network there is approximately 21,740' of PVC water main varying in size from 2" to 10". See Exhibit 4-3 for a map of the Juliette Falls water system.

The Juliette Falls public water supply is currently being operated under SWFWMD Small General Water Use Permit No. 20020213.000. The permitted annual average water withdrawal quantity is 17,000 GPD with a peak annual average flow of 27,200 GPD. According to the 2011 MOR data, the Juliette Falls system annual average demand was approximately 55,000 GPD. However, like the RBS system, since the City of Dunnellon acquired the Juliette Falls system in December 2011, water demands have drastically decreased to an annual average of 14,000 GPD from January 2012 through May 2012. This demand decrease can be attributed to the tired rate structure implemented by the City in January 2012.

4.3.4 Rio Vista Water System

The City of Dunnellon acquired the Rio Vista public water supply system from the Civic Association of Rio Vista Utilities, Inc. in August of 2011. The Rio Vista system is identified by FDEP as PWS-ID No. 642-1512. The total population served is 400, with approximately 200 service connections to the distribution system. The design capacity is 227,000 GPD and storage capacity of 3,000 gallons. Under WUP 8339 (issued by SWFWMD), the Rio Vista wells are permitted to pump an ADF of 97,500 GPD with a peak flow of 195,000 GPD. According to the FDEP Sanitary Survey Report (dated October 13, 2011), two minor deficiencies were observed for the system and later corrected.

The Rio Vista system consists of three wells (one capped) and two WTPs. The first WTP is located on 108th Place and consists of a 20-hp (170 gpm) submersible well pump, a 6" well, a 4,000 gallon hydropneumatic tank, a 55-gallon NaCl storage tank, and a Chem-Tech chlorine dosing pump. The second WTP is located on 105th Lane Road and consists of a 15-hp (175 gpm) submersible well pump, a 6" well, a 50-gallon (approximate) hydropneumatic tank, and a Chem-Tech chlorine pump. The second treatment plant is used primarily as a back-up. The water distribution system consists of approximately 33,650 LF of PVC water main varying in size from 2" to 6". According to the 2011 MOR data, the average daily demand for the system is approximately 28,000 GPD. The water supply and treatment system is adequate to meet the estimated system peak hour demand of 80 gpm (20 gpm average day x 4 PHF = 80 gpm peak hour). Fire protection is not provided by the Rio Vista water system. See Exhibit 4-4 for a map of the Rio Vista water system.

Exhibit 4-1: City of Dunnellon Water Distribution System

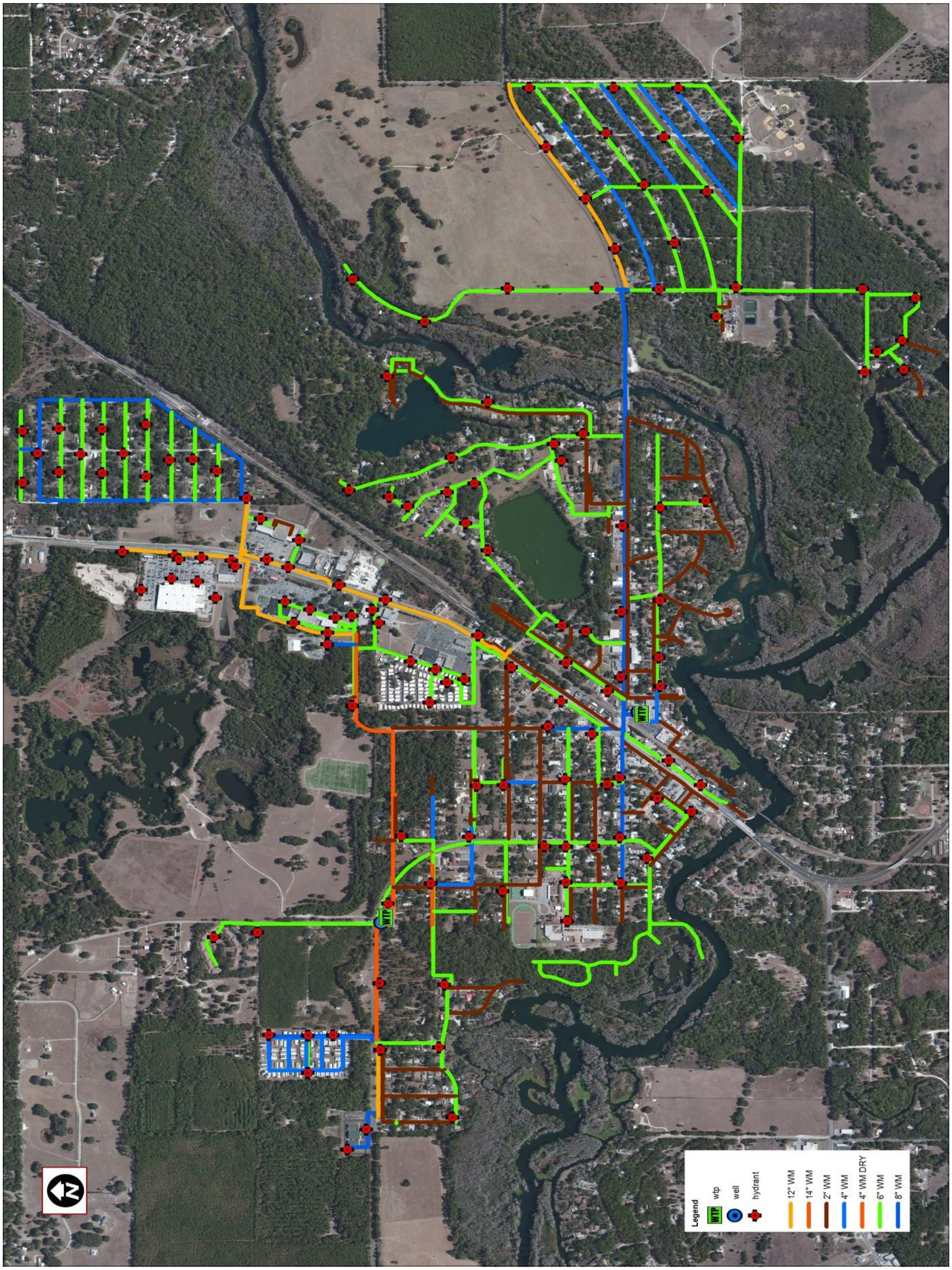


Exhibit 4-2: Rainbow Springs Water Distribution System

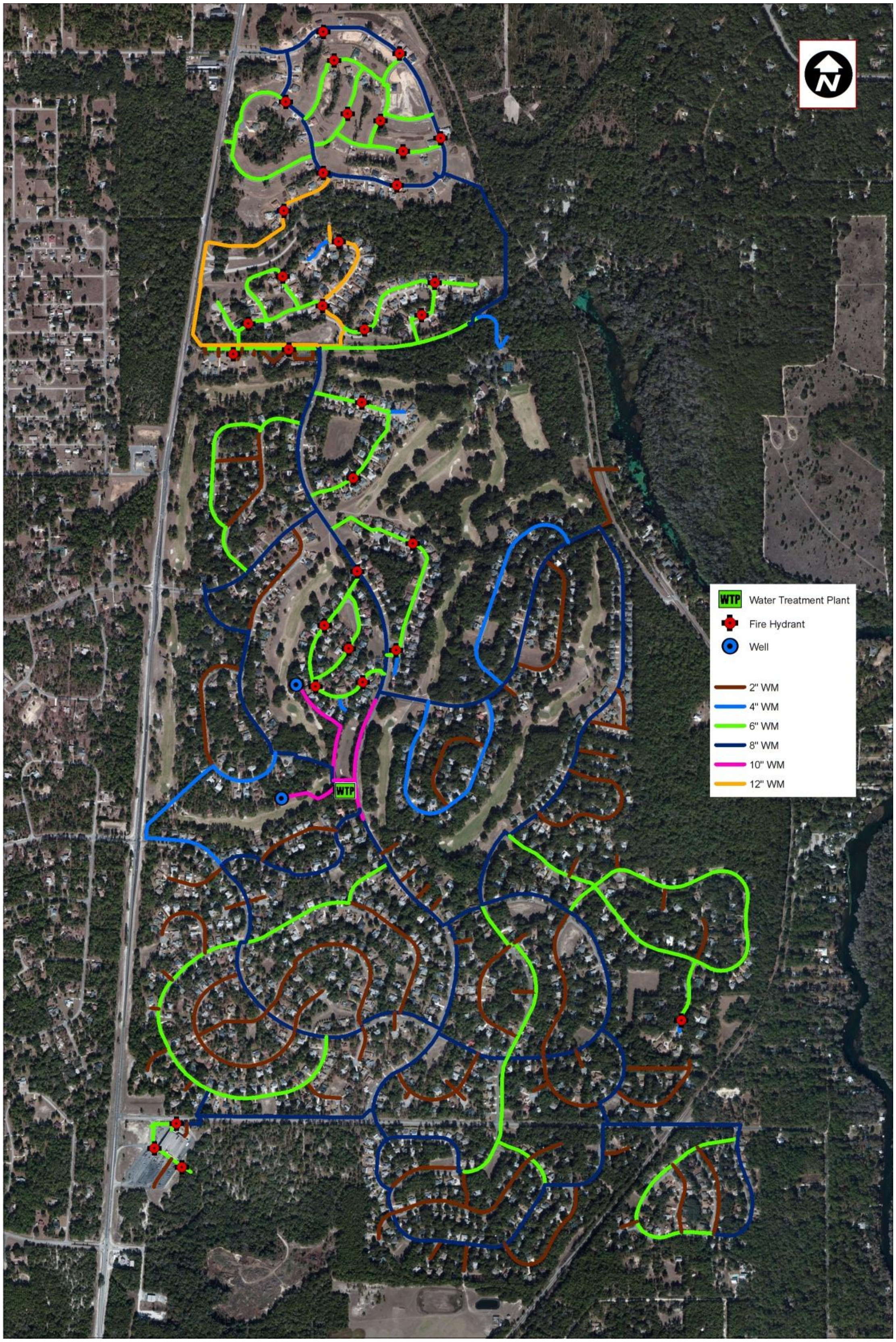


Exhibit 4-3: Juliette Falls Water Distribution System

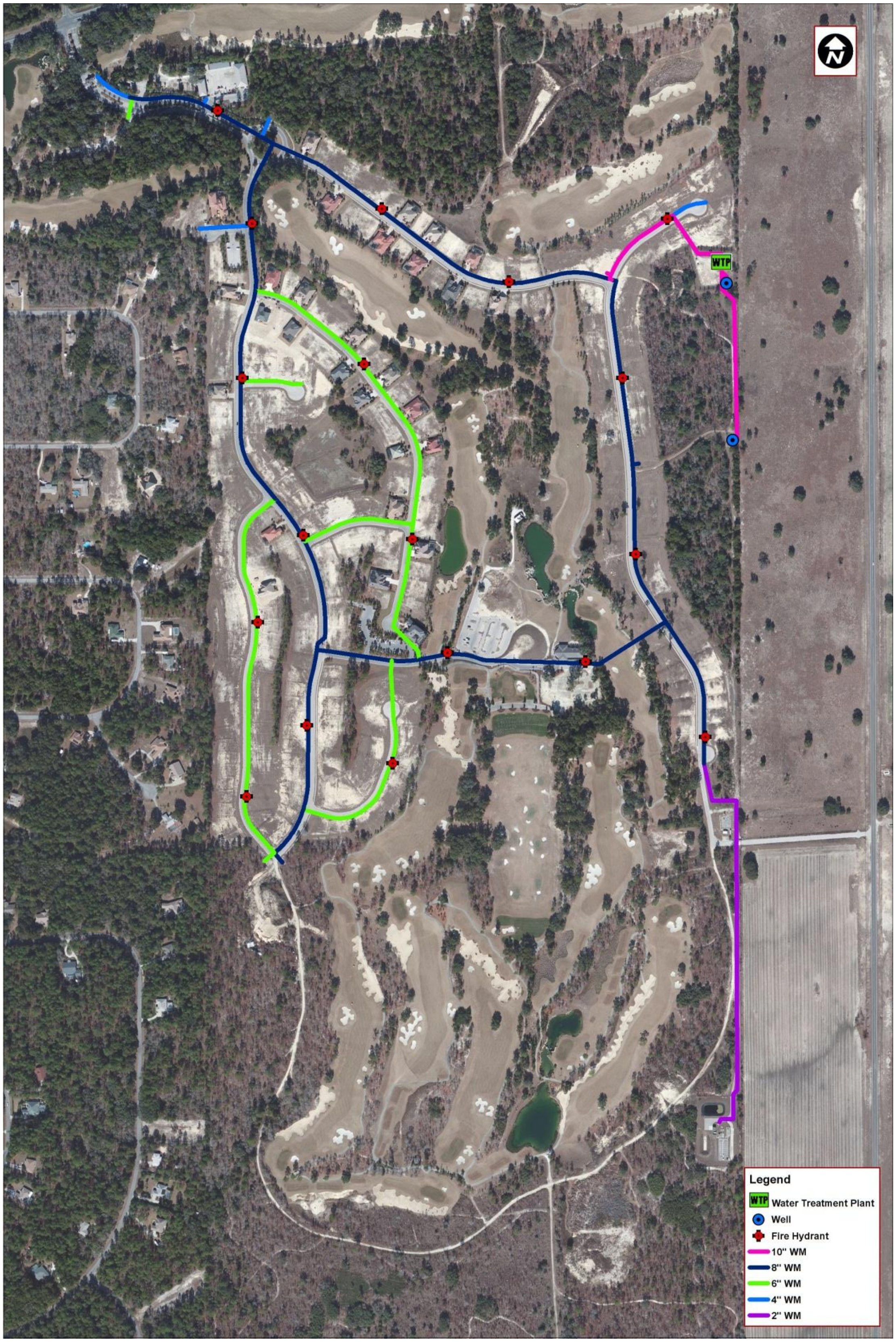
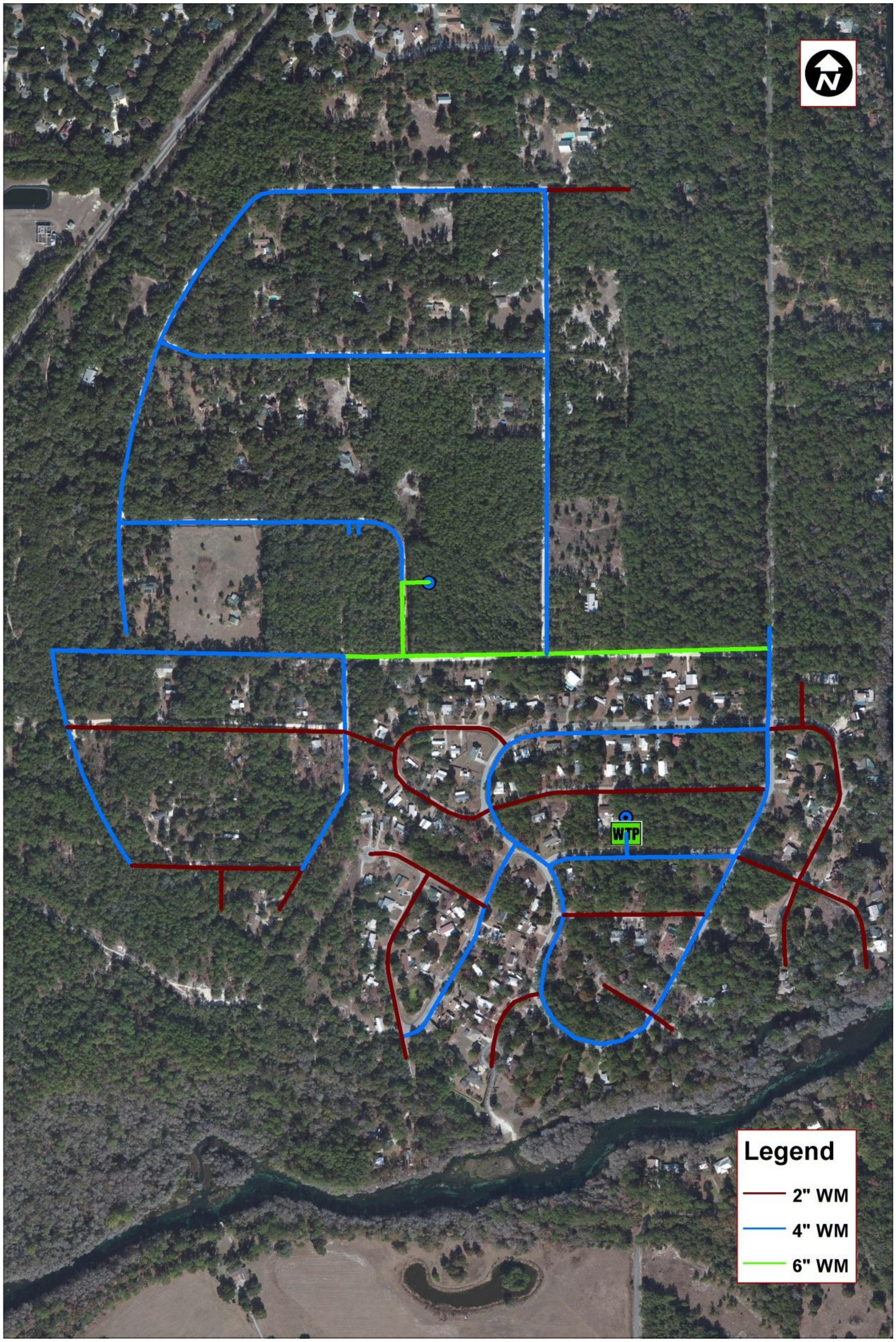


Exhibit 4-4: Rio Vista Water Distribution System



4.4 Flow Data

The City of Dunnellon water demands were determined from the MORs submitted to FDEP for the period of January 2011 to December 2011. See Table 4-5 below for a summary of the City's ADF and MDF for this time period. The City also provided billing information for individual users.

The RBS water use data was derived from MORs submitted to FDEP for the period of January 2011 through December 2011. Table 4-5 below summarizes the ADFs and MDFs that the system produced during this time period. It should be noted that since acquiring the system, the City of Dunnellon has implemented a tiered conservation rate structure for the RBS system. It is very likely that monthly uses will decrease as a result of the change in rate and rate structure.

The Juliette Falls water flow information was derived from the MORs submitted to FDEP for the period of January 2011 to December 2011. See Table 4-5 below for a summary of the flows for the Juliette Falls system. It should be noted that the rates the City currently charges the residents/users of Juliette falls differ from the rates previously charged. This will have impact on future flows as customers adjust their usage to account for the change in rates.

Water demands were provided for Rio Vista by the homeowners association at the time of purchase (August 2011). Water flows were provided for January 2007 through September 2010 (45 months). In comparing the flow data to the amount of water being sold, there is an average discrepancy of 20.75% over the data period that was provided. This is indicative of one of two possibilities: 1) There are unmetered taps on the water supply system, or 2) This loss is associated with leaks in the system.

Table 4-5: Existing Potable Water Flows

WTP	Base Flows		Permitted Flows		Percentage of Permitted Flow
	Average	Maximum	Average	Maximum	
City of Dunnellon	300,338	-	448,000	583,000	63%
Chatmire Neighborhood					
Rio Vista	40,928	No Data	97,500	195,000	
Rainbow Springs	749,140	1,288,000	1,036,982	1,659,172	
Juliette Falls	57,780	120,000	17,000	27,200	340%

5.0 Water System Analysis and Methodology

5.1 Introduction

This section provides an overview of the methodologies that were used to develop the hydraulic model. The model was used to evaluate the existing distribution system for current and future demands.

5.2 System Hydraulic Standards

Before identifying system deficiencies, system hydraulics standards needed to be established to determine acceptable hydraulic parameters for the distribution network. The following hydraulic standards were used to evaluate the hydraulic model for deficiencies:

Minimum system pressure: 20 pounds per square inch (psi)
Maximum system pressure: 80 psi
Typical operating range of network: 40-70 psi
Fire flow demand: 750 gpm (minimum), 1,500 gpm (maximum)

5.3 Hydraulic Model Development

The software used for the model development was Bentley WaterCAD V8i (SELECTseries 1). The existing model was developed in the following steps:

- The existing pipe network layout of each of the public water supply systems was determined by examining as-built records. These records came from a variety of sources and historical record documents.
- The existing water treatment plant (WTP) capacity of each of the public water supply systems was determined by a couple of sources. If available, as-built drawings and operations and maintenance manuals were reviewed to determine component capacity. Additional information was gathered from water use permits (WUPs), Florida Department of Environmental Protection (FDEP) permits, sanitary surveys, and Monthly Operating Reports (MORs).
- The existing demand was determined using the flow data provided from previous MORs.
    - City of Dunnellon – City provides approximately one year of billing information. The average daily flow (ADF) per capita within the City limits and in Chatmire is 157 gpcd (gallons per capita day).
    - Juliette Falls – Juliette Falls flow data came from MOR.
    - Rainbow Springs (RBS) – RBS flow data came from MORs. The RBS average daily use per capita was calculated from the MOR average daily rates as 312 gpcd.
    - Rio Vista – Rio Vista billing data was provided by the homeowners association. The ADF per capita in Rio Vista is 96 gpcd.
- The existing demand distribution was determined using the flow data provided by the City.
    - The existing billing data provided the demands per active water service. Within the model, the individual demands were combined with other demands in the vicinity of nodes in the model and the cumulative demand was assigned to the node.

    - For the Juliette Falls system, because the land use type is consistent, the system demands were evenly distributed on the nodes within the model.
    - For the RBS system, because the land use type is consistent (with the exception of the Winn-Dixie commercial area), the system demands were evenly distributed on the nodes within the model.
    - For the Rio Vista system, because the land use type is consistent, the system demands were evenly distributed on the nodes within the model.
- The operating pressures were obtained by field visits and conversations with Public Works staff. The following operating pressures were used in the model:
    - The RBS plant is set to operating range of 62-65 pounds per square inch (psi) at the plant. For the analysis, an average operating pressure of 63.5 psi was assumed.
    - The City WTP is set to operate at an average pressure of 45 psi. For the system analysis, an average pressure of 45 psi was assumed.
    - For the Rio Vista plant, the operating pressure range is 38-56 psi. For the system analysis, the average pressure of 47 psi was assumed.
    - The Juliette Falls system is set to an operating pressure of 60 psi. For the system analysis, an operating pressure of 60 psi was assumed.
- Before proposed improvements could be evaluated for the system, the hydraulic model had to be calibrated to ensure that it accurately reflected the conditions of the system in the field. The follow steps were taken to calibrate the model:
    - Data Collection:
        - City staff conducted fire hydrant flow/pressure tests at 10 locations in the City and provided the flow data to Kimley-Horn. Each test performed consisted of three readings. First, the flow hydrant was completely closed and a pressure reading was taken at the pressure hydrant. Second, the flow hydrant was opened fully. A flow reading and the residual pressure measurement were recorded for the full flow condition. Finally, the flow hydrant was backed down to approximately half flow, and the corresponding flow rate and residual pressure was recorded. See Appendix A for the hydrant flow/pressure results.
        - Supplemental fire hydrant flow/pressure information was collected by City staff and representatives from Kimley-Horn for the RBS and Rio Vista neighborhoods. An additional seven fire hydrant locations were tested in the RBS neighborhood. The procedure for testing the hydrants was the same as the procedure for the City testing above. Due to the lack of fire hydrant coverage in some areas of RBS and Rio Vista, pressure readings and flow rate readings were collected from blowoff valves in four locations to get data in sections of the neighborhoods that lacked fire hydrants. See Appendix A for the flow/pressure test results.
        - Additional testing was performed on June 11, 2012 to validate the testing done previously by the City.(Attempts to calibrate the model using the data collected for the neighborhood east of the Rainbow River were unsuccessful and raised suspicion that a valve was closed or an airlock existed somewhere in the system.)
    - Model Calibration:
        - The fire hydrant flow data was entered into the model and the Pipe C values were adjusted to accurately reflect the pressure readings that were observed in the field.

5.4 Methodology

With the model properly calibrated, the proposed system improvements could be analyzed for suitability and effectiveness. The approach for analyzing the overall potable system was to consider as many reasonable configurations as possible. Improvements were modeled individually and in combination with other improvements. This approach helped to develop a clear analysis of which improvements would be the most cost-effective to pursue as capital improvement projects.

Various scenarios were set up in the model to include individual improvements and combinations of improvements. The discussion in the scenarios section mostly highlights the hydraulic benefits of individual improvements, but many of the benefits of individual improvements are not fully realized until they are coupled with other improvements. For example, some of the individual improvements that can be made for fire flow produce a more significant increase when a larger project (i.e., the RBS interconnect) is included in the system.

The approach to modeling each improvement or combinations of improvements was to set up the physical configuration of the scenario (i.e., additional pipes, changes to pipe diameters, etc.), apply the maximum daily demands, and run the model. To check the effectiveness of the improvement or combinations, the system hydraulics were checked against the base scenario. Each of the systems were checked for system low pressures, system high pressures, average available fire flows, and minimum fire flows. In the scenarios that included connecting separate systems (i.e., RBS to City, RBS to Rio Vista, and City to new WTP), all systems were checked for low and high pressures and the minimum and average fire flows.

The resulting available fire flow contours were graphed for several of the scenarios and are included in Appendix C.

5.5 Water Demand Projections

The tables below summarize the present water system flows and the projected flows for the 5-year, 10-year, and 20-year time periods. See Appendix H for a detailed breakdown of the projected water demands. The water demand projections are based on the per capita demand rates established in the methodology section and the population projections. To project the future water demands, it was assumed that the future customers/residents would use the historic per capita rate. The per capita rates for each system are as follows:

- City of Dunnellon –157 gallons per capita per day
- Juliette Falls – 962 gallons per capita per day
- Rainbow Springs – 312 gallons per capita per day
- Rio Vista – 96 gallons per capita per day

Table 5-1:Water Demand Projections – Existing Served Areas				
Existing Service Area	**Present (2012)**	**5-Year (2017)**	**10-Year (2022)**	**20-Year (2032)**
City of Dunnellon (West of River) City of Dunnellon (East of River)	271,127	279,366	287,059	302,476
Chatmire	29,256	29,850	30,506	31,757
Rainbow Springs	739,141	745,555	751,234	762,590
Rio Vista	40,928	41,895	42,529	43,847
Juliette Falls	43,271	56,099	69,119	96,307
Total Demands from Existing Service Area	1,123,723	1,152,765	1,180,447	1,236,977

For estimating the demands for the planned future developments, the City's level of service (LOS) per capita demand was used. The City's LOS demand is 157 gallons per capita per day. See Table 5-2 below for a summary of the future water demands for Rainbow River Ranches, the McBride Development, and the Pruitt Property.

Table 5-2:Water Demand Projections – Future Developments				
	Present	**5-Year**	**10-Year**	**20-Year**
Rainbow River Ranches	0	17,504	46,679	87,522
McBride Development	0	0	37,028	138,854
Pruitt Property	0	0	261,179	979,421
Total Demands of New Population	0	17,504	344,885	1,205,797

The following are potential customers that could be added to the City's system in the future:

- The Dunnellon Elementary/High Schools are located outside of the City limits and are currently serviced with water by onsite water plants. During the development of this document, a representative of the Marion County School Board was contacted to gage the school board's interest in connected to utilities if they became available. Per conversations with school board representatives, the school board has no interest in connecting at this time.

- The Dunnellon Airport is currently being served by a WTP located on site. This plant is operated by Marion County Utilities.

The existing demands for were estimated by reviewing one year of the MORs for each facility. To estimate the potential growth of these demands, a growth factor equal to the overall population growth for the Dunnellon area (this factor includes all development).

Table 5-3:Water Demand Projections – Optional Customers				
	Present	**5-Year**	**10-Year**	**20-Year**
Dunnellon Airport Flows (Industrial Park)	4,730	4,934	7,222	13,183
Dunnellon High School (ERU) Dunnellon Elementary School (ERU)	26,068	27,193	39,802	72,656

5.6 Scenarios

A total of 56 physical scenarios were modeled to evaluate proposed improvements and how they responded to the physical expansion and growth of the City. For a description of each scenario, as well as the model results, please see Appendix B. A discussion of the most important scenarios and model results is included in this section.

Scenario 1: Present Conditions

This scenario models the City's potable water system as it currently exists with present maximum day demands. The results from this scenario are the base for which all other scenarios were compared. Table 5-4 below is a summary of each water systems performance as currently configured (under maximum day demands).

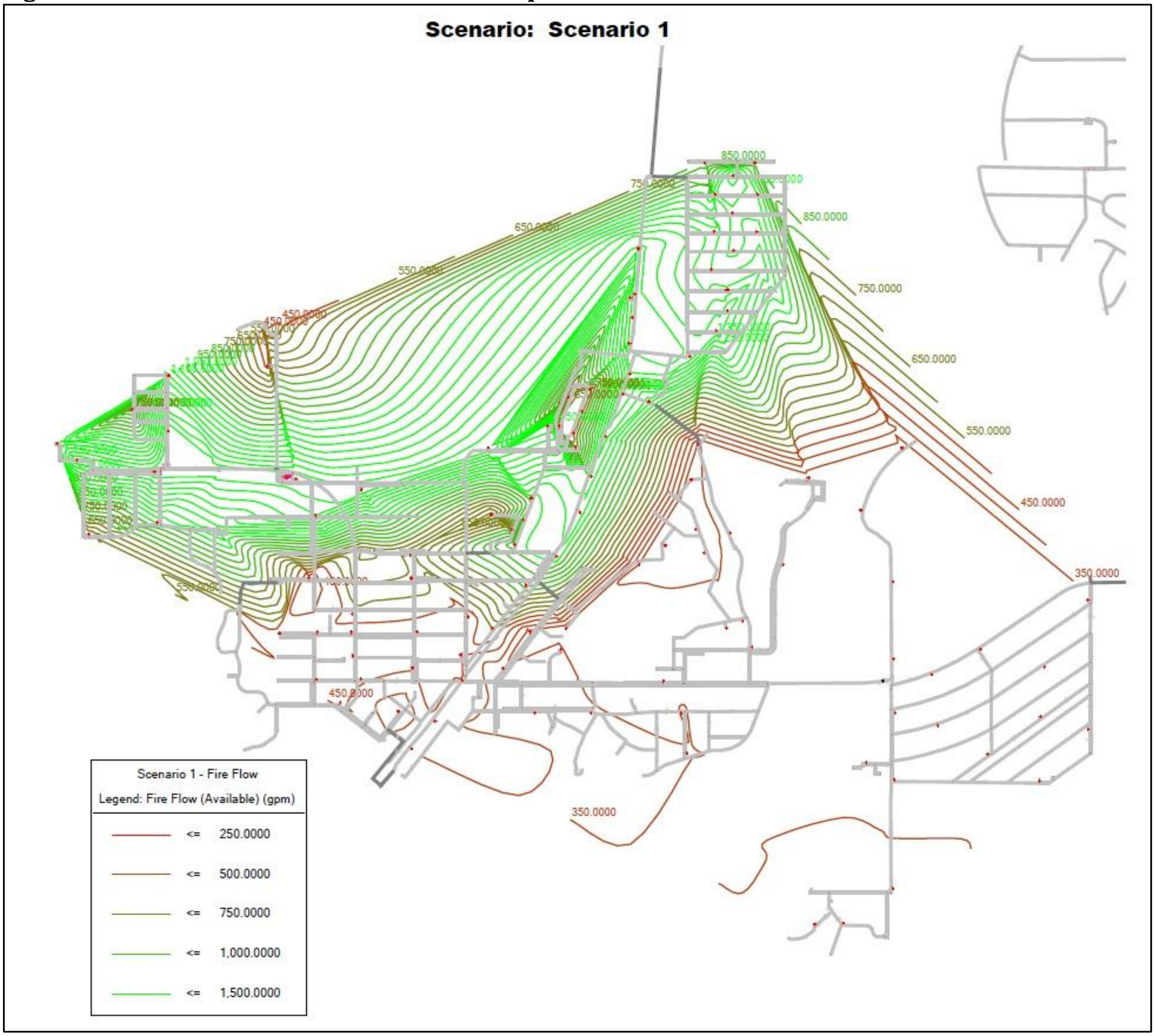
Table 5-4:Existing Water System Pressures and Fire Flows

System	Operating Pressure (Plant)	Minimum Pressure	Maximum Pressure	Average Pressure	Minimum Fire Flow	Average Fire Flow
City	45 psi	29.8 psi	54.8 psi	45.3 psi	266 gpm	712*
Rainbow Springs Neighborhood	60 psi	39.1 psi	72.8 psi	57.5 psi	874 gpm	1,107 gpm
Rio Vista Neighborhood	47 psi	42.3 psi	58.4 psi	50.0 psi	N/A	N/A
Juliette Falls Neighborhood	60 psi	59.9 psi	74.7 psi	68.4 psi	1,500 gpm	1,500 gpm

*The standard deviation for the fire flow is 435 gpm. The average is skewed by the fact that most of the values are either significantly above or below the average.

Figure 5-1 below is a graphical presentation of the model results for City's system under Scenario 1. The figure presents available fire flow rate contours under the City's existing configuration and operating parameters. Each contour line represents a line of equal fire flow potential under maximum day demand conditions. As shown on Figure 5-1, the City's current available fire flow ranges from a low of less than 300 gpm (268 gpm) to a high of approximately 1,500 gpm. More importantly, Figure 5-1 shows that most of the City's system east of SR 41 has less than 500 gpm of available fire flow under maximum day demand conditions. These areas include River Cove Landings and the Dunnellon Heights neighborhoods. Also, much of the downtown area around City Hall has less than 500 gpm of available fire flow.

Figure 5-1: Scenario 1 – Fire Flow Contour Map



After reviewing the Scenario 1 model results, a list of potential improvements to correct deficiencies was developed and discussed with the City. Scenarios were created and modeled to determine the effectiveness of the improvement. The improvements that were modeled, both individually and in combination with other improvements, are listed below:

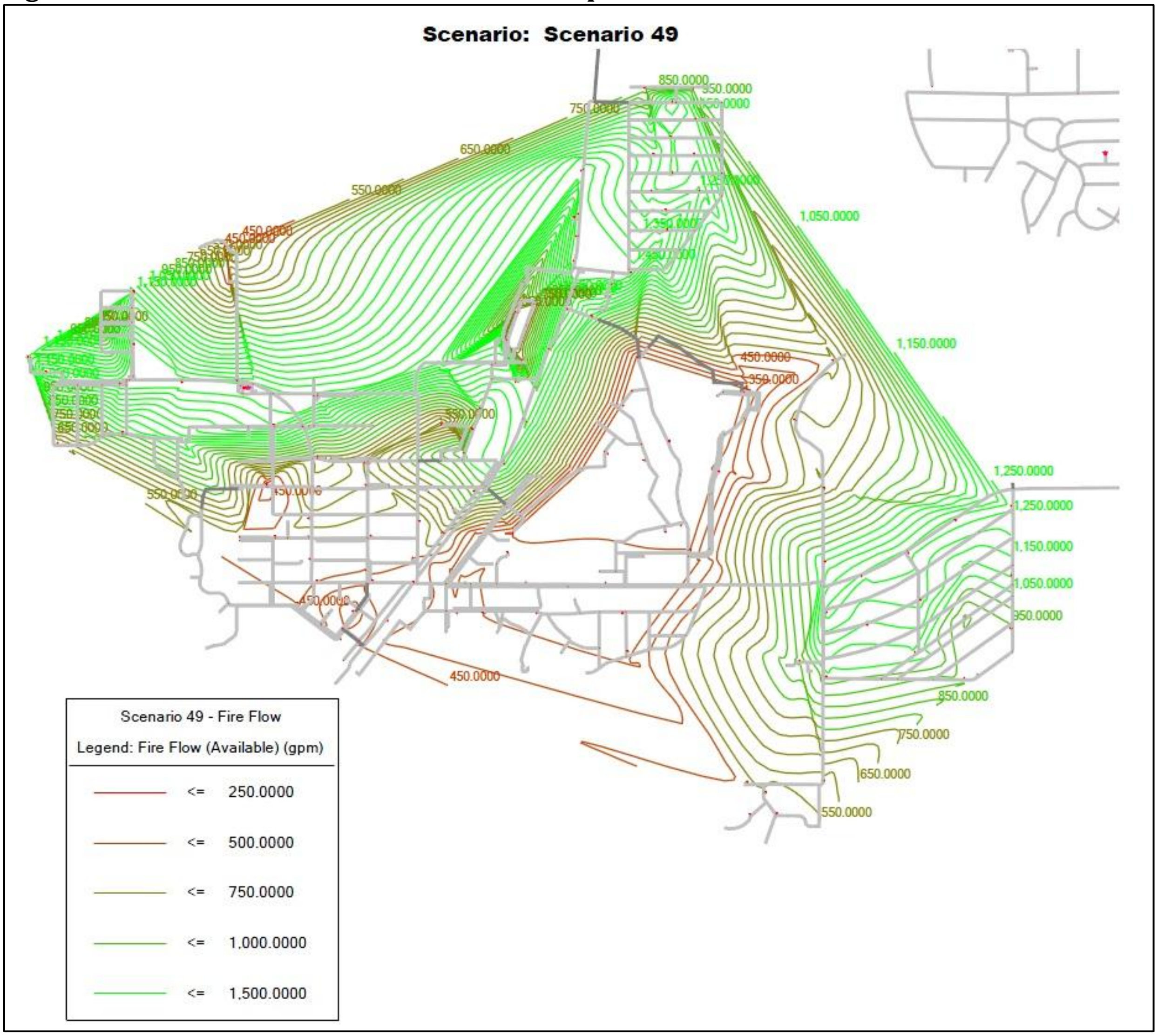
- Constructing a new WTP on the east side of town and connecting to the City with a 12" water main
- Constructing a 12" water main on east McKinney Avenue to connect the east and west sides of town
- Constructing a 12" interconnection between the City and RBS
- Constructing a 12" interconnection between the City and Juliette Falls
- Increasing the pressure at the City's WTP by 10 psi
- Constructing a 6" interconnection between RBS and Rio Vista

- Constructing an 8", 10", or 12" water main to replace the existing 8" pipe on Pennsylvania Avenue
- Constructing a 6" water main extension on Powell Road.
- Constructing a 6" water main extension from Brooks Street to the Blue Cove neighborhood and a 6" water main connection between two streets in the Blue Cove neighborhood
- Construct a 6" water main along S. Ohio Street
- Construct a 6" water main to replace the 2" water main on Palmetto Way between Pennsylvania Avenue and the Granada
- Construct a 6" water main extension on West McKinney to connect and provide looping.

The water model scenario discussions below include the base potable system (Scenario 1) in combination with either one or more of the system improvements listed above. To evaluate the effectiveness of a particular or group of improvements, the model was run under the present operating conditions with present maximum day demands. The results of the model, including the minimum system pressure, maximum system pressure, average system pressure, the minimum available fire flow, and the average fire flow were reviewed to determine the effectiveness of the improvements.

Scenario 49: Connect Marion County WTP at Airport to City System
Scenario 49 provides a hydraulic analysis of the City's existing system with the addition of a 12" water main connecting the Dunnellon Airport WTP to the City's system just east of the Dunnellon Heights neighborhood. Under this scenario, two pressure reducing valves (PRVs) were placed in the pipeline to maintain system pressures and control flows from the Airport WTP. The first PRV is located at the Rainbow River Bridge. This PRV would serve to maintain the existing pressure in the City's system and allow the Dunnellon Heights system pressure to be regulated separately. The second PRV is located at the connection to the airport system. This PRV would help minimize the total flow coming from the Airport WTP during average daily flow conditions and allow for additional flows under high demand conditions such as fire flows. The results of Scenario 49 are graphically depicted in Figure 5-2 below.

Figure 5-2: Scenario 49 – Fire Flow Contour Map



The results of Scenario 49 clearly demonstrate an improvement in the available fire flows for the Dunnellon Heights neighborhood and other areas east of the Rainbow River Bridge. In fact, the available fire flows in this area increase from 350 gpm (or less) to a minimum of 550 gpm and maximum of 1,250 gpm. Additionally, this modification has some limited benefit to the portions of the City's system west of the Rainbow River Bride. The model results show that the average system pressure in the City increases from 45.3 psi to 47.3 psi (2.0 psi), the minimum system pressure increases from 29.8 psi to 30.3 psi (0.5 psi), the minimum available fire flow increases from 268 gpm to 315 gpm (47 gpm), and the average available fire flow increases from 712 gpm to 848 gpm (136 gpm).

Scenario 6: Construct New WTP on McBride Property

Scenario 6 is similar to Scenario 49 with the exception that the City constructs a new WTP on (or in the vicinity of) the McBride Property (aka Blue Run Ranches). This new WTP would be sized to produce at least 1,000 gpm at maximum day demand. The normal operating pressure of the new WTP was assumed to be 60 psi. Like Scenario 49, a PRV is included at the Rainbow River Bridge to allow independent system pressure control for portions of the system located east and west of the bridge.

The results of Scenario 6 are nearly identical to Scenario 49. Similar increases in available fire flows east of the Rainbow River are noted, along with similar improvements to the City system west of the Rainbow River. The significance of this result is that the City can improve available fire flows east of the Rainbow River with either option—construct a new WTP or connection to the Airport WTP.

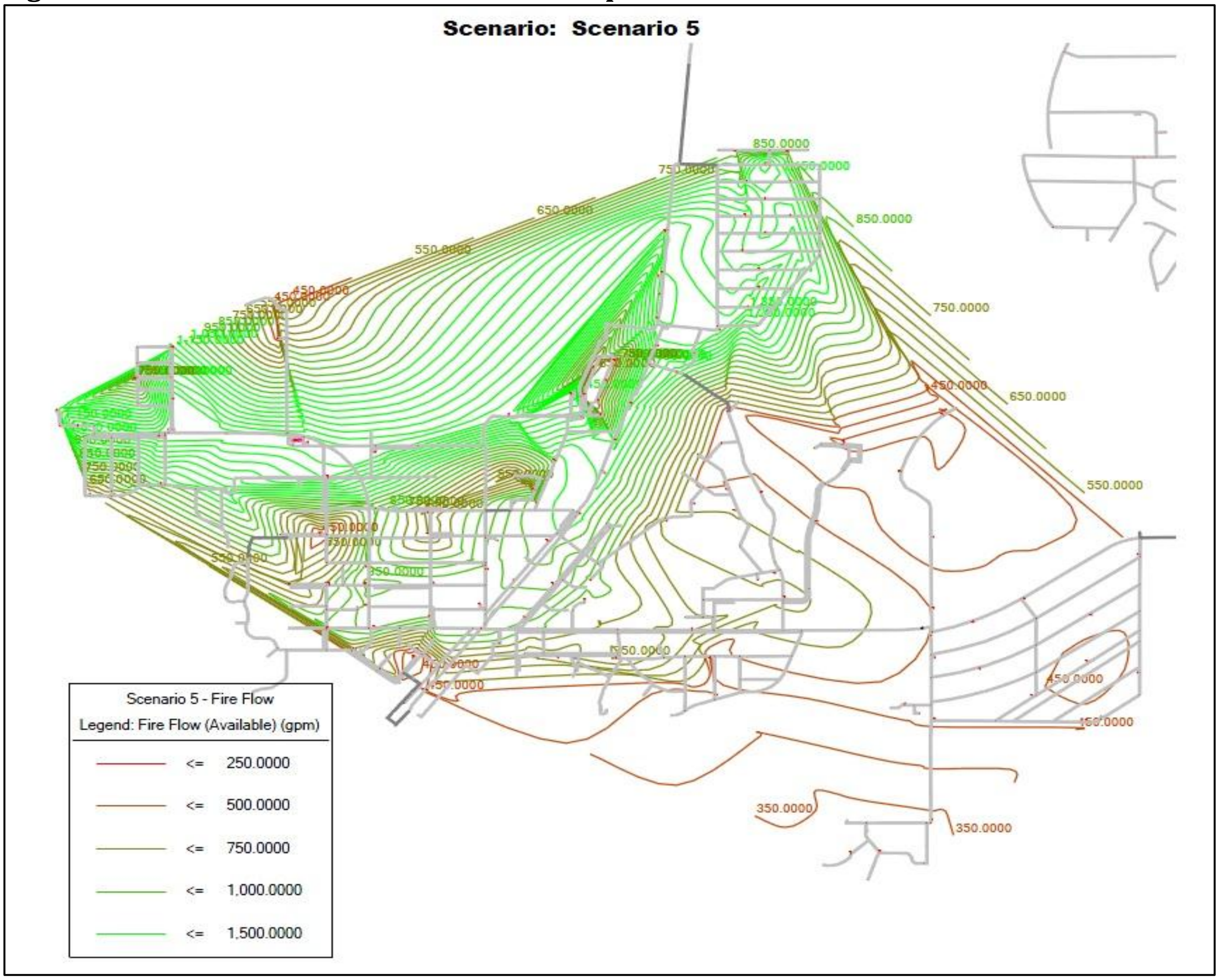
Additional analyses were conducted for Scenarios 49 and 6 where the City's existing WTP was assumed to be out of service (not available). The model results under this condition demonstrate that the minimum City pressure decreases from 29.8 psi to 28.6 psi, the average system pressure decreases from 45.3 psi to 44.6 psi, the average available fire flow (AAFF) decreases from 712 gpm to 328 gpm, and the minimum fire flow decreases from 268 to 186 gpm. This result demonstrates that the new WTP can serve as a back-up to the City's WTP under maximum day demand conditions. However, the available fire flows within the City are much lower without the support of the City's WTP.

Scenario 5: East McKinney Water Main Connection

Scenario 5 looks at potential fire flow improvements and system reliability by constructing a 12" water main connection along East McKinney Avenue. Under this scenario, no other improvements to the City's system are considered. Neither the Airport WTP nor the New WTP connections discussed previously were included under the Scenario 5 analysis.

Currently, the only line connecting the portion of the City's system east of US 41 with the portion west of US 41 is a single 8" cast iron pipe that runs along Pennsylvania Avenue. The East McKinney Avenue water main connection would connect an existing 12" water main on the east side of US 41 to an existing 8" water main on Brooks Street. Figure 5-3 below shows the Scenario 5 model results.

Figure 5-3: Scenario 5 – Fire Flow Contour map

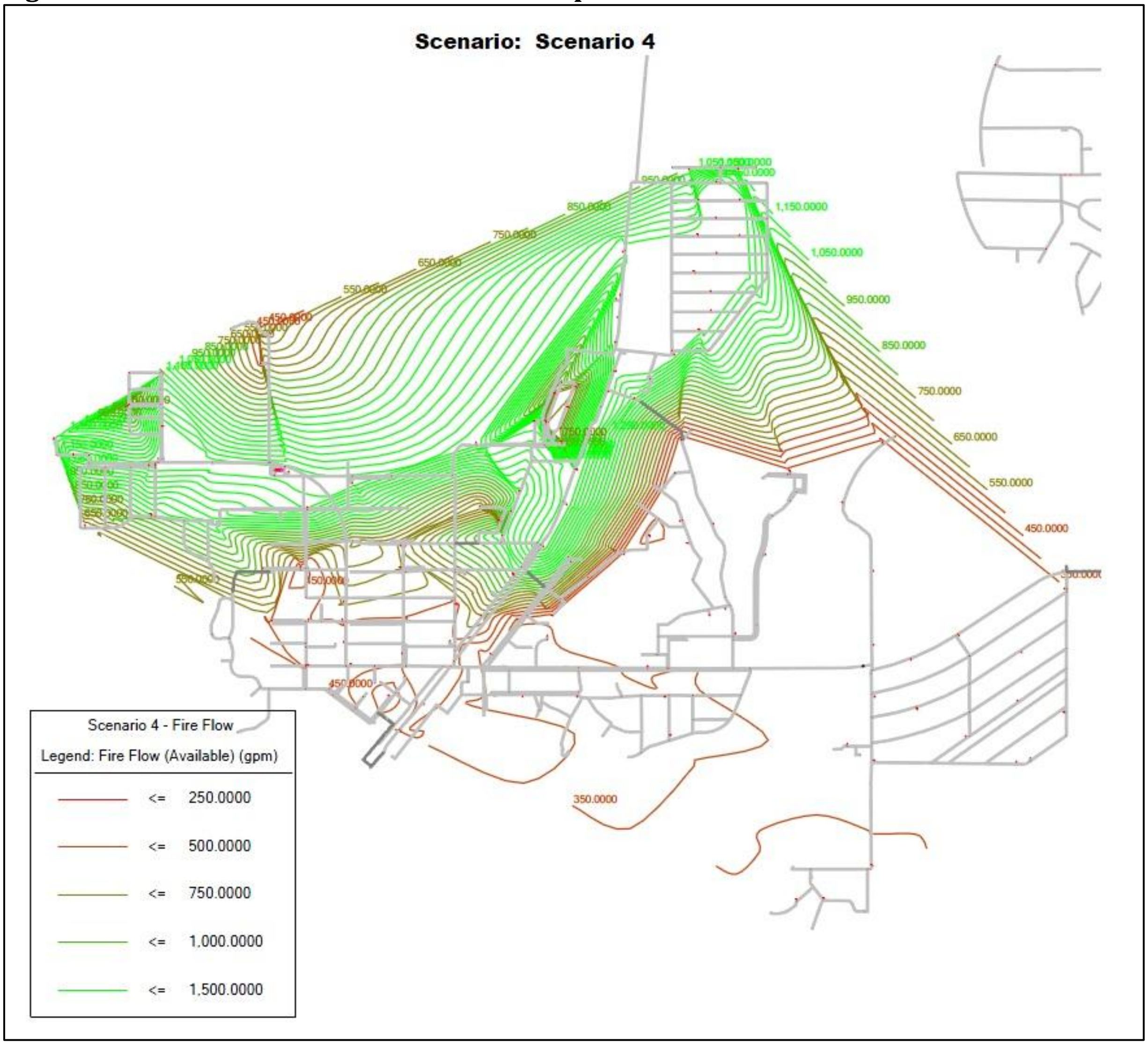


As seen in the model results above, with just the East McKinney water main connection, the minimum system pressure in the City increased from 29.8 psi to 30.5 psi (0.7 psi), the average system pressure increased from 45.3 psi to 45.7 psi (0.4 psi), the minimum fire flow increased from 268 gpm to 321 gpm (53 gpm), and the Average Available Fire Flow (AAFF) increased from 712 gpm to 839 gpm (127 gpm). The AAFF contours shown in Figure 5-3 illustrate that this new connection has a noticeable improvement to the AAFF east of US 41 and extending into the Dunnellon Heights neighborhood. In addition to the improved fire flow availability, this project will provide a second connection of the east and west (of US 41) water systems.

Scenario 4: Interconnection between City and Rainbow Springs

Several scenarios were modeled with the Rainbow Springs system connected to the City by constructing a 12” water main along US 41. The proposed water main extension would connect the RBS system at the intersection of US 41 and SW 99th Place with the City’s 12” water main at the Wal-Mart store near the northern City limit. To allow the RBS and City water distribution systems to operate at independent pressures, a PRV will be installed at SW 99th Place. The results of the Scenario 4 analysis are shown in Figure 5-4 below.

Figure 5-4: Scenario 4 – Fire Flow Contour Map



As seen in the AAFF contour map above, connection of the RBS system to the City's system provides only slight increases in the City's available fire flows. The connection with Rainbow Springs increased the AAFF by approximately 70 gpm. Worth noting is that this connection does slightly reduce the minimum fire flow available in Rainbow Springs. The RBS system hydrant with the lowest available fire flow decreased from 874 gpm to 846 gpm (28 gpm), but is still well above the acceptable flow level.

Scenario 4 was also analyzed with the City's WTP assumed to be out of service (not available). The model results under this condition demonstrate that the minimum fire flows will decrease in both systems, but the pressure are maintained to within 1 psi for both under maximum day demands. This result demonstrates that the RBS system can serve as a back-up to the City WTP for normal conditions. However, the RBS system is not capable of providing adequate fire flows without the City's WTP in operation. The results for this analysis are included in the Appendix B under Scenario 2.

Scenario 4 was also analyzed with the Rainbow Springs WTP assumed to be out of service (not available).In this scenario, the City of Dunnellon's WTP is able to provide limited back-up to the Rainbow Springs distribution system at ADFs. However, while the pressures are generally maintained above 20 psi, there are some locations at the higher elevations with pressures below 20 psi (minimum pressure is13 psi). The results for this analysis are included in the Appendix B under Scenario 56.

Scenario 11: Increase the City's System Pressure by 10 psi

An analysis was performed to see how the City system would react to increasing the pressure at the WTP by 10 psi. The minimum City pressure increases from 29.8 psi to 38.1 psi (8.3 psi), the maximum City pressure increases from 54.8 psi to 64.8 psi (10 psi), the minimum fire flow increases from 268 gpm to 348 gpm (80 gpm), and the minimum fire flow increases from 712 gpm to 887 gpm (175 gpm). These results show that the City can improve both pressures and fire flows just by increasing the pressure in the system.

Scenario 36: Interconnection between Rio Vista to Rainbow Springs

Several scenarios modeled included a connection between the Rio Vista and RBS systems. The connection would be made with a 6" line coming from the 6" pipe near the intersection of SW 189th Court and SW 188th Circle and connecting to the 4" pipe on SW 103rd Street in Rio Vista. The proposed water main route will go through a vacant lot in the RBS neighborhood and along the property line of two parcels in the Rio Vista neighborhood.

The following two system configurations provided the most significant results for interconnecting the Rio Vista system to the RBS system:

1. The interconnect between the City and RBS is not constructed
2. The interconnect between the City and RBS is constructed

In both scenarios, a PRV will be installed between the RBS system and the Rio Vista system to maintain the static pressures in the two systems. Based on the model results, Rio Vista can be connected to the Rio Vista system without adversely impacting the pressures or available fire flows in the either system.

In the first scenario, the minimum system pressure in RBS decreased from 39.1 psi to 38.4 psi (0.7 psi), and the minimum available fire flow decreased from 874 gpm to 866 gpm (8 gpm). Both pressure and minimum pressure remain well above the minimum standards.

The second scenario models the system with RBS connected to both Rio Vista and the City. In this scenario, the minimum system pressure reduces from 39.1 psi to 37.8 psi (1.3 psi) and the minimum available fire flow decreases from 874 gpm to 821 gpm (53 gpm). Both pressure and minimum fire flow remain above the minimum standards.

Scenario 15: Replace 8" Water Main on Pennsylvania Avenue

In the model calibration process, the roughness coefficient of this line had to be modified to get the model to generate pressure/fire flow results similar to what was being seen in the field. This pipe is constructed of pit cast steel and this indicates is that the pipe may have tuberculation (build up on the inside walls) that is restricting flow through the pipe. Additional condition assessment and testing is needed to validate this assumption, but for the analysis it was assumed that the C value for this pipe was 80.

Three scenarios were modeled independent of other improvements to see the system impact resulting from replacing the 8" water main on Pennsylvania Avenue. It is important to note that this 8" water main is currently serving as the sole backbone of the water system that connects the City east of the CSX Railroad to the WTP. The three scenarios included replacing the existing 8” pipe with a new 8” pipe, a new 10” pipe, and a new 12” pipe, respectively. In all three scenarios, the pressure and fire flows increased in the networks in the vicinity of the pipe. See Table 5-5 below for a summary of the net gains in pressure and available fire flows associated with these improvements

Table 5-5: Pennsylvania Avenue Water Main Replacement Results				
Improvement	Minimum System Pressure (change)	Average System Pressure (change)	Minimum System Available Fire Flow (change)	Average System Available Fire Flow (change)
Replace with 8” pipe	0.1 psi	0.0 psi	14 gpm	8 gpm
Replace with 10” pipe	0.2 psi	0.1 psi	50 gpm	26 gpm
Replace with 12” pipe	0.2 psi	0.1 psi	66 gpm	34 gpm

Based on these results, there is not a significant hydraulic benefit to replacing this pipe. However, given the age and suspected condition of this line, City staff has identified this pipe as a maintenance issue.

ADDITIONAL SCENARIOS

The following is a discussion of additional improvements that should be considered for the City’s system. These are smaller water main extension projects that will have local impacts to the system pressures and available fire flows. They would not have large, system-wide impacts to either pressure or available fire flows. The model results of the before and after improvements were limited to the system components within the vicinity of the improvement and likely to be impacted by the improvement.

Scenario 52: Powell Road Water Main Extension
This improvement is primarily for interconnectivity and looping of the downtown network. It would require the construction of approximately 320’ of 6” water main from the intersection of Powell Road and Illinois Street to the east and connecting to existing 6” line that runs along Powell Road. The biggest improvement seen from this improvement is increased available fire flow in the local hydrants. See Table 5-6 for a summary of the model results.

Table 5-6: Powell Road Water Main Extension Results				
Improvement	Minimum Local Pressure	Average Local Pressure	Minimum Local Available Fire Flow	Average Local Available Fire Flow
Before Improvement	40.5 psi	45.9 psi	465 gpm	905 gpm
After Improvement	40.7 psi	45.9 psi	487 gpm	990 gpm
Increase/Decrease	**0.2 psi**	**0.0 psi**	**22 gpm**	**85 gpm**

Scenario 46: Brooks Street Connection and Blue Cove Water Main Looping
This improvement is primarily to increase available fire flows in the Blue Cove neighborhood. This project would require the construction of approximately 2,600’ of 6” water main in two segments. The first segment runs from the end of Brooks Street and

extends under the CSX Railroad tracks and connects to the existing 6" line on East Blue Cove Drive. The second segment runs from Blue Cove Drive around the north side of the cove and connects to the existing 6" line on S. Burkitt Road. Besides increasing the available fire flows, this connection also increases redundancy and looping in the system. The largest hydraulic benefit will be seen in the Blue Cove neighborhood, where both pressures and available fire flows are increase. See Table 5-7 below for a summary of the model results.

Table 5-7: Brooks Street/Blue Cove Water Main Extension Results				
Improvement	Minimum Local Pressure	Average Local Pressure	Minimum Local Available Fire Flow	Average Local Available Fire Flow
Before Improvement	29.8	45.4	287	303
After Improvement	30.5	45.9	500	610
Increase/Decrease	**0.7**	**0.5**	**213**	**307**

Scenario 53: South Ohio Street Water Main Extension
This improvement is primarily a fire flow improvement project in the downtown area. This water main extension is approximately 450' long and will connect the 6" pipe on Datesman Avenue to the 8" pipe on W. Pennsylvania Avenue with a new 6" pipe. This connection improves both the average and minimum available fire flows in the vicinity of the improvement. See Table 5-8 below for a summary the model results.

Table 5-8: South Ohio Street Water Main Extension Results				
Improvement	Minimum Local Pressure	Average Local Pressure	Minimum Local Available Fire Flow	Average Local Available Fire Flow
Before Improvement	44.0	45.8	360	444
After Improvement	44.0	48.8	449	457
Increase/Decrease	**0.0**	**0.0**	**89**	**13**

Scenario 54: Palmetto Way Water Main Extension
This improvement is proposed as a fire flow improvement for the hydrants on the Granada and Myrtle Street. This project would replace the 2" galvanized pipe that connects the neighborhood to the 8" line on Pennsylvania Avenue with a 6" polyvinyl chloride (PVC) line. The hydraulics of the improvement show that despite increasing the pipe size, the available fire flows actually decrease. The decrease is likely a byproduct of the restricted flow on Pennsylvania Avenue. Construction of 6" line provides and alternative route for water to travel and bypasses a long segment of the line on Pennsylvania Avenue. See Table 5-9 below for a summary of the model results.

Table 5-9: Palmetto Way Water Main Extension Results				
Improvement	Minimum Local Pressure	Average Local Pressure	Minimum Local Available Fire Flow	Average Local Available Fire Flow
Before Improvement	45.9	49.1	353	354
After Improvement	45.9	49.1	343	339
Increase/Decrease	**0.0**	**0.0**	**-10**	**-15**

Scenario 55: West McKinney Water Main Extension

This water main extension is primarily intended for looping in downtown area. The extension will connect a dead-end 6" line on West McKinney Avenue and a dead-end 6" line that runs north in the neighborhood west of the Middle School. Local pressures and fire flows are increased by this improvement, as well as eliminating two dead-end lines. See Table 5-10 below for a summary of the model results.

Table 5-10: West McKinney Water Main Extension Results

Improvement	Minimum Local Pressure	Average Local Pressure	Minimum Local Available Fire Flow	Average Local Available Fire Flow
Before Improvement	42.4	46.3	416	637
After Improvement	42.5	46.3	490	662
Increase/Decrease	**0.1**	**0.0**	**74**	**25**

6.0 Water System Discussion

6.1 Introduction

This section provides a discussion of the analysis results performed for four time periods—present year (2012), 5-year (2017), 10-year (2025) and 20-year (2032). The approach for analyzing the potable system was to consider as many reasonable configurations that the City's overall system could take, model the configurations, and present the results for the City to decide the approach that would be pursued in the future. The following discussion, which includes identifying system deficiencies, is the result of the collaboration between City staff and the engineer.

6.2 Present Year (2012) Analysis

There are three main criteria that were used to determine the improvements to the system: 1) Redundancy, 2) Average Available Fire Flow (AAFF), and 3) Fire hydrant coverage. The following includes a discussion of each of these elements, as well as the projects that can help improve each of these elements.

The existing distribution system within the City of Dunnellon system was constructed more than 80 years ago. Many of the pipes were originally constructed of pit cast iron, ductile iron, and asbestos cement. As these materials age, they can deteriorate and begin to fail. Conversations with City staff have identified several of these lines are maintenance problems. It is recommended that these lines be replaced over time with new pipe. In an effort to reduce costs, the City should consider taking advantage of combining these line replacements with other projects (i.e., roadway resurfacing projects, streetscaping projects).

Redundancy
Presently, the City's potable water network is composed of four independent systems providing water—the City of Dunnellon, the Rainbow Springs (RBS) neighborhood, Juliette Falls neighborhood, and Rio Vista neighborhood. Each system consists of a water treatment plant (WTP) and distribution system. Each WTP consists of wells and a form of disinfection. The water quality of each system indicates that no additional treatment beyond disinfection is required. There are advantages and disadvantages to a configuration that has numerous independent systems.

One of the primary disadvantages of the system being divided into smaller independent systems is that the systems tend to lack redundancy. The advantage of redundancy is primarily for operational flexibility and service assurance. With multiple ways for water to flow to a given point, if a line is taken out of service for either planned or emergency maintenance, a customer's services can be maintained while the work is performed. The ability to isolate a line in this manner is also beneficial for containing contamination in the event it enters the system.

There are several opportunities to increase redundancy within and between the existing systems. The first improvement that should be considered is a 12" connection on E. McKinney Avenue that crosses the CSX Railroad and connects the eastern half of the City to the western half of the City. A connection at this point in the system helps the system pressures and fire flows and provides a second route for water to flow into the eastern portion of the City from the WTP.

A second improvement that should be considered is a 12" water main that connects the City's system to the RBS system. Even if a new WTP is pursued on the east end of the City, this project will provide a very good source of back-up in the event the City's WTP is inoperable. This interconnect can be constructed and operated without increasing the City's current operating pressure. Keeping the operating pressure constant will help prevent blowouts and increased leaking associated with increasing the pressure.

Another opportunity to consolidate the systems can be found in connecting Rio Vista distribution system to the RBS system. To connect the two systems, approximately 700' of 6" water main would need to be constructed. Once connected, the City would have the option to decommission the existing Rio Vista WTPs. One benefit that can be realized by this connection is flexibility in the pressure delivered in Rio Vista.

With future growth to the east of the City in mind, construction of a new WTP should strongly be considered. The City would need to acquire a parcel for the project. The three development projects that are planned for this area (Rainbow River Ranches, Blue Run Ranches, and the Pruitt Property) will require significant quantities of water in the future. The demands these developments will generate cannot be supported by the City's current WTP.

There are many benefits, both hydraulically and strategically, for constructing a new plant east of the Rainbow River. First and foremost is for improving the system pressure and fire flows on the east side of Dunnellon. Many of the deficiencies in the City's system are in the east side of the CSX Railroad and further east of the Rainbow River. A new plant will also add redundancy into the system. And while the new plant would not be capable of supporting the system completely, it can help support the single WTP that currently supplies the City.

In addition to improving the hydraulics of the existing system, a new WTP will also help provide potable water to the development that is planned on the east side of the Rainbow River. With the magnitude of the developments planned in this area, constructing a new WTP plant is inevitable. The advantage of constructing the plant sooner rather than later is allowing the current system to benefit from the new plant while development takes place. The new plant construction can be completed in phases and allow for cost sharing when the plant needs to be expanded to meet future demands required by development.

Average Available Fire Flow
A prominent deficiency in the present City system is the low fire flows available in the system. Although the average available fire flow is more than 700 gpm, a significant number of the City's hydrants have flows well below the average. In the current state of the system, the worst problems are seen on the east side of the City with the lowest flows in the Blue Cove and Dunnellon Heights neighborhoods. Both of these neighborhoods are located farthest from the existing WTP and are at some of the higher elevations in the system. Other areas of low available fire flow are located downtown in the Datesman Park area.

Three of the improvements already discussed (RBS interconnect, new WTP, and East McKinney water main connection) will have significant positive impacts on the overall average and minimum fire flows available in the City. After reviewing the model with improvements in place, a couple of localized areas with sub-satisfactory fire flows were identified.

The first area is in the Blue Cove neighborhood. Portions of this neighborhood are located at relatively high elevations in relation to the water system, so pressures and fire flows tend to be lower in these locations. There are two improvements that can be made in the system to increase the available fire flows to satisfactory levels. A project to construct a 6" water main extending from Brooks Street (under the CSX Railroad tracks and connecting to the existing 6" line on Blue Cove Drive) will help connect the neighborhood to an additional source of water. This opens up the neighborhood to increased fire flow. The second improvement is a 6" water main that runs just north of the river and loops the two legs of the neighborhood together. These two improvements together greatly open the water network up hydraulically and significantly increase available fire flows in the neighborhood.

The second location suffering from lower available fire flows is in the Datesman Park area. The problem in this location appears to be with the limited interconnectivity between the lines that are supporting the fire hydrants in the area. One project, which includes the construction of a 6" water main extension along S. Ohio Street, would be needed to be constructed to help increase these flows.

It should be noted that the fire hydrant flow deficiencies that are present in the system can be corrected at any time. If, for funding reasons, the City has to delay pursuing a capital improvement project, the projects can be reconsidered in future funding cycles.

Fire Hydrant Coverage

Several locations within the City, RBS and Rio Vista are not adequately covered by fire hydrant protection. Within the City, there are approximately 24 locations where hydrants need to be installed to provide adequate fire hydrant coverage to parcels. At the time of the writing of this report, a project is proposed to add three fire hydrants within the City limits. The net fire hydrant need will be 21 hydrants. Some of these hydrants will require water main extensions/upgrades to a minimum of 6" diameter water main to provide adequate flow to the hydrant. See Exhibit 6-1 for a map of the existing and proposed fire hydrant locations within the City limits.

The RBS neighborhood has a severe lack of coverage in the older neighborhoods of the development. Approximately 96 fire hydrants would need to be constructed to provide coverage to the homes not currently within 500' of a hydrant. Many of these hydrants will need line replacements/upgrades to 6" diameter or greater lines to provide necessary fire flows. See Exhibit 6-2 for a map of the existing and proposed fire hydrant locations within RBS.

Fire hydrant coverage is not present in the Rio Vista neighborhood. Most of the water main lines are 4" diameter or smaller. If the City pursued installing fire hydrants, significant water main size improvements would have to be coupled with the improvement. Juliette Falls, which was recently designed and built, has sufficient fire hydrant coverage and does not require any improvements.

The four systems were checked for maximum pressures and all four had pressures within the acceptable maximum pressure. All four systems also had system minimum pressures above the acceptable minimum pressure of 20 psi under maximum daily demand conditions. The average system pressures were also above the minimum acceptable average for all four systems.

Existing Water Treatment Plant Capacities
All four of the WTPs are well below their respective Florida Department of Environmental Protection (FDEP) permitted capacities based on average daily flows. RBS is the plant closest to its permitted capacity at about 50% capacity at average daily flow conditions. See Table 6-1 below for a summary of each WTP.

Table 6-1 : Existing Water Treatment Plant Capacities			
Water Treatment Plant	FDEP Permitted Capacity (GPD)	Present Demand – Average Daily Flow (GPD)	Percent of Capacity Utilized
City	1,366,000	202,448	14.8%
Rainbow Springs	1,500,000	749,140	49.9%
Rio Vista	227,000	57,780	25.5%
Juliette Falls	1,440,000	40,928	2.8%

The following capital improvements should be considered immediately for improving hydraulic performance within the City;

- Construct new WTP and necessary water main on the east side of town
- Construct interconnect between the City and RBS
- Construct interconnect between Rio Vista and RBS
- Construct water main extension on East McKinney Avenue
- Construct Brooks Street water main extension and Blue Cove water main looping
- Construct water main extension on S. Ohio Street
- Construct 12” water main to Airport and connect to Airport WTP

Exhibit 6-1: City of Dunnellon Fire Hydrant Coverage

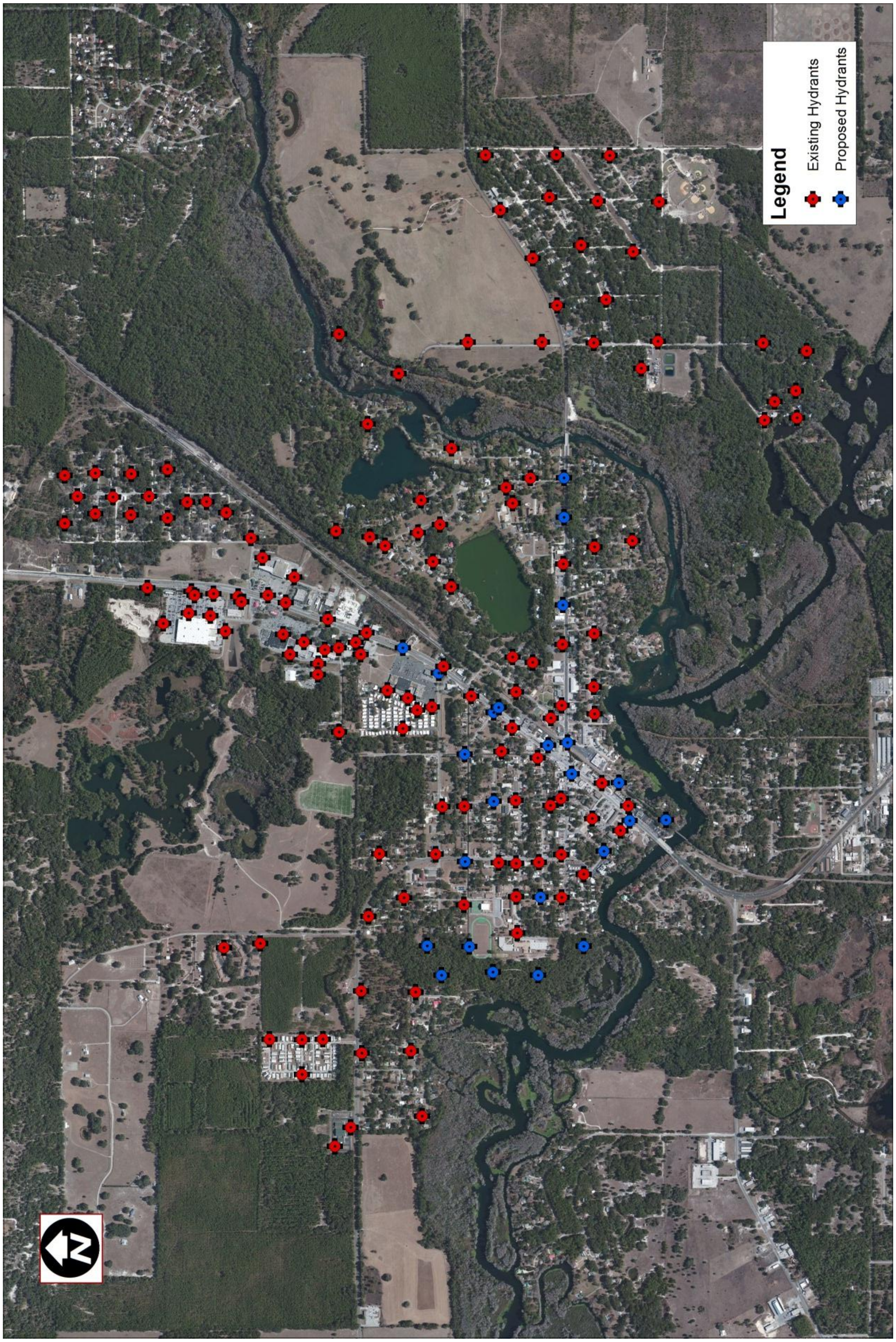
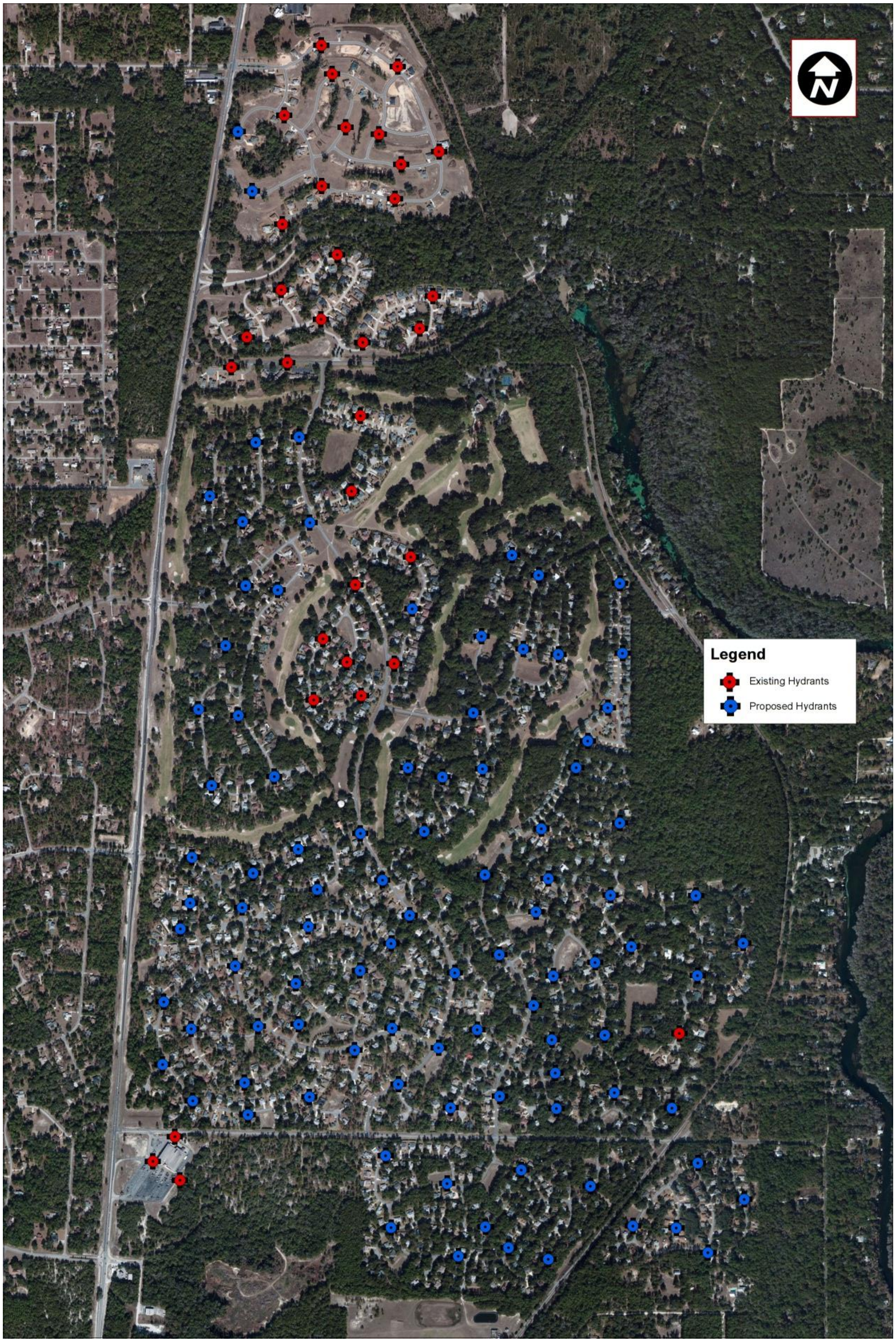


Exhibit 6-2: Rainbow Springs Fire Hydrant Coverage



6.3 Five-Year (2017) Analysis

The significant growth milestone for the five-year time horizon is the beginning of the Rainbow River Ranches development. By 2017, it is estimated that the Rainbow River Ranches development will be at 15% buildout. The growth in this development, combined with the growth in the City, Rio Vista, RBS, and Juliette Falls will increase the total population served by utilities to 4,800.

In the five-year projection, the analysis assumes that several of the capital improvement projects recommended in the previous section were constructed. These projects include:

- Construct 12" interconnect between the City and RBS
- Construct 6" interconnect between Rio Vista and RBS
- Construct 12" water main extension on East McKinney Avenue
- Construct 12" water main to Airport and connect to Airport WTP

By the 2017 timeframe, the demands have not outgrown the supply capabilities of the systems. The total projected user demands by 2017 are 1.175 million gallons per day (MGD) which is well below the combined 2.866 MGD capacity of the City and Rainbow Springs WTPs.

Even with the Rainbow River Ranches development coming on line, as long as the projects listed above are constructed, it is not anticipated that the level of service (LOS) will reduce within the next five years. In the locations (like Blue Cove and Dunnellon Heights where the existing system is seeing lower pressures and available fire flows), the model predicts that these conditions will still exist and will not have worsened significantly.

The City has the opportunity during the next five years to implement some of the minor projects discussed in Section 6.2. Some of the higher priority projects that should be considered for increasing redundancy, looping, and available fire flows are:

- Construct Brooks Street 6" water main extension and Blue Cove 6" water main looping
- Construct 6" water main extension on S. Ohio Street

If additional funding is available, the following projects are some of the lower priority improvements that should be considered:

- Construct 6" water main extension on Powell Road
- Construct 6" water main extension on West McKinney Avenue

By 2017, the City should make some progress on addressing the fire hydrant deficiencies in the existing downtown areas and neighborhoods. The new developments will be responsible for providing adequate fire hydrant coverage, so the number of additional hydrants needed should not increase over time. It is recommended that the City develop a work plan for constructed the estimated 117 fire hydrants that are needed to provide coverage to existing residents and businesses.

6.4 10-Year (2022) Analysis

The significant growth milestone for the 10-year time horizon can be attributed to the beginning of the Blue Run Ranches (McBride) Development and the beginning of the Pruitt

Property. By 2022, it is estimated that 4% of the Blue Run Ranches and Pruitt Property buildouts are achieved. By 2022, it is estimated that the Rainbow River Ranches development has reached a 40% buildout. The growth in these developments, combined with the growth in the City, Rio Vista, RBS, and Juliette Falls will increase the total population served by utilities to 7,000.

By the 2022 timeframe, the demands have not outgrown the supply capabilities of the existing WTPs. However the spatial orientation of the demands relative to the plants will limit the flows and pressures available to the newer developments. The total projected user demands by 2017 are 1.532 MGD, which is well below the combined 2.866 MGD capacity of the City and Rainbow Springs WTPs.

At some point before the 10-year mark, the City should begin to plan for the construction of a new plant on the east side of the Rainbow River. With significant growth planned in this area, the only way for the demands to be met is to construct a new regional plant. For a cost-effective approach, the City will likely need to plan the construction of this new facility in phases, allowing for the plant to be expanded in the future to meet increased demands. Based on the growth projections, the first phase of the plant should be fully constructed by 2022.

By 2022, the City should have made significant progress on the fire hydrant improvements.

6.5 20-Year (2032) Analysis

In the 20-year analysis, growth was assumed to have occurred in the City, RBS, Rio Vista, and Juliette Falls. Growth was also assumed to continue in Rainbow River Ranches, Blue Run Ranches, and the Pruitt Property. By 2032, the buildout in Rainbow River Ranches, Blue Run Ranches, and the Pruitt Development were assumed to be 75%, 15% and 15%, respectively. This results in a project population of 12,714 residents to be served by utilities in the Dunnellon area.

By 2022, the City should have made significant progress on the fire hydrant improvements.

7.0 Recommended Water System Capital Improvement Projects

7.1 Introduction

This section provides a discussion of capital improvement project developed by investigating alternatives for addressing current deficiencies and meeting future potable water demands. Included in this chapter is a project list, with probable costs of construction for recommended projects at the present year, 5-year, 10-year, and 20-year planning projections. Many of the projects are large enough to be constructed in phases, and so they may be included in more than one of the time periods. The proposed capital improvement projects were discussed with Public Works staff and prioritized. See Appendix E for a detailed breakdown of the estimated construction costs for each of the capital improvement projects and a preliminary timeline for project implementation. Also included in Appendix E are location maps for several of the projects.

7.2 Capital Project Descriptions

New Generator for Rainbow Springs (RBS) Water Treatment Plant (WTP) – The current generator at this WTP is old and outdated. The muffler system is set up to outlet throught the wood framed wall and has caught the building on fire at least once. It is recommended to replace the generator and move it outside. In conversations with City staff, the preference for this imporovement is to relcoate the generator from the Juliette Falls WTP and replace the one at the Juliette Falls WTP with a smaller generator to help reduce costs. The relocated generator can be pad mounted just outside of the existing building and wired into the building. The approximate cost of this upgrade is $60,000.

Water Meter Replacements for all customers of the City of Dunnellon – Radio read meters are currently being installed to replace the manual read meters throughout the City of Dunnellon. It is recommended that all potable and irrigation connections meters be replaced with radio read meters. There are several advantages to this type of meter. The program for these replacements is currently ongoing. The estimated construction cost to replace these meters is $754,000

Rainbow Springs Fire Hydrant Program – It is a priority of the City to provide proper fire protection to the residents served by the potable water system. Several of the neighborhoods in RBS lack sufficient fire hydrant coverage. Many homes have no access to fire hydrants for fire protection. To provide adequate coverage, approximately 96 fire hydrants will need to be constructed within RBS—65 of these hydrants can be installed on existing lines and 31 hydrants will require replacing/extending the existing line with a 6” or greater line to support the flows required by the hydrants. The estimated construction cost for these improvements is $1,731,000. This investment in the community is significant and will have to be phased over a number of years.

Water Main Replacement Program – Many of the lines within the City are very old and in need of repair. In conversations with the staff most knowledgeable about the system, several pipes in the downtown area are known to leak and in need of repair. The City has a number of old asbestos cement pipes, pit cast pipes, and ductile iron pipes that are in need of repair or replacement. It is recommended that a program to replace these lines be established to allow for a number of the lines be replaced annually. An annual amount of $150,000 should be planned to allow for the replacement and emergency repair of these lines.

Rainbow Springs Service Line Replacements – Many of the service laterals serving the homes in RBS are constructed of polybutylene. This material degrades over time and eventually will require replacement. It is estimated that approximately 300 service lines will need to be replaced over time. The estimated construction cost to replacement these services is $92,400. The effort and cost to replace these lines is an ongoing expense used as needed.

City of Dunnellon/Rainbow Spring Water System Interconnect (include Looping for Chatmire) –It would require the construction of approximately 6,100' of 12" water main that extends from the north end of the City's water network up the SR 41 corridor and connecting to the southern end of the RBS system. Also as part of this project, approximately 500' of 8" water main would be constructed to connect the new 12" to the north side of Chatmire Estates. The estimated construction cost is approximately $501,000.

City of Dunnellon Fire Hydrant Protection Community Redevelopment Area (CRA) Area – Within the City, there are approximately 21 locations where hydrants need to be installed to provide adequate fire hydrant coverage to parcels not currently service with fire protection. Many of these hydrants are needed in locations that have sufficient line size to support a fire hydrant. But several of these hydrants will require water main extensions/upgrades to a minimum of 6" diameter water main to provide adequate flow to the hydrant. The estimated construction cost for the additional 21 hydrants and associated line upgrades is $546,000.

Water Main Extension to Airport – To help mitigate unacceptably low fire flows and pressures in the Dunnellon Heights neighborhood, approximately 22,500' of 12" water main needs to be constructed to connect the City system to the Dunnellon Airport. The estimated construction cost associated with these improvements is $1,458,000. The construction plans and specifications are complete for this project and the City is currently seeking Community Development Block Grant (CDBG) funding for construction.

Construct New WTP on McBride Property – Significant growth is anticipated in the three development projects that are planned for the east side of Dunnellon. Rainbow River Ranches, Blue Run Ranches, and the Pruitt Property will require significant quantities of water in the future. The demands these developments will generate cannot be supported by the City's current WTP. A new WTP should be built, likely in phases to support this growth. The approximate cost to construct the first phase of the plant (which will include two 10,000 gallon hydropneumatic tanks, two 1500 GPM well pump and well head, two 12" public supply wells, and 250-kW diesel generator) is $1,050,000.

East McKinney Interconnect – This project will require the construction of approximately 405' of 12" water main, including a crossing under the CSX Railroad. This improvement will provide a significant hydraulic benefit to the City and will increase system redundancy by creating a second connection between the east and west side of the CSX Railroad. The estimate construction cost is $139,000.

Pennsylvania Avenue Water Main Replacement – Based on conversation with City staff, this line is in need of replacement. To fully replace the line, approximately 5,500' of 8" water main will need to be constructed. This project will result in the open cutting of significant lengths of roadway and possibly the demolition of significant quantities of concrete sidewalk. It is recommended that if this project is pursued, that it be coupled with a roadway improvement project to reduce the overall cost of pavement and sidewalk replacement. The estimate construction cost is $322,000.

Powell Road Water Main Extension – This project will help improve some of the lack of interconnectivity in the downtown CRA area. It includes the construction of approximately 400' of 6" water main extending from the intersection of Powell Road and Illinois Street east and will connect the existing 6" water main that runs along Powell Road. The estimated construction cost is $39,000.

West McKinney Water main Extension – This project, which will help with redundancy in the downtown area, will require the construction of approximately 600' of 6" water main. This project will also increase looping by eliminating two dead end lines in the system. The estimated construction cost is $73,000.

South Ohio Street Water main Extension – This project, which will help increase available fire flows in the Datesman Park area, will require the construction of approximately 400' of 6" water main. The estimate construction cost is approximately $74,000.

Brooks Street Water main Extension – This project will have several impacts to the system. It will help improve the available fire flows in the Blue Cove neighborhood and provide an additional connection between the east and west portions of the City. This project will require the construction of 900' of 6" water main and include a 100' directional bore under the CSX Railroad. The estimate construction cost is $121,000.

SR 41/Illinois Street Water main Replacement – Discussion with the City staff have identified this project as a significant maintenance issue. This line is an old asbestos cement pipe that has experienced several breaks over time and is in need of replacement. This project is needed to replace 2,400' of water main that is in disrepair. The estimate construction cost is approximately $227,000.

Mitigate The Chlorine Contact Time Issue at the City WTP – This project will include investigation and construction of items necessary to increase chlorine contact time for well #1 at the City WTP. The estimate construction cost is approximately $50,000.

Isolation Valve Program – There are many locations in the City's distribution network that are in need of isolation valves. Isolation valves allow for the Utility to isolate water mains during scheduled or emergency repair. Being able to isolate and depressurize lines for repair helps limit water system losses during a break or repairs and limits the number of customers impacted during a break. The program would include a budget of $28,000 per year, which equates to installing four valves per year (two planned installations and two emergency installations.

Upgrade 6" Water Main to 8" Water Main on Rolling Hill Road – This project is to help improve available fire flows on Rolling Hill Road. It will require the construction of approximately 2,500' of 8" water main. The estimated construction cost is approximately $154,000.

Hytovick Water Main Replacement – This project will relocate 6" water main that is currently on the Hytovick property. It includes the construction of approximately 1,200' of 6" water main extending down Osceola Road to Cherokee Road and continues to the 6" water main loop south of the development. This new line will allow for the existing line that runs through the Hytovick property to be abandoned. The estimated construction cost is approximately $114,000.

The Granada Water Main Extension – This project will extend the 6" water main on Granada from Bay Street to Palmetto Way. It includes the construction of approximately 600' of 6" pipe and a 70' directional drill. The estimated construction cost is approximately $97,000.

Rio Vista/Rainbow Springs Interconnect – This project will connect the potable water systems in the RBS and Rio Vista neighborhoods. By connecting the two systems, the City will be increasing redundancy in the system and provide the Rio Vista development with a back-up water source. The project will require the construction of approximately 650' of 6" pipe. The estimated construction cost is approximately $65,000.

City of Dunnellon SCADA System – The City of Dunnellon currently does not have the capability to check on the WTPs, wastewater treatment facilities (WWTFs), or lift stations without physically going to the structure. An alternative to this type of labor intensive monitoring is an electronic SCADA (Supervisory Control and Data Acquisition) system. This system, depending on the program/configuration selected, will allow City staff to monitor and control lift stations and treatment plants remotely from a central location. This will help the City to quickly identify when conditions warrant additional attention (i.e., a pump malfunction, wet well level warnings, etc.). The SCADA system can be phased in three phases: 1) All WTPs, 2), all WWTFs, and 3) All lift stations. The costs associated with the phases are approximately $221,000, $160,000, and $370,000, respectively.

8.0 Wastewater System

8.1 Introduction

This section discusses the existing wastewater treatment and collection systems owned and operated by the City of Dunnellon. The City currently owns and operates the following four separate wastewater systems:

1. City of Dunnellon Wastewater System
2. Rainbow Springs Wastewater System
3. Juliette Falls Wastewater System
4. Rio Vista Wastewater System

Each wastewater system is served by independent wastewater treatment and collection systems. Currently none of these systems are interconnected. The wastewater treatment facilities (WWTF) are permitted by the FDEP. Operations and reporting requirements specific to each WWTF are specified in the individual permits.

8.2 Wastewater Permits

The FDEP is responsible for issuing the permits for construction and operation of domestic wastewater treatment facilities in the state of Florida. The following is a list of the City's current wastewater permits. The Rio Vista WWTF is currently operating without an active operating permit and is under a Court Order (Case # 42-2008-CA-002086). The City is in the process of acquiring an FDEP Small Community Wastewater Construction Grant to remove the Rio Vista WWTF from service and divert the collection system to the Rainbow Springs WWTF.

Table 8-1:Sanitary Sewer System Permits

Permit Number	Permit Type	Issuing Agency	Service Area (s)	Date of Issue	Date of Expiration
FLA126594	Domestic WWTF Permit	FDEP	City of Dunnellon	February 25, 2010	February 24, 2015
FLA012674	Domestic WWTF Permit	FDEP	Rio Vista Neighborhood	N/A	N/A
FLA012693	Domestic WWTF Permit	FDEP	Rainbow Springs Neighborhoods	May 18, 2012	May 17, 2022
FLA490415	Domestic WWTF Permit	FDEP	Juliette Falls Neighborhood	April 4, 2012	April 2, 2017

8.3 Existing Wastewater Treatment and Collection Systems

The City currently owns and operates the following four separate wastewater systems:

1. City of Dunnellon Wastewater System
2. Rainbow Springs Wastewater System
3. Juliette Falls Wastewater System
4. Rio Vista Wastewater System

Each wastewater system is served by independent wastewater treatment and collection systems. Currently none of these systems are interconnected. The following is a brief description of each separate wastewater system.

8.3.1 City of Dunnellon Wastewater System

The City of Dunnellon's wastewater collection system consists of the following components (approximately):

- 13 lift stations
- 280 manholes
- 236 feet of 4-inch polyvinyl chloride (PVC) gravity sewer mains
- 572 feet of 6-inch PVC gravity sewer mains
- 73,932 feet of 8-inch PVC gravity sewer mains
- 2,238 feet of 10-inch PVC gravity sewer mains
- 4,219 feet of 1.5-inch diameter force main
- 10,085 feet of 2-inch diameter force mains
- 465 feet of 3-inch diameter force mains
- 11,384 feet of 4-inch diameter force mains
- 5,651 feet of 6-inch diameter force mains
- 7,532 feet of 10-inch diameter force main

The City of Dunnellon's wastewater treatment facility (WWTF) is permitted for 0.335 MGD annual average daily flow (AADF). The City's WWTF is a Category III C treatment facility with Class III reliability and Part II (restricted access sprayfield irrigation) effluent disposal system. According to the 2011 DMR data, the City's WWTF received approximately 0.143 MGD AADF in 2011. At this average flow rate, the City has approximately 0.192 MGD of available capacity. See Exhibit 8-1 for a map of the City's wastewater system.

8.3.2 Rainbow Springs Wastewater System

The City of Dunnellon acquired the Rainbow Springs (RBS) wastewater collection and treatment system from RBS Utilities in December of 2011. The wastewater collection system consists of the following components (approximately):

- 17 lift stations
- 595 manholes
- 134,000 feet of gravity sewer mains
- 19,500 feet of force mains

Wastewater treatment is provided by a 230,000 GPD (three-month average daily flow) Type II extended aeration domestic WWTF with Class III reliability. The WWTF is operating under FDEP Permit No. FLA012693. The operating permit was issued on April 19, 2007 and expires on April 18, 2012. The treatment components include a 29,000 gallon flow equalization basin, one 62,000 gallon anoxic/aeration basin, five aeration basins with a total volume of 142,000 gallons, two 930 ft^2 surface area clarifiers with a total volume of 83,612 gallons, three chlorine contact chambers with 13,200-gallon total volume, and two aerobic digesters with 85,200 gallons total volume. Effluent disposal is by a Part II system (restricted access spray field application) on a 35.14-acre spray field. According to the 2011 DMR data, the RBS WWTF received approximately 0.136 MGD annual average daily flow in 2011. At this average flow rate, the RBS WWTF has approximately 0.094 MGD of available capacity. See Exhibit 8-2 for a map of the Rainbow Springs wastewater system.

8.3.3 Juliette Falls Wastewater Collection and Treatment

The City of Dunnellon acquired the Juliette Falls wastewater system from Vikings, LLC in December of 2011. The wastewater collection system consists of the following components (approximately):

- 3lift stations
- 69 manholes
- 15,250 feet of 8-inch PVC gravity sewer main
- 790 feet of 4-inch diameter force main
- 5,030 feet of 6-inch diameter force main

Wastewater treatment is provided by a 100,000-GPD (three month average daily flow) Type II Modified Ludzack-Ettinger domestic WWTF. The WWTF treatment components include a 25,000-gallon surge tank capacity, four anoxic tanks of 27,000 gallons total volume, four clarifiers with 32,000 gallons total volume and 330 ft^2 of total surface area, two chlorine contact chambers with 3,200 gallons total volume, and two digesters of 20,000 gallons total volume. The system also includes two aboveground automatic backwash filters with a total surface area of 76 ft^2. Reject water is directed to a 150,000 gallon on-site lined pond and returned to the surge tank for treatment. Effluent disposal is by a Part III public access reuse (PAR) system (golf course irrigation). However, because of high operator attendance requirements and very low flows into the WWTF, the City is in the process of constructing a Part IV (rapid infiltration basin) system with 0.025-MGD capacity. Once flows increase beyond 0.025 MGD, the City will resume use of the Part III effluent disposal system. According to the 2011 operations history, the Juliette Falls WWTF received approximately 0.002 MGD (or less) annual average daily flow in 2011. At this average flow rate, the City has approximately 0.098 MGD of available capacity. See Exhibit 8-3 for a map of the Juliette Falls wastewater system.

8.3.4 Rio Vista Wastewater Collection and Treatment

The City of Dunnellon acquired the Rio Vista Wastewater Collection and Treatment Facility from the Civic Association of Rio Vista, Inc. in August of 2011. The sanitary sewer system consists of the following components (approximately):

- 4 lift stations
- 11 manholes
- 4,000 feet of 8-inch gravity sewer main
- 4,500 feet of 4-inch and 6-inch gravity sewer main
- 1,000 feet of force main varying in size from 3-inch to 8-inch in diameter

The wastewater is treated in a 10,000-GPD Type III extended aeration domestic WWTF. Effluent disposal is by a Part IV restricted access rapid infiltration basin. The treatment plant was previously operated by Enviro-Masters, Inc. The WWTF is currently operating without an active permit and is under Court Order (Case #42-2008-CA-002086) requiring connection to the RBS WWTF. According to the 2011 DMR data, the Rio Vista WWTF received approximately 0.003 MGD AADF in 2011. At this average flow rate, the Rio Vista WWTF has approximately 0.008 MGD of available capacity. However, the plant is scheduled for decommissioning in 2013 with flows being diverted to the RBS WWTF. See Exhibit 8-4 for a map of the Rio Vista wastewater system.

Exhibit 8-1: City of Dunnellon Wastewater System

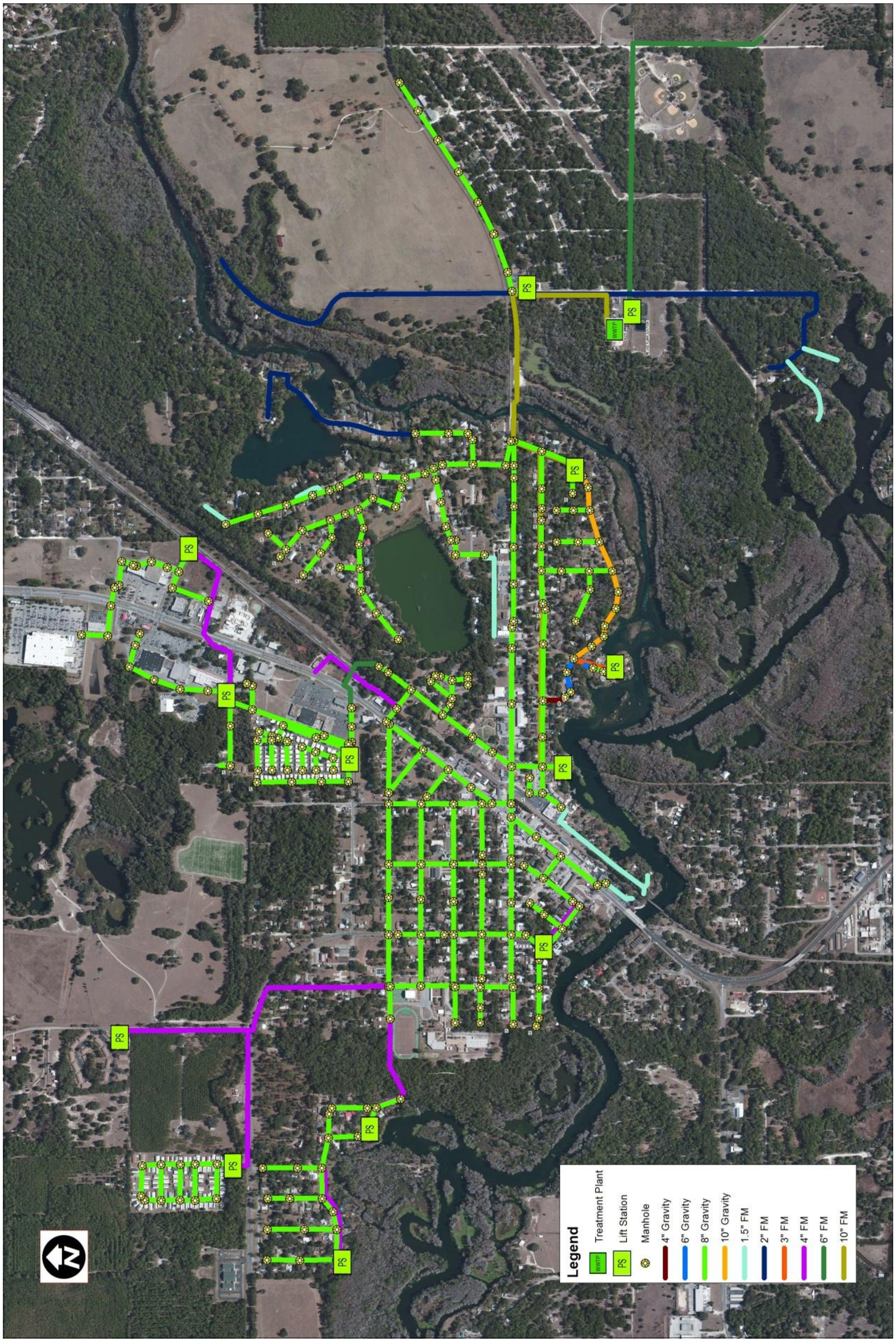


Exhibit 8-2: Rainbow Springs Wastewater System

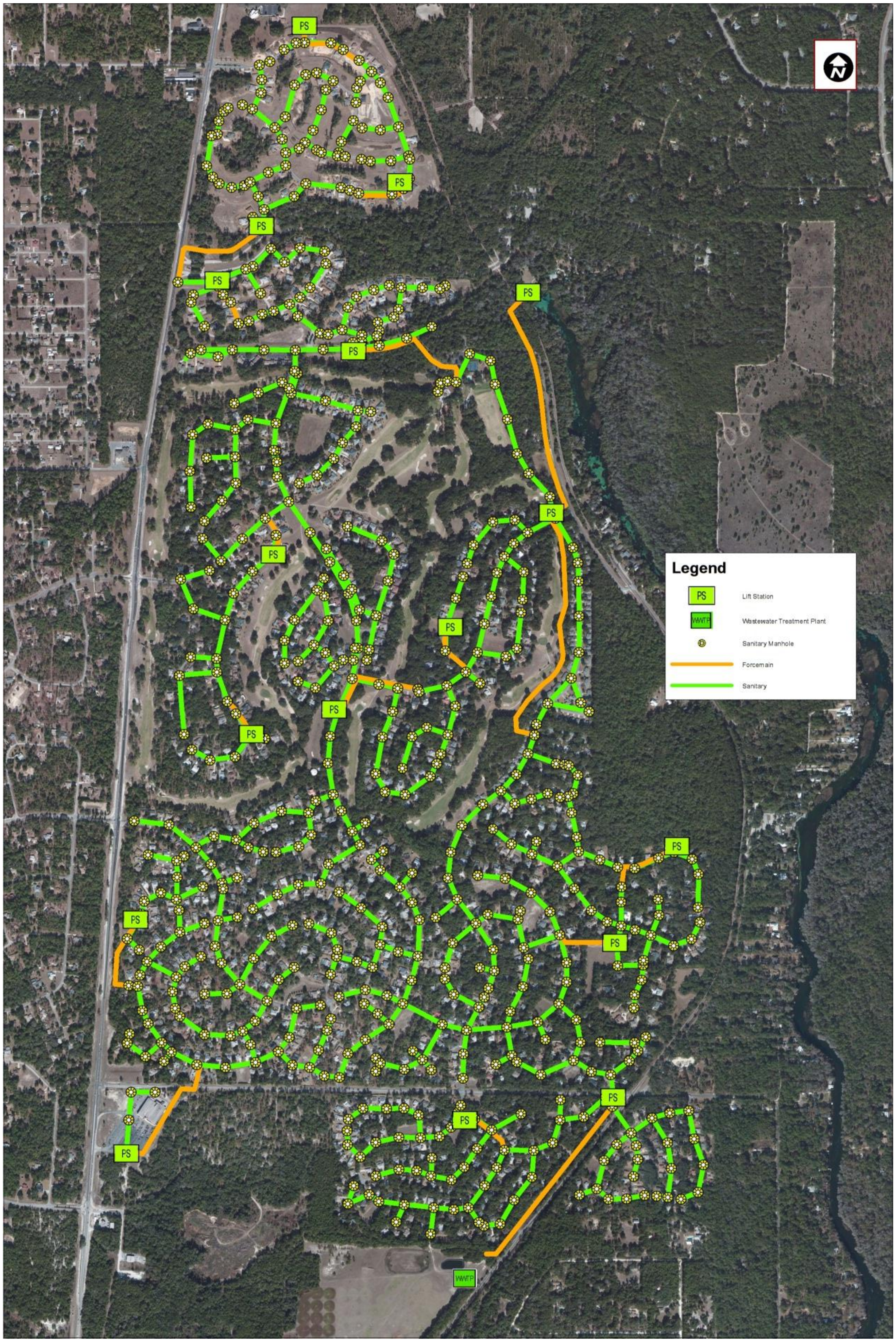
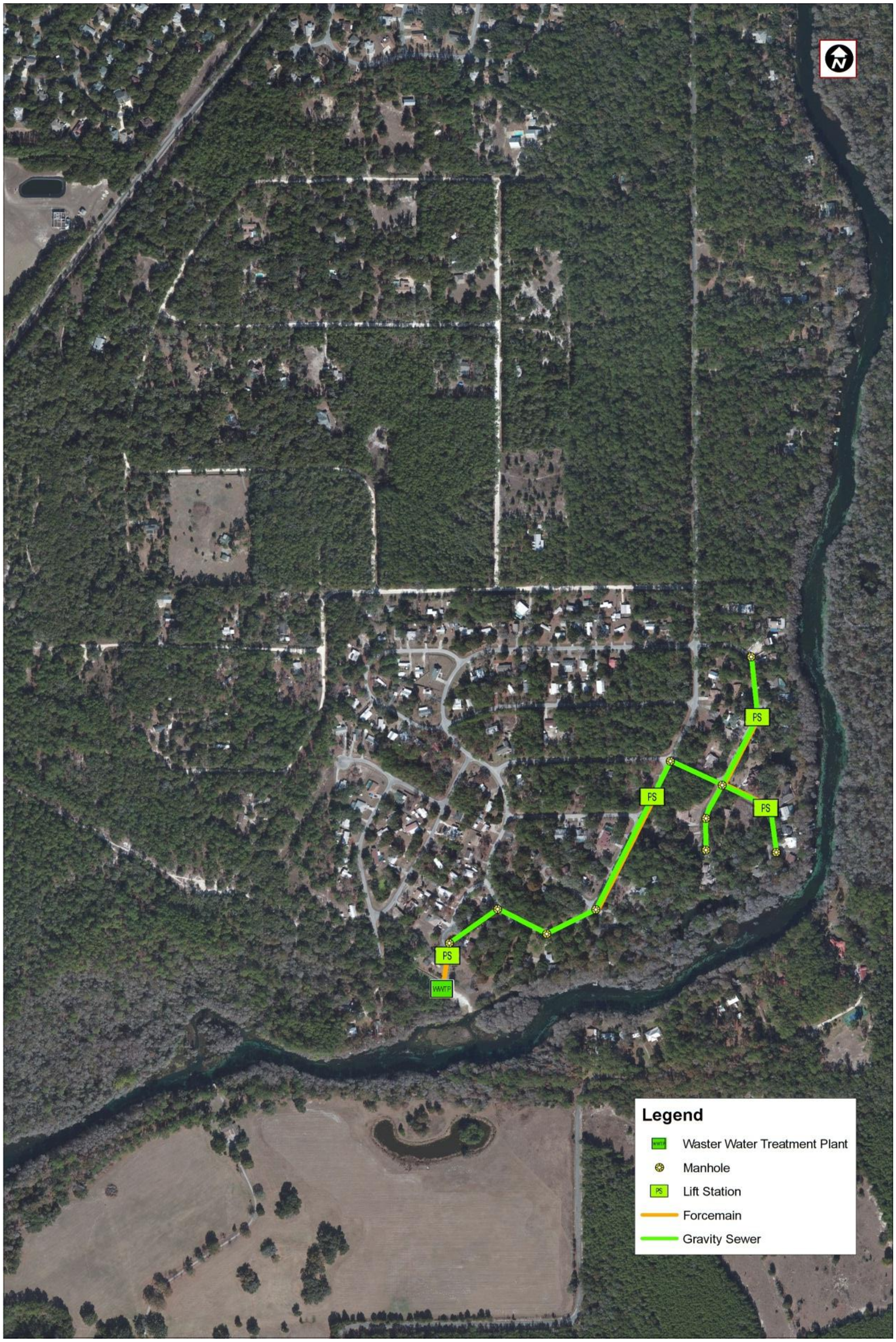


Exhibit 8-3: Juliette Falls Wastewater System

Exhibit 8-4: Rio Vista Wastewater System



9.0 Effluent Disposal and Reuse Management

All of the facilities owned and operated by the City dispose of the liquid effluent generated from the treatment process. The following is a summary of the current City-owned wastewater treatment facilities (WWTFs) and the specific effluent disposal method employed at each facility.

- City of Dunnellon WWTF – Restricted access sprayfield irrigation
- Rainbow Springs WWTF – Restricted access sprayfield irrigation
- Juliette Falls WWTF – Public access reuse (PAR) (golf course irrigation)/restricted access rapid infiltration basin (RIB)
- Rio Vista WWTF – Restricted access RIB

As stated previously, the Juliette Falls effluent disposal system is being converted to restricted access rapid infiltration disposal. However, PAR (golf course irrigation) will resume once plant flows reach 0.025 MGD. Also, the Rio Vista WWTF is scheduled to be decommissioned in 2013. The Rio Vista collection system flows will be directed to the Rainbow Springs WWTF.

The City has the option of modifying the treatment method and reliability rating to allow for PAR at the City WWTF and/or the RBS WWTF. Generally, this can be accomplished by providing high level disinfection with filtration. Since the City's WWTFs are Class III reliable, the City will not have to provide Class I treatment plant reliability provided the existing restricted access systems are maintained and available as a back-up disposal system. Permitting reuse quantities beyond the capacity of the restricted access systems will require the WWTF's to be Class I reliable or expansion of the restricted access reuse systems.

In addition to the treatment plant upgrades, providing PAR will required construction of a reuse pumping station and distribution system. Additionally, typically PAR storage systems are needed to ensure a consistent supply of reuse water.

Many communities that provide PAR also have ordinances in place that require new developments to install reuse transmission lines as they develop. Typically, the municipality will also enter into a reuse agreement with large reuse customers (such as golf courses or new subdivisions) so that the municipality has a guaranteed customer and the customer has a guaranteed water source.

10.0 Wastewater System Analysis and Methodology

10.1 Introduction

This section provides an overview of the future City of Dunnellon wastewater system master plan, future wastewater flows, wastewater treatment facility (WWTF) capacities, need for WWTF expansion, and potential need to decommission existing facilities. The wastewater system master plan analysis described in this section is based upon a strategy of providing wastewater service for future near term and long-range population growth combined with the adequacy and effective operations of the existing facilities within the City's service area.

10.2 Methodology

The approach for analyzing the overall wastewater system master plan was based on future population growth projections, future development projects, and the potential consolidation of WWTFs within the service area. There are currently four active WWTFs (Rainbow Springs (RBS), Dunnellon, Rio Vista, and Juliette Falls). At this time, the Rio Vista WWTF is scheduled for decommissioning and sewage re-routing to RBS WWTF based on a Court Order (Case #42-2008-CA002086). This can be done by modifying the WWTF into a master pump station and re-routing the flows to a sewer manhole in the RBS service area. As a result, the City of Dunnellon's wastewater treatment will be reduced to three facilities—Rainbow Springs and Dunnellon, and Juliette Falls.

Each of the three wastewater systems were analyzed for potential to adequately convey and treat the estimated wastewater demands projected for the current (2012), 5-year, 10-year, and 20-year planning horizons. See Appendix H for a detailed breakdown of the projected wastewater demands. In developing these demand projections, the following per capita generation rates were used.

- Future development level of service (LOS) estimate is 126 GPD/capita. This demand LOS was established from the Marion County Land Development Code (LDC) estimate of 300 GPD per equivalent residential connection. Using the U.S. Census estimate of 2.39 residents per household in Marion County, the per capita wastewater usage was calculated by dividing the 300 GPD by 2.39 residents per household.
- City of Dunnellon and Chatmire: 83 GPD/person based on historic City of Dunnellon DMRs (based on historical data).
- Rainbow Springs: 57 GPD/person based on historic Rainbow Springs Utilities (RSU) DMRs (based on historical data).
- Rio Vista: 11 GPD/person based on annual average flows from DMR. The low flow is a reflection that only a small portion of the development is served by sanitary sewer (based on historical data). Existing flows are based on year 2011 DMR data.

Demand Projections

<u>RBS Wastewater System</u> – Since the Rio Vista flows are already planned to be re-rerouted to the RBS WWTF, the Rio Vista flows are included in the RBS service area flows below. Based on the projected wastewater flows, the RBS WWTF has adequate capacity over the next 20 years for the existing RBS and Rio Vista service area. See Table 10-1 below for a summary of the wastewater flow projections.

Table 10-1 : Rainbow Springs Projected WWTF Capacities (w/ Rio Vista)			
Projected Year	FDEP Permitted Capacity (GPD)	Estimated Demand ADF (GPD)	% Utilized
Present	230,000	138,922	60.4%
5-year	230,000	140,003	60.9%
10-year	230,000	141,095	61.3%
20-year	230,000	143,257	62.3%

Juliette Falls Wastewater System – The Juliette Falls WWTF and service area is located northeast of the RBS service area and is approximately two miles to the closest manhole served by the RBS WWTF. Since there are no known deficiencies with the existing WWTF and the service area is relatively small, proving wastewater and reclaimed water service to the Juliette Falls service area is not recommended at this time. Therefore, flows to the RBS WWTF do not include the Juliette Falls service area flows. It should be noted that if the plant is taken offline in the future, water reuse lines capable of providing reuse water to the Juliette Falls Golf Course will need to be constructed to satisfy the rights the golf course has to the reuse water that can be produced by the Juliette Falls WWTF.

City of Dunnellon Wastewater System – There are six new service areas the City would like to explore providing sanitary sewer service to that could potentially be routed to the Dunnellon WWTF. Two of the service areas are located relatively close to the existing Dunnellon service area. The Chatmire Neighborhood currently has construction documents prepared to run sanitary sewer through the neighborhood. There is also a proposed development called Rainbow River Ranches that is located near the Dunnellon WWTF and a connection can be made to an existing 10" HDPE force main along CR 484 that discharges to the Dunnellon WWTF. Based on the wastewater flow projections, the Dunnellon WWTF has adequate capacity for the existing service area, the Chatmire Neighborhood, and the Rainbow River Ranches development over the next 20 years (Table 10-2).

Table 10-2:City of Dunnellon Projected WWTF Capacities (w/ Chatmire and Rainbow River Ranches)				
	Projected ADF (GPD)			
Projected Year	Present	5-year	10-year	20-year
City of Dunnellon	143,839	147,740	151,520	159,941
Chatmire	15,538	15,853	16,202	16,866
Rainbow River Ranches	0	14,048	37,462	70,241
Total	**159,377**	**177,641**	**205,184**	**247,048**
Permitted Capacity	335,000	335,000	335,000	335,000
Used Capacity	**47.6%**	**53.0%**	**61.2%**	**73.7%**

The other four potential service areas are located more than five miles east from the existing Dunnellon service Area. These areas include the proposed McBride Development, the proposed Pruitt Property, the Boger Property, and the existing Dunnellon Airport. The

McBride Development and the Airport have expressed interest in receiving water and wastewater service from the City of Dunnellon. The Pruitt Property and Boger Property are also expected to be served by the City of Dunnellon. The projected wastewater flows assume the McBride Development, Pruitt Property, and Boger Property will start generating wastewater flows at year 6. By year 10, the City of Dunnellon will not have enough capacity between the RBS and Dunnellon WWTF to serve the entire service area (Table 10-3). The McBride and Pruitt Property are expected to exceed that capacity within five years into their development.

Table 10-3 : City of Dunnellon Total Projected WWTF Capacities (w/ McBride, Pruitt, Boger Property, and Dunnellon Airport)

	Projected ADF (GPD)			
Projected Year	Present	5-year	9-year	10-year
Dunnellon Service Area	159,360	163,593	167,245	167,909
Rainbow Springs	138,922	140,003	140,856	141,095
McBride	0	0	23,814	29,736
Pruitt	0	0	167,706	209,664
Boger Property	0	0	12,096	15,120
Airport	3784	3,947	5,413	5,778
Total	**302,066**	**307,543**	**517,130**	**569,302**
Permitted Capacity	565,000	565,000	565,000	565,000
Used Capacity	**53.5%**	**54.4%**	**91.5%**	**100.8%**

To serve the entire service area, the City of Dunnellon would have to expand an existing WWTF or build a new WWTF. The Pruitt Master Plan has designated a tract of land for public works improvements that includes a WWTF. The tract of land is currently adjacent to the northeast corner of the McBride Property. The master plan scenarios described in this section are predicated on the evaluation of the best use for the RBS WWTF and the existing City of Dunnellon WWTF for present and future flows.

Two scenarios are outlined in Section 10.3 that consider WWTF consolidation, service area restructuring, new WWTF construction, and existing WWTF decommissioning. The discussion in Section 10.3 provides a concept of each scenario at a master plan level. A detailed feasibility study should be conducted to further evaluate the logistics, costs, and timeframes needed to implement these scenarios.

10.3 Scenarios

Both the RBS and City of Dunnellon WWTFs have adequate capacity for present day flows, but they do not have enough capacity to serve the entire 10-year projected service area. Two scenarios are identified to provide more efficient and functional wastewater collection, distribution, and treatment systems to meet the projected demands. Each scenario outlines the need to restructure, enhance, or abandon existing wastewater infrastructure and facilities. The basis for the scenarios is the review of the existing WWTF capacities against the projected future wastewater flows and areas of future growth.

10.3.1 Scenario 1 – New Regional WWTF on Pruitt Property

Based on our projected wastewater flows, the RBS and Dunnellon WWTFs have adequate capacity to serve the existing respective service areas for the next 20 years. If the City does not connect the Airport and the McBride development to the Dunnellon WWTF, no additional changes to either the Rainbow Springs or City of Dunnellon systems will be necessary, with the exception of typical system maintenance and the potential to upgrade wastewater pumps.

However, the City has had discussions with the McBride Developer and Dunnellon Airport and both entities have a desire to connect to the City's utility network. To serve these areas, the City can construct approximately 20,000 LF of 10" and 10,000 LF of 8" polyvinyl chloride (PVC) force main along CR 484 that would discharge into the Dunnellon WWTF. The size of the force main could be reduced if there is a booster pump station or an intermediate lift station to the Dunnellon WWTF. The force main should also be sized to account for the possibility of the Dunnellon WWTF to be decommissioned and for flows to be rerouted to the Pruitt Property. Based on the projected wastewater flows, the Dunnellon WWTF has capacity for the McBride Development and the Airport, but only until year 14 (Table 10-4).

Table 10-4 : City of Dunnellon Projected WWTF Flows (w/ McBride Development, Boger Property, and Dunnellon Airport)

	Projected ADF (GPD)				
Projected Year	Present	5-year	10-year	14-year	15-year
City of Dunnellon	159,360	163,593	167,909	171,312	172,308
Rainbow River Ranches	0	14,048	37,422	50,526	53,802
McBride Development	0	0	29,736	62,370	70,560
Boger Property	0	0	15,120	31,626	35,784
Airport	3,784	3,947	5,878	7,894	8,400
Total	**163,144**	**181,588**	**256,065**	**323,728**	**340,854**
Permitted Capacity	335,000	335,000	335,000	335,000	335,000
Used Capacity	**48.7%**	**54.2%**	**76.4%**	**96.6%**	**101.7%**

Additionally, the City is in the process on annexing approximately 9,000 acres of land known as "the Pruitt Property". The Pruitt Property encompasses virtually all the land between SR 40 and CR 484 from 180th Avenue Road to SW 140th Avenue. The initial conceptual land planning for the Pruitt Property has provisions for a new WWTF to service the potential large, multi-year project.

Table 10-5 shows the estimated projected flows for the Dunnellon service area, McBride Development, and the Pruitt Property. Flows are not expected to be generated until 2018 from the McBride and Pruitt Property. Based on the scale of the proposed improvements associated with this scenario, the estimated timeframe for a feasibility study, thorough surveying and field work, design and permitting, construction, start-ups, and certifications is approximately four years. At the time of this report, it is estimated in year 2032 that 1,078,101 GPD will be generated in the Dunnellon, McBride, and Pruitt service areas. For the facility to operate at 80% capacity at year 2032, the estimated capacity of the initially constructed WWTF is approximately 1.36 MGD (Table 10-5). However, due to the size of the Pruitt and McBride developments, the City should prepare a new study that proposes an adequate WWTF facility once the projects are closer to being developed.

Table 10-5 : Pruitt Property Projected WWTF Flows (w/ City of Dunnellon Service Area)				
	Projected ADF (GPD)			
Projected Year	Present	5-year	10-year	20-year
City of Dunnellon	159,360	163,593	167,909	176,790
Rainbow River Ranches	0	13,986	37,422	70,182
Airport	3,784	3,947	5,878	10,925
McBride Development	0	0	29,736	111,384
Pruitt Property	0	0	209,664	785,988
Boger Property	0	0	15,120	56,574
Total	**163,144**	**181,526**	**465,729**	**1,211,843**

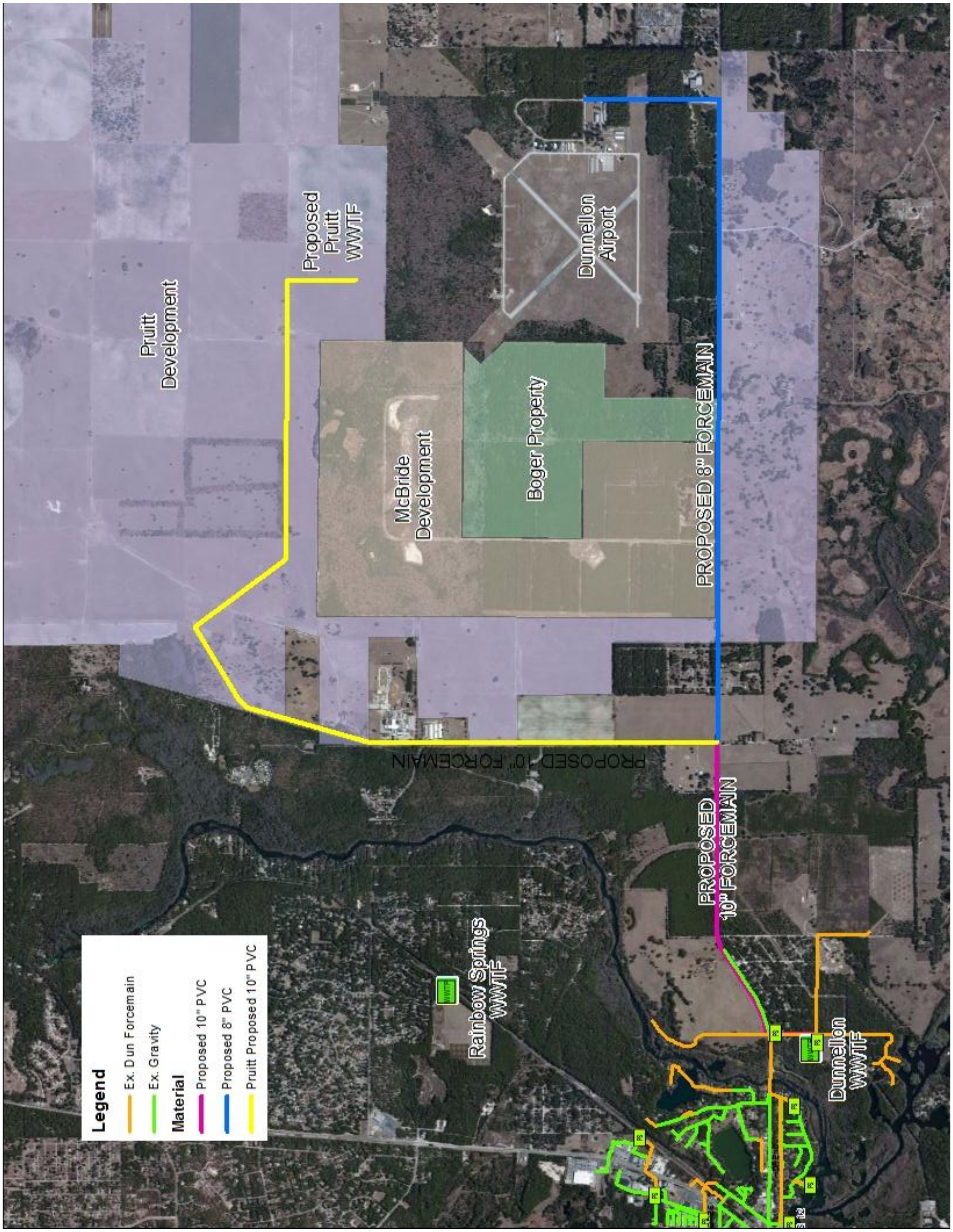
In this scenario, the Pruitt WWTF would need to be in operation by year 18 so flows from the McBride and the Airport can be routed to the Pruitt WWTF when the Dunnellon WWTF no longer has capacity. The Pruitt WWTF would be sized for the Pruitt and McBride Developments, the Airport, the Boger Property, and the Dunnellon service area flows. This would allow for the decommissioning of the Dunnellon WWTF.

The timing of the Pruitt WWTF would be based mainly on the growth of the McBride and Pruitt Property. If the McBride development growth is less than projected, the need for the Pruitt WWTF can be delayed. Additionally, since the Dunnellon WWTF's remaining capacity is less than 4% of the projected Pruitt Property wastewater flows, routing Pruitt wastewater flows to the Dunnellon WWTF could be used as a short-term option. However, construction of the Pruitt WWTF is recommended before the Pruitt Property begins generating wastewater flows.

The location of the Pruitt WWTF is not finalized, but it is planned just northeast of the McBride Development. The proposed connection from the Dunnellon WWTF to the Pruitt WWTF could be accomplished with a 10" force main. A possible route for the force main could be along CR 484 and either along 180th Avenue South or between the McBride and Airport property (see Exhibit 10-1).

To re-route the City of Dunnellon wastewater to the Pruitt WWTF, the configuration of the lift stations in the Dunnellon service area would likely remain the same. The existing Dunnellon WWTF would need to be modified into a master lift station site and either an in-line booster pump station or another master lift station would need to be constructed at a point between the existing Dunnellon WWTF and the Pruitt WWTF.

Exhibit 10-1: Wastewater Scenario 1



10.3.2 Scenario 2 – Without New Regional WWTF on Pruitt Property

The acquisition of the RBS WWTF provides an opportunity to reduce flows (add capacity) to the existing Dunnellon WWTF. This will be best achieved by re-routing existing Dunnellon WWTF customers to the RBS WWTF. If desired, re-rerouting the entire service area would allow the City to decommission the Dunnellon WWTF. Optionally, the City could re-route just the service area west of the Rainbow River to create capacity in the Dunnellon WWTF to handle projected demands from future growth east of the Rainbow River. This scenario will allow the City to abandon the force main crossing the Rainbow River. However, expansion of the RBS WWTF will be required to handle the projected 20-year demands.

The existing Rainbow Springs WWTF does not have adequate capacity to add the entire Dunnellon service area without providing capacity improvements to the Rainbow Springs WWTF. However, portions (up to 0.095 MGD) of the Dunnellon service area can be re-routed to the Rainbow Springs WWTF by a force main interconnect without exceeding the permitted capacity. Based on the 20-year growth projections, both facilities have adequate capacity to serve their respective service areas. Therefore, the timing of the force main interconnect will be based on the City's desire to decommission the Dunnellon WWTF or to accommodate growth east of the Rainbow River.

The proposed force main interconnect would be approximately an 18,000 LF, 12-inch HDPE and PVC force main, extending between the RBS and Dunnellon service areas. The force main would run along US Highway 41 and SW 99th place (see Exhibit 10-2). This route was chosen since these are the most direct routes of public rights-of-ways and since there is minimal development along US Highway 41 north of Dunnellon and SW 99th Place. An alternate route along the railroad track right-of-way could be further evaluated, since it is an even more direct and shorter route. The proposed force main interconnect would connect to the existing lift station along SW 99th Place, adjacent to the railroad tracks. This lift station discharges directly to the Rainbow Springs WWTF.

Based on the configuration of the lift stations in the Dunnellon service area, the connection to the RBS WWTF can be phased if the expansion of the RBS WWTF needs to take place over an extended period of time. The Dunnellon WWTF average daily flows listed in Table 11-4 were estimated by assuming the percent of the total City population in each service area west of the Rainbow River. The assumption was made by reviewing an aerial map and assuming that 40% of the flows going to the Dunnellon WWTF are associated with Phase 1 and 2 each and 20% are associated with Phase 3. The Chatmire Neighborhood is included in Phase 1. Phase 4 is the Dunnellon service area east of the Rainbow River. Table 11-6 illustrates the projected wastewater flow routed to Rainbow Springs, broken out in four phases identified below.

Table 10-6 : Rainbow Springs Projected WWTF Capacities (w/ City of Dunnellon Service Area)				
	Projected ADF (GPD)			
Projected Year	Present	5-year	10-year	20-year
Rainbow Springs	135,204	136,230	137,256	139,308
Rio Vista	3,718	3,773	3,839	3,949
Dunnellon Phase 1	68,954	70,334	71,994	75,347
Dunnellon Phase 2	53,377	54,481	55,809	58,498
Dunnellon Phase 3	26,133	27,241	27,905	29,249
Total West of Rainbow River	**287,386**	**292,059**	**296,803**	**306,351**
Dunnellon Phase 4	10,912	11,537	12,201	13,695
Rainbow River Ranches	0	13,986	37,422	70,182
Total (w/ Phase 4)	**298,298**	**317,582**	**346,426**	**390,228**

For the RBS WWTF to serve the entire City of Dunnellon and RBS at year 20, the RBS WWTF would need to expand its capacity to handle an additional 0.250 MGD. This additional capacity would allow the WWTF to operate at 80% of the permitted capacity level at year 20 and allow the City to decommission the Dunnellon WWTF (381,299GPD/480,000GPD). If only the service area west of the Rainbow River (Phase 1 through 3) is routed to the RBS WWTF, the plant would need to expand to handle an additional 0.150 MGD to operate at 80% capacity (301,837/380,000).

Phase 1 – Northwest Service Area

Based on the GIS information provided by the City, the northwest corner of Dunnellon is serviced by two lift stations ("LS" #4 and #5). LS #4 is located at the end of Brooks Street and is adjacent to Walgreens. LS #4 pumps wastewater through an existing 4" HDPE force main to the west side of U.S. Highway 41 and discharges to an existing manhole that connects to LS #5. LS #5 is located along Powell Road and currently pumps wastewater through a 6" HDPE force main to the east side of US Highway 41 into an existing manhole that connects to LS #12 (Mary Street).

Powell Road was selected as the re-routing boundary since everything south of Powell Road and west of U.S. Highway 41 is collected in LS #12. It also appears that the Rainbow Springs WWTF has adequate capacity to accept the wastewater flows generated in the northwest service area without requiring any facility capacity improvements. To make the connection sized for future flows, a 12" HDPE force main would need to be horizontal directional drilled (HDD) within the Dunnellon City limits along US Highway 41. The 12" force main can transition to a 12" PVC force main (installed via traditional trenching) outside of the Dunnellon City limits and along SW 99th Place. A force main analysis is required to determine if LS #4 could be manifolded into the proposed force main. An analysis is also required to evaluate the adequacy of the existing pumps in LS #4, LS #5, and the RBS LS.

Based on the assumed breakdown of flows within the Dunnellon service area, the RBS WWTF should have capacity for the Dunnellon Phase 1 flows. The re-routing of the Phase 1 flows would allow additional capacity in the Dunnellon WWTF for future flows from the McBride Development, Boger Property, and the Airport.

Table 10-7 : Rainbow Springs Projected WWTF Capacity (w/ City of Dunnellon Phase 1)				
	Projected ADF (GPD)			
Projected Year	Present	5-year	10-year	20-year
Rainbow Springs	135,204	136,230	137,256	139,308
Rio Vista	3,718	3,773	3,839	3,949
Dunnellon Phase 1	68,954	70,334	71,994	75,347
Total (w/ Phase 1)	**207,876**	**210,337**	**213,089**	**218,604**
Permitted Capacity	230,000	230,000	230,000	230,000
Used Capacity	**90.4%**	**91.5%**	**92.6%**	**95.0%**

Phase 1 in scenario 2 is recommended if the City needs to delay the construction of the Pruitt WWTF. The Rainbow Springs WWTF can be expanded if additional phases need to be re-routed from the Dunnellon WWTF to the Rainbow Springs WWTF. This would provide additional capacity in the Dunnellon WWTF to serve future developments east of the Rainbow River.

Table 10-8 : City of Dunnellon Projected WWTF Flows (w/ McBride Development, Boger Property, and Dunnellon Airport)				
	Projected ADF (GPD)			
Projected Year	Present	5-year	10-year	20-year
City of Dunnellon	90,422	93,259	95,915	101,442
Rainbow River Ranches	0	13,986	37,422	70,182
McBride Development	0	0	29,736	111,384
Boger Property	0	0	15,120	56,574
Airport	3,784	3,947	5,878	10,925
Total	**94,206**	**111,192**	**184,071**	**350,507**
Permitted Capacity	335,000	335,000	335,000	335,000
Used Capacity	**28.1%**	**33.2%**	**54.9%**	**104.6%**

Phase 2 – Western Railroad Track Service Area

Based on the GIS information provided by the City, the service area west of the railroad tracks is serviced by 6 lift stations ("LS" #13, 1, 2, 3, 4, and 5). All six lift stations discharge to an existing manhole which eventually collects into LS #12. LS #12 pumps through a 10" HDPE force main system that discharges directly to the Dunnellon WWTF. Phase 2 would re-route the wastewater flow from LS #12 to the Rainbow Springs WWTF. The improvements to re-route the wastewater could be completed in two phases. The first phase requires the completion of the improvements outlined in Phase 1. The second phase would include construction of a 12" force main from LS #12 to Powell Road (refer to Exhibit 10-2). One possible route for the 12" force main is along Bostick Street, crossing the railroad and U.S. Highway 41 at East McKinney Avenue. The 12" force main would connect to the 12" force main that was constructed in the first Phase. An analysis is required to evaluate the adequacy of the existing pumps in LS #5, LS #12, and the RBS LS. The additional flow from Phase 2 would likely require capacity expansion of the Rainbow Springs WWTF.

Phase 3 – Western Rainbow River Service Area

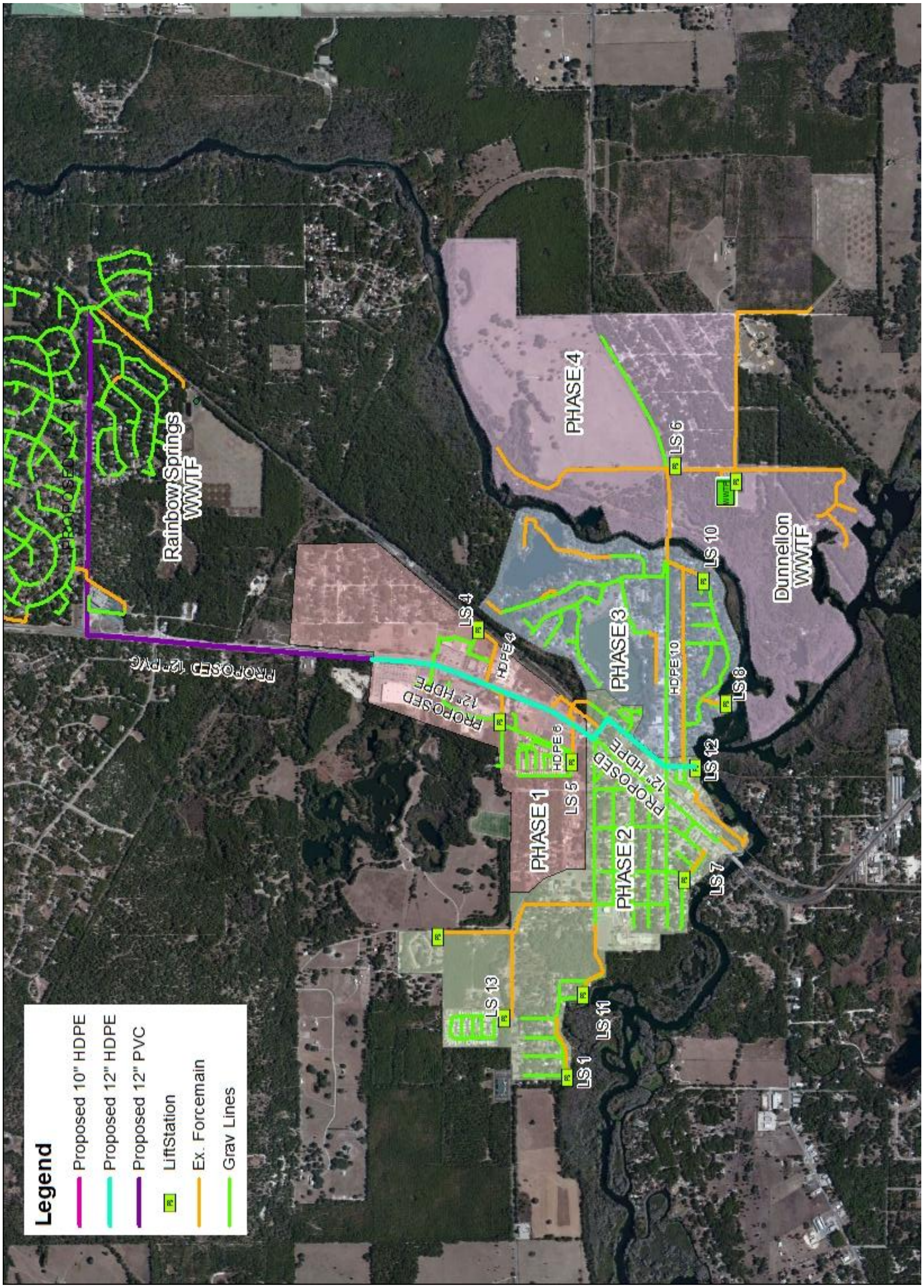
Based on the GIS information provided by the City, the service area west of the Rainbow River is served by nine lift stations ("LS" #13, 1, 2, 3, 4, 5, 8, 10, and 12). LS 13 through 8 discharge to either LS 10 (Oak Street) or LS 12. LS 10 and LS 12 connect to a manifolded force main system that crosses the Rainbow River and discharges into the Dunnellon WWTF. Phase 3 would re-route the flow from LS 10 and LS 12 to the RBS WWTF by reversing the flows between LS 10 and LS 12. An analysis is required to evaluate the adequacy of the existing pumps in to LS #5, 10, 12, and the RBS LS. The additional flow from this area would require capacity expansion of the RBS WWTF. The completion of this phase would allow the abandonment of the force main crossing the Rainbow River.

Phase 4 – Eastern Rainbow River Service Area

Based on the GIS information provided by the City, the service area east of the Rainbow River is served by one public lift station ("LS" 6) and various grinder pumps. The LS and grinder pumps connect directly to the Dunnellon WWTF. Phase 4 would re-route the flow from the WWTF to LS 10 by reversing the flows between LS 10 and the Dunnellon WWTF. An analysis is required to evaluate the adequacy of the existing pumps in LS 6 and the private grinder pump stations. This phase may require modification of LS 6 into a master pump station to handle the private grinder pumps and the future Rainbow River Ranches development.

The additional flow from this area would require capacity improvements to the Rainbow Springs WWTF. The completion of this phase would allow the Dunnellon WWTF to be decommissioned.

Exhibit 10-2: Wastewater Scenario 2



11.0 Recommended Wastewater System Capital Improvement Project

11.1 Introduction

This section provides a discussion of capital improvement project developed by investigating alternatives for addressing current deficiencies and meeting future demands. Included in this chapter is a project list (with probable costs of construction) for recommended projects. Many of the capital improvement projects are large and will require implementation over several years that may overlap the 5-year, 10-year, and 20-year planning time periods.

11.2 Capital Project Descriptions

The following capital projects should be considered for improving the sanitary sewer system for the safety and reliability of the sanitary sewer service throughout the City.

- **Rainbow Springs (RBS) Lift Station Improvements –**Many of the lift stations throughout RBS have deficiencies that should be corrected. The most notable deficiencies include control panels improperly oriented, no electrical disconnects, insufficient/absent pump railings, no water supply, physical damage, valve/hardware in need of replacement or repair, and lack of back-up power generators. Below is a description of the safety or operational issues associated with these deficiencies:

  Control Panel Orientation – Many of the lift station have control panels are oriented such that the operator has to stand on the wet well to open the panel. This type of orientation poses a safety hazard for the operators. This project would include modifying the control panels to keep operators from having to work over the wet wells.

  Electrical Disconnects – Many of the lift station in RBS do not have electrical disconnects between the meter and the control panel. Without an electrical disconnect, operators must work on control panels while they are energized. This project would add electrical disconnects to the lift station that do not have them so that the control panels can be de-energized for maintenance and repair.

  RBS Lift Station Railings – Many of the lift station in RBS do not have proper railings for the pumps. Without proper railings, operators have to enter wet wells to remove pumps when they need maintenance or repair. This represents a possible hazard to operators and is labor intensive. This project will add railing to the lift stations that do not have them and lift station with substandard railing or railings in disrepair.

  RBS Lift Stations Water Supply – Almost all of the lift stations in Rainbow Springs are without a water supply source at the list station. Having water available at the lift station will allow the operators to rinse down the lift stations and pumps when needed. This project will add a water spigot and required backflow prevention device to the necessary lift stations.

RBS Lift Station Physical Damage Repair – Several of the lift stations in RBS have physical damage either in the wet well or in the valve boxes. This damage allows for the inflow of water and soils into these systems and causes additional corrosion and wearing of mechanical parts. This project would include repairing damage in necessary lift stations and installing valve box drains where needed.

RBS Lift Station Valve/Hardware Improvements – Several of the lift station in RBS have check valves in need of repair or replacements. Others are missing bypass piping and valves. This project would upgrade/add missing hardware and/or valves.

RBS Lift Station Back-up Generators and Lift Station Retrofits – None of the lift stations in RBS have back-up generators. At a minimum, back-up generators need to be added to three of the lift stations that are considered master lift station. Additionally, the lift stations that will not be upgraded with a generator need to have the generator plug-in on the control panel upgraded to be consistent with the portable generator the City has. This will allow for City staff to operate the lift stations that do not have generators with a portable generator during power outages.

These improvements are relatively high priority because they are safety related. The approximate cost associated with these improvements is $503,000. For a detailed breakdown of the timeline for implementation improvements, see Appendix F.

- **Infiltration and Inflow (I&I) Study –** This project would include hiring a consultant that specializes in identifying and documenting locations where the collection system is damaged and allowing inflow and infiltration of stormwater. I&I increase the cost of conveyance and treatment by allowing stormwater to enter the system. The approximate cost associated with these improvements is $67,500.

- **I&I Repairs –** This project would include various corrective measures and repairs that would be identified during the infiltration and inflow study. The costs associated with these improvements are to be determined based on the results of the I&I Study. However, once identified, it is likely that the projects would become part of an annual program with a set budget to be determined.

- **Rio Vista WWTF Decommissioning –** This project is currently in the design/permitting stage. As of the writing of this report, coordination with the Florida Department of Environmental Protection (FDEP) to obtain an easement for the force main route is ongoing and the construction documents are being developed. Construction will consist of decommissioning the Rio Vista WWTF and constructing a force main to the Rainbow Springs WWTF. The estimate cost of construction is approximately $803,000. The City is currently applying to obtain a grant from FDEP to cover a portion of the construction costs.

- **City of Dunnellon Supervisory Control and Data Acquisition (SCADA) System –** The City of Dunnellon currently does not have the capability to check on the water treatment plants, wastewater treatment facilities, or lift stations without physically going to the structure. An alternative to this type of labor intensive monitoring is an electronic SCADA system. This system, depending on the program/configuration selected, will allow City staff to monitor and control lift stations and treatment plants remotely from a central location. This will help the City to quickly identify when conditions warrant additional attention (i.e., a pump malfunction, wet well level warnings, etc.). The SCADA system can be phased in three phases: 1) All water treatment plants, 2) All wastewater treatment facilities, and 3) All lift stations. The costs associated with the phases are approximately $221,000, $160,000, and $370,000, respectively.

12.0 Capital Improvement Plan Funding Resources

12.1 Introduction

This section will discuss the various state and federal funds that may be available to fund some of the capital improvement plan projects through grants and/or loans. Each program has limitations and requirements that should be considered while evaluating projects for funding opportunities. While the City may be capable of applying for many of the programs listed below, some programs are competitive and require complex substantial application information. Specialized grant and funding consultants should be considered as resources for assisting with funding opportunity evaluations and application package preparations.

12.2 Water and Wastewater Funding Sources

Community Development Block Grant (CDBG) Grant Funding – The U.S. Department of Housing and Urban Development administers CDBG nationwide. The CDBG program was established to "develop viable communities by providing decent housing and a suitable living environment and by expanding economic opportunities, principally for persons of low- and moderate-income." Community activities that qualify for CDBG funding assistance include:

- Acquisition of property for public purposes
- Construction of reconstruction of streets, water and sewer facilities, neighborhood centers, recreation facilities, and other public works
- Demolition
- Rehabilitation of public and private buildings
- Public services
- Planning activities
- Assistance to non-profit entities for community development activities
- Assistance to private, for profit entities to carry out economic development activities (including assistance to micro-enterprises)

The CDBG program segregates communities into two types: entitled and non-entitled. Entitled communities are larger and have populations greater than 50,000. Non-entitled communities have populations less than 50,000. The City of Dunnellon currently falls into non-entitled classification. The non-entitled community benefits are administer locally by the states that participate in the CDBG program. Currently, the City qualifies for a maximum of $600,000 per year of CDBG funding.

Florida Department of Environmental Protection (FDEP) State Revolving Fund (SRF) - SRF programs provide financial savings for projects that benefit the environment, including protection of public health and conservation of local watersheds. Federal and state contributions fund loans for a wide variety of water quality projects, including all types of stormwater, watershed protection or restoration, and estuary management projects, as well as more traditional municipal wastewater treatment projects, including water reuse and conservation projects.

The program allows states to provide funding for their highest-priority water quality needs. Funds to establish or capitalize the Clean Water State Revolving Fund (CWSRF) programs are provided through federal government grants and state matching funds that are equal to 20 percent of federal government grants. CWSRF monies are loaned to communities at lower than market rate interest rates, and loan repayments are recycled back into the program to fund additional water quality protection projects. The revolving nature of these programs provides for an ongoing funding source that will last far into the future.

U.S. Department of Agriculture (USDA Rural Development – The USDA offers several financial assistance programs for rural communities, including loan and loan/grant programs. Below are some specific grant programs in which the City may be eligible for participation. Each program has specific requirements for eligibility and level of assistance available. Specific information on each program can be found on the USDA website at http://www.rurdev.usda.gov/Home.html.

- **Direct Loans and Grants** – To develop water and waste disposal systems in rural areas and towns with a population not in excess of 10,000. The funds are available to public bodies, non-profit corporations, and Indian tribes.

- **Guaranteed Loans** – To provide a loan guarantee for the construction or improvement of water and waste disposal projects serving financially needy communities in rural areas. This purpose is achieved through bolstering the existing private credit structure through the guarantee of quality loans which will provide lasting benefits. The water and waste disposal guarantee loans are to serve a population not in excess of 10,000 in rural areas.

- **Emergency Community Water Assistance Grants** – To assist rural communities that have experienced a significant decline in quantity or quality of drinking water due to an emergency, or in which such decline is considered imminent, to obtain or maintain adequate quantities of water that meets the standards set by the Safe Drinking Water Act. This emergency is considered an occurrence of an incident such as, but not limited to, a drought, earthquake, flood, tornado, hurricane, disease outbreak or chemical spill, leakage, or seepage.

- **Pre-development Planning Grants** – Predevelopment planning grants may be available, if needed, to assist in paying costs associated with developing a complete application for a proposed project.

- **Loans for Very Small Projects –** To assist communities with water and wastewater systems. Qualified private non-profit organizations will receive Request for Proposal (RFP) grant funds to establish a lending program for eligible entities. This grant program is to serve a rural area with a population not in excess of 10,000.

- **Opportunities for Lenders** – The Utilities Programs works with private lenders to guarantee loans to borrowers for the construction of water and waste systems in rural areas. Loan guarantees can be issued for up to 90% on any loss of interest and principal on a loan.

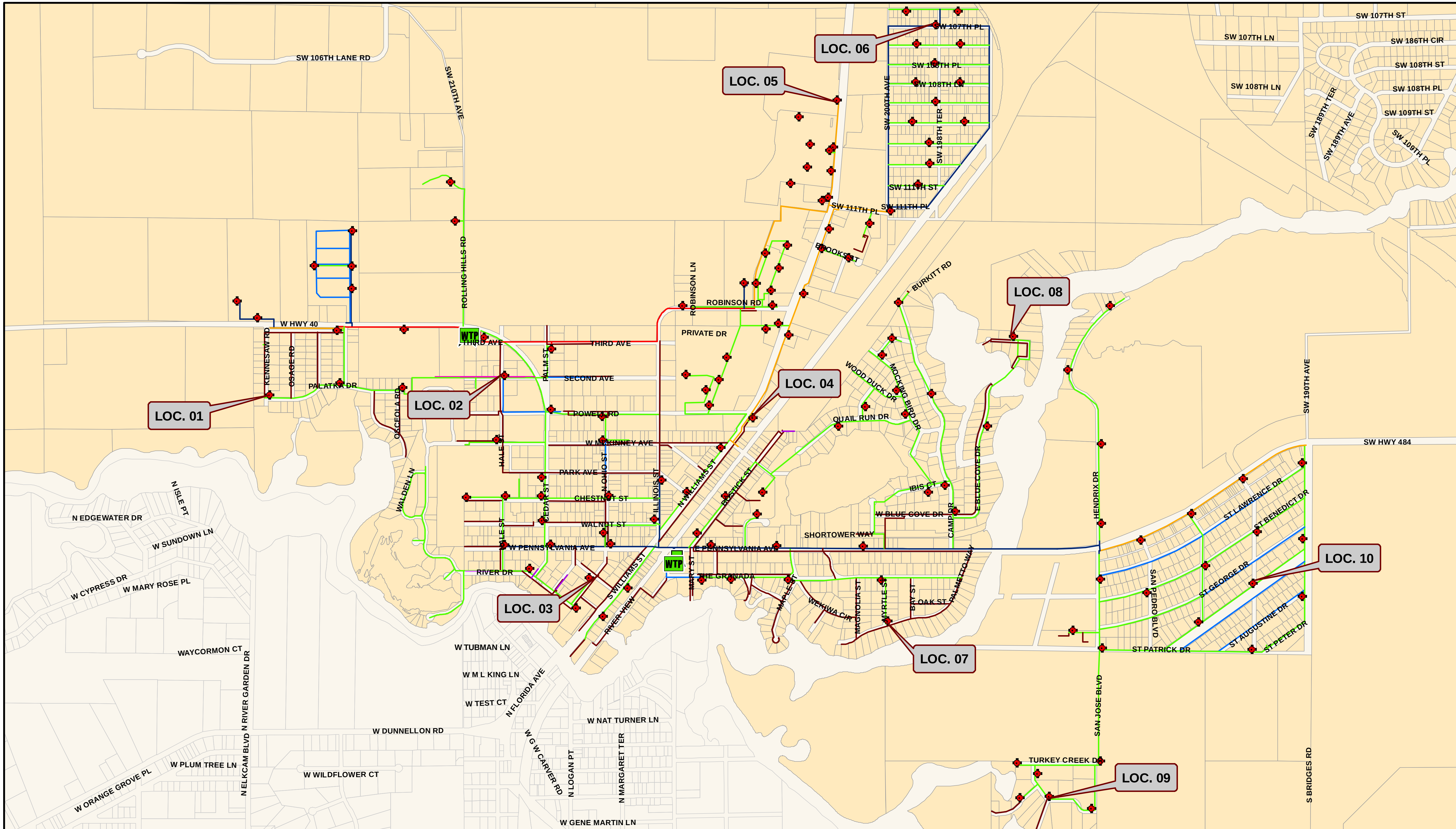
- **Revolving Fund Program** – To assist communities with water and wastewater systems. Qualified private non-profit organizations will receive RFP grant funds to establish a lending program for eligible entities. This grant program is to serve a rural area with a population not in excess of 10,000.

FDEP Small Community Wastewater Facilities Grants Program –This is a grant program to assist small communities in the planning, designing, and constructing of wastewater management facilities. An eligible small community must be an incorporated municipality, have a total population and a service area population of 10,000 or less, and have a per capita income (PCI) less than the State of Florida average PCI of $26,503. Projects shall compete separately for Preconstruction planning Grants and Construction and design Grants. Projects must be associated with wastewater collection, transmission, treatment, or disposal facilities. This includes facilities to reuse reclaimed water from wastewater treatment plants. Storm water projects are not eligible. The highest priority is given to projects that address the most serious risks to public health, are necessary to achieve compliance, or assist systems most in need based on an affordability index. A partial match of local funds will be required. Funding of the local match may be obtained through the State Revolving Fund Program.

SWFWMD Cooperative Funding Initiative –The Cooperative Funding Initiative (CFI) covers up to 50 percent of the cost of projects that help create sustainable water resources, enhance conservation efforts, restore natural systems and provide flood protection. All CFI funding decisions are made by volunteer Governing Board members who are well informed on the specific resources and challenges within their areas.

APPENDIX

APPENDIX A:
Fire Hydrant Testing Data and Model Calibration Results



	City of Dunnellon 20750 River Drive Dunnellon, Florida 34431 Phone: (352) 465-8500 Fax: (352) 465-8505	**Fire Hydrant Test Locations** May 2011	0 1,250 2,500 Feet	Kimley-Horn and Associates, Inc. ©2011 Kimley-Horn and Associates, Inc. 1321 SE 25th Loop, Suite 101 Ocala, Florida 34471 Phone: (352) 671-9451 Fax: (352) 671-9439 www.kimley-horn.com CA 00000696	EXHIBIT

FIRE HYDRANT FLOW TESTS

LOCATION 1	C-13 KENNESAW & PALTKA			6-28-11
✓	STATIC PRESSURE	46PSI	47.4	9:30 A.M.
	FLOW	840 GPM	840	
	C-11 VOGT SPRINGS & PALTKA			
	PRESSURE DROP	42 PSI	~~[illegible]~~ 41.4	
LOCATION 2	D-8 CHESTNUT & HALE			6-30-11
	STATIC PRESSURE	46 PSI	47.3	9:30 A.M.
	FLOW	620 GPM	873.5	
	D-9 CHESTNUT & CEDAR			
	PRESSURE DROP	32 PSI	~~30.5~~ 38.8	
LOCATION 3	D-19 S. OHIO & NED LOVE			6-28-11
	STATIC PRESSURE	43PSI	47.2	10:00 A.M.
	FLOW	455 GPM	687.6	
	D-18 S. OHIO & RIVER DR.			
	PRESSURE DROP	20 PSI	20.0	
LOCATION 4	D-22 U.S. 41 & POWELL RD.			6-28-11
	STATIC PRESSURE	46PSI	50.6	10:30 A.M.
	FLOW	1030 GPM.	1500	
	KFC HYDRANT			
A-18	PRESSURE DROP	40PSI	35.6	

FIRE HYDRANT FLOW TESTS

LOCATION 5 B-1 U.S. 41 & MURPHY GAS 6-28-11
STATIC PRESSURE 40 PSI 39.9 11:00 A.M.
FLOW 1030 GPM 1030
B-7 U.S. 41 & WAL MART
PRESSURE DROP 33 PSI 34.2

LOCATION 6 A-11 SW 106 LN 6-30-11
STATIC PRESSURE 43 PSI 44.1 10:00 A.M.
FLOW 920 GPM 933
B-4 SW 106 N
PRESSURE DROP 32 PSI 20

LOCATION 7 B-5 MYRTLE & PALMETTO WAY 6-29-11
STATIC PRESSURE 52 PSI 55.9 9:30 A.M.
FLOW 380 GPM 623
B-4 MYRTLE & THE GRANADA
PRESSURE DROP 20 PSI 21.7

LOCATION 8 A-18 E. BLUE COVE DR. 6-29-11
STATIC PRESSURE 48 PSI 46.0 10:00 A.M.
FLOW 455 GPM 426
A-17 E. BLUE COVE DR.
PRESSURE DROP 20 PSI 20

FIRE HYDRANT FLOW TESTS

LOCATION 9	C-10	TOMAHAWK DR. & FOX TRAIL			6-29-11
	STATIC PRESSURE		37 PSI	39.8	11:00 A.M.
	FLOW		80-100 GPM.	357	
	C-9	TOMAHAWK DR.			
	PRESSURE DROP		20 PSI	20.3	
LOCATION 10	C-18	SAN MATEO BLVD & POWER LINE			6-23-11
	STATIC PRESSURE		32 PSI	38.5	11:00 A.M.
	FLOW		80-100 GPM	465.6	
	C-19	SAN MIGUAL BLVD & POWER LINE			
	PRESSURE DROP		20 PSI	20	

City of Dunnellon Fire Hydrant Testing (6-11-2012)									
Test Number	**Pressure Test**	**Static Pressure**	**Residual Pressure-Flow Rate 1**	**Residual Pressure-Flow Rate 2**	**Residual Pressure-Flow Rate 3**	**Flowtesting**	**Flow Rate 1**	**Flow Rate 2**	**Flow Rate 3**
1.1	C-2	44-46	20-22	-	-	C-1	380	-	-
2.1	C-1	44-46	26	20	-	C-23	380	455	-
3.1	C-1	44-46	28	23	16	C-5	380	455	530
4.1	C-18	40	26	20	-	C-19	380	455	-
5.1	C-9	48	24	20	-	C-10	380	A little above 380	-

Rainbow Springs Fire Hydrant Testing								
Test Number	**Pressure Test**	**Static Pressure**	**Residual Pressure- Full Flow**	**Residual Pressure- Half Flow**	**Flowtesting**	**Flow Rate- Full**	**Flow Rate- Half**	**Time**
RBS-1	Hydrant 1	52-54	36-38	46-48	Hydrant 2	940	520	10:10
RBS-2	Hydrant 4	66-68	44-46	60-62	Hydrant 3	880	440	10:25
RBS-3	Hydrant 5	46-48	34-36	46	Hydrant 6	840	420	9:50
RBS-4	Hydrant 8	52-58	36-38	48-50	Hydrant 7	960	480	9:25
RBS-5	Hydrant 12	56-58	32-44	50-51	Hydrant 9	920	460	8:58
RBS-6	Hydrant 10	56	38-44	48-50	Hydrant 11	1060	530	8:45
RBS-7	Blowoff 17	70	------	------	N/A	------	------	11:50
RBS-8	Blowoff 19	68-70	48-50	66	Hydrant 20	860	430	11:25
RBS-9	Hydrant 21	56-60	38-40	44-46	Hydrant 23	900	450	12:30
RBS-10	Blowoff 15	50-52	36-38	48-50	Hydrant 23	900	450	12:30

Rio Vista Testing						
Test Number	**Pressure Test**	**Static Pressure**	**Residual Pressure**	**Flowtesting**	**Flow Rate**	**Time**
Rio-1	Blowoff 1	54	46-48	Well	429 (13 psi)	1:30
Rio-2	Blowoff 2	40-44	18-20	Well	528 (20 psi)	1:15

No. | REVISIONS | DATE | BY

Kimley-Horn and Associates, Inc.

1823 SE Fort King Street, Suite 200, Ocala FL 34471
Phone: (352) 438-3000
www.kimley-horn.com CA 00000696

MALCOLM L. BRYANT, P.E.
FLORIDA P.E. LICENSE NO: 65582
DATE: FEBRUARY 2012

SCALE AS NOTED
DESIGNED BY
DRAWN BY
CHECKED BY

RAINBOW SPRINGS MASTER PLAN WATER SYSTEM

CITY OF DUNNELLON

DATE
FEBRUARY 2012

PROJECT NO.
042382024

FIGURE
1

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1823 SE Fort King Street, Suite 200, Ocala FL 34471
Phone: (352) 438-3000
www.kimley-horn.com CA 00000696

MALCOLM L. BRYANT, P.E.
FLORIDA P.E. LICENSE NO: 65582
DATE: APRIL 2012

SCALE AS NOTED
DESIGNED BY
DRAWN BY
CHECKED BY

RIO VISTA MASTER PLAN WATER SYSTEM

CITY OF DUNNELLON

DATE
APRIL 2012

PROJECT NO.
042382020

FIGURE
1

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Model Calibration Results

Test #	Static				Residual					
	Pressure Hydrant	Field Pressure	Model Pressure	Percent Difference	Flow Hydrant	Field Pressure 1	Model Pressure 1	Percent Difference	Field Flow Rate	Model Flow Rate
1	C-13	46.0	47.4	-3.04%	C-11	42.0	40.0	4.76%	840	840
2	D-8	46.0	47.1	-2.39%	D-9	32.0	32.8	-2.50%	620	620
3	D-19	43.0	47.1	-9.53%	D-18	20.0	19.8	1.00%	455	455
4	D-22	46.0	49.3	-7.17%	KFC	40.0	42.4	-6.00%	1030	1030
5	B-1	40.0	44.9	-12.25%	B-7	33.0	33.0	0.00%	1030	1030
6	A-11	43.0	44.1	-2.56%	B-4	32.0	30.0	6.25%	920	920
7	B-5	52.0	55.7	-7.12%	B-4	20.0	22.6	-13.00%	380	380
8	A-18	48.0	45.8	4.58%	A-17	20.0	23.5	-17.50%	455	455
9	C-10	37.0	39.5	-6.76%	C-9	20.0	17.8	11.00%	90	90
10*	C-18	32.0	37.1	-15.94%	C-19	20.0	34.6	-73.00%	90	90
1.1	C-2	45.0	41.8	7.11%	C-1	21	21.7	-3.33%	380	380
2.1	C-1	45.0	41.5	7.78%	C-23	26	22.9	11.92%	380	380
3.1	C-1	45.0	41.5	7.78%	C-5	28	22.9	18.21%	380	380
4.1	C-18	40.0	37.1	7.25%	C-19	26	24.9	4.23%	380	380
5.1	C-9	48.0	45.3	5.63%	C-10	24	17.5	27.08%	380	380
RBS-1	Hydrant 1	53.0	54.2	-2.26%	Hydrant 2	37	31.8	14.05%	940	940
RBS-2	Hydrant 4	57.0	69.2	-21.40%	Hydrant 3	45	51.3	-14.00%	880	880
RBS-3	Hydrant 5	47.0	61.2	-30.21%	Hydrant 6	35	46.1	-31.71%	840	840
RBS-4	Hydrant 8	55.0	54.5	0.91%	Hydrant 7	37	44.3	-19.73%	960	960
RBS-5	Hydrant 12	57.0	60.1	-5.44%	Hydrant 9	38	55.5	-46.05%	920	920
RBS-6	Hydrant 10	56.0	56.6	-1.07%	Hydrant 11	41	48.4	-18.05%	1060	1060
RBS-7	Blowoff 17	70.0	70.3	-0.43%	N/A	N/A	N/A	N/A	N/A	N/A
RBS-8	Blowoff 19	69.0	69.4	-0.58%	Blowoff 20	49	61	-24.49%	860	860
RBS-9	Hydrant 21	58.0	52.3	9.83%	Hydrant 23	39	41.2	-5.64%	900	900
RBS-10	Hydrant 15	51.0	49.1	3.73%	Hydrant 23	37	41.8	-12.97%	900	900
Rio-1	Rio-1	54.0	58.4	-8.15%	North Well	47	39.4	16.17%	429	429
Rio-2	Rio-2	42.0	48.9	-16.43%	North Well	20	11.6	42.00%	528	528

* This test was determined to be inaccurate. It was later discovered in the field that a couple of valves in the Dunnellon Heights neighborhood were closed when the test was performed

APPENDIX B:
Model Scenario Matrix

	Base city	Interconnect	E. McKinney	RBS offline	Bostic Street 12" Upgrade	New Plant	Replace Pen Ave. (C=120)	Blue Cove Loop	Brooks Street Connection	S. Ohio Street WM Extension	Schools	Airport	Airport WTP Conn.	Powell Rd. WM Extension	S. Ohio St. WM Ext	Palmetto Way WM Ext.	West McKinney WM Ext.	Rainbow River Ranches	McBride Development	Pruitt Development (Phase 1)	Pruitt Development (Phase 2)	City Plant Set to 55 psi (PRVs Adjusted Accordingly)	Rio Vista connection to RBS (Rio Vista Plant Shut Down)	Juliette Falls Interconnect	2017 Demands	2022 Demands	2032 Demands
1	X																										
2		X																									
3						X																					
4	X	X																									
5	X		X																								
6	X					X																					
7	X	X	X																								
8	X	X				X																					
9	X	X	X			X																					
10	X		X				X (8")																				
11	X																					X					
12	X		X																			X					
13	X						X (8")															X					
14	X		X				X (8")															X					
15	X						X (8")																				
16		X																				X					
17						X																X					
18	X	X																				X					
19	X					X																X					
20	X	X	X																			X					
21	X	X				X																X					
22	X	X	X			X																X					
23	X	X	X			X					X	X						X					X		X		
24		X	X			X					X	X						X					X		X		
25		X	X								X	X						X					X		X		
26			X			X					X	X						X					X		X		
27	X	X	X			X					X	X						X	X	X			X			X	
28		X	X			X					X	X						X	X	X			X			X	
29		X	X								X	X						X	X	X			X			X	
30			X			X					X	X						X	X	X			X			X	
31	X	X	X			X					X	X						X	X	X	X		X				X
32		X	X			X					X	X						X	X	X	X		X				X
33		X	X								X	X						X	X	X	X		X				X
34			X			X					X	X						X	X	X	X		X				X
35	X																						X				
36	X	X																					X				
37	X																							X			
38																								X			
39	X		X			X																					
40	X		X				X (10")																				
41	X						X (10")																				
42	X						X (12")																				
43	X		X		X																						
44	X		X		X		X (12")																				
45	X	X	X			X		X																			
46	X	X	X			X		X	X																		
47	X	X	X			X		X	X	X																	
48	X							X	X																		
49	X												X														
50	X	X	X										X														
51	X	X	X					X	X	X			X														
52	X													X													
53	X														X												
54	X															X											
55	X																X										
56	X	X		X																							

	Minimum City System Pressure (minus outlier)	Location	Minimum City Fire Flows (minus Outlier)	Location	Average System Pressure (City)	System Maximum Pressure (City)	Location	Average Fire Flow (City)	Std. Deviation	Minimum RBS System Pressure	Location	Minimum RBS Fire Flows	Location	RBS WTP Flow Rate	Juliette Falls WTP Flow Rate	Rio Vista Maximum Pressure	Rio Vista Average Pressure	Rio Vista Minimum Pressure
1	29.8	J-388	268	H-013	45.3	54.8/54.8	J-156/J-389	712	436	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
2	29.6	J-388	258	H-013	45.1	54.6/54.6	J-156/J-389	587	318	38.1	J-3162	807	H-38	1305	60	58.4	49.9	42.3
3	28.6	J-388	186/193	Test 01-F/H-016	44.6	65.9/65.7	J-159/J-486	328	186	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
4	30	J-388/J-3385	272	H-013	45.5	55.0/55.0	J-156/J-389	779	270	38.6	J-3162	846	H-38	1182	60	58.4	49.9	42.3
5	30.5	J-388	321	H-013	45.7	55.3/55.3	J-156/J-389	839	363	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
6	30.3	J-388	315/323	H-053/H-051	47.4	67.7/67.7	J-159/J-486	865	426	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
7	30.0/30.7	J-3385/J-388	330	H-013	45.8	55.5/55.5	J-156/J-389	933	425	38.6	J-3162	844	H-38	1187	60	58.4	49.9	42.3
8	30./30.4	J-3385/J-388	325	H-053	47.5	67.7/67.7	J-159/J-486	921	464	38.6	J-3162	847	H-38	1178	60	58.4	49.9	42.3
9	30.0/30.9	J-3385/J-388	412	H 03-F	47.7	67.7/67.7	J-159/J-486	1051	386	38.6	J-3162	846	H-38	1180	60	58.4	49.9	42.3
10	30.5	J-388	334/338	Test 09-F/H-013	45.7	55.3/55.3	J-156/J-389	849	354	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
11	38.1	J-100	348/349	Test 09-F/H-013	55.3	64.8/64.8	J-156/J-389	887	442	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
12	38.1	J-100	409/411	Test 09-F/H-013	55.6	65.3/65.3	J-156/J-389	1029	391	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
13	38.1	J-100	368/370	Test 09-F/H-013	55.3	64.8/64.8	J-156/J-389	899	431	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
14	38.1	J-100	429/432	Test 09-F/H-013	55.7	65.2/65.2	J-156/J-389	1042	379	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
15	29.9	J-388	282/284	Test 09-F/H-013	45.4	54.8/54.8	J-156/J-389	720	430	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
16	39.6	J-388	337/339	Test 09-F/H-013	55.2	64.6/64.6	J-156/J-389	708	267	38.1	J-3162	807	H-7	1305	60	58.4	49.9	42.3
17	38.6	J-388	258/267	Test 01-F/H-016	53.2	65.9/65.7	J-159/J-486	386	155	39.1	J-3162	807	H-7	1027	60	58.4	49.9	42.3
18	40	J-388	352/354	Test 09-F/H-013	55.5	64.9/64.9	J-156/J-389	912	452	38.6	J-3162	868	H-7	1186	60	58.4	49.9	42.3
19	40.3	J-388	418	Test 08-F	56.1	67.7/67.7	J-159/J-486	1016	408	39.1	J-3162	874	H-7	1027	60	58.4	49.9	42.3
20	40.0/40.7	J-3385/J-388	417/421	Test 09-F/H-013	55.8	65.5/65.5	J-156/J-389	1071	402	38.6	J-3162	868	H-7	1191	60	58.4	49.9	42.3
21	40.0/40.4	J-3385/J-388	422	Test 08-F	56.2	67.7/67.7	J-159/J-486	1038	412	38.6	J-3162	868	H-7	1183	60	58.4	49.9	42.3
22	40.0/40.9	J-3385/J-388	480	Test 03-F	56.3	67.7/67.7	J-159/J-486	1171	359	38.6	J-3162	868	H-7	1184	60	58.4	49.9	42.3
23	30.0/30.9	J-3385/J-388	411	Test 03-F	47.7	67.7/67.6	J-159/J-486	1050	386	38.4	J-3162	863	H-7	1248	78	57.3	49.1	41.9
24	30.0/30.7	J-3385/J-388	405	Test 03-F	47.5	67.7/67.6	J-159/J-486	846	282	38	J-3162	810	H-38	1330	78	57.3	49.1	41.9
25	30.0/30.3	J-3385/J-388	303/305	Test 09-F/H-013	45.8	55.0/55.0	J-156/J-389	700	252	37.7	J-3162	789	H-38	1392	78	57.3	49.1	41.9
26	28.3/29.8	J-388/J-443	238/252	Test 01-F/H-016	44.8	65.6/65.4	J-159/J-486	370	148	38.9	J-3162	869	H-7	1093	78	57.3	49.1	41.9
27	30.0/30.9	J-3385/J-388	411/436	Test 03-F/H-023	47.7	67.6/67.6	J-159/J-486	1048	386	38.3	J-3162	834	H-38	1258	96	57.3	49.1	41.9
28	30.0/30.7	J-3385/J-388	404/410	Test 03-F/H-023	47.4	67.6/67.6	J-159/J-486	841	280	38	J-3162	808	H-38	1342	96	57.3	49.1	41.9
29	30.0/30.0	J-3385/J-388	292/294	Test 09-F/H-013	45.2	54.8/54.8	J-156/J-389	678	245	37.6	J-3162	778	H-38	1429	96	57.3	49.1	41.9
30	28.2/29.7	J-388/J-443	234/248	Test 01-F/H-016	44.6	65.2/65.0	J-159/J-486	361	139	38.9	J-3162	868	H-7	1102	96	57.3	49.1	41.9
31	30.0/30.8	J-3385/J-388	411/436	Test 03-F/H-023	47.6	67.4/67.3	J-159/J-486	1042	387	38.3	J-3162	830	H-38	1282	134	57.2	49	41.9
32	30.0/30.7	J-3385/J-388	403/409	Test 03-F/H-023	47.3	67.4/67.3	J-159/J-486	825	274	37.9	J-3162	802	H-38	1372	134	57.2	49	41.9
33	29.5/30.0	J-388/J-3385	272/274	Test 09-F/H-013	44.7	54.4/54.4	J-156/J-389	637	229	37.6	J-3162	756	H-38	1505	134	57.2	49	41.9
34	27.8/29.2	J-388/J-443	218/231	Test 01-F/H-016	44	64.2/64.0	J-159/J-486	332	123	38.9	J-3162	864	H-7	1121	134	57.2	49	41.9
35	29.8/31.2	J-388/J-443	266/268	Test 09-F/H-013	45.3	54.8/54.8	J-156/J-389	712	436	39.1	J-3162	866	H-7	1239	60	61.9	54.5	47
36	30.0/30.0	J-388/J-3385	270/272	Test 09-F/H-013	45.5	55.0/55.0	J-156/J-389	779	498	38.6	J-3162	846	H-38	1387	60	61.2	54.2	47
37	30.6/32.0	J-388/J-443	406/433	Test 03-F/Test 08-F	49.2	80.7/80.6	J-159/J-486	873	425	-	-	-	-	-	128	58.4	49.9	42.3
38	28.6/30.0	J-388/J-443	186/193	Test 01-F/H-016	46.2	78.0/77.8	J-159/J-486	392	336	-	-	-	-	-	338	58.4	49.9	42.3
39	30.7/32.1	J-388/J-251	397/400	Test 03-F/Test 08-F	47.6	67.7/67.7	J-159/J-486	966	347	-	-	-	-	-	60	58.4	49.9	42.3
40	30.5/31.9	J-3373/J-388	371/375	Test 09-F/H-013	45.7	55.2/55.2	J-156/J-389	877	332	-	-	-	-	-	60	-	-	-
41	30.0/31.4	J-388/J-443	318/321	Test 09-F/H-013	45.4	54.8	J-156	738	416	-	-	-	-	-	60	-	-	-
42	30.0/31.4	J-388/J-443	334/337	Test 09-F/H-013	45.4	54.8	J-156	746	411	-	-	-	-	-	60	-	-	-
43	30.6/32.0	J-388/J-251	324/327	Test 09-F/H-013	45.7	55.4/55.4	J-156/J-389	860	324	-	-	-	-	-	60	58.4	49.9	42.3
44	30.6/32.0	J-388/J-443	399/401	Test 09-F/Test 03-F	45.7	55.4/55.4	J-156/J-389	923	320	-	-	-	-	-	60	58.4	49.9	42.3
45	30.9/32.3	J-388/J-251	404/437	Test 03-F/H-023	47.7	67.7/67.7	J-159/J-486	1055	380	38.6	J-3162	846	H-38	1180	60	58.4	49.9	42.3
46	31.0/32.4	J-388/J-443	408/437	Test 03-F/H-023	47.7	67.7/67.7	J-159/J-486	1114	367	38.6	J-3162	846	H-38	1181	60	58.4	49.9	42.3
47	31.0/32.4	J-388/J-443	437/450	H-023/H-131	47.7	67.7/67.7	J-159/J-486	1123	357	38.6	J-3162	846	H-38	1181	60	58.4	49.9	42.3
48	30.5/31.9	J-388/J-443	323/327	Test 09-F/H-013	45.6	55.2/55.2	J-156/J-389	834	360	-	-	-	-	-	60	58.4	49.9	42.3
49	30.3/31.7	J-388/J-443	315/323	H-053/H-051	47.3	66.8/66.8	J-159/J-486	848	411	-	-	-	-	-	60	58.4	49.9	42.3
50	30.9/32.3	J-388/J-251	403/409	Test 03-F/Test 08-F	47.6	66.8/66.8	J-159/J-486	1042	383	38.6	J-3162	844	H-38	1187	60	58.4	49.9	42.3
51	31.0/32.4	J-388/J-443	436/450	H-023/H-131	47.6	66.8/66.8	J-159/J-486	1115	356	38.6	J-3162	843	H-38	1189	60	58.4	49.9	42.3
52	See Body of Report for localized results for these Scenarios																	
53	See Body of Report for localized results for these Scenarios																	
54	See Body of Report for localized results for these Scenarios																	
55	See Body of Report for localized results for these Scenarios																	
56	29.1/30.5	J-388/J-443	0	-	44.6	54.0/54.0	J-156/J-389	0	0	12.7/13.4	J-3162/J-3163	0	-	-	-	-	-	-

APPENDIX C:
HYDRAULIC MODEL SUMMARY AND RESULTS

Base Scenario Model Summary and Maps

Scenario Summary Report
Scenario: Scenario 1

Scenario Summary

ID	8988
Label	Scenario 1
Notes	
Active Topology	<I> Base
Physical	<I> Base Physical
Demand	<I> Base Demand
Initial Settings	<I> Base Initial Settings
Operational	<I> Base Operational
Age	<I> Base Age
Constituent	<I> Base Constituent
Trace	<I> Base Trace
Fire Flow	<I> Base Fire Flow
Flushing	<I> Base Flushing
Energy Cost	<I> Base Energy Cost
Transient	<I> Base Transient
Pressure Dependent Demand	<I> Base Pressure Dependent Demand
User Data Extensions	<I> Base User Data Extensions
Steady State/EPS Solver Calculation Options	<I> Base Calculation Options
Transient Solver Calculation Options	<I> Base Calculation Options

Hydraulic Summary

Time Analysis Type	Steady State	Use simple controls during steady state?	True
Friction Method	Hazen-Williams	Is EPS Snapshot?	False
Accuracy	0.001	Start Time	12:00:00 AM
Trials	40	Calculation Type	Fire Flow

FlexTable: Reservoir Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Zone	Flow (Out net) (gpm)	Hydraulic Grade (ft)
5434	R-3	159.00	<None>	278.2103	159.00
8710	R-4	218.60	<None>	60.1019	218.60
8717	R-5	168.56	<None>	56.8168	168.56
8754	R-8	211.26	<None>	1,026.5723	211.26
8885	R-9	188.60	<None>	0.0000	188.60
9141	R-10	210.15	<None>	(N/A)	(N/A)

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
3702	J-001	50.00	0.7105	156.12	45.9
3705	J-002	52.27	0.0002	155.02	44.5
3706	J-003	49.37	0.0002	155.02	45.7
3708	J-004	62.95	0.0002	158.25	41.2
3709	J-005	63.19	0.0563	158.25	41.1
3711	J-006	50.00	0.0002	158.43	46.9
3712	J-007	50.00	0.0002	158.43	46.9
3714	J-008	76.09	0.0002	158.97	35.9
3716	J-009	80.00	0.0002	158.97	34.2
3718	J-010	67.86	0.0002	158.97	39.4
3720	J-011	50.00	0.0002	158.38	46.9
3722	J-012	73.95	0.0002	158.97	36.8
3724	J-013	50.00	0.0002	156.65	46.1
3726	J-014	41.46	0.0002	155.85	49.5
3728	J-015	58.72	0.4742	158.43	43.1
3730	J-016	50.00	3.3862	158.24	46.8
3732	J-017	54.50	0.4742	158.43	45.0
3734	J-018	56.55	0.4742	158.43	44.1
3736	J-019	58.01	0.4742	158.43	43.4
3738	J-020	57.69	0.4742	158.43	43.6
3740	J-021	54.26	0.4742	158.43	45.1
3746	J-022	58.39	0.4742	158.43	43.3
3748	J-023	50.00	0.4742	158.43	46.9
3750	J-024	55.26	0.4742	158.43	44.6
3752	J-025	43.65	0.0002	158.23	49.6
3754	J-026	54.48	0.4742	158.43	45.0
3756	J-027	51.18	0.4742	158.43	46.4
3758	J-028	73.75	0.0002	158.88	36.8
3759	J-029	74.40	0.0002	158.88	36.6
3761	J-030	51.27	0.4742	158.43	46.4
3763	J-031	48.10	0.0002	158.23	47.7
3768	J-032	48.53	0.0002	155.83	46.4
3770	J-033	49.25	0.0002	155.84	46.1
3773	J-034	44.35	0.0002	158.24	49.3
3775	J-035	62.89	0.3318	156.02	40.3
3776	J-036	64.19	0.0002	156.02	39.7
3778	J-037	66.10	0.0002	156.02	38.9
3780	J-038	59.95	0.0002	155.87	41.5
3782	J-039	44.05	0.0002	156.15	48.5
3784	J-040	50.00	0.0002	158.34	46.9
3786	J-041	52.50	0.0002	158.40	45.8
3788	J-042	59.99	0.0091	155.86	41.5
3790	J-043	58.79	0.0002	155.85	42.0
3792	J-044	53.36	0.0002	158.25	45.4
3794	J-045	52.06	0.0002	158.25	45.9
3796	J-046	66.65	0.0002	158.45	39.7
3798	J-047	57.15	0.0002	158.45	43.8

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
3800	J-048	54.58	0.0002	158.25	44.9
3802	J-049	51.72	0.0002	158.43	46.2
3804	J-050	50.00	0.0002	158.25	46.8
3806	J-051	59.37	0.0002	155.84	41.7
3810	J-052	50.00	0.0002	158.25	46.8
3812	J-053	59.84	0.0002	155.86	41.5
3814	J-054	55.85	0.0002	158.45	44.4
3816	J-055	33.76	0.0002	155.87	52.8
3818	J-056	67.56	0.0002	155.83	38.2
3820	J-057	50.27	0.5993	155.85	45.7
3822	J-058	50.00	0.0002	156.07	45.9
3824	J-059	50.00	0.9638	157.31	46.4
3826	J-060	56.58	0.0002	156.66	43.3
3828	J-061	35.77	0.2222	155.87	52.0
3830	J-062	48.64	0.0002	155.84	46.4
3832	J-063	47.37	2.6282	155.83	46.9
3834	J-064	50.00	0.0002	156.65	46.1
3841	J-065	51.55	0.0002	158.25	46.2
3843	J-066	55.97	1.8676	155.85	43.2
3847	J-067	50.00	0.0002	156.70	46.2
3849	J-068	69.11	0.0002	158.45	38.6
3851	J-069	50.00	0.0002	156.65	46.1
3853	J-070	48.97	1.0628	156.05	46.3
3855	J-071	47.89	0.0002	158.06	47.7
3857	J-072	50.00	0.0002	156.75	46.2
3862	J-073	50.00	0.0002	156.70	46.2
3864	J-074	30.00	0.0002	156.06	54.5
3866	J-075	46.64	2.0297	156.15	47.4
3868	J-076	50.01	0.5023	158.29	46.8
3870	J-077	41.36	0.0002	158.89	50.9
3874	J-078	37.72	0.0002	155.99	51.2
3876	J-079	50.00	0.0002	155.84	45.8
3878	J-080	56.54	0.0002	158.89	44.3
3879	J-081	56.92	0.3962	158.89	44.1
3881	J-082	57.09	0.0002	155.85	42.7
3883	J-083	50.00	0.0002	158.43	46.9
3884	J-084	50.00	0.0002	158.43	46.9
3886	J-085	54.42	0.0002	155.84	43.9
3888	J-086	60.53	0.0002	155.84	41.2
3890	J-087	60.42	0.0002	158.89	42.6
3891	J-088	61.16	0.0002	158.89	42.3
3893	J-089	50.00	0.0002	156.64	46.1
3895	J-090	50.00	0.0002	157.64	46.6
3896	J-091	50.00	0.7085	157.63	46.6
3898	J-092	57.98	0.9921	156.65	42.7
3899	J-093	57.44	0.0002	156.56	42.9
3901	J-094	50.00	0.0002	156.70	46.2

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
3903	J-095	50.00	0.4985	156.20	45.9
3905	J-096	54.17	0.0002	158.80	45.3
3909	J-097	50.00	0.1511	158.97	47.1
3915	J-098	50.00	0.0002	157.62	46.6
3919	J-099	83.05	0.0002	156.02	31.6
3921	J-100	70.00	0.6298	155.84	37.1
3923	J-101	58.91	0.0002	155.87	41.9
3925	J-102	65.82	0.0002	158.45	40.1
3933	J-104	50.84	0.6610	158.30	46.5
3935	J-105	30.00	0.0002	155.98	54.5
3936	J-106	30.00	1.2150	155.98	54.5
3938	J-107	50.00	0.0002	156.09	45.9
3939	J-108	50.00	4.4989	156.07	45.9
3941	J-109	54.30	0.0002	159.00	45.3
3942	J-110	54.71	0.0002	159.00	45.1
3946	J-111	48.48	0.0002	158.21	47.5
3948	J-112	54.11	0.0002	155.83	44.0
3950	J-113	43.25	0.7558	155.98	48.8
3952	J-114	44.44	0.0002	156.25	48.4
3954	J-115	50.00	0.0002	156.73	46.2
3956	J-116	42.61	0.4444	156.16	49.1
3960	J-117	83.74	0.0002	156.03	31.3
3970	J-119	47.84	0.0002	158.89	48.0
3972	J-120	50.00	0.3923	156.11	45.9
3975	J-121	50.00	0.7979	157.03	46.3
3977	J-122	52.62	0.0002	158.28	45.7
3979	J-123	53.25	0.0002	155.84	44.4
3981	J-124	57.45	2.1716	155.85	42.6
3982	J-125	56.95	0.0002	155.85	42.8
3984	J-126	48.47	0.0002	155.84	46.5
3985	J-127	49.10	0.0002	155.80	46.2
3987	J-128	42.51	0.8284	158.22	50.1
3990	J-129	50.00	0.8390	156.69	46.2
3992	J-130	50.00	0.0002	157.64	46.6
3994	J-131	50.00	0.5141	156.61	46.1
3996	J-132	50.00	0.4742	158.43	46.9
3998	J-133	55.05	1.4616	156.08	43.7
4000	J-134	52.69	0.0002	156.65	45.0
4002	J-135	50.00	0.0002	156.70	46.2
4003	J-136	50.00	0.0002	156.70	46.2
4005	J-137	51.03	0.0002	155.98	45.4
4007	J-138	52.60	0.0002	158.25	45.7
4010	J-139	57.09	0.0002	155.84	42.7
4011	J-140	57.60	0.5997	155.84	42.5
4013	J-141	51.84	0.0002	156.67	45.4
4014	J-142	51.70	0.2572	156.67	45.4
4018	J-143	52.27	0.0002	158.43	45.9

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
4021	J-144	49.74	4.4220	157.37	46.6
4024	J-145	74.65	0.3436	156.05	35.2
4026	J-146	45.03	0.4357	158.24	49.0
4029	J-147	52.79	0.0002	158.97	45.9
4030	J-148	52.65	0.0002	158.97	46.0
4032	J-149	48.98	0.0002	156.12	46.4
4033	J-150	47.86	1.3064	156.13	46.8
4035	J-151	44.04	2.8390	156.21	48.5
4036	J-152	44.43	0.0002	156.24	48.4
4038	J-153	50.00	0.0002	156.20	45.9
4043	J-154	53.27	0.0002	158.97	45.7
4045	J-155	50.00	0.3973	156.61	46.1
4049	J-156	30.00	0.0002	156.65	54.8
4051	J-157	55.62	0.0002	158.87	44.7
4053	J-158	45.99	0.0002	155.83	47.5
4054	J-159	32.01	0.5072	155.83	53.6
4056	J-160	50.00	0.0002	156.12	45.9
4058	J-161	55.96	0.0002	158.71	44.5
4059	J-162	56.21	0.0002	158.71	44.3
4062	J-163	53.00	0.0002	156.65	44.8
4064	J-164	50.00	0.1998	157.35	46.4
4067	J-165	56.94	0.0002	158.97	44.1
4069	J-166	30.00	0.1039	155.96	54.5
4072	J-167	55.13	0.0002	158.99	44.9
4073	J-168	54.41	0.0002	158.99	45.3
4075	J-169	54.33	0.0002	159.00	45.3
4077	J-170	50.00	0.0002	158.43	46.9
4078	J-171	50.00	0.0002	158.36	46.9
4080	J-172	43.35	0.3558	156.19	48.8
4085	J-173	37.15	1.5380	155.96	51.4
4087	J-174	50.91	0.0002	158.28	46.5
4089	J-175	55.98	0.2317	158.88	44.5
4091	J-176	50.00	0.0002	154.67	45.3
4092	J-177	50.00	3.3843	154.67	45.3
4094	J-178	76.20	0.0002	158.97	35.8
4095	J-179	76.00	0.5879	158.97	35.9
4097	J-180	50.00	0.8246	156.68	46.2
4098	J-181	51.11	0.0002	156.67	45.7
4101	J-182	50.00	0.0002	157.37	46.5
4107	J-185	50.00	0.0002	157.63	46.6
4113	J-186	51.36	0.0002	158.89	46.5
4118	J-187	44.02	0.0002	158.24	49.4
4123	J-188	54.13	0.0002	158.25	45.0
4127	J-189	55.14	0.0002	158.99	44.9
4130	J-190	55.96	7.7861	158.45	44.3
4132	J-191	50.78	0.0002	158.30	46.5
4133	J-192	54.30	0.0002	158.31	45.0

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
4135	J-193	42.79	0.2462	156.02	49.0
4137	J-194	51.51	0.0002	158.96	46.5
4140	J-195	50.00	0.4014	157.63	46.6
4141	J-196	50.00	0.0346	157.63	46.6
4143	J-197	53.03	0.0002	158.78	45.8
4148	J-198	58.61	0.0002	156.65	42.4
4150	J-199	46.10	2.2020	156.27	47.7
4151	J-200	47.93	0.0002	156.30	46.9
4156	J-201	54.53	0.0002	158.97	45.2
4157	J-202	52.81	0.0002	158.97	45.9
4160	J-203	54.22	0.0002	158.25	45.0
4162	J-204	54.12	0.3645	158.81	45.3
4168	J-205	67.81	0.0002	158.45	39.2
4169	J-206	70.00	7.3984	158.45	38.3
4171	J-207	50.00	0.0002	157.35	46.4
4173	J-208	61.63	0.4330	158.93	42.1
4175	J-209	30.00	0.4273	156.05	54.5
4178	J-210	78.19	0.0002	158.97	34.9
4179	J-211	80.00	0.0002	158.97	34.2
4185	J-212	50.00	0.5327	157.67	46.6
4186	J-213	50.00	0.0002	157.67	46.6
4188	J-214	50.00	0.0002	158.12	46.8
4189	J-215	50.00	5.3645	157.99	46.7
4194	J-216	50.00	0.7747	157.61	46.6
4196	J-217	54.27	0.0002	159.00	45.3
4198	J-218	79.12	0.2352	156.02	33.3
4200	J-219	48.66	4.2338	155.67	46.3
4203	J-220	58.01	0.4742	158.43	43.4
4208	J-221	53.59	0.8786	158.81	45.5
4210	J-222	56.73	0.6465	158.97	44.2
4211	J-223	56.58	0.0002	158.97	44.3
4215	J-225	53.23	0.0002	158.31	45.5
4217	J-226	47.75	0.0002	158.22	47.8
4218	J-227	50.51	0.3569	158.23	46.6
4220	J-228	50.20	0.0002	155.84	45.7
4221	J-229	50.00	4.2338	155.65	45.7
4223	J-230	50.65	0.1286	155.83	45.5
4225	J-231	40.00	0.0002	156.03	50.2
4226	J-232	41.26	0.0002	156.03	49.7
4228	J-233	51.16	2.7810	154.92	44.9
4229	J-234	51.25	0.0002	154.92	44.9
4233	J-235	51.37	0.0002	158.81	46.5
4235	J-236	50.00	0.0002	157.75	46.6
4237	J-237	48.13	0.0002	156.65	47.0
4240	J-238	47.92	0.7612	155.56	46.6
4241	J-239	50.00	0.0002	155.56	45.7
4243	J-240	56.16	0.6115	154.94	42.7

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
4246	J-241	50.00	1.4859	157.75	46.6
4248	J-242	50.00	4.2934	154.78	45.3
4251	J-243	54.02	0.0002	155.87	44.1
4252	J-244	52.24	0.0002	155.86	44.8
4254	J-245	50.00	1.7505	157.39	46.5
4259	J-246	50.38	0.7652	155.04	45.3
4261	J-247	37.63	0.0002	156.01	51.2
4262	J-248	40.76	0.6161	156.01	49.9
4264	J-249	49.84	0.0898	155.83	45.9
4266	J-250	79.66	0.1903	156.02	33.0
4267	J-251	83.85	0.4715	156.02	31.2
4269	J-252	46.10	0.0002	156.03	47.6
4271	J-253	51.57	0.0002	158.25	46.2
4272	J-254	50.00	5.7310	158.25	46.8
4274	J-255	50.00	0.0002	156.20	45.9
4276	J-256	50.00	0.0002	158.85	47.1
4277	J-257	50.00	0.0002	158.84	47.1
4281	J-258	39.70	0.0002	156.65	50.6
4284	J-259	50.00	0.0002	156.65	46.1
4285	J-260	50.00	0.0133	156.65	46.1
4289	J-261	60.27	0.3181	155.83	41.3
4292	J-262	54.28	0.0002	159.00	45.3
4293	J-263	56.59	0.0002	158.97	44.3
4297	J-264	50.00	1.5400	156.61	46.1
4299	J-265	44.01	0.7789	158.24	49.4
4301	J-266	50.23	1.2561	156.65	46.0
4302	J-267	50.46	0.0002	156.65	45.9
4304	J-268	50.00	2.9263	156.30	46.0
4307	J-269	55.42	0.3333	158.25	44.5
4308	J-270	58.50	0.0002	158.25	43.2
4310	J-271	47.72	0.4482	156.09	46.9
4311	J-272	50.00	0.2960	156.09	45.9
4313	J-273	50.00	0.2340	156.02	45.9
4315	J-274	33.98	0.7021	158.84	54.0
4316	J-275	34.46	0.1069	158.85	53.8
4318	J-276	58.33	0.4742	158.43	43.3
4319	J-277	59.67	0.4742	158.43	42.7
4323	J-278	80.00	0.0002	158.97	34.2
4327	J-279	50.00	0.0002	156.14	45.9
4328	J-280	50.00	0.0002	156.13	45.9
4332	J-281	38.45	0.2984	158.85	52.1
4335	J-282	55.92	0.0002	158.68	44.5
4337	J-283	56.69	0.0002	158.94	44.2
4338	J-284	53.95	0.0002	158.94	45.4
4340	J-285	35.32	0.4030	156.20	52.3
4341	J-286	45.58	0.2089	156.21	47.9
4344	J-287	50.00	1.0461	156.05	45.9

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
4345	J-288	46.11	0.0928	156.05	47.6
4347	J-289	50.00	0.3025	156.65	46.1
4348	J-290	50.00	0.8679	156.64	46.1
4350	J-291	56.42	0.0002	158.88	44.3
4351	J-292	59.46	0.1404	158.88	43.0
4353	J-293	53.94	0.0002	158.25	45.1
4354	J-294	59.08	0.2565	158.25	42.9
4356	J-295	50.66	0.0002	156.65	45.9
4358	J-296	31.76	0.5609	155.98	53.7
4359	J-297	51.86	0.3451	155.98	45.0
4361	J-298	39.21	0.7835	156.04	50.5
4364	J-299	50.00	0.3379	156.72	46.2
4365	J-300	50.00	0.0002	156.72	46.2
4367	J-301	53.17	0.2389	158.57	45.6
4369	J-302	54.46	0.0002	158.25	44.9
4371	J-303	56.52	0.5506	156.14	43.1
4372	J-304	56.61	0.2279	156.16	43.1
4375	J-305	50.00	0.1176	154.66	45.3
4378	J-306	50.00	0.0002	154.65	45.3
4379	J-307	50.00	2.9186	154.71	45.3
4381	J-308	50.00	0.6412	156.08	45.9
4383	J-309	49.63	0.7968	156.20	46.1
4385	J-310	53.90	0.4742	158.43	45.2
4388	J-311	36.84	1.0574	156.02	51.6
4392	J-312	41.24	0.0002	156.16	49.7
4394	J-313	30.00	2.9737	156.50	54.7
4398	J-314	38.05	0.5841	158.84	52.3
4400	J-315	55.01	1.2743	155.71	43.6
4402	J-316	50.00	1.6476	157.33	46.4
4403	J-317	50.00	0.0002	157.33	46.4
4405	J-318	50.00	0.0002	157.62	46.6
4408	J-319	50.00	0.3033	157.60	46.6
4410	J-320	37.56	1.1449	155.99	51.2
4411	J-321	31.81	1.0986	155.97	53.7
4413	J-322	67.94	0.1800	155.83	38.0
4417	J-323	47.29	0.0002	156.22	47.1
4418	J-324	30.91	0.1933	156.22	54.2
4420	J-325	54.99	0.0002	155.70	43.6
4421	J-326	56.95	0.6526	155.68	42.7
4423	J-327	50.00	0.6160	156.13	45.9
4424	J-328	49.08	0.0002	156.14	46.3
4428	J-330	50.00	0.0002	156.70	46.2
4430	J-331	48.42	1.0457	158.89	47.8
4431	J-332	40.66	0.7215	158.89	51.2
4436	J-333	54.43	0.0002	158.32	44.9
4438	J-334	50.00	2.5560	156.62	46.1
4439	J-335	50.00	0.0002	156.64	46.1

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
4443	J-336	50.00	0.0002	156.12	45.9
4445	J-337	51.04	0.4742	158.43	46.5
4447	J-338	57.86	0.2675	158.94	43.7
4449	J-339	54.91	0.6145	156.03	43.7
4450	J-340	82.14	0.0002	156.03	32.0
4452	J-341	58.08	0.4742	158.43	43.4
4456	J-343	60.00	3.3067	158.93	42.8
4458	J-344	58.26	0.0002	158.72	43.5
4460	J-345	50.00	0.0002	155.85	45.8
4461	J-346	50.00	0.0002	155.84	45.8
4463	J-347	49.03	0.0002	158.23	47.2
4465	J-348	50.00	0.0002	157.64	46.6
4467	J-349	52.57	0.1164	158.97	46.0
4469	J-350	50.00	0.8036	157.62	46.6
4470	J-351	50.00	0.2131	157.63	46.6
4472	J-352	60.00	0.0002	155.86	41.5
4474	J-353	56.60	0.4742	158.43	44.1
4477	J-354	50.00	0.7747	158.87	47.1
4479	J-355	57.22	0.0002	156.65	43.0
4481	J-356	50.65	0.0002	155.98	45.6
4482	J-357	30.00	0.0002	155.98	54.5
4484	J-358	50.00	0.0002	157.41	46.5
4486	J-359	45.33	2.1867	158.89	49.1
4487	J-360	50.10	2.1168	158.89	47.1
4489	J-361	77.90	0.7226	158.94	35.1
4490	J-362	80.00	0.7226	158.94	34.2
4493	J-363	50.00	0.0002	156.05	45.9
4497	J-364	47.40	0.3315	156.29	47.1
4499	J-365	57.25	0.0002	155.84	42.7
4501	J-366	30.33	1.9143	156.06	54.4
4502	J-367	30.79	0.8132	155.97	54.2
4504	J-368	30.00	1.1115	156.07	54.5
4509	J-369	49.17	0.5540	155.83	46.1
4512	J-370	50.00	0.7192	156.13	45.9
4515	J-371	53.58	0.0002	155.19	44.0
4518	J-372	76.23	0.7226	158.94	35.8
4520	J-373	78.47	0.7226	158.94	34.8
4521	J-374	74.80	0.7226	158.94	36.4
4523	J-375	74.32	0.7226	158.94	36.6
4525	J-376	69.41	0.7226	158.94	38.7
4526	J-377	80.00	0.7226	158.94	34.2
4528	J-378	76.97	0.7226	158.94	35.5
4530	J-379	47.79	0.4936	157.87	47.6
4533	J-380	65.33	0.7226	158.95	40.5
4538	J-381	40.00	1.0895	156.02	50.2
4540	J-382	50.00	0.0002	156.65	46.1
4541	J-383	50.00	0.0002	156.65	46.1

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
4544	J-384	63.92	0.0002	158.77	41.0
4545	J-385	64.16	0.0002	158.81	41.0
4547	J-386	53.08	0.0002	156.65	44.8
4549	J-387	58.09	0.0002	158.95	43.6
4552	J-388	87.17	0.9025	156.04	29.8
4555	J-389	30.00	0.0002	156.65	54.8
4557	J-390	51.16	0.3040	158.27	46.3
4559	J-391	50.00	0.3216	156.70	46.2
4560	J-392	50.00	0.3200	156.70	46.2
4562	J-393	54.80	0.0002	155.86	43.7
4563	J-394	61.69	0.7800	155.86	40.7
4565	J-395	50.00	0.0002	158.38	46.9
4566	J-396	50.00	2.7489	158.38	46.9
4568	J-397	75.97	0.0002	158.97	35.9
4569	J-398	74.33	0.0002	158.97	36.6
4571	J-399	50.00	0.0002	157.64	46.6
4573	J-400	46.71	3.0726	158.30	48.3
4574	J-401	47.54	0.0002	158.30	47.9
4576	J-402	50.00	0.2089	156.11	45.9
4579	J-403	40.18	0.0002	156.02	50.1
4582	J-404	50.00	0.7405	155.94	45.8
4585	J-405	50.00	0.3443	156.67	46.2
4587	J-406	58.51	0.7793	156.64	42.5
4588	J-407	57.16	0.0002	156.66	43.0
4590	J-408	43.93	0.0002	158.22	49.4
4592	J-409	53.23	0.0002	156.16	44.5
4594	J-410	30.00	1.1244	156.05	54.5
4595	J-411	36.20	0.6035	156.05	51.9
4598	J-412	50.00	0.4742	158.43	46.9
4600	J-413	58.76	0.4742	158.43	43.1
4603	J-414	50.00	0.3516	154.52	45.2
4604	J-415	50.00	2.1320	154.47	45.2
4606	J-416	47.76	0.9228	156.06	46.9
4609	J-417	56.86	0.0002	156.65	43.2
4612	J-418	53.01	0.4742	158.43	45.6
4614	J-419	50.00	0.3661	157.08	46.3
4615	J-420	50.00	0.0002	157.54	46.5
4617	J-421	61.99	1.8626	158.93	41.9
4619	J-422	34.53	0.3786	156.06	52.6
4623	J-423	56.39	0.0002	156.65	43.4
4626	J-424	54.38	0.0002	155.87	43.9
4628	J-425	57.00	0.0002	155.03	42.4
4631	J-426	54.33	0.5095	158.81	45.2
4635	J-427	50.00	1.4501	158.85	47.1
4637	J-428	50.97	1.1164	155.85	45.4
4638	J-429	56.73	0.4528	155.85	42.9
4640	J-430	54.61	0.0002	156.65	44.1

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
4643	J-431	49.08	0.1286	155.84	46.2
4646	J-432	50.00	0.0002	157.88	46.7
4649	J-433	50.00	1.0967	156.07	45.9
4650	J-434	30.00	1.3353	156.06	54.5
4654	J-435	50.00	1.1103	156.82	46.2
4657	J-436	46.07	0.9163	156.02	47.6
4658	J-437	40.00	0.0002	156.03	50.2
4661	J-438	36.65	0.7203	156.01	51.6
4663	J-439	58.63	0.0002	155.84	42.1
4664	J-440	56.19	8.6548	155.84	43.1
4668	J-442	50.00	1.3364	156.65	46.1
4670	J-443	83.88	0.3398	156.04	31.2
4673	J-444	55.23	0.9787	158.85	44.8
4675	J-445	52.42	0.4742	158.43	45.9
4676	J-446	50.00	0.4742	158.43	46.9
4680	J-447	50.00	2.1005	156.70	46.2
4681	J-448	50.00	1.1667	156.65	46.1
4683	J-449	54.21	0.0002	158.97	45.3
4686	J-450	50.00	0.0339	158.30	46.9
4688	J-451	50.00	0.6956	157.38	46.5
4692	J-452	54.41	0.0002	158.97	45.2
4694	J-453	50.00	0.4471	157.32	46.4
4696	J-454	33.72	0.4905	155.97	52.9
4698	J-455	67.87	0.8603	158.89	39.4
4701	J-456	57.97	0.0002	155.85	42.3
4704	J-457	50.00	0.0002	155.85	45.8
4706	J-458	50.00	0.0002	154.66	45.3
4710	J-459	50.00	0.5419	154.51	45.2
4712	J-460	50.00	1.2393	156.70	46.2
4714	J-461	50.35	0.0002	158.32	46.7
4716	J-462	35.33	0.0002	155.98	52.2
4718	J-463	80.00	0.8752	158.88	34.1
4723	J-464	47.79	1.2812	158.16	47.8
4725	J-465	48.72	0.0002	155.84	46.3
4728	J-466	51.95	0.1316	158.81	46.2
4729	J-467	54.24	0.0002	158.81	45.2
4731	J-468	50.00	0.0002	156.62	46.1
4732	J-469	50.00	0.0002	156.70	46.2
4734	J-470	55.71	0.4742	158.43	44.4
4735	J-471	50.00	0.4742	158.43	46.9
4737	J-472	37.63	0.0002	155.99	51.2
4739	J-473	50.00	0.0002	156.65	46.1
4741	J-474	52.10	0.0002	158.97	46.2
4742	J-475	80.00	0.0002	158.97	34.2
4744	J-476	55.10	0.4742	158.43	44.7
4746	J-477	34.79	0.3048	155.98	52.4
4748	J-478	53.96	1.1373	156.06	44.2

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
4750	J-479	50.00	0.5019	155.94	45.8
4753	J-480	50.71	0.2694	158.96	46.8
4755	J-481	50.37	1.3520	158.25	46.7
4759	J-482	56.93	0.4742	158.43	43.9
4760	J-483	50.25	0.4742	158.43	46.8
4762	J-484	57.01	0.4742	158.43	43.9
4763	J-485	52.94	0.4742	158.43	45.6
4765	J-486	32.10	0.5499	155.87	53.5
4769	J-487	44.09	1.1705	156.14	48.5
4772	J-488	53.06	0.0365	155.86	44.5
4775	J-489	53.02	0.0002	155.84	44.5
4777	J-490	50.00	0.9075	157.63	46.6
4781	J-491	52.16	0.4742	158.43	46.0
4783	J-492	59.47	0.4742	158.43	42.8
4784	J-493	53.45	0.4742	158.43	45.4
4786	J-494	55.27	0.4742	158.43	44.6
4787	J-495	58.74	0.4742	158.43	43.1
4789	J-496	50.00	0.4742	158.43	46.9
4790	J-497	57.95	0.4742	158.43	43.5
4794	J-498	46.45	0.0002	156.29	47.5
4797	J-499	47.92	0.0002	155.84	46.7
4798	J-500	60.00	0.0002	155.84	41.5
4800	J-501	49.98	0.2394	155.85	45.8
4801	J-502	57.82	0.7146	155.85	42.4
4806	J-504	50.00	1.9463	154.65	45.3
4807	J-505	50.00	3.1697	156.62	46.1
4809	J-506	42.19	0.9897	155.85	49.2
4811	J-507	57.67	0.2036	155.84	42.5
4813	J-508	55.35	0.0002	158.43	44.6
4819	J-510	50.00	0.0002	156.69	46.2
4822	J-511	50.68	0.0002	156.66	45.9
4824	J-512	64.08	0.0002	157.63	40.5
4826	J-513	50.00	0.0002	156.65	46.1
4828	J-514	45.74	0.3698	156.03	47.7
4832	J-515	62.87	0.0002	155.84	40.2
4833	J-516	54.92	0.0002	155.84	43.7
4835	J-517	50.00	1.7801	156.70	46.2
4842	J-518	61.49	0.0746	155.84	40.8
4843	J-519	58.67	0.4616	155.84	42.0
4850	J-521	30.59	0.3086	155.98	54.2
4925	J-522	60.00	0.0002	158.93	42.8
4957	J-523	50.00	0.5875	156.75	46.2
5058	J-524	50.00	0.0002	154.52	45.2
5197	J-525	50.00	0.0002	156.12	45.9
5295	J-526	73.52	2.2611	156.01	35.7
5398	J-527	50.00	0.0002	158.38	46.9
5402	J-528	37.43	0.0002	156.01	51.3

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
5410	J-529	50.00	0.0002	156.44	46.1
5413	J-530	50.00	1.2946	156.62	46.1
5420	J-531	51.44	0.1556	158.81	46.5
5433	J-532	55.05	0.0000	159.00	45.0
5445	J-1889	48.70	0.2812	156.65	46.7
5448	J-1890	54.97	10.9254	158.20	44.7
5452	J-1891	50.00	3.5525	158.36	46.9
5455	J-1892	56.68	0.3843	155.84	42.9
5458	J-1893	52.10	2.5708	155.85	44.9
5464	J-1895	66.18	0.8474	156.11	38.9
5467	J-1896	45.54	0.9086	156.01	47.8
5473	J-1898	31.21	1.7017	155.98	54.0
5479	J-1900	50.00	1.0716	156.20	45.9
5485	J-1902	50.00	0.0000	156.73	46.2
5492	J-1905	50.00	0.6789	157.43	46.5
5495	J-1906	44.89	0.0000	158.28	49.1
5548	J-1908	49.18	0.0000	156.03	46.2
5590	J-1917	46.90	0.9796	167.97	52.4
5591	J-1918	46.24	0.9796	168.01	52.7
5594	J-1920	40.00	0.9796	167.98	55.4
5597	J-1921	40.00	0.9796	167.98	55.4
5601	J-1923	38.27	0.9796	168.00	56.1
5603	J-1924	40.00	0.9796	168.00	55.4
5609	J-1926	51.15	0.9796	168.01	50.6
5611	J-1927	54.89	0.9796	168.02	48.9
5613	J-1928	52.05	0.9796	168.08	50.2
5615	J-1929	49.55	0.9796	168.09	51.3
5618	J-1930	50.00	0.9796	168.07	51.1
5622	J-1931	38.46	0.9796	168.06	56.1
5623	J-1932	38.31	0.9796	168.07	56.1
5627	J-1933	36.49	0.9796	168.06	56.9
5628	J-1934	37.48	0.9796	168.08	56.5
5632	J-1935	53.79	0.9796	167.76	49.3
5634	J-1936	63.46	0.9796	167.90	45.2
5638	J-1937	50.00	0.9796	167.92	51.0
5639	J-1938	33.01	0.9796	167.90	58.4
5641	J-1939	50.00	0.9796	167.90	51.0
5647	J-1941	60.26	0.9796	167.99	46.6
5650	J-1942	60.00	0.9796	167.95	46.7
5654	J-1943	57.58	0.9796	167.98	47.8
5658	J-1944	58.55	0.9796	168.09	47.4
5662	J-1945	54.77	0.9796	167.69	48.9
5663	J-1946	70.00	0.9796	167.68	42.3
5665	J-1947	70.00	0.9796	167.69	42.3
5668	J-1948	50.00	0.9796	167.70	50.9
5670	J-1949	70.00	0.9796	167.69	42.3
5674	J-1950	60.73	0.9796	167.72	46.3

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
5676	J-1951	57.68	0.9796	167.76	47.6
5680	J-1952	60.94	0.9796	167.69	46.2
5683	J-1953	60.38	0.9796	167.70	46.4
5686	J-1954	60.52	0.9796	167.70	46.4
5688	J-1955	66.94	0.9796	167.84	43.7
5691	J-1956	56.55	0.9796	167.70	48.1
5693	J-1957	50.00	0.9796	167.69	50.9
5695	J-1958	47.25	0.9796	167.69	52.1
5696	J-1959	50.00	0.9796	167.70	50.9
5700	J-1960	45.06	0.9796	167.68	53.0
5703	J-1961	44.20	0.9796	167.67	53.4
5705	J-1962	50.00	0.9796	167.69	50.9
5708	J-1963	51.94	0.9796	167.69	50.1
5710	J-1964	61.39	0.9796	167.70	46.0
5713	J-1965	38.33	0.9796	168.07	56.1
5716	J-1966	38.55	0.9796	168.07	56.0
5718	J-1967	60.80	0.9796	167.87	46.3
5721	J-1968	60.74	0.9796	167.83	46.3
5723	J-1969	61.10	0.9796	167.83	46.2
5726	J-1970	39.77	0.9796	167.62	55.3
5731	J-1971	50.00	0.9796	167.70	50.9
5734	J-1972	50.00	0.9796	167.70	50.9
5736	J-1973	60.06	0.9796	167.70	46.6
5738	J-1974	50.00	0.9796	167.69	50.9
5741	J-1975	50.00	0.9796	167.69	50.9
5743	J-1976	50.00	0.9796	167.69	50.9
5746	J-1977	50.00	0.9796	167.69	50.9
5748	J-1978	63.96	0.9796	167.87	45.0
6511	J-2338	50.00	1.0362	218.53	72.9
6512	J-2339	50.00	1.0362	218.53	72.9
6515	J-2341	50.00	1.0362	218.53	72.9
6519	J-2343	66.04	1.0362	218.53	66.0
6521	J-2344	66.03	1.0362	218.53	66.0
6524	J-2345	45.96	1.0362	218.55	74.7
6526	J-2346	80.00	1.0362	218.55	59.9
6528	J-2347	54.69	1.0362	218.53	70.9
6530	J-2348	78.93	1.0362	218.53	60.4
6532	J-2349	60.00	1.0362	218.53	68.6
6534	J-2350	61.97	1.0362	218.53	67.7
6536	J-2351	63.96	1.0362	218.53	66.9
6538	J-2352	56.84	1.0362	218.54	70.0
6540	J-2353	60.00	1.0362	218.57	68.6
6542	J-2354	60.00	1.0362	218.57	68.6
6544	J-2355	60.99	1.0362	218.55	68.2
6546	J-2356	71.21	1.0362	218.53	63.7
6548	J-2357	60.00	1.0362	218.53	68.6
6550	J-2358	63.49	1.0362	218.54	67.1

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
6552	J-2359	53.40	1.0362	218.54	71.4
6554	J-2360	50.00	1.0362	218.54	72.9
6556	J-2361	70.00	1.0362	218.58	64.3
6559	J-2363	57.41	1.0362	218.54	69.7
6563	J-2365	50.00	1.0362	218.54	72.9
6564	J-2366	50.00	1.0362	218.54	72.9
6566	J-2367	60.00	1.0362	218.53	68.6
6569	J-2369	50.00	1.0362	218.54	72.9
6571	J-2370	70.00	1.0362	218.58	64.3
6572	J-2371	70.00	1.0362	218.58	64.3
6575	J-2372	52.44	1.0362	218.56	71.9
6576	J-2373	53.93	1.0362	218.56	71.2
6578	J-2374	70.20	1.0362	218.59	64.2
6580	J-2375	50.00	1.0362	218.54	72.9
6583	J-2376	73.07	1.0362	218.53	62.9
6584	J-2377	77.73	1.0362	218.53	60.9
6587	J-2378	48.50	1.0362	218.53	73.6
6588	J-2379	48.56	1.0362	218.53	73.5
6590	J-2380	79.66	1.0362	218.53	60.1
6592	J-2381	50.94	1.0362	218.54	72.5
6594	J-2382	53.72	1.0362	218.53	71.3
6598	J-2384	50.00	1.0362	218.54	72.9
6599	J-2385	49.65	1.0362	218.54	73.1
6601	J-2386	50.16	1.0362	218.56	72.9
6603	J-2387	73.94	1.0362	218.55	62.6
6605	J-2388	70.00	1.0362	218.59	64.3
6607	J-2389	65.76	1.0362	218.53	66.1
6611	J-2390	73.68	1.0362	218.59	62.7
6614	J-2391	80.00	1.0362	218.60	60.0
6618	J-2392	69.80	1.0362	218.53	64.3
6621	J-2393	60.00	1.0362	218.53	68.6
6625	J-2394	69.39	1.0362	218.53	64.5
6628	J-2395	50.00	1.0362	218.55	72.9
6630	J-2396	60.00	1.0362	218.53	68.6
7595	J-2849	81.17	3.7466	208.64	55.1
7599	J-2851	103.83	3.7466	209.50	45.7
7605	J-2855	102.84	3.7466	209.39	46.1
7616	J-2862	102.60	3.7466	209.12	46.1
7620	J-2865	87.29	3.7466	205.70	51.2
7627	J-2869	110.93	3.7466	209.17	42.5
7652	J-2882	90.00	3.7466	207.98	51.0
7656	J-2885	66.34	3.7466	205.79	60.3
7658	J-2886	79.94	3.7466	208.74	55.7
7662	J-2889	80.00	3.7466	205.80	54.4
7668	J-2892	90.00	3.7466	207.98	51.0
7671	J-2894	104.21	3.7466	208.28	45.0
7683	J-2901	58.19	3.7466	205.69	63.8

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
7687	J-2903	89.83	3.7466	205.65	50.1
7690	J-2905	83.50	3.7466	205.68	52.9
7693	J-2907	68.80	3.7466	205.65	59.2
7696	J-2909	70.00	3.7466	205.65	58.7
7699	J-2911	80.00	3.7466	205.80	54.4
7702	J-2913	69.33	3.7466	205.85	59.1
7705	J-2915	84.26	3.7466	205.65	52.5
7707	J-2916	69.06	3.7466	205.82	59.2
7711	J-2919	66.74	3.7466	205.79	60.2
7714	J-2921	90.00	3.7466	208.00	51.1
7716	J-2922	95.54	3.7466	205.65	47.6
7720	J-2925	67.13	3.7466	205.65	59.9
7725	J-2928	68.85	3.7466	209.03	60.6
7728	J-2930	60.00	3.7466	205.84	63.1
7731	J-2932	66.63	3.7466	205.82	60.2
7734	J-2934	92.32	3.7466	208.82	50.4
7737	J-2936	71.37	3.7466	208.76	59.4
7740	J-2938	71.92	3.7466	208.75	59.2
7749	J-2944	69.14	3.7466	205.85	59.1
7752	J-2946	90.00	3.7466	207.99	51.0
7754	J-2947	82.00	3.7466	207.96	54.5
7758	J-2950	83.74	3.7466	207.64	53.6
7761	J-2952	68.24	3.7466	207.03	60.0
7764	J-2954	82.92	3.7466	205.65	53.1
7781	J-2963	90.00	3.7466	207.97	51.0
7788	J-2968	74.77	3.7466	205.78	56.7
7790	J-2969	79.29	3.7466	205.78	54.7
7792	J-2970	60.00	3.7466	205.86	63.1
7803	J-2977	60.00	3.7466	205.67	63.0
7804	J-2978	60.00	3.7466	205.67	63.0
7807	J-2980	40.00	3.7466	208.01	72.7
7824	J-2990	61.92	3.7466	208.20	63.3
7825	J-2991	60.84	3.7466	208.20	63.8
7834	J-2995	60.00	3.7466	205.87	63.1
7838	J-2997	68.57	3.7466	205.85	59.4
7856	J-3006	103.14	3.7466	209.04	45.8
7859	J-3007	48.41	3.7466	208.63	69.3
7860	J-3008	49.40	3.7466	208.63	68.9
7862	J-3009	89.69	3.7466	210.30	52.2
7873	J-3016	50.00	3.7466	205.72	67.4
7879	J-3020	90.00	3.7466	207.96	51.0
7881	J-3021	90.00	3.7466	207.97	51.0
7886	J-3022	70.25	3.7466	205.85	58.7
7888	J-3023	50.00	3.7466	205.72	67.4
7890	J-3024	60.00	3.7466	205.67	63.0
7892	J-3025	82.58	3.7466	208.00	54.3
7895	J-3027	84.46	3.7466	205.64	52.4

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
7898	J-3029	68.55	3.7466	207.96	60.3
7901	J-3031	100.00	3.7466	208.12	46.8
7902	J-3032	100.00	3.7466	208.15	46.8
7904	J-3033	90.00	3.7466	207.92	51.0
7913	J-3038	83.86	3.7466	205.65	52.7
7917	J-3040	63.12	3.7466	207.95	62.7
7918	J-3041	60.04	3.7466	207.83	63.9
7920	J-3042	90.00	3.7466	207.98	51.0
7922	J-3043	60.00	3.7466	205.85	63.1
7926	J-3045	79.38	3.7466	205.77	54.7
7928	J-3046	64.57	3.7466	211.19	63.4
7931	J-3048	88.12	3.7466	208.12	51.9
7932	J-3049	91.90	3.7466	208.13	50.3
7938	J-3052	50.00	3.7466	205.72	67.4
7940	J-3053	80.00	3.7466	205.79	54.4
7942	J-3054	100.00	3.7466	208.15	46.8
7943	J-3055	93.97	3.7466	208.15	49.4
7945	J-3056	67.66	3.7466	205.79	59.8
7947	J-3057	94.33	3.7466	210.10	50.1
7948	J-3058	70.31	3.7466	210.34	60.6
7956	J-3062	107.49	3.7466	208.66	43.8
7957	J-3063	106.99	3.7466	208.61	44.0
7961	J-3064	57.93	3.7466	208.12	65.0
7962	J-3065	56.95	3.7466	208.11	65.4
7964	J-3066	103.44	3.7466	208.72	45.5
7965	J-3067	103.88	3.7466	208.72	45.4
7977	J-3072	70.00	3.7466	205.65	58.7
7980	J-3073	63.37	3.7466	205.65	61.6
7982	J-3074	55.60	3.7466	207.97	65.9
7983	J-3075	58.48	3.7466	207.97	64.7
7985	J-3076	91.83	3.7466	208.80	50.6
7991	J-3079	76.51	3.7466	207.78	56.8
7994	J-3081	58.00	3.7466	205.70	63.9
7996	J-3082	80.00	3.7466	205.74	54.4
7997	J-3083	80.00	3.7466	205.78	54.4
7999	J-3084	105.32	3.7466	208.13	44.5
8000	J-3085	109.30	3.7466	208.18	42.8
8002	J-3086	44.27	3.7466	207.56	70.7
8003	J-3087	44.49	3.7466	207.51	70.5
8008	J-3089	80.00	3.7466	205.80	54.4
8014	J-3091	68.73	3.7466	207.28	59.9
8015	J-3092	71.13	3.7466	207.26	58.9
8019	J-3094	96.59	3.7466	205.65	47.2
8022	J-3095	86.59	3.7466	207.96	52.5
8025	J-3097	61.78	3.7466	205.65	62.2
8026	J-3098	62.60	3.7466	205.65	61.9
8030	J-3100	64.17	3.7466	205.66	61.2

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
8031	J-3101	62.77	3.7466	205.67	61.8
8038	J-3104	78.82	3.7466	205.64	54.9
8059	J-3115	60.00	3.7466	205.96	63.1
8062	J-3117	65.01	3.7466	208.95	62.3
8063	J-3118	67.14	3.7466	208.99	61.4
8065	J-3119	63.05	3.7466	205.79	61.8
8067	J-3120	43.84	3.7466	208.00	71.0
8071	J-3121	60.00	3.7466	210.84	65.3
8075	J-3123	91.58	3.7466	209.45	51.0
8076	J-3124	93.43	3.7466	209.24	50.1
8078	J-3125	92.24	3.7466	208.20	50.2
8079	J-3126	98.42	3.7466	208.28	47.5
8082	J-3127	70.00	3.7466	207.12	59.3
8083	J-3128	67.12	3.7466	207.05	60.5
8087	J-3129	94.28	3.7466	208.03	49.2
8088	J-3130	90.00	3.7466	207.99	51.0
8091	J-3131	77.15	3.7466	210.61	57.7
8094	J-3132	68.43	3.7466	207.03	60.0
8096	J-3133	54.10	3.7466	208.04	66.6
8099	J-3134	57.93	3.7466	207.96	64.9
8104	J-3137	77.19	3.7466	208.91	57.0
8105	J-3138	68.21	3.7466	208.91	60.9
8107	J-3139	62.40	3.7466	205.85	62.1
8110	J-3140	76.94	3.7466	207.18	56.3
8111	J-3141	80.69	3.7466	207.17	54.7
8115	J-3143	80.00	3.7466	208.27	55.5
8116	J-3144	72.61	3.7466	208.19	58.7
8120	J-3146	74.23	3.7466	208.99	58.3
8121	J-3147	79.85	3.7466	208.91	55.8
8123	J-3148	47.21	3.7466	207.90	69.5
8124	J-3149	47.44	3.7466	207.80	69.4
8126	J-3150	71.67	3.7466	205.29	57.8
8130	J-3152	80.17	3.7466	208.55	55.5
8131	J-3153	82.07	3.7466	208.43	54.7
8134	J-3154	88.79	3.7466	208.06	51.6
8136	J-3155	59.16	3.7466	207.70	64.3
8137	J-3156	58.00	3.7466	207.80	64.8
8139	J-3157	48.88	3.7466	208.02	68.9
8140	J-3158	51.11	3.7466	207.93	67.8
8143	J-3159	50.00	3.7466	207.98	68.4
8144	J-3160	50.00	3.7466	208.09	68.4
8146	J-3161	86.56	3.7466	209.36	53.1
8148	J-3162	118.36	3.7466	208.78	39.1
8149	J-3163	116.72	3.7466	208.87	39.9
8151	J-3164	90.00	3.7466	208.88	51.4
8152	J-3165	90.00	3.7466	208.98	51.5
8154	J-3166	90.00	3.7466	208.75	51.4

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
8156	J-3167	69.09	3.7466	208.94	60.5
8158	J-3168	67.98	3.7466	209.16	61.1
8160	J-3169	93.07	3.7466	208.44	49.9
8163	J-3171	90.00	3.7466	208.64	51.3
8167	J-3172	75.91	3.7466	205.81	56.2
8169	J-3173	60.00	3.7466	205.86	63.1
8174	J-3176	75.74	3.7466	207.98	57.2
8180	J-3177	46.59	3.7466	207.95	69.8
8181	J-3178	48.05	3.7466	207.96	69.2
8185	J-3180	61.38	3.7466	210.60	64.6
8187	J-3181	80.25	3.7466	209.05	55.7
8189	J-3182	94.34	3.7466	208.26	49.3
8190	J-3183	97.39	3.7466	208.28	48.0
8192	J-3184	70.00	3.7466	205.85	58.8
8194	J-3185	72.91	3.7466	205.83	57.5
8196	J-3186	71.98	3.7466	205.65	57.8
8198	J-3187	70.00	3.7466	207.94	59.7
8199	J-3188	67.43	3.7466	208.06	60.8
8201	J-3189	75.66	3.7466	208.03	57.3
8203	J-3190	108.20	3.7466	208.75	43.5
8205	J-3191	49.43	3.7466	207.91	68.6
8206	J-3192	60.55	3.7466	208.03	63.8
8208	J-3193	50.00	3.7466	207.98	68.3
8210	J-3194	60.00	3.7466	208.03	64.0
8211	J-3195	65.95	3.7466	208.04	61.5
8213	J-3196	43.30	3.7466	207.94	71.2
8218	J-3197	96.76	3.7466	208.22	48.2
8220	J-3198	65.10	3.7466	207.95	61.8
8222	J-3199	89.44	3.7466	208.70	51.6
8227	J-3201	83.97	3.7466	205.65	52.6
8228	J-3202	79.93	3.7466	205.65	54.4
8230	J-3203	61.58	3.7466	205.79	62.4
8232	J-3204	87.27	3.7466	205.65	51.2
8234	J-3205	65.31	3.7466	208.94	62.1
8236	J-3206	66.28	3.7466	205.65	60.3
8238	J-3207	46.68	3.7466	207.80	69.7
8239	J-3208	42.41	3.7466	207.94	71.6
8241	J-3209	103.41	3.7466	205.65	44.2
8242	J-3210	100.00	3.7466	205.65	45.7
8247	J-3211	54.11	3.7466	207.95	66.6
8249	J-3212	55.33	3.7466	208.02	66.1
8251	J-3213	70.00	3.7466	205.84	58.8
8254	J-3214	57.34	3.7466	207.79	65.1
8256	J-3215	50.00	3.7466	208.07	68.4
8258	J-3216	91.65	3.7466	208.02	50.3
8261	J-3217	80.00	3.7466	205.65	54.4
8263	J-3218	60.00	3.7466	209.67	64.8

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
8268	J-3219	60.00	3.7466	207.79	63.9
8270	J-3220	54.16	3.7466	208.70	66.9
8271	J-3221	54.53	3.7466	208.75	66.7
8273	J-3222	97.25	3.7466	207.48	47.7
8274	J-3223	100.70	3.7466	207.61	46.3
8276	J-3224	68.91	3.7466	208.05	60.2
8280	J-3225	55.28	3.7466	207.94	66.1
8281	J-3226	50.00	3.7466	207.95	68.3
8285	J-3227	100.98	3.7466	208.09	46.3
8286	J-3228	96.93	3.7466	207.93	48.0
8288	J-3229	47.34	3.7466	207.90	69.5
8289	J-3230	49.83	3.7466	207.90	68.4
8292	J-3231	100.00	3.7466	208.31	46.9
8294	J-3232	46.10	3.7466	207.94	70.0
8298	J-3233	84.79	3.7466	208.00	53.3
8304	J-3235	100.00	3.7466	208.50	46.9
8309	J-3236	43.74	3.7466	208.01	71.1
8311	J-3237	100.00	3.7466	208.35	46.9
8312	J-3238	93.10	3.7466	208.26	49.8
8316	J-3239	50.00	3.7466	207.76	68.3
8318	J-3240	61.40	3.7466	205.80	62.5
8321	J-3241	66.85	3.7466	207.92	61.0
8326	J-3242	55.06	3.7466	208.09	66.2
8331	J-3243	97.34	3.7466	208.44	48.1
8333	J-3244	50.00	3.7466	207.97	68.3
8335	J-3245	96.15	3.7466	209.19	48.9
8337	J-3246	55.64	3.7466	207.94	65.9
8339	J-3247	60.41	3.7466	208.20	63.9
8340	J-3248	75.75	3.7466	208.23	57.3
8342	J-3249	90.04	3.7466	208.11	51.1
8343	J-3250	80.27	3.7466	207.91	55.2
8348	J-3252	74.64	3.7466	208.32	57.8
8350	J-3253	93.70	3.7466	208.08	49.5
8352	J-3254	93.72	3.7466	208.36	49.6
8357	J-3255	60.00	3.7466	205.67	63.0
8362	J-3257	77.74	3.7466	207.32	56.1
8364	J-3258	69.55	3.7466	205.79	58.9
8367	J-3259	40.68	3.7466	207.91	72.4
8372	J-3260	66.30	3.7466	207.77	61.2
8373	J-3261	47.78	3.7466	208.01	69.3
8379	J-3262	63.10	3.7466	208.11	62.7
8381	J-3263	61.09	3.7466	208.09	63.6
8389	J-3264	90.00	3.7466	207.98	51.0
8391	J-3265	110.00	3.7466	208.41	42.6
8393	J-3266	96.76	3.7466	208.27	48.2
8395	J-3267	105.00	3.7466	207.77	44.5
8402	J-3270	89.76	3.7466	209.05	51.6

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
8405	J-3271	94.67	3.7466	207.96	49.0
8410	J-3272	110.00	3.7466	208.10	42.4
8413	J-3273	62.01	3.7466	209.41	63.8
8414	J-3274	75.07	3.7466	209.23	58.0
8427	J-3276	92.37	3.7466	209.00	50.5
8429	J-3277	108.14	3.7466	208.76	43.5
8437	J-3279	40.00	3.7466	208.15	72.8
8441	J-3280	47.62	3.7466	208.01	69.4
8456	J-3281	67.17	3.7466	207.90	60.9
8459	J-3282	82.71	3.7466	209.08	54.7
8466	J-3283	110.00	3.7466	208.27	42.5
8473	J-3284	68.22	3.7466	207.90	60.4
8511	J-3286	93.46	3.7466	208.18	49.6
8521	J-3291	50.00	3.7466	208.05	68.4
8573	J-3294	58.04	1.0362	218.53	69.4
8575	J-3295	52.99	1.0362	218.54	71.6
8578	J-3296	54.00	1.0362	218.54	71.2
8581	J-3297	50.77	1.0362	218.54	72.6
8608	J-3303	60.00	3.7466	205.93	63.1
8616	J-3305	74.63	3.7466	205.81	56.8
8619	J-3306	74.92	3.7466	205.74	56.6
8621	J-3307	80.00	3.7466	205.80	54.4
8624	J-3308	80.00	3.7466	205.73	54.4
8626	J-3309	86.69	3.7466	205.70	51.5
8640	J-3312	65.55	3.7466	208.88	62.0
8646	J-3314	89.13	3.7466	208.68	51.7
8654	J-3316	78.58	3.7466	206.82	55.5
8662	J-3318	48.09	3.7466	208.01	69.2
8667	J-3320	42.65	3.7466	207.85	71.5
8688	J-3328	95.59	3.7466	208.27	48.7
8712	J-3334	60.00	0.0000	168.33	46.9
8715	J-3335	60.00	0.0000	168.56	47.0
8719	J-3336	75.12	0.0000	210.28	58.5
8722	J-3337	79.54	0.0000	207.96	55.6
8732	J-3339	50.00	1.0362	218.54	72.9
8735	J-3341	86.00	0.0000	205.70	51.8
8747	J-3345	64.57	0.0000	210.99	63.3
8749	J-3346	64.57	0.0000	210.69	63.2
8753	J-3347	64.57	0.0000	211.26	63.5
8780	J-3349	60.00	0.0000	205.93	63.1
8809	J-3351	50.00	0.0000	167.70	50.9
8813	J-3353	50.00	0.0000	167.70	50.9
8856	J-3359	54.50	0.0000	155.85	43.8
8863	J-3361	55.00	0.0000	158.45	44.8
8864	J-3362	56.50	0.0000	158.45	44.1
8866	J-3363	56.50	0.0000	158.45	44.1
8868	J-3364	78.00	0.0000	208.00	56.2

FlexTable: Junction Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
8870	J-3365	90.00	0.0000	208.00	51.1
8883	J-3366	60.00	(N/A)	(N/A)	(N/A)
8886	J-3367	59.50	0.0000	188.60	55.9
8890	J-3368	50.00	(N/A)	(N/A)	(N/A)
8902	J-3371	64.00	0.0000	188.60	53.9
8907	J-3373	56.00	(N/A)	(N/A)	(N/A)
8910	J-3374	49.00	0.0000	158.22	47.3
8932	J-3379	58.00	(N/A)	(N/A)	(N/A)
8934	J-3380	62.00	0.0000	188.60	54.8
8937	J-3381	49.00	(N/A)	(N/A)	(N/A)
8939	J-3382	54.00	(N/A)	(N/A)	(N/A)
8947	J-3384	50.00	0.0000	156.65	46.1
8962	J-3385	90.00	0.0000	208.00	51.1
8969	J-3386	54.00	0.0000	155.88	44.1
8972	J-3387	54.00	0.0000	155.87	44.1
8977	J-3388	62.00	0.0000	218.60	67.8
8980	J-3389	60.00	0.0000	218.60	68.6
8982	J-3390	80.00	0.0000	218.60	60.0
9050	J-3391	68.00	0.0000	207.90	60.5
9053	J-3392	70.00	0.0000	167.69	42.3
9107	J-3394	64.00	0.0000	207.90	62.3
9110	J-3395	59.00	0.0000	167.69	47.0
9149	J-3399	64.00	(N/A)	(N/A)	(N/A)
9152	J-3400	64.00	(N/A)	(N/A)	(N/A)

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0001	6.0	PVC	130.0	-2.3013	0.03	False	0.00	False	True	854.00
P-0002	6.0	PVC	130.0	-4.4897	0.05	False	0.00	False	True	387.00
P-0003	6.0	PVC	130.0	3.5587	0.04	False	0.00	False	True	511.00
P-0004	8.0	PVC	130.0	-7.4932	0.05	False	0.00	False	True	19.00
P-0005	8.0	PVC	130.0	-5.4317	0.03	False	0.00	False	True	444.00
P-0006	8.0	PVC	130.0	3.7466	0.02	False	0.00	False	True	261.00
P-0007	1.5	PVC	130.0	3.7466	0.68	False	0.00	False	True	173.00
P-0008	8.0	PVC	130.0	-12.9249	0.08	False	0.00	False	True	514.00
P-0009	12.0	PVC	130.0	110.6454	0.31	False	0.00	False	True	3,355.00
P-0010	12.0	PVC	130.0	53.5066	0.15	False	0.00	False	True	12.00
P-0011	6.0	PVC	130.0	-19.6898	0.22	False	0.00	False	True	982.00
P-0012	12.0	PVC	130.0	3.7466	0.01	False	0.00	False	True	197.00
P-0013	12.0	PVC	130.0	11.2398	0.03	False	0.00	False	True	70.00
P-0014	4.0	PVC	130.0	3.7466	0.10	False	0.00	False	True	304.00
P-0015	6.0	PVC	130.0	23.4365	0.27	False	0.00	False	True	236.00
P-0016	6.0	PVC	130.0	-10.8920	0.12	False	0.00	False	True	404.00
P-0017	6.0	PVC	130.0	-0.9566	0.01	False	0.00	False	True	255.00
P-0018	8.0	PVC	130.0	-5.3873	0.03	False	0.00	False	True	517.00
P-0019	6.0	PVC	130.0	1.6767	0.02	False	0.00	False	True	522.00
P-0020	2.0	PVC	130.0	-0.0750	0.01	False	0.00	False	True	1,348.00
P-0021	2.0	PVC	130.0	0.0172	0.00	False	0.00	False	True	741.00
P-0022	2.0	PVC	130.0	0.0682	0.01	False	0.00	False	True	945.00
P-0023	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	189.00
P-0024	6.0	PVC	130.0	3.5613	0.04	False	0.00	False	True	726.00
P-0025	2.0	PVC	130.0	-0.9793	0.10	False	0.00	False	True	778.00
P-0026	8.0	PVC	130.0	-38.4096	0.25	False	0.00	False	True	241.00
P-0027	8.0	PVC	130.0	-45.4795	0.29	False	0.00	False	True	249.00
P-0028	8.0	PVC	130.0	-53.3960	0.34	False	0.00	False	True	490.00
P-0029	8.0	PVC	130.0	-206.0786	1.32	False	0.00	False	True	205.00
P-0030	6.0	PVC	130.0	-64.1531	0.73	False	0.00	False	True	278.00
P-0031	6.0	PVC	130.0	18.4500	0.21	False	0.00	False	True	625.00
P-0032	6.0	PVC	130.0	-60.4065	0.69	False	0.00	False	True	292.00
P-0033	6.0	PVC	130.0	-52.9133	0.60	False	0.00	False	True	287.00
P-0034	6.0	PVC	130.0	-49.1665	0.56	False	0.00	False	True	80.00
P-0035	4.0	PVC	130.0	3.7466	0.10	False	0.00	False	True	160.00
P-0036	8.0	PVC	130.0	-162.1768	1.04	False	0.00	False	True	379.00
P-0037	8.0	PVC	130.0	-148.5068	0.95	False	0.00	False	True	467.00
P-0038	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	179.00
P-0039	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	228.00
P-0040	8.0	PVC	130.0	-137.2670	0.88	False	0.00	False	True	437.00
P-0041	6.0	PVC	130.0	-50.2601	0.57	False	0.00	False	True	1,159.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0042	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	146.00
P-0043	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	336.00
P-0044	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	170.00
P-0045	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	240.00
P-0046	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	302.00
P-0047	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	141.00
P-0048	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	141.00
P-0049	6.0	PVC	130.0	-15.4247	0.18	False	0.00	False	True	253.00
P-0050	2.0	PVC	130.0	3.3234	0.34	False	0.00	False	True	986.00
P-0051	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	224.00
P-0052	2.0	PVC	130.0	-1.2119	0.12	False	0.00	False	True	1,260.00
P-0053	8.0	PVC	130.0	-65.9495	0.42	False	0.00	False	True	954.00
P-0054	2.0	PVC	130.0	-3.9512	0.40	False	0.00	False	True	394.00
P-0055	8.0	PVC	130.0	59.4901	0.38	False	0.00	False	True	337.00
P-0056	8.0	PVC	130.0	66.7787	0.43	False	0.00	False	True	422.00
P-0057	8.0	PVC	130.0	74.4765	0.48	False	0.00	False	True	1,783.00
P-0058	4.0	PVC	130.0	9.4753	0.24	False	0.00	False	True	1,580.00
P-0059	8.0	PVC	130.0	104.4493	0.67	False	0.00	False	True	225.00
P-0060	8.0	PVC	130.0	119.4357	0.76	False	0.00	False	True	520.00
P-0061	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	167.00
P-0062	4.0	PVC	130.0	-10.9115	0.28	False	0.00	False	True	2,353.00
P-0063	8.0	PVC	130.0	-178.2188	1.14	False	0.00	False	True	413.00
P-0064	8.0	PVC	130.0	87.1541	0.56	False	0.00	False	True	632.00
P-0065	6.0	PVC	130.0	71.5625	0.81	False	0.00	False	True	539.00
P-0066	2.0	PVC	130.0	-3.3289	0.34	False	0.00	False	True	318.00
P-0067	8.0	PVC	130.0	-87.9233	0.56	False	0.00	False	True	318.00
P-0068	8.0	PVC	130.0	-202.0147	1.29	False	0.00	False	True	369.00
P-0069	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	181.00
P-0070	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	376.00
P-0071	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	189.00
P-0072	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	166.00
P-0073	2.0	PVC	130.0	-3.5420	0.36	False	0.00	False	True	369.00
P-0074	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	403.00
P-0075	6.0	PVC	130.0	-3.7466	0.04	False	0.00	False	True	32.00
P-0076	6.0	PVC	130.0	3.7466	0.04	False	0.00	False	True	49.00
P-0077	6.0	PVC	130.0	3.7466	0.04	False	0.00	False	True	135.00
P-0078	8.0	PVC	130.0	-4.6632	0.03	False	0.00	False	True	1,777.00
P-0079	8.0	PVC	130.0	49.6229	0.32	False	0.00	False	True	252.00
P-0080	6.0	PVC	130.0	-34.8985	0.40	False	0.00	False	True	219.00
P-0081	2.0	PVC	130.0	-1.5135	0.15	False	0.00	False	True	347.00
P-0082	4.0	PVC	130.0	3.7466	0.10	False	0.00	False	True	184.00
P-0083	6.0	PVC	130.0	7.4932	0.09	False	0.00	False	True	590.00
P-0084	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	947.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0085	6.0	PVC	130.0	-5.2291	0.06	False	0.00	False	True	504.00
P-0086	6.0	PVC	130.0	-1.9765	0.02	False	0.00	False	True	320.00
P-0087	6.0	PVC	130.0	1.6279	0.02	False	0.00	False	True	87.00
P-0088	6.0	PVC	130.0	3.1105	0.04	False	0.00	False	True	371.00
P-0089	8.0	PVC	130.0	3.7466	0.02	False	0.00	False	True	30.00
P-0090	8.0	PVC	130.0	30.6717	0.20	False	0.00	False	True	729.00
P-0091	6.0	PVC	130.0	-2.8006	0.03	False	0.00	False	True	325.00
P-0092	6.0	PVC	130.0	-6.5473	0.07	False	0.00	False	True	699.00
P-0093	8.0	PVC	130.0	-28.4109	0.18	False	0.00	False	True	308.00
P-0094	8.0	PVC	130.0	-47.6993	0.30	False	0.00	False	True	94.00
P-0095	8.0	PVC	130.0	-61.2404	0.39	False	0.00	False	True	220.00
P-0096	8.0	PVC	130.0	-64.9872	0.41	False	0.00	False	True	79.00
P-0097	12.0	PVC	130.0	84.4365	0.24	False	0.00	False	True	400.00
P-0098	10.0	PVC	130.0	18.7330	0.08	False	0.00	False	True	729.00
P-0099	6.0	PVC	130.0	3.7466	0.04	False	0.00	False	True	437.00
P-0100	10.0	PVC	120.0	360.8394	1.47	False	0.00	False	True	859.00
P-0101	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	148.00
P-0102	2.0	PVC	130.0	-0.6282	0.06	False	0.00	False	True	776.00
P-0103	2.0	PVC	130.0	-1.9102	0.20	False	0.00	False	True	363.00
P-0104	2.0	PVC	130.0	4.9089	0.50	False	0.00	False	True	272.00
P-0105	2.0	PVC	130.0	-2.5843	0.26	False	0.00	False	True	605.00
P-0106	8.0	PVC	130.0	-221.0650	1.41	False	0.00	False	True	233.00
P-0107	6.0	PVC	130.0	-23.2234	0.26	False	0.00	False	True	641.00
P-0108	6.0	PVC	130.0	22.1966	0.25	False	0.00	False	True	546.00
P-0109	6.0	PVC	130.0	-19.4768	0.22	False	0.00	False	True	373.00
P-0110	2.0	PVC	130.0	4.8830	0.50	False	0.00	False	True	863.00
P-0111	8.0	PVC	130.0	-153.5472	0.98	False	0.00	False	True	1,245.00
P-0112	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	569.00
P-0113	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	913.00
P-0114	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	104.00
P-0115	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	97.00
P-0116	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	396.00
P-0117	2.0	PVC	130.0	-1.6386	0.17	False	0.00	False	True	761.00
P-0118	2.0	PVC	130.0	-3.9900	0.41	False	0.00	False	True	1,556.00
P-0119	6.0	PVC	130.0	57.9967	0.66	False	0.00	False	True	619.00
P-0120	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	194.00
P-0121	2.0	PVC	130.0	-1.6803	0.17	False	0.00	False	True	2,141.00
P-0122	8.0	PVC	130.0	46.3055	0.30	False	0.00	False	True	59.00
P-0123	8.0	PVC	130.0	-36.9893	0.24	False	0.00	False	True	449.00
P-0124	8.0	PVC	130.0	-36.7459	0.23	False	0.00	False	True	57.00
P-0125	8.0	PVC	130.0	-44.2391	0.28	False	0.00	False	True	377.00
P-0126	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	54.00
P-0127	2.0	PVC	130.0	-8.3901	0.86	False	0.00	False	True	416.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0128	6.0	PVC	130.0	-23.0487	0.26	False	0.00	False	True	867.00
P-0129	2.0	PVC	130.0	4.1698	0.43	False	0.00	False	True	672.00
P-0130	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	105.00
P-0131	8.0	PVC	130.0	21.8550	0.14	False	0.00	False	True	363.00
P-0132	8.0	PVC	130.0	14.3618	0.09	False	0.00	False	True	313.00
P-0133	8.0	PVC	130.0	-42.7808	0.27	False	0.00	False	True	1,375.00
P-0134	6.0	PVC	130.0	-26.5054	0.30	False	0.00	False	True	262.00
P-0135	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	489.00
P-0136	2.0	PVC	130.0	0.6568	0.07	False	0.00	False	True	1,750.00
P-0137	6.0	PVC	130.0	-25.4526	0.29	False	0.00	False	True	573.00
P-0138	6.0	PVC	130.0	37.9043	0.43	False	0.00	False	True	497.00
P-0139	8.0	PVC	130.0	-62.9376	0.40	False	0.00	False	True	23.00
P-0140	6.0	PVC	130.0	32.9458	0.37	False	0.00	False	True	53.00
P-0141	2.0	PVC	130.0	0.9683	0.10	False	0.00	False	True	1,599.00
P-0142	6.0	PVC	130.0	18.4538	0.21	False	0.00	False	True	376.00
P-0143	8.0	PVC	130.0	104.5885	0.67	False	0.00	False	True	413.00
P-0144	8.0	PVC	130.0	-51.9969	0.33	False	0.00	False	True	249.00
P-0145	4.0	PVC	130.0	1.9821	0.05	False	0.00	False	True	551.00
P-0146	2.0	PVC	130.0	-0.7036	0.07	False	0.00	False	True	1,124.00
P-0147	8.0	PVC	130.0	106.2138	0.68	False	0.00	False	True	613.00
P-0148	8.0	PVC	130.0	86.0446	0.55	False	0.00	False	True	264.00
P-0149	8.0	PVC	130.0	-78.5514	0.50	False	0.00	False	True	306.00
P-0150	8.0	PVC	130.0	-80.5543	0.51	False	0.00	False	True	1,108.00
P-0151	2.0	PVC	130.0	-6.2982	0.64	False	0.00	False	True	858.00
P-0152	2.0	PVC	130.0	2.5113	0.26	False	0.00	False	True	1,367.00
P-0153	8.0	PVC	130.0	-184.4767	1.18	False	0.00	False	True	1,002.00
P-0154	8.0	PVC	130.0	-169.9564	1.08	False	0.00	False	True	692.00
P-0155	2.0	PVC	130.0	-4.5158	0.46	False	0.00	False	True	1,285.00
P-0156	8.0	PVC	130.0	3.7466	0.02	False	0.00	False	True	60.00
P-0157	6.0	PVC	130.0	-56.9938	0.65	False	0.00	False	True	788.00
P-0158	2.0	PVC	130.0	3.0089	0.31	False	0.00	False	True	484.00
P-0159	2.0	PVC	130.0	-4.0666	0.42	False	0.00	False	True	847.00
P-0160	6.0	PVC	130.0	-41.8349	0.47	False	0.00	False	True	936.00
P-0161	6.0	PVC	130.0	56.5761	0.64	False	0.00	False	True	452.00
P-0162	8.0	PVC	130.0	-194.5215	1.24	False	0.00	False	True	348.00
P-0163	8.0	PVC	130.0	-198.2681	1.27	False	0.00	False	True	252.00
P-0164	8.0	PVC	130.0	3.9986	0.03	False	0.00	False	True	393.00
P-0165	8.0	PVC	130.0	0.1771	0.00	False	0.00	False	True	752.00
P-0166	6.0	PVC	130.0	-12.6285	0.14	False	0.00	False	True	321.00
P-0167	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	327.00
P-0168	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	304.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0169	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	286.00
P-0170	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	249.00
P-0171	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	245.00
P-0172	6.0	PVC	130.0	-56.8215	0.64	False	0.00	False	True	119.00
P-0173	6.0	PVC	130.0	-9.7945	0.11	False	0.00	False	True	1,158.00
P-0174	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	132.00
P-0175	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	349.00
P-0176	8.0	PVC	130.0	-29.9730	0.19	False	0.00	False	True	47.00
P-0177	6.0	PVC	130.0	14.9866	0.17	False	0.00	False	True	231.00
P-0178	6.0	PVC	130.0	11.2398	0.13	False	0.00	False	True	203.00
P-0179	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	33.00
P-0180	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	84.00
P-0181	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	40.00
P-0182	8.0	PVC	130.0	-32.0787	0.20	False	0.00	False	True	218.00
P-0183	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	24.00
P-0184	10.0	PVC	130.0	0.0003	0.00	False	0.00	False	True	17.00
P-0185	8.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	37.00
P-0186	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	16.00
P-0187	6.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	18.00
P-0188	6.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	4.00
P-0189	8.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	25.00
P-0190	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	5.00
P-0191	8.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	36.00
P-0192	8.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	13.00
P-0193	8.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	17.00
P-0194	8.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	28.00
P-0195	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	29.00
P-0196	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	32.00
P-0197	6.0	PVC	130.0	-0.0003	0.00	False	0.00	False	True	17.00
P-0198	12.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	18.00
P-0199	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	13.00
P-0200	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	15.00
P-0201	6.0	PVC	130.0	-0.0003	0.00	False	0.00	False	True	14.00
P-0202	6.0	PVC	130.0	3.7466	0.04	False	0.00	False	True	90.00
P-0203	6.0	PVC	130.0	8.5472	0.10	False	0.00	False	True	159.00
P-0204	8.0	PVC	130.0	-33.7197	0.22	False	0.00	False	True	102.00
P-0205	6.0	PVC	130.0	-22.4798	0.26	False	0.00	False	True	218.00
P-0206	8.0	PVC	130.0	18.9850	0.12	False	0.00	False	True	638.00
P-0207	8.0	PVC	130.0	11.4918	0.07	False	0.00	False	True	285.00
P-0208	4.0	PVC	130.0	-5.0630	0.13	False	0.00	False	True	1,952.00
P-0209	4.0	PVC	130.0	-3.7466	0.10	False	0.00	False	True	198.00
P-0210	6.0	PVC	130.0	-63.7493	0.72	False	0.00	False	True	735.00
P-0211	8.0	PVC	130.0	-7.4932	0.05	False	0.00	False	True	41.00
P-0212	8.0	PVC	130.0	-85.7163	0.55	False	0.00	False	True	350.00
P-0213	2.0	PVC	130.0	-1.7437	0.18	False	0.00	False	True	1,566.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0214	4.0	PVC	130.0	5.0251	0.13	False	0.00	False	True	747.00
P-0215	8.0	PVC	130.0	-47.5934	0.30	False	0.00	False	True	538.00
P-0216	6.0	PVC	130.0	-33.9986	0.39	False	0.00	False	True	768.00
P-0217	8.0	PVC	130.0	-44.5037	0.28	False	0.00	False	True	391.00
P-0218	8.0	PVC	130.0	6.7584	0.04	False	0.00	False	True	849.00
P-0219	8.0	PVC	130.0	46.0309	0.29	False	0.00	False	True	307.00
P-0220	8.0	PVC	130.0	53.0495	0.34	False	0.00	False	True	466.00
P-0221	8.0	PVC	130.0	40.9128	0.26	False	0.00	False	True	309.00
P-0222	2.0	PVC	130.0	10.3429	1.06	False	0.00	False	True	226.00
P-0223	2.0	PVC	130.0	2.8497	0.29	False	0.00	False	True	545.00
P-0224	8.0	PVC	130.0	115.6638	0.74	False	0.00	False	True	340.00
P-0225	8.0	PVC	130.0	109.3347	0.70	False	0.00	False	True	471.00
P-0226	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	229.00
P-0227	8.0	PVC	130.0	-82.7571	0.53	False	0.00	False	True	904.00
P-0228	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	230.00
P-0229	2.0	PVC	130.0	2.5825	0.26	False	0.00	False	True	894.00
P-0230	2.0	PVC	130.0	0.4745	0.05	False	0.00	False	True	1,282.00
P-0231	8.0	PVC	120.0	166.0108	1.06	False	0.00	False	True	224.00
P-0232	8.0	PVC	120.0	105.4427	0.67	False	0.00	False	True	896.00
P-0233	6.0	PVC	130.0	7.4934	0.09	False	0.00	False	True	53.00
P-0234	6.0	PVC	130.0	-3.7466	0.04	False	0.00	False	True	404.00
P-0235	6.0	PVC	130.0	-16.0404	0.18	False	0.00	False	True	155.00
P-0236	6.0	PVC	130.0	-19.7872	0.22	False	0.00	False	True	170.00
P-0237	6.0	PVC	130.0	-16.3884	0.19	False	0.00	False	True	374.00
P-0238	6.0	PVC	130.0	-2.6126	0.03	False	0.00	False	True	269.00
P-0239	8.0	PVC	130.0	-24.2339	0.15	False	0.00	False	True	2,068.00
P-0240	10.0	PVC	130.0	-3.7466	0.02	False	0.00	False	True	99.00
P-0241	12.0	PVC	130.0	99.4054	0.28	False	0.00	False	True	579.00
P-0242	6.0	PVC	130.0	5.3747	0.06	False	0.00	False	True	288.00
P-0243	6.0	PVC	130.0	-40.1586	0.46	False	0.00	False	True	45.00
P-0244	6.0	PVC	130.0	-3.7466	0.04	False	0.00	False	True	49.00
P-0245	6.0	PVC	130.0	-11.2398	0.13	False	0.00	False	True	135.00
P-0246	6.0	PVC	130.0	-18.7330	0.21	False	0.00	False	True	151.00
P-0247	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	41.00
P-0248	8.0	PVC	120.0	-170.2178	1.09	False	0.00	False	True	282.00
P-0249	8.0	PVC	130.0	162.4632	1.04	False	0.00	False	True	493.00
P-0250	8.0	PVC	130.0	29.5422	0.19	False	0.00	False	True	390.00
P-0251	6.0	PVC	130.0	17.9594	0.20	False	0.00	False	True	511.00
P-0252	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	174.00
P-0253	8.0	PVC	130.0	282.8083	1.81	False	0.00	False	True	118.00
P-0254	2.0	PVC	130.0	-7.4932	0.77	False	0.00	False	True	41.00
P-0255	8.0	PVC	130.0	154.6836	0.99	False	0.00	False	True	483.00
P-0256	6.0	PVC	130.0	-34.1801	0.39	False	0.00	False	True	279.00
P-0257	8.0	PVC	130.0	2.1059	0.01	False	0.00	False	True	261.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0258	2.0	PVC	130.0	0.8571	0.09	False	0.00	False	True	938.00
P-0259	6.0	PVC	130.0	10.9691	0.12	False	0.00	False	True	363.00
P-0260	6.0	PVC	130.0	7.2907	0.08	False	0.00	False	True	332.00
P-0261	6.0	PVC	130.0	20.9788	0.24	False	0.00	False	True	370.00
P-0262	8.0	PVC	130.0	7.3335	0.05	False	0.00	False	True	100.00
P-0263	8.0	PVC	130.0	183.7804	1.17	False	0.00	False	True	69.00
P-0264	6.0	PVC	130.0	64.3700	0.73	False	0.00	False	True	368.00
P-0265	6.0	PVC	130.0	56.8768	0.65	False	0.00	False	True	440.00
P-0266	6.0	PVC	130.0	49.3836	0.56	False	0.00	False	True	337.00
P-0267	6.0	PVC	130.0	41.8904	0.48	False	0.00	False	True	426.00
P-0268	6.0	PVC	130.0	-7.1454	0.08	False	0.00	False	True	858.00
P-0269	10.0	PVC	130.0	14.9864	0.06	False	0.00	False	True	219.00
P-0270	6.0	PVC	130.0	-4.7032	0.05	False	0.00	False	True	132.00
P-0271	6.0	PVC	130.0	-8.4498	0.10	False	0.00	False	True	408.00
P-0272	12.0	PVC	130.0	57.2534	0.16	False	0.00	False	True	353.00
P-0273	10.0	PVC	130.0	-106.8986	0.44	False	0.00	False	True	58.00
P-0274	8.0	PVC	130.0	26.9249	0.17	False	0.00	False	True	452.00
P-0275	8.0	PVC	130.0	24.0474	0.15	False	0.00	False	True	71.00
P-0276	8.0	PVC	130.0	20.3007	0.13	False	0.00	False	True	260.00
P-0277	8.0	PVC	130.0	11.3249	0.07	False	0.00	False	True	678.00
P-0278	8.0	PVC	130.0	9.5548	0.06	False	0.00	False	True	44.00
P-0279	8.0	PVC	130.0	5.8081	0.04	False	0.00	False	True	775.00
P-0280	8.0	PVC	130.0	-1.6851	0.01	False	0.00	False	True	105.00
P-0281	6.0	PVC	130.0	15.5418	0.18	False	0.00	False	True	297.00
P-0282	6.0	PVC	130.0	7.3055	0.08	False	0.00	False	True	227.00
P-0283	6.0	PVC	130.0	8.3784	0.10	False	0.00	False	True	417.00
P-0284	6.0	PVC	130.0	4.6316	0.05	False	0.00	False	True	347.00
P-0285	8.0	PVC	130.0	18.1170	0.12	False	0.00	False	True	263.00
P-0286	8.0	PVC	130.0	14.3702	0.09	False	0.00	False	True	69.00
P-0287	6.0	PVC	130.0	-31.0270	0.35	False	0.00	False	True	229.00
P-0288	6.0	PVC	130.0	-64.6160	0.73	False	0.00	False	True	324.00
P-0289	4.0	PVC	130.0	3.7466	0.10	False	0.00	False	True	129.00
P-0290	6.0	PVC	130.0	-72.1092	0.82	False	0.00	False	True	818.00
P-0291	6.0	PVC	130.0	-75.8560	0.86	False	0.00	False	True	514.00
P-0292	6.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	17.00
P-0293	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	24.00
P-0294	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	17.00
P-0295	6.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	15.00
P-0296	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	16.00
P-0297	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	27.00
P-0298	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	15.00
P-0299	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	19.00
P-0300	8.0	PVC	130.0	27.4576	0.18	False	0.00	False	True	245.00
P-0301	8.0	PVC	130.0	213.5718	1.36	False	0.00	False	True	213.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0302	4.0	PVC	150.0	-0.8452	0.02	False	0.00	False	True	556.00
P-0303	4.0	PVC	150.0	-0.8452	0.02	False	0.00	False	True	1,485.00
P-0304	6.0	PVC	130.0	-3.9319	0.04	False	0.00	False	True	234.00
P-0305	6.0	PVC	130.0	-3.9319	0.04	False	0.00	False	True	311.00
P-0306	4.0	PVC	150.0	-0.8452	0.02	False	0.00	False	True	150.00
P-0307	8.0	PVC	130.0	-11.5105	0.07	False	0.00	False	True	1,245.00
P-0308	8.0	PVC	130.0	-11.5105	0.07	False	0.00	False	True	54.00
P-0309	12.0	PVC	150.0	0.0002	0.00	False	0.00	False	True	82.00
P-0310	8.0	CI	100.0	36.3391	0.23	False	0.00	False	True	77.00
P-0311	8.0	CI	100.0	36.3391	0.23	False	0.00	False	True	46.00
P-0312	8.0	CI	100.0	36.3391	0.23	False	0.00	False	True	42.00
P-0313	8.0	CI	100.0	36.3391	0.23	False	0.00	False	True	1,451.00
P-0314	12.0	PVC	150.0	-0.0001	0.00	False	0.00	False	True	45.00
P-0315	12.0	PVC	150.0	-0.0001	0.00	False	0.00	False	True	60.00
P-0316	6.0	PVC	70.0	0.0004	0.00	False	0.00	False	True	273.00
P-0317	6.0	PVC	70.0	0.0004	0.00	False	0.00	False	True	131.00
P-0318	8.0	CI	100.0	40.5252	0.26	False	0.00	False	True	509.00
P-0319	8.0	CI	100.0	44.4298	0.28	False	0.00	False	True	406.00
P-0320	6.0	PVC	120.0	10.9258	0.12	False	0.00	False	True	541.00
P-0321	6.0	PVC	120.0	10.9258	0.12	False	0.00	False	True	288.00
P-0322	8.0	PVC	130.0	-41.2131	0.26	False	0.00	False	True	48.00
P-0323	8.0	PVC	130.0	-41.2130	0.26	False	0.00	False	True	167.00
P-0324	6.0	PVC	120.0	-6.9358	0.08	False	0.00	False	True	374.00
P-0325	6.0	PVC	120.0	-6.4518	0.07	False	0.00	False	True	144.00
P-0326	6.0	PVC	120.0	-8.4606	0.10	False	0.00	False	True	388.00
P-0327	6.0	PVC	120.0	-0.4836	0.01	False	0.00	False	True	20.00
P-0328	6.0	PVC	120.0	-2.9410	0.03	False	0.00	False	True	706.00
P-0329	8.0	PVC	130.0	30.5760	0.20	False	0.00	False	True	656.00
P-0330	8.0	PVC	130.0	-11.7083	0.07	False	0.00	False	True	936.00
P-0331	8.0	PVC	130.0	36.1724	0.23	False	0.00	False	True	299.00
P-0332	8.0	PVC	130.0	15.6851	0.10	False	0.00	False	True	82.00
P-0333	8.0	PVC	120.0	233.9106	1.49	False	0.00	False	True	176.00
P-0334	8.0	PVC	120.0	357.0929	2.28	False	0.00	False	True	83.00
P-0335	8.0	PVC	130.0	-198.8285	1.27	False	0.00	False	True	72.00
P-0336	2.0	PVC	150.0	0.0000	0.00	False	0.00	False	True	21.00
P-0337	6.0	Ductile Iron	130.0	0.9796	0.01	False	0.00	False	True	17.00
P-0338	6.0	Ductile Iron	130.0	0.9796	0.01	False	0.00	False	True	110.00
P-0339	6.0	PVC	130.0	-43.9052	0.50	False	0.00	False	True	322.00
P-0340	120.0	Ductile Iron	200.0	1,026.5723	0.03	False	1.00	False	True	57.00
P-0341	10.0	PVC	120.0	820.8110	3.35	False	0.00	False	True	61.00
P-0342	10.0	PVC	130.0	456.2249	1.86	False	0.00	False	True	240.00
P-0343	10.0	PVC	120.0	-364.5861	1.49	False	0.00	False	True	74.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0344	10.0	PVC	120.0	820.8110	3.35	False	0.00	False	True	55.00
P-0345	6.0	PVC	150.0	-5.3453	0.06	False	0.00	False	True	72.00
P-0346	4.0	PVC	150.0	-22.9781	0.59	False	0.00	False	True	81.00
P-0347	4.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	468.00
P-0348	6.0	PVC	130.0	26.9040	0.31	False	0.00	False	True	194.00
P-0349	6.0	PVC	130.0	34.3972	0.39	False	0.00	False	True	417.00
P-0350	8.0	PVC	130.0	205.7613	1.31	False	1.00	False	True	76.00
P-0351	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	113.00
P-0352	8.0	PVC	130.0	290.3015	1.85	False	0.00	False	True	453.00
P-0353	10.0	PVC	130.0	290.3015	1.19	False	0.00	False	True	91.00
P-0354	120.0	PVC	150.0	56.8168	0.00	False	1.00	False	True	43.00
P-0355	4.0	PVC	150.0	-56.8168	1.45	False	0.00	False	True	114.00
P-0356	4.0	PVC	150.0	26.6212	0.68	False	0.00	False	True	511.00
P-0357	4.0	PVC	150.0	-30.1956	0.77	False	0.00	False	True	376.00
P-0358	120.0	PVC	150.0	60.1016	0.00	False	1.00	False	True	91.00
P-0359	8.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	21.00
P-0360	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	21.00
P-0361	6.0	PVC	130.0	0.0002	0.00	False	0.00	False	True	20.00
P-0362	8.0	PVC	120.0	-254.3945	1.62	False	0.00	False	True	150.00
P-0363	8.0	PVC	120.0	-174.7919	1.12	False	0.00	False	True	773.00
P-0364	6.0	PVC	130.0	-26.4655	0.30	False	0.00	False	True	1,083.00
P-0365	6.0	Ductile Iron	130.0	-3.7466	0.04	False	0.00	False	True	520.00
P-0366	8.0	PVC	130.0	94.7761	0.60	False	0.00	False	True	55.00
P-0367	8.0	PVC	130.0	102.2692	0.65	False	0.00	False	True	313.00
P-0368	6.0	PVC	130.0	-33.9587	0.39	False	0.00	False	True	504.00
P-0369	8.0	PVC	130.0	53.7987	0.34	False	0.00	False	True	393.00
P-0370	8.0	PVC	130.0	91.5040	0.58	False	0.00	False	True	330.00
P-0371	8.0	PVC	130.0	-198.5854	1.27	False	0.00	False	True	256.00
P-0372	8.0	PVC	130.0	-90.2503	0.58	False	0.00	False	True	233.00
P-0373	8.0	PVC	130.0	-59.2038	0.38	False	0.00	False	True	593.00
P-0374	8.0	PVC	130.0	-45.1143	0.29	False	0.00	False	True	517.00
P-0375	8.0	PVC	130.0	-115.9999	0.74	False	0.00	False	True	62.00
P-0376	6.0	PVC	130.0	18.3244	0.21	False	0.00	False	True	1,306.00
P-0377	6.0	PVC	130.0	-22.8882	0.26	False	0.00	False	True	316.00
P-0378	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	314.00
P-0379	6.0	PVC	130.0	10.8312	0.12	False	0.00	False	True	29.00
P-0380	6.0	PVC	130.0	3.3380	0.04	False	0.00	False	True	15.00
P-0381	6.0	PVC	130.0	60.8694	0.69	False	0.00	False	True	506.00
P-0382	8.0	PVC	120.0	284.7442	1.82	False	0.00	False	True	416.00
P-0383	8.0	PVC	120.0	227.6214	1.45	False	0.00	False	True	366.00
P-0384	8.0	PVC	130.0	0.0001	0.00	False	0.00	False	True	30.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0385	8.0	PVC	120.0	132.1295	0.84	False	0.00	False	True	473.00
P-0386	8.0	PVC	120.0	135.8763	0.87	False	0.00	False	True	35.00
P-0387	6.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	53.00
P-0388	6.0	PVC	130.0	45.5815	0.52	False	0.00	False	True	1,024.00
P-0389	6.0	PVC	130.0	49.3283	0.56	False	0.00	False	True	219.00
P-0390	8.0	PVC	130.0	9.0590	0.06	False	0.00	False	True	318.00
P-0391	8.0	PVC	130.0	-26.2262	0.17	False	0.00	False	True	1,524.00
P-0392	6.0	PVC	130.0	-7.6957	0.09	False	0.00	False	True	343.00
P-0393	6.0	Ductile Iron	130.0	3.7468	0.04	False	0.00	False	True	105.00
P-0394	2.0	Ductile Iron	130.0	3.7466	0.38	False	0.00	False	True	138.00
P-0395	6.0	PVC	130.0	-25.1722	0.29	False	0.00	False	True	132.00
P-0396	6.0	PVC	130.0	-17.6790	0.20	False	0.00	False	True	47.00
P-0397	2.0	Ductile Iron	130.0	3.7466	0.38	False	0.00	False	True	129.00
P-0398	6.0	PVC	130.0	-32.6654	0.37	False	0.00	False	True	74.00
P-0399	6.0	Ductile Iron	130.0	-22.4796	0.26	False	0.00	False	True	58.00
P-0400	8.0	Ductile Iron	130.0	-202.5751	1.29	False	0.00	False	True	23.00
P-0401	6.0	Ductile Iron	130.0	-78.4225	0.89	False	0.00	False	True	35.00
P-0402	6.0	Ductile Iron	130.0	31.7273	0.36	False	0.00	False	True	652.00
P-0403	6.0	Ductile Iron	130.0	34.5173	0.39	False	0.00	False	True	1,012.00
P-0404	8.0	PVC	150.0	12.1886	0.08	False	0.00	False	True	514.00
P-0405	4.0	PVC	150.0	1.0362	0.03	False	0.00	False	True	44.00
P-0406	8.0	Ductile Iron	130.0	-24.6230	0.16	False	0.00	False	True	539.00
P-0407	8.0	Ductile Iron	130.0	-23.5868	0.15	False	0.00	False	True	77.00
P-0408	8.0	Ductile Iron	130.0	-22.5506	0.14	False	0.00	False	True	143.00
P-0409	4.0	PVC	150.0	1.0362	0.03	False	0.00	False	True	263.00
P-0410	6.0	PVC	130.0	-15.3950	0.17	False	0.00	False	True	506.00
P-0411	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	187.00
P-0412	6.0	PVC	130.0	-7.9018	0.09	False	0.00	False	True	2,251.00
P-0413	4.0	PVC	150.0	-21.9985	0.56	False	0.00	False	True	300.00
P-0414	4.0	PVC	150.0	0.9796	0.03	False	0.00	False	True	52.00
P-0415	4.0	PVC	150.0	-3.4611	0.09	False	0.00	False	True	46.00
P-0416	4.0	PVC	150.0	-1.5019	0.04	False	0.00	False	True	1,085.00
P-0417	4.0	PVC	150.0	0.9796	0.03	False	0.00	False	True	53.00
P-0418	4.0	PVC	150.0	-5.4203	0.14	False	0.00	False	True	428.00
P-0419	6.0	Ductile Iron	130.0	-4.3657	0.05	False	0.00	False	True	54.00
P-0420	6.0	Ductile Iron	130.0	-7.3795	0.08	False	0.00	False	True	348.00
P-0421	2.0	PVC	150.0	-4.2845	0.44	False	0.00	False	True	320.00
P-0422	2.0	PVC	150.0	-1.3457	0.14	False	0.00	False	True	873.00
P-0423	1.0	PVC	150.0	0.9796	0.40	False	0.00	False	True	232.00
P-0424	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	70.00
P-0425	2.0	PVC	150.0	2.9388	0.30	False	0.00	False	True	136.00
P-0426	2.0	PVC	150.0	2.5727	0.26	False	0.00	False	True	163.00
P-0427	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	118.00
P-0428	4.0	PVC	150.0	-1.3452	0.03	False	0.00	False	True	538.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0429	4.0	PVC	150.0	0.6140	0.02	False	0.00	False	True	1.00
P-0430	4.0	PVC	150.0	0.2587	0.01	False	0.00	False	True	356.00
P-0431	4.0	PVC	150.0	-3.1274	0.08	False	0.00	False	True	1,375.00
P-0432	4.0	PVC	150.0	-2.1478	0.05	False	0.00	False	True	371.00
P-0433	4.0	PVC	150.0	-1.7224	0.04	False	0.00	False	True	723.00
P-0434	2.0	PVC	150.0	0.5542	0.06	False	0.00	False	True	1,311.00
P-0435	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	192.00
P-0436	2.0	PVC	150.0	-1.2164	0.12	False	0.00	False	True	380.00
P-0437	2.0	PVC	150.0	0.7428	0.08	False	0.00	False	True	423.00
P-0438	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	216.00
P-0439	4.0	PVC	150.0	3.1756	0.08	False	0.00	False	True	705.00
P-0440	2.0	PVC	150.0	4.4507	0.45	False	0.00	False	True	254.00
P-0441	2.0	PVC	150.0	-2.5810	0.26	False	0.00	False	True	607.00
P-0442	2.0	PVC	150.0	2.8493	0.29	False	0.00	False	True	638.00
P-0443	6.0	PVC	150.0	6.3249	0.07	False	0.00	False	True	154.00
P-0444	6.0	PVC	150.0	14.6840	0.17	False	0.00	False	True	679.00
P-0445	4.0	PVC	150.0	-0.4573	0.01	False	0.00	False	True	879.00
P-0446	4.0	PVC	150.0	-0.9796	0.03	False	0.00	False	True	522.00
P-0447	6.0	PVC	150.0	-20.0393	0.23	False	0.00	False	True	1,050.00
P-0448	4.0	PVC	150.0	0.9796	0.03	False	0.00	False	True	96.00
P-0449	4.0	PVC	150.0	-4.3757	0.11	False	0.00	False	True	1,409.00
P-0450	4.0	PVC	150.0	-2.8044	0.07	False	0.00	False	True	779.00
P-0451	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	394.00
P-0452	2.5	PVC	150.0	-0.5917	0.04	False	0.00	False	True	1,838.00
P-0453	4.0	PVC	150.0	6.1842	0.16	False	0.00	False	True	244.00
P-0454	4.0	PVC	150.0	-23.0318	0.59	False	0.00	False	True	189.00
P-0455	2.0	PVC	150.0	0.4594	0.05	False	0.00	False	True	1,312.00
P-0456	4.0	PVC	150.0	19.1843	0.49	False	0.00	False	True	285.00
P-0457	4.0	PVC	150.0	19.7045	0.50	False	0.00	False	True	351.00
P-0458	4.0	PVC	150.0	7.3461	0.19	False	0.00	False	True	1,241.00
P-0459	4.0	PVC	150.0	10.9067	0.28	False	0.00	False	True	323.00
P-0460	4.0	PVC	150.0	15.1950	0.39	False	0.00	False	True	203.00
P-0461	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	407.00
P-0462	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	583.00
P-0463	2.0	PVC	150.0	-0.9796	0.10	False	0.00	False	True	465.00
P-0464	4.0	PVC	150.0	2.5732	0.07	False	0.00	False	True	692.00
P-0465	4.0	PVC	150.0	4.5324	0.12	False	0.00	False	True	388.00
P-0466	2.0	PVC	150.0	-0.9796	0.10	False	0.00	False	True	263.00
P-0467	2.0	PVC	150.0	0.6723	0.07	False	0.00	False	True	672.00
P-0468	4.0	PVC	150.0	-1.6526	0.04	False	0.00	False	True	305.00
P-0469	4.0	PVC	150.0	-6.8572	0.18	False	0.00	False	True	176.00
P-0470	4.0	PVC	150.0	-5.8776	0.15	False	0.00	False	True	159.00
P-0471	4.0	PVC	150.0	-3.1253	0.08	False	0.00	False	True	755.00
P-0472	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	100.00
P-0473	2.0	PVC	150.0	-1.1661	0.12	False	0.00	False	True	491.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0474	2.0	PVC	150.0	-0.1865	0.02	False	0.00	False	True	335.00
P-0475	2.0	PVC	150.0	-1.7727	0.18	False	0.00	False	True	305.00
P-0476	2.0	PVC	150.0	-0.9796	0.10	False	0.00	False	True	297.00
P-0477	2.0	PVC (Abandoned)	120.0	0.0000	0.00	False	0.00	False	True	637.00
P-0478	2.0	PVC	120.0	-1.2424	0.13	False	0.00	False	True	610.00
P-0479	2.0	PVC	120.0	-0.5019	0.05	False	0.00	False	True	376.00
P-0480	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	64.00
P-0481	12.0	C-900	110.0	-155.3506	0.44	False	0.00	False	True	127.00
P-0482	12.0	C-900	110.0	100.3304	0.28	False	0.00	False	True	662.00
P-0483	12.0	C-900	110.0	-23.8606	0.07	False	0.00	False	True	413.00
P-0484	12.0	C-900	110.0	100.3304	0.28	False	0.00	False	True	464.00
P-0485	2.0	PVC	120.0	0.0005	0.00	False	0.00	False	True	523.00
P-0486	2.0	GI	120.0	-4.9572	0.51	False	0.00	False	True	831.00
P-0487	2.0	PVC	120.0	-2.4181	0.25	False	0.00	False	True	54.00
P-0488	2.0	GI	120.0	-4.2784	0.44	False	0.00	False	True	1,050.00
P-0489	6.0	DI	120.0	17.1582	0.19	False	0.00	False	True	46.00
P-0490	6.0	AC	60.0	-21.8518	0.25	False	0.00	False	True	618.00
P-0491	6.0	DI	120.0	14.3060	0.16	False	0.00	False	True	759.00
P-0492	6.0	AC	60.0	-70.9292	0.80	False	0.00	False	True	446.00
P-0493	2.0	GI	120.0	4.6187	0.47	False	0.00	False	True	37.00
P-0494	120.0	PVC	150.0	278.2103	0.01	False	1.00	False	True	77.00
P-0495	2.0	GI	120.0	7.4708	0.76	False	0.00	False	True	319.00
P-0496	2.0	GI	120.0	0.2131	0.02	False	0.00	False	True	117.00
P-0497	6.0	AC	60.0	15.4841	0.18	False	0.00	False	True	304.00
P-0498	2.0	GI	120.0	-0.8036	0.08	False	0.00	False	True	213.00
P-0499	6.0	AC	60.0	18.1138	0.21	False	0.00	False	True	21.00
P-0500	2.0	GI	120.0	0.3558	0.04	False	0.00	False	True	376.00
P-0501	12.0	C-900	110.0	-125.1872	0.36	False	0.00	False	True	439.00
P-0502	6.0	PVC	120.0	0.3427	0.00	False	0.00	False	True	774.00
P-0503	2.0	GI	120.0	1.4274	0.15	False	0.00	False	True	1,086.00
P-0504	6.0	PVC	120.0	0.3429	0.00	False	0.00	False	True	31.00
P-0505	2.0	GI	120.0	0.8149	0.08	False	0.00	False	True	327.00
P-0506	2.0	GI	120.0	-0.3786	0.04	False	0.00	False	True	606.00
P-0507	6.0	PVC	120.0	-6.4516	0.07	False	0.00	False	True	127.00
P-0508	6.0	PVC	120.0	4.9539	0.06	False	0.00	False	True	657.00
P-0509	6.0	PVC	120.0	35.4198	0.40	False	0.00	False	True	6.00
P-0510	6.0	PVC	120.0	6.6556	0.08	False	0.00	False	True	483.00
P-0511	6.0	PVC	120.0	35.7073	0.41	False	0.00	False	True	347.00
P-0512	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	809.00
P-0513	2.0	PVC	120.0	-0.1316	0.01	False	0.00	False	True	65.00
P-0514	6.0	AC	90.0	-3.2969	0.04	False	0.00	False	True	491.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0515	12.0	PVC	110.0	-103.4030	0.29	False	0.00	False	True	113.00
P-0516	6.0	AC	90.0	-2.3883	0.03	False	0.00	False	True	372.00
P-0517	6.0	C-900	120.0	-20.3596	0.23	False	0.00	False	True	469.00
P-0518	6.0	AC	90.0	0.0000	0.00	False	0.00	False	True	16.00
P-0519	6.0	C-900	120.0	-19.5122	0.22	False	0.00	False	True	588.00
P-0520	6.0	AC	90.0	-5.4252	0.06	False	0.00	False	True	614.00
P-0521	6.0	AC	90.0	0.3322	0.00	False	0.00	False	True	442.00
P-0522	8.0	CI	130.0	-17.5902	0.11	False	0.00	False	True	97.00
P-0523	6.0	AC	90.0	-5.5580	0.06	False	0.00	False	True	769.00
P-0524	8.0	CI	130.0	-10.8705	0.07	False	0.00	False	True	51.00
P-0525	4.0	PVC	120.0	-0.9546	0.02	False	0.00	False	True	698.00
P-0526	6.0	PVC	120.0	7.1900	0.08	False	0.00	False	True	385.00
P-0527	4.0	PVC	120.0	1.6162	0.04	False	0.00	False	True	668.00
P-0528	6.0	PVC	120.0	8.3671	0.09	False	0.00	False	True	374.00
P-0529	6.0	PVC	120.0	-6.0953	0.07	False	0.00	False	True	363.00
P-0530	6.0	PVC	120.0	-2.5567	0.03	False	0.00	False	True	662.00
P-0531	12.0	C-900	110.0	-128.7399	0.37	False	0.00	False	True	246.00
P-0532	6.0	PVC	120.0	-5.8490	0.07	False	0.00	False	True	72.00
P-0533	12.0	C-900	110.0	-125.1874	0.36	False	0.00	False	True	369.00
P-0534	6.0	PVC	120.0	-12.6845	0.14	False	0.00	False	True	150.00
P-0535	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	14.00
P-0536	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	39.00
P-0537	6.0	PVC	120.0	-12.6841	0.14	False	0.00	False	True	68.00
P-0538	6.0	PVC	120.0	10.9256	0.12	False	0.00	False	True	534.00
P-0539	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	15.00
P-0540	6.0	C-900	120.0	0.0170	0.00	False	0.00	False	True	661.00
P-0541	6.0	C-900	120.0	0.2982	0.00	False	0.00	False	True	261.00
P-0542	6.0	C-900	120.0	2.7492	0.03	False	0.00	False	True	353.00
P-0543	6.0	C-900	120.0	2.7495	0.03	False	0.00	False	True	22.00
P-0544	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	12.00
P-0545	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	458.00
P-0546	6.0	AC	90.0	-4.9110	0.06	False	0.00	False	True	469.00
P-0547	6.0	PVC	110.0	10.1633	0.12	False	0.00	False	True	297.00
P-0548	6.0	PVC	110.0	13.5495	0.15	False	0.00	False	True	430.00
P-0549	6.0	PVC	110.0	10.1631	0.12	False	0.00	False	True	343.00
P-0550	6.0	PVC	110.0	10.1629	0.12	False	0.00	False	True	109.00
P-0551	6.0	C-900	120.0	0.2342	0.00	False	0.00	False	True	21.00
P-0552	6.0	C-900	120.0	7.2460	0.08	False	0.00	False	True	120.00
P-0553	6.0	AC	90.0	4.8408	0.05	False	0.00	False	True	682.00
P-0554	6.0	AC	90.0	24.9860	0.28	False	0.00	False	True	681.00
P-0555	6.0	CI	120.0	19.7086	0.22	False	0.00	False	True	10.00
P-0556	6.0	CI	120.0	19.7088	0.22	False	0.00	False	True	19.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0557	6.0	CI	120.0	17.9830	0.20	False	0.00	False	True	290.00
P-0558	6.0	CI	120.0	20.1450	0.23	False	0.00	False	True	5.00
P-0559	4.0	AC	90.0	17.9824	0.46	False	0.00	False	True	25.00
P-0560	14.0	C-900	110.0	170.7767	0.36	False	0.00	False	True	1,325.00
P-0561	14.0	C-900	110.0	207.2534	0.43	False	0.00	False	True	602.00
P-0562	6.0	PVC	120.0	35.7075	0.41	False	0.00	False	True	28.00
P-0563	6.0	PVC	120.0	2.2775	0.03	False	0.00	False	True	33.00
P-0564	14.0	C-900	110.0	170.7762	0.36	False	0.00	False	True	771.00
P-0565	12.0	C-900	110.0	0.0001	0.00	False	0.00	False	True	18.00
P-0566	12.0	C-900	110.0	0.0003	0.00	False	0.00	False	True	591.00
P-0567	12.0	C-900	110.0	0.0005	0.00	False	0.00	False	True	73.00
P-0568	12.0	C-900	110.0	7.3993	0.02	False	0.00	False	True	226.00
P-0569	12.0	C-900	110.0	7.3995	0.02	False	0.00	False	True	343.00
P-0570	6.0	C-900	120.0	7.3984	0.08	False	0.00	False	True	36.00
P-0571	6.0	C-900	120.0	7.3986	0.08	False	0.00	False	True	67.00
P-0572	6.0	C-900	120.0	-5.3655	0.06	False	0.00	False	True	161.00
P-0573	6.0	C-900	120.0	-0.0004	0.00	False	0.00	False	True	20.00
P-0574	6.0	C-900	120.0	-5.3657	0.06	False	0.00	False	True	166.00
P-0575	6.0	C-900	120.0	2.7489	0.03	False	0.00	False	True	89.00
P-0576	12.0	C-900	110.0	-131.4897	0.37	False	0.00	False	True	269.00
P-0577	12.0	C-900	110.0	-131.4899	0.37	False	0.00	False	True	354.00
P-0578	12.0	C-900	110.0	7.3997	0.02	False	0.00	False	True	96.00
P-0579	6.0	PVC	120.0	2.7343	0.03	False	0.00	False	True	171.00
P-0580	6.0	PVC	120.0	2.7345	0.03	False	0.00	False	True	351.00
P-0581	6.0	PVC	120.0	2.9968	0.03	False	0.00	False	True	50.00
P-0582	6.0	PVC	120.0	2.9970	0.03	False	0.00	False	True	300.00
P-0583	6.0	PVC	120.0	2.9972	0.03	False	0.00	False	True	300.00
P-0584	6.0	PVC	120.0	2.9974	0.03	False	0.00	False	True	50.00
P-0585	6.0	PVC	120.0	2.7347	0.03	False	0.00	False	True	40.00
P-0586	6.0	PVC	120.0	2.7351	0.03	False	0.00	False	True	260.00
P-0587	6.0	PVC	120.0	7.3982	0.08	False	0.00	False	True	42.00
P-0588	6.0	PVC	110.0	7.7318	0.09	False	0.00	False	True	190.00
P-0589	6.0	PVC	120.0	7.0853	0.08	False	0.00	False	True	275.00
P-0590	6.0	PVC	120.0	-0.0565	0.00	False	0.00	False	True	618.00
P-0591	14.0	C-900	110.0	170.7760	0.36	False	0.00	False	True	129.00
P-0592	6.0	PVC	120.0	1.3522	0.02	False	0.00	False	True	132.00
P-0593	6.0	PVC	120.0	1.3520	0.02	False	0.00	False	True	59.00
P-0594	6.0	PVC	110.0	21.2814	0.24	False	0.00	False	True	321.00
P-0595	6.0	PVC	110.0	21.2816	0.24	False	0.00	False	True	159.00
P-0596	6.0	PVC	110.0	21.7840	0.25	False	0.00	False	True	139.00
P-0597	6.0	C-900	120.0	-18.0506	0.20	False	0.00	False	True	322.00
P-0598	6.0	C-900	120.0	16.5697	0.19	False	0.00	False	True	259.00
P-0599	6.0	C-900	120.0	16.9133	0.19	False	0.00	False	True	209.00

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Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0600	6.0	C-900	120.0	-8.5397	0.10	False	0.00	False	True	222.00
P-0601	6.0	C-900	120.0	15.3274	0.17	False	0.00	False	True	381.00
P-0602	6.0	C-900	120.0	-0.3398	0.00	False	0.00	False	True	347.00
P-0603	6.0	C-900	120.0	6.7873	0.08	False	0.00	False	True	506.00
P-0604	6.0	C-900	120.0	6.7875	0.08	False	0.00	False	True	99.00
P-0605	6.0	C-900	120.0	-0.1903	0.00	False	0.00	False	True	135.00
P-0606	6.0	C-900	120.0	-6.1256	0.07	False	0.00	False	True	67.00
P-0607	6.0	C-900	120.0	-6.1254	0.07	False	0.00	False	True	237.00
P-0608	6.0	AC	90.0	0.3320	0.00	False	0.00	False	True	181.00
P-0609	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-0610	6.0	AC	90.0	-1.7720	0.02	False	0.00	False	True	126.00
P-0611	6.0	AC	90.0	-13.7358	0.16	False	0.00	False	True	387.00
P-0612	6.0	AC	90.0	-10.1934	0.12	False	0.00	False	True	40.00
P-0613	6.0	AC	90.0	-3.5376	0.04	False	0.00	False	True	390.00
P-0614	6.0	AC	90.0	-13.7356	0.16	False	0.00	False	True	42.00
P-0615	6.0	PVC	120.0	1.0937	0.01	False	0.00	False	True	28.00
P-0616	6.0	PVC	120.0	1.0939	0.01	False	0.00	False	True	307.00
P-0617	6.0	PVC	120.0	1.9999	0.02	False	0.00	False	True	143.00
P-0618	6.0	PVC	120.0	2.5485	0.03	False	0.00	False	True	308.00
P-0619	2.0	PVC	120.0	-0.5484	0.06	False	0.00	False	True	950.00
P-0620	2.0	PVC	120.0	1.0935	0.11	False	0.00	False	True	261.00
P-0621	6.0	PVC	120.0	-4.9537	0.06	False	0.00	False	True	296.00
P-0622	6.0	PVC	120.0	-4.1979	0.05	False	0.00	False	True	530.00
P-0623	2.0	GI	80.0	2.0735	0.21	False	0.00	False	True	29.00
P-0624	2.0	GI	80.0	1.4461	0.15	False	0.00	False	True	354.00
P-0625	2.0	PVC	120.0	-2.2093	0.23	False	0.00	False	True	340.00
P-0626	2.0	PVC	120.0	-1.5305	0.16	False	0.00	False	True	1,324.00
P-0627	2.0	PVC	120.0	-0.9360	0.10	False	0.00	False	True	1,862.00
P-0628	6.0	AC	80.0	11.1644	0.13	False	0.00	False	True	261.00
P-0629	6.0	AC	80.0	11.9086	0.14	False	0.00	False	True	447.00
P-0630	6.0	AC	80.0	9.2493	0.10	False	0.00	False	True	313.00
P-0631	6.0	AC	80.0	9.2491	0.10	False	0.00	False	True	52.00
P-0632	6.0	AC	80.0	5.6235	0.06	False	0.00	False	True	315.00
P-0633	2.0	GI	120.0	-0.6047	0.06	False	0.00	False	True	363.00
P-0634	2.0	GI	120.0	0.2587	0.03	False	0.00	False	True	550.00
P-0635	6.0	AC	80.0	3.9651	0.04	False	0.00	False	True	640.00
P-0636	2.0	GI	120.0	-0.1289	0.01	False	0.00	False	True	186.00
P-0637	2.0	GI	120.0	0.7356	0.08	False	0.00	False	True	326.00
P-0638	6.0	C-900	80.0	2.5288	0.03	False	0.00	False	True	70.00
P-0639	6.0	C-900	80.0	2.5290	0.03	False	0.00	False	True	540.00
P-0640	2.0	GI	120.0	0.0928	0.01	False	0.00	False	True	198.00
P-0641	2.0	GI	120.0	0.6601	0.07	False	0.00	False	True	30.00
P-0642	2.0	PVC	120.0	0.6121	0.06	False	0.00	False	True	427.00
P-0643	2.0	PVC	120.0	5.6706	0.58	False	0.00	False	True	420.00
P-0644	2.0	PVC	120.0	6.4321	0.66	False	0.00	False	True	458.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0645	4.0	CI	80.0	-10.5566	0.27	False	0.00	False	True	295.00
P-0646	4.0	CI	80.0	-12.5092	0.32	False	0.00	False	True	30.00
P-0647	4.0	CI	80.0	-11.8974	0.30	False	0.00	False	True	117.00
P-0648	2.0	CI	120.0	0.8673	0.09	False	0.00	False	True	920.00
P-0649	2.0	CI	120.0	-1.1705	0.12	False	0.00	False	True	242.00
P-0650	8.0	CI	100.0	68.9354	0.44	False	0.00	False	True	35.00
P-0651	8.0	CI	100.0	92.7745	0.59	False	0.00	False	True	374.00
P-0652	8.0	CI	100.0	66.4578	0.42	False	0.00	False	True	37.00
P-0653	8.0	CI	100.0	57.8162	0.37	False	0.00	False	True	223.00
P-0654	8.0	CI	100.0	57.8161	0.37	False	0.00	False	True	74.00
P-0655	8.0	CI	100.0	53.6177	0.34	False	0.00	False	True	352.00
P-0656	8.0	CI	100.0	52.8205	0.34	False	0.00	False	True	397.00
P-0657	8.0	CI	100.0	50.7908	0.32	False	0.00	False	True	168.00
P-0658	2.0	PVC	120.0	0.7789	0.08	False	0.00	False	True	105.00
P-0659	12.0	C-900	110.0	100.3302	0.28	False	0.00	False	True	70.00
P-0660	12.0	C-900	110.0	0.3569	0.00	False	0.00	False	True	56.00
P-0661	12.0	C-900	110.0	-93.8011	0.27	False	0.00	False	True	47.00
P-0662	6.0	OCI	110.0	1.5915	0.02	False	0.00	False	True	427.00
P-0663	6.0	OCI	110.0	-92.2093	1.05	False	0.00	False	True	49.00
P-0664	6.0	OCI	110.0	-86.2118	0.98	False	0.00	False	True	96.00
P-0665	6.0	OCI	110.0	-86.2116	0.98	False	0.00	False	True	360.00
P-0666	6.0	OCI	110.0	-85.6787	0.97	False	0.00	False	True	340.00
P-0667	6.0	OCI	110.0	-84.7148	0.96	False	0.00	False	True	595.00
P-0668	8.0	OCI	110.0	-9.8346	0.06	False	0.00	False	True	53.00
P-0669	8.0	OCI	110.0	-9.8344	0.06	False	0.00	False	True	232.00
P-0670	2.0	GI	120.0	9.8348	1.00	False	0.00	False	True	35.00
P-0671	2.0	GI	120.0	6.3542	0.65	False	0.00	False	True	346.00
P-0672	6.0	AC	80.0	-9.2236	0.10	False	0.00	False	True	468.00
P-0673	6.0	AC	80.0	-14.4344	0.16	False	0.00	False	True	71.00
P-0674	6.0	PVC	80.0	-5.2110	0.06	False	0.00	False	True	47.00
P-0675	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	23.00
P-0676	6.0	AC	80.0	13.8237	0.16	False	0.00	False	True	75.00
P-0677	6.0	AC	80.0	-11.4527	0.13	False	0.00	False	True	157.00
P-0678	6.0	AC	80.0	-10.4850	0.12	False	0.00	False	True	105.00
P-0679	6.0	AC	80.0	-11.4529	0.13	False	0.00	False	True	363.00
P-0680	2.0	GI	120.0	-0.9675	0.10	False	0.00	False	True	221.00
P-0681	2.0	GI	120.0	-0.6160	0.06	False	0.00	False	True	108.00
P-0682	2.0	GI	120.0	-0.3513	0.04	False	0.00	False	True	139.00
P-0683	2.0	GI	120.0	1.2612	0.13	False	0.00	False	True	95.00
P-0684	8.0	CI	100.0	39.4623	0.25	False	0.00	False	True	261.00
P-0685	8.0	CI	100.0	32.2159	0.21	False	0.00	False	True	17.00
P-0686	8.0	CI	100.0	35.0788	0.22	False	0.00	False	True	227.00
P-0687	8.0	CI	100.0	31.8461	0.20	False	0.00	False	True	848.00
P-0688	8.0	CI	100.0	35.5658	0.23	False	0.00	False	True	73.00
P-0689	8.0	CI	100.0	-0.7730	0.00	False	0.00	False	True	48.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0690	6.0	C-900	120.0	-0.5502	0.01	False	0.00	False	True	969.00
P-0691	6.0	C-900	120.0	-0.5499	0.01	False	0.00	False	True	192.00
P-0692	6.0	C-900	120.0	-0.7726	0.01	False	0.00	False	True	1,000.00
P-0693	6.0	C-900	120.0	-0.7724	0.01	False	0.00	False	True	1,086.00
P-0694	6.0	C-900	120.0	-0.7728	0.01	False	0.00	False	True	222.00
P-0695	6.0	PVC	120.0	-0.1196	0.00	False	0.00	False	True	774.00
P-0696	6.0	PVC	120.0	0.4797	0.01	False	0.00	False	True	609.00
P-0697	6.0	PVC	120.0	9.8905	0.11	False	0.00	False	True	344.00
P-0698	6.0	PVC	120.0	10.6096	0.12	False	0.00	False	True	286.00
P-0699	6.0	PVC	120.0	10.6098	0.12	False	0.00	False	True	38.00
P-0700	6.0	PVC	120.0	13.2157	0.15	False	0.00	False	True	270.00
P-0701	8.0	CI	100.0	13.2159	0.08	False	0.00	False	True	56.00
P-0702	12.0	C-900	120.0	22.3132	0.06	False	0.00	False	True	672.00
P-0703	12.0	C-900	120.0	22.3134	0.06	False	0.00	False	True	531.00
P-0704	12.0	C-900	100.0	-11.2505	0.03	False	0.00	False	True	36.00
P-0705	12.0	C-900	120.0	-11.2413	0.03	False	0.00	False	True	783.00
P-0706	6.0	PVC	120.0	-10.4611	0.12	False	0.00	False	True	224.00
P-0707	6.0	PVC	120.0	-10.4608	0.12	False	0.00	False	True	45.00
P-0708	6.0	PVC	120.0	-1.5249	0.02	False	0.00	False	True	734.00
P-0709	6.0	PVC	100.0	-8.4685	0.10	False	0.00	False	True	209.00
P-0710	6.0	PVC	100.0	-4.2344	0.05	False	0.00	False	True	118.00
P-0711	6.0	PVC	100.0	-4.2342	0.05	False	0.00	False	True	55.00
P-0712	6.0	PVC	120.0	12.2436	0.14	False	0.00	False	True	45.00
P-0713	6.0	PVC	120.0	3.7749	0.04	False	0.00	False	True	192.00
P-0714	6.0	PVC	120.0	3.7747	0.04	False	0.00	False	True	24.00
P-0715	6.0	C-900	120.0	4.5357	0.05	False	0.00	False	True	50.00
P-0716	6.0	C-900	120.0	4.5359	0.05	False	0.00	False	True	1,392.00
P-0717	6.0	PVC	120.0	2.4969	0.03	False	0.00	False	True	751.00
P-0718	6.0	PVC	120.0	4.5355	0.05	False	0.00	False	True	49.00
P-0719	6.0	PVC	120.0	1.0470	0.01	False	0.00	False	True	208.00
P-0720	6.0	PVC	120.0	1.0473	0.01	False	0.00	False	True	14.00
P-0721	6.0	PVC	100.0	-0.5076	0.01	False	0.00	False	True	281.00
P-0722	6.0	PVC	100.0	-0.5074	0.01	False	0.00	False	True	19.00
P-0723	6.0	PVC	120.0	0.2211	0.00	False	0.00	False	True	109.00
P-0724	6.0	PVC	120.0	0.2213	0.00	False	0.00	False	True	145.00
P-0725	6.0	C-900	120.0	4.4546	0.05	False	0.00	False	True	42.00
P-0726	6.0	C-900	120.0	-0.2776	0.00	False	0.00	False	True	776.00
P-0727	6.0	C-900	120.0	4.4544	0.05	False	0.00	False	True	582.00
P-0728	6.0	C-900	120.0	0.3523	0.00	False	0.00	False	True	796.00
P-0729	6.0	PVC	120.0	-6.0247	0.07	False	0.00	False	True	156.00
P-0730	6.0	PVC	120.0	-5.3027	0.06	False	0.00	False	True	357.00
P-0731	6.0	PVC	120.0	-4.3913	0.05	False	0.00	False	True	79.00
P-0732	6.0	PVC	120.0	-4.3911	0.05	False	0.00	False	True	315.00
P-0733	6.0	PVC	120.0	3.7910	0.04	False	0.00	False	True	71.00
P-0734	6.0	PVC	120.0	4.3909	0.05	False	0.00	False	True	589.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0735	6.0	PVC	120.0	4.8638	0.06	False	0.00	False	True	122.00
P-0736	6.0	PVC	120.0	4.8640	0.06	False	0.00	False	True	418.00
P-0737	6.0	PVC	120.0	3.2314	0.04	False	0.00	False	True	220.00
P-0738	6.0	PVC	120.0	-0.7614	0.01	False	0.00	False	True	789.00
P-0739	6.0	PVC	120.0	3.9530	0.04	False	0.00	False	True	489.00
P-0740	6.0	C-900	120.0	16.5511	0.19	False	0.00	False	True	174.00
P-0741	6.0	C-900	120.0	16.5513	0.19	False	0.00	False	True	774.00
P-0742	8.0	OCI	110.0	-92.5364	0.59	False	0.00	False	True	135.00
P-0743	8.0	OCI	110.0	-96.8146	0.62	False	0.00	False	True	79.00
P-0744	8.0	OCI	110.0	-7.8218	0.05	False	0.00	False	True	65.00
P-0745	8.0	OCI	110.0	-25.2121	0.16	False	0.00	False	True	338.00
P-0746	6.0	DI	120.0	17.1578	0.19	False	0.00	False	True	634.00
P-0747	2.0	GI	120.0	1.3516	0.14	False	0.00	False	True	568.00
P-0748	6.0	DI	60.0	11.9010	0.14	False	0.00	False	True	264.00
P-0749	6.0	DI	60.0	12.5425	0.14	False	0.00	False	True	30.00
P-0750	6.0	DI	120.0	-0.0002	0.00	False	0.00	False	True	20.00
P-0751	6.0	DI	60.0	-12.5434	0.14	False	0.00	False	True	168.00
P-0752	6.0	DI	60.0	-12.5431	0.14	False	0.00	False	True	37.00
P-0753	6.0	C-900	60.0	10.7320	0.12	False	0.00	False	True	49.00
P-0754	6.0	AC	60.0	18.1140	0.21	False	0.00	False	True	278.00
P-0755	8.0	CI	120.0	-27.6518	0.18	False	0.00	False	True	5.00
P-0756	8.0	CI	90.0	-29.0032	0.19	False	0.00	False	True	30.00
P-0757	8.0	CI	90.0	-12.4371	0.08	False	0.00	False	True	377.00
P-0758	8.0	CI	90.0	-27.8375	0.18	False	0.00	False	True	36.00
P-0759	8.0	CI	90.0	-27.8372	0.18	False	0.00	False	True	454.00
P-0760	8.0	CI	100.0	-107.6849	0.69	False	0.00	False	True	379.00
P-0761	6.0	C-900	70.0	0.0000	0.00	False	0.00	False	True	80.00
P-0762	6.0	C-900	70.0	0.0006	0.00	False	0.00	False	True	249.00
P-0763	6.0	PVC	70.0	0.0002	0.00	False	0.00	False	True	23.00
P-0764	2.0	GI	120.0	-3.0257	0.31	False	0.00	False	True	335.00
P-0765	2.0	GI	120.0	-0.5419	0.06	False	0.00	False	True	275.00
P-0766	2.0	GI	120.0	2.1320	0.22	False	0.00	False	True	254.00
P-0767	2.0	GI	120.0	-0.3516	0.04	False	0.00	False	True	251.00
P-0768	2.0	GI	120.0	-7.0773	0.72	False	0.00	False	True	1,013.00
P-0769	2.0	GI	120.0	-1.9463	0.20	False	0.00	False	True	345.00
P-0770	2.0	GI	120.0	-0.8135	0.08	False	0.00	False	True	192.00
P-0771	2.0	GI	120.0	4.3158	0.44	False	0.00	False	True	333.00
P-0772	2.0	GI	120.0	7.0970	0.72	False	0.00	False	True	141.00
P-0773	6.0	C-900	70.0	0.0141	0.00	False	0.00	False	True	317.00
P-0774	6.0	C-900	60.0	-0.6893	0.01	False	0.00	False	True	121.00
P-0775	6.0	C-900	60.0	-0.6891	0.01	False	0.00	False	True	314.00
P-0776	6.0	C-900	120.0	-0.1205	0.00	False	0.00	False	True	670.00
P-0777	6.0	C-900	120.0	0.3538	0.00	False	0.00	False	True	595.00
P-0778	6.0	C-900	120.0	-0.4362	0.00	False	0.00	False	True	369.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0779	6.0	C-900	120.0	0.0380	0.00	False	0.00	False	True	550.00
P-0780	6.0	C-900	120.0	0.5122	0.01	False	0.00	False	True	347.00
P-0781	6.0	C-900	120.0	0.0061	0.00	False	0.00	False	True	549.00
P-0782	6.0	C-900	120.0	0.4803	0.01	False	0.00	False	True	358.00
P-0783	8.0	C-900	120.0	-3.0766	0.02	False	0.00	False	True	241.00
P-0784	8.0	C-900	120.0	-2.1342	0.01	False	0.00	False	True	241.00
P-0785	8.0	C-900	120.0	-3.7697	0.02	False	0.00	False	True	241.00
P-0786	8.0	C-900	120.0	-4.6801	0.03	False	0.00	False	True	241.00
P-0787	8.0	C-900	120.0	-5.2748	0.03	False	0.00	False	True	252.00
P-0788	8.0	C-900	120.0	-5.9226	0.04	False	0.00	False	True	62.00
P-0789	6.0	C-900	120.0	-0.1736	0.00	False	0.00	False	True	307.00
P-0790	6.0	C-900	120.0	0.3006	0.00	False	0.00	False	True	652.00
P-0791	6.0	C-900	120.0	0.7748	0.01	False	0.00	False	True	305.00
P-0792	6.0	C-900	120.0	0.0881	0.00	False	0.00	False	True	594.00
P-0793	6.0	C-900	120.0	0.5623	0.01	False	0.00	False	True	514.00
P-0794	8.0	C-900	120.0	-6.7829	0.04	False	0.00	False	True	333.00
P-0795	8.0	C-900	120.0	-6.3968	0.04	False	0.00	False	True	256.00
P-0796	8.0	C-900	120.0	-6.9936	0.04	False	0.00	False	True	333.00
P-0797	6.0	C-900	120.0	0.2636	0.00	False	0.00	False	True	383.00
P-0798	6.0	C-900	120.0	0.7378	0.01	False	0.00	False	True	521.00
P-0799	6.0	C-900	120.0	1.0749	0.01	False	0.00	False	True	325.00
P-0800	6.0	C-900	120.0	1.5491	0.02	False	0.00	False	True	374.00
P-0801	8.0	C-900	120.0	-6.3929	0.04	False	0.00	False	True	334.00
P-0802	8.0	C-900	120.0	9.1297	0.06	False	0.00	False	True	263.00
P-0803	8.0	C-900	120.0	11.1530	0.07	False	0.00	False	True	263.00
P-0804	8.0	C-900	120.0	7.9177	0.05	False	0.00	False	True	263.00
P-0805	8.0	C-900	120.0	6.8812	0.04	False	0.00	False	True	263.00
P-0806	8.0	C-900	120.0	5.6322	0.04	False	0.00	False	True	252.00
P-0807	8.0	C-900	120.0	4.8041	0.03	False	0.00	False	True	241.00
P-0808	8.0	C-900	120.0	3.8177	0.02	False	0.00	False	True	241.00
P-0809	8.0	C-900	120.0	3.0882	0.02	False	0.00	False	True	241.00
P-0810	8.0	C-900	120.0	2.1337	0.01	False	0.00	False	True	241.00
P-0811	8.0	C-900	120.0	1.1853	0.01	False	0.00	False	True	53.00
P-0812	8.0	C-900	120.0	1.6595	0.01	False	0.00	False	True	595.00
P-0813	8.0	C-900	120.0	-1.6600	0.01	False	0.00	False	True	619.00
P-0814	6.0	C-900	120.0	0.4742	0.01	False	0.00	False	True	251.00
P-0815	6.0	C-900	120.0	0.9484	0.01	False	0.00	False	True	228.00
P-0816	6.0	C-900	120.0	-0.9484	0.01	False	0.00	False	True	420.00
P-0817	6.0	C-900	120.0	-0.4742	0.01	False	0.00	False	True	221.00
P-0818	2.0	GI	120.0	3.9331	0.40	False	0.00	False	True	357.00
P-0819	2.0	GI	120.0	-0.0002	0.00	False	0.00	False	True	918.00
P-0820	2.0	GI	120.0	6.5542	0.67	False	0.00	False	True	31.00
P-0821	4.0	PVC	120.0	-4.7582	0.12	False	0.00	False	True	432.00
P-0822	4.0	PVC	120.0	-0.0341	0.00	False	0.00	False	True	8.00
P-0823	4.0	AC - DRY	90.0	-4.7586	0.12	False	0.00	False	True	37.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0824	4.0	AC - DRY	90.0	-0.0002	0.00	False	0.00	False	True	395.00
P-0825	6.0	CL-200	120.0	-14.1677	0.16	False	0.00	False	True	358.00
P-0826	6.0	CL-200	120.0	-14.1675	0.16	False	0.00	False	True	396.00
P-0827	2.0	GI	120.0	4.6221	0.47	False	0.00	False	True	398.00
P-0828	2.0	GI	120.0	5.1158	0.52	False	0.00	False	True	381.00
P-0829	6.0	AC	60.0	4.4223	0.05	False	0.00	False	True	607.00
P-0830	6.0	AC	60.0	39.3392	0.45	False	0.00	False	True	380.00
P-0831	6.0	AC	60.0	44.4571	0.50	False	0.00	False	True	384.00
P-0832	6.0	AC	60.0	45.8892	0.52	False	0.00	False	True	266.00
P-0833	6.0	AC	60.0	46.6872	0.53	False	0.00	False	True	54.00
P-0834	6.0	DI	60.0	-12.8815	0.15	False	0.00	False	True	279.00
P-0835	6.0	DI	60.0	-12.8817	0.15	False	0.00	False	True	45.00
P-0836	6.0	C-900	60.0	-0.4057	0.00	False	0.00	False	True	283.00
P-0837	6.0	C-900	60.0	9.6109	0.11	False	0.00	False	True	24.00
P-0838	6.0	C-900	60.0	10.4742	0.12	False	0.00	False	True	21.00
P-0839	6.0	C-900	60.0	10.4744	0.12	False	0.00	False	True	241.00
P-0840	8.0	CI	60.0	-0.0838	0.00	False	0.00	False	True	526.00
P-0841	8.0	CI	60.0	-15.5677	0.10	False	0.00	False	True	33.00
P-0842	8.0	CI	90.0	-13.6078	0.09	False	0.00	False	True	43.00
P-0843	8.0	CI	90.0	-13.6076	0.09	False	0.00	False	True	308.00
P-0844	2.0	GI	120.0	0.8137	0.08	False	0.00	False	True	300.00
P-0845	2.0	GI	120.0	7.0972	0.72	False	0.00	False	True	274.00
P-0846	2.0	GI	120.0	-0.6528	0.07	False	0.00	False	True	138.00
P-0847	6.0	C-900	120.0	-0.2832	0.00	False	0.00	False	True	490.00
P-0848	6.0	C-900	120.0	-0.2826	0.00	False	0.00	False	True	124.00
P-0849	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	16.00
P-0850	6.0	PVC	120.0	1.8626	0.02	False	0.00	False	True	430.00
P-0851	6.0	PVC	120.0	1.8630	0.02	False	0.00	False	True	177.00
P-0852	6.0	PVC	120.0	-5.6027	0.06	False	0.00	False	True	1,327.00
P-0853	6.0	PVC	120.0	-1.6407	0.02	False	0.00	False	True	12.00
P-0854	6.0	PVC	120.0	-0.0003	0.00	False	0.00	False	True	10.00
P-0855	6.0	PVC	120.0	-1.6411	0.02	False	0.00	False	True	30.00
P-0856	6.0	PVC	120.0	15.7762	0.18	False	0.00	False	True	68.00
P-0857	14.0	C-900	120.0	276.5685	0.58	False	0.00	False	True	13.00
P-0858	14.0	C-900	120.0	260.7928	0.54	False	0.00	False	True	68.00
P-0859	14.0	C-900	120.0	36.4697	0.08	False	0.00	False	True	6.00
P-0860	14.0	C-900	120.0	34.8297	0.07	False	0.00	False	True	124.00
P-0861	14.0	C-900	120.0	241.0921	0.50	False	0.00	False	True	48.00
P-0862	14.0	C-900	120.0	276.5683	0.58	False	0.00	False	True	132.00
P-0863	14.0	C-900	120.0	241.0919	0.50	False	0.00	False	True	202.00
P-0864	14.0	C-900	120.0	234.9758	0.49	False	0.00	False	True	41.00
P-0865	14.0	C-900	120.0	-36.3530	0.08	False	0.00	False	True	748.00
P-0866	14.0	C-900	120.0	-36.2020	0.08	False	0.00	False	True	652.00
P-0867	6.0	C-900	120.0	0.0002	0.00	False	0.00	False	True	80.00
P-0868	6.0	C-900	120.0	-0.0166	0.00	False	0.00	False	True	544.00

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Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0869	6.0	GI	120.0	-17.5017	0.20	False	0.00	False	True	317.00
P-0870	6.0	GI	120.0	-15.4112	0.17	False	0.00	False	True	43.00
P-0871	6.0	GI	120.0	-28.9730	0.33	False	0.00	False	True	23.00
P-0872	6.0	GI	120.0	-28.3831	0.32	False	0.00	False	True	20.00
P-0873	6.0	GI	120.0	-28.3829	0.32	False	0.00	False	True	27.00
P-0874	6.0	GI	120.0	-26.5969	0.30	False	0.00	False	True	662.00
P-0875	6.0	GI	120.0	-6.5478	0.07	False	0.00	False	True	52.00
P-0876	6.0	GI	120.0	-6.5476	0.07	False	0.00	False	True	294.00
P-0877	6.0	GI	120.0	-4.5232	0.05	False	0.00	False	True	368.00
P-0878	6.0	GI	120.0	-2.4993	0.03	False	0.00	False	True	268.00
P-0879	6.0	GI	120.0	-2.4991	0.03	False	0.00	False	True	60.00
P-0880	2.0	GI	120.0	0.3120	0.03	False	0.00	False	True	152.00
P-0881	2.0	GI	120.0	0.3124	0.03	False	0.00	False	True	668.00
P-0882	2.0	GI	120.0	0.5632	0.06	False	0.00	False	True	329.00
P-0883	2.0	GI	120.0	1.5166	0.15	False	0.00	False	True	665.00
P-0884	12.0	C-900	120.0	0.0004	0.00	False	0.00	False	True	50.00
P-0885	12.0	C-900	120.0	0.5897	0.00	False	0.00	False	True	878.00
P-0886	8.0	C-900	120.0	0.5886	0.00	False	0.00	False	True	221.00
P-0887	8.0	C-900	120.0	0.5890	0.00	False	0.00	False	True	205.00
P-0888	8.0	C-900	120.0	0.5879	0.00	False	0.00	False	True	29.00
P-0889	8.0	C-900	120.0	0.5882	0.00	False	0.00	False	True	35.00
P-0890	14.0	C-900	120.0	-28.9737	0.06	False	0.00	False	True	65.00
P-0891	8.0	PVC	120.0	-7.2281	0.05	False	0.00	False	True	62.00
P-0892	8.0	PVC	120.0	-7.2267	0.05	False	0.00	False	True	15.00
P-0893	8.0	PVC	120.0	-0.0002	0.00	False	0.00	False	True	52.00
P-0894	4.0	C-900	120.0	0.7203	0.02	False	0.00	False	True	225.00
P-0895	4.0	C-900	120.0	1.4273	0.04	False	0.00	False	True	201.00
P-0896	4.0	PVC	120.0	1.9626	0.05	False	0.00	False	True	176.00
P-0897	4.0	PVC	120.0	1.8844	0.05	False	0.00	False	True	187.00
P-0898	8.0	PVC	120.0	-0.0012	0.00	False	0.00	False	True	436.00
P-0899	8.0	PVC	120.0	-0.0009	0.00	False	0.00	False	True	280.00
P-0900	4.0	PVC	120.0	3.8966	0.10	False	0.00	False	True	234.00
P-0901	4.0	PVC	120.0	7.2263	0.18	False	0.00	False	True	325.00
P-0902	4.0	PVC	120.0	2.3732	0.06	False	0.00	False	True	176.00
P-0903	4.0	C-900	120.0	0.7250	0.02	False	0.00	False	True	227.00
P-0904	4.0	C-900	120.0	1.4632	0.04	False	0.00	False	True	200.00
P-0905	8.0	C-900	120.0	0.0003	0.00	False	0.00	False	True	26.00
P-0906	8.0	C-900	120.0	0.0005	0.00	False	0.00	False	True	438.00
P-0907	4.0	PVC	120.0	0.7218	0.02	False	0.00	False	True	1,928.00
P-0908	4.0	C-900	120.0	-0.9112	0.02	False	0.00	False	True	1,325.00
P-0909	4.0	PVC	120.0	-0.4309	0.01	False	0.00	False	True	992.00
P-0910	2.0	GI	120.0	4.7163	0.48	False	0.00	False	True	850.00
P-0911	2.0	PVC	120.0	-0.4342	0.04	False	0.00	False	True	908.00
P-0912	4.0	AC - DRY	90.0	0.0002	0.00	False	0.00	False	True	814.00
P-0913	2.0	GI	120.0	-1.3905	0.14	False	0.00	False	True	793.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0914	4.0	C-900	120.0	0.4838	0.01	False	0.00	False	True	1,524.00
P-0915	2.0	GI	120.0	-0.0931	0.01	False	0.00	False	True	752.00
P-0916	2.0	PVC	120.0	0.0563	0.01	False	0.00	False	True	739.00
P-0917	2.0	GI	120.0	0.4471	0.05	False	0.00	False	True	739.00
P-0918	4.0	AC	90.0	-0.0339	0.00	False	0.00	False	True	720.00
P-0919	2.0	GI	120.0	1.1667	0.12	False	0.00	False	True	710.00
P-0920	6.0	AC	90.0	-21.6369	0.25	False	0.00	False	True	585.00
P-0921	2.0	GI	120.0	0.9787	0.10	False	0.00	False	True	695.00
P-0922	2.0	GI	120.0	3.0922	0.32	False	0.00	False	True	759.00
P-0923	6.0	PVC	120.0	-7.0116	0.08	False	0.00	False	True	755.00
P-0924	2.0	GI	120.0	-4.5908	0.47	False	0.00	False	True	678.00
P-0925	2.0	GI	120.0	0.4936	0.05	False	0.00	False	True	569.00
P-0926	6.0	PVC	120.0	1.9099	0.02	False	0.00	False	True	605.00
P-0927	6.0	C-900	120.0	-21.1384	0.24	False	0.00	False	True	565.00
P-0928	6.0	PVC	120.0	-1.5473	0.02	False	0.00	False	True	553.00
P-0929	2.0	GI	120.0	-0.6404	0.07	False	0.00	False	True	552.00
P-0930	4.0	PVC	120.0	0.5095	0.01	False	0.00	False	True	548.00
P-0931	2.0	PVC	120.0	0.6119	0.06	False	0.00	False	True	547.00
P-0932	2.0	GI	120.0	-4.6219	0.47	False	0.00	False	True	531.00
P-0933	6.0	C-900	120.0	-0.2822	0.00	False	0.00	False	True	616.00
P-0934	6.0	CL-200	120.0	-15.4108	0.17	False	0.00	False	True	803.00
P-0935	6.0	C-900	120.0	-0.4682	0.01	False	0.00	False	True	358.00
P-0936	8.0	C-900	120.0	6.8671	0.04	False	0.00	False	True	492.00
P-0937	2.0	GI	120.0	-0.2610	0.03	False	0.00	False	True	492.00
P-0938	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	535.00
P-0939	6.0	PVC	110.0	0.7631	0.01	False	0.00	False	True	482.00
P-0940	2.0	GI	120.0	-0.7793	0.08	False	0.00	False	True	475.00
P-0941	2.0	GI	120.0	0.3443	0.04	False	0.00	False	True	475.00
P-0942	6.0	C-900	120.0	6.8357	0.08	False	0.00	False	True	473.00
P-0943	2.0	GI	120.0	1.7062	0.17	False	0.00	False	True	476.00
P-0944	2.0	GI	120.0	-0.4360	0.04	False	0.00	False	True	466.00
P-0945	12.0	C-900	120.0	-10.4613	0.03	False	0.00	False	True	894.00
P-0946	2.0	GI	120.0	0.3200	0.03	False	0.00	False	True	452.00
P-0947	2.0	PVC	120.0	0.3040	0.03	False	0.00	False	True	493.00
P-0948	6.0	C-900	120.0	-0.0002	0.00	False	0.00	False	True	511.00
P-0949	2.0	PVC	120.0	-6.1159	0.62	False	0.00	False	True	439.00
P-0950	14.0	C-900	110.0	-170.7765	0.36	False	0.00	False	True	647.00
P-0951	2.0	PVC	120.0	1.3568	0.14	False	0.00	False	True	432.00
P-0952	6.0	C-900	120.0	-7.9251	0.09	False	0.00	False	True	577.00
P-0953	4.0	PVC	120.0	2.6071	0.07	False	0.00	False	True	437.00
P-0954	4.0	PVC	120.0	0.1874	0.00	False	0.00	False	True	418.00
P-0955	4.0	PVC	120.0	0.8008	0.02	False	0.00	False	True	418.00
P-0956	4.0	C-900	120.0	-0.0023	0.00	False	0.00	False	True	415.00
P-0957	4.0	C-900	120.0	-0.0156	0.00	False	0.00	False	True	416.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0958	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	412.00
P-0959	2.0	GI	120.0	0.8933	0.09	False	0.00	False	True	447.00
P-0960	2.0	PVC	120.0	-0.5540	0.06	False	0.00	False	True	420.00
P-0961	2.0	GI	120.0	-0.2574	0.03	False	0.00	False	True	385.00
P-0962	2.0	GI	120.0	-1.1115	0.11	False	0.00	False	True	662.00
P-0963	2.0	GI	120.0	2.1462	0.22	False	0.00	False	True	371.00
P-0964	6.0	C-900	120.0	-0.2189	0.00	False	0.00	False	True	681.00
P-0965	2.0	GI	120.0	0.5671	0.06	False	0.00	False	True	427.00
P-0966	2.0	GI	120.0	2.0949	0.21	False	0.00	False	True	363.00
P-0967	6.0	C-900	120.0	0.0004	0.00	False	0.00	False	True	354.00
P-0968	6.0	GI	120.0	-19.3276	0.22	False	0.00	False	True	384.00
P-0969	6.0	PVC	120.0	-11.0625	0.13	False	0.00	False	True	330.00
P-0970	14.0	C-900	120.0	36.4695	0.08	False	0.00	False	True	214.00
P-0971	12.0	C-900	110.0	94.1582	0.27	False	0.00	False	True	332.00
P-0972	6.0	PVC	120.0	4.7323	0.05	False	0.00	False	True	324.00
P-0973	8.0	CI	120.0	0.0000	0.00	False	0.00	False	True	395.00
P-0974	6.0	PVC	120.0	5.1697	0.06	False	0.00	False	True	400.00
P-0975	6.0	AC	90.0	5.6031	0.06	False	0.00	False	True	314.00
P-0976	6.0	PVC	120.0	0.2553	0.00	False	0.00	False	True	584.00
P-0977	2.0	GI	120.0	-0.6105	0.06	False	0.00	False	True	301.00
P-0978	2.0	GI	120.0	-1.1655	0.12	False	0.00	False	True	305.00
P-0979	6.0	PVC	120.0	1.7813	0.02	False	0.00	False	True	627.00
P-0980	1.5	GI	120.0	0.6526	0.12	False	0.00	False	True	294.00
P-0981	2.0	PVC	120.0	0.1933	0.02	False	0.00	False	True	294.00
P-0982	4.0	AC	90.0	16.9044	0.43	False	0.00	False	True	384.00
P-0983	2.0	PVC	120.0	1.1549	0.12	False	0.00	False	True	317.00
P-0984	2.0	PVC	120.0	0.3033	0.03	False	0.00	False	True	292.00
P-0985	6.0	CI	120.0	0.0002	0.00	False	0.00	False	True	292.00
P-0986	2.0	GI	120.0	0.4473	0.05	False	0.00	False	True	290.00
P-0987	2.0	PVC	120.0	9.0244	0.92	False	0.00	False	True	288.00
P-0988	2.0	GI	120.0	-0.5841	0.06	False	0.00	False	True	306.00
P-0989	2.0	GI	120.0	-1.0511	0.11	False	0.00	False	True	287.00
P-0990	2.0	GI	120.0	-2.9737	0.30	False	0.00	False	True	285.00
P-0991	2.0	GI	120.0	2.0379	0.21	False	0.00	False	True	295.00
P-0992	6.0	AC	60.0	4.4220	0.05	False	0.00	False	True	424.00
P-0993	2.0	GI	120.0	1.0574	0.11	False	0.00	False	True	274.00
P-0994	6.0	PVC	120.0	0.0004	0.00	False	0.00	False	True	266.00
P-0995	2.0	GI	120.0	1.2739	0.13	False	0.00	False	True	494.00
P-0996	2.0	GI	120.0	-2.2123	0.23	False	0.00	False	True	251.00
P-0997	6.0	C-900	120.0	0.0001	0.00	False	0.00	False	True	311.00
P-0998	1.0	PVC	120.0	-0.1176	0.05	False	0.00	False	True	249.00
P-0999	6.0	C-900	120.0	-20.9103	0.24	False	0.00	False	True	247.00
P-1000	12.0	PVC	110.0	-170.7754	0.48	False	0.00	False	True	876.00
P-1001	6.0	PVC	120.0	-0.3379	0.00	False	0.00	False	True	242.00

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Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1002	6.0	PVC	120.0	0.3451	0.00	False	0.00	False	True	505.00
P-1003	6.0	PVC	60.0	0.7036	0.01	False	0.00	False	True	235.00
P-1004	2.0	PVC	120.0	0.1404	0.01	False	0.00	False	True	232.00
P-1005	2.0	GI	120.0	0.8679	0.09	False	0.00	False	True	232.00
P-1006	6.0	PVC	80.0	5.0544	0.06	False	0.00	False	True	228.00
P-1007	2.0	PVC	120.0	-0.4030	0.04	False	0.00	False	True	227.00
P-1008	12.0	PVC	150.0	0.0000	0.00	False	0.00	False	True	3,430.00
P-1008	6.0	PVC	120.0	5.6029	0.06	False	0.00	False	True	222.00
P-1009	12.0	C-900	110.0	170.7756	0.48	False	0.00	False	True	222.00
P-1010	2.0	GI	120.0	0.7528	0.08	False	0.00	False	True	236.00
P-1011	8.0	C-900	120.0	0.5884	0.00	False	0.00	False	True	214.00
P-1012	12.0	PVC	110.0	-18.4947	0.05	False	0.00	False	True	209.00
P-1013	2.0	PVC	120.0	5.3647	0.55	False	0.00	False	True	210.00
P-1014	8.0	C-900	120.0	2.3711	0.02	False	0.00	False	True	210.00
P-1015	2.0	GI	120.0	-0.6458	0.07	False	0.00	False	True	200.00
P-1016	2.0	PVC	120.0	0.2340	0.02	False	0.00	False	True	205.00
P-1017	2.0	GI	120.0	0.2960	0.03	False	0.00	False	True	205.00
P-1018	2.0	PVC	120.0	-0.3333	0.03	False	0.00	False	True	202.00
P-1019	6.0	PVC	60.0	0.7038	0.01	False	0.00	False	True	198.00
P-1020	6.0	AC	90.0	-4.5137	0.05	False	0.00	False	True	373.00
P-1021	6.0	PVC	150.0	0.0000	0.00	False	0.00	False	True	285.00
P-1021	2.0	PVC	120.0	1.6401	0.17	False	0.00	False	True	190.00
P-1022	2.0	GI	120.0	0.0133	0.00	False	0.00	False	True	211.00
P-1023	6.0	C-900	120.0	-0.0002	0.00	False	0.00	False	True	184.00
P-1023	12.0	PVC	150.0	0.0000	0.00	False	0.00	False	True	18,578.00
P-1024	4.0	CI	80.0	14.9102	0.38	False	0.00	False	True	249.00
P-1025	6.0	GI	120.0	15.4110	0.17	False	0.00	False	True	362.00
P-1026	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	200.00
P-1027	6.0	PVC	120.0	2.7341	0.03	False	0.00	False	True	183.00
P-1028	6.0	C-900	120.0	7.2462	0.08	False	0.00	False	True	184.00
P-1029	6.0	PVC	100.0	2.6282	0.03	False	0.00	False	True	276.00
P-1030	6.0	C-900	120.0	-1.7722	0.02	False	0.00	False	True	175.00
P-1031	2.0	PVC	120.0	4.2934	0.44	False	0.00	False	True	337.00
P-1032	1.0	PVC	120.0	0.6115	0.25	False	0.00	False	True	131.00
P-1033	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	364.00
P-1034	6.0	C-900	120.0	-0.0002	0.00	False	0.00	False	True	147.00
P-1035	6.0	PVC	120.0	-34.9101	0.40	False	0.00	False	True	149.00
P-1036	1.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	145.00
P-1037	2.0	PVC	100.0	4.2338	0.43	False	0.00	False	True	185.00
P-1038	6.0	C-900	120.0	0.2818	0.00	False	0.00	False	True	320.00
P-1039	6.0	PVC	120.0	0.8786	0.01	False	0.00	False	True	131.00
P-1040	2.0	PVC	100.0	4.2338	0.43	False	0.00	False	True	126.00
P-1041	6.0	C-900	120.0	-6.1254	0.07	False	0.00	False	True	214.00
P-1041	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	576.00
P-1042	2.0	PVC	120.0	5.3645	0.55	False	0.00	False	True	115.00

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Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1042	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	39.00
P-1043	2.0	PVC	120.0	-0.5327	0.05	False	0.00	False	True	113.00
P-1044	8.0	C-900	120.0	0.5892	0.00	False	0.00	False	True	111.00
P-1045	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	104.00
P-1046	2.0	GI	120.0	-0.1998	0.02	False	0.00	False	True	162.00
P-1047	6.0	PVC	120.0	-5.7329	0.07	False	0.00	False	True	93.00
P-1047	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	32.00
P-1048	6.0	AC	90.0	-23.8389	0.27	False	0.00	False	True	220.00
P-1048	8.0	PVC	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	3,483.00
P-1049	12.0	PVC	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	844.00
P-1049	2.0	GI	120.0	0.0346	0.00	False	0.00	False	True	122.00
P-1050	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	84.00
P-1050	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	36.00
P-1051	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	83.00
P-1052	12.0	C-900	110.0	170.5365	0.48	False	0.00	False	True	923.00
P-1053	6.0	PVC	120.0	-2.9976	0.03	False	0.00	False	True	148.00
P-1054	6.0	CI	120.0	-24.9862	0.28	False	0.00	False	True	76.00
P-1055	2.0	GI	120.0	-0.0929	0.01	False	0.00	False	True	70.00
P-1056	2.0	GI	120.0	0.5085	0.05	False	0.00	False	True	70.00
P-1057	2.0	GI	120.0	0.5085	0.05	False	0.00	False	True	70.00
P-1058	2.0	GI	120.0	-0.1178	0.01	False	0.00	False	True	63.00
P-1059	6.0	PVC	120.0	-33.6617	0.38	False	0.00	False	True	87.00
P-1060	2.0	PVC	120.0	0.1039	0.01	False	0.00	False	True	105.00
P-1061	2.0	PVC	120.0	5.3649	0.55	False	0.00	False	True	60.00
P-1062	6.0	C-900	120.0	17.4175	0.20	False	0.00	False	True	59.00
P-1063	6.0	PVC	120.0	-15.7760	0.18	False	0.00	False	True	59.00
P-1064	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	59.00
P-1065	14.0	C-900	110.0	170.7758	0.36	False	0.00	False	True	56.00
P-1066	6.0	PVC	80.0	-5.0542	0.06	False	0.00	False	True	68.00
P-1067	2.0	PVC	120.0	0.5072	0.05	False	0.00	False	True	427.00
P-1068	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	55.00
P-1069	14.0	C-900	120.0	28.9735	0.06	False	0.00	False	True	38.00
P-1070	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	54.00
P-1071	2.0	PVC	120.0	-4.1982	0.43	False	0.00	False	True	41.00
P-1072	6.0	PVC	80.0	-5.0546	0.06	False	0.00	False	True	52.00
P-1073	14.0	C-900	120.0	0.0003	0.00	False	0.00	False	True	68.00
P-1074	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	50.00
P-1075	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	48.00
P-1076	2.0	PVC	120.0	0.2572	0.03	False	0.00	False	True	48.00
P-1077	6.0	PVC	100.0	0.5997	0.01	False	0.00	False	True	46.00
P-1078	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	43.00
P-1079	6.0	PVC	120.0	-0.0002	0.00	False	0.00	False	True	43.00
P-1080	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	42.00
P-1081	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	41.00
P-1082	12.0	C-900	110.0	18.4943	0.05	False	0.00	False	True	51.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1083	6.0	AC	90.0	0.0001	0.00	False	0.00	False	True	40.00
P-1084	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	40.00
P-1085	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	112.00
P-1086	2.0	PVC	100.0	4.2340	0.43	False	0.00	False	True	39.00
P-1087	4.0	PVC	100.0	0.9548	0.02	False	0.00	False	True	39.00
P-1088	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	39.00
P-1089	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	39.00
P-1090	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	38.00
P-1091	6.0	GI	120.0	0.0000	0.00	False	0.00	False	True	38.00
P-1092	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	38.00
P-1093	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	37.00
P-1094	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	37.00
P-1095	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	37.00
P-1096	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	37.00
P-1097	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	36.00
P-1098	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	36.00
P-1099	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	36.00
P-1100	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	35.00
P-1101	6.0	AC	90.0	-0.0001	0.00	False	0.00	False	True	36.00
P-1102	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	34.00
P-1103	2.0	PVC	120.0	3.9044	0.40	False	0.00	False	True	34.00
P-1104	6.0	PVC	120.0	-2.5487	0.03	False	0.00	False	True	34.00
P-1105	2.0	PVC	120.0	-4.0632	0.41	False	0.00	False	True	34.00
P-1106	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	33.00
P-1107	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	33.00
P-1108	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	33.00
P-1109	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	33.00
P-1110	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	32.00
P-1111	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	31.00
P-1112	6.0	CI	120.0	-0.0001	0.00	False	0.00	False	True	32.00
P-1113	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	32.00
P-1114	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	31.00
P-1115	6.0	CI	120.0	0.0000	0.00	False	0.00	False	True	31.00
P-1116	6.0	CL-200	120.0	0.0000	0.00	False	0.00	False	True	31.00
P-1117	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	31.00
P-1118	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	31.00
P-1119	2.0	PVC	120.0	9.0246	0.92	False	0.00	False	True	31.00
P-1120	2.0	GI	120.0	1.7255	0.18	False	0.00	False	True	30.00
P-1121	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	30.00
P-1122	14.0	C-900	120.0	0.0003	0.00	False	0.00	False	True	30.00
P-1123	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	30.00
P-1124	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	30.00
P-1125	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	30.00
P-1126	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	30.00
P-1127	14.0	C-900	120.0	-36.0806	0.08	False	0.00	False	True	29.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1128	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	32.00
P-1129	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	30.00
P-1130	6.0	GI	120.0	0.0000	0.00	False	0.00	False	True	30.00
P-1131	6.0	GI	120.0	0.0000	0.00	False	0.00	False	True	30.00
P-1132	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	29.00
P-1133	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	29.00
P-1134	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	29.00
P-1135	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	29.00
P-1136	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	29.00
P-1137	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	28.00
P-1138	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	28.00
P-1139	6.0	PVC	70.0	0.0000	0.00	False	0.00	False	True	28.00
P-1140	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	28.00
P-1141	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	28.00
P-1142	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	28.00
P-1143	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	27.00
P-1144	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	27.00
P-1145	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	28.00
P-1146	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	27.00
P-1147	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	27.00
P-1148	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	26.00
P-1149	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	26.00
P-1150	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	26.00
P-1151	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1152	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1153	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	25.00
P-1154	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	25.00
P-1155	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	25.00
P-1156	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1157	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1158	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1159	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	25.00
P-1160	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	25.00
P-1161	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1162	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1163	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	25.00
P-1164	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1165	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1166	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1167	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1168	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	22.00
P-1169	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	25.00
P-1170	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1171	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1172	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1173	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1174	6.0	AC	90.0	0.0000	0.00	False	0.00	False	True	24.00
P-1175	2.0	PVC	120.0	-0.3318	0.03	False	0.00	False	True	24.00
P-1176	6.0	PVC	120.0	-6.1718	0.07	False	0.00	False	True	23.00
P-1177	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	23.00
P-1178	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	22.00
P-1179	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	22.00
P-1180	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	21.00
P-1181	6.0	GI	120.0	0.0002	0.00	False	0.00	False	True	21.00
P-1182	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1183	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1184	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1185	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1186	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1187	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1188	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1189	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1190	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1191	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1192	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1193	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1194	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1195	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1196	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1197	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	48.00
P-1198	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	19.00
P-1199	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-1200	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	17.00
P-1201	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	17.00
P-1202	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	15.00
P-1203	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	15.00
P-1204	12.0	PVC	110.0	18.4945	0.05	False	0.00	False	True	14.00
P-1205	2.0	PVC	120.0	0.0563	0.01	False	0.00	False	True	12.00
P-1206	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	69.00
P-1207	6.0	Ductile Iron	130.0	1.0362	0.01	False	0.00	False	True	61.00
P-1208	6.0	Ductile Iron	130.0	-2.8074	0.03	False	0.00	False	True	507.00
P-1209	8.0	Ductile Iron	130.0	-15.7900	0.10	False	0.00	False	True	142.00
P-1210	10.0	Ductile Iron	130.0	59.0654	0.24	False	0.00	False	True	218.00
P-1211	8.0	Ductile Iron	130.0	-20.4783	0.13	False	0.00	False	True	97.00
P-1212	8.0	Ductile Iron	130.0	-3.1085	0.02	False	0.00	False	True	355.00
P-1213	6.0	Ductile Iron	130.0	-1.0362	0.01	False	0.00	False	True	101.00
P-1214	4.0	Ductile Iron	130.0	-1.0362	0.03	False	0.00	False	True	207.00
P-1215	10.0	Ductile Iron	130.0	56.9930	0.23	False	0.00	False	True	32.00
P-1216	10.0	Ductile Iron	130.0	56.9930	0.23	False	0.00	False	True	131.00
P-1217	10.0	Ductile Iron	130.0	53.8845	0.22	False	0.00	False	True	23.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1218	8.0	Ductile Iron	130.0	26.6957	0.17	False	0.00	False	True	506.00
P-1219	8.0	Ductile Iron	130.0	25.1163	0.16	False	0.00	False	True	430.00
P-1220	8.0	Ductile Iron	130.0	22.0077	0.14	False	0.00	False	True	315.00
P-1221	8.0	Ductile Iron	130.0	1.0362	0.01	False	0.00	False	True	131.00
P-1222	8.0	Ductile Iron	130.0	-23.0439	0.15	False	0.00	False	True	130.00
P-1223	8.0	Ductile Iron	130.0	-1.0362	0.01	False	0.00	False	True	30.00
P-1224	8.0	Ductile Iron	130.0	-14.7538	0.09	False	0.00	False	True	1.00
P-1225	8.0	Ductile Iron	130.0	-6.9355	0.04	False	0.00	False	True	373.00
P-1226	8.0	Ductile Iron	130.0	-1.0362	0.01	False	0.00	False	True	62.00
P-1227	8.0	Ductile Iron	130.0	0.6869	0.00	False	0.00	False	True	163.00
P-1228	8.0	Ductile Iron	130.0	-3.0301	0.02	False	0.00	False	True	634.00
P-1229	8.0	Ductile Iron	130.0	-6.1389	0.04	False	0.00	False	True	439.00
P-1230	4.0	Ductile Iron	130.0	-1.0362	0.03	False	0.00	False	True	179.00
P-1231	6.0	Ductile Iron	130.0	-1.9048	0.02	False	0.00	False	True	658.00
P-1232	6.0	Ductile Iron	130.0	-1.7344	0.02	False	0.00	False	True	559.00
P-1233	8.0	Ductile Iron	130.0	-2.8017	0.02	False	0.00	False	True	418.00
P-1234	6.0	Ductile Iron	130.0	-0.4281	0.00	False	0.00	False	True	329.00
P-1235	4.0	Ductile Iron	130.0	-1.0362	0.03	False	0.00	False	True	30.00
P-1236	8.0	Ductile Iron	130.0	-0.0001	0.00	False	0.00	False	True	9.00
P-1237	6.0	Ductile Iron	130.0	-0.0002	0.00	False	0.00	False	True	7.00
P-1238	6.0	Ductile Iron	130.0	-0.0002	0.00	False	0.00	False	True	7.00
P-1239	8.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	7.00
P-1240	6.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	7.00
P-1241	8.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	7.00
P-1242	6.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	8.00
P-1243	8.0	Ductile Iron	130.0	0.0003	0.00	False	0.00	False	True	7.00
P-1244	8.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	7.00
P-1245	8.0	Ductile Iron	130.0	-0.0002	0.00	False	0.00	False	True	9.00
P-1246	8.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	7.00
P-1247	8.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	7.00
P-1248	8.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	9.00
P-1249	8.0	Ductile Iron	130.0	-0.0001	0.00	False	0.00	False	True	9.00
P-1250	8.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	16.00
P-1251	6.0	Ductile Iron	130.0	-0.0001	0.00	False	0.00	False	True	7.00
P-1252	6.0	Ductile Iron	130.0	-0.0002	0.00	False	0.00	False	True	7.00
P-1253	10.0	Ductile Iron	130.0	-1.0362	0.00	False	0.00	False	True	22.00
P-1254	6.0	Ductile Iron	130.0	1.0362	0.01	False	0.00	False	True	303.00
P-1255	8.0	Ductile Iron	130.0	-17.8626	0.11	False	0.00	False	True	456.00
P-1256	8.0	Ductile Iron	130.0	16.8263	0.11	False	0.00	False	True	685.00
P-1257	8.0	Ductile Iron	130.0	-1.0362	0.01	False	0.00	False	True	1.00
P-1258	6.0	Ductile Iron	130.0	1.6447	0.02	False	0.00	False	True	682.00
P-1259	6.0	Ductile Iron	130.0	0.6083	0.01	False	0.00	False	True	864.00
P-1260	8.0	Ductile Iron	130.0	-3.5366	0.02	False	0.00	False	True	263.00
P-1261	6.0	Ductile Iron	130.0	-0.8685	0.01	False	0.00	False	True	876.00
P-1262	6.0	Ductile Iron	130.0	2.9385	0.03	False	0.00	False	True	658.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1263	6.0	Ductile Iron	130.0	1.9021	0.02	False	0.00	False	True	74.00
P-1264	8.0	Ductile Iron	130.0	-9.0799	0.06	False	0.00	False	True	325.00
P-1265	8.0	Ductile Iron	130.0	-11.1523	0.07	False	0.00	False	True	16.00
P-1266	8.0	Ductile Iron	130.0	-5.1025	0.03	False	0.00	False	True	16.00
P-1267	8.0	Ductile Iron	130.0	-0.3493	0.00	False	0.00	False	True	62.00
P-1268	8.0	Ductile Iron	130.0	2.7595	0.02	False	0.00	False	True	32.00
P-1269	8.0	Ductile Iron	130.0	2.0612	0.01	False	0.00	False	True	569.00
P-1270	8.0	Ductile Iron	130.0	-3.8381	0.02	False	0.00	False	True	377.00
P-1271	8.0	Ductile Iron	130.0	-10.7791	0.07	False	0.00	False	True	138.00
P-1272	8.0	Ductile Iron	130.0	2.0725	0.01	False	0.00	False	True	618.00
P-1273	8.0	Ductile Iron	130.0	20.9713	0.13	False	0.00	False	True	374.00
P-1274	8.0	Ductile Iron	130.0	26.1526	0.17	False	0.00	False	True	520.00
P-1275	8.0	Ductile Iron	130.0	-25.6593	0.16	False	0.00	False	True	744.00
P-1276	10.0	Ductile Iron	130.0	55.9568	0.23	False	0.00	False	True	268.00
P-1277	8.0	Ductile Iron	130.0	-6.2171	0.04	False	0.00	False	True	76.00
P-1278	8.0	Ductile Iron	130.0	-7.2535	0.05	False	0.00	False	True	141.00
P-1279	8.0	Ductile Iron	130.0	5.1809	0.03	False	0.00	False	True	19.00
P-1280	6.0	Ductile Iron	130.0	-1.7711	0.02	False	0.00	False	True	591.00
PP-1	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	318.00
PP-2	12.0	PVC	150.0	0.0001	0.00	False	0.00	False	True	926.00
PP-3	12.0	PVC	150.0	0.0001	0.00	False	0.00	False	True	68.00
PP-4	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	467.00
PP-5	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	1,411.00
PP-7	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	722.00
PP-8	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	318.00
PP-9	12.0	PVC	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	5,184.00
PP-10	12.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	5,518.00
PP-11	12.0	PVC	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	11,831.00
PP-13	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	929.00
PP-14	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	92.00
PP-15	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	1,693.00
PP-16	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	4,967.00
PP-17	12.0	PVC	140.0	0.0000	0.00	False	0.00	False	True	1,993.00
PP-18	12.0	PVC	150.0	0.0000	0.00	False	0.00	False	True	8,815.00
PP-19	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	2,231.00
PP-20	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	868.00
PP-22	6.0	Ductile Iron	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	14.00
PP-24	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	8,797.00
PP-25	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	694.00
PP-26	6.0	Ductile Iron	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	440.00
PP-27	6.0	Ductile Iron	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	375.00
PP-29	6.0	Ductile Iron	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	1,743.00

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3564	TEST 09-F	67.02	38.4	265.8641	0.0000
3575	H-013	48.00	46.7	267.7397	0.0000
3604	H-037	54.88	43.7	268.8833	0.0000
3603	H-036	47.80	46.7	269.6971	0.0000
3688	TEST 09-P	51.17	45.3	270.8753	0.0000
3677	H-110	49.08	46.2	280.1315	0.0000
3620	H-053	68.97	37.7	287.2426	0.0000
3605	H-038	84.18	31.1	293.3157	0.0000
3619	H-052	53.16	44.5	294.7323	0.0000
3621	H-054	56.48	43.1	295.0432	0.0000
3618	H-051	83.25	31.5	296.6971	0.0000
3596	H-029	80.18	32.8	298.3116	0.0000
3617	H-050	64.46	39.6	299.4848	0.0000
3595	H-028	70.86	36.8	303.3995	0.0000
3600	H-033	37.85	51.1	308.1792	0.0000
3623	H-056	45.21	47.9	308.8602	0.0000
3598	H-031	50.31	45.8	312.3440	0.0000
3597	H-030	37.09	51.4	315.7114	0.0000
3586	TEST 08-P	35.17	52.3	317.1042	0.0000
3616	TEST 08-F	52.68	44.7	317.6236	0.0000
3630	H-063	61.43	40.9	322.7027	0.0000
3627	H-060	59.85	41.5	322.7324	0.0000
3631	H-064	60.88	41.1	322.9304	0.0000
3629	H-062	59.46	41.7	322.9885	0.0000
3626	H-059	41.67	49.4	323.0005	0.0000
3634	H-067	58.01	42.3	323.0018	0.0000
3638	H-071	50.73	45.5	323.0153	0.0000
3637	H-070	58.57	42.1	323.0158	0.0000
3635	H-068	56.14	43.1	323.0185	0.0000
3602	H-035	48.22	46.6	323.0236	0.0000
3639	H-072	54.95	43.7	323.0252	0.0000
3613	H-046	33.22	53.1	323.0380	0.0000
3641	H-074	54.87	43.7	323.0395	0.0000
3632	H-065	59.02	41.9	323.0409	0.0000
3640	TEST 10-P	50.00	45.8	323.0433	0.0000
3615	H-048	34.77	52.4	323.0520	0.0000
3614	H-047	59.34	41.8	323.0568	0.0000
3636	TEST 10-F	70.00	37.1	323.0699	0.0000
3628	H-061	59.82	41.6	323.0729	0.0000
3650	H-083	50.00	45.9	328.3544	0.0000
3607	H-040	48.25	46.6	328.4072	0.0000
3649	H-082	46.13	47.6	349.4848	0.0000
3624	TEST 07-F	30.00	54.5	352.8797	0.0000
3625	TEST 07-P	50.00	45.9	352.9148	0.0000
3648	H-081	50.00	45.9	353.5048	0.0000
3695	H-128	46.26	47.6	355.6407	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3599	H-032	50.00	45.9	356.3180	0.0000
3645	TEST 03-F	50.00	46.1	360.3555	0.0000
3606	H-039	44.71	48.2	361.5537	0.0000
3647	H-080	42.50	49.2	364.7680	0.0000
3694	H-127	44.78	48.2	367.1827	0.0000
3642	TEST 03-P	50.00	46.1	412.1034	0.0000
3698	H-131	50.00	46.5	415.6032	0.0000
3590	H-023	60.00	42.8	435.8369	0.0000
3643	H-076	50.00	46.1	448.1879	0.0000
5437	H-132	50.00	46.1	448.5013	0.0000
3646	H-079	50.00	46.1	448.5875	0.0000
3692	H-125	50.00	46.1	455.0907	0.0000
3691	H-124	50.00	46.1	456.8898	0.0000
3690	H-123	50.00	46.1	460.4526	0.0000
3609	H-042	50.00	46.2	460.5115	0.0000
3601	H-034	52.70	45.0	461.7541	0.0000
3696	H-129	56.94	43.1	463.0642	0.0000
3651	H-084	50.00	46.2	465.0206	0.0000
3684	H-117	50.12	46.1	468.3766	0.0000
3689	H-122	50.00	46.2	469.6631	0.0000
3568	H-006	50.00	46.2	469.8078	0.0000
3567	TEST 02-F	50.00	46.2	470.4412	0.0000
3566	TEST 02-P	50.00	46.2	474.6754	0.0000
3572	H-010	63.32	41.4	478.5717	0.0000
3565	H-003	50.00	46.3	525.5477	0.0000
3592	H-025	55.19	44.6	528.5248	0.0000
3693	H-126	50.00	46.4	554.7883	0.0000
3686	H-119	50.00	46.6	582.9287	0.0000
3687	H-120	50.00	46.6	591.6610	0.0000
3574	TEST 01-F	50.05	47.1	606.5721	0.0000
3593	H-026	49.53	47.0	630.1231	0.0000
3663	H-096	54.53	44.9	639.7955	0.0000
3660	H-093	55.11	44.6	660.1325	0.0000
3664	H-097	50.00	46.8	664.1738	0.0000
3662	H-095	50.00	46.8	674.4908	0.0000
3685	H-118	50.00	46.6	674.9583	0.0000
3661	H-094	51.60	46.1	689.8878	0.0000
3610	H-043	51.53	46.2	713.8148	0.0000
3578	H-016	80.00	34.2	729.3759	0.0000
3683	TEST 06-F	57.50	43.7	815.3522	0.0000
3608	H-041	47.67	47.8	865.2643	0.0000
8566	H-7	94.92	47.9	874.0695	0.0000
8590	H-14	89.80	50.1	882.5912	0.0000
8567	H-8	82.54	53.3	883.6122	0.0000
8569	H-10	82.95	53.1	885.6970	0.0000
8564	H-5	84.61	52.4	889.2040	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
8705	H-38	81.59	54.7	891.4384	0.0000
8592	H-16	68.86	59.2	891.6237	0.0000
8593	H-17	67.05	60.0	893.8583	0.0000
8568	H-9	70.00	58.7	894.1036	0.0000
8571	H-12	83.47	52.9	915.2426	0.0000
8570	H-11	57.92	63.9	916.4063	0.0000
8594	H-18	50.00	67.4	934.7668	0.0000
3681	TEST 06-P	56.94	43.9	935.6685	0.0000
8615	H-27	80.00	54.4	985.6416	0.0000
8600	H-24	66.72	60.2	988.2251	0.0000
8602	H-26	66.30	60.4	993.4248	0.0000
8572	H-13	40.14	72.6	995.5875	0.0000
8702	H-37	89.40	51.3	999.8572	0.0000
8599	H-23	60.00	63.1	1,004.8495	0.0000
8595	H-19	69.23	59.1	1,011.6654	0.0000
8695	H-35	68.39	59.5	1,011.6771	0.0000
8596	H-20	66.60	60.2	1,016.4821	0.0000
8598	H-22	80.00	54.4	1,019.0387	0.0000
8597	H-21	60.00	63.1	1,021.6620	0.0000
3594	H-027	48.85	47.3	1,022.5656	0.0000
3658	H-091	50.00	46.8	1,029.7246	0.0000
3612	H-045	44.02	49.4	1,034.5518	0.0000
3573	TEST 01-P	42.93	50.2	1,053.8773	0.0000
3659	TEST 04-F	45.41	48.8	1,088.2407	0.0000
3680	H-113	58.38	43.3	1,096.6653	0.0000
3611	H-044	50.00	46.9	1,123.6050	0.0000
3674	H-107	58.19	43.4	1,129.6571	0.0000
5500	TEST 04-P	42.36	50.2	1,131.4655	0.0000
3678	H-111	54.17	45.1	1,134.7238	0.0000
3679	H-112	54.65	44.9	1,139.2671	0.0000
3588	H-021	73.64	36.9	1,151.5439	0.0000
3654	H-087	46.32	48.4	1,167.5470	0.0000
3657	H-090	52.41	45.8	1,168.4071	0.0000
3675	H-108	55.23	44.6	1,172.9283	0.0000
3656	H-089	50.04	46.8	1,173.1746	0.0000
3569	H-007	50.00	47.1	1,190.4142	0.0000
3673	H-106	58.60	43.2	1,201.1185	0.0000
3676	H-109	51.22	46.4	1,223.7141	0.0000
3682	H-115	58.18	43.4	1,223.7195	0.0000
3563	H-001	50.00	46.9	1,224.2943	0.0000
3655	H-088	75.65	36.0	1,241.6501	0.0000
3672	H-105	54.92	44.8	1,245.4280	0.0000
3671	H-104	54.47	45.0	1,261.5906	0.0000
3587	H-020	50.00	46.9	1,301.2699	0.0000
3577	H-015	76.04	35.9	1,338.2096	0.0000
3665	H-098	52.55	45.8	1,339.8546	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
8628	H-28	67.47	60.4	1,341.3551	0.0000
3579	H-017	68.88	38.8	1,377.4904	0.0000
8629	H-29	84.27	53.4	1,380.5327	0.0000
3670	H-103	51.41	46.3	1,393.2463	0.0000
3669	H-102	50.00	46.9	1,397.0457	0.0000
3668	H-101	50.00	46.9	1,397.0490	0.0000
3667	H-100	51.54	46.2	1,397.1660	0.0000
3697	H-130	54.42	45.2	1,398.3596	0.0000
3580	H-018	65.68	40.1	1,420.1190	0.0000
3644	H-077	56.64	44.0	1,420.1193	0.0000
3622	TEST 05-F	55.67	44.5	1,420.1208	0.0000
3633	TEST 05-P	67.26	39.5	1,420.1216	0.0000
3570	H-008	50.00	47.1	1,499.9999	0.0000
3571	H-009	57.26	44.0	1,499.9999	0.0000
3576	H-014	51.31	46.6	1,499.9999	0.0000
3589	H-022	67.19	39.7	1,499.9999	0.0000
3591	H-024	58.64	43.3	1,499.9999	0.0000
3652	H-085	55.75	44.6	1,499.9999	0.0000
3653	H-086	64.85	40.6	1,499.9999	0.0000
3666	H-099	80.00	34.2	1,499.9999	0.0000
6490	juliettehyd-1	54.33	71.0	1,499.9999	0.0000
6491	juliettehyd-10	80.00	59.9	1,499.9999	0.0000
6492	juliettehyd-11	53.34	71.5	1,499.9999	0.0000
6493	juliettehyd-12	63.34	67.1	1,499.9999	0.0000
6494	juliettehyd-13	50.00	72.9	1,499.9999	0.0000
6495	juliettehyd-14	62.10	67.7	1,499.9999	0.0000
6496	juliettehyd-15	63.82	66.9	1,499.9999	0.0000
6497	juliettehyd-16	71.01	63.8	1,499.9999	0.0000
6498	juliettehyd-17	79.01	60.4	1,499.9999	0.0000
6499	juliettehyd-18	50.00	72.9	1,499.9999	0.0000
6501	juliettehyd-2	60.00	68.6	1,499.9999	0.0000
6503	juliettehyd-3	60.00	68.6	1,499.9999	0.0000
6504	juliettehyd-4	56.87	69.9	1,499.9999	0.0000
6505	juliettehyd-5	60.86	68.2	1,499.9999	0.0000
6506	juliettehyd-6	60.00	68.6	1,499.9999	0.0000
6507	juliettehyd-7	70.00	64.3	1,499.9999	0.0000
6508	juliettehyd-8	60.00	68.6	1,499.9999	0.0000
6509	juliettehyd-9	46.15	74.6	1,499.9999	0.0000
8562	H-3	72.49	59.0	1,499.9999	0.0000
8639	H-30	79.68	55.8	1,499.9999	0.0000
8645	H-31	66.36	61.7	1,499.9999	0.0000
8651	H-32	67.86	61.1	1,499.9999	0.0000
8652	H-33	71.70	59.3	1,499.9999	0.0000
8653	H-34	92.51	50.3	1,499.9999	0.0000
8709	H-39	90.00	51.0	1,499.9999	0.0000
8808	H-40	88.32	52.1	1,499.9999	0.0000

Scenario 5 Model Summary

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3564	TEST 09-F	67.02	39.1	317.8673	0.0000
3575	H-013	48.00	47.3	320.7994	0.0000
3604	H-037	54.88	44.3	322.5246	0.0000
3603	H-036	47.80	47.4	323.8124	0.0000
3688	TEST 09-P	51.17	45.9	325.6311	0.0000
3677	H-110	49.08	46.8	340.1383	0.0000
3613	H-046	33.22	53.7	389.1575	0.0000
3616	TEST 08-F	52.68	45.3	392.0107	0.0000
3645	TEST 03-F	50.00	46.6	392.8782	0.0000
3614	H-047	59.34	42.4	413.0163	0.0000
3615	H-048	34.77	53.0	415.9384	0.0000
3636	TEST 10-F	70.00	37.8	425.4524	0.0000
3624	TEST 07-F	30.00	55.2	431.8871	0.0000
3590	H-023	60.00	42.8	435.8313	0.0000
3698	H-131	50.00	46.7	438.8939	0.0000
3625	TEST 07-P	50.00	46.5	446.8370	0.0000
3640	TEST 10-P	50.00	46.4	457.3994	0.0000
3642	TEST 03-P	50.00	46.6	457.5165	0.0000
3631	H-064	60.88	41.7	458.2641	0.0000
3641	H-074	54.87	44.3	459.0302	0.0000
3632	H-065	59.02	42.5	459.3424	0.0000
3639	H-072	54.95	44.3	459.4618	0.0000
3617	H-050	64.46	40.3	460.6383	0.0000
3618	H-051	83.25	32.2	461.0890	0.0000
3602	H-035	48.22	47.2	469.5729	0.0000
3635	H-068	56.14	43.8	472.9494	0.0000
3637	H-070	58.57	42.7	474.2356	0.0000
3638	H-071	50.73	46.1	474.3686	0.0000
3596	H-029	80.18	33.5	476.9503	0.0000
3572	H-010	63.32	41.4	478.5653	0.0000
3634	H-067	58.01	43.0	481.4572	0.0000
3626	H-059	41.67	50.1	482.3563	0.0000
3630	H-063	61.43	41.5	486.6556	0.0000
3629	H-062	59.46	42.4	487.3228	0.0000
3628	H-061	59.82	42.2	489.7784	0.0000
3586	TEST 08-P	35.17	52.9	496.5978	0.0000
3627	H-060	59.85	42.2	497.0676	0.0000
3605	H-038	84.18	31.8	504.8590	0.0000
3595	H-028	70.86	37.5	510.5942	0.0000
3643	H-076	50.00	46.6	512.7665	0.0000
3620	H-053	68.97	38.4	521.5994	0.0000
3592	H-025	55.19	44.5	528.3302	0.0000
3621	H-054	56.48	43.7	544.2601	0.0000
3619	H-052	53.16	45.3	580.6882	0.0000
3600	H-033	37.85	51.8	591.9961	0.0000
3623	H-056	45.21	48.6	594.6804	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3574	TEST 01-F	50.05	47.1	607.5198	0.0000
3597	H-030	37.09	52.1	620.7961	0.0000
3593	H-026	49.53	46.9	629.9104	0.0000
3646	H-079	50.00	46.6	637.6166	0.0000
3686	H-119	50.00	46.8	638.1652	0.0000
3663	H-096	54.53	44.8	639.6016	0.0000
3568	H-006	50.00	46.6	639.7224	0.0000
3647	H-080	42.50	49.8	640.1309	0.0000
3687	H-120	50.00	46.8	649.3233	0.0000
3660	H-093	55.11	44.6	659.9232	0.0000
3664	H-097	50.00	46.8	663.9793	0.0000
3606	H-039	44.71	48.8	667.2592	0.0000
3607	H-040	48.25	47.3	668.1015	0.0000
3662	H-095	50.00	46.8	674.2877	0.0000
3661	H-094	51.60	46.1	689.6627	0.0000
3601	H-034	52.70	45.4	710.1569	0.0000
3610	H-043	51.53	46.1	713.5707	0.0000
3578	H-016	80.00	34.2	729.4828	0.0000
3649	H-082	46.13	48.2	742.2394	0.0000
3648	H-081	50.00	46.5	755.0319	0.0000
3567	TEST 02-F	50.00	46.6	764.8165	0.0000
3599	H-032	50.00	46.6	770.9844	0.0000
3694	H-127	44.78	48.8	807.9006	0.0000
3683	TEST 06-F	57.50	43.6	815.1390	0.0000
3598	H-031	50.31	46.6	833.6769	0.0000
3696	H-129	56.94	43.6	864.8863	0.0000
8566	H-7	94.92	47.9	874.0693	0.0000
3695	H-128	46.26	48.2	879.6857	0.0000
8590	H-14	89.80	50.1	882.5911	0.0000
8567	H-8	82.54	53.3	883.6126	0.0000
8569	H-10	82.95	53.1	885.6968	0.0000
8564	H-5	84.61	52.4	889.2040	0.0000
8705	H-38	81.59	54.7	891.4385	0.0000
8592	H-16	68.86	59.2	891.6237	0.0000
8593	H-17	67.05	60.0	893.8583	0.0000
8568	H-9	70.00	58.7	894.1036	0.0000
5437	H-132	50.00	46.6	901.8401	0.0000
3684	H-117	50.12	46.6	910.0542	0.0000
3565	H-003	50.00	46.7	910.5724	0.0000
3609	H-042	50.00	46.6	911.9236	0.0000
3692	H-125	50.00	46.6	913.2148	0.0000
3691	H-124	50.00	46.6	913.6722	0.0000
3685	H-118	50.00	46.8	914.9874	0.0000
8571	H-12	83.47	52.9	915.2425	0.0000
8570	H-11	57.92	63.9	916.4063	0.0000
3651	H-084	50.00	46.6	922.2282	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3690	H-123	50.00	46.6	922.3859	0.0000
8594	H-18	50.00	67.4	934.7670	0.0000
3681	TEST 06-P	56.94	43.9	935.3795	0.0000
3689	H-122	50.00	46.6	938.0164	0.0000
3566	TEST 02-P	50.00	46.6	962.8488	0.0000
3650	H-083	50.00	46.7	966.9250	0.0000
3693	H-126	50.00	46.7	969.1470	0.0000
8615	H-27	80.00	54.4	985.6415	0.0000
8600	H-24	66.72	60.2	988.2255	0.0000
8602	H-26	66.30	60.4	993.4248	0.0000
8572	H-13	40.14	72.6	995.5875	0.0000
8702	H-37	89.40	51.3	999.8573	0.0000
8599	H-23	60.00	63.1	1,004.8502	0.0000
8595	H-19	69.23	59.1	1,011.6656	0.0000
8695	H-35	68.39	59.5	1,011.6769	0.0000
8596	H-20	66.60	60.2	1,016.4825	0.0000
8598	H-22	80.00	54.4	1,019.0388	0.0000
8597	H-21	60.00	63.1	1,021.6616	0.0000
3594	H-027	48.85	47.3	1,022.6837	0.0000
3658	H-091	50.00	46.8	1,029.8435	0.0000
3612	H-045	44.02	49.3	1,034.7965	0.0000
3608	H-041	47.67	47.7	1,038.4769	0.0000
3573	TEST 01-P	42.93	50.2	1,057.8920	0.0000
3659	TEST 04-F	45.41	48.7	1,074.0126	0.0000
3680	H-113	58.38	43.2	1,096.4069	0.0000
5500	TEST 04-P	42.36	50.1	1,117.0829	0.0000
3611	H-044	50.00	46.8	1,123.5618	0.0000
3674	H-107	58.19	43.3	1,129.4359	0.0000
3678	H-111	54.17	45.1	1,134.5260	0.0000
3679	H-112	54.65	44.9	1,139.0739	0.0000
3588	H-021	73.64	36.9	1,151.7246	0.0000
3654	H-087	46.32	48.4	1,153.0739	0.0000
3657	H-090	52.41	45.7	1,154.0728	0.0000
3656	H-089	50.04	46.8	1,158.3704	0.0000
3675	H-108	55.23	44.6	1,172.7808	0.0000
3569	H-007	50.00	47.1	1,195.4448	0.0000
3673	H-106	58.60	43.1	1,201.0110	0.0000
3563	H-001	50.00	46.8	1,209.3794	0.0000
3676	H-109	51.22	46.3	1,223.6670	0.0000
3682	H-115	58.18	43.3	1,223.7190	0.0000
3655	H-088	75.65	36.0	1,242.0172	0.0000
3672	H-105	54.92	44.7	1,245.9249	0.0000
3671	H-104	54.47	44.9	1,261.6898	0.0000
3587	H-020	50.00	46.8	1,286.4993	0.0000
3665	H-098	52.55	45.7	1,325.5238	0.0000
3577	H-015	76.04	35.9	1,338.4744	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
8628	H-28	67.47	60.4	1,341.3550	0.0000
3579	H-017	68.88	38.7	1,378.0498	0.0000
8629	H-29	84.27	53.4	1,380.5325	0.0000
3669	H-102	50.00	46.9	1,382.7618	0.0000
3668	H-101	50.00	46.9	1,382.7629	0.0000
3667	H-100	51.54	46.2	1,382.8203	0.0000
3670	H-103	51.41	46.3	1,382.8263	0.0000
3580	H-018	65.68	40.1	1,405.9030	0.0000
3622	TEST 05-F	55.67	44.4	1,405.9033	0.0000
3633	TEST 05-P	67.26	39.4	1,405.9045	0.0000
3644	H-077	56.64	44.0	1,405.9048	0.0000
3697	H-130	54.42	45.2	1,414.7642	0.0000
3570	H-008	50.00	47.1	1,499.9999	0.0000
3571	H-009	57.26	44.0	1,499.9999	0.0000
3576	H-014	51.31	46.6	1,499.9999	0.0000
3589	H-022	67.19	39.7	1,499.9999	0.0000
3591	H-024	58.64	43.3	1,499.9999	0.0000
3652	H-085	55.75	44.6	1,499.9999	0.0000
3653	H-086	64.85	40.6	1,499.9999	0.0000
3666	H-099	80.00	34.2	1,499.9999	0.0000
6490	juliettehyd-1	54.33	71.0	1,499.9999	0.0000
6491	juliettehyd-10	80.00	59.9	1,499.9999	0.0000
6492	juliettehyd-11	53.34	71.5	1,499.9999	0.0000
6493	juliettehyd-12	63.34	67.1	1,499.9999	0.0000
6494	juliettehyd-13	50.00	72.9	1,499.9999	0.0000
6495	juliettehyd-14	62.10	67.7	1,499.9999	0.0000
6496	juliettehyd-15	63.82	66.9	1,499.9999	0.0000
6497	juliettehyd-16	71.01	63.8	1,499.9999	0.0000
6498	juliettehyd-17	79.01	60.4	1,499.9999	0.0000
6499	juliettehyd-18	50.00	72.9	1,499.9999	0.0000
6501	juliettehyd-2	60.00	68.6	1,499.9999	0.0000
6503	juliettehyd-3	60.00	68.6	1,499.9999	0.0000
6504	juliettehyd-4	56.87	69.9	1,499.9999	0.0000
6505	juliettehyd-5	60.86	68.2	1,499.9999	0.0000
6506	juliettehyd-6	60.00	68.6	1,499.9999	0.0000
6507	juliettehyd-7	70.00	64.3	1,499.9999	0.0000
6508	juliettehyd-8	60.00	68.6	1,499.9999	0.0000
6509	juliettehyd-9	46.15	74.6	1,499.9999	0.0000
8562	H-3	72.49	59.0	1,499.9999	0.0000
8639	H-30	79.68	55.8	1,499.9999	0.0000
8645	H-31	66.36	61.7	1,499.9999	0.0000
8651	H-32	67.86	61.1	1,499.9999	0.0000
8652	H-33	71.70	59.3	1,499.9999	0.0000
8653	H-34	92.51	50.3	1,499.9999	0.0000
8709	H-39	90.00	51.0	1,499.9999	0.0000
8808	H-40	88.32	52.1	1,499.9999	0.0000

Scenario 6 Model Summary

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3620	H-053	68.97	38.2	315.3925	0.0000
3618	H-051	83.25	32.0	322.5345	0.0000
3605	H-038	84.18	31.6	323.0082	0.0000
3619	H-052	53.16	45.0	325.5729	0.0000
3621	H-054	56.48	43.6	325.9789	0.0000
3596	H-029	80.18	33.3	327.3809	0.0000
3617	H-050	64.46	40.1	330.1232	0.0000
3595	H-028	70.86	37.4	335.6745	0.0000
3600	H-033	37.85	51.6	341.2254	0.0000
3623	H-056	45.21	48.5	342.7378	0.0000
3616	TEST 08-F	52.68	45.2	344.0174	0.0000
3598	H-031	50.31	46.3	345.8881	0.0000
3597	H-030	37.09	52.0	350.3022	0.0000
3586	TEST 08-P	35.17	52.8	352.4438	0.0000
3650	H-083	50.00	46.4	363.8909	0.0000
3607	H-040	48.25	47.1	365.1382	0.0000
3645	TEST 03-F	50.00	46.5	368.0497	0.0000
3624	TEST 07-F	30.00	55.0	386.2135	0.0000
3649	H-082	46.13	48.1	386.7438	0.0000
3625	TEST 07-P	50.00	46.4	389.6023	0.0000
3648	H-081	50.00	46.4	392.0023	0.0000
3695	H-128	46.26	48.0	393.4973	0.0000
3599	H-032	50.00	46.4	394.6531	0.0000
3606	H-039	44.71	48.7	400.4872	0.0000
3647	H-080	42.50	49.6	404.0177	0.0000
3694	H-127	44.78	48.7	404.2238	0.0000
3642	TEST 03-P	50.00	46.5	421.7191	0.0000
3698	H-131	50.00	46.7	421.8461	0.0000
3590	H-023	60.00	42.8	435.9830	0.0000
3643	H-076	50.00	46.5	461.4732	0.0000
3572	H-010	63.32	41.4	478.7470	0.0000
5437	H-132	50.00	46.5	489.3419	0.0000
3646	H-079	50.00	46.5	489.7537	0.0000
3692	H-125	50.00	46.5	497.2875	0.0000
3691	H-124	50.00	46.5	499.5596	0.0000
3609	H-042	50.00	46.5	502.6005	0.0000
3690	H-123	50.00	46.5	503.2161	0.0000
3601	H-034	52.70	45.3	503.7200	0.0000
3696	H-129	56.94	43.5	505.6325	0.0000
3651	H-084	50.00	46.5	507.8109	0.0000
3684	H-117	50.12	46.5	512.4985	0.0000
3689	H-122	50.00	46.5	512.8397	0.0000
3568	H-006	50.00	46.5	513.6949	0.0000
3567	TEST 02-F	50.00	46.5	513.6999	0.0000
3566	TEST 02-P	50.00	46.5	519.9306	0.0000
3564	TEST 09-F	67.02	52.5	527.3208	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3592	H-025	55.19	44.6	532.4832	0.0000
3613	H-046	33.22	67.2	533.1907	0.0000
3575	H-013	48.00	60.8	533.6550	0.0000
3604	H-037	54.88	57.8	537.6716	0.0000
3603	H-036	47.80	60.9	540.6151	0.0000
3688	TEST 09-P	51.17	59.4	544.9803	0.0000
3565	H-003	50.00	46.6	577.7715	0.0000
3677	H-110	49.08	60.3	579.8813	0.0000
3686	H-119	50.00	46.8	595.6140	0.0000
3693	H-126	50.00	46.7	603.6371	0.0000
3687	H-120	50.00	46.7	604.6681	0.0000
3574	TEST 01-F	50.05	47.1	607.3805	0.0000
3615	H-048	34.77	66.5	613.6464	0.0000
3593	H-026	49.53	47.1	635.3775	0.0000
3663	H-096	54.53	44.9	644.8573	0.0000
3660	H-093	55.11	44.7	665.5053	0.0000
3664	H-097	50.00	46.9	669.1302	0.0000
3614	H-047	59.34	55.9	675.9098	0.0000
3662	H-095	50.00	46.9	679.5596	0.0000
3661	H-094	51.60	46.2	695.2699	0.0000
3610	H-043	51.53	46.2	719.4595	0.0000
3578	H-016	80.00	34.2	729.6934	0.0000
3685	H-118	50.00	46.8	743.5013	0.0000
3683	TEST 06-F	57.50	43.7	821.2250	0.0000
8566	H-7	94.92	47.9	874.0698	0.0000
8590	H-14	89.80	50.1	882.5906	0.0000
8567	H-8	82.54	53.3	883.6124	0.0000
8569	H-10	82.95	53.1	885.6964	0.0000
8564	H-5	84.61	52.4	889.2033	0.0000
8705	H-38	81.59	54.7	891.4271	0.0000
8592	H-16	68.86	59.2	891.6235	0.0000
8593	H-17	67.05	60.0	893.8580	0.0000
8568	H-9	70.00	58.7	894.1030	0.0000
8571	H-12	83.47	52.9	915.2421	0.0000
8570	H-11	57.92	63.9	916.4062	0.0000
3608	H-041	47.67	47.9	931.8673	0.0000
3636	TEST 10-F	70.00	51.3	932.1097	0.0000
8594	H-18	50.00	67.4	934.7666	0.0000
3602	H-035	48.22	60.7	940.9792	0.0000
3681	TEST 06-P	56.94	44.0	942.8354	0.0000
3641	H-074	54.87	57.8	956.4141	0.0000
3631	H-064	60.88	55.2	976.1295	0.0000
8615	H-27	80.00	54.4	985.6414	0.0000
8600	H-24	66.72	60.2	988.2252	0.0000
8602	H-26	66.30	60.4	993.4245	0.0000
8572	H-13	40.14	72.6	995.5875	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
8702	H-37	89.40	51.3	999.8566	0.0000
8599	H-23	60.00	63.1	1,004.8495	0.0000
8595	H-19	69.23	59.1	1,011.6655	0.0000
8695	H-35	68.39	59.5	1,011.6766	0.0000
8596	H-20	66.60	60.2	1,016.4819	0.0000
8598	H-22	80.00	54.4	1,019.0388	0.0000
8597	H-21	60.00	63.1	1,021.6618	0.0000
3594	H-027	48.85	47.4	1,032.2318	0.0000
3658	H-091	50.00	46.9	1,039.5814	0.0000
3612	H-045	44.02	49.5	1,045.8033	0.0000
3573	TEST 01-P	42.93	50.2	1,056.3812	0.0000
3639	H-072	54.95	57.8	1,102.4855	0.0000
3680	H-113	58.38	43.3	1,106.0935	0.0000
3611	H-044	50.00	47.0	1,132.9364	0.0000
3674	H-107	58.19	43.4	1,139.4983	0.0000
3678	H-111	54.17	45.2	1,143.9161	0.0000
3679	H-112	54.65	45.0	1,148.6036	0.0000
3635	H-068	56.14	57.3	1,150.1208	0.0000
3588	H-021	73.64	36.9	1,152.1019	0.0000
3659	TEST 04-F	45.41	48.9	1,161.1000	0.0000
3627	H-060	59.85	55.7	1,177.6582	0.0000
3640	TEST 10-P	50.00	59.9	1,182.2397	0.0000
3675	H-108	55.23	44.7	1,182.8177	0.0000
3632	H-065	59.02	56.0	1,184.2263	0.0000
3569	H-007	50.00	47.1	1,193.0778	0.0000
5500	TEST 04-P	42.36	50.2	1,206.2754	0.0000
3673	H-106	58.60	43.2	1,212.0804	0.0000
3657	H-090	52.41	45.9	1,217.0668	0.0000
3638	H-071	50.73	59.6	1,223.5701	0.0000
3676	H-109	51.22	46.4	1,233.5778	0.0000
3682	H-115	58.18	43.4	1,234.4827	0.0000
3655	H-088	75.65	36.1	1,242.4253	0.0000
3654	H-087	46.32	48.5	1,243.6183	0.0000
3656	H-089	50.04	46.9	1,249.4030	0.0000
3672	H-105	54.92	44.8	1,256.2722	0.0000
3671	H-104	54.47	45.0	1,272.1022	0.0000
3563	H-001	50.00	46.9	1,301.7076	0.0000
3577	H-015	76.04	35.9	1,339.0383	0.0000
8628	H-28	67.47	60.4	1,341.3545	0.0000
3637	H-070	58.57	56.2	1,348.7905	0.0000
8629	H-29	84.27	53.4	1,380.5323	0.0000
3587	H-020	50.00	47.0	1,381.6132	0.0000
3579	H-017	68.88	38.8	1,394.0585	0.0000
3697	H-130	54.42	45.2	1,404.4646	0.0000
3670	H-103	51.41	46.4	1,405.3395	0.0000
3634	H-067	58.01	56.5	1,418.4098	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3665	H-098	52.55	45.9	1,421.8859	0.0000
3667	H-100	51.54	46.3	1,432.9254	0.0000
3628	H-061	59.82	55.7	1,452.1865	0.0000
3626	H-059	41.67	63.5	1,454.1765	0.0000
3629	H-062	59.46	55.8	1,471.0469	0.0000
3669	H-102	50.00	47.0	1,480.7853	0.0000
3668	H-101	50.00	47.0	1,480.7866	0.0000
3630	H-063	61.43	55.0	1,491.0643	0.0000
3570	H-008	50.00	47.1	1,499.9999	0.0000
3571	H-009	57.26	44.0	1,499.9999	0.0000
3576	H-014	51.31	46.6	1,499.9999	0.0000
3580	H-018	65.68	40.2	1,499.9999	0.0000
3589	H-022	67.19	39.7	1,499.9999	0.0000
3591	H-024	58.64	43.3	1,499.9999	0.0000
3622	TEST 05-F	55.67	44.5	1,499.9999	0.0000
3633	TEST 05-P	67.26	39.5	1,499.9999	0.0000
3644	H-077	56.64	44.1	1,499.9999	0.0000
3652	H-085	55.75	44.6	1,499.9999	0.0000
3653	H-086	64.85	40.7	1,499.9999	0.0000
3666	H-099	80.00	34.2	1,499.9999	0.0000
6490	juliettehyd-1	54.33	71.0	1,499.9999	0.0000
6491	juliettehyd-10	80.00	59.9	1,499.9999	0.0000
6492	juliettehyd-11	53.34	71.5	1,499.9999	0.0000
6493	juliettehyd-12	63.34	67.1	1,499.9999	0.0000
6494	juliettehyd-13	50.00	72.9	1,499.9999	0.0000
6495	juliettehyd-14	62.10	67.7	1,499.9999	0.0000
6496	juliettehyd-15	63.82	66.9	1,499.9999	0.0000
6497	juliettehyd-16	71.01	63.8	1,499.9999	0.0000
6498	juliettehyd-17	79.01	60.4	1,499.9999	0.0000
6499	juliettehyd-18	50.00	72.9	1,499.9999	0.0000
6501	juliettehyd-2	60.00	68.6	1,499.9999	0.0000
6503	juliettehyd-3	60.00	68.6	1,499.9999	0.0000
6504	juliettehyd-4	56.87	69.9	1,499.9999	0.0000
6505	juliettehyd-5	60.86	68.2	1,499.9999	0.0000
6506	juliettehyd-6	60.00	68.6	1,499.9999	0.0000
6507	juliettehyd-7	70.00	64.3	1,499.9999	0.0000
6508	juliettehyd-8	60.00	68.6	1,499.9999	0.0000
6509	juliettehyd-9	46.15	74.6	1,499.9999	0.0000
8562	H-3	72.49	59.0	1,499.9999	0.0000
8639	H-30	79.68	55.8	1,499.9999	0.0000
8645	H-31	66.36	61.7	1,499.9999	0.0000
8651	H-32	67.86	61.1	1,499.9999	0.0000
8652	H-33	71.70	59.3	1,499.9999	0.0000
8653	H-34	92.51	50.3	1,499.9999	0.0000
8709	H-39	90.00	51.0	1,499.9999	0.0000
8808	H-40	88.32	52.1	1,499.9999	0.0000

Scenario 15 Model Summary

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0001	6.0	PVC	130.0	-2.3013	0.03	False	0.00	False	True	854.00
P-0002	6.0	PVC	130.0	-4.4898	0.05	False	0.00	False	True	387.00
P-0003	6.0	PVC	130.0	3.5588	0.04	False	0.00	False	True	511.00
P-0004	8.0	PVC	130.0	-7.4932	0.05	False	0.00	False	True	19.00
P-0005	8.0	PVC	130.0	-5.4318	0.03	False	0.00	False	True	444.00
P-0006	8.0	PVC	130.0	3.7466	0.02	False	0.00	False	True	261.00
P-0007	1.5	PVC	130.0	3.7466	0.68	False	0.00	False	True	173.00
P-0008	8.0	PVC	130.0	-12.9250	0.08	False	0.00	False	True	514.00
P-0009	12.0	PVC	130.0	110.6453	0.31	False	0.00	False	True	3,355.00
P-0010	12.0	PVC	130.0	53.5069	0.15	False	0.00	False	True	12.00
P-0011	6.0	PVC	130.0	-19.6898	0.22	False	0.00	False	True	982.00
P-0012	12.0	PVC	130.0	3.7466	0.01	False	0.00	False	True	197.00
P-0013	12.0	PVC	130.0	11.2398	0.03	False	0.00	False	True	70.00
P-0014	4.0	PVC	130.0	3.7466	0.10	False	0.00	False	True	304.00
P-0015	6.0	PVC	130.0	23.4364	0.27	False	0.00	False	True	236.00
P-0016	6.0	PVC	130.0	-10.8921	0.12	False	0.00	False	True	404.00
P-0017	6.0	PVC	130.0	-0.9565	0.01	False	0.00	False	True	255.00
P-0018	8.0	PVC	130.0	-5.3895	0.03	False	0.00	False	True	517.00
P-0019	6.0	PVC	130.0	1.6797	0.02	False	0.00	False	True	522.00
P-0020	2.0	PVC	130.0	-0.1140	0.01	False	0.00	False	True	1,348.00
P-0021	2.0	PVC	130.0	-0.0414	0.00	False	0.00	False	True	741.00
P-0022	2.0	PVC	130.0	0.0662	0.01	False	0.00	False	True	945.00
P-0023	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	189.00
P-0024	6.0	PVC	130.0	3.5194	0.04	False	0.00	False	True	726.00
P-0025	2.0	PVC	130.0	-0.9793	0.10	False	0.00	False	True	778.00
P-0026	8.0	PVC	130.0	-38.4075	0.25	False	0.00	False	True	241.00
P-0027	8.0	PVC	130.0	-45.4775	0.29	False	0.00	False	True	249.00
P-0028	8.0	PVC	130.0	-53.3939	0.34	False	0.00	False	True	490.00
P-0029	8.0	PVC	130.0	-206.0912	1.32	False	0.00	False	True	205.00
P-0030	6.0	PVC	130.0	-64.1532	0.73	False	0.00	False	True	278.00
P-0031	6.0	PVC	130.0	18.4499	0.21	False	0.00	False	True	625.00
P-0032	6.0	PVC	130.0	-60.4064	0.69	False	0.00	False	True	292.00
P-0033	6.0	PVC	130.0	-52.9132	0.60	False	0.00	False	True	287.00
P-0034	6.0	PVC	130.0	-49.1666	0.56	False	0.00	False	True	80.00
P-0035	4.0	PVC	130.0	3.7466	0.10	False	0.00	False	True	160.00
P-0036	8.0	PVC	130.0	-162.1702	1.04	False	0.00	False	True	379.00
P-0037	8.0	PVC	130.0	-148.4996	0.95	False	0.00	False	True	467.00
P-0038	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	179.00
P-0039	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	228.00
P-0040	8.0	PVC	130.0	-137.2598	0.88	False	0.00	False	True	437.00
P-0041	6.0	PVC	130.0	-50.2514	0.57	False	0.00	False	True	1,159.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0042	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	146.00
P-0043	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	336.00
P-0044	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	170.00
P-0045	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	240.00
P-0046	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	302.00
P-0047	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	141.00
P-0048	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	141.00
P-0049	6.0	PVC	130.0	-15.4214	0.17	False	0.00	False	True	253.00
P-0050	2.0	PVC	130.0	3.3234	0.34	False	0.00	False	True	986.00
P-0051	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	224.00
P-0052	2.0	PVC	130.0	-1.1992	0.12	False	0.00	False	True	1,260.00
P-0053	8.0	PVC	130.0	-65.9538	0.42	False	0.00	False	True	954.00
P-0054	2.0	PVC	130.0	-3.9512	0.40	False	0.00	False	True	394.00
P-0055	8.0	PVC	130.0	59.4931	0.38	False	0.00	False	True	337.00
P-0056	8.0	PVC	130.0	66.7817	0.43	False	0.00	False	True	422.00
P-0057	8.0	PVC	130.0	74.4795	0.48	False	0.00	False	True	1,783.00
P-0058	4.0	PVC	130.0	9.4658	0.24	False	0.00	False	True	1,580.00
P-0059	8.0	PVC	130.0	104.4523	0.67	False	0.00	False	True	225.00
P-0060	8.0	PVC	130.0	119.4387	0.76	False	0.00	False	True	520.00
P-0061	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	167.00
P-0062	4.0	PVC	130.0	-10.9119	0.28	False	0.00	False	True	2,353.00
P-0063	8.0	PVC	130.0	-178.2195	1.14	False	0.00	False	True	413.00
P-0064	8.0	PVC	130.0	87.1547	0.56	False	0.00	False	True	632.00
P-0065	6.0	PVC	130.0	71.5626	0.81	False	0.00	False	True	539.00
P-0066	2.0	PVC	130.0	-3.3289	0.34	False	0.00	False	True	318.00
P-0067	8.0	PVC	130.0	-87.9239	0.56	False	0.00	False	True	318.00
P-0068	8.0	PVC	130.0	-202.0149	1.29	False	0.00	False	True	369.00
P-0069	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	181.00
P-0070	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	376.00
P-0071	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	189.00
P-0072	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	166.00
P-0073	2.0	PVC	130.0	-3.5420	0.36	False	0.00	False	True	369.00
P-0074	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	403.00
P-0075	6.0	PVC	130.0	-3.7466	0.04	False	0.00	False	True	32.00
P-0076	6.0	PVC	130.0	3.7466	0.04	False	0.00	False	True	49.00
P-0077	6.0	PVC	130.0	3.7469	0.04	False	0.00	False	True	135.00
P-0078	8.0	PVC	130.0	-4.6783	0.03	False	0.00	False	True	1,777.00
P-0079	8.0	PVC	130.0	49.6382	0.32	False	0.00	False	True	252.00
P-0080	6.0	PVC	130.0	-34.8985	0.40	False	0.00	False	True	219.00
P-0081	2.0	PVC	130.0	-1.5135	0.15	False	0.00	False	True	347.00
P-0082	4.0	PVC	130.0	3.7466	0.10	False	0.00	False	True	184.00
P-0083	6.0	PVC	130.0	7.4934	0.09	False	0.00	False	True	590.00
P-0084	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	947.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0085	6.0	PVC	130.0	-5.2291	0.06	False	0.00	False	True	504.00
P-0086	6.0	PVC	130.0	-1.9765	0.02	False	0.00	False	True	320.00
P-0087	6.0	PVC	130.0	1.6280	0.02	False	0.00	False	True	87.00
P-0088	6.0	PVC	130.0	3.1105	0.04	False	0.00	False	True	371.00
P-0089	8.0	PVC	130.0	3.7466	0.02	False	0.00	False	True	30.00
P-0090	8.0	PVC	130.0	30.6716	0.20	False	0.00	False	True	729.00
P-0091	6.0	PVC	130.0	-2.8004	0.03	False	0.00	False	True	325.00
P-0092	6.0	PVC	130.0	-6.5472	0.07	False	0.00	False	True	699.00
P-0093	8.0	PVC	130.0	-28.4109	0.18	False	0.00	False	True	308.00
P-0094	8.0	PVC	130.0	-47.6992	0.30	False	0.00	False	True	94.00
P-0095	8.0	PVC	130.0	-61.2404	0.39	False	0.00	False	True	220.00
P-0096	8.0	PVC	130.0	-64.9871	0.41	False	0.00	False	True	79.00
P-0097	12.0	PVC	130.0	84.4367	0.24	False	0.00	False	True	400.00
P-0098	10.0	PVC	130.0	18.7332	0.08	False	0.00	False	True	729.00
P-0099	6.0	PVC	130.0	3.7466	0.04	False	0.00	False	True	437.00
P-0100	10.0	PVC	120.0	360.8424	1.47	False	0.00	False	True	859.00
P-0101	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	148.00
P-0102	2.0	PVC	130.0	-0.6277	0.06	False	0.00	False	True	776.00
P-0103	2.0	PVC	130.0	-1.9102	0.20	False	0.00	False	True	363.00
P-0104	2.0	PVC	130.0	4.9088	0.50	False	0.00	False	True	272.00
P-0105	2.0	PVC	130.0	-2.5844	0.26	False	0.00	False	True	605.00
P-0106	8.0	PVC	130.0	-221.0776	1.41	False	0.00	False	True	233.00
P-0107	6.0	PVC	130.0	-23.2234	0.26	False	0.00	False	True	641.00
P-0108	6.0	PVC	130.0	22.1966	0.25	False	0.00	False	True	546.00
P-0109	6.0	PVC	130.0	-19.4766	0.22	False	0.00	False	True	373.00
P-0110	2.0	PVC	130.0	4.8828	0.50	False	0.00	False	True	863.00
P-0111	8.0	PVC	130.0	-153.5408	0.98	False	0.00	False	True	1,245.00
P-0112	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	569.00
P-0113	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	913.00
P-0114	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	104.00
P-0115	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	97.00
P-0116	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	396.00
P-0117	2.0	PVC	130.0	-1.6398	0.17	False	0.00	False	True	761.00
P-0118	2.0	PVC	130.0	-3.9906	0.41	False	0.00	False	True	1,556.00
P-0119	6.0	PVC	130.0	57.9886	0.66	False	0.00	False	True	619.00
P-0120	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	194.00
P-0121	2.0	PVC	130.0	-1.5359	0.16	False	0.00	False	True	2,141.00
P-0122	8.0	PVC	130.0	46.4186	0.30	False	0.00	False	True	59.00
P-0123	8.0	PVC	130.0	-36.9587	0.24	False	0.00	False	True	449.00
P-0124	8.0	PVC	130.0	-36.7147	0.23	False	0.00	False	True	57.00
P-0125	8.0	PVC	130.0	-44.2079	0.28	False	0.00	False	True	377.00
P-0126	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	54.00
P-0127	2.0	PVC	130.0	-8.3901	0.86	False	0.00	False	True	416.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0128	6.0	PVC	130.0	-23.0462	0.26	False	0.00	False	True	867.00
P-0129	2.0	PVC	130.0	4.1698	0.43	False	0.00	False	True	672.00
P-0130	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	105.00
P-0131	8.0	PVC	130.0	21.8474	0.14	False	0.00	False	True	363.00
P-0132	8.0	PVC	130.0	14.3542	0.09	False	0.00	False	True	313.00
P-0133	8.0	PVC	130.0	-42.7863	0.27	False	0.00	False	True	1,375.00
P-0134	6.0	PVC	130.0	-26.5070	0.30	False	0.00	False	True	262.00
P-0135	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	489.00
P-0136	2.0	PVC	130.0	0.6569	0.07	False	0.00	False	True	1,750.00
P-0137	6.0	PVC	130.0	-25.4620	0.29	False	0.00	False	True	573.00
P-0138	6.0	PVC	130.0	37.9010	0.43	False	0.00	False	True	497.00
P-0139	8.0	PVC	130.0	-62.9404	0.40	False	0.00	False	True	23.00
P-0140	6.0	PVC	130.0	32.9552	0.37	False	0.00	False	True	53.00
P-0141	2.0	PVC	130.0	0.9685	0.10	False	0.00	False	True	1,599.00
P-0142	6.0	PVC	130.0	18.4524	0.21	False	0.00	False	True	376.00
P-0143	8.0	PVC	130.0	104.5880	0.67	False	0.00	False	True	413.00
P-0144	8.0	PVC	130.0	-51.9999	0.33	False	0.00	False	True	249.00
P-0145	4.0	PVC	130.0	1.9726	0.05	False	0.00	False	True	551.00
P-0146	2.0	PVC	130.0	-0.6572	0.07	False	0.00	False	True	1,124.00
P-0147	8.0	PVC	130.0	106.2264	0.68	False	0.00	False	True	613.00
P-0148	8.0	PVC	130.0	86.0473	0.55	False	0.00	False	True	264.00
P-0149	8.0	PVC	130.0	-78.5541	0.50	False	0.00	False	True	306.00
P-0150	8.0	PVC	130.0	-80.5569	0.51	False	0.00	False	True	1,108.00
P-0151	2.0	PVC	130.0	-6.2980	0.64	False	0.00	False	True	858.00
P-0152	2.0	PVC	130.0	2.5110	0.26	False	0.00	False	True	1,367.00
P-0153	8.0	PVC	130.0	-184.4771	1.18	False	0.00	False	True	1,002.00
P-0154	8.0	PVC	130.0	-169.9572	1.08	False	0.00	False	True	692.00
P-0155	2.0	PVC	130.0	-4.5158	0.46	False	0.00	False	True	1,285.00
P-0156	8.0	PVC	130.0	3.7466	0.02	False	0.00	False	True	60.00
P-0157	6.0	PVC	130.0	-56.9939	0.65	False	0.00	False	True	788.00
P-0158	2.0	PVC	130.0	3.0089	0.31	False	0.00	False	True	484.00
P-0159	2.0	PVC	130.0	-4.0666	0.42	False	0.00	False	True	847.00
P-0160	6.0	PVC	130.0	-41.8348	0.47	False	0.00	False	True	936.00
P-0161	6.0	PVC	130.0	56.5762	0.64	False	0.00	False	True	452.00
P-0162	8.0	PVC	130.0	-194.5217	1.24	False	0.00	False	True	348.00
P-0163	8.0	PVC	130.0	-198.2683	1.27	False	0.00	False	True	252.00
P-0164	8.0	PVC	130.0	4.0002	0.03	False	0.00	False	True	393.00
P-0165	8.0	PVC	130.0	0.1396	0.00	False	0.00	False	True	752.00
P-0166	6.0	PVC	130.0	-12.6291	0.14	False	0.00	False	True	321.00
P-0167	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	327.00
P-0168	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	304.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0169	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	286.00
P-0170	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	249.00
P-0171	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	245.00
P-0172	6.0	PVC	130.0	-56.8214	0.64	False	0.00	False	True	119.00
P-0173	6.0	PVC	130.0	-9.7945	0.11	False	0.00	False	True	1,158.00
P-0174	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	132.00
P-0175	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	349.00
P-0176	8.0	PVC	130.0	-29.9731	0.19	False	0.00	False	True	47.00
P-0177	6.0	PVC	130.0	14.9867	0.17	False	0.00	False	True	231.00
P-0178	6.0	PVC	130.0	11.2401	0.13	False	0.00	False	True	203.00
P-0179	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	33.00
P-0180	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	84.00
P-0181	6.0	PVC	130.0	-0.0003	0.00	False	0.00	False	True	40.00
P-0182	8.0	PVC	130.0	-32.0765	0.20	False	0.00	False	True	218.00
P-0183	6.0	PVC	130.0	0.0001	0.00	False	0.00	False	True	24.00
P-0184	10.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	17.00
P-0185	8.0	PVC	130.0	0.0001	0.00	False	0.00	False	True	37.00
P-0186	6.0	PVC	130.0	0.0001	0.00	False	0.00	False	True	16.00
P-0187	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	18.00
P-0188	6.0	PVC	130.0	-0.0003	0.00	False	0.00	False	True	4.00
P-0189	8.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	25.00
P-0190	6.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	5.00
P-0191	8.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	36.00
P-0192	8.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	13.00
P-0193	8.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	17.00
P-0194	8.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	28.00
P-0195	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	29.00
P-0196	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	32.00
P-0197	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	17.00
P-0198	12.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	18.00
P-0199	6.0	PVC	130.0	-0.0002	0.00	False	0.00	False	True	13.00
P-0200	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	15.00
P-0201	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	14.00
P-0202	6.0	PVC	130.0	3.7466	0.04	False	0.00	False	True	90.00
P-0203	6.0	PVC	130.0	8.5474	0.10	False	0.00	False	True	159.00
P-0204	8.0	PVC	130.0	-33.7199	0.22	False	0.00	False	True	102.00
P-0205	6.0	PVC	130.0	-22.4799	0.26	False	0.00	False	True	218.00
P-0206	8.0	PVC	130.0	18.9866	0.12	False	0.00	False	True	638.00
P-0207	8.0	PVC	130.0	11.4934	0.07	False	0.00	False	True	285.00
P-0208	4.0	PVC	130.0	-5.0623	0.13	False	0.00	False	True	1,952.00
P-0209	4.0	PVC	130.0	-3.7466	0.10	False	0.00	False	True	198.00
P-0210	6.0	PVC	130.0	-63.7495	0.72	False	0.00	False	True	735.00
P-0211	8.0	PVC	130.0	-7.4932	0.05	False	0.00	False	True	41.00
P-0212	8.0	PVC	130.0	-85.7193	0.55	False	0.00	False	True	350.00
P-0213	2.0	PVC	130.0	-1.7437	0.18	False	0.00	False	True	1,566.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0214	4.0	PVC	130.0	5.0620	0.13	False	0.00	False	True	747.00
P-0215	8.0	PVC	130.0	-47.5965	0.30	False	0.00	False	True	538.00
P-0216	6.0	PVC	130.0	-34.0002	0.39	False	0.00	False	True	768.00
P-0217	8.0	PVC	130.0	-44.5067	0.28	False	0.00	False	True	391.00
P-0218	8.0	PVC	130.0	6.7599	0.04	False	0.00	False	True	849.00
P-0219	8.0	PVC	130.0	46.0354	0.29	False	0.00	False	True	307.00
P-0220	8.0	PVC	130.0	53.0425	0.34	False	0.00	False	True	466.00
P-0221	8.0	PVC	130.0	40.9058	0.26	False	0.00	False	True	309.00
P-0222	2.0	PVC	130.0	10.3429	1.06	False	0.00	False	True	226.00
P-0223	2.0	PVC	130.0	2.8497	0.29	False	0.00	False	True	545.00
P-0224	8.0	PVC	130.0	115.6352	0.74	False	0.00	False	True	340.00
P-0225	8.0	PVC	130.0	109.3058	0.70	False	0.00	False	True	471.00
P-0226	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	229.00
P-0227	8.0	PVC	130.0	-82.7701	0.53	False	0.00	False	True	904.00
P-0228	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	230.00
P-0229	2.0	PVC	130.0	2.5828	0.26	False	0.00	False	True	894.00
P-0230	2.0	PVC	130.0	0.4760	0.05	False	0.00	False	True	1,282.00
P-0231	8.0	PVC	120.0	166.0106	1.06	False	0.00	False	True	224.00
P-0232	8.0	PVC	120.0	105.4426	0.67	False	0.00	False	True	896.00
P-0233	6.0	PVC	130.0	7.4934	0.09	False	0.00	False	True	53.00
P-0234	6.0	PVC	130.0	-3.7466	0.04	False	0.00	False	True	404.00
P-0235	6.0	PVC	130.0	-16.0406	0.18	False	0.00	False	True	155.00
P-0236	6.0	PVC	130.0	-19.7872	0.22	False	0.00	False	True	170.00
P-0237	6.0	PVC	130.0	-16.3885	0.19	False	0.00	False	True	374.00
P-0238	6.0	PVC	130.0	-2.6126	0.03	False	0.00	False	True	269.00
P-0239	8.0	PVC	130.0	-24.2340	0.15	False	0.00	False	True	2,068.00
P-0240	10.0	PVC	130.0	-3.7466	0.02	False	0.00	False	True	99.00
P-0241	12.0	PVC	130.0	99.4054	0.28	False	0.00	False	True	579.00
P-0242	6.0	PVC	130.0	5.3747	0.06	False	0.00	False	True	288.00
P-0243	6.0	PVC	130.0	-40.1586	0.46	False	0.00	False	True	45.00
P-0244	6.0	PVC	130.0	-3.7466	0.04	False	0.00	False	True	49.00
P-0245	6.0	PVC	130.0	-11.2398	0.13	False	0.00	False	True	135.00
P-0246	6.0	PVC	130.0	-18.7330	0.21	False	0.00	False	True	151.00
P-0247	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	41.00
P-0248	8.0	PVC	120.0	-170.2174	1.09	False	0.00	False	True	282.00
P-0249	8.0	PVC	130.0	162.4640	1.04	False	0.00	False	True	493.00
P-0250	8.0	PVC	130.0	29.5344	0.19	False	0.00	False	True	390.00
P-0251	6.0	PVC	130.0	17.9688	0.20	False	0.00	False	True	511.00
P-0252	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	174.00
P-0253	8.0	PVC	130.0	282.8128	1.81	False	0.00	False	True	118.00
P-0254	2.0	PVC	130.0	-7.4932	0.77	False	0.00	False	True	41.00
P-0255	8.0	PVC	130.0	154.6770	0.99	False	0.00	False	True	483.00
P-0256	6.0	PVC	130.0	-34.1799	0.39	False	0.00	False	True	279.00
P-0257	8.0	PVC	130.0	2.1037	0.01	False	0.00	False	True	261.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0258	2.0	PVC	130.0	0.8571	0.09	False	0.00	False	True	938.00
P-0259	6.0	PVC	130.0	10.9879	0.12	False	0.00	False	True	363.00
P-0260	6.0	PVC	130.0	7.3074	0.08	False	0.00	False	True	332.00
P-0261	6.0	PVC	130.0	20.9793	0.24	False	0.00	False	True	370.00
P-0262	8.0	PVC	130.0	7.3365	0.05	False	0.00	False	True	100.00
P-0263	8.0	PVC	130.0	183.7645	1.17	False	0.00	False	True	69.00
P-0264	6.0	PVC	130.0	64.3827	0.73	False	0.00	False	True	368.00
P-0265	6.0	PVC	130.0	56.8895	0.65	False	0.00	False	True	440.00
P-0266	6.0	PVC	130.0	49.3963	0.56	False	0.00	False	True	337.00
P-0267	6.0	PVC	130.0	41.9031	0.48	False	0.00	False	True	426.00
P-0268	6.0	PVC	130.0	-7.1453	0.08	False	0.00	False	True	858.00
P-0269	10.0	PVC	130.0	14.9866	0.06	False	0.00	False	True	219.00
P-0270	6.0	PVC	130.0	-4.7031	0.05	False	0.00	False	True	132.00
P-0271	6.0	PVC	130.0	-8.4498	0.10	False	0.00	False	True	408.00
P-0272	12.0	PVC	130.0	57.2537	0.16	False	0.00	False	True	353.00
P-0273	10.0	PVC	130.0	-106.8986	0.44	False	0.00	False	True	58.00
P-0274	8.0	PVC	130.0	26.9249	0.17	False	0.00	False	True	452.00
P-0275	8.0	PVC	130.0	24.0475	0.15	False	0.00	False	True	71.00
P-0276	8.0	PVC	130.0	20.3007	0.13	False	0.00	False	True	260.00
P-0277	8.0	PVC	130.0	11.3250	0.07	False	0.00	False	True	678.00
P-0278	8.0	PVC	130.0	9.5549	0.06	False	0.00	False	True	44.00
P-0279	8.0	PVC	130.0	5.8081	0.04	False	0.00	False	True	775.00
P-0280	8.0	PVC	130.0	-1.6851	0.01	False	0.00	False	True	105.00
P-0281	6.0	PVC	130.0	15.5417	0.18	False	0.00	False	True	297.00
P-0282	6.0	PVC	130.0	7.3054	0.08	False	0.00	False	True	227.00
P-0283	6.0	PVC	130.0	8.3784	0.10	False	0.00	False	True	417.00
P-0284	6.0	PVC	130.0	4.6316	0.05	False	0.00	False	True	347.00
P-0285	8.0	PVC	130.0	18.1171	0.12	False	0.00	False	True	263.00
P-0286	8.0	PVC	130.0	14.3703	0.09	False	0.00	False	True	69.00
P-0287	6.0	PVC	130.0	-31.0272	0.35	False	0.00	False	True	229.00
P-0288	6.0	PVC	130.0	-64.6162	0.73	False	0.00	False	True	324.00
P-0289	4.0	PVC	130.0	3.7466	0.10	False	0.00	False	True	129.00
P-0290	6.0	PVC	130.0	-72.1094	0.82	False	0.00	False	True	818.00
P-0291	6.0	PVC	130.0	-75.8560	0.86	False	0.00	False	True	514.00
P-0292	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	17.00
P-0293	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	24.00
P-0294	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	17.00
P-0295	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	15.00
P-0296	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	16.00
P-0297	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	27.00
P-0298	6.0	PVC	130.0	-0.0003	0.00	False	0.00	False	True	15.00
P-0299	6.0	PVC	130.0	-0.0001	0.00	False	0.00	False	True	19.00
P-0300	8.0	PVC	130.0	27.4591	0.18	False	0.00	False	True	245.00
P-0301	8.0	PVC	130.0	213.5844	1.36	False	0.00	False	True	213.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0302	4.0	PVC	150.0	-0.8452	0.02	False	0.00	False	True	556.00
P-0303	4.0	PVC	150.0	-0.8452	0.02	False	0.00	False	True	1,485.00
P-0304	6.0	PVC	130.0	-3.9738	0.05	False	0.00	False	True	234.00
P-0305	6.0	PVC	130.0	-3.9738	0.05	False	0.00	False	True	311.00
P-0306	4.0	PVC	150.0	-0.8452	0.02	False	0.00	False	True	150.00
P-0307	8.0	PVC	130.0	-11.4917	0.07	False	0.00	False	True	1,245.00
P-0308	8.0	PVC	130.0	-11.4917	0.07	False	0.00	False	True	54.00
P-0309	12.0	PVC	150.0	0.0002	0.00	False	0.00	False	True	82.00
P-0310	8.0	CI	120.0	36.3416	0.23	False	0.00	False	True	77.00
P-0311	8.0	CI	120.0	36.3416	0.23	False	0.00	False	True	46.00
P-0312	8.0	CI	120.0	36.3416	0.23	False	0.00	False	True	42.00
P-0313	8.0	CI	120.0	36.3416	0.23	False	0.00	False	True	1,451.00
P-0314	12.0	PVC	150.0	-0.0002	0.00	False	0.00	False	True	45.00
P-0315	12.0	PVC	150.0	-0.0002	0.00	False	0.00	False	True	60.00
P-0316	6.0	PVC	70.0	0.0005	0.00	False	0.00	False	True	273.00
P-0317	6.0	PVC	70.0	0.0005	0.00	False	0.00	False	True	131.00
P-0318	8.0	CI	120.0	43.0220	0.27	False	0.00	False	True	509.00
P-0319	8.0	CI	120.0	46.9604	0.30	False	0.00	False	True	406.00
P-0320	6.0	PVC	120.0	10.9259	0.12	False	0.00	False	True	541.00
P-0321	6.0	PVC	120.0	10.9259	0.12	False	0.00	False	True	288.00
P-0322	8.0	PVC	130.0	-41.2133	0.26	False	0.00	False	True	48.00
P-0323	8.0	PVC	130.0	-41.2131	0.26	False	0.00	False	True	167.00
P-0324	6.0	PVC	120.0	-6.9265	0.08	False	0.00	False	True	374.00
P-0325	6.0	PVC	120.0	-6.4426	0.07	False	0.00	False	True	144.00
P-0326	6.0	PVC	120.0	-8.4471	0.10	False	0.00	False	True	388.00
P-0327	6.0	PVC	120.0	-0.4834	0.01	False	0.00	False	True	20.00
P-0328	6.0	PVC	120.0	-2.9468	0.03	False	0.00	False	True	706.00
P-0329	8.0	PVC	130.0	30.5780	0.20	False	0.00	False	True	656.00
P-0330	8.0	PVC	130.0	-11.7109	0.07	False	0.00	False	True	936.00
P-0331	8.0	PVC	130.0	36.1725	0.23	False	0.00	False	True	299.00
P-0332	8.0	PVC	130.0	15.6851	0.10	False	0.00	False	True	82.00
P-0333	8.0	PVC	120.0	233.9104	1.49	False	0.00	False	True	176.00
P-0334	8.0	PVC	120.0	357.0958	2.28	False	0.00	False	True	83.00
P-0335	8.0	PVC	130.0	-198.8286	1.27	False	0.00	False	True	72.00
P-0336	2.0	PVC	150.0	0.0000	0.00	False	0.00	False	True	21.00
P-0337	6.0	Ductile Iron	130.0	0.9796	0.01	False	0.00	False	True	17.00
P-0338	6.0	Ductile Iron	130.0	0.9797	0.01	False	0.00	False	True	110.00
P-0339	6.0	PVC	130.0	-43.9053	0.50	False	0.00	False	True	322.00
P-0340	120.0	Ductile Iron	200.0	1,026.5734	0.03	False	1.00	False	True	57.00
P-0341	10.0	PVC	120.0	820.8118	3.35	False	0.00	False	True	61.00
P-0342	10.0	PVC	130.0	456.2228	1.86	False	0.00	False	True	240.00
P-0343	10.0	PVC	120.0	-364.5890	1.49	False	0.00	False	True	74.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0344	10.0	PVC	120.0	820.8118	3.35	False	0.00	False	True	55.00
P-0345	6.0	PVC	150.0	-5.3453	0.06	False	0.00	False	True	72.00
P-0346	4.0	PVC	150.0	-22.9782	0.59	False	0.00	False	True	81.00
P-0347	4.0	Ductile Iron	130.0	0.0000	0.00	False	0.00	False	True	468.00
P-0348	6.0	PVC	130.0	26.9167	0.31	False	0.00	False	True	194.00
P-0349	6.0	PVC	130.0	34.4099	0.39	False	0.00	False	True	417.00
P-0350	8.0	PVC	130.0	205.7615	1.31	False	1.00	False	True	76.00
P-0351	6.0	PVC	130.0	0.0001	0.00	False	0.00	False	True	113.00
P-0352	8.0	PVC	130.0	290.3060	1.85	False	0.00	False	True	453.00
P-0353	10.0	PVC	130.0	290.3060	1.19	False	0.00	False	True	91.00
P-0354	120.0	PVC	150.0	56.8168	0.00	False	1.00	False	True	43.00
P-0355	4.0	PVC	150.0	-56.8169	1.45	False	0.00	False	True	114.00
P-0356	4.0	PVC	150.0	26.6212	0.68	False	0.00	False	True	511.00
P-0357	4.0	PVC	150.0	-30.1957	0.77	False	0.00	False	True	376.00
P-0358	120.0	PVC	150.0	60.1016	0.00	False	1.00	False	True	91.00
P-0359	8.0	PVC	130.0	0.0001	0.00	False	0.00	False	True	21.00
P-0360	6.0	PVC	130.0	0.0001	0.00	False	0.00	False	True	21.00
P-0361	6.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	20.00
P-0362	8.0	PVC	120.0	-254.3947	1.62	False	0.00	False	True	150.00
P-0363	8.0	PVC	120.0	-174.7921	1.12	False	0.00	False	True	773.00
P-0364	6.0	PVC	130.0	-26.4681	0.30	False	0.00	False	True	1,083.00
P-0365	6.0	Ductile Iron	130.0	-3.7466	0.04	False	0.00	False	True	520.00
P-0366	8.0	PVC	130.0	94.8903	0.61	False	0.00	False	True	55.00
P-0367	8.0	PVC	130.0	102.3835	0.65	False	0.00	False	True	313.00
P-0368	6.0	PVC	130.0	-33.9613	0.39	False	0.00	False	True	504.00
P-0369	8.0	PVC	130.0	53.9118	0.34	False	0.00	False	True	393.00
P-0370	8.0	PVC	130.0	91.6197	0.58	False	0.00	False	True	330.00
P-0371	8.0	PVC	130.0	-198.5980	1.27	False	0.00	False	True	256.00
P-0372	8.0	PVC	130.0	-90.2633	0.58	False	0.00	False	True	233.00
P-0373	8.0	PVC	130.0	-59.1932	0.38	False	0.00	False	True	593.00
P-0374	8.0	PVC	130.0	-45.1037	0.29	False	0.00	False	True	517.00
P-0375	8.0	PVC	130.0	-115.9823	0.74	False	0.00	False	True	62.00
P-0376	6.0	PVC	130.0	18.3245	0.21	False	0.00	False	True	1,306.00
P-0377	6.0	PVC	130.0	-22.8883	0.26	False	0.00	False	True	316.00
P-0378	2.0	PVC	130.0	3.7466	0.38	False	0.00	False	True	314.00
P-0379	6.0	PVC	130.0	10.8313	0.12	False	0.00	False	True	29.00
P-0380	6.0	PVC	130.0	3.3381	0.04	False	0.00	False	True	15.00
P-0381	6.0	PVC	130.0	60.8694	0.69	False	0.00	False	True	506.00
P-0382	8.0	PVC	120.0	284.7445	1.82	False	0.00	False	True	416.00
P-0383	8.0	PVC	120.0	227.6217	1.45	False	0.00	False	True	366.00
P-0384	8.0	PVC	130.0	0.0002	0.00	False	0.00	False	True	30.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0385	8.0	PVC	120.0	132.1292	0.84	False	0.00	False	True	473.00
P-0386	8.0	PVC	120.0	135.8759	0.87	False	0.00	False	True	35.00
P-0387	6.0	Ductile Iron	130.0	0.0000	0.00	False	0.00	False	True	53.00
P-0388	6.0	PVC	130.0	45.5816	0.52	False	0.00	False	True	1,024.00
P-0389	6.0	PVC	130.0	49.3282	0.56	False	0.00	False	True	219.00
P-0390	8.0	PVC	130.0	9.0220	0.06	False	0.00	False	True	318.00
P-0391	8.0	PVC	130.0	-26.2262	0.17	False	0.00	False	True	1,524.00
P-0392	6.0	PVC	130.0	-7.6790	0.09	False	0.00	False	True	343.00
P-0393	6.0	Ductile Iron	130.0	3.7466	0.04	False	0.00	False	True	105.00
P-0394	2.0	Ductile Iron	130.0	3.7466	0.38	False	0.00	False	True	138.00
P-0395	6.0	PVC	130.0	-25.1722	0.29	False	0.00	False	True	132.00
P-0396	6.0	PVC	130.0	-17.6790	0.20	False	0.00	False	True	47.00
P-0397	2.0	Ductile Iron	130.0	3.7466	0.38	False	0.00	False	True	129.00
P-0398	6.0	PVC	130.0	-32.6654	0.37	False	0.00	False	True	74.00
P-0399	6.0	Ductile Iron	130.0	-22.4798	0.26	False	0.00	False	True	58.00
P-0400	8.0	Ductile Iron	130.0	-202.5753	1.29	False	0.00	False	True	23.00
P-0401	6.0	Ductile Iron	130.0	-78.4227	0.89	False	0.00	False	True	35.00
P-0402	6.0	Ductile Iron	130.0	31.7272	0.36	False	0.00	False	True	652.00
P-0403	6.0	Ductile Iron	130.0	34.5173	0.39	False	0.00	False	True	1,012.00
P-0404	8.0	PVC	150.0	12.1884	0.08	False	0.00	False	True	514.00
P-0405	4.0	PVC	150.0	1.0362	0.03	False	0.00	False	True	44.00
P-0406	8.0	Ductile Iron	130.0	-24.6227	0.16	False	0.00	False	True	539.00
P-0407	8.0	Ductile Iron	130.0	-23.5865	0.15	False	0.00	False	True	77.00
P-0408	8.0	Ductile Iron	130.0	-22.5504	0.14	False	0.00	False	True	143.00
P-0409	4.0	PVC	150.0	1.0362	0.03	False	0.00	False	True	263.00
P-0410	6.0	PVC	130.0	-15.3951	0.17	False	0.00	False	True	506.00
P-0411	2.0	PVC	130.0	-3.7466	0.38	False	0.00	False	True	187.00
P-0412	6.0	PVC	130.0	-7.9019	0.09	False	0.00	False	True	2,251.00
P-0413	4.0	PVC	150.0	-21.9986	0.56	False	0.00	False	True	300.00
P-0414	4.0	PVC	150.0	0.9796	0.03	False	0.00	False	True	52.00
P-0415	4.0	PVC	150.0	-3.4611	0.09	False	0.00	False	True	46.00
P-0416	4.0	PVC	150.0	-1.5019	0.04	False	0.00	False	True	1,085.00
P-0417	4.0	PVC	150.0	0.9796	0.03	False	0.00	False	True	53.00
P-0418	4.0	PVC	150.0	-5.4203	0.14	False	0.00	False	True	428.00
P-0419	6.0	Ductile Iron	130.0	-4.3657	0.05	False	0.00	False	True	54.00
P-0420	6.0	Ductile Iron	130.0	-7.3796	0.08	False	0.00	False	True	348.00
P-0421	2.0	PVC	150.0	-4.2845	0.44	False	0.00	False	True	320.00
P-0422	2.0	PVC	150.0	-1.3457	0.14	False	0.00	False	True	873.00
P-0423	1.0	PVC	150.0	0.9796	0.40	False	0.00	False	True	232.00
P-0424	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	70.00
P-0425	2.0	PVC	150.0	2.9388	0.30	False	0.00	False	True	136.00
P-0426	2.0	PVC	150.0	2.5727	0.26	False	0.00	False	True	163.00
P-0427	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	118.00
P-0428	4.0	PVC	150.0	-1.3452	0.03	False	0.00	False	True	538.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0429	4.0	PVC	150.0	0.6140	0.02	False	0.00	False	True	1.00
P-0430	4.0	PVC	150.0	0.2587	0.01	False	0.00	False	True	356.00
P-0431	4.0	PVC	150.0	-3.1274	0.08	False	0.00	False	True	1,375.00
P-0432	4.0	PVC	150.0	-2.1478	0.05	False	0.00	False	True	371.00
P-0433	4.0	PVC	150.0	-1.7224	0.04	False	0.00	False	True	723.00
P-0434	2.0	PVC	150.0	0.5542	0.06	False	0.00	False	True	1,311.00
P-0435	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	192.00
P-0436	2.0	PVC	150.0	-1.2164	0.12	False	0.00	False	True	380.00
P-0437	2.0	PVC	150.0	0.7428	0.08	False	0.00	False	True	423.00
P-0438	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	216.00
P-0439	4.0	PVC	150.0	3.1756	0.08	False	0.00	False	True	705.00
P-0440	2.0	PVC	150.0	4.4507	0.45	False	0.00	False	True	254.00
P-0441	2.0	PVC	150.0	-2.5810	0.26	False	0.00	False	True	607.00
P-0442	2.0	PVC	150.0	2.8493	0.29	False	0.00	False	True	638.00
P-0443	6.0	PVC	150.0	6.3249	0.07	False	0.00	False	True	154.00
P-0444	6.0	PVC	150.0	14.6841	0.17	False	0.00	False	True	679.00
P-0445	4.0	PVC	150.0	-0.4573	0.01	False	0.00	False	True	879.00
P-0446	4.0	PVC	150.0	-0.9796	0.03	False	0.00	False	True	522.00
P-0447	6.0	PVC	150.0	-20.0394	0.23	False	0.00	False	True	1,050.00
P-0448	4.0	PVC	150.0	0.9796	0.03	False	0.00	False	True	96.00
P-0449	4.0	PVC	150.0	-4.3757	0.11	False	0.00	False	True	1,409.00
P-0450	4.0	PVC	150.0	-2.8044	0.07	False	0.00	False	True	779.00
P-0451	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	394.00
P-0452	2.5	PVC	150.0	-0.5917	0.04	False	0.00	False	True	1,838.00
P-0453	4.0	PVC	150.0	6.1842	0.16	False	0.00	False	True	244.00
P-0454	4.0	PVC	150.0	-23.0319	0.59	False	0.00	False	True	189.00
P-0455	2.0	PVC	150.0	0.4594	0.05	False	0.00	False	True	1,312.00
P-0456	4.0	PVC	150.0	19.1844	0.49	False	0.00	False	True	285.00
P-0457	4.0	PVC	150.0	19.7046	0.50	False	0.00	False	True	351.00
P-0458	4.0	PVC	150.0	7.3462	0.19	False	0.00	False	True	1,241.00
P-0459	4.0	PVC	150.0	10.9068	0.28	False	0.00	False	True	323.00
P-0460	4.0	PVC	150.0	15.1951	0.39	False	0.00	False	True	203.00
P-0461	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	407.00
P-0462	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	583.00
P-0463	2.0	PVC	150.0	-0.9796	0.10	False	0.00	False	True	465.00
P-0464	4.0	PVC	150.0	2.5732	0.07	False	0.00	False	True	692.00
P-0465	4.0	PVC	150.0	4.5324	0.12	False	0.00	False	True	388.00
P-0466	2.0	PVC	150.0	-0.9796	0.10	False	0.00	False	True	263.00
P-0467	2.0	PVC	150.0	0.6723	0.07	False	0.00	False	True	672.00
P-0468	4.0	PVC	150.0	-1.6526	0.04	False	0.00	False	True	305.00
P-0469	4.0	PVC	150.0	-6.8572	0.18	False	0.00	False	True	176.00
P-0470	4.0	PVC	150.0	-5.8776	0.15	False	0.00	False	True	159.00
P-0471	4.0	PVC	150.0	-3.1253	0.08	False	0.00	False	True	755.00
P-0472	2.0	PVC	150.0	0.9796	0.10	False	0.00	False	True	100.00
P-0473	2.0	PVC	150.0	-1.1661	0.12	False	0.00	False	True	491.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0474	2.0	PVC	150.0	-0.1865	0.02	False	0.00	False	True	335.00
P-0475	2.0	PVC	150.0	-1.7727	0.18	False	0.00	False	True	305.00
P-0476	2.0	PVC	150.0	-0.9796	0.10	False	0.00	False	True	297.00
P-0477	2.0	PVC (Abandoned)	120.0	0.0001	0.00	False	0.00	False	True	637.00
P-0478	2.0	PVC	120.0	-1.2424	0.13	False	0.00	False	True	610.00
P-0479	2.0	PVC	120.0	-0.5019	0.05	False	0.00	False	True	376.00
P-0480	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	64.00
P-0481	12.0	C-900	110.0	-155.3580	0.44	False	0.00	False	True	127.00
P-0482	12.0	C-900	110.0	100.3343	0.28	False	0.00	False	True	662.00
P-0483	12.0	C-900	110.0	-23.8624	0.07	False	0.00	False	True	413.00
P-0484	12.0	C-900	110.0	100.3345	0.28	False	0.00	False	True	464.00
P-0485	2.0	PVC	120.0	0.0005	0.00	False	0.00	False	True	523.00
P-0486	2.0	GI	120.0	-4.9574	0.51	False	0.00	False	True	831.00
P-0487	2.0	PVC	120.0	-2.4182	0.25	False	0.00	False	True	54.00
P-0488	2.0	GI	120.0	-4.2786	0.44	False	0.00	False	True	1,050.00
P-0489	6.0	DI	120.0	17.1574	0.19	False	0.00	False	True	46.00
P-0490	6.0	AC	60.0	-21.8528	0.25	False	0.00	False	True	618.00
P-0491	6.0	DI	120.0	14.3049	0.16	False	0.00	False	True	759.00
P-0492	6.0	AC	60.0	-70.9321	0.80	False	0.00	False	True	446.00
P-0493	2.0	GI	120.0	4.6187	0.47	False	0.00	False	True	37.00
P-0494	120.0	PVC	150.0	278.2228	0.01	False	1.00	False	True	77.00
P-0495	2.0	GI	120.0	7.4712	0.76	False	0.00	False	True	319.00
P-0496	2.0	GI	120.0	0.2131	0.02	False	0.00	False	True	117.00
P-0497	6.0	AC	60.0	15.4844	0.18	False	0.00	False	True	304.00
P-0498	2.0	GI	120.0	-0.8036	0.08	False	0.00	False	True	213.00
P-0499	6.0	AC	60.0	18.1141	0.21	False	0.00	False	True	21.00
P-0500	2.0	GI	120.0	0.3558	0.04	False	0.00	False	True	376.00
P-0501	12.0	C-900	110.0	-125.1925	0.36	False	0.00	False	True	439.00
P-0502	6.0	PVC	120.0	0.3471	0.00	False	0.00	False	True	774.00
P-0503	2.0	GI	120.0	1.4274	0.15	False	0.00	False	True	1,086.00
P-0504	6.0	PVC	120.0	0.3474	0.00	False	0.00	False	True	31.00
P-0505	2.0	GI	120.0	0.8003	0.08	False	0.00	False	True	327.00
P-0506	2.0	GI	120.0	-0.3786	0.04	False	0.00	False	True	606.00
P-0507	6.0	PVC	120.0	-6.4423	0.07	False	0.00	False	True	127.00
P-0508	6.0	PVC	120.0	4.9588	0.06	False	0.00	False	True	657.00
P-0509	6.0	PVC	120.0	35.4213	0.40	False	0.00	False	True	6.00
P-0510	6.0	PVC	120.0	6.6605	0.08	False	0.00	False	True	483.00
P-0511	6.0	PVC	120.0	35.7087	0.41	False	0.00	False	True	347.00
P-0512	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	809.00
P-0513	2.0	PVC	120.0	-0.1316	0.01	False	0.00	False	True	65.00
P-0514	6.0	AC	90.0	-2.5356	0.03	False	0.00	False	True	491.00

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Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0515	12.0	PVC	110.0	-103.4072	0.29	False	0.00	False	True	113.00
P-0516	6.0	AC	90.0	-1.6270	0.02	False	0.00	False	True	372.00
P-0517	6.0	C-900	120.0	-18.2951	0.21	False	0.00	False	True	469.00
P-0518	6.0	AC	90.0	0.0000	0.00	False	0.00	False	True	16.00
P-0519	6.0	C-900	120.0	-17.4477	0.20	False	0.00	False	True	588.00
P-0520	6.0	AC	90.0	-5.4253	0.06	False	0.00	False	True	614.00
P-0521	6.0	AC	90.0	0.3324	0.00	False	0.00	False	True	442.00
P-0522	8.0	CI	130.0	-17.5924	0.11	False	0.00	False	True	97.00
P-0523	6.0	AC	90.0	-4.7967	0.05	False	0.00	False	True	769.00
P-0524	8.0	CI	130.0	-10.8724	0.07	False	0.00	False	True	51.00
P-0525	4.0	PVC	120.0	-0.9425	0.02	False	0.00	False	True	698.00
P-0526	6.0	PVC	120.0	7.1886	0.08	False	0.00	False	True	385.00
P-0527	4.0	PVC	120.0	1.6282	0.04	False	0.00	False	True	668.00
P-0528	6.0	PVC	120.0	8.3453	0.09	False	0.00	False	True	374.00
P-0529	6.0	PVC	120.0	-6.1830	0.07	False	0.00	False	True	363.00
P-0530	6.0	PVC	120.0	-2.5625	0.03	False	0.00	False	True	662.00
P-0531	12.0	C-900	110.0	-128.7453	0.37	False	0.00	False	True	246.00
P-0532	6.0	PVC	120.0	-5.9367	0.07	False	0.00	False	True	72.00
P-0533	12.0	C-900	110.0	-125.1928	0.36	False	0.00	False	True	369.00
P-0534	6.0	PVC	120.0	-11.4682	0.13	False	0.00	False	True	150.00
P-0535	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	14.00
P-0536	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	39.00
P-0537	6.0	PVC	120.0	-11.4679	0.13	False	0.00	False	True	68.00
P-0538	6.0	PVC	120.0	10.9256	0.12	False	0.00	False	True	534.00
P-0539	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	15.00
P-0540	6.0	C-900	120.0	-0.1008	0.00	False	0.00	False	True	661.00
P-0541	6.0	C-900	120.0	0.1804	0.00	False	0.00	False	True	261.00
P-0542	6.0	C-900	120.0	2.7492	0.03	False	0.00	False	True	353.00
P-0543	6.0	C-900	120.0	2.7495	0.03	False	0.00	False	True	22.00
P-0544	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	12.00
P-0545	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	458.00
P-0546	6.0	AC	90.0	-4.9111	0.06	False	0.00	False	True	469.00
P-0547	6.0	PVC	110.0	10.1636	0.12	False	0.00	False	True	297.00
P-0548	6.0	PVC	110.0	13.5499	0.15	False	0.00	False	True	430.00
P-0549	6.0	PVC	110.0	10.1633	0.12	False	0.00	False	True	343.00
P-0550	6.0	PVC	110.0	10.1629	0.12	False	0.00	False	True	109.00
P-0551	6.0	C-900	120.0	0.2342	0.00	False	0.00	False	True	21.00
P-0552	6.0	C-900	120.0	7.3338	0.08	False	0.00	False	True	120.00
P-0553	6.0	AC	90.0	4.8409	0.05	False	0.00	False	True	682.00
P-0554	6.0	AC	90.0	24.9869	0.28	False	0.00	False	True	681.00
P-0555	6.0	CI	120.0	19.7093	0.22	False	0.00	False	True	10.00
P-0556	6.0	CI	120.0	19.7096	0.22	False	0.00	False	True	19.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0557	6.0	CI	120.0	17.9836	0.20	False	0.00	False	True	290.00
P-0558	6.0	CI	120.0	20.1458	0.23	False	0.00	False	True	5.00
P-0559	4.0	AC	90.0	17.9831	0.46	False	0.00	False	True	25.00
P-0560	14.0	C-900	110.0	170.7848	0.36	False	0.00	False	True	1,325.00
P-0561	14.0	C-900	110.0	207.2630	0.43	False	0.00	False	True	602.00
P-0562	6.0	PVC	120.0	35.7090	0.41	False	0.00	False	True	28.00
P-0563	6.0	PVC	120.0	2.2776	0.03	False	0.00	False	True	33.00
P-0564	14.0	C-900	110.0	170.7842	0.36	False	0.00	False	True	771.00
P-0565	12.0	C-900	110.0	0.0001	0.00	False	0.00	False	True	18.00
P-0566	12.0	C-900	110.0	0.0003	0.00	False	0.00	False	True	591.00
P-0567	12.0	C-900	110.0	0.0007	0.00	False	0.00	False	True	73.00
P-0568	12.0	C-900	110.0	7.3996	0.02	False	0.00	False	True	226.00
P-0569	12.0	C-900	110.0	7.3999	0.02	False	0.00	False	True	343.00
P-0570	6.0	C-900	120.0	7.3984	0.08	False	0.00	False	True	36.00
P-0571	6.0	C-900	120.0	7.3986	0.08	False	0.00	False	True	67.00
P-0572	6.0	C-900	120.0	-5.3655	0.06	False	0.00	False	True	161.00
P-0573	6.0	C-900	120.0	-0.0004	0.00	False	0.00	False	True	20.00
P-0574	6.0	C-900	120.0	-5.3658	0.06	False	0.00	False	True	166.00
P-0575	6.0	C-900	120.0	2.7489	0.03	False	0.00	False	True	89.00
P-0576	12.0	C-900	110.0	-131.4950	0.37	False	0.00	False	True	269.00
P-0577	12.0	C-900	110.0	-131.4953	0.37	False	0.00	False	True	354.00
P-0578	12.0	C-900	110.0	7.4003	0.02	False	0.00	False	True	96.00
P-0579	6.0	PVC	120.0	2.7343	0.03	False	0.00	False	True	171.00
P-0580	6.0	PVC	120.0	2.7346	0.03	False	0.00	False	True	351.00
P-0581	6.0	PVC	120.0	2.9968	0.03	False	0.00	False	True	50.00
P-0582	6.0	PVC	120.0	2.9970	0.03	False	0.00	False	True	300.00
P-0583	6.0	PVC	120.0	2.9973	0.03	False	0.00	False	True	300.00
P-0584	6.0	PVC	120.0	2.9976	0.03	False	0.00	False	True	50.00
P-0585	6.0	PVC	120.0	2.7348	0.03	False	0.00	False	True	40.00
P-0586	6.0	PVC	120.0	2.7352	0.03	False	0.00	False	True	260.00
P-0587	6.0	PVC	120.0	7.3987	0.08	False	0.00	False	True	42.00
P-0588	6.0	PVC	110.0	7.7322	0.09	False	0.00	False	True	190.00
P-0589	6.0	PVC	120.0	7.0857	0.08	False	0.00	False	True	275.00
P-0590	6.0	PVC	120.0	-0.0565	0.00	False	0.00	False	True	618.00
P-0591	14.0	C-900	110.0	170.7839	0.36	False	0.00	False	True	129.00
P-0592	6.0	PVC	120.0	1.3523	0.02	False	0.00	False	True	132.00
P-0593	6.0	PVC	120.0	1.3520	0.02	False	0.00	False	True	59.00
P-0594	6.0	PVC	110.0	21.2823	0.24	False	0.00	False	True	321.00
P-0595	6.0	PVC	110.0	21.2827	0.24	False	0.00	False	True	159.00
P-0596	6.0	PVC	110.0	21.7851	0.25	False	0.00	False	True	139.00
P-0597	6.0	C-900	120.0	-15.9860	0.18	False	0.00	False	True	322.00
P-0598	6.0	C-900	120.0	14.5050	0.16	False	0.00	False	True	259.00
P-0599	6.0	C-900	120.0	14.8487	0.17	False	0.00	False	True	209.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0600	6.0	C-900	120.0	-7.2358	0.08	False	0.00	False	True	222.00
P-0601	6.0	C-900	120.0	13.2626	0.15	False	0.00	False	True	381.00
P-0602	6.0	C-900	120.0	-0.3398	0.00	False	0.00	False	True	347.00
P-0603	6.0	C-900	120.0	6.0263	0.07	False	0.00	False	True	506.00
P-0604	6.0	C-900	120.0	6.0266	0.07	False	0.00	False	True	99.00
P-0605	6.0	C-900	120.0	-0.1903	0.00	False	0.00	False	True	135.00
P-0606	6.0	C-900	120.0	-5.3645	0.06	False	0.00	False	True	67.00
P-0607	6.0	C-900	120.0	-5.3642	0.06	False	0.00	False	True	237.00
P-0608	6.0	AC	90.0	0.3320	0.00	False	0.00	False	True	181.00
P-0609	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	20.00
P-0610	6.0	AC	90.0	-1.0107	0.01	False	0.00	False	True	126.00
P-0611	6.0	AC	90.0	-11.7583	0.13	False	0.00	False	True	387.00
P-0612	6.0	AC	90.0	-8.2204	0.09	False	0.00	False	True	40.00
P-0613	6.0	AC	90.0	-1.5596	0.02	False	0.00	False	True	390.00
P-0614	6.0	AC	90.0	-11.7579	0.13	False	0.00	False	True	42.00
P-0615	6.0	PVC	120.0	1.0937	0.01	False	0.00	False	True	28.00
P-0616	6.0	PVC	120.0	1.0940	0.01	False	0.00	False	True	307.00
P-0617	6.0	PVC	120.0	2.0000	0.02	False	0.00	False	True	143.00
P-0618	6.0	PVC	120.0	2.5487	0.03	False	0.00	False	True	308.00
P-0619	2.0	PVC	120.0	-0.5484	0.06	False	0.00	False	True	950.00
P-0620	2.0	PVC	120.0	1.0935	0.11	False	0.00	False	True	261.00
P-0621	6.0	PVC	120.0	-4.9586	0.06	False	0.00	False	True	296.00
P-0622	6.0	PVC	120.0	-4.2027	0.05	False	0.00	False	True	530.00
P-0623	2.0	GI	80.0	1.6449	0.17	False	0.00	False	True	29.00
P-0624	2.0	GI	80.0	1.1456	0.12	False	0.00	False	True	354.00
P-0625	2.0	PVC	120.0	-2.0336	0.21	False	0.00	False	True	340.00
P-0626	2.0	PVC	120.0	-1.3686	0.14	False	0.00	False	True	1,324.00
P-0627	2.0	PVC	120.0	-0.8078	0.08	False	0.00	False	True	1,862.00
P-0628	6.0	AC	80.0	10.8742	0.12	False	0.00	False	True	261.00
P-0629	6.0	AC	80.0	11.6184	0.13	False	0.00	False	True	447.00
P-0630	6.0	AC	80.0	8.9490	0.10	False	0.00	False	True	313.00
P-0631	6.0	AC	80.0	8.9488	0.10	False	0.00	False	True	52.00
P-0632	6.0	AC	80.0	5.3376	0.06	False	0.00	False	True	315.00
P-0633	2.0	GI	120.0	-0.6213	0.06	False	0.00	False	True	363.00
P-0634	2.0	GI	120.0	0.2504	0.03	False	0.00	False	True	550.00
P-0635	6.0	AC	80.0	3.6812	0.04	False	0.00	False	True	640.00
P-0636	2.0	GI	120.0	-0.1226	0.01	False	0.00	False	True	186.00
P-0637	2.0	GI	120.0	0.7336	0.07	False	0.00	False	True	326.00
P-0638	6.0	C-900	80.0	2.5142	0.03	False	0.00	False	True	70.00
P-0639	6.0	C-900	80.0	2.5145	0.03	False	0.00	False	True	540.00
P-0640	2.0	GI	120.0	0.0928	0.01	False	0.00	False	True	198.00
P-0641	2.0	GI	120.0	0.6500	0.07	False	0.00	False	True	30.00
P-0642	2.0	PVC	120.0	0.6121	0.06	False	0.00	False	True	427.00
P-0643	2.0	PVC	120.0	5.6706	0.58	False	0.00	False	True	420.00
P-0644	2.0	PVC	120.0	6.4321	0.66	False	0.00	False	True	458.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0645	4.0	CI	80.0	-9.0868	0.23	False	0.00	False	True	295.00
P-0646	4.0	CI	80.0	-10.9385	0.28	False	0.00	False	True	30.00
P-0647	4.0	CI	80.0	-10.3266	0.26	False	0.00	False	True	117.00
P-0648	2.0	CI	120.0	0.7181	0.07	False	0.00	False	True	920.00
P-0649	2.0	CI	120.0	-1.1705	0.12	False	0.00	False	True	242.00
P-0650	8.0	CI	120.0	72.4743	0.46	False	0.00	False	True	35.00
P-0651	8.0	CI	120.0	94.2491	0.60	False	0.00	False	True	374.00
P-0652	8.0	CI	120.0	70.0975	0.45	False	0.00	False	True	37.00
P-0653	8.0	CI	120.0	61.6317	0.39	False	0.00	False	True	223.00
P-0654	8.0	CI	120.0	61.6314	0.39	False	0.00	False	True	74.00
P-0655	8.0	CI	120.0	57.5684	0.37	False	0.00	False	True	352.00
P-0656	8.0	CI	120.0	56.7712	0.36	False	0.00	False	True	397.00
P-0657	8.0	CI	120.0	54.7414	0.35	False	0.00	False	True	168.00
P-0658	2.0	PVC	120.0	0.7789	0.08	False	0.00	False	True	105.00
P-0659	12.0	C-900	110.0	100.3339	0.28	False	0.00	False	True	70.00
P-0660	12.0	C-900	110.0	0.3569	0.00	False	0.00	False	True	56.00
P-0661	12.0	C-900	110.0	-93.8046	0.27	False	0.00	False	True	47.00
P-0662	6.0	OCI	110.0	1.5916	0.02	False	0.00	False	True	427.00
P-0663	6.0	OCI	110.0	-92.2129	1.05	False	0.00	False	True	49.00
P-0664	6.0	OCI	110.0	-86.2152	0.98	False	0.00	False	True	96.00
P-0665	6.0	OCI	110.0	-86.2150	0.98	False	0.00	False	True	360.00
P-0666	6.0	OCI	110.0	-85.6820	0.97	False	0.00	False	True	340.00
P-0667	6.0	OCI	110.0	-84.7180	0.96	False	0.00	False	True	595.00
P-0668	8.0	OCI	110.0	-9.8350	0.06	False	0.00	False	True	53.00
P-0669	8.0	OCI	110.0	-9.8347	0.06	False	0.00	False	True	232.00
P-0670	2.0	GI	120.0	9.8352	1.00	False	0.00	False	True	35.00
P-0671	2.0	GI	120.0	6.3545	0.65	False	0.00	False	True	346.00
P-0672	6.0	AC	80.0	-7.7240	0.09	False	0.00	False	True	468.00
P-0673	6.0	AC	80.0	-14.2055	0.16	False	0.00	False	True	71.00
P-0674	6.0	PVC	80.0	-6.4818	0.07	False	0.00	False	True	47.00
P-0675	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	23.00
P-0676	6.0	AC	80.0	13.5234	0.15	False	0.00	False	True	75.00
P-0677	6.0	AC	80.0	-9.8818	0.11	False	0.00	False	True	157.00
P-0678	6.0	AC	80.0	-8.9651	0.10	False	0.00	False	True	105.00
P-0679	6.0	AC	80.0	-9.8821	0.11	False	0.00	False	True	363.00
P-0680	2.0	GI	120.0	-0.9164	0.09	False	0.00	False	True	221.00
P-0681	2.0	GI	120.0	-0.6160	0.06	False	0.00	False	True	108.00
P-0682	2.0	GI	120.0	-0.3002	0.03	False	0.00	False	True	139.00
P-0683	2.0	GI	120.0	1.2409	0.13	False	0.00	False	True	95.00
P-0684	8.0	CI	120.0	41.9591	0.27	False	0.00	False	True	261.00
P-0685	8.0	CI	120.0	34.6250	0.22	False	0.00	False	True	17.00
P-0686	8.0	CI	120.0	35.5099	0.23	False	0.00	False	True	227.00
P-0687	8.0	CI	120.0	34.2550	0.22	False	0.00	False	True	848.00
P-0688	8.0	CI	120.0	35.5681	0.23	False	0.00	False	True	73.00
P-0689	8.0	CI	120.0	-0.7733	0.00	False	0.00	False	True	48.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0690	6.0	C-900	120.0	-0.5501	0.01	False	0.00	False	True	969.00
P-0691	6.0	C-900	120.0	-0.5499	0.01	False	0.00	False	True	192.00
P-0692	6.0	C-900	120.0	-0.7728	0.01	False	0.00	False	True	1,000.00
P-0693	6.0	C-900	120.0	-0.7724	0.01	False	0.00	False	True	1,086.00
P-0694	6.0	C-900	120.0	-0.7731	0.01	False	0.00	False	True	222.00
P-0695	6.0	PVC	120.0	-0.0947	0.00	False	0.00	False	True	774.00
P-0696	6.0	PVC	120.0	0.5047	0.01	False	0.00	False	True	609.00
P-0697	6.0	PVC	120.0	9.9026	0.11	False	0.00	False	True	344.00
P-0698	6.0	PVC	120.0	10.6467	0.12	False	0.00	False	True	286.00
P-0699	6.0	PVC	120.0	10.6470	0.12	False	0.00	False	True	38.00
P-0700	6.0	PVC	120.0	13.2650	0.15	False	0.00	False	True	270.00
P-0701	8.0	CI	120.0	13.2652	0.08	False	0.00	False	True	56.00
P-0702	12.0	C-900	120.0	22.2661	0.06	False	0.00	False	True	672.00
P-0703	12.0	C-900	120.0	22.2664	0.06	False	0.00	False	True	531.00
P-0704	12.0	C-900	100.0	-11.2242	0.03	False	0.00	False	True	36.00
P-0705	12.0	C-900	120.0	-11.2149	0.03	False	0.00	False	True	783.00
P-0706	6.0	PVC	120.0	-10.4346	0.12	False	0.00	False	True	224.00
P-0707	6.0	PVC	120.0	-10.4342	0.12	False	0.00	False	True	45.00
P-0708	6.0	PVC	120.0	-1.5206	0.02	False	0.00	False	True	734.00
P-0709	6.0	PVC	100.0	-8.4686	0.10	False	0.00	False	True	209.00
P-0710	6.0	PVC	100.0	-4.2346	0.05	False	0.00	False	True	118.00
P-0711	6.0	PVC	100.0	-4.2342	0.05	False	0.00	False	True	55.00
P-0712	6.0	PVC	120.0	12.2615	0.14	False	0.00	False	True	45.00
P-0713	6.0	PVC	120.0	3.7927	0.04	False	0.00	False	True	192.00
P-0714	6.0	PVC	120.0	3.7924	0.04	False	0.00	False	True	24.00
P-0715	6.0	C-900	120.0	4.5363	0.05	False	0.00	False	True	50.00
P-0716	6.0	C-900	120.0	4.5366	0.05	False	0.00	False	True	1,392.00
P-0717	6.0	PVC	120.0	2.4972	0.03	False	0.00	False	True	751.00
P-0718	6.0	PVC	120.0	4.5361	0.05	False	0.00	False	True	49.00
P-0719	6.0	PVC	120.0	1.0471	0.01	False	0.00	False	True	208.00
P-0720	6.0	PVC	120.0	1.0475	0.01	False	0.00	False	True	14.00
P-0721	6.0	PVC	100.0	-0.5077	0.01	False	0.00	False	True	281.00
P-0722	6.0	PVC	100.0	-0.5074	0.01	False	0.00	False	True	19.00
P-0723	6.0	PVC	120.0	0.2209	0.00	False	0.00	False	True	109.00
P-0724	6.0	PVC	120.0	0.2213	0.00	False	0.00	False	True	145.00
P-0725	6.0	C-900	120.0	4.4777	0.05	False	0.00	False	True	42.00
P-0726	6.0	C-900	120.0	-0.2471	0.00	False	0.00	False	True	776.00
P-0727	6.0	C-900	120.0	4.4775	0.05	False	0.00	False	True	582.00
P-0728	6.0	C-900	120.0	0.3828	0.00	False	0.00	False	True	796.00
P-0729	6.0	PVC	120.0	-5.9849	0.07	False	0.00	False	True	156.00
P-0730	6.0	PVC	120.0	-5.2533	0.06	False	0.00	False	True	357.00
P-0731	6.0	PVC	120.0	-4.4386	0.05	False	0.00	False	True	79.00
P-0732	6.0	PVC	120.0	-4.4382	0.05	False	0.00	False	True	315.00
P-0733	6.0	PVC	120.0	3.8382	0.04	False	0.00	False	True	71.00
P-0734	6.0	PVC	120.0	4.4380	0.05	False	0.00	False	True	589.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0735	6.0	PVC	120.0	4.8167	0.05	False	0.00	False	True	122.00
P-0736	6.0	PVC	120.0	4.8170	0.05	False	0.00	False	True	418.00
P-0737	6.0	PVC	120.0	3.2715	0.04	False	0.00	False	True	220.00
P-0738	6.0	PVC	120.0	-0.7445	0.01	False	0.00	False	True	789.00
P-0739	6.0	PVC	120.0	4.0027	0.05	False	0.00	False	True	489.00
P-0740	6.0	C-900	120.0	16.5509	0.19	False	0.00	False	True	174.00
P-0741	6.0	C-900	120.0	16.5512	0.19	False	0.00	False	True	774.00
P-0742	8.0	OCI	110.0	-92.5391	0.59	False	0.00	False	True	135.00
P-0743	8.0	OCI	110.0	-96.8175	0.62	False	0.00	False	True	79.00
P-0744	8.0	OCI	110.0	-7.8213	0.05	False	0.00	False	True	65.00
P-0745	8.0	OCI	110.0	-25.2117	0.16	False	0.00	False	True	338.00
P-0746	6.0	DI	120.0	17.1571	0.19	False	0.00	False	True	634.00
P-0747	2.0	GI	120.0	1.3515	0.14	False	0.00	False	True	568.00
P-0748	6.0	DI	60.0	11.9036	0.14	False	0.00	False	True	264.00
P-0749	6.0	DI	60.0	12.5451	0.14	False	0.00	False	True	30.00
P-0750	6.0	DI	120.0	-0.0002	0.00	False	0.00	False	True	20.00
P-0751	6.0	DI	60.0	-12.5461	0.14	False	0.00	False	True	168.00
P-0752	6.0	DI	60.0	-12.5458	0.14	False	0.00	False	True	37.00
P-0753	6.0	C-900	60.0	10.7346	0.12	False	0.00	False	True	49.00
P-0754	6.0	AC	60.0	18.1144	0.21	False	0.00	False	True	278.00
P-0755	8.0	CI	120.0	-27.6542	0.18	False	0.00	False	True	5.00
P-0756	8.0	CI	90.0	-29.0055	0.19	False	0.00	False	True	30.00
P-0757	8.0	CI	90.0	-12.4397	0.08	False	0.00	False	True	377.00
P-0758	8.0	CI	90.0	-27.8397	0.18	False	0.00	False	True	36.00
P-0759	8.0	CI	90.0	-27.8394	0.18	False	0.00	False	True	454.00
P-0760	8.0	CI	120.0	-107.6896	0.69	False	0.00	False	True	379.00
P-0761	6.0	C-900	70.0	0.0000	0.00	False	0.00	False	True	80.00
P-0762	6.0	C-900	70.0	0.0007	0.00	False	0.00	False	True	249.00
P-0763	6.0	PVC	70.0	0.0002	0.00	False	0.00	False	True	23.00
P-0764	2.0	GI	120.0	-3.0257	0.31	False	0.00	False	True	335.00
P-0765	2.0	GI	120.0	-0.5419	0.06	False	0.00	False	True	275.00
P-0766	2.0	GI	120.0	2.1320	0.22	False	0.00	False	True	254.00
P-0767	2.0	GI	120.0	-0.3516	0.04	False	0.00	False	True	251.00
P-0768	2.0	GI	120.0	-7.0773	0.72	False	0.00	False	True	1,013.00
P-0769	2.0	GI	120.0	-1.9463	0.20	False	0.00	False	True	345.00
P-0770	2.0	GI	120.0	-0.8135	0.08	False	0.00	False	True	192.00
P-0771	2.0	GI	120.0	4.3157	0.44	False	0.00	False	True	333.00
P-0772	2.0	GI	120.0	7.0969	0.72	False	0.00	False	True	141.00
P-0773	6.0	C-900	70.0	0.0143	0.00	False	0.00	False	True	317.00
P-0774	6.0	C-900	60.0	-0.5717	0.01	False	0.00	False	True	121.00
P-0775	6.0	C-900	60.0	-0.5713	0.01	False	0.00	False	True	314.00
P-0776	6.0	C-900	120.0	-0.1200	0.00	False	0.00	False	True	670.00
P-0777	6.0	C-900	120.0	0.3543	0.00	False	0.00	False	True	595.00
P-0778	6.0	C-900	120.0	-0.4362	0.00	False	0.00	False	True	369.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0779	6.0	C-900	120.0	0.0382	0.00	False	0.00	False	True	550.00
P-0780	6.0	C-900	120.0	0.5124	0.01	False	0.00	False	True	347.00
P-0781	6.0	C-900	120.0	0.0046	0.00	False	0.00	False	True	549.00
P-0782	6.0	C-900	120.0	0.4790	0.01	False	0.00	False	True	358.00
P-0783	8.0	C-900	120.0	-3.0776	0.02	False	0.00	False	True	241.00
P-0784	8.0	C-900	120.0	-2.1338	0.01	False	0.00	False	True	241.00
P-0785	8.0	C-900	120.0	-3.7702	0.02	False	0.00	False	True	241.00
P-0786	8.0	C-900	120.0	-4.6805	0.03	False	0.00	False	True	241.00
P-0787	8.0	C-900	120.0	-5.2747	0.03	False	0.00	False	True	252.00
P-0788	8.0	C-900	120.0	-5.9226	0.04	False	0.00	False	True	62.00
P-0789	6.0	C-900	120.0	-0.1736	0.00	False	0.00	False	True	307.00
P-0790	6.0	C-900	120.0	0.3007	0.00	False	0.00	False	True	652.00
P-0791	6.0	C-900	120.0	0.7750	0.01	False	0.00	False	True	305.00
P-0792	6.0	C-900	120.0	0.0870	0.00	False	0.00	False	True	594.00
P-0793	6.0	C-900	120.0	0.5613	0.01	False	0.00	False	True	514.00
P-0794	8.0	C-900	120.0	-6.7840	0.04	False	0.00	False	True	333.00
P-0795	8.0	C-900	120.0	-6.3968	0.04	False	0.00	False	True	256.00
P-0796	8.0	C-900	120.0	-6.9944	0.04	False	0.00	False	True	333.00
P-0797	6.0	C-900	120.0	0.2638	0.00	False	0.00	False	True	383.00
P-0798	6.0	C-900	120.0	0.7381	0.01	False	0.00	False	True	521.00
P-0799	6.0	C-900	120.0	1.0750	0.01	False	0.00	False	True	325.00
P-0800	6.0	C-900	120.0	1.5494	0.02	False	0.00	False	True	374.00
P-0801	8.0	C-900	120.0	-6.3936	0.04	False	0.00	False	True	334.00
P-0802	8.0	C-900	120.0	9.1303	0.06	False	0.00	False	True	263.00
P-0803	8.0	C-900	120.0	11.1539	0.07	False	0.00	False	True	263.00
P-0804	8.0	C-900	120.0	7.9179	0.05	False	0.00	False	True	263.00
P-0805	8.0	C-900	120.0	6.8824	0.04	False	0.00	False	True	263.00
P-0806	8.0	C-900	120.0	5.6331	0.04	False	0.00	False	True	252.00
P-0807	8.0	C-900	120.0	4.8046	0.03	False	0.00	False	True	241.00
P-0808	8.0	C-900	120.0	3.8179	0.02	False	0.00	False	True	241.00
P-0809	8.0	C-900	120.0	3.0877	0.02	False	0.00	False	True	241.00
P-0810	8.0	C-900	120.0	2.1345	0.01	False	0.00	False	True	241.00
P-0811	8.0	C-900	120.0	1.1860	0.01	False	0.00	False	True	53.00
P-0812	8.0	C-900	120.0	1.6603	0.01	False	0.00	False	True	595.00
P-0813	8.0	C-900	120.0	-1.6595	0.01	False	0.00	False	True	619.00
P-0814	6.0	C-900	120.0	0.4742	0.01	False	0.00	False	True	251.00
P-0815	6.0	C-900	120.0	0.9486	0.01	False	0.00	False	True	228.00
P-0816	6.0	C-900	120.0	-0.9486	0.01	False	0.00	False	True	420.00
P-0817	6.0	C-900	120.0	-0.4742	0.01	False	0.00	False	True	221.00
P-0818	2.0	GI	120.0	3.9332	0.40	False	0.00	False	True	357.00
P-0819	2.0	GI	120.0	-0.0002	0.00	False	0.00	False	True	918.00
P-0820	2.0	GI	120.0	6.5545	0.67	False	0.00	False	True	31.00
P-0821	4.0	PVC	120.0	-4.7584	0.12	False	0.00	False	True	432.00
P-0822	4.0	PVC	120.0	-0.0341	0.00	False	0.00	False	True	8.00
P-0823	4.0	AC - DRY	90.0	-4.7588	0.12	False	0.00	False	True	37.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0824	4.0	AC - DRY	90.0	-0.0002	0.00	False	0.00	False	True	395.00
P-0825	6.0	CL-200	120.0	-14.1684	0.16	False	0.00	False	True	358.00
P-0826	6.0	CL-200	120.0	-14.1680	0.16	False	0.00	False	True	396.00
P-0827	2.0	GI	120.0	4.6223	0.47	False	0.00	False	True	398.00
P-0828	2.0	GI	120.0	5.1160	0.52	False	0.00	False	True	381.00
P-0829	6.0	AC	60.0	4.4223	0.05	False	0.00	False	True	607.00
P-0830	6.0	AC	60.0	39.3410	0.45	False	0.00	False	True	380.00
P-0831	6.0	AC	60.0	44.4590	0.50	False	0.00	False	True	384.00
P-0832	6.0	AC	60.0	45.8914	0.52	False	0.00	False	True	266.00
P-0833	6.0	AC	60.0	46.6895	0.53	False	0.00	False	True	54.00
P-0834	6.0	DI	60.0	-12.8842	0.15	False	0.00	False	True	279.00
P-0835	6.0	DI	60.0	-12.8846	0.15	False	0.00	False	True	45.00
P-0836	6.0	C-900	60.0	-0.2879	0.00	False	0.00	False	True	283.00
P-0837	6.0	C-900	60.0	9.7286	0.11	False	0.00	False	True	24.00
P-0838	6.0	C-900	60.0	10.4767	0.12	False	0.00	False	True	21.00
P-0839	6.0	C-900	60.0	10.4770	0.12	False	0.00	False	True	241.00
P-0840	8.0	CI	60.0	0.0314	0.00	False	0.00	False	True	526.00
P-0841	8.0	CI	60.0	-15.4529	0.10	False	0.00	False	True	33.00
P-0842	8.0	CI	90.0	-13.6105	0.09	False	0.00	False	True	43.00
P-0843	8.0	CI	90.0	-13.6101	0.09	False	0.00	False	True	308.00
P-0844	2.0	GI	120.0	0.8137	0.08	False	0.00	False	True	300.00
P-0845	2.0	GI	120.0	7.0971	0.72	False	0.00	False	True	274.00
P-0846	2.0	GI	120.0	-0.6528	0.07	False	0.00	False	True	138.00
P-0847	6.0	C-900	120.0	-0.2832	0.00	False	0.00	False	True	490.00
P-0848	6.0	C-900	120.0	-0.2826	0.00	False	0.00	False	True	124.00
P-0849	6.0	PVC	120.0	-0.0002	0.00	False	0.00	False	True	16.00
P-0850	6.0	PVC	120.0	1.8626	0.02	False	0.00	False	True	430.00
P-0851	6.0	PVC	120.0	1.8630	0.02	False	0.00	False	True	177.00
P-0852	6.0	PVC	120.0	-5.6028	0.06	False	0.00	False	True	1,327.00
P-0853	6.0	PVC	120.0	-1.6407	0.02	False	0.00	False	True	12.00
P-0854	6.0	PVC	120.0	-0.0003	0.00	False	0.00	False	True	10.00
P-0855	6.0	PVC	120.0	-1.6411	0.02	False	0.00	False	True	30.00
P-0856	6.0	PVC	120.0	15.7769	0.18	False	0.00	False	True	68.00
P-0857	14.0	C-900	120.0	276.5811	0.58	False	0.00	False	True	13.00
P-0858	14.0	C-900	120.0	260.8046	0.54	False	0.00	False	True	68.00
P-0859	14.0	C-900	120.0	36.4713	0.08	False	0.00	False	True	6.00
P-0860	14.0	C-900	120.0	34.8313	0.07	False	0.00	False	True	124.00
P-0861	14.0	C-900	120.0	241.1032	0.50	False	0.00	False	True	48.00
P-0862	14.0	C-900	120.0	276.5809	0.58	False	0.00	False	True	132.00
P-0863	14.0	C-900	120.0	241.1029	0.50	False	0.00	False	True	202.00
P-0864	14.0	C-900	120.0	234.9865	0.49	False	0.00	False	True	41.00
P-0865	14.0	C-900	120.0	-36.3546	0.08	False	0.00	False	True	748.00
P-0866	14.0	C-900	120.0	-36.2035	0.08	False	0.00	False	True	652.00
P-0867	6.0	C-900	120.0	0.0002	0.00	False	0.00	False	True	80.00
P-0868	6.0	C-900	120.0	0.1012	0.00	False	0.00	False	True	544.00

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Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0869	6.0	GI	120.0	-17.5026	0.20	False	0.00	False	True	317.00
P-0870	6.0	GI	120.0	-15.4121	0.17	False	0.00	False	True	43.00
P-0871	6.0	GI	120.0	-28.9741	0.33	False	0.00	False	True	23.00
P-0872	6.0	GI	120.0	-28.3843	0.32	False	0.00	False	True	20.00
P-0873	6.0	GI	120.0	-28.3839	0.32	False	0.00	False	True	27.00
P-0874	6.0	GI	120.0	-26.5979	0.30	False	0.00	False	True	662.00
P-0875	6.0	GI	120.0	-6.5480	0.07	False	0.00	False	True	52.00
P-0876	6.0	GI	120.0	-6.5477	0.07	False	0.00	False	True	294.00
P-0877	6.0	GI	120.0	-4.5233	0.05	False	0.00	False	True	368.00
P-0878	6.0	GI	120.0	-2.4994	0.03	False	0.00	False	True	268.00
P-0879	6.0	GI	120.0	-2.4991	0.03	False	0.00	False	True	60.00
P-0880	2.0	GI	120.0	0.3120	0.03	False	0.00	False	True	152.00
P-0881	2.0	GI	120.0	0.3124	0.03	False	0.00	False	True	668.00
P-0882	2.0	GI	120.0	0.5632	0.06	False	0.00	False	True	329.00
P-0883	2.0	GI	120.0	1.5167	0.15	False	0.00	False	True	665.00
P-0884	12.0	C-900	120.0	0.0003	0.00	False	0.00	False	True	50.00
P-0885	12.0	C-900	120.0	0.5897	0.00	False	0.00	False	True	878.00
P-0886	8.0	C-900	120.0	0.5886	0.00	False	0.00	False	True	221.00
P-0887	8.0	C-900	120.0	0.5890	0.00	False	0.00	False	True	205.00
P-0888	8.0	C-900	120.0	0.5879	0.00	False	0.00	False	True	29.00
P-0889	8.0	C-900	120.0	0.5882	0.00	False	0.00	False	True	35.00
P-0890	14.0	C-900	120.0	-28.9749	0.06	False	0.00	False	True	65.00
P-0891	8.0	PVC	120.0	-7.2284	0.05	False	0.00	False	True	62.00
P-0892	8.0	PVC	120.0	-7.2267	0.05	False	0.00	False	True	15.00
P-0893	8.0	PVC	120.0	-0.0002	0.00	False	0.00	False	True	52.00
P-0894	4.0	C-900	120.0	0.7239	0.02	False	0.00	False	True	225.00
P-0895	4.0	C-900	120.0	1.4255	0.04	False	0.00	False	True	201.00
P-0896	4.0	PVC	120.0	1.9627	0.05	False	0.00	False	True	176.00
P-0897	4.0	PVC	120.0	1.8845	0.05	False	0.00	False	True	187.00
P-0898	8.0	PVC	120.0	-0.0015	0.00	False	0.00	False	True	436.00
P-0899	8.0	PVC	120.0	-0.0011	0.00	False	0.00	False	True	280.00
P-0900	4.0	PVC	120.0	3.8966	0.10	False	0.00	False	True	234.00
P-0901	4.0	PVC	120.0	7.2263	0.18	False	0.00	False	True	325.00
P-0902	4.0	PVC	120.0	2.3731	0.06	False	0.00	False	True	176.00
P-0903	4.0	C-900	120.0	0.7214	0.02	False	0.00	False	True	227.00
P-0904	4.0	C-900	120.0	1.4650	0.04	False	0.00	False	True	200.00
P-0905	8.0	C-900	120.0	0.0002	0.00	False	0.00	False	True	26.00
P-0906	8.0	C-900	120.0	0.0007	0.00	False	0.00	False	True	438.00
P-0907	4.0	PVC	120.0	0.7314	0.02	False	0.00	False	True	1,928.00
P-0908	4.0	C-900	120.0	-0.8145	0.02	False	0.00	False	True	1,325.00
P-0909	4.0	PVC	120.0	-0.4179	0.01	False	0.00	False	True	992.00
P-0910	2.0	GI	120.0	4.7165	0.48	False	0.00	False	True	850.00
P-0911	2.0	PVC	120.0	-0.4389	0.04	False	0.00	False	True	908.00
P-0912	4.0	AC - DRY	90.0	0.0002	0.00	False	0.00	False	True	814.00
P-0913	2.0	GI	120.0	-1.3904	0.14	False	0.00	False	True	793.00

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Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0914	4.0	C-900	120.0	0.4836	0.01	False	0.00	False	True	1,524.00
P-0915	2.0	GI	120.0	-0.0931	0.01	False	0.00	False	True	752.00
P-0916	2.0	PVC	120.0	0.0516	0.01	False	0.00	False	True	739.00
P-0917	2.0	GI	120.0	0.4471	0.05	False	0.00	False	True	739.00
P-0918	4.0	AC	90.0	-0.0339	0.00	False	0.00	False	True	720.00
P-0919	2.0	GI	120.0	1.1667	0.12	False	0.00	False	True	710.00
P-0920	6.0	AC	90.0	-19.5724	0.22	False	0.00	False	True	585.00
P-0921	2.0	GI	120.0	0.9787	0.10	False	0.00	False	True	695.00
P-0922	2.0	GI	120.0	3.0924	0.32	False	0.00	False	True	759.00
P-0923	6.0	PVC	120.0	-7.0993	0.08	False	0.00	False	True	755.00
P-0924	2.0	GI	120.0	-4.5910	0.47	False	0.00	False	True	678.00
P-0925	2.0	GI	120.0	0.4936	0.05	False	0.00	False	True	569.00
P-0926	6.0	PVC	120.0	1.9102	0.02	False	0.00	False	True	605.00
P-0927	6.0	C-900	120.0	-19.0740	0.22	False	0.00	False	True	565.00
P-0928	6.0	PVC	120.0	-1.5343	0.02	False	0.00	False	True	553.00
P-0929	2.0	GI	120.0	-0.6403	0.07	False	0.00	False	True	552.00
P-0930	4.0	PVC	120.0	0.5095	0.01	False	0.00	False	True	548.00
P-0931	2.0	PVC	120.0	0.6119	0.06	False	0.00	False	True	547.00
P-0932	2.0	GI	120.0	-4.6221	0.47	False	0.00	False	True	531.00
P-0933	6.0	C-900	120.0	-0.2822	0.00	False	0.00	False	True	616.00
P-0934	6.0	CL-200	120.0	-15.4115	0.17	False	0.00	False	True	803.00
P-0935	6.0	C-900	120.0	-0.4697	0.01	False	0.00	False	True	358.00
P-0936	8.0	C-900	120.0	6.8678	0.04	False	0.00	False	True	492.00
P-0937	2.0	GI	120.0	-0.2527	0.03	False	0.00	False	True	492.00
P-0938	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	535.00
P-0939	6.0	PVC	110.0	0.7632	0.01	False	0.00	False	True	482.00
P-0940	2.0	GI	120.0	-0.7793	0.08	False	0.00	False	True	475.00
P-0941	2.0	GI	120.0	0.3443	0.04	False	0.00	False	True	475.00
P-0942	6.0	C-900	120.0	5.5317	0.06	False	0.00	False	True	473.00
P-0943	2.0	GI	120.0	1.6961	0.17	False	0.00	False	True	476.00
P-0944	2.0	GI	120.0	-0.4360	0.04	False	0.00	False	True	466.00
P-0945	12.0	C-900	120.0	-10.4348	0.03	False	0.00	False	True	894.00
P-0946	2.0	GI	120.0	0.3200	0.03	False	0.00	False	True	452.00
P-0947	2.0	PVC	120.0	0.3040	0.03	False	0.00	False	True	493.00
P-0948	6.0	C-900	120.0	-0.0002	0.00	False	0.00	False	True	511.00
P-0949	2.0	PVC	120.0	-6.1161	0.62	False	0.00	False	True	439.00
P-0950	14.0	C-900	110.0	-170.7846	0.36	False	0.00	False	True	647.00
P-0951	2.0	PVC	120.0	1.3569	0.14	False	0.00	False	True	432.00
P-0952	6.0	C-900	120.0	-6.6212	0.08	False	0.00	False	True	577.00
P-0953	4.0	PVC	120.0	2.6071	0.07	False	0.00	False	True	437.00
P-0954	4.0	PVC	120.0	0.1854	0.00	False	0.00	False	True	418.00
P-0955	4.0	PVC	120.0	0.8008	0.02	False	0.00	False	True	418.00
P-0956	4.0	C-900	120.0	0.0012	0.00	False	0.00	False	True	415.00
P-0957	4.0	C-900	120.0	-0.0210	0.00	False	0.00	False	True	416.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-0958	6.0	C-900	120.0	0.0001	0.00	False	0.00	False	True	412.00
P-0959	2.0	GI	120.0	0.8220	0.08	False	0.00	False	True	447.00
P-0960	2.0	PVC	120.0	-0.5540	0.06	False	0.00	False	True	420.00
P-0961	2.0	GI	120.0	-0.2574	0.03	False	0.00	False	True	385.00
P-0962	2.0	GI	120.0	-1.1115	0.11	False	0.00	False	True	662.00
P-0963	2.0	GI	120.0	2.0453	0.21	False	0.00	False	True	371.00
P-0964	6.0	C-900	120.0	-0.2183	0.00	False	0.00	False	True	681.00
P-0965	2.0	GI	120.0	0.5570	0.06	False	0.00	False	True	427.00
P-0966	2.0	GI	120.0	2.0949	0.21	False	0.00	False	True	363.00
P-0967	6.0	C-900	120.0	0.0004	0.00	False	0.00	False	True	354.00
P-0968	6.0	GI	120.0	-19.3284	0.22	False	0.00	False	True	384.00
P-0969	6.0	PVC	120.0	-11.0417	0.13	False	0.00	False	True	330.00
P-0970	14.0	C-900	120.0	36.4711	0.08	False	0.00	False	True	214.00
P-0971	12.0	C-900	110.0	94.1618	0.27	False	0.00	False	True	332.00
P-0972	6.0	PVC	120.0	4.7250	0.05	False	0.00	False	True	324.00
P-0973	8.0	CI	120.0	0.0001	0.00	False	0.00	False	True	395.00
P-0974	6.0	PVC	120.0	5.1697	0.06	False	0.00	False	True	400.00
P-0975	6.0	AC	90.0	5.6032	0.06	False	0.00	False	True	314.00
P-0976	6.0	PVC	120.0	0.2560	0.00	False	0.00	False	True	584.00
P-0977	2.0	GI	120.0	-0.6818	0.07	False	0.00	False	True	301.00
P-0978	2.0	GI	120.0	-1.1656	0.12	False	0.00	False	True	305.00
P-0979	6.0	PVC	120.0	1.7815	0.02	False	0.00	False	True	627.00
P-0980	1.5	GI	120.0	0.6526	0.12	False	0.00	False	True	294.00
P-0981	2.0	PVC	120.0	0.1933	0.02	False	0.00	False	True	294.00
P-0982	4.0	AC	90.0	16.9051	0.43	False	0.00	False	True	384.00
P-0983	2.0	PVC	120.0	1.1502	0.12	False	0.00	False	True	317.00
P-0984	2.0	PVC	120.0	0.3033	0.03	False	0.00	False	True	292.00
P-0985	6.0	CI	120.0	0.0002	0.00	False	0.00	False	True	292.00
P-0986	2.0	GI	120.0	0.4473	0.05	False	0.00	False	True	290.00
P-0987	2.0	PVC	120.0	9.0243	0.92	False	0.00	False	True	288.00
P-0988	2.0	GI	120.0	-0.5841	0.06	False	0.00	False	True	306.00
P-0989	2.0	GI	120.0	-1.0511	0.11	False	0.00	False	True	287.00
P-0990	2.0	GI	120.0	-2.9737	0.30	False	0.00	False	True	285.00
P-0991	2.0	GI	120.0	1.8887	0.19	False	0.00	False	True	295.00
P-0992	6.0	AC	60.0	4.4220	0.05	False	0.00	False	True	424.00
P-0993	2.0	GI	120.0	1.0574	0.11	False	0.00	False	True	274.00
P-0994	6.0	PVC	120.0	0.0004	0.00	False	0.00	False	True	266.00
P-0995	2.0	GI	120.0	1.2839	0.13	False	0.00	False	True	494.00
P-0996	2.0	GI	120.0	-2.2124	0.23	False	0.00	False	True	251.00
P-0997	6.0	C-900	120.0	0.0001	0.00	False	0.00	False	True	311.00
P-0998	1.0	PVC	120.0	-0.1176	0.05	False	0.00	False	True	249.00
P-0999	6.0	C-900	120.0	-18.8459	0.21	False	0.00	False	True	247.00
P-1000	12.0	PVC	110.0	-170.7833	0.48	False	0.00	False	True	876.00
P-1001	6.0	PVC	120.0	-0.3379	0.00	False	0.00	False	True	242.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1002	6.0	PVC	120.0	0.3451	0.00	False	0.00	False	True	505.00
P-1003	6.0	PVC	60.0	0.5861	0.01	False	0.00	False	True	235.00
P-1004	2.0	PVC	120.0	0.1404	0.01	False	0.00	False	True	232.00
P-1005	2.0	GI	120.0	0.8679	0.09	False	0.00	False	True	232.00
P-1006	6.0	PVC	80.0	6.4744	0.07	False	0.00	False	True	228.00
P-1007	2.0	PVC	120.0	-0.4030	0.04	False	0.00	False	True	227.00
P-1008	12.0	PVC	150.0	-0.0001	0.00	False	0.00	False	True	3,430.00
P-1008	6.0	PVC	120.0	5.6030	0.06	False	0.00	False	True	222.00
P-1009	12.0	C-900	110.0	170.7835	0.48	False	0.00	False	True	222.00
P-1010	2.0	GI	120.0	0.7528	0.08	False	0.00	False	True	236.00
P-1011	8.0	C-900	120.0	0.5884	0.00	False	0.00	False	True	214.00
P-1012	12.0	PVC	110.0	-18.4964	0.05	False	0.00	False	True	209.00
P-1013	2.0	PVC	120.0	5.3647	0.55	False	0.00	False	True	210.00
P-1014	8.0	C-900	120.0	2.3713	0.02	False	0.00	False	True	210.00
P-1015	2.0	GI	120.0	-0.6458	0.07	False	0.00	False	True	200.00
P-1016	2.0	PVC	120.0	0.2340	0.02	False	0.00	False	True	205.00
P-1017	2.0	GI	120.0	0.2960	0.03	False	0.00	False	True	205.00
P-1018	2.0	PVC	120.0	-0.3333	0.03	False	0.00	False	True	202.00
P-1019	6.0	PVC	60.0	0.5863	0.01	False	0.00	False	True	198.00
P-1020	6.0	AC	90.0	-4.5137	0.05	False	0.00	False	True	373.00
P-1021	6.0	PVC	150.0	0.0001	0.00	False	0.00	False	True	285.00
P-1021	2.0	PVC	120.0	1.6402	0.17	False	0.00	False	True	190.00
P-1022	2.0	GI	120.0	0.0133	0.00	False	0.00	False	True	211.00
P-1023	6.0	C-900	120.0	-0.0002	0.00	False	0.00	False	True	184.00
P-1023	12.0	PVC	150.0	0.0001	0.00	False	0.00	False	True	18,578.00
P-1024	4.0	CI	80.0	13.4404	0.34	False	0.00	False	True	249.00
P-1025	6.0	GI	120.0	15.4117	0.17	False	0.00	False	True	362.00
P-1026	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	200.00
P-1027	6.0	PVC	120.0	2.7341	0.03	False	0.00	False	True	183.00
P-1028	6.0	C-900	120.0	7.3340	0.08	False	0.00	False	True	184.00
P-1029	6.0	PVC	100.0	2.6283	0.03	False	0.00	False	True	276.00
P-1030	6.0	C-900	120.0	-1.0109	0.01	False	0.00	False	True	175.00
P-1031	2.0	PVC	120.0	4.2934	0.44	False	0.00	False	True	337.00
P-1032	1.0	PVC	120.0	0.6115	0.25	False	0.00	False	True	131.00
P-1033	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	364.00
P-1034	6.0	C-900	120.0	-0.0002	0.00	False	0.00	False	True	147.00
P-1035	6.0	PVC	120.0	-34.9116	0.40	False	0.00	False	True	149.00
P-1036	1.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	145.00
P-1037	2.0	PVC	100.0	4.2338	0.43	False	0.00	False	True	185.00
P-1038	6.0	C-900	120.0	0.2818	0.00	False	0.00	False	True	320.00
P-1039	6.0	PVC	120.0	0.8786	0.01	False	0.00	False	True	131.00
P-1040	2.0	PVC	100.0	4.2338	0.43	False	0.00	False	True	126.00
P-1041	6.0	C-900	120.0	-5.3642	0.06	False	0.00	False	True	214.00
P-1041	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	576.00
P-1042	2.0	PVC	120.0	5.3645	0.55	False	0.00	False	True	115.00

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Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1042	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	39.00
P-1043	2.0	PVC	120.0	-0.5327	0.05	False	0.00	False	True	113.00
P-1044	8.0	C-900	120.0	0.5892	0.00	False	0.00	False	True	111.00
P-1045	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	104.00
P-1046	2.0	GI	120.0	-0.1998	0.02	False	0.00	False	True	162.00
P-1047	6.0	PVC	120.0	-5.7332	0.07	False	0.00	False	True	93.00
P-1047	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	32.00
P-1048	6.0	AC	90.0	-21.7746	0.25	False	0.00	False	True	220.00
P-1048	8.0	PVC	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	3,483.00
P-1049	12.0	PVC	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	844.00
P-1049	2.0	GI	120.0	0.0346	0.00	False	0.00	False	True	122.00
P-1050	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	84.00
P-1050	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	36.00
P-1051	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	83.00
P-1052	12.0	C-900	110.0	170.5444	0.48	False	0.00	False	True	923.00
P-1053	6.0	PVC	120.0	-2.9978	0.03	False	0.00	False	True	148.00
P-1054	6.0	CI	120.0	-24.9873	0.28	False	0.00	False	True	76.00
P-1055	2.0	GI	120.0	-0.0929	0.01	False	0.00	False	True	70.00
P-1056	2.0	GI	120.0	0.5085	0.05	False	0.00	False	True	70.00
P-1057	2.0	GI	120.0	0.5085	0.05	False	0.00	False	True	70.00
P-1058	2.0	GI	120.0	-0.1178	0.01	False	0.00	False	True	63.00
P-1059	6.0	PVC	120.0	-33.6632	0.38	False	0.00	False	True	87.00
P-1060	2.0	PVC	120.0	0.1039	0.01	False	0.00	False	True	105.00
P-1061	2.0	PVC	120.0	5.3649	0.55	False	0.00	False	True	60.00
P-1062	6.0	C-900	120.0	17.4182	0.20	False	0.00	False	True	59.00
P-1063	6.0	PVC	120.0	-15.7767	0.18	False	0.00	False	True	59.00
P-1064	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	59.00
P-1065	14.0	C-900	110.0	170.7837	0.36	False	0.00	False	True	56.00
P-1066	6.0	PVC	80.0	-6.4742	0.07	False	0.00	False	True	68.00
P-1067	2.0	PVC	120.0	0.5072	0.05	False	0.00	False	True	427.00
P-1068	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	55.00
P-1069	14.0	C-900	120.0	28.9747	0.06	False	0.00	False	True	38.00
P-1070	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	54.00
P-1071	2.0	PVC	120.0	-4.0628	0.41	False	0.00	False	True	41.00
P-1072	6.0	PVC	80.0	-6.4746	0.07	False	0.00	False	True	52.00
P-1073	14.0	C-900	120.0	0.0004	0.00	False	0.00	False	True	68.00
P-1074	6.0	C-900	120.0	0.0001	0.00	False	0.00	False	True	50.00
P-1075	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	48.00
P-1076	2.0	PVC	120.0	0.2572	0.03	False	0.00	False	True	48.00
P-1077	6.0	PVC	100.0	0.5997	0.01	False	0.00	False	True	46.00
P-1078	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	43.00
P-1079	6.0	PVC	120.0	-0.0003	0.00	False	0.00	False	True	43.00
P-1080	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	42.00
P-1081	6.0	C-900	120.0	0.0001	0.00	False	0.00	False	True	41.00
P-1082	12.0	C-900	110.0	18.4959	0.05	False	0.00	False	True	51.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1083	6.0	AC	90.0	0.0001	0.00	False	0.00	False	True	40.00
P-1084	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	40.00
P-1085	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	112.00
P-1086	2.0	PVC	100.0	4.2340	0.43	False	0.00	False	True	39.00
P-1087	4.0	PVC	100.0	0.9427	0.02	False	0.00	False	True	39.00
P-1088	6.0	PVC	100.0	0.0001	0.00	False	0.00	False	True	39.00
P-1089	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	39.00
P-1090	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	38.00
P-1091	6.0	GI	120.0	-0.0001	0.00	False	0.00	False	True	38.00
P-1092	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	38.00
P-1093	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	37.00
P-1094	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	37.00
P-1095	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	37.00
P-1096	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	37.00
P-1097	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	36.00
P-1098	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	36.00
P-1099	6.0	PVC	100.0	0.0001	0.00	False	0.00	False	True	36.00
P-1100	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	35.00
P-1101	6.0	AC	90.0	-0.0001	0.00	False	0.00	False	True	36.00
P-1102	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	34.00
P-1103	2.0	PVC	120.0	3.9381	0.40	False	0.00	False	True	34.00
P-1104	6.0	PVC	120.0	-2.5489	0.03	False	0.00	False	True	34.00
P-1105	2.0	PVC	120.0	-4.0634	0.41	False	0.00	False	True	34.00
P-1106	6.0	C-900	120.0	0.0001	0.00	False	0.00	False	True	33.00
P-1107	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	33.00
P-1108	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	33.00
P-1109	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	33.00
P-1110	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	32.00
P-1111	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	31.00
P-1112	6.0	CI	120.0	-0.0001	0.00	False	0.00	False	True	32.00
P-1113	6.0	C-900	120.0	0.0001	0.00	False	0.00	False	True	32.00
P-1114	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	31.00
P-1115	6.0	CI	120.0	-0.0001	0.00	False	0.00	False	True	31.00
P-1116	6.0	CL-200	120.0	-0.0001	0.00	False	0.00	False	True	31.00
P-1117	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	31.00
P-1118	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	31.00
P-1119	2.0	PVC	120.0	9.0245	0.92	False	0.00	False	True	31.00
P-1120	2.0	GI	120.0	1.7255	0.18	False	0.00	False	True	30.00
P-1121	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	30.00
P-1122	14.0	C-900	120.0	0.0002	0.00	False	0.00	False	True	30.00
P-1123	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	30.00
P-1124	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	30.00
P-1125	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	30.00
P-1126	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	30.00
P-1127	14.0	C-900	120.0	-36.0821	0.08	False	0.00	False	True	29.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1128	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	32.00
P-1129	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	30.00
P-1130	6.0	GI	120.0	-0.0001	0.00	False	0.00	False	True	30.00
P-1131	6.0	GI	120.0	-0.0001	0.00	False	0.00	False	True	30.00
P-1132	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	29.00
P-1133	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	29.00
P-1134	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	29.00
P-1135	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	29.00
P-1136	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	29.00
P-1137	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	28.00
P-1138	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	28.00
P-1139	6.0	PVC	70.0	0.0001	0.00	False	0.00	False	True	28.00
P-1140	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	28.00
P-1141	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	28.00
P-1142	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	28.00
P-1143	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	27.00
P-1144	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	27.00
P-1145	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	28.00
P-1146	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	27.00
P-1147	6.0	PVC	100.0	0.0001	0.00	False	0.00	False	True	27.00
P-1148	6.0	PVC	100.0	0.0001	0.00	False	0.00	False	True	26.00
P-1149	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	26.00
P-1150	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	26.00
P-1151	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	25.00
P-1152	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1153	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	25.00
P-1154	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	25.00
P-1155	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1156	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1157	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	25.00
P-1158	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	25.00
P-1159	6.0	PVC	100.0	0.0001	0.00	False	0.00	False	True	25.00
P-1160	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	25.00
P-1161	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1162	6.0	C-900	120.0	0.0001	0.00	False	0.00	False	True	25.00
P-1163	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	25.00
P-1164	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1165	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	25.00
P-1166	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	25.00
P-1167	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	25.00
P-1168	6.0	PVC	100.0	-0.0001	0.00	False	0.00	False	True	22.00
P-1169	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	25.00
P-1170	6.0	PVC	120.0	0.0000	0.00	False	0.00	False	True	25.00
P-1171	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	25.00
P-1172	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	25.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1173	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	25.00
P-1174	6.0	AC	90.0	0.0001	0.00	False	0.00	False	True	24.00
P-1175	2.0	PVC	120.0	-0.3318	0.03	False	0.00	False	True	24.00
P-1176	6.0	PVC	120.0	-6.1720	0.07	False	0.00	False	True	23.00
P-1177	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	23.00
P-1178	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	22.00
P-1179	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	22.00
P-1180	6.0	C-900	120.0	0.0000	0.00	False	0.00	False	True	21.00
P-1181	6.0	GI	120.0	0.0002	0.00	False	0.00	False	True	21.00
P-1182	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1183	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1184	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	20.00
P-1185	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1186	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1187	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1188	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1189	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1190	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1191	6.0	C-900	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1192	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1193	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1194	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1195	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	20.00
P-1196	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	20.00
P-1197	6.0	PVC	100.0	0.0000	0.00	False	0.00	False	True	48.00
P-1198	6.0	PVC	120.0	-0.0001	0.00	False	0.00	False	True	19.00
P-1199	6.0	PVC	120.0	0.0001	0.00	False	0.00	False	True	20.00
P-1200	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	17.00
P-1201	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	17.00
P-1202	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	15.00
P-1203	6.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	15.00
P-1204	12.0	PVC	110.0	18.4962	0.05	False	0.00	False	True	14.00
P-1205	2.0	PVC	120.0	0.0563	0.01	False	0.00	False	True	12.00
P-1206	2.0	PVC	120.0	0.0002	0.00	False	0.00	False	True	69.00
P-1207	6.0	Ductile Iron	130.0	1.0362	0.01	False	0.00	False	True	61.00
P-1208	6.0	Ductile Iron	130.0	-2.8111	0.03	False	0.00	False	True	507.00
P-1209	8.0	Ductile Iron	130.0	-15.7903	0.10	False	0.00	False	True	142.00
P-1210	10.0	Ductile Iron	130.0	59.0654	0.24	False	0.00	False	True	218.00
P-1211	8.0	Ductile Iron	130.0	-20.4780	0.13	False	0.00	False	True	97.00
P-1212	8.0	Ductile Iron	130.0	-3.1085	0.02	False	0.00	False	True	355.00
P-1213	6.0	Ductile Iron	130.0	-1.0362	0.01	False	0.00	False	True	101.00
P-1214	4.0	Ductile Iron	130.0	-1.0362	0.03	False	0.00	False	True	207.00
P-1215	10.0	Ductile Iron	130.0	56.9931	0.23	False	0.00	False	True	32.00
P-1216	10.0	Ductile Iron	130.0	56.9931	0.23	False	0.00	False	True	131.00
P-1217	10.0	Ductile Iron	130.0	53.8845	0.22	False	0.00	False	True	23.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1218	8.0	Ductile Iron	130.0	26.6954	0.17	False	0.00	False	True	506.00
P-1219	8.0	Ductile Iron	130.0	25.1166	0.16	False	0.00	False	True	430.00
P-1220	8.0	Ductile Iron	130.0	22.0080	0.14	False	0.00	False	True	315.00
P-1221	8.0	Ductile Iron	130.0	1.0362	0.01	False	0.00	False	True	131.00
P-1222	8.0	Ductile Iron	130.0	-23.0442	0.15	False	0.00	False	True	130.00
P-1223	8.0	Ductile Iron	130.0	-1.0362	0.01	False	0.00	False	True	30.00
P-1224	8.0	Ductile Iron	130.0	-14.7541	0.09	False	0.00	False	True	1.00
P-1225	8.0	Ductile Iron	130.0	-6.9335	0.04	False	0.00	False	True	373.00
P-1226	8.0	Ductile Iron	130.0	-1.0362	0.01	False	0.00	False	True	62.00
P-1227	8.0	Ductile Iron	130.0	0.6589	0.00	False	0.00	False	True	163.00
P-1228	8.0	Ductile Iron	130.0	-3.0368	0.02	False	0.00	False	True	634.00
P-1229	8.0	Ductile Iron	130.0	-6.1455	0.04	False	0.00	False	True	439.00
P-1230	4.0	Ductile Iron	130.0	-1.0362	0.03	False	0.00	False	True	179.00
P-1231	6.0	Ductile Iron	130.0	-1.8979	0.02	False	0.00	False	True	658.00
P-1232	6.0	Ductile Iron	130.0	-1.7262	0.02	False	0.00	False	True	559.00
P-1233	8.0	Ductile Iron	130.0	-2.8195	0.02	False	0.00	False	True	418.00
P-1234	6.0	Ductile Iron	130.0	-0.4495	0.01	False	0.00	False	True	329.00
P-1235	4.0	Ductile Iron	130.0	-1.0362	0.03	False	0.00	False	True	30.00
P-1236	8.0	Ductile Iron	130.0	-0.0002	0.00	False	0.00	False	True	9.00
P-1237	6.0	Ductile Iron	130.0	-0.0003	0.00	False	0.00	False	True	7.00
P-1238	6.0	Ductile Iron	130.0	-0.0002	0.00	False	0.00	False	True	7.00
P-1239	8.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	7.00
P-1240	6.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	7.00
P-1241	8.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	7.00
P-1242	6.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	8.00
P-1243	8.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	7.00
P-1244	8.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	7.00
P-1245	8.0	Ductile Iron	130.0	-0.0001	0.00	False	0.00	False	True	9.00
P-1246	8.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	7.00
P-1247	8.0	Ductile Iron	130.0	0.0002	0.00	False	0.00	False	True	7.00
P-1248	8.0	Ductile Iron	130.0	0.0001	0.00	False	0.00	False	True	9.00
P-1249	8.0	Ductile Iron	130.0	-0.0002	0.00	False	0.00	False	True	9.00
P-1250	8.0	Ductile Iron	130.0	0.0003	0.00	False	0.00	False	True	16.00
P-1251	6.0	Ductile Iron	130.0	-0.0002	0.00	False	0.00	False	True	7.00
P-1252	6.0	Ductile Iron	130.0	0.0000	0.00	False	0.00	False	True	7.00
P-1253	10.0	Ductile Iron	130.0	-1.0362	0.00	False	0.00	False	True	22.00
P-1254	6.0	Ductile Iron	130.0	1.0362	0.01	False	0.00	False	True	303.00
P-1255	8.0	Ductile Iron	130.0	-17.8629	0.11	False	0.00	False	True	456.00
P-1256	8.0	Ductile Iron	130.0	16.8266	0.11	False	0.00	False	True	685.00
P-1257	8.0	Ductile Iron	130.0	-1.0362	0.01	False	0.00	False	True	1.00
P-1258	6.0	Ductile Iron	130.0	1.6234	0.02	False	0.00	False	True	682.00
P-1259	6.0	Ductile Iron	130.0	0.5870	0.01	False	0.00	False	True	864.00
P-1260	8.0	Ductile Iron	130.0	-3.5580	0.02	False	0.00	False	True	263.00
P-1261	6.0	Ductile Iron	130.0	-0.8616	0.01	False	0.00	False	True	876.00
P-1262	6.0	Ductile Iron	130.0	2.9372	0.03	False	0.00	False	True	658.00

FlexTable: Pipe Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

Label	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Has User Defined Length?	Length (User Defined) (ft)	Is Closed?	Is Active?	Length (ft)
P-1263	6.0	Ductile Iron	130.0	1.9008	0.02	False	0.00	False	True	74.00
P-1264	8.0	Ductile Iron	130.0	-9.0796	0.06	False	0.00	False	True	325.00
P-1265	8.0	Ductile Iron	130.0	-11.1520	0.07	False	0.00	False	True	16.00
P-1266	8.0	Ductile Iron	130.0	-5.1092	0.03	False	0.00	False	True	16.00
P-1267	8.0	Ductile Iron	130.0	-0.3773	0.00	False	0.00	False	True	62.00
P-1268	8.0	Ductile Iron	130.0	2.7315	0.02	False	0.00	False	True	32.00
P-1269	8.0	Ductile Iron	130.0	2.0415	0.01	False	0.00	False	True	569.00
P-1270	8.0	Ductile Iron	130.0	-3.8558	0.02	False	0.00	False	True	377.00
P-1271	8.0	Ductile Iron	130.0	-10.7808	0.07	False	0.00	False	True	138.00
P-1272	8.0	Ductile Iron	130.0	2.0725	0.01	False	0.00	False	True	618.00
P-1273	8.0	Ductile Iron	130.0	20.9717	0.13	False	0.00	False	True	374.00
P-1274	8.0	Ductile Iron	130.0	26.1529	0.17	False	0.00	False	True	520.00
P-1275	8.0	Ductile Iron	130.0	-25.6590	0.16	False	0.00	False	True	744.00
P-1276	10.0	Ductile Iron	130.0	55.9569	0.23	False	0.00	False	True	268.00
P-1277	8.0	Ductile Iron	130.0	-6.2171	0.04	False	0.00	False	True	76.00
P-1278	8.0	Ductile Iron	130.0	-7.2535	0.05	False	0.00	False	True	141.00
P-1279	8.0	Ductile Iron	130.0	5.1809	0.03	False	0.00	False	True	19.00
P-1280	6.0	Ductile Iron	130.0	-1.7747	0.02	False	0.00	False	True	591.00
PP-1	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	318.00
PP-2	12.0	PVC	150.0	0.0001	0.00	False	0.00	False	True	926.00
PP-3	12.0	PVC	150.0	0.0002	0.00	False	0.00	False	True	68.00
PP-4	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	467.00
PP-5	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	1,411.00
PP-7	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	722.00
PP-8	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	318.00
PP-9	12.0	PVC	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	5,184.00
PP-10	12.0	PVC	130.0	0.0000	0.00	False	0.00	False	True	5,518.00
PP-11	12.0	PVC	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	11,831.00
PP-13	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	929.00
PP-14	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	92.00
PP-15	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	1,693.00
PP-16	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	4,967.00
PP-17	12.0	PVC	140.0	0.0001	0.00	False	0.00	False	True	1,993.00
PP-18	12.0	PVC	150.0	0.0000	0.00	False	0.00	False	True	8,815.00
PP-19	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	2,231.00
PP-20	6.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	868.00
PP-22	6.0	Ductile Iron	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	14.00
PP-24	12.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	8,797.00
PP-25	8.0	PVC	150.0	(N/A)	(N/A)	False	0.00	(N/A)	False	694.00
PP-26	6.0	Ductile Iron	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	440.00
PP-27	6.0	Ductile Iron	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	375.00
PP-29	6.0	Ductile Iron	130.0	(N/A)	(N/A)	False	0.00	(N/A)	False	1,743.00

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3564	TEST 09-F	67.02	38.5	281.9548	0.0000
3575	H-013	48.00	46.7	284.1485	0.0000
3604	H-037	54.88	43.8	285.4779	0.0000
3603	H-036	47.80	46.8	286.4422	0.0000
3688	TEST 09-P	51.17	45.4	287.8214	0.0000
3677	H-110	49.08	46.3	298.7407	0.0000
3620	H-053	68.97	37.7	301.3782	0.0000
3605	H-038	84.18	31.1	308.7467	0.0000
3619	H-052	53.16	44.6	309.6783	0.0000
3618	H-051	83.25	31.5	310.8350	0.0000
3621	H-054	56.48	43.1	310.9243	0.0000
3596	H-029	80.18	32.9	314.3832	0.0000
3617	H-050	64.46	39.7	315.8280	0.0000
3595	H-028	70.86	36.9	321.1912	0.0000
3600	H-033	37.85	51.2	326.9037	0.0000
3623	H-056	45.21	48.0	327.6786	0.0000
3598	H-031	50.31	45.8	328.5531	0.0000
3597	H-030	37.09	51.5	336.1518	0.0000
3616	TEST 08-F	52.68	44.8	337.9820	0.0000
3586	TEST 08-P	35.17	52.3	338.1191	0.0000
3641	H-074	54.87	43.8	345.2101	0.0000
3631	H-064	60.88	41.2	345.3651	0.0000
3650	H-083	50.00	46.0	345.3909	0.0000
3626	H-059	41.67	49.5	345.4122	0.0000
3638	H-071	50.73	45.6	345.4413	0.0000
3639	H-072	54.95	43.7	345.4702	0.0000
3632	H-065	59.02	42.0	345.4857	0.0000
3640	TEST 10-P	50.00	45.9	345.4896	0.0000
3615	H-048	34.77	52.5	345.5351	0.0000
3614	H-047	59.34	41.8	345.5400	0.0000
3613	H-046	33.22	53.1	345.5458	0.0000
3636	TEST 10-F	70.00	37.2	345.5491	0.0000
3627	H-060	59.85	41.6	345.5600	0.0000
3602	H-035	48.22	46.6	345.5605	0.0000
3630	H-063	61.43	40.9	345.5605	0.0000
3635	H-068	56.14	43.2	345.5608	0.0000
3637	H-070	58.57	42.2	345.5609	0.0000
3629	H-062	59.46	41.8	345.5616	0.0000
3634	H-067	58.01	42.4	345.5621	0.0000
3628	H-061	59.82	41.6	345.5621	0.0000
3607	H-040	48.25	46.7	350.6883	0.0000
3645	TEST 03-F	50.00	46.1	360.3553	0.0000
3649	H-082	46.13	47.6	370.2166	0.0000
3695	H-128	46.26	47.6	373.7170	0.0000
3624	TEST 07-F	30.00	54.6	373.7556	0.0000
3625	TEST 07-P	50.00	45.9	373.7940	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3648	H-081	50.00	46.0	373.9261	0.0000
3599	H-032	50.00	46.0	376.7671	0.0000
3606	H-039	44.71	48.3	381.7221	0.0000
3647	H-080	42.50	49.2	384.5675	0.0000
3694	H-127	44.78	48.3	386.7989	0.0000
3642	TEST 03-P	50.00	46.1	412.1034	0.0000
3698	H-131	50.00	46.5	415.6031	0.0000
3590	H-023	60.00	42.8	435.8369	0.0000
3643	H-076	50.00	46.1	449.6671	0.0000
5437	H-132	50.00	46.1	450.3047	0.0000
3646	H-079	50.00	46.1	450.4007	0.0000
3692	H-125	50.00	46.1	456.9320	0.0000
3691	H-124	50.00	46.1	458.7378	0.0000
3690	H-123	50.00	46.1	462.3134	0.0000
3609	H-042	50.00	46.2	462.3641	0.0000
3601	H-034	52.70	45.0	463.6069	0.0000
3696	H-129	56.94	43.1	464.9226	0.0000
3651	H-084	50.00	46.2	466.8967	0.0000
3684	H-117	50.12	46.1	470.2762	0.0000
3689	H-122	50.00	46.2	471.5555	0.0000
3568	H-006	50.00	46.2	471.7166	0.0000
3567	TEST 02-F	50.00	46.2	472.3358	0.0000
3566	TEST 02-P	50.00	46.2	476.6063	0.0000
3572	H-010	63.32	41.4	478.5717	0.0000
3565	H-003	50.00	46.3	527.7154	0.0000
3592	H-025	55.19	44.6	528.5248	0.0000
3693	H-126	50.00	46.4	557.0022	0.0000
3686	H-119	50.00	46.6	582.9286	0.0000
3687	H-120	50.00	46.6	591.6610	0.0000
3574	TEST 01-F	50.05	47.1	606.5721	0.0000
3593	H-026	49.53	47.0	630.1232	0.0000
3663	H-096	54.53	44.9	639.7955	0.0000
3660	H-093	55.11	44.6	660.1321	0.0000
3664	H-097	50.00	46.8	664.1738	0.0000
3662	H-095	50.00	46.8	674.4909	0.0000
3685	H-118	50.00	46.6	677.7568	0.0000
3661	H-094	51.60	46.1	689.8879	0.0000
3610	H-043	51.53	46.2	713.8151	0.0000
3578	H-016	80.00	34.2	729.3759	0.0000
3683	TEST 06-F	57.50	43.7	815.3519	0.0000
3608	H-041	47.67	47.8	868.6058	0.0000
8566	H-7	94.92	47.9	874.0695	0.0000
8590	H-14	89.80	50.1	882.5912	0.0000
8567	H-8	82.54	53.3	883.6122	0.0000
8569	H-10	82.95	53.1	885.6967	0.0000
8564	H-5	84.61	52.4	889.2040	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
8705	H-38	81.59	54.7	891.4384	0.0000
8592	H-16	68.86	59.2	891.6237	0.0000
8593	H-17	67.05	60.0	893.8584	0.0000
8568	H-9	70.00	58.7	894.1036	0.0000
8571	H-12	83.47	52.9	915.2422	0.0000
8570	H-11	57.92	63.9	916.4064	0.0000
8594	H-18	50.00	67.4	934.7668	0.0000
3681	TEST 06-P	56.94	43.9	935.6686	0.0000
8615	H-27	80.00	54.4	985.6416	0.0000
8600	H-24	66.72	60.2	988.2255	0.0000
8602	H-26	66.30	60.4	993.4247	0.0000
8572	H-13	40.14	72.6	995.5875	0.0000
8702	H-37	89.40	51.3	999.8574	0.0000
8599	H-23	60.00	63.1	1,004.8503	0.0000
8595	H-19	69.23	59.1	1,011.6654	0.0000
8695	H-35	68.39	59.5	1,011.6769	0.0000
8596	H-20	66.60	60.2	1,016.4821	0.0000
8598	H-22	80.00	54.4	1,019.0390	0.0000
8597	H-21	60.00	63.1	1,021.6621	0.0000
3594	H-027	48.85	47.3	1,022.5657	0.0000
3658	H-091	50.00	46.8	1,029.7250	0.0000
3612	H-045	44.02	49.4	1,034.5520	0.0000
3573	TEST 01-P	42.93	50.2	1,053.8773	0.0000
3659	TEST 04-F	45.41	48.8	1,092.3237	0.0000
3680	H-113	58.38	43.3	1,096.6650	0.0000
3611	H-044	50.00	46.9	1,123.6050	0.0000
3674	H-107	58.19	43.4	1,129.6569	0.0000
3678	H-111	54.17	45.1	1,134.7236	0.0000
5500	TEST 04-P	42.36	50.2	1,135.7015	0.0000
3679	H-112	54.65	44.9	1,139.2670	0.0000
3588	H-021	73.64	36.9	1,151.5439	0.0000
3654	H-087	46.32	48.4	1,171.9058	0.0000
3657	H-090	52.41	45.8	1,172.7820	0.0000
3675	H-108	55.23	44.6	1,172.9287	0.0000
3656	H-089	50.04	46.8	1,177.5538	0.0000
3569	H-007	50.00	47.1	1,190.4142	0.0000
3673	H-106	58.60	43.2	1,201.1189	0.0000
3676	H-109	51.22	46.4	1,223.7137	0.0000
3682	H-115	58.18	43.4	1,223.7202	0.0000
3563	H-001	50.00	46.9	1,228.8403	0.0000
3655	H-088	75.65	36.0	1,241.6501	0.0000
3672	H-105	54.92	44.8	1,245.4276	0.0000
3671	H-104	54.47	45.0	1,261.5901	0.0000
3587	H-020	50.00	46.9	1,306.0725	0.0000
3577	H-015	76.04	35.9	1,338.2097	0.0000
8628	H-28	67.47	60.4	1,341.3547	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3665	H-098	52.55	45.8	1,344.8065	0.0000
3579	H-017	68.88	38.8	1,377.4905	0.0000
8629	H-29	84.27	53.4	1,380.5325	0.0000
3670	H-103	51.41	46.3	1,393.2463	0.0000
3697	H-130	54.42	45.2	1,398.3597	0.0000
3668	H-101	50.00	46.9	1,402.1801	0.0000
3669	H-102	50.00	46.9	1,402.1808	0.0000
3667	H-100	51.54	46.2	1,402.2893	0.0000
3622	TEST 05-F	55.67	44.5	1,425.3212	0.0000
3644	H-077	56.64	44.0	1,425.3215	0.0000
3633	TEST 05-P	67.26	39.5	1,425.3224	0.0000
3580	H-018	65.68	40.1	1,425.3241	0.0000
3570	H-008	50.00	47.1	1,499.9999	0.0000
3571	H-009	57.26	44.0	1,499.9999	0.0000
3576	H-014	51.31	46.6	1,499.9999	0.0000
3589	H-022	67.19	39.7	1,499.9999	0.0000
3591	H-024	58.64	43.3	1,499.9999	0.0000
3652	H-085	55.75	44.6	1,499.9999	0.0000
3653	H-086	64.85	40.6	1,499.9999	0.0000
3666	H-099	80.00	34.2	1,499.9999	0.0000
6490	juliettehyd-1	54.33	71.0	1,499.9999	0.0000
6491	juliettehyd-10	80.00	59.9	1,499.9999	0.0000
6492	juliettehyd-11	53.34	71.5	1,499.9999	0.0000
6493	juliettehyd-12	63.34	67.1	1,499.9999	0.0000
6494	juliettehyd-13	50.00	72.9	1,499.9999	0.0000
6495	juliettehyd-14	62.10	67.7	1,499.9999	0.0000
6496	juliettehyd-15	63.82	66.9	1,499.9999	0.0000
6497	juliettehyd-16	71.01	63.8	1,499.9999	0.0000
6498	juliettehyd-17	79.01	60.4	1,499.9999	0.0000
6499	juliettehyd-18	50.00	72.9	1,499.9999	0.0000
6501	juliettehyd-2	60.00	68.6	1,499.9999	0.0000
6503	juliettehyd-3	60.00	68.6	1,499.9999	0.0000
6504	juliettehyd-4	56.87	69.9	1,499.9999	0.0000
6505	juliettehyd-5	60.86	68.2	1,499.9999	0.0000
6506	juliettehyd-6	60.00	68.6	1,499.9999	0.0000
6507	juliettehyd-7	70.00	64.3	1,499.9999	0.0000
6508	juliettehyd-8	60.00	68.6	1,499.9999	0.0000
6509	juliettehyd-9	46.15	74.6	1,499.9999	0.0000
8562	H-3	72.49	59.0	1,499.9999	0.0000
8639	H-30	79.68	55.8	1,499.9999	0.0000
8645	H-31	66.36	61.7	1,499.9999	0.0000
8651	H-32	67.86	61.1	1,499.9999	0.0000
8652	H-33	71.70	59.3	1,499.9999	0.0000
8653	H-34	92.51	50.3	1,499.9999	0.0000
8709	H-39	90.00	51.0	1,499.9999	0.0000
8808	H-40	88.32	52.1	1,499.9999	0.0000

Scenario 48 Model Summary

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3564	TEST 09-F	67.02	39.1	323.4481	0.0000
3575	H-013	48.00	47.3	326.5226	0.0000
3604	H-037	54.88	44.3	328.3338	0.0000
3603	H-036	47.80	47.4	329.6873	0.0000
3688	TEST 09-P	51.17	45.9	331.5984	0.0000
3677	H-110	49.08	46.8	346.8769	0.0000
3645	TEST 03-F	50.00	46.6	389.4663	0.0000
3613	H-046	33.22	53.7	394.3220	0.0000
3614	H-047	59.34	42.4	422.4779	0.0000
3615	H-048	34.77	53.0	425.5418	0.0000
3624	TEST 07-F	30.00	55.1	428.7030	0.0000
3590	H-023	60.00	42.8	435.8317	0.0000
3698	H-131	50.00	46.7	436.7018	0.0000
3636	TEST 10-F	70.00	37.8	438.8416	0.0000
3625	TEST 07-P	50.00	46.5	442.4164	0.0000
3642	TEST 03-P	50.00	46.6	452.6118	0.0000
3640	TEST 10-P	50.00	46.4	473.9378	0.0000
3631	H-064	60.88	41.7	474.8833	0.0000
3639	H-072	54.95	44.3	475.2985	0.0000
3641	H-074	54.87	44.3	475.7339	0.0000
3632	H-065	59.02	42.5	476.0792	0.0000
3572	H-010	63.32	41.4	478.5658	0.0000
3602	H-035	48.22	47.2	486.4454	0.0000
3635	H-068	56.14	43.8	491.1545	0.0000
3637	H-070	58.57	42.7	492.5908	0.0000
3638	H-071	50.73	46.1	492.7383	0.0000
3620	H-053	68.97	38.3	498.5155	0.0000
3634	H-067	58.01	43.0	500.6293	0.0000
3626	H-059	41.67	50.1	501.6530	0.0000
3643	H-076	50.00	46.6	505.4462	0.0000
3630	H-063	61.43	41.5	506.3959	0.0000
3629	H-062	59.46	42.4	507.1472	0.0000
3628	H-061	59.82	42.2	509.8792	0.0000
3627	H-060	59.85	42.2	518.0204	0.0000
3619	H-052	53.16	45.2	522.6802	0.0000
3592	H-025	55.19	44.6	529.9722	0.0000
3605	H-038	84.18	31.8	548.8776	0.0000
3621	H-054	56.48	43.7	557.1174	0.0000
3618	H-051	83.25	32.2	565.0983	0.0000
3598	H-031	50.31	46.4	567.7139	0.0000
3595	H-028	70.86	37.5	595.4437	0.0000
3650	H-083	50.00	46.5	601.7234	0.0000
3596	H-029	80.18	33.5	605.4063	0.0000
3574	TEST 01-F	50.05	47.1	607.4203	0.0000
3646	H-079	50.00	46.6	625.0595	0.0000
3647	H-080	42.50	49.8	626.6173	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
3568	H-006	50.00	46.6	629.2883	0.0000
3593	H-026	49.53	47.0	631.9113	0.0000
3686	H-119	50.00	46.8	633.2880	0.0000
3623	H-056	45.21	48.6	634.0691	0.0000
3600	H-033	37.85	51.8	636.4600	0.0000
3663	H-096	54.53	44.8	641.0002	0.0000
3687	H-120	50.00	46.8	644.2158	0.0000
3606	H-039	44.71	48.8	652.4742	0.0000
3695	H-128	46.26	48.2	658.3082	0.0000
3597	H-030	37.09	52.1	658.6831	0.0000
3660	H-093	55.11	44.6	661.3674	0.0000
3664	H-097	50.00	46.8	665.3054	0.0000
3607	H-040	48.25	47.3	671.0543	0.0000
3662	H-095	50.00	46.8	675.6248	0.0000
3649	H-082	46.13	48.2	676.8806	0.0000
3586	TEST 08-P	35.17	53.0	679.6851	0.0000
3599	H-032	50.00	46.5	681.8937	0.0000
3616	TEST 08-F	52.68	45.4	683.0743	0.0000
3648	H-081	50.00	46.5	683.3647	0.0000
3694	H-127	44.78	48.8	690.1419	0.0000
3661	H-094	51.60	46.1	691.0521	0.0000
3601	H-034	52.70	45.4	694.9181	0.0000
3617	H-050	64.46	40.4	709.7224	0.0000
3610	H-043	51.53	46.1	714.9736	0.0000
3578	H-016	80.00	34.2	729.4742	0.0000
3567	TEST 02-F	50.00	46.6	747.8107	0.0000
5437	H-132	50.00	46.6	772.5819	0.0000
3692	H-125	50.00	46.6	784.8637	0.0000
3609	H-042	50.00	46.6	785.6539	0.0000
3691	H-124	50.00	46.6	786.1990	0.0000
3690	H-123	50.00	46.6	793.2410	0.0000
3651	H-084	50.00	46.6	794.8756	0.0000
3696	H-129	56.94	43.6	799.3297	0.0000
3689	H-122	50.00	46.6	806.7651	0.0000
3684	H-117	50.12	46.5	812.2464	0.0000
3683	TEST 06-F	57.50	43.6	815.1855	0.0000
3566	TEST 02-P	50.00	46.6	827.1476	0.0000
8566	H-7	94.92	47.9	874.0693	0.0000
8590	H-14	89.80	50.1	882.5909	0.0000
8567	H-8	82.54	53.3	883.6124	0.0000
8569	H-10	82.95	53.1	885.6967	0.0000
8564	H-5	84.61	52.4	889.2040	0.0000
8705	H-38	81.59	54.7	891.4385	0.0000
8592	H-16	68.86	59.2	891.6239	0.0000
3565	H-003	50.00	46.6	893.4925	0.0000
8593	H-17	67.05	60.0	893.8583	0.0000

FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
8568	H-9	70.00	58.7	894.1038	0.0000
3685	H-118	50.00	46.8	904.6972	0.0000
3693	H-126	50.00	46.7	909.4880	0.0000
8571	H-12	83.47	52.9	915.2422	0.0000
8570	H-11	57.92	63.9	916.4061	0.0000
3611	H-044	50.00	46.8	922.4337	0.0000
8594	H-18	50.00	67.4	934.7668	0.0000
3681	TEST 06-P	56.94	43.9	935.3745	0.0000
8615	H-27	80.00	54.4	985.6416	0.0000
8600	H-24	66.72	60.2	988.2258	0.0000
8602	H-26	66.30	60.4	993.4249	0.0000
8572	H-13	40.14	72.6	995.5875	0.0000
8702	H-37	89.40	51.3	999.8571	0.0000
8599	H-23	60.00	63.1	1,004.8500	0.0000
8595	H-19	69.23	59.1	1,011.6654	0.0000
8695	H-35	68.39	59.5	1,011.6775	0.0000
8596	H-20	66.60	60.2	1,016.4826	0.0000
8598	H-22	80.00	54.4	1,019.0396	0.0000
8597	H-21	60.00	63.1	1,021.6617	0.0000
3594	H-027	48.85	47.3	1,024.1980	0.0000
3658	H-091	50.00	46.8	1,031.1019	0.0000
3612	H-045	44.02	49.4	1,037.0201	0.0000
3573	TEST 01-P	42.93	50.2	1,057.5250	0.0000
3680	H-113	58.38	43.2	1,096.3038	0.0000
3674	H-107	58.19	43.3	1,129.3162	0.0000
3678	H-111	54.17	45.1	1,134.4130	0.0000
3608	H-041	47.67	47.8	1,135.4734	0.0000
3679	H-112	54.65	44.9	1,138.9574	0.0000
3588	H-021	73.64	36.9	1,151.7091	0.0000
3675	H-108	55.23	44.6	1,172.6499	0.0000
3569	H-007	50.00	47.1	1,195.0303	0.0000
3673	H-106	58.60	43.1	1,201.3162	0.0000
3657	H-090	52.41	45.8	1,202.0615	0.0000
3676	H-109	51.22	46.3	1,223.5303	0.0000
3682	H-115	58.18	43.3	1,223.5795	0.0000
3659	TEST 04-F	45.41	48.8	1,234.7311	0.0000
3587	H-020	50.00	46.8	1,236.4863	0.0000
3655	H-088	75.65	36.0	1,241.9838	0.0000
3672	H-105	54.92	44.7	1,245.7914	0.0000
5500	TEST 04-P	42.36	50.1	1,250.8392	0.0000
3671	H-104	54.47	44.9	1,261.5569	0.0000
3654	H-087	46.32	48.4	1,263.2052	0.0000
3656	H-089	50.04	46.8	1,264.9459	0.0000
3563	H-001	50.00	46.8	1,280.0901	0.0000
3665	H-098	52.55	45.8	1,328.0597	0.0000
3577	H-015	76.04	35.9	1,338.4510	0.0000

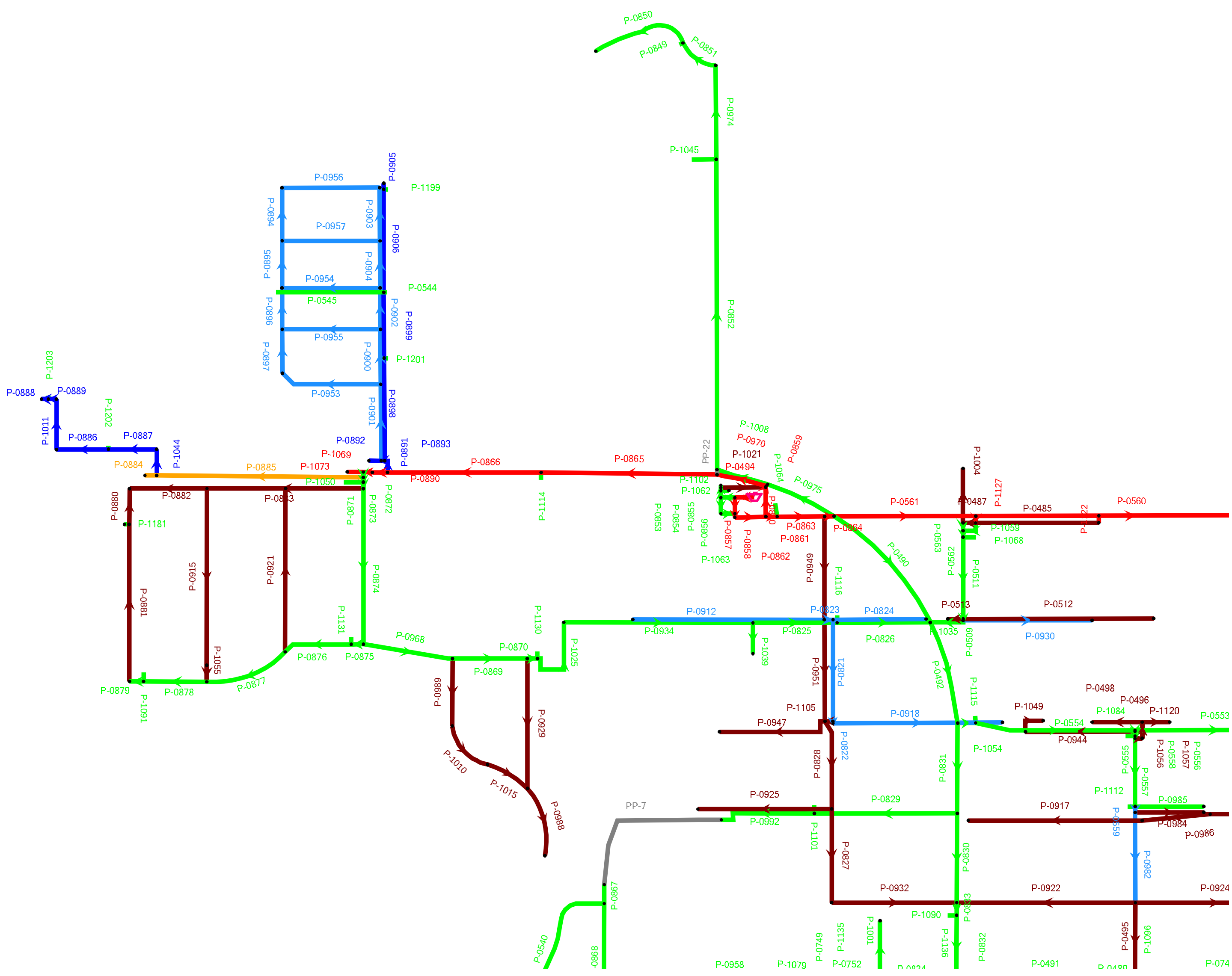
FlexTable: Hydrant Table (Dunnellon Model.wtg)

Current Time: 0.000 hours

ID	Label	Elevation (ft)	Pressure (psi)	Fire Flow (Available) (gpm)	Demand (gpm)
8628	H-28	67.47	60.4	1,341.3549	0.0000
3579	H-017	68.88	38.7	1,377.8696	0.0000
8629	H-29	84.27	53.4	1,380.5326	0.0000
3668	H-101	50.00	46.9	1,385.4863	0.0000
3669	H-102	50.00	46.9	1,385.4868	0.0000
3667	H-100	51.54	46.2	1,385.5774	0.0000
3670	H-103	51.41	46.3	1,385.5865	0.0000
3633	TEST 05-P	67.26	39.4	1,408.6980	0.0000
3580	H-018	65.68	40.1	1,408.6982	0.0000
3644	H-077	56.64	44.0	1,408.6982	0.0000
3622	TEST 05-F	55.67	44.4	1,408.6987	0.0000
3697	H-130	54.42	45.2	1,413.3883	0.0000
3570	H-008	50.00	47.1	1,499.9999	0.0000
3571	H-009	57.26	44.0	1,499.9999	0.0000
3576	H-014	51.31	46.6	1,499.9999	0.0000
3589	H-022	67.19	39.7	1,499.9999	0.0000
3591	H-024	58.64	43.3	1,499.9999	0.0000
3652	H-085	55.75	44.6	1,499.9999	0.0000
3653	H-086	64.85	40.6	1,499.9999	0.0000
3666	H-099	80.00	34.2	1,499.9999	0.0000
6490	juliettehyd-1	54.33	71.0	1,499.9999	0.0000
6491	juliettehyd-10	80.00	59.9	1,499.9999	0.0000
6492	juliettehyd-11	53.34	71.5	1,499.9999	0.0000
6493	juliettehyd-12	63.34	67.1	1,499.9999	0.0000
6494	juliettehyd-13	50.00	72.9	1,499.9999	0.0000
6495	juliettehyd-14	62.10	67.7	1,499.9999	0.0000
6496	juliettehyd-15	63.82	66.9	1,499.9999	0.0000
6497	juliettehyd-16	71.01	63.8	1,499.9999	0.0000
6498	juliettehyd-17	79.01	60.4	1,499.9999	0.0000
6499	juliettehyd-18	50.00	72.9	1,499.9999	0.0000
6501	juliettehyd-2	60.00	68.6	1,499.9999	0.0000
6503	juliettehyd-3	60.00	68.6	1,499.9999	0.0000
6504	juliettehyd-4	56.87	69.9	1,499.9999	0.0000
6505	juliettehyd-5	60.86	68.2	1,499.9999	0.0000
6506	juliettehyd-6	60.00	68.6	1,499.9999	0.0000
6507	juliettehyd-7	70.00	64.3	1,499.9999	0.0000
6508	juliettehyd-8	60.00	68.6	1,499.9999	0.0000
6509	juliettehyd-9	46.15	74.6	1,499.9999	0.0000
8562	H-3	72.49	59.0	1,499.9999	0.0000
8639	H-30	79.68	55.8	1,499.9999	0.0000
8645	H-31	66.36	61.7	1,499.9999	0.0000
8651	H-32	67.86	61.1	1,499.9999	0.0000
8652	H-33	71.70	59.3	1,499.9999	0.0000
8653	H-34	92.51	50.3	1,499.9999	0.0000
8709	H-39	90.00	51.0	1,499.9999	0.0000
8808	H-40	88.32	52.1	1,499.9999	0.0000

City of Dunnellon Network Maps

Scenario: Base



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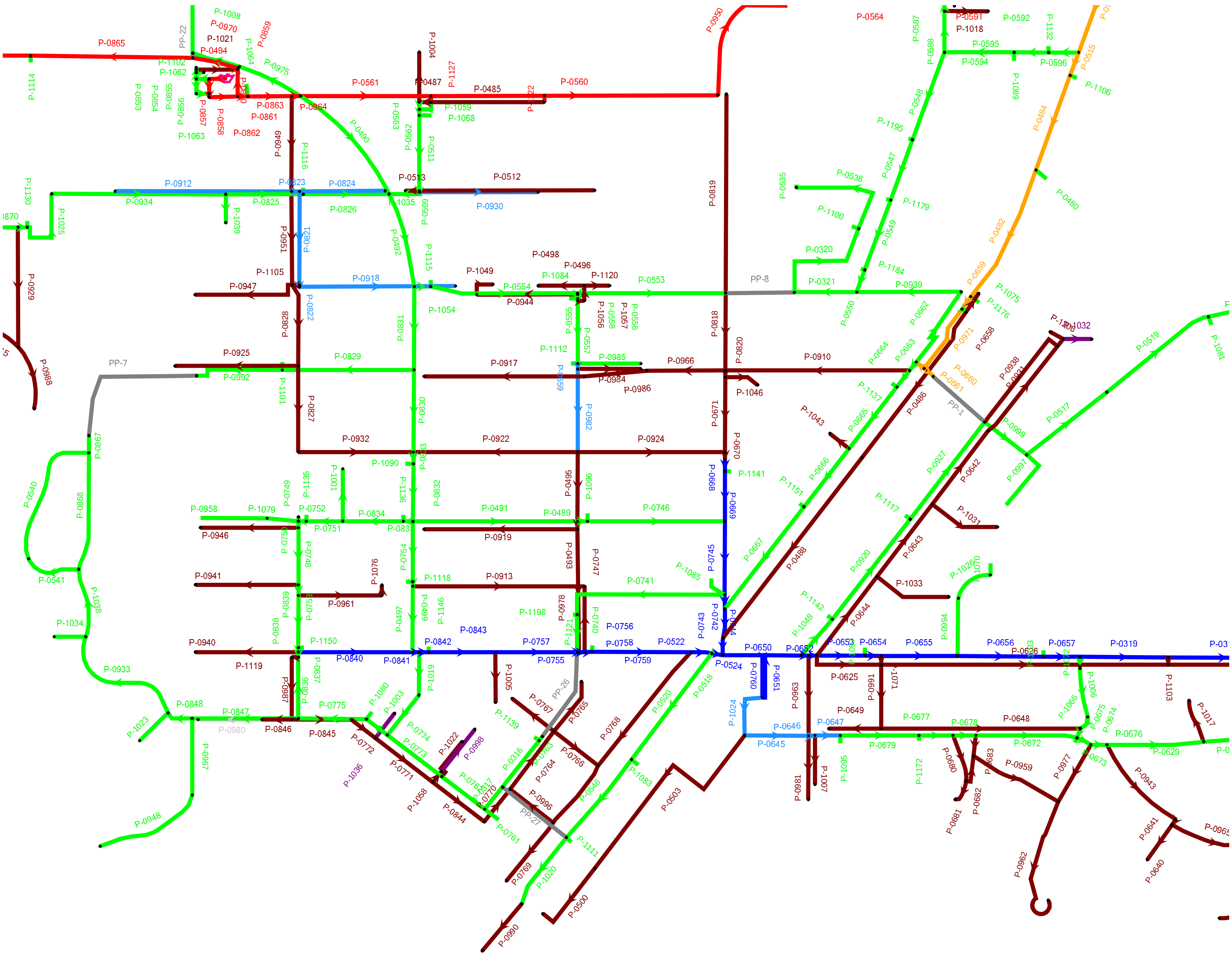

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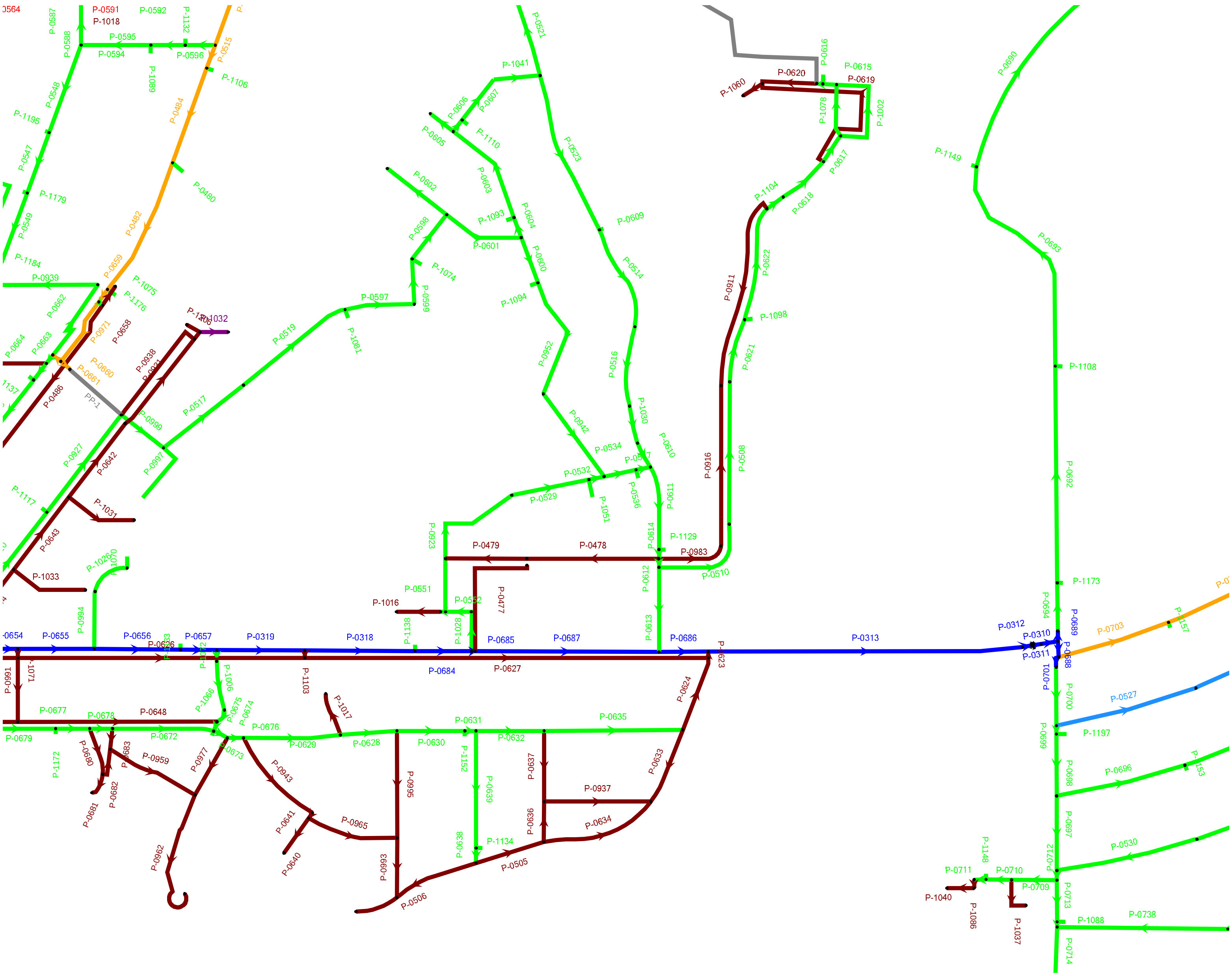
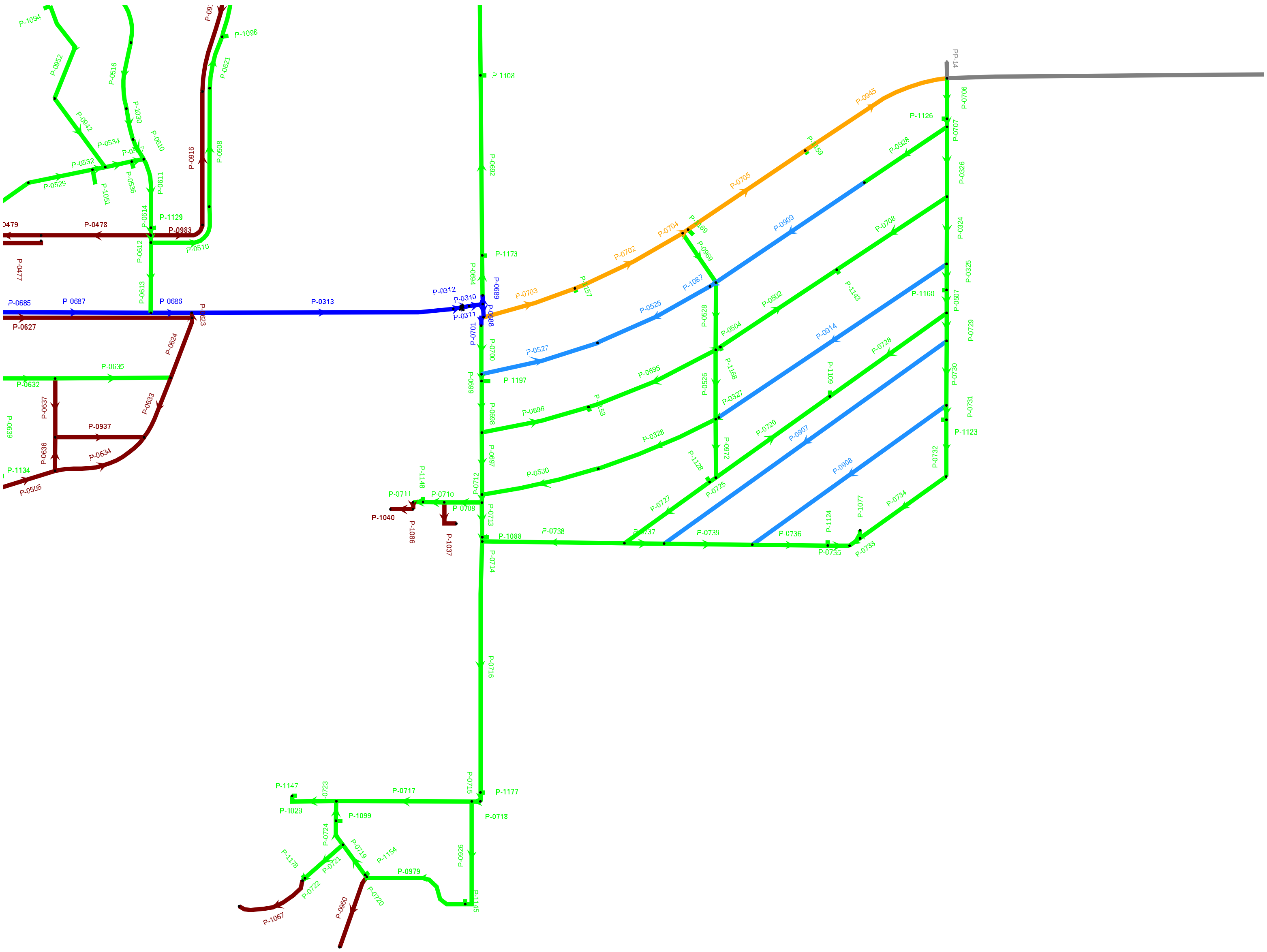


Scenario: Base



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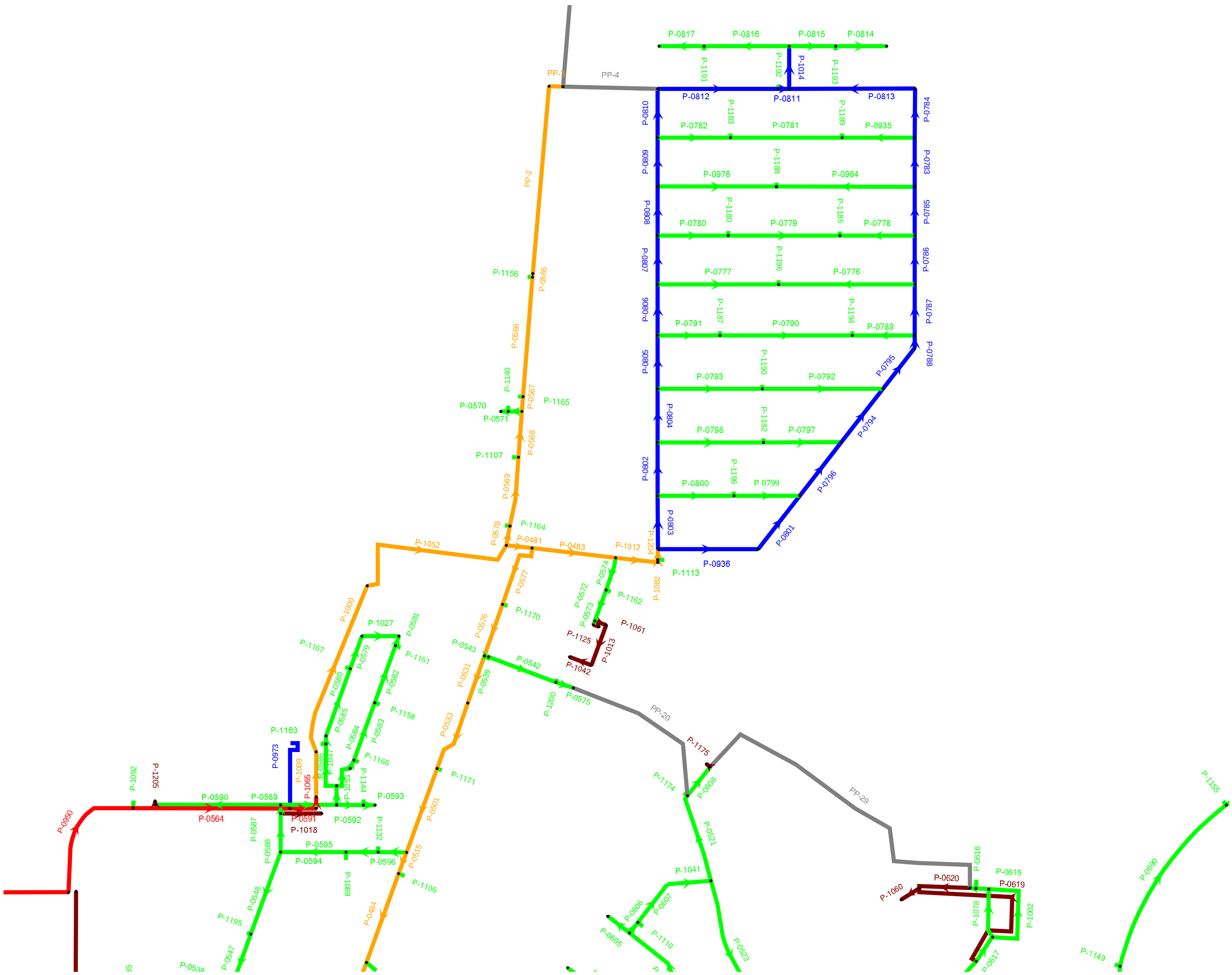

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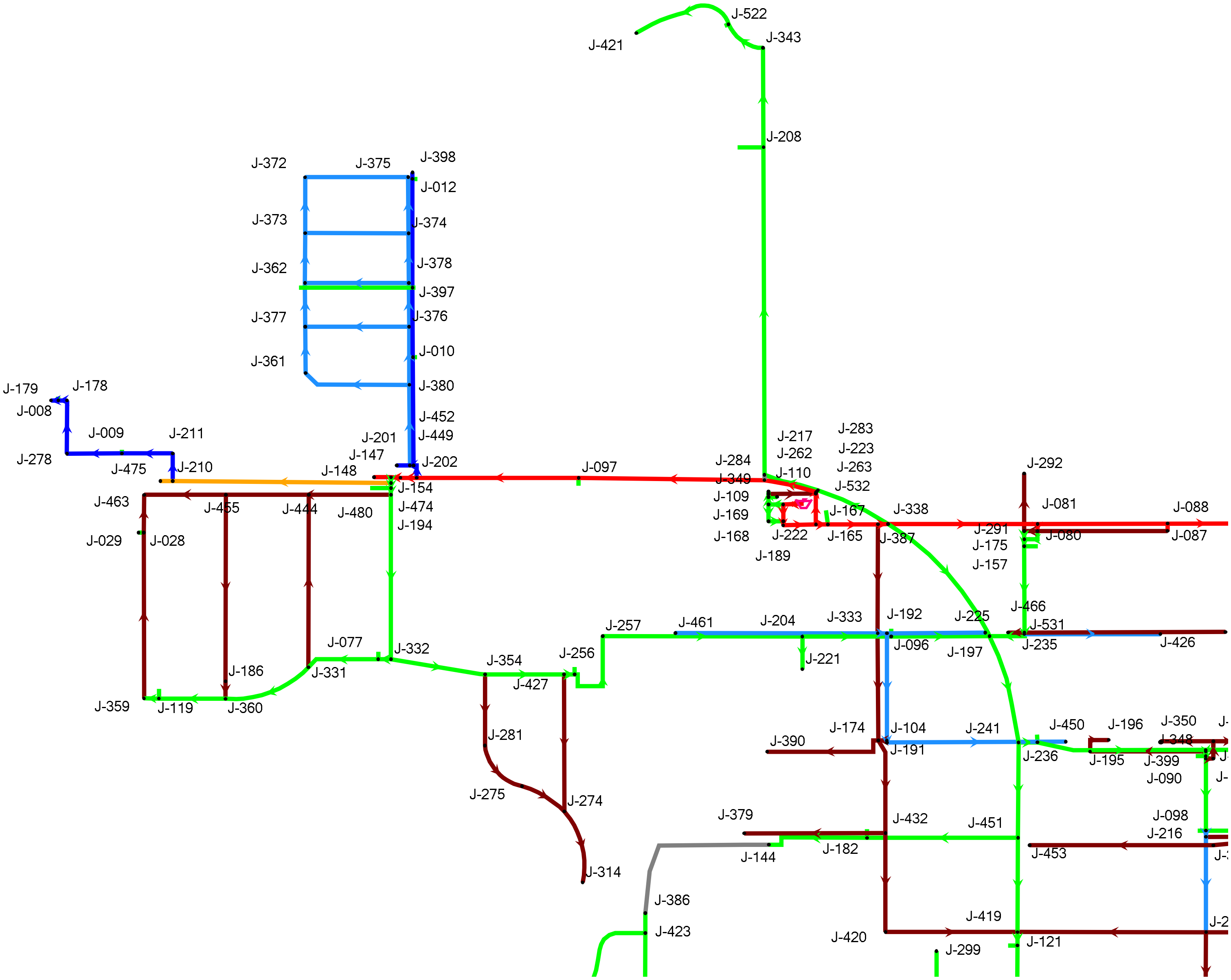

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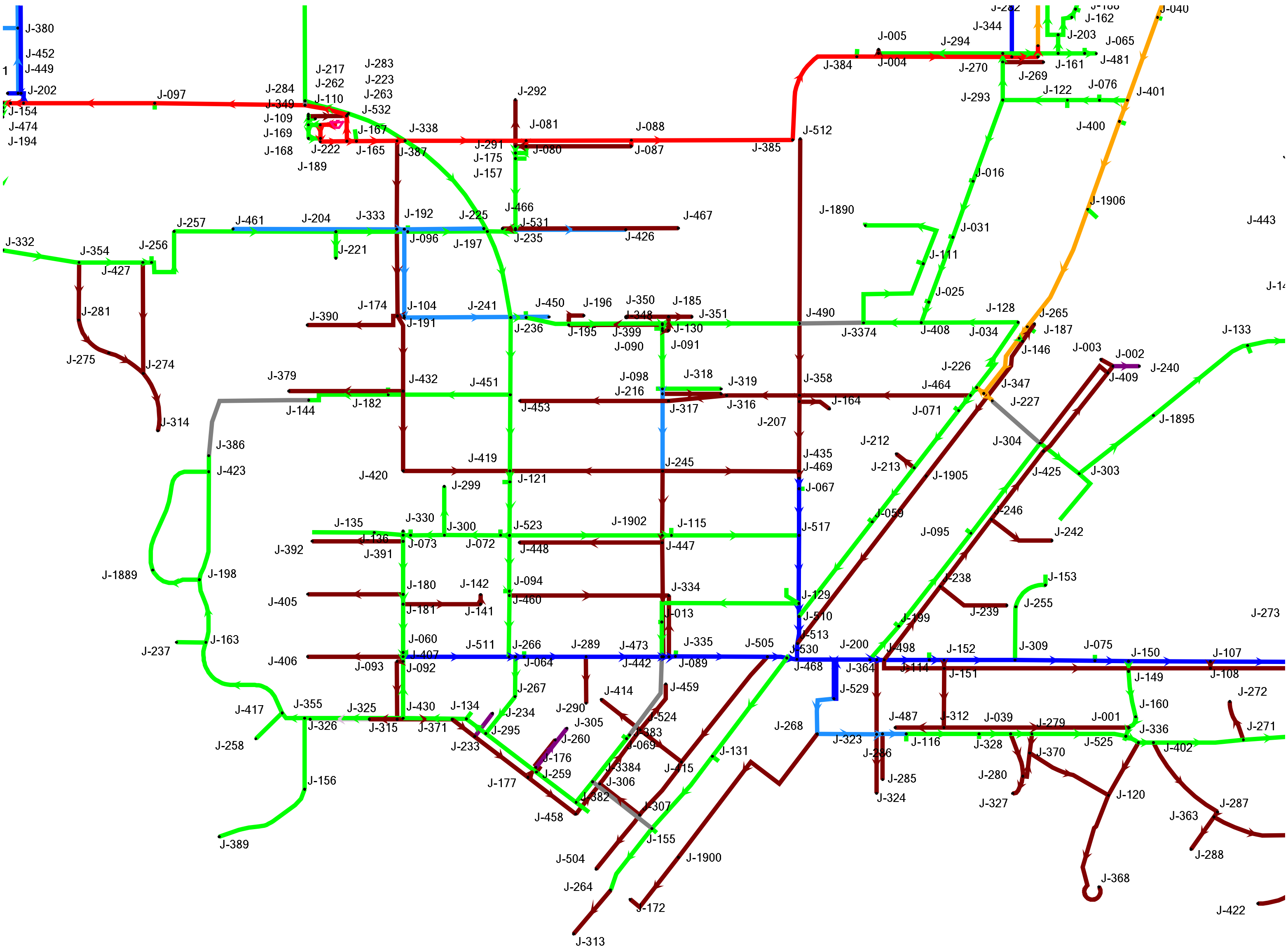

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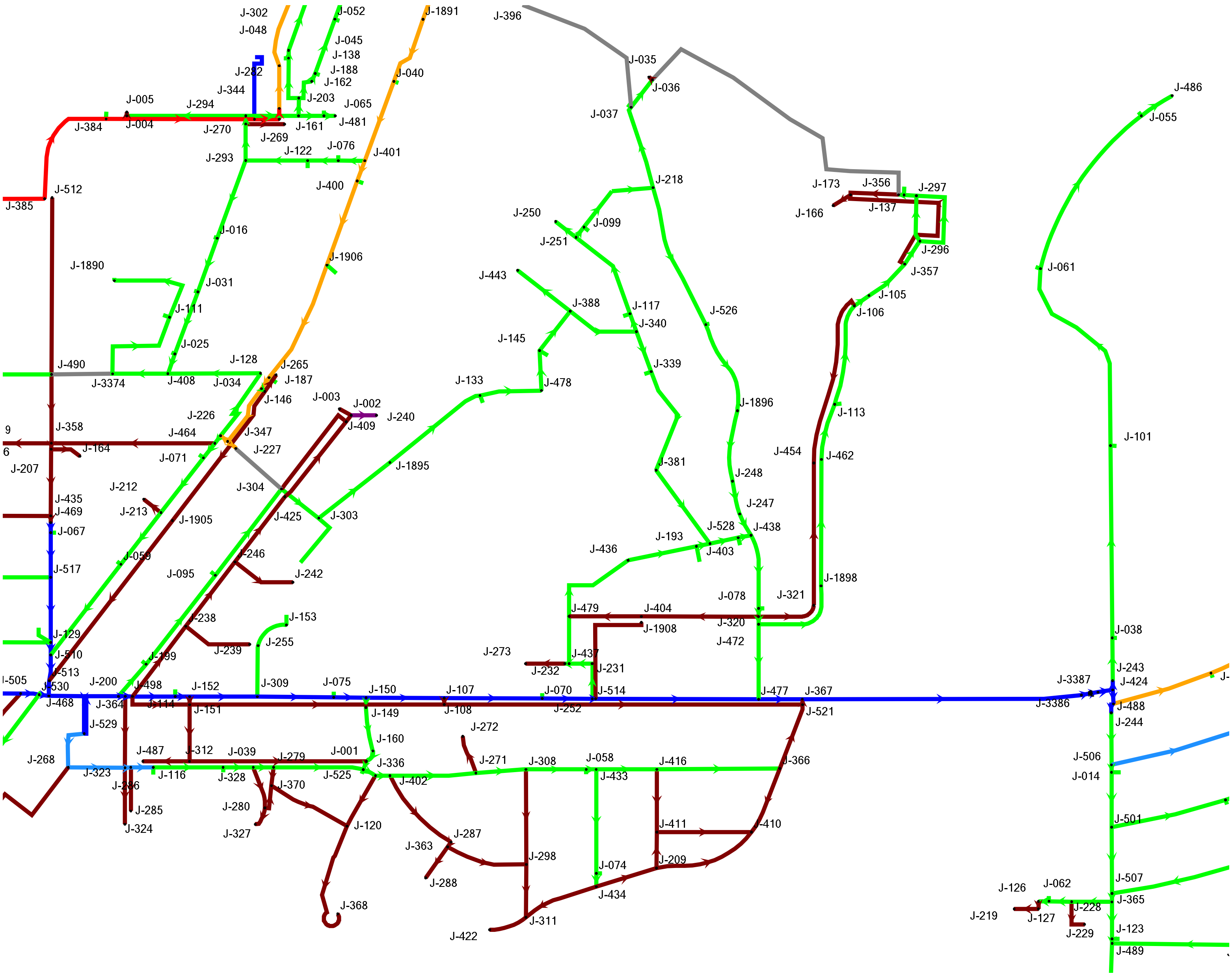
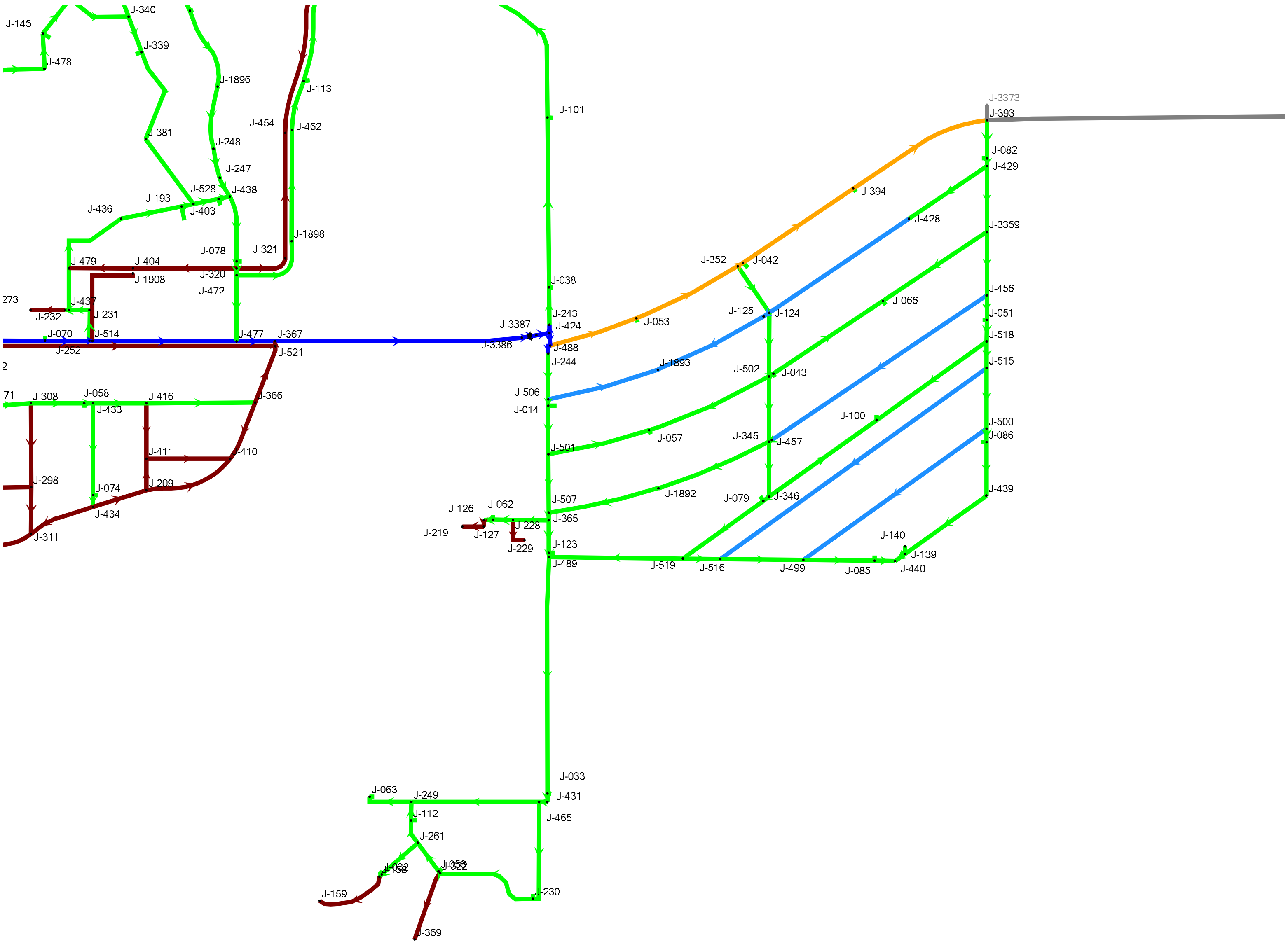


Dunnellon Model.wtg
8/31/2012

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT
06795 USA +1-203-755-1666

Bentley WaterCAD V8i (SELECTseries 1)
[08.11.01.32]

Scenario: Base



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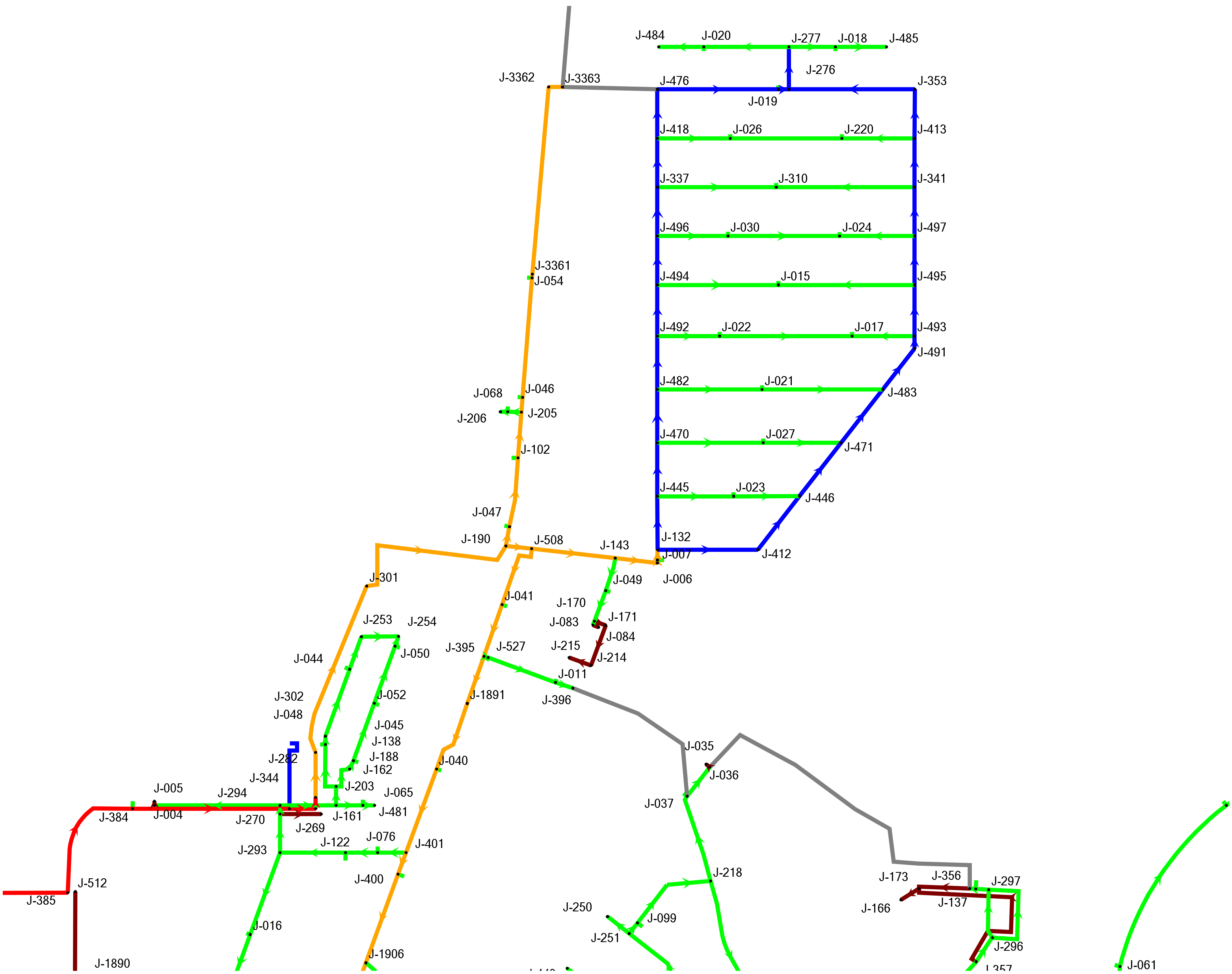

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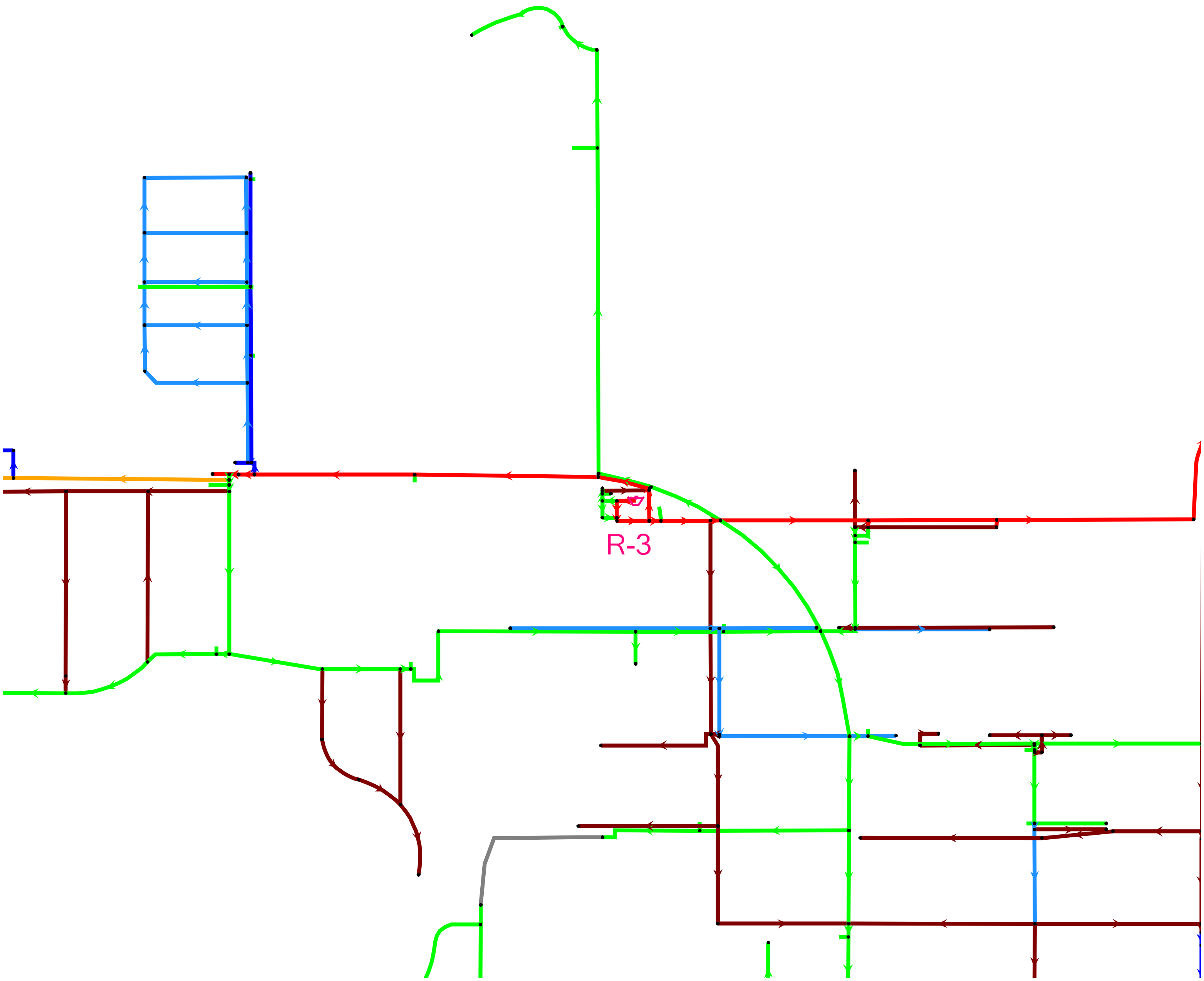

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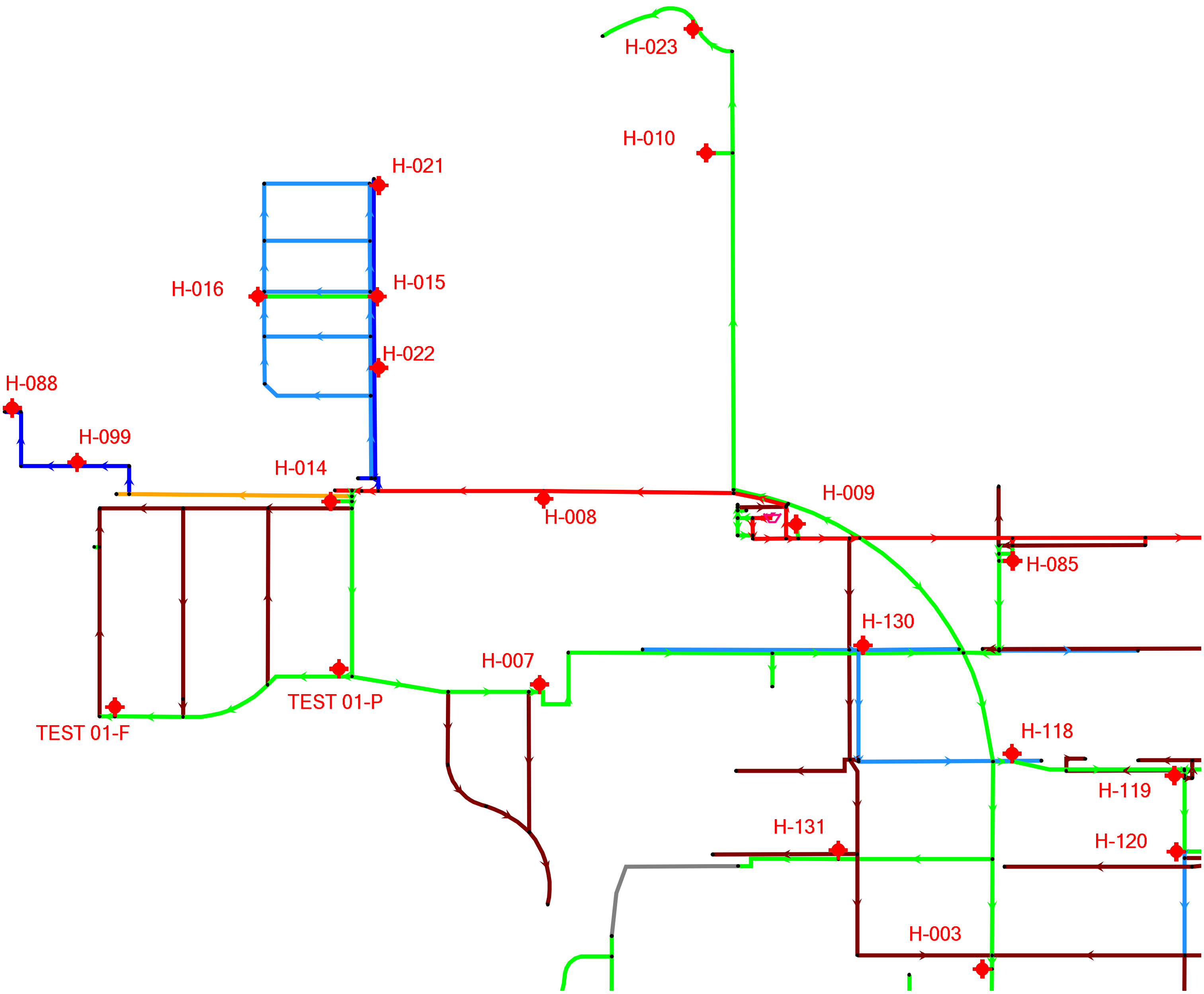

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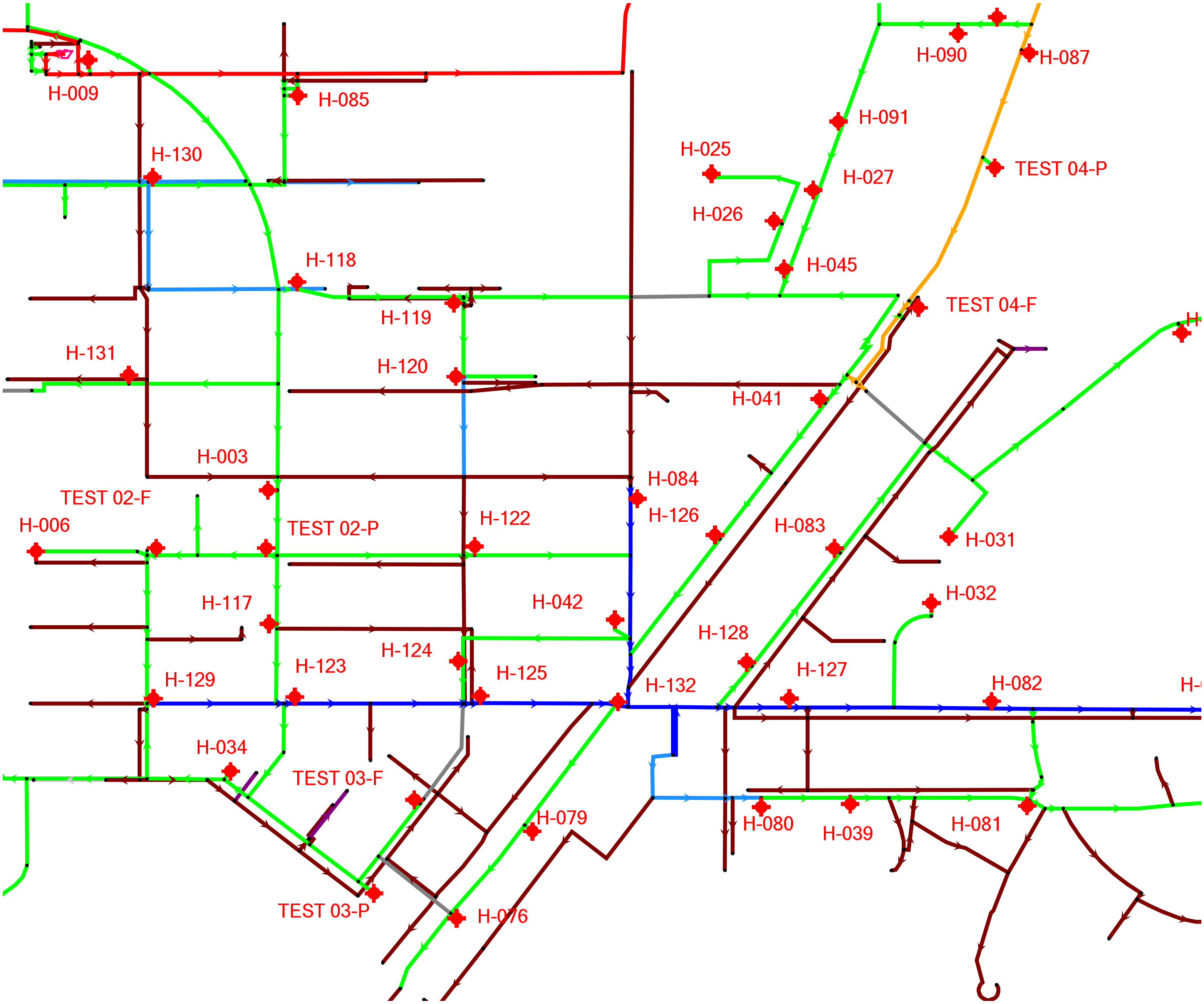

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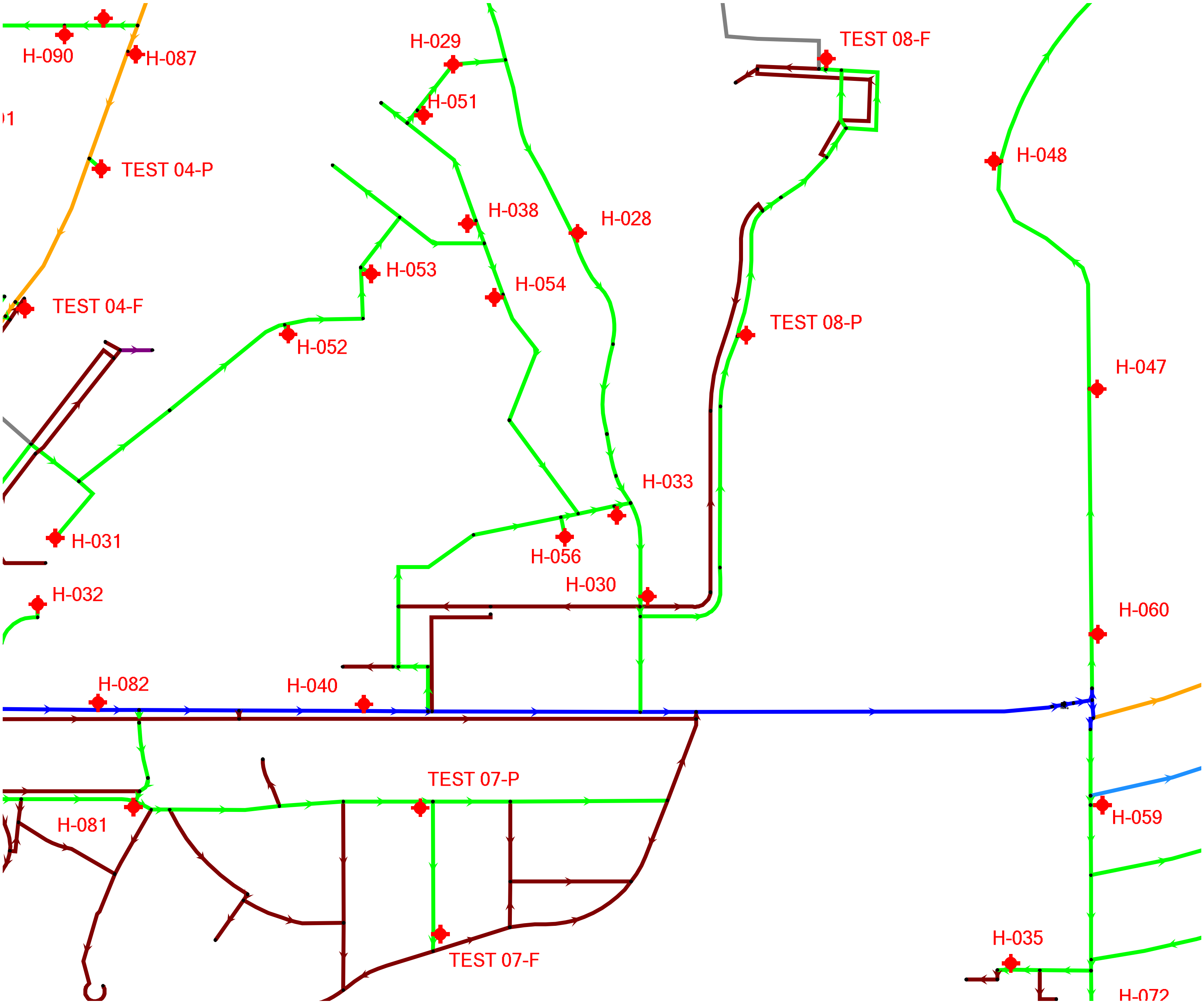

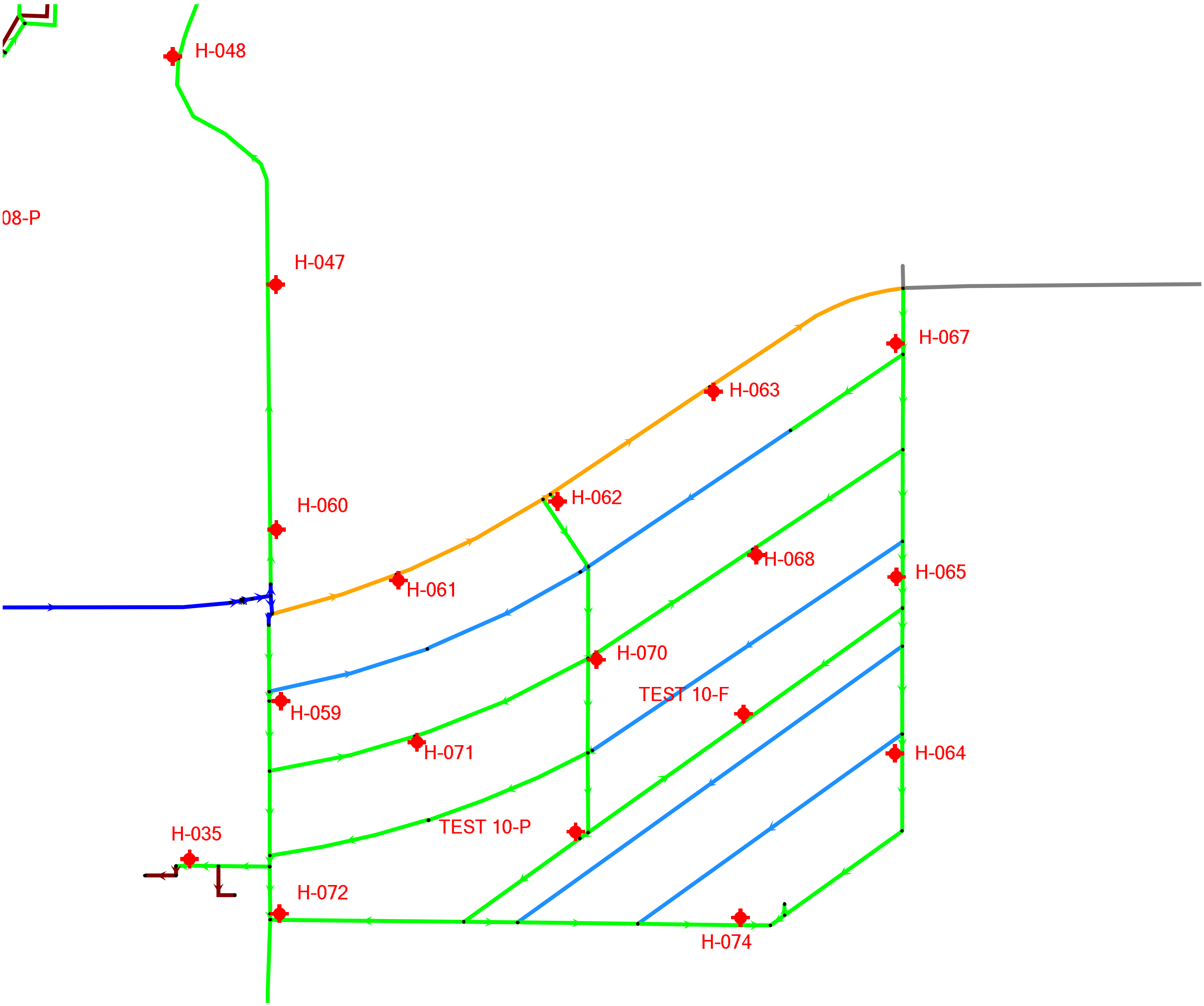
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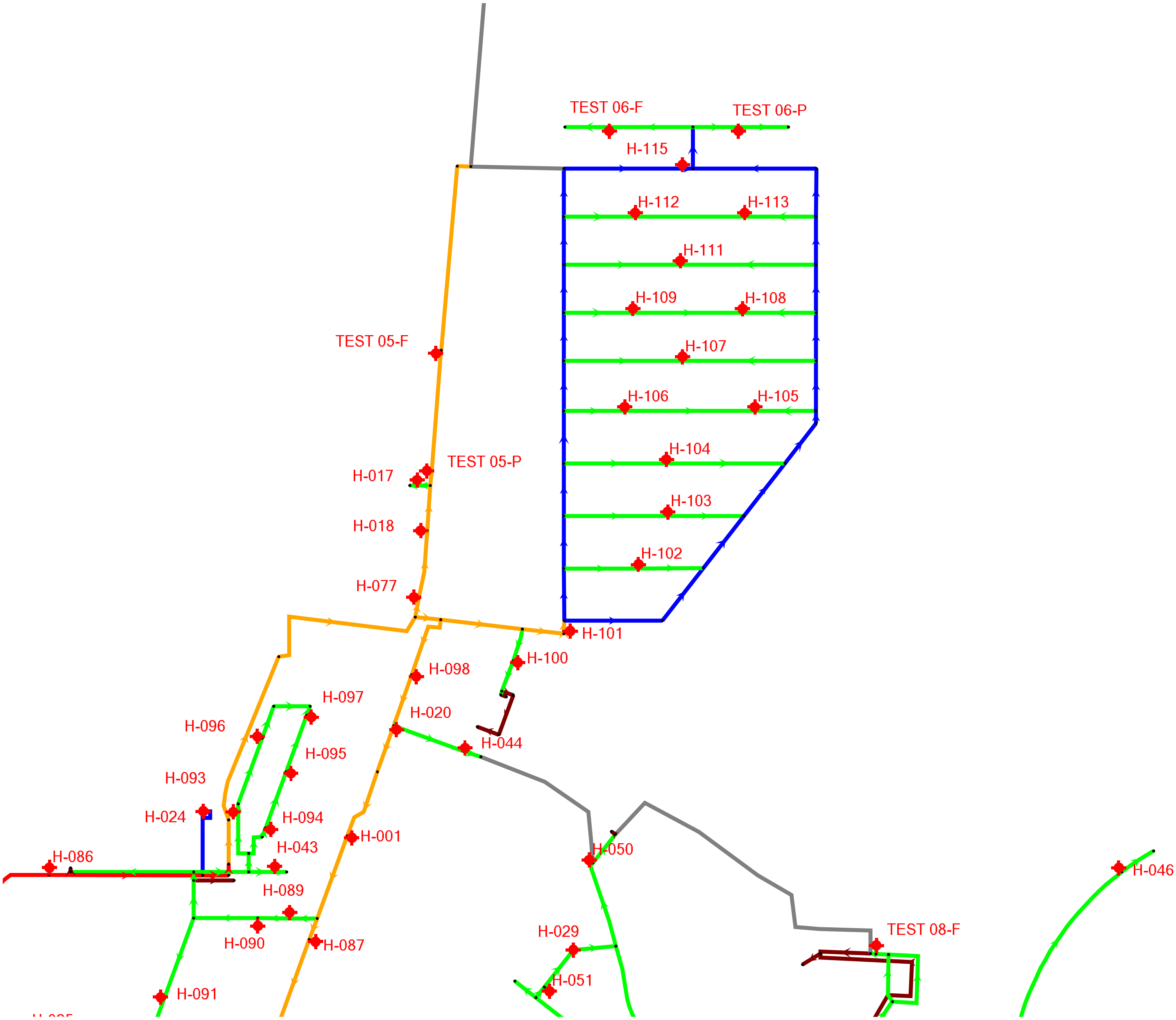
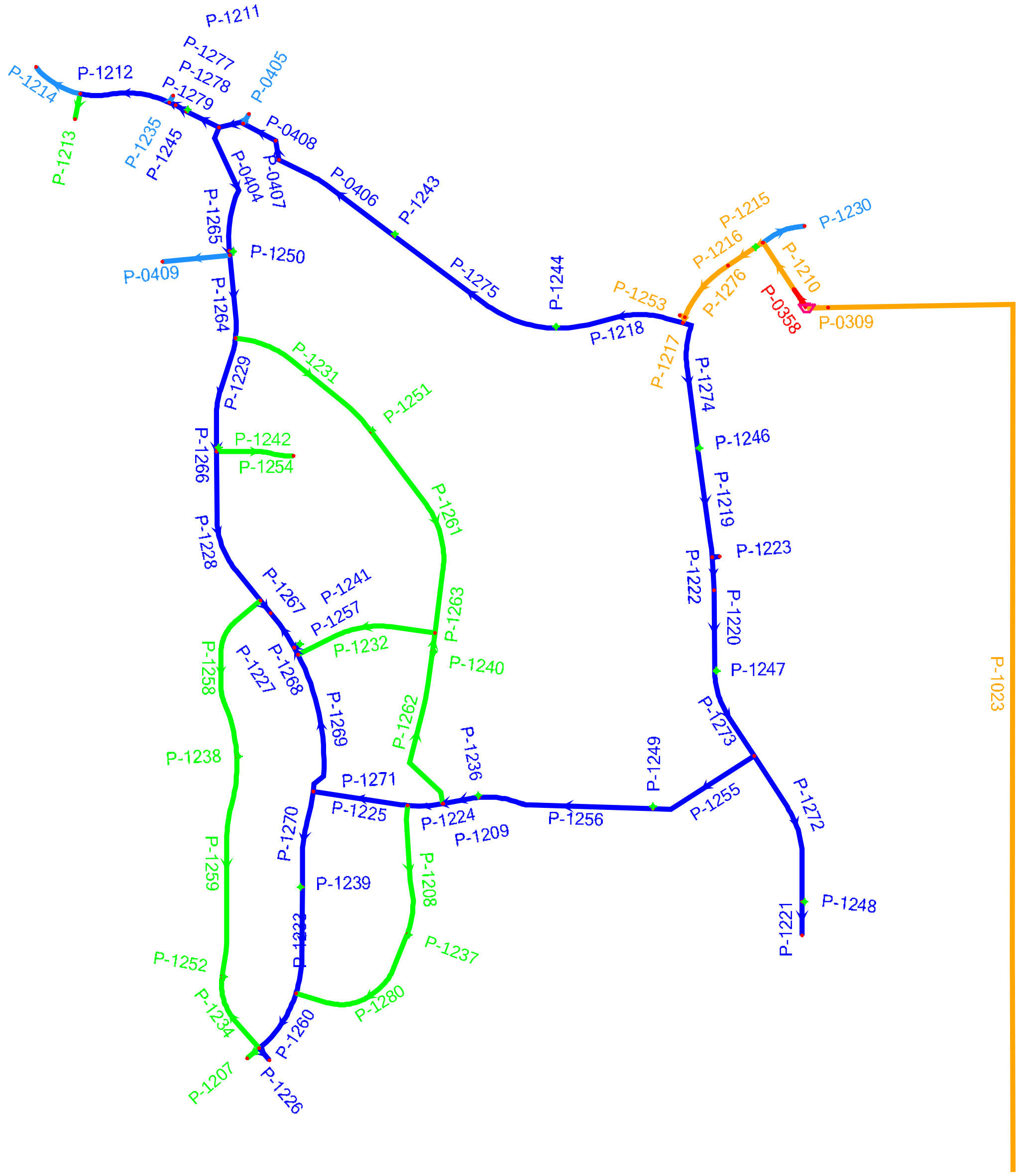
08-P
H-047
H-067
H-063
H-060
H-062
H-068
H-065
H-061
H-070
TEST 10-F
H-059
H-071
H-064
TEST 10-P
H-035
H-072
H-074

Scenario: Base



Juliette Falls Network Maps

Scenario: Base



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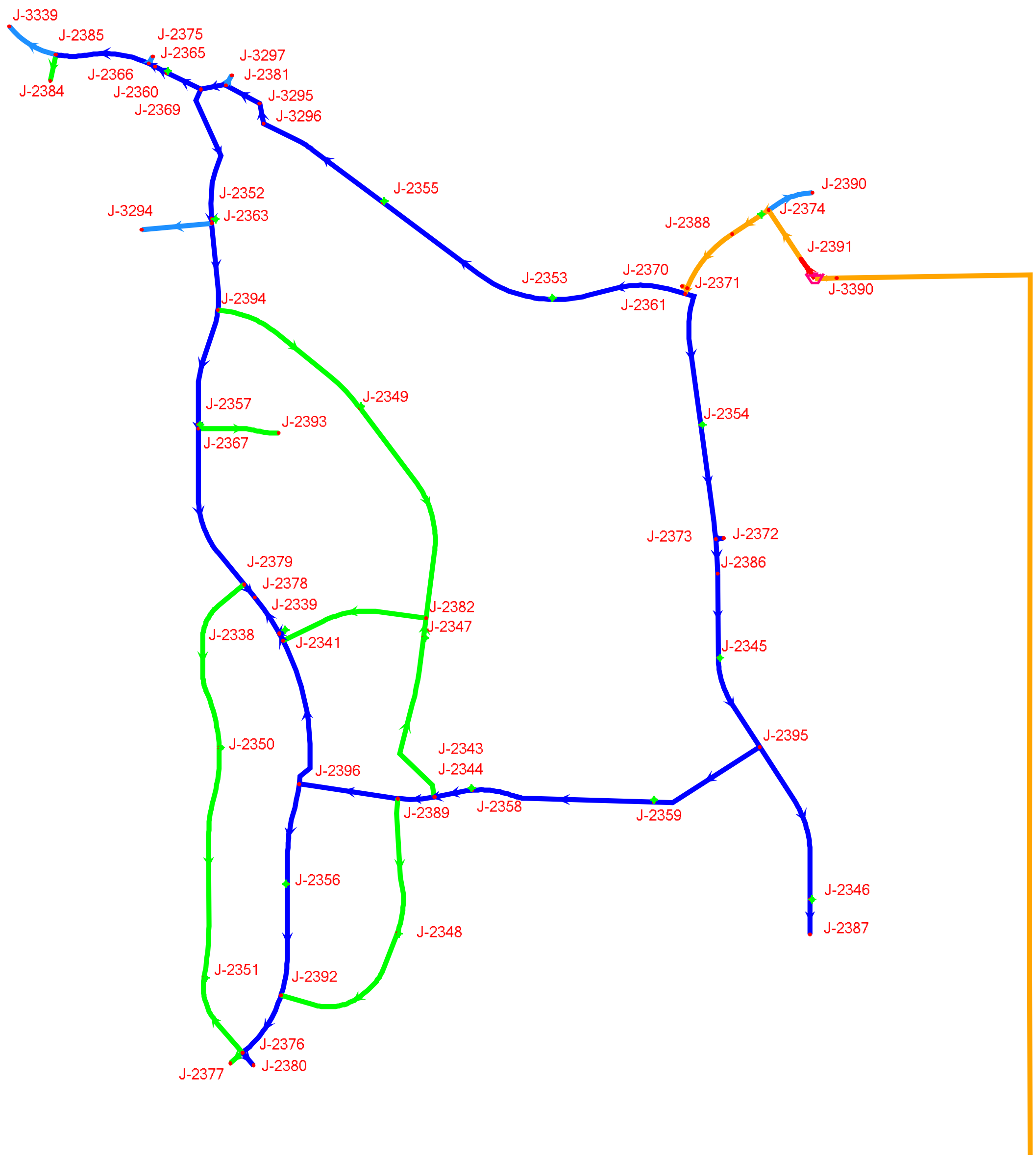

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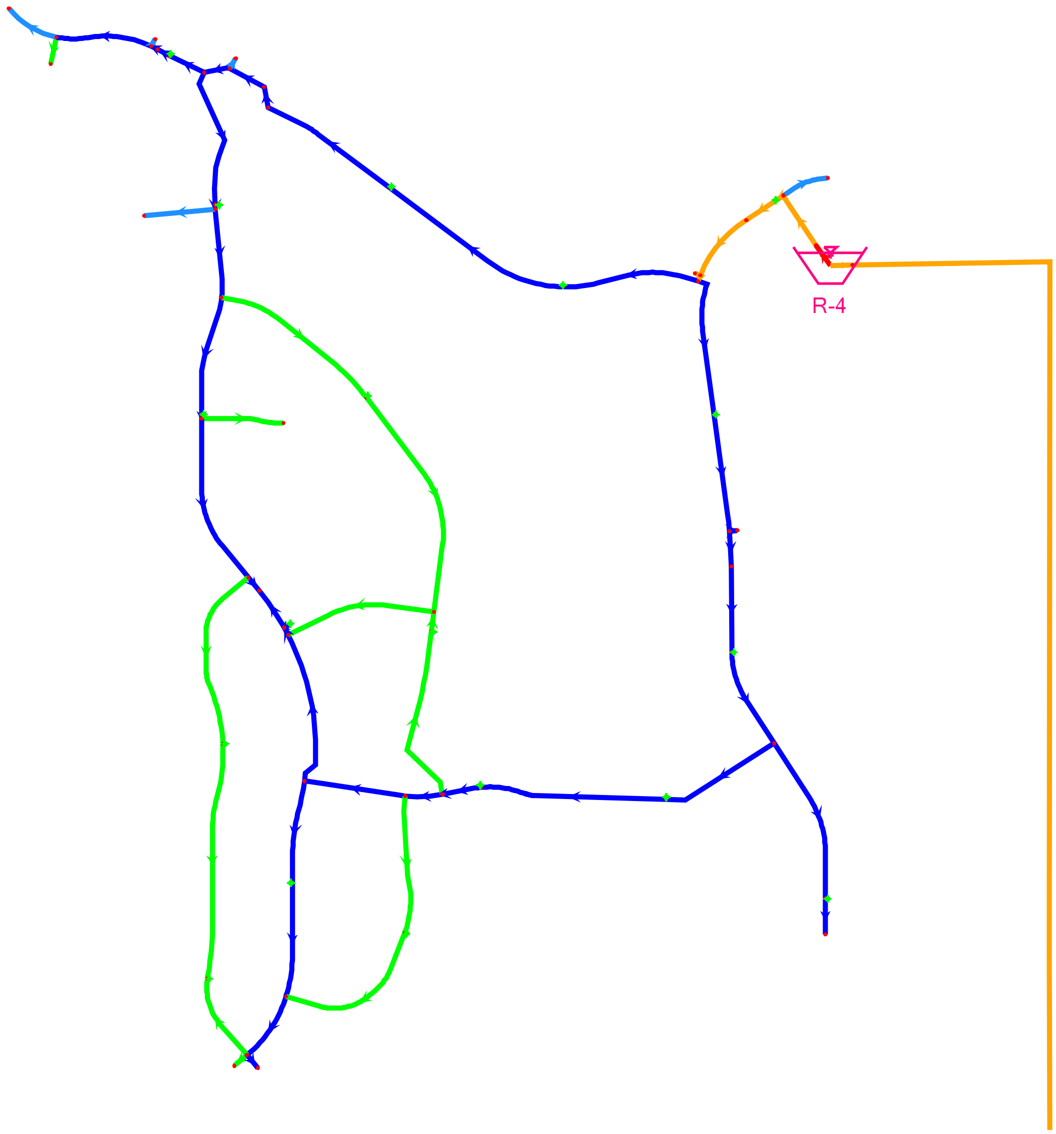

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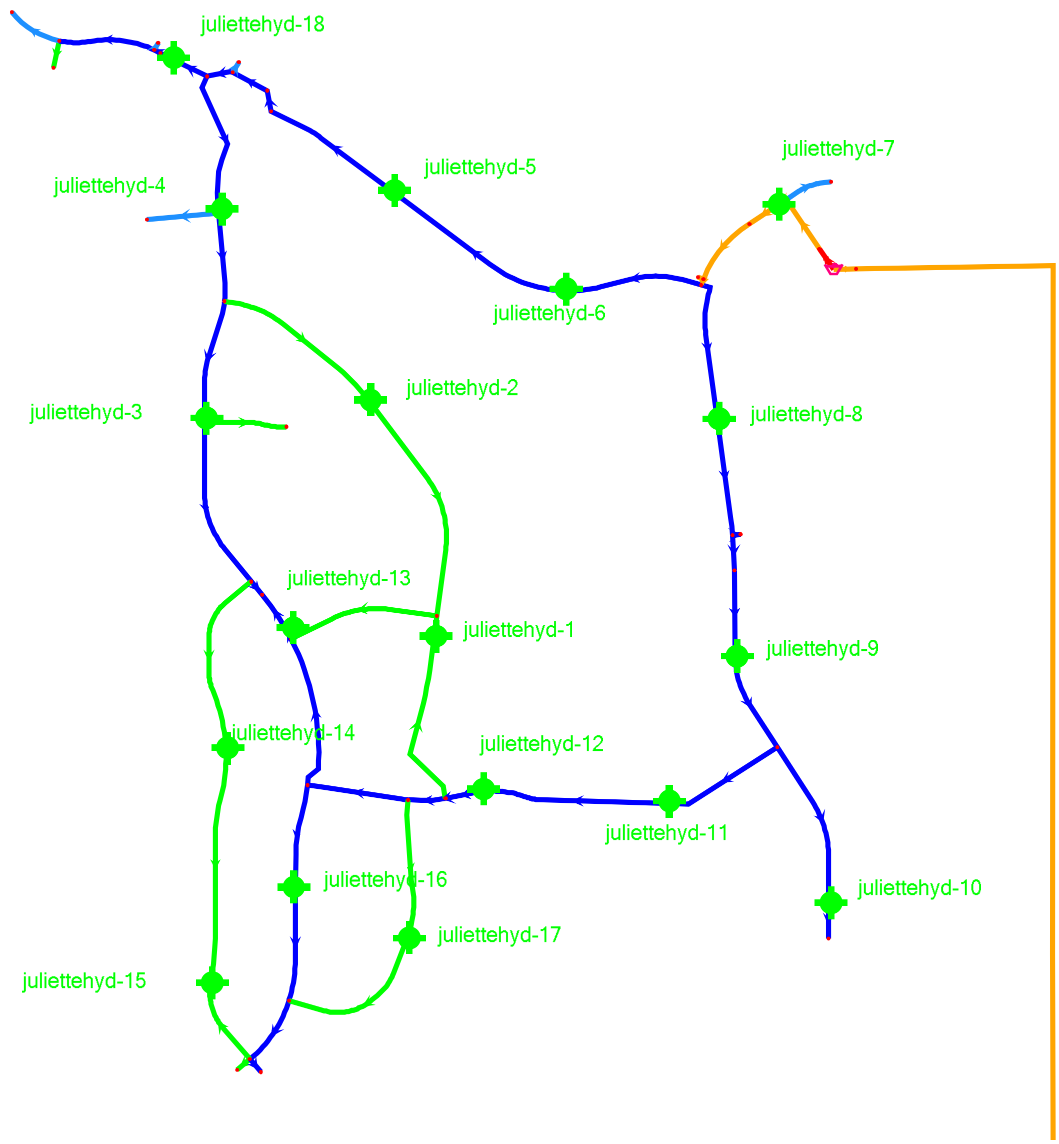

Rainbow Springs Network Maps

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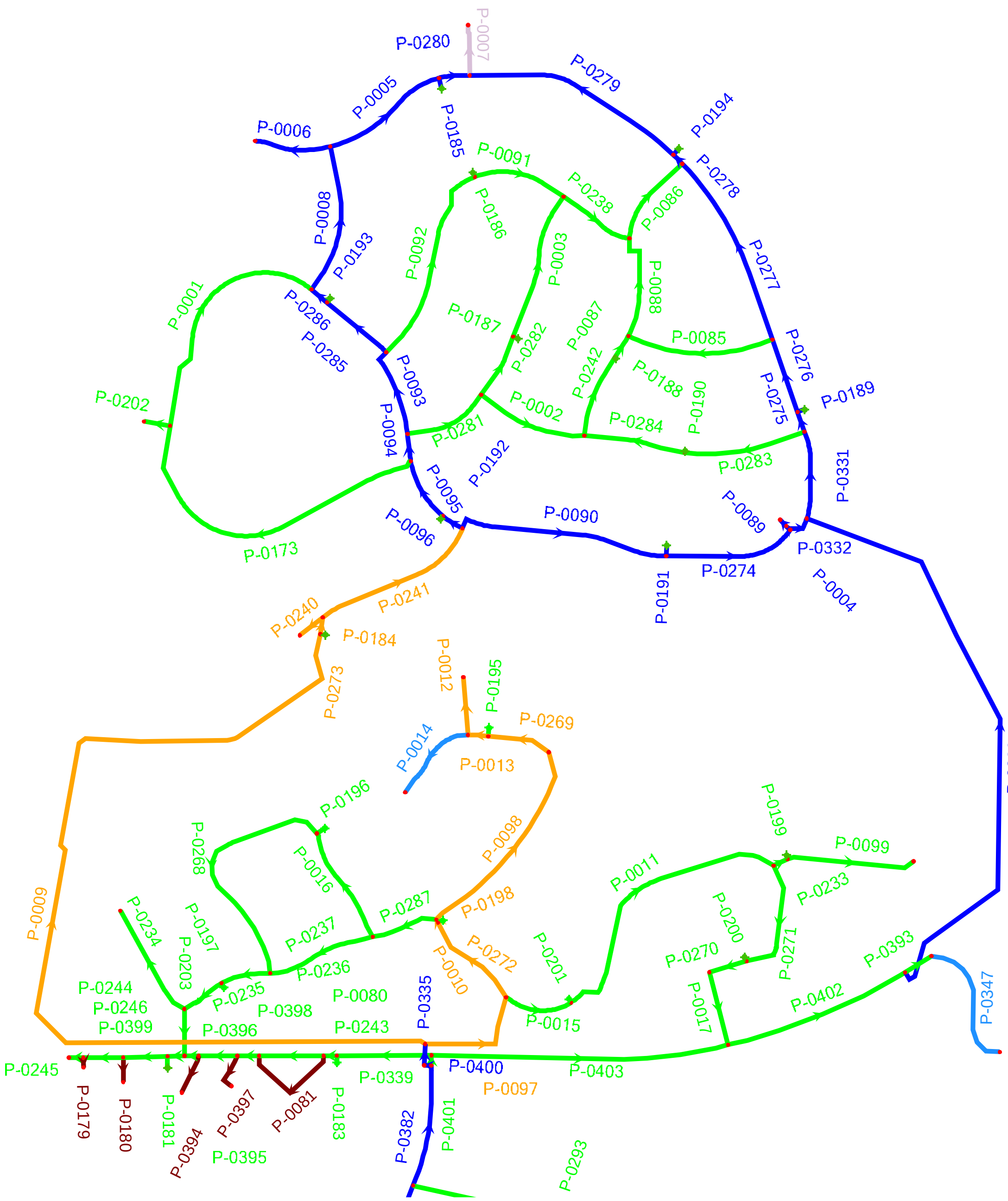

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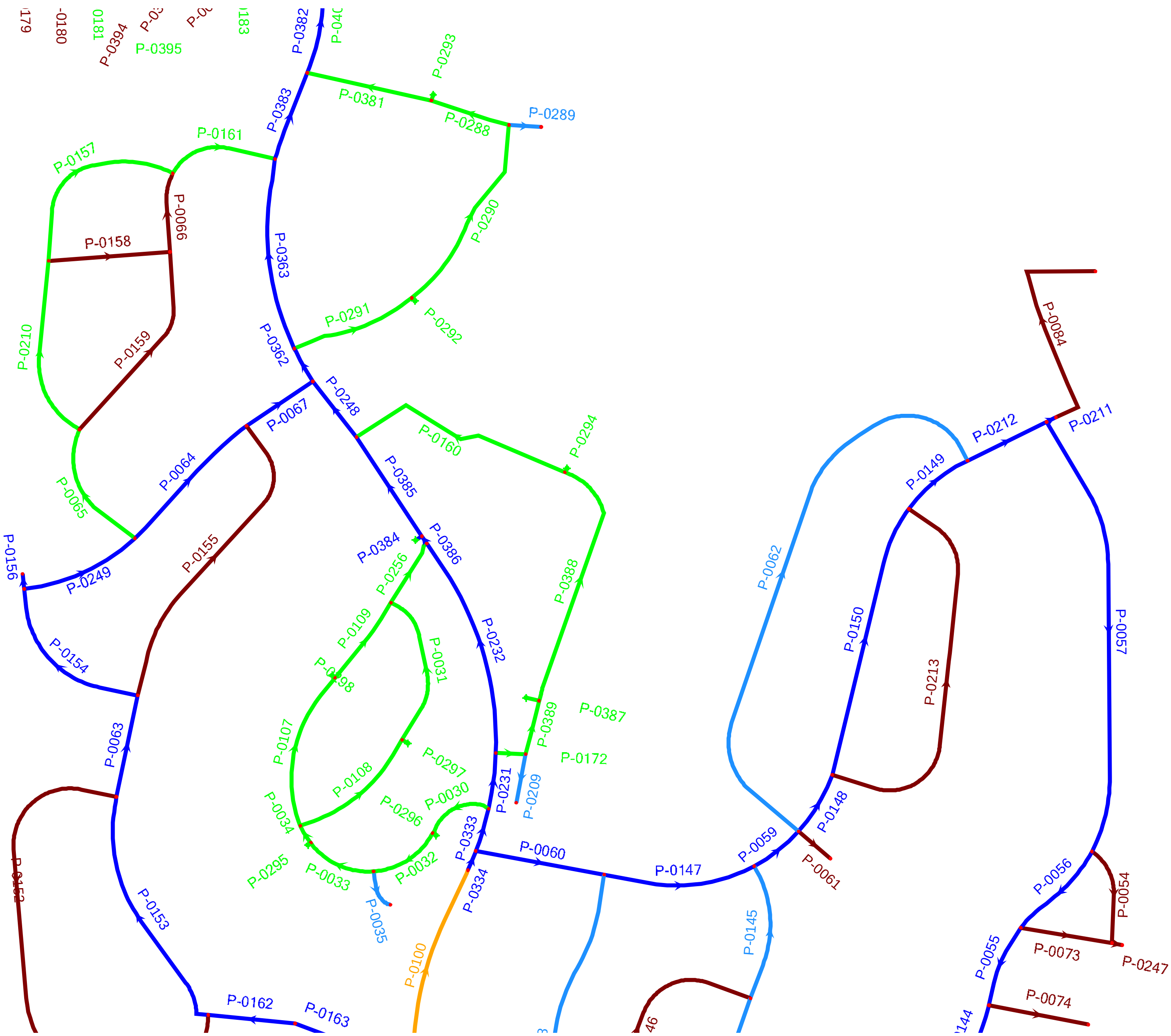

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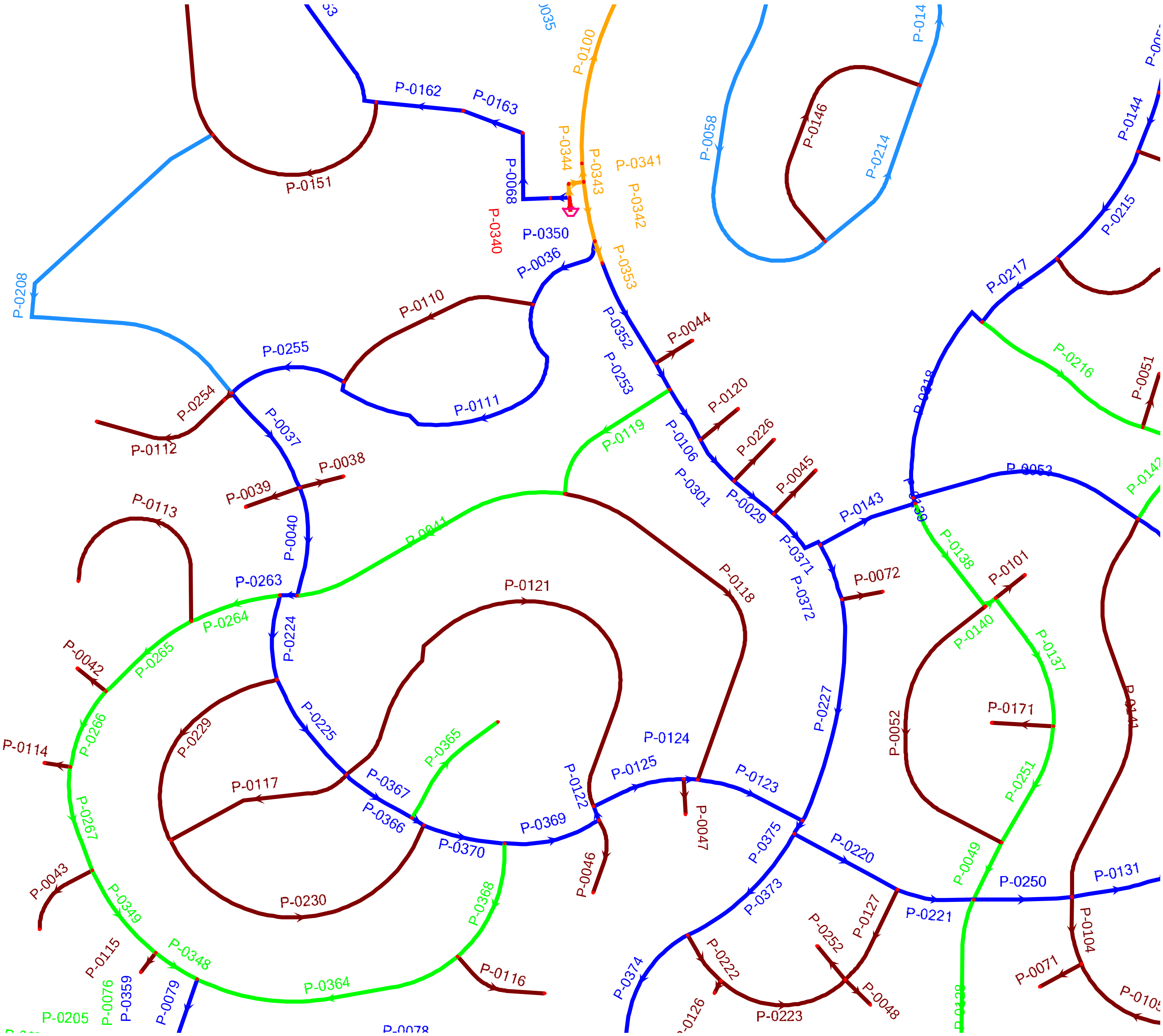

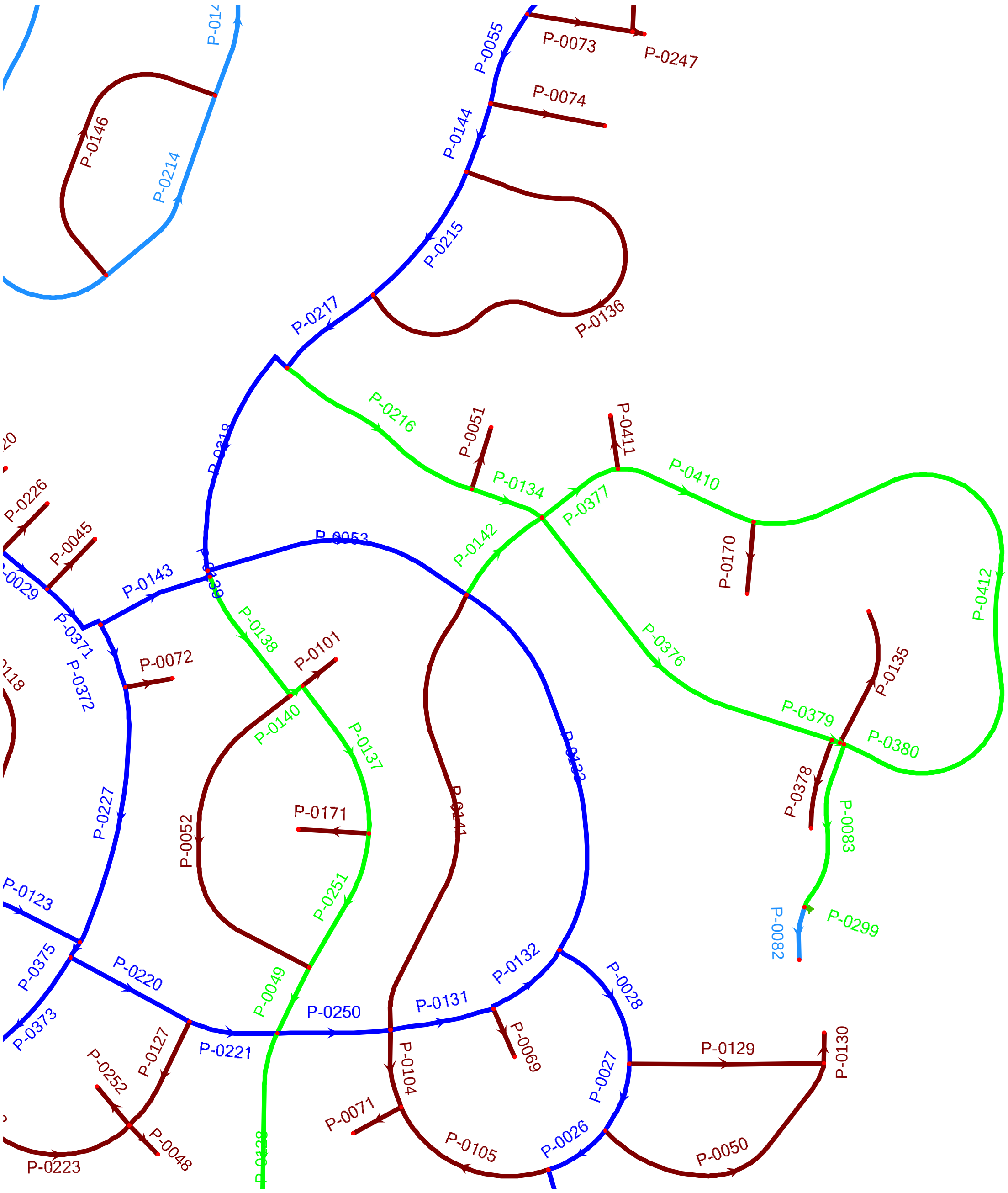
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P-0055
P-0074
P-0144
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P-0214
P-0215
P-0217
P-0136
P-0216
P-0051
P-0411
P-0410
P-0134
P-0377
P-0226
P-0045
P-0142
P-0170
P-0143
P-0029
P-0053
P-0371
P-0372
P-0138
P-0072
P-0101
P-0376
P-0412
P-0135
P-0140
P-0137
P-0379
P-0380
P-0378
P-0227
P-0171
P-0052
P-0083
P-0123
P-0251
P-0299
P-0082
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P-0069
P-0129
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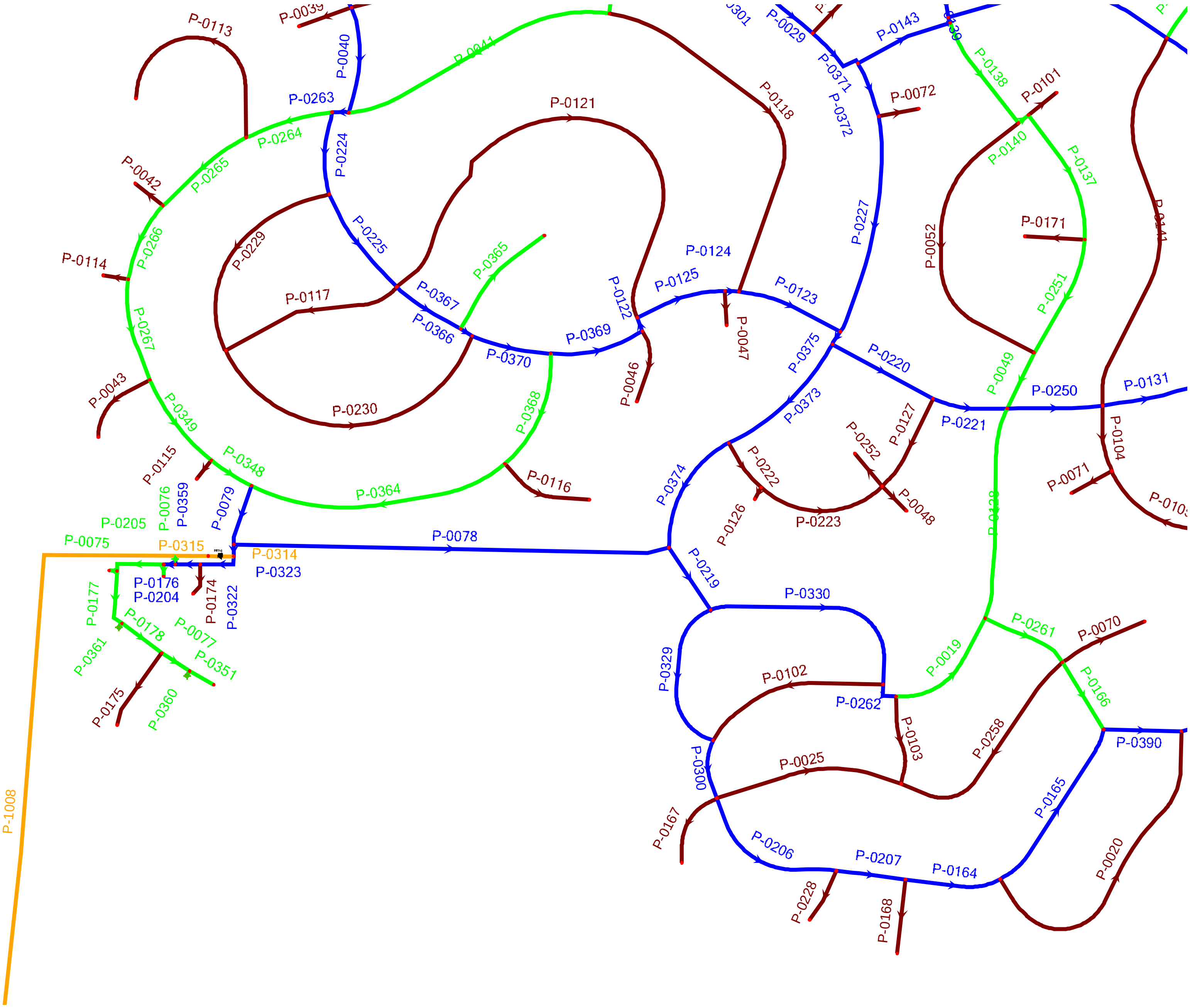
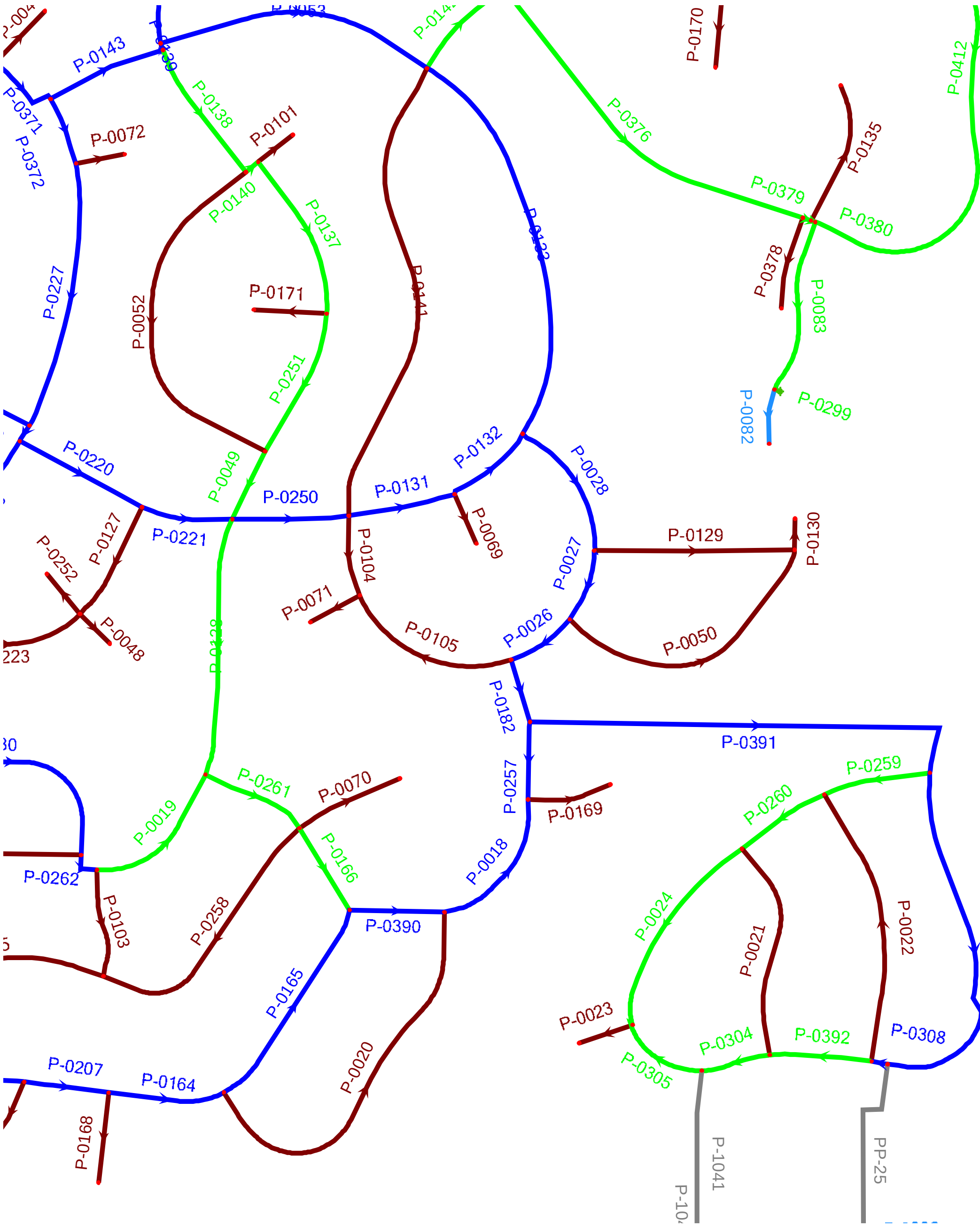
P-0048
P-0105
P-0026
P-0050
P-0223

Scenario: Base

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P-0227
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P-0251
P-0049
P-0220
P-0221
P-0250
P-0127
P-0252
P-0048
P-0131
P-0132
P-0141
P-0104
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P-0262
P-0103
P-0258
P-0018
P-0390
P-0165
P-0207
P-0164
P-0168
P-0020
P-0259
P-0260
P-0024
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P-0392
P-0308
P-0305
P-1041
PP-25

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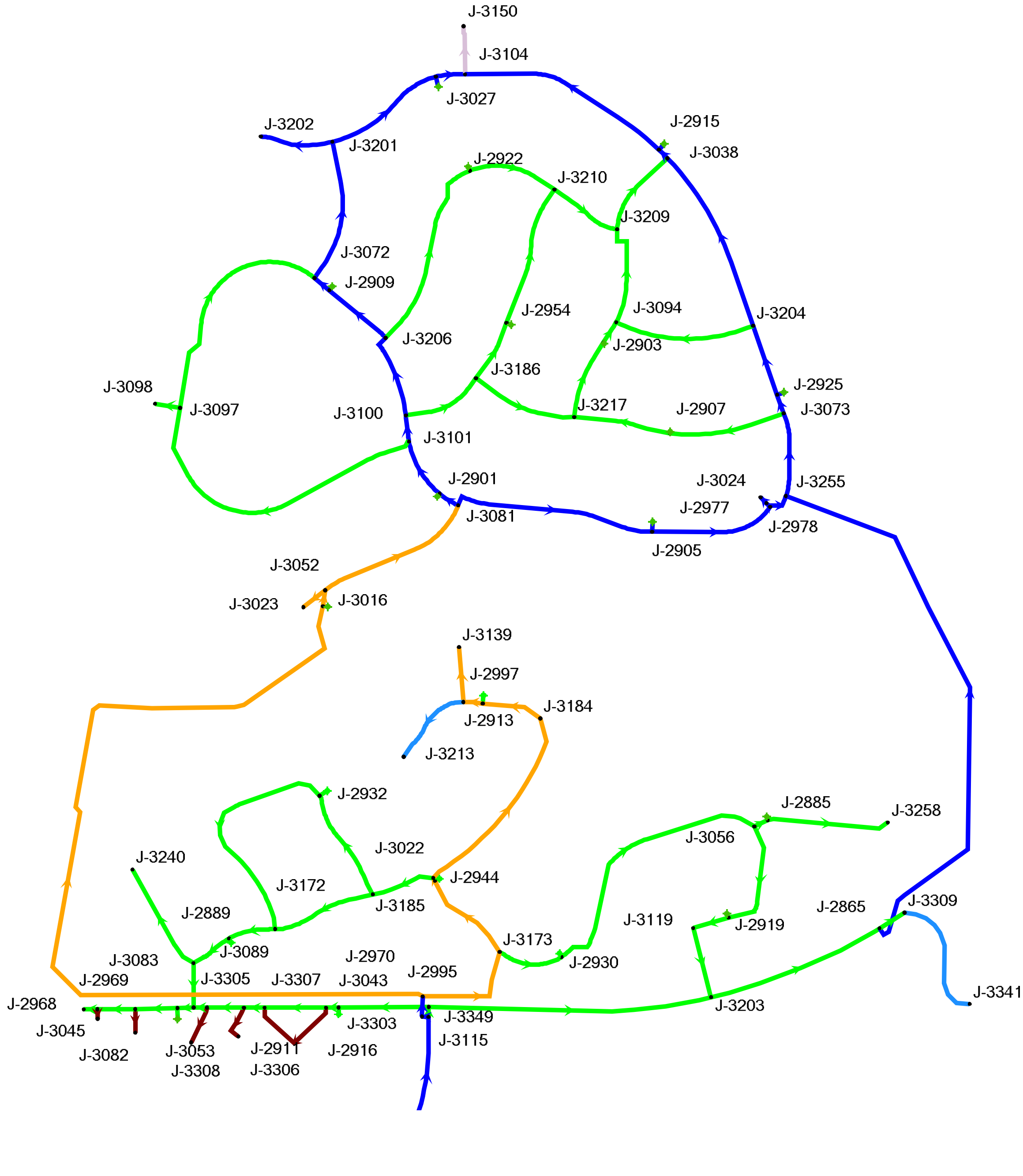

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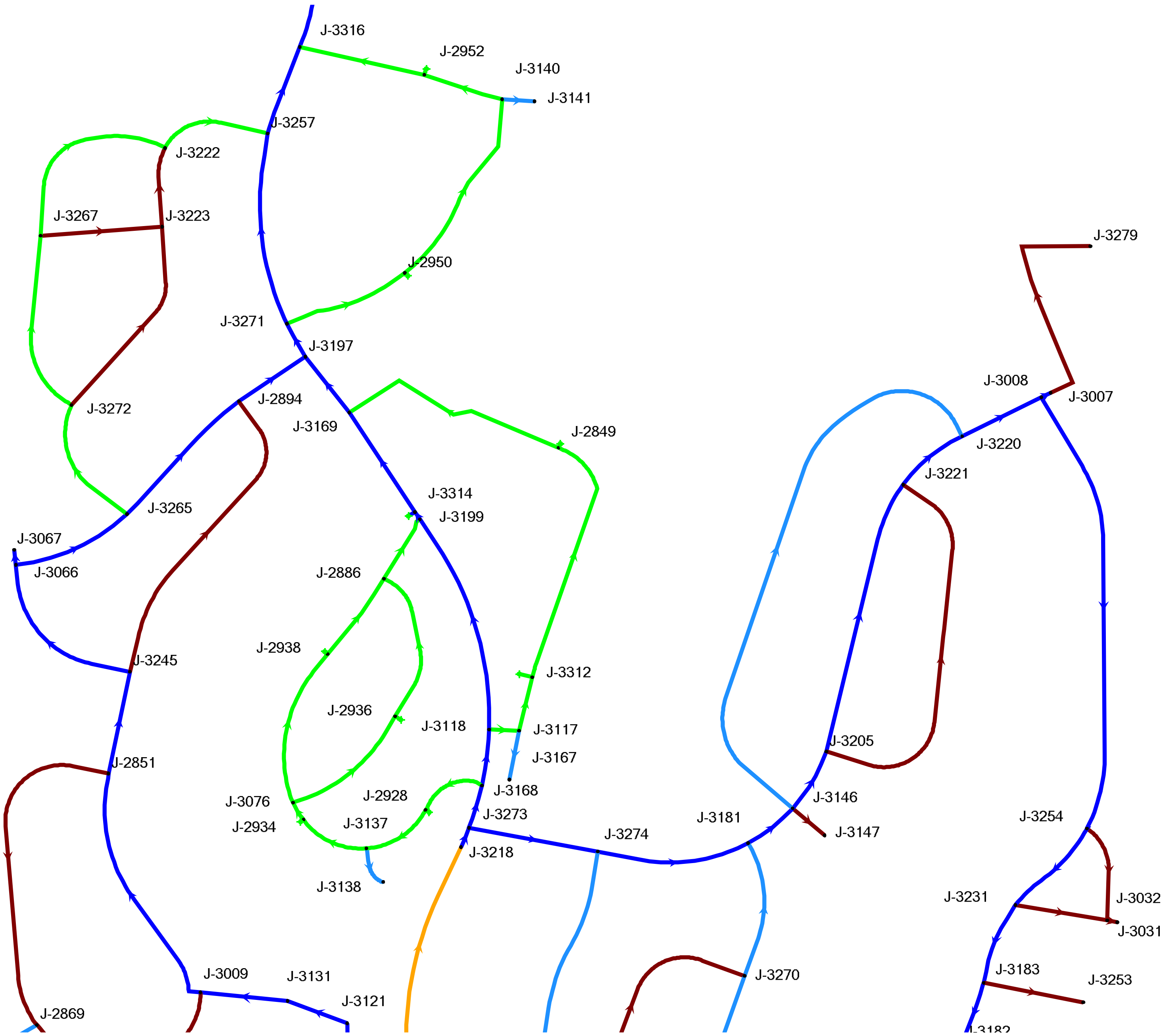

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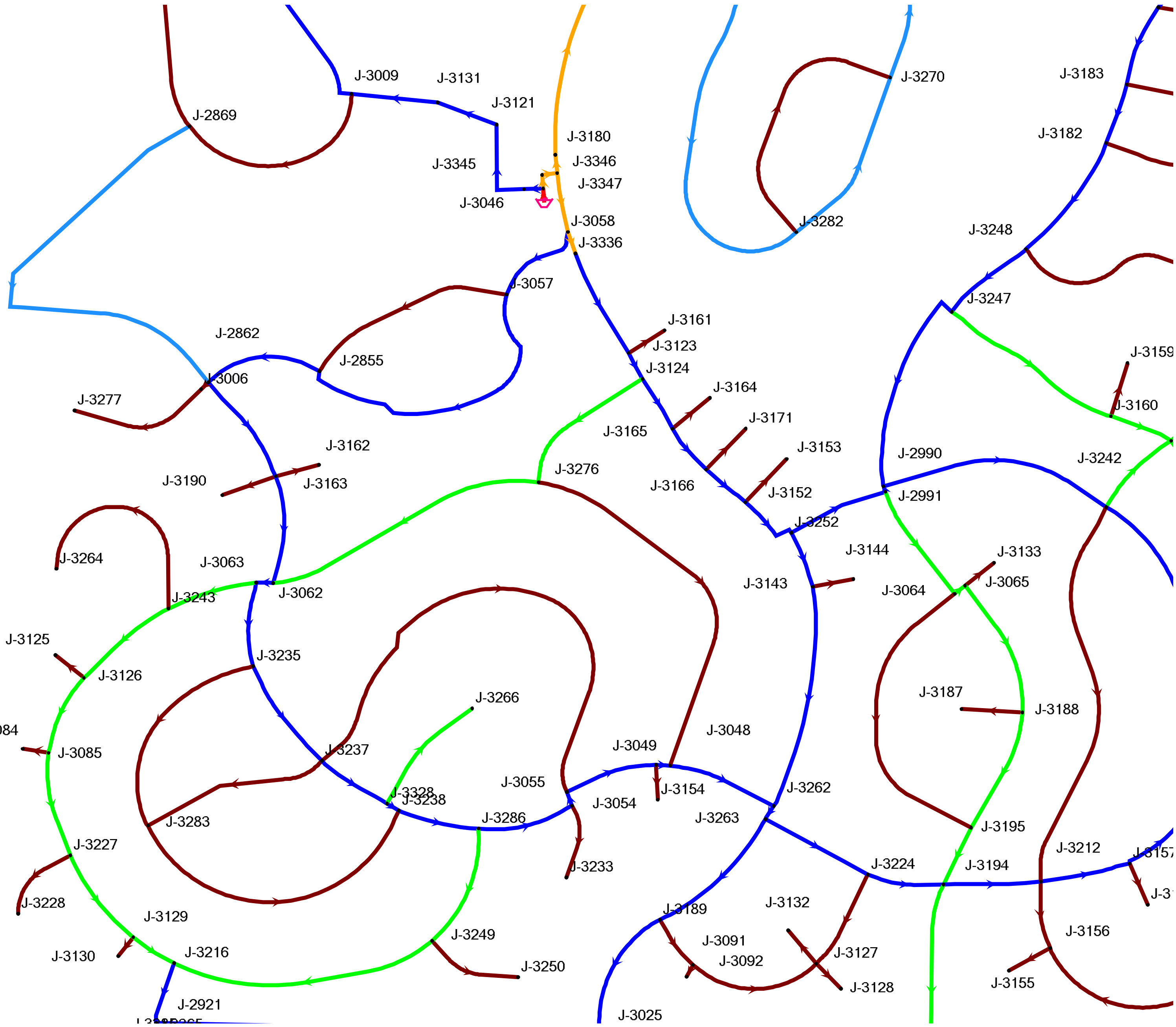

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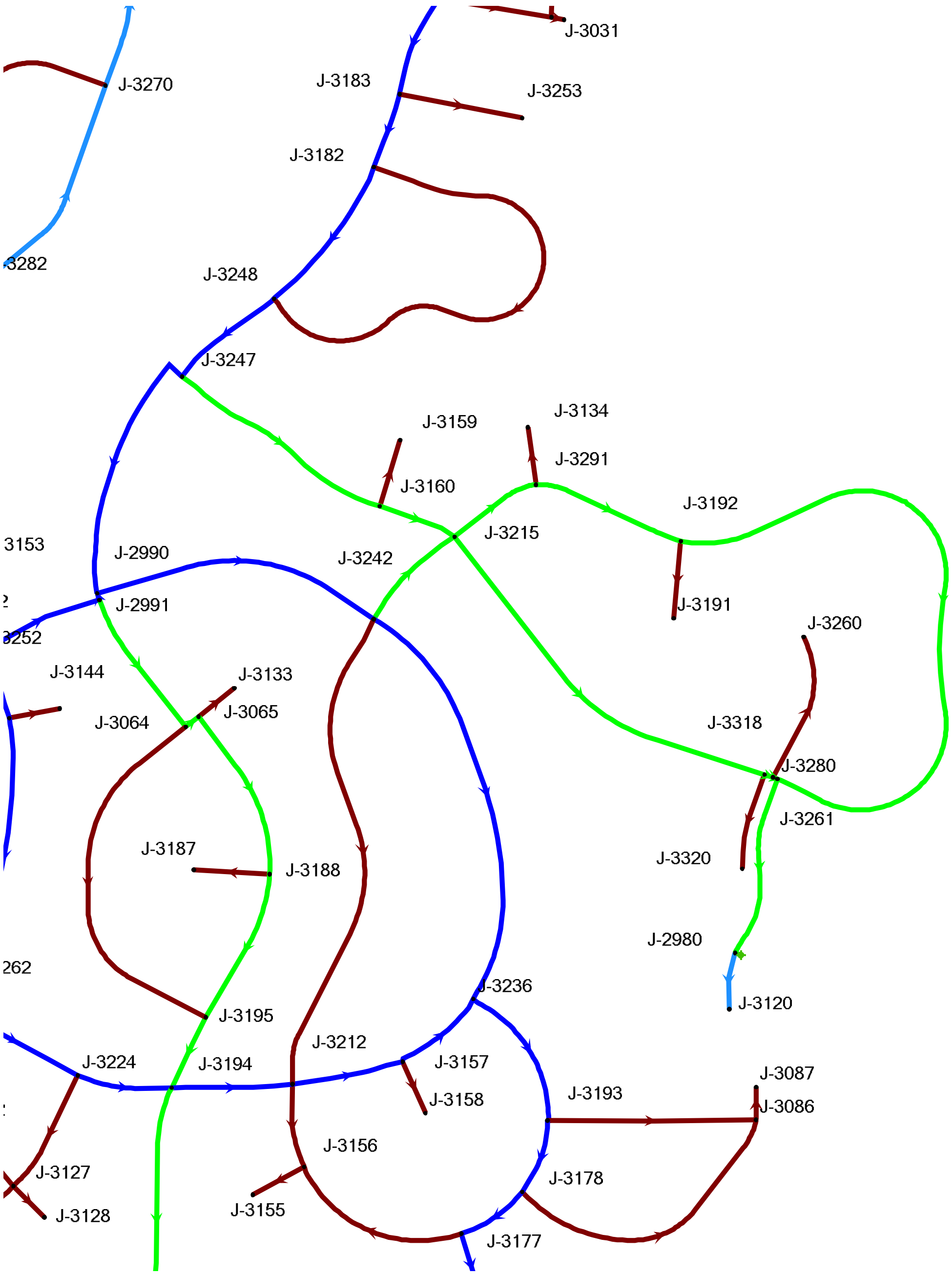

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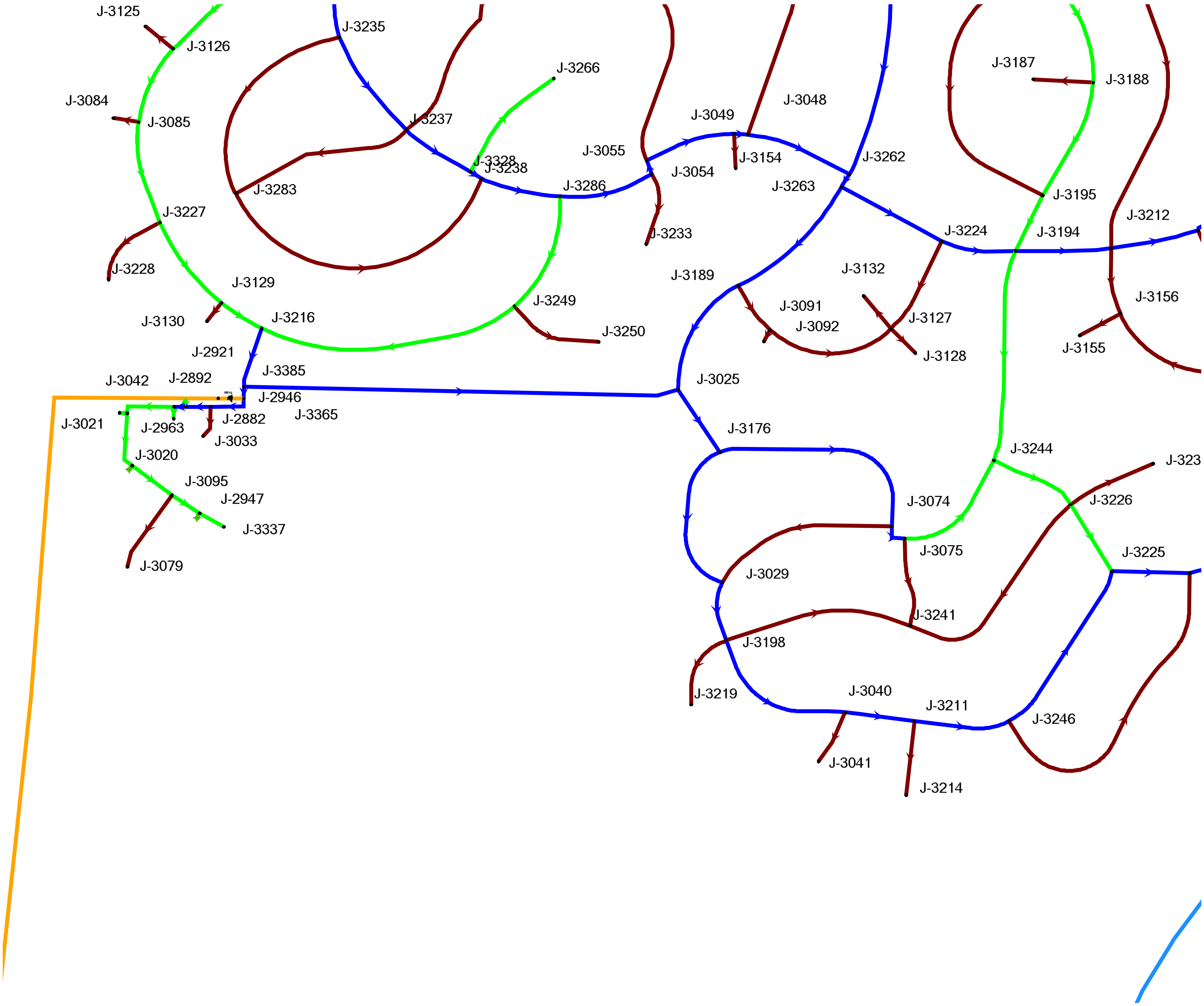

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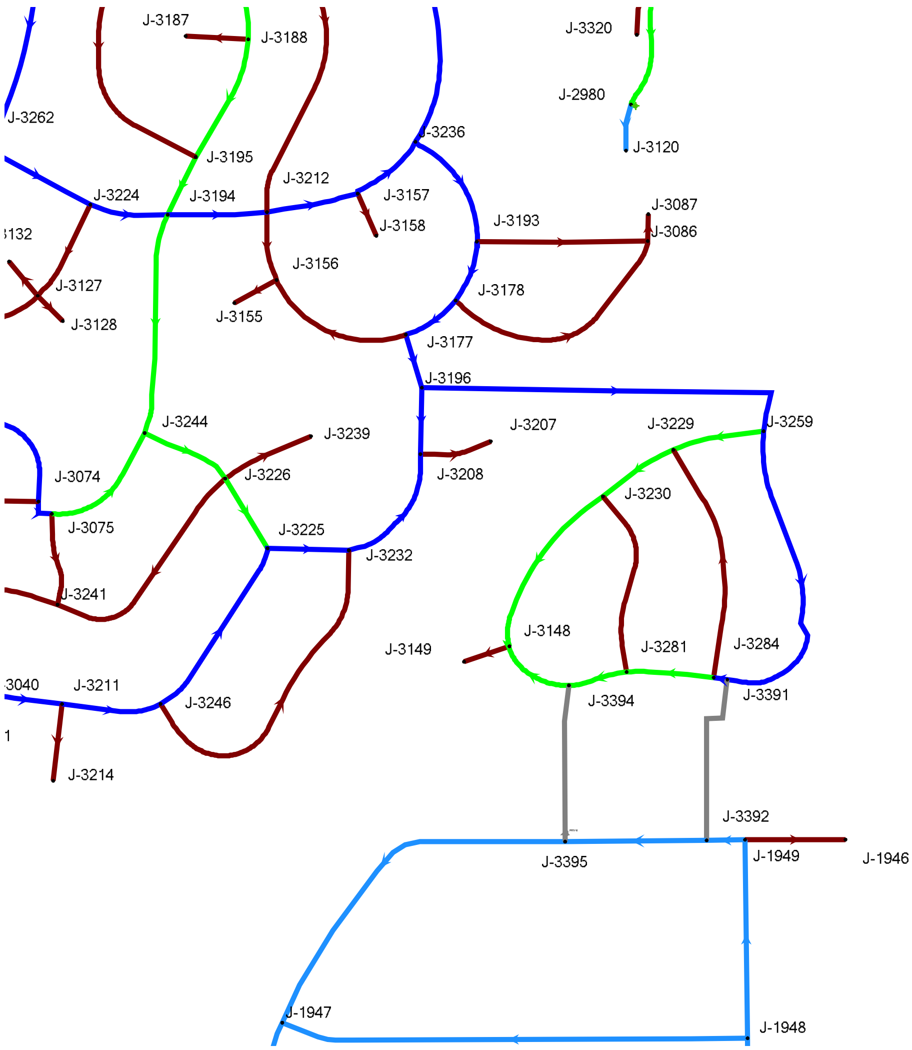

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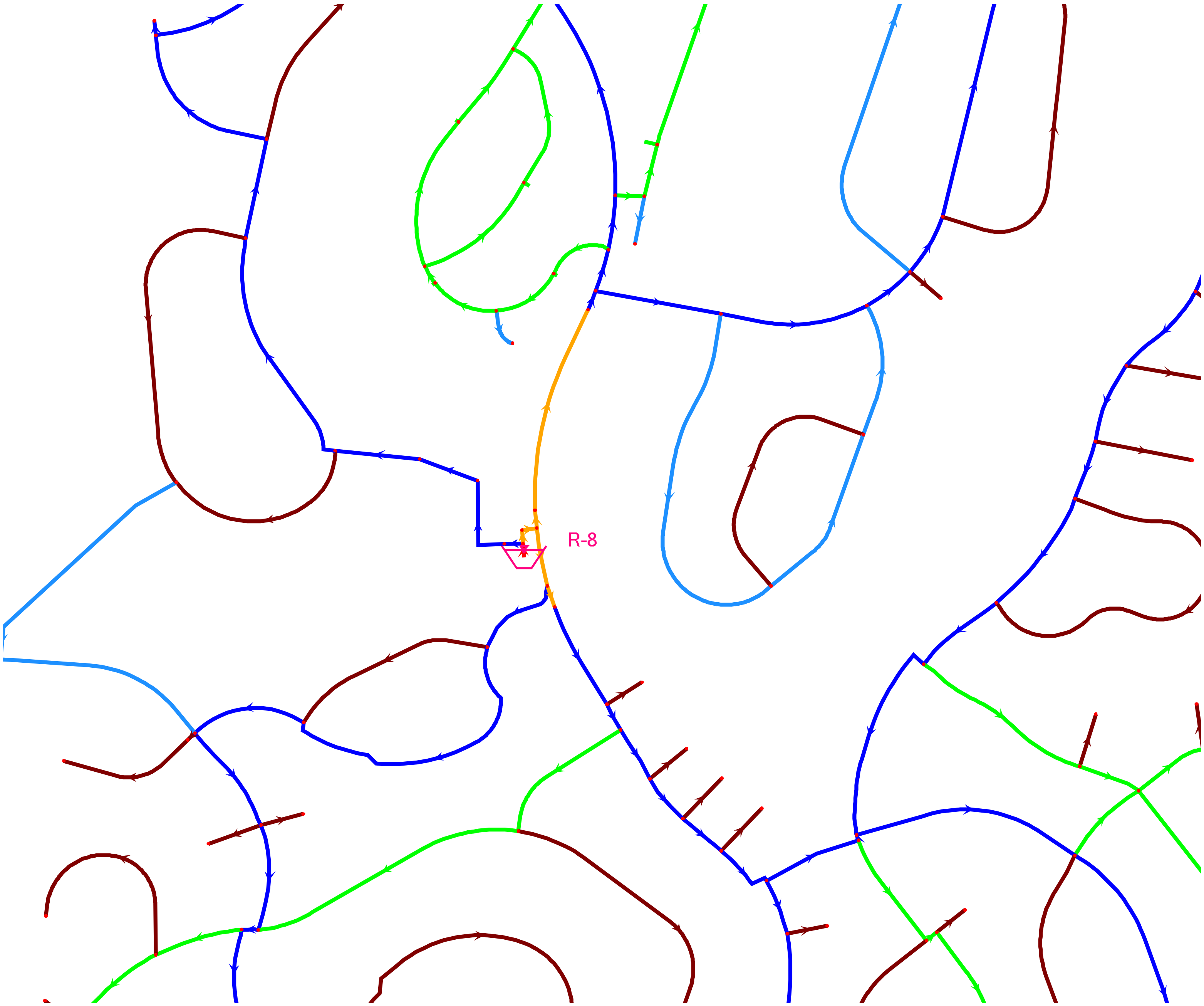

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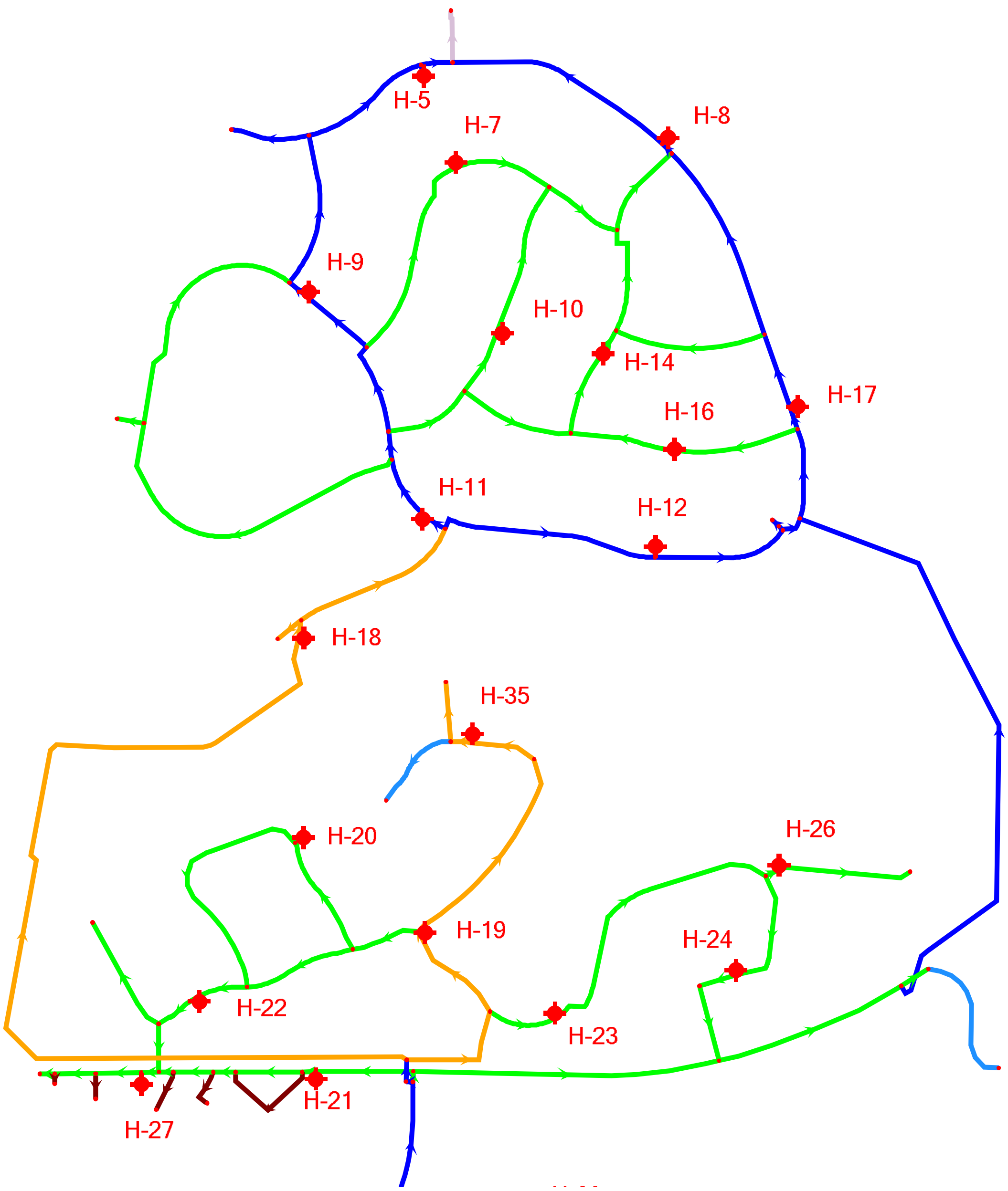

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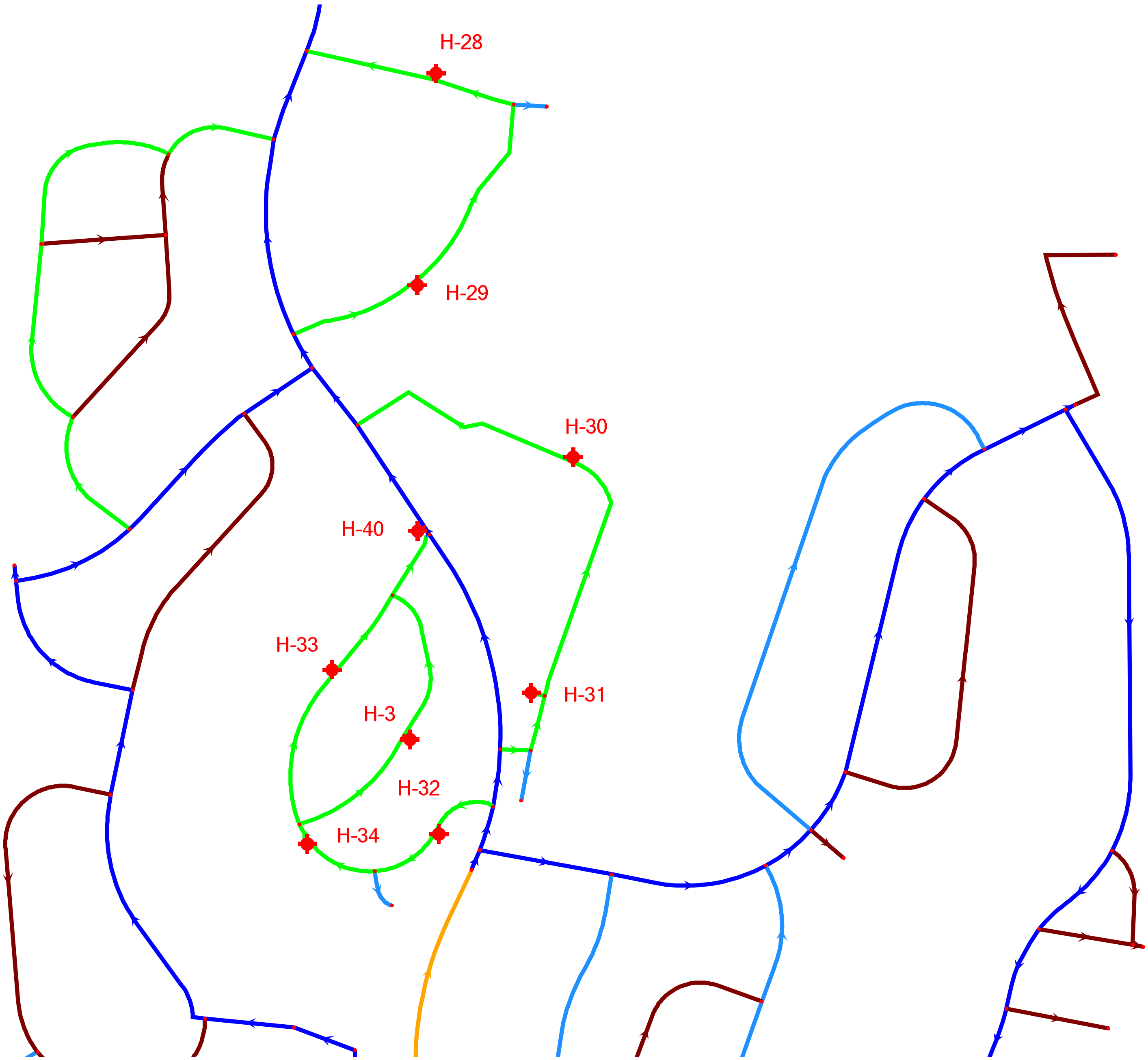

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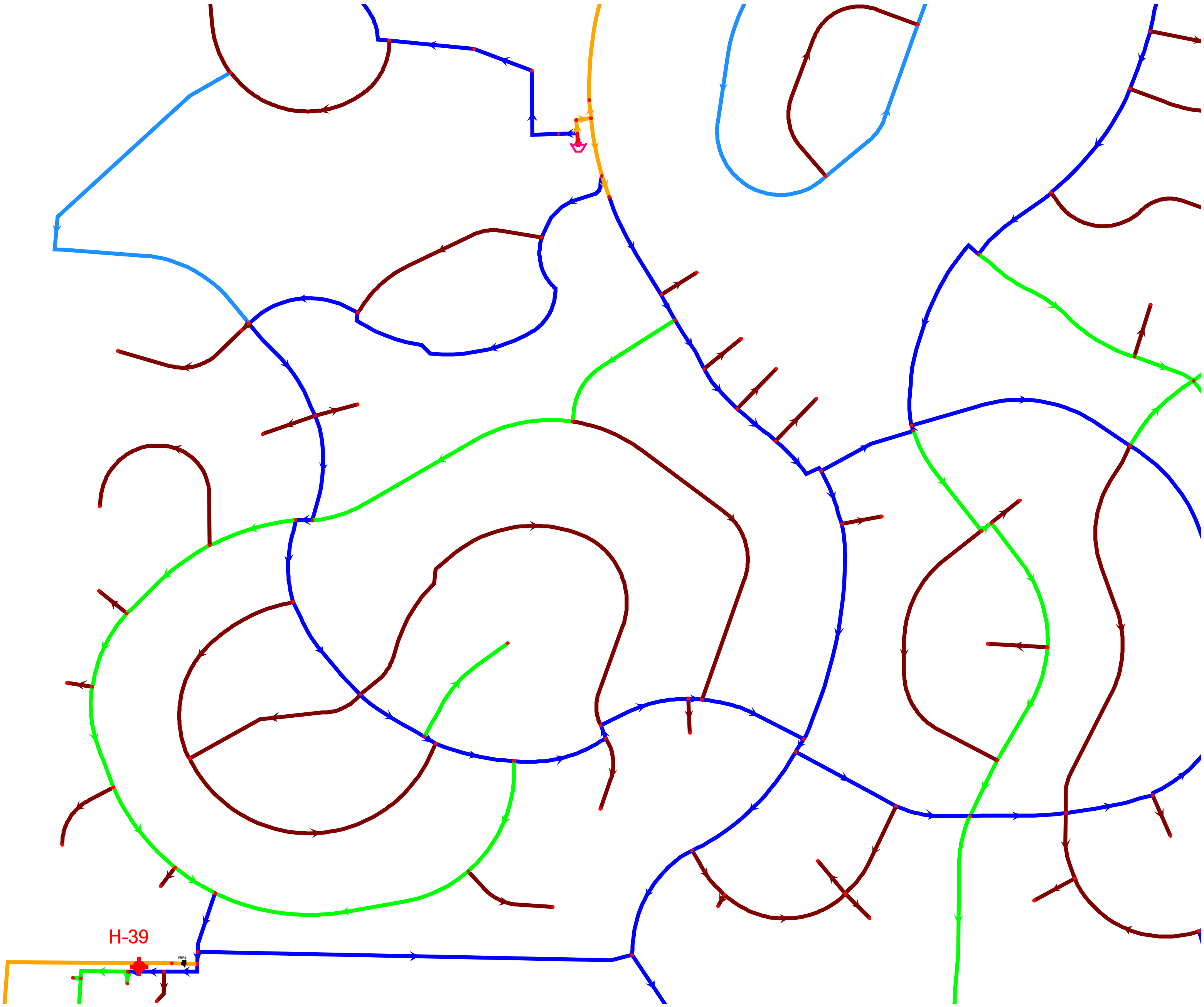

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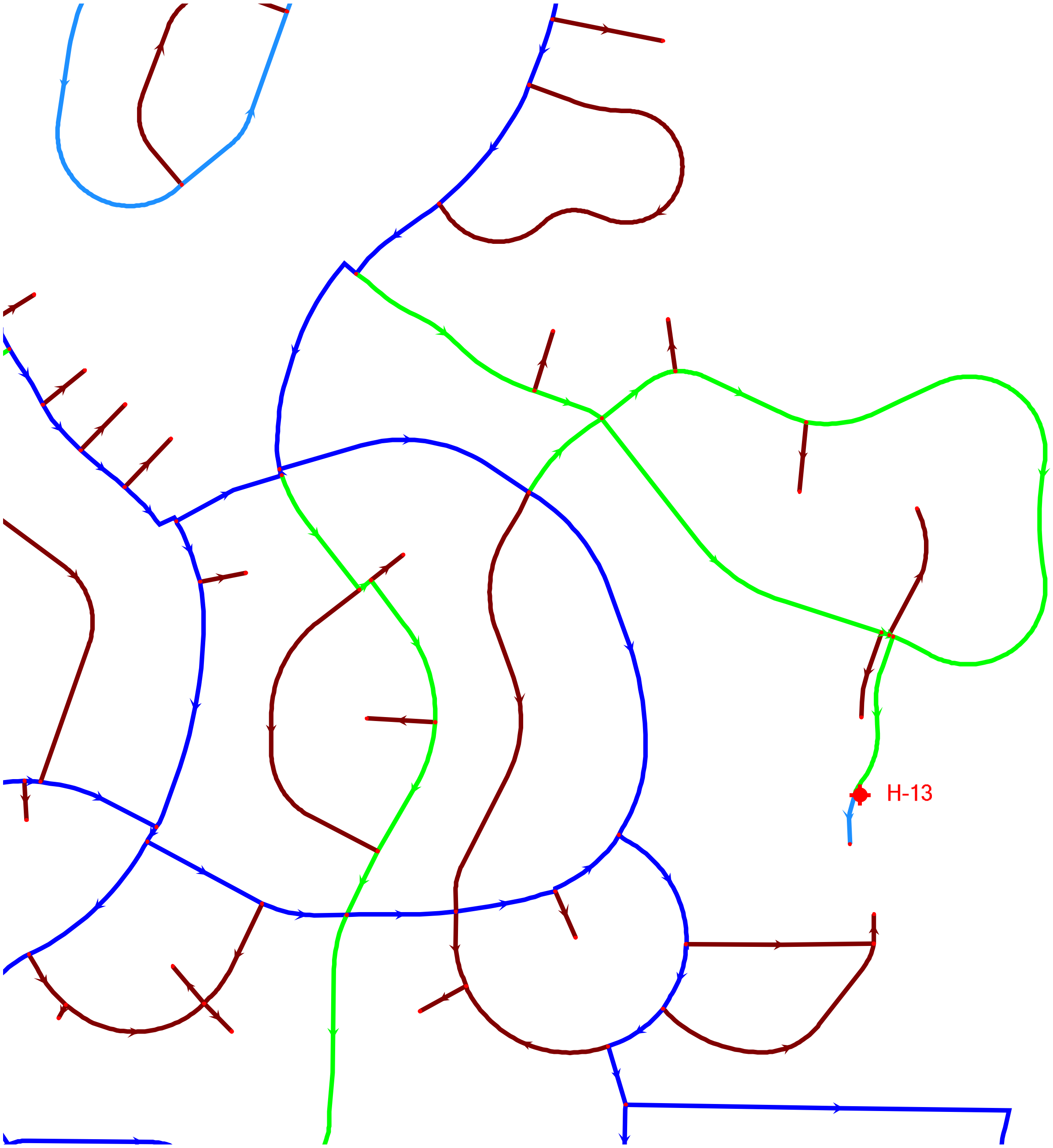

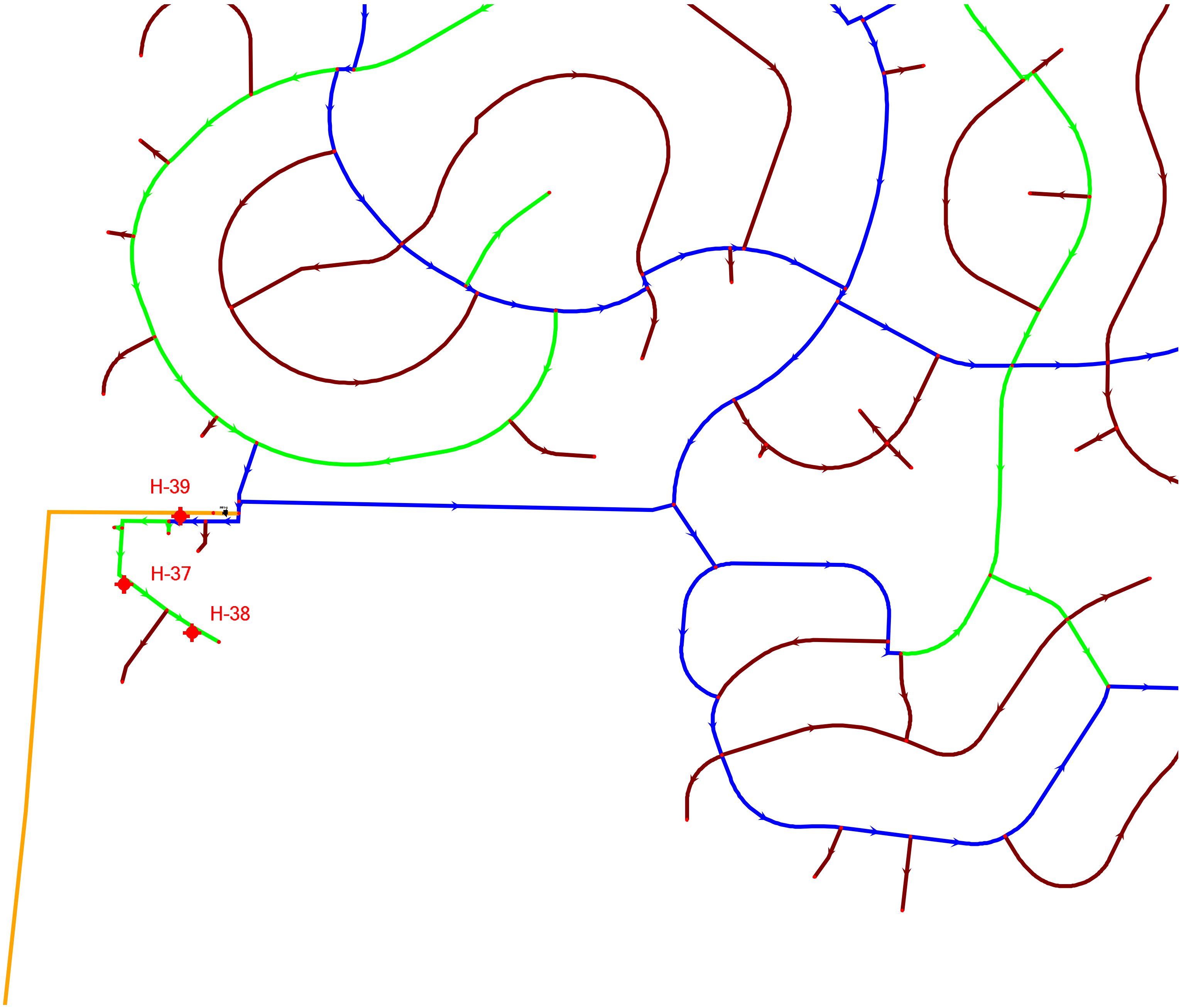
H-39
H-37
H-38

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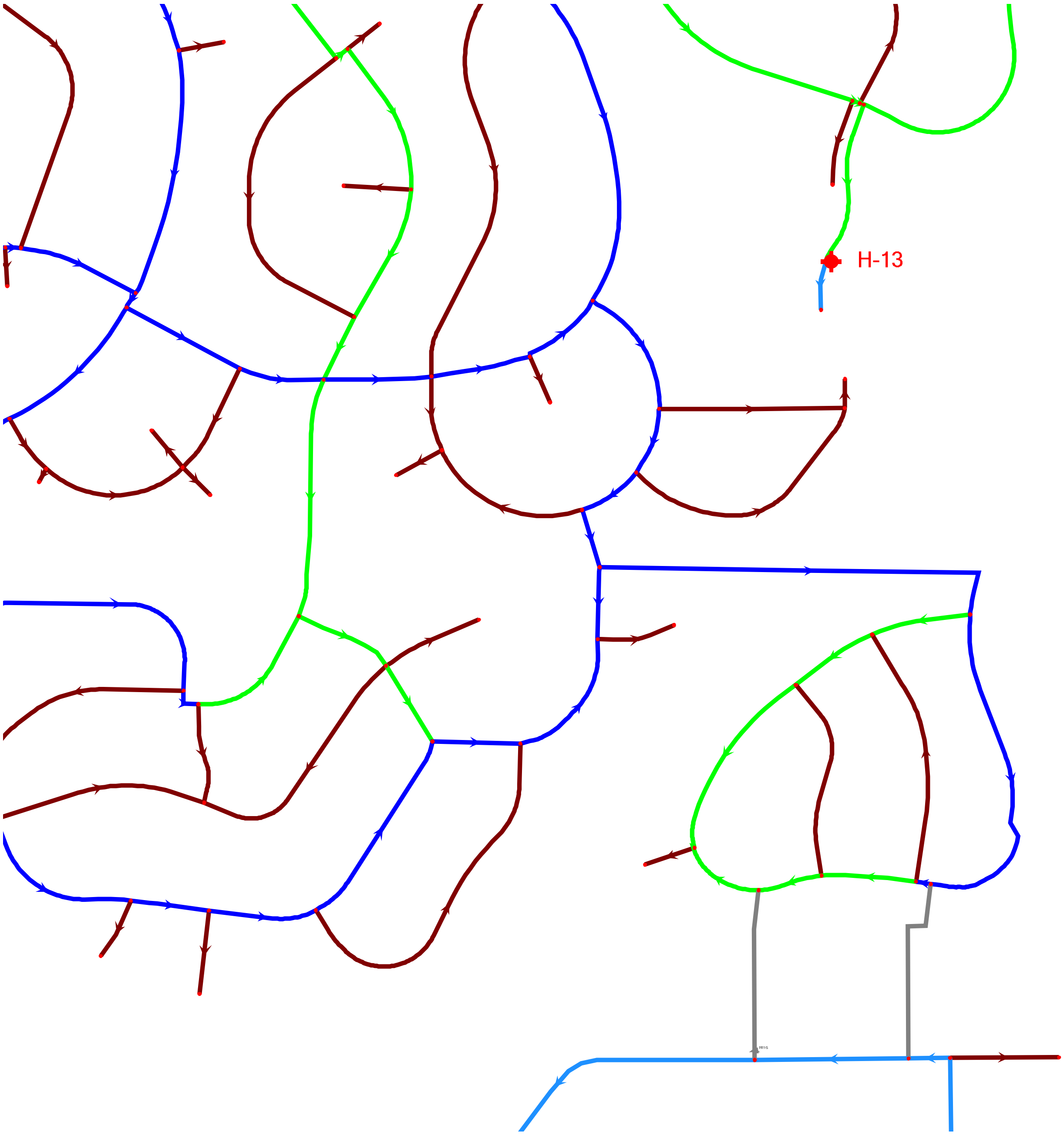
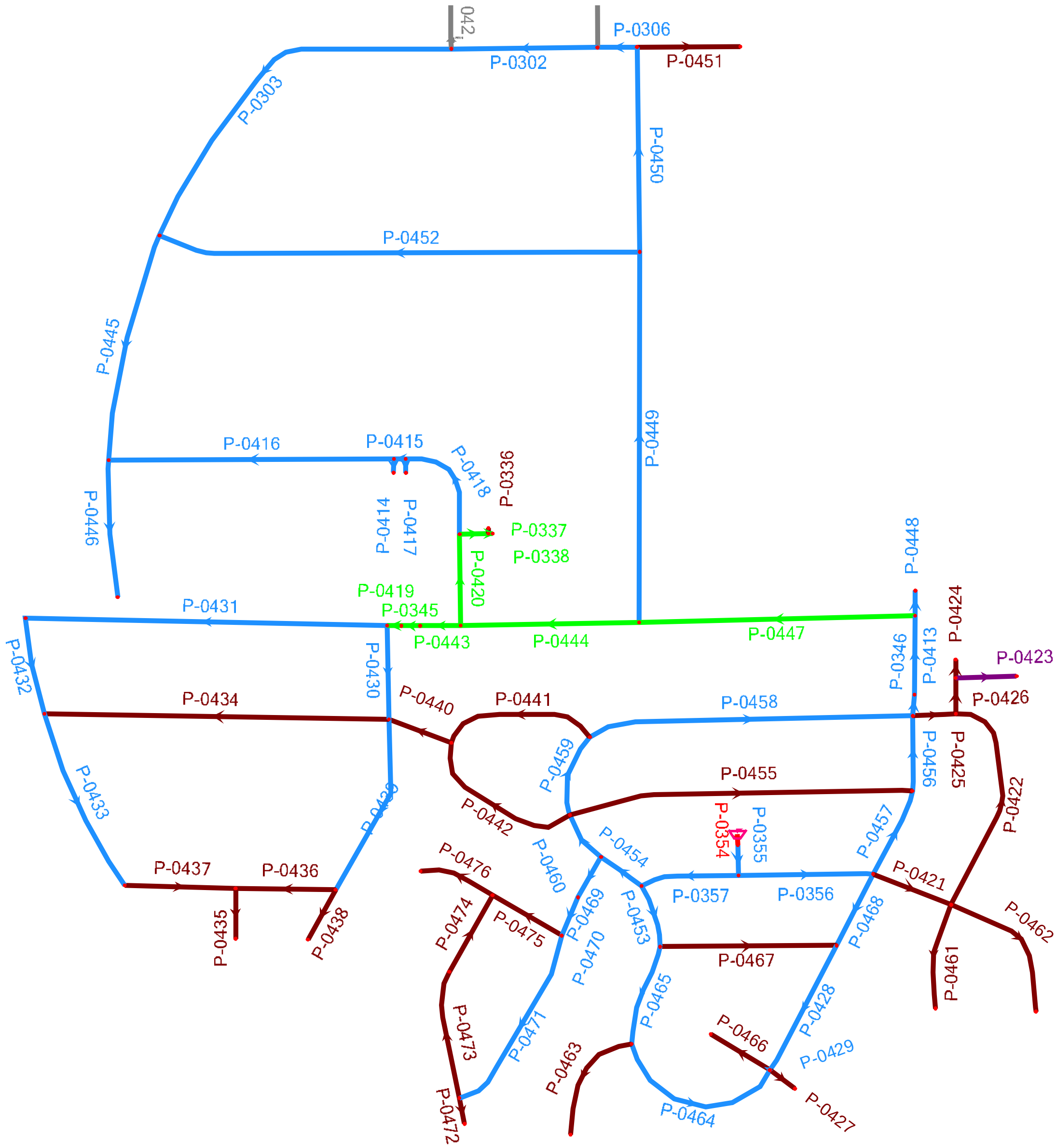


Rio Vista Network Maps

Scenario: Base



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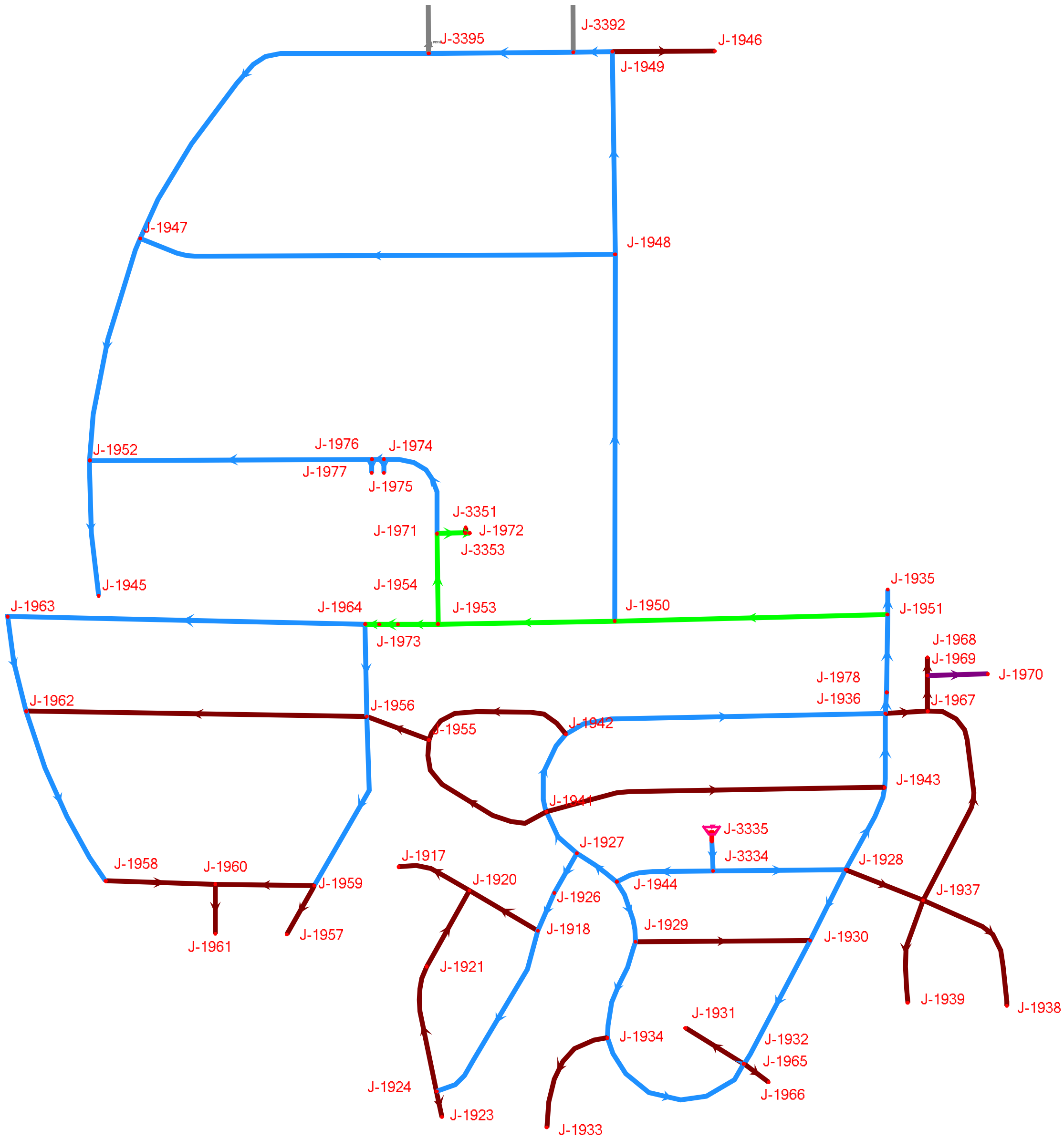

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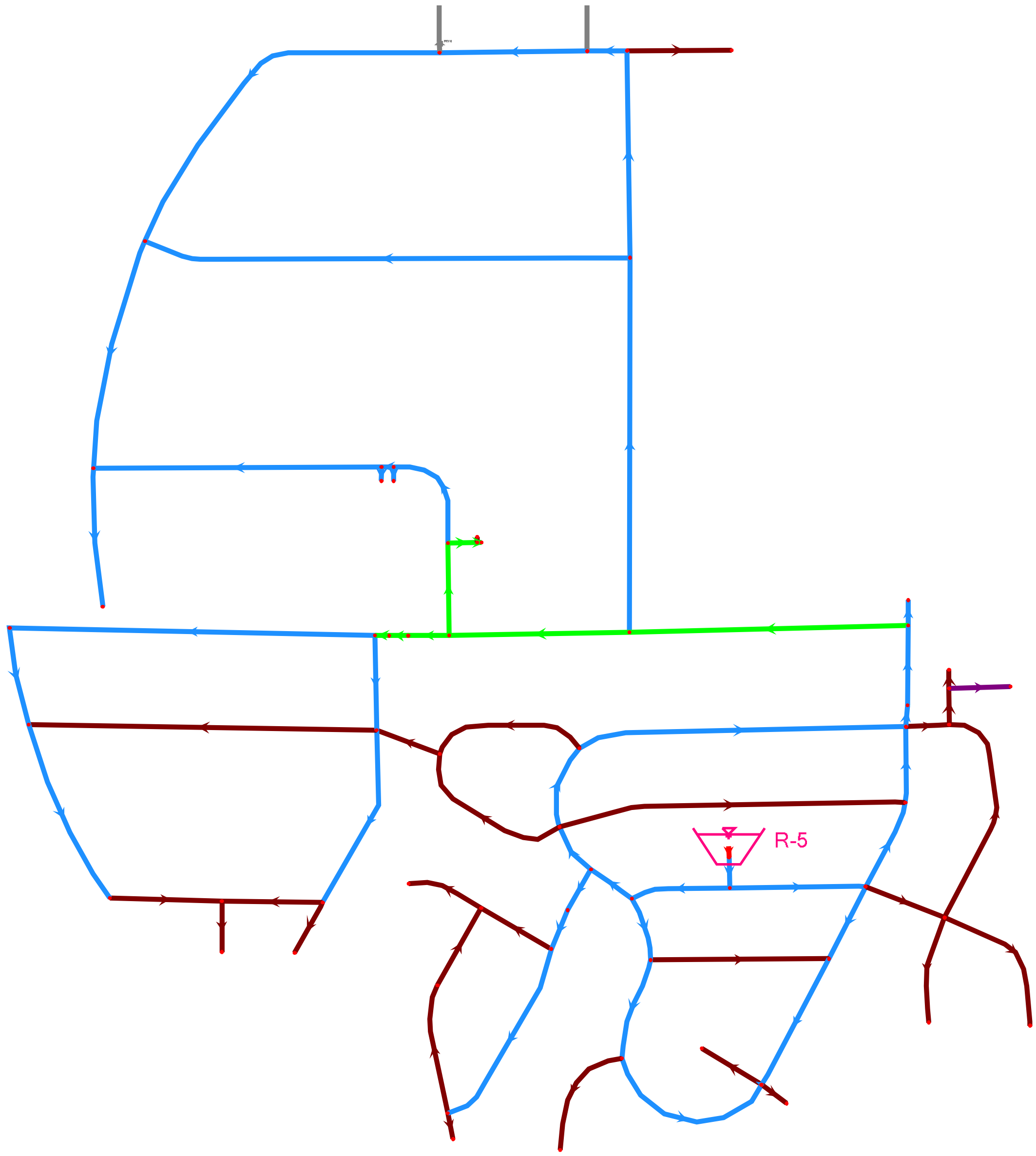


APPENDIX D:
THE SMALL-AREA POPULATION PROJECTION METHODOLOGY OF THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

The Small-Area Population Projection Methodology of The Southwest Florida Water Management District

Prepared for

Southwest Florida Water Management District
Planning Department

Contract 07CC0000027

Prepared by

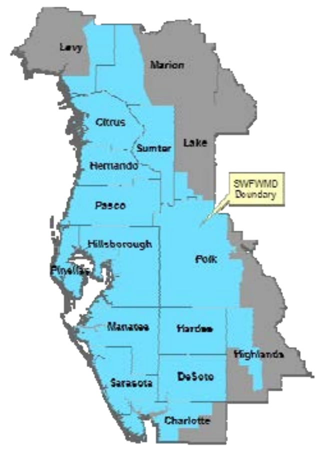
GIS Associates, Inc.
806 NW 16th Avenue, Suite A
Gainesville, Florida 32601

September 29, 2008

The Small-Area Population Projection Methodology of The Southwest Florida Water Management District

I. INTRODUCTION

Figure 1. SWFWMD Boundary



The purpose of this document is to describe the small-area population projection methodologies used by the Southwest Florida River Water Management District (SWFWMD). The District contracted with GIS Associates, Inc., to provide small-area population projections for the 16 counties entirely or partly within the SWFWMD.

The population projections made by the University of Florida's Bureau of Economic and Business Research (BEBR) are generally accepted as the standard throughout the State of Florida. However, these projections are made at the county level only. Accurately projecting future water demand requires more spatially precise data than the county level BEBR projections. These projections are based on census block-level data, which is the smallest level of census geography. They are then disaggregated to land parcel data, which is the smallest area of geography possible for population studies.

II. MODEL OVERVIEW

Figure 2. Centroids of parcels projected to develop between 2005 and 2030

This geographic information system (GIS) based projection model projects future permanent population growth at the census block level, distributes that growth to parcels within each block, and normalizes those projections to BEBR county projections. First, a county-wide build-out model is developed from the base parcel dataset. Current permanent population is estimated and then the maximum population a county can grow is determined at the parcel level. Areas which cannot physically or lawfully sustain residential development (built-out areas, water bodies, public lands, commercial areas, etc.) are excluded from the county-wide build-out model. Conversely, the model identifies areas where growth is more likely to occur based on proximity to existing infrastructure.

Next, population growth is modeled between the current estimated population and the build-out population. Projections are based on a combination of historic growth trends and spatial constraints and influences, which restrict or direct growth.

Population growth calculations are limited by BEBR's projected growth for a particular year. BEBR develops three projections for each county: "low", "medium" and "high". The medium projection is BEBR's forecast, or most likely growth scenario. For this reason, the District's small area projections are controlled by BEBR's medium projection for each county.

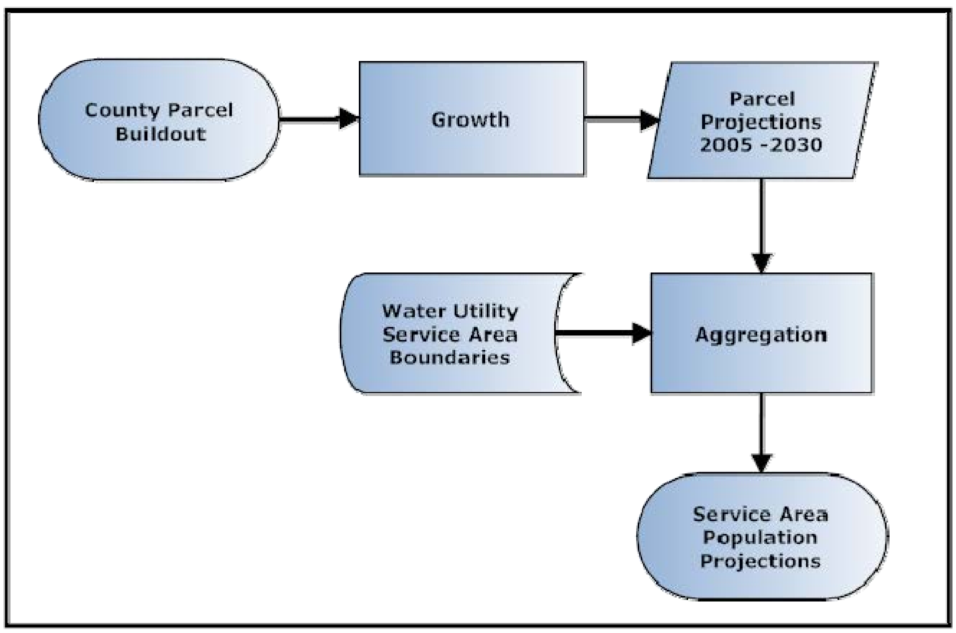
The base year for the model is 2005. Projections were made through the year 2030 in the following five-year increments:

- 2005 through 2010
- 2010 through 2015
- 2015 through 2020
- 2020 through 2025
- 2025 through 2030

All estimates and projections coincide with April 1st of the year of the estimation or projection.

Finally, the parcel level projections are easily aggregated by any set of boundaries desired (utility service areas, municipalities, watersheds, etc.). For SWFWMD planning efforts, parcels projections are summarized by Water Utility Retail Service Areas that the District maintains as a GIS layer. The resulting tables were distributed by the SWFWMD Planning Department to utilities throughout the District in spreadsheet format.

Figure 3. Population Model Process Flowchart



III. COUNTY-WIDE BUILD-OUT MODELS

The County-wide Build-out Models are composed of multiple GIS data elements. Each model is based on the county's property appraiser GIS parcel database, including the associated tax roll information. Other elements incorporated into each build-out model include the 2000 US Census block data, SWFWMD wetland data, local government future land use maps (FLU), and Development of Regional Impact (DRI) plans for the county of interest.

A. Parcels

GIS parcel layers and county tax roll databases were obtained from each county's property appraiser office. Parcel geometry was checked for irregular topology, particularly overlaps and fragments. Parcel tables were checked for errors, particularly non-unique parcel identifiers and missing values. Required tax roll table fields include actual year built, Florida Department of Revenue (DOR) land use code, and the total number of existing residential units for each unique parcel. Table 1 lists the information extracted from the parcel data and used in the build-out model. In cases where values or even fields were missing, other information was extrapolated and used as a surrogate. For example, when dwelling unit information was absent, records with the same subdivision header were tallied and applied to the existing dwelling unit count of a multi-family residential parcel.

Figure 4. Property Parcel Boundaries

Table 1. Parcel database fields required for the County-wide Build-out Models

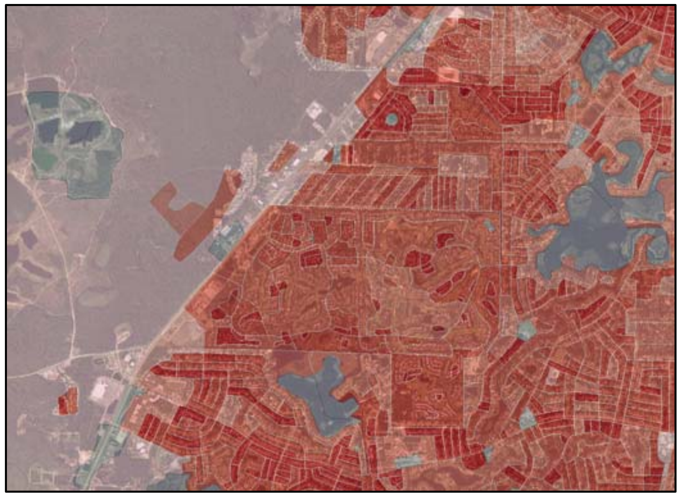
Attribute field	Build-out model use
Parcel Geometry	Area (Acreage)
DOR Use Code	Residential land use type
Multiple dwellings	Dwelling unit density per parcel
Actual Year Built	Year parcel was developed

B. 2000 US Census Block Data

Some of the essential attribute information contained in the County-wide Build-out Models was derived from the 2000 US Census data at the Census Block level of geography. Census blocks are the smallest geographic unit for which the Census Bureau tabulates data (as small as a city block in urban areas), but these entities are almost always larger than parcels. Existing and projected population occurring in parcels within a Census block are assigned the average values of that block from the 2000 Census values. This Census block data utilized by the model to translate parcels to population includes total population, the average housing unit vacancy ratio, and average household size.

In cases where property appraiser data were missing or incomplete, block-level Census data were used. For example, Census block data includes the number of mobile homes within a block. The number of mobile homes within parcels identified as mobile home parks can then be estimated using block-level data.

Figure 5. Census Block data shaded by 2000 population density



C. <u>2000 U.S. Census Place Data</u>

Each parcel in the county-wide build-out models was also attributed with the Incorporated Place or Census Designated Place (CDP) in which it is located. Incorporated Place includes cities or towns, and the CDP includes "a densely settled concentration of population that is not within an incorporated place, but is locally identified by a name" (U.S. Census Bureau Web Site 2007: p. http://www.census.gov/acs/www/UseData/geo.htm). These are from the U.S. Census Bureau, and they are used by the models primarily to aggregate parcels for density calculations by future land use code. (See the Average Density section below). They can also be used for quality assurance checks against population estimates from BEBR, as those are available by both County and Incorporated Place.

D. <u>Water Management District Boundaries</u>

Each parcel in the County-wide Build-out Models was also attributed with Water Management District boundaries (from SWFWMD), which enable the county-wide models for any counties split between two or more Districts to be summarized by District.

E. <u>Wetlands</u>

Wetlands play a large role in modeling a county's build-out. SWFWMD, along with the Florida Department of Environmental Protection (DEP), has been given regulatory powers over private and public lands and is required by Chapter 373, Florida Statutes (F.S.), to protect water resources of the state. However, SWFWMD and DEP, under the auspices of the US Army Corps of Engineers, have a permit process by which wetlands can be destroyed for development. The county-wide build-out models consider the impact wetlands have on residential development.

SWFWMD maintains detailed GIS databases of wetland areas and wetland mitigation areas within its boundaries. These databases contains the location and spatial extent of the wetlands and wetland mitigation areas, as well as the specific types of wetlands as defined by the SWFWMD land use and land cover classification system. Certain wetland types were identified that would be difficult and expensive to convert to residential development. These areas were identified in the SWFWMD wetland database and applied to the build-out model. The wetland types are listed in Table 2.

Table 2. SWFWMD wetland land cover codes and descriptions used in the County-wide Build-out Models

Code	Description
5100	Streams and waterways
5200	Lakes
5250	Marshy Lakes
5300	Reservoirs
5400	Bays and estuaries
5600	Slough waters
6110	Wetland Hardwood Forests
6120	Mangrove swamp
6170	Mixed wetland hardwoods
6180	Cabbage palm wetland
6181	Cabbage palm hammock
6200	Wetland Coniferous Forest
6210	Cypress
6220	Pond pine
6250	Hydric pine flatwoods
6300	Wetland Forested Mixed
6410	Freshwater marshes
6420	Saltwater marshes
6430	Wet prairies
6440	Emergent aquatic vegetation
6460	Mixed scrub-shrub wetland
6500	Non-vegetated Wetland

Using GIS techniques, wetland polygons exceeding one acre were removed from the net buildable area for parcels in the County-wide Build-out Models.

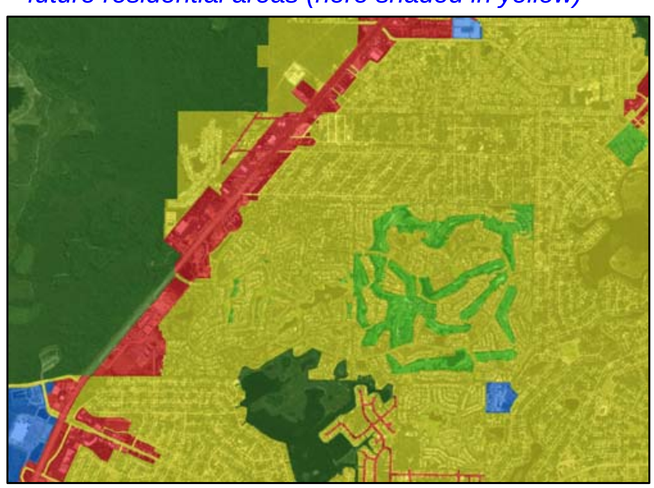
There were exceptions to this procedure. In some cases, parcels with little or no developable area were already developed, thus the wetland calculation was modified. In other cases, mapping inaccuracies of the wetlands map and/or property parcels led to modifications to the wetland calculations.

F. <u>Future Land Use</u>

Future Land Use (FLU) maps are essential elements of each county's build-out model, as they help guide where and at what density residential development will occur within a county. FLU maps are a part of the Local Government Comprehensive Plans required by Chapter 163, Part II, Florida Statutes. They are typically developed by the local government's planning department, or, in some cases, a regional planning council with guidance from the local government. The latest available FLU map was obtained and applied to the build-out model.

FLU classifications for residential land uses are assigned maximum dwelling unit densities (per acre) or density ranges. These ranges are intended to guide the type and density of development. However, development does not always occur at FLU guided densities. For example, a FLU classification targeted at five dwelling units per acre may only develop at 2.6 dwelling units per acre. For this reason, the build-out model reflects the 10-year average densities of the specific incorporated place or CDP instead of the FLU maximum density. The assumption is that densities over the last ten years will be a good indicator of future densities.

Figure 6. Future Land Use (FLU) helps identify future residential areas (here shaded in yellow)



As an exception, some FLU and Census place combinations have an insufficient sample size to create average density values. In these cases, the countywide average density was applied for that FLU class. Vacant or open parcels less than one acre are considered single family residential and calculated with a population of one dwelling unit.

Each parcel feature in the build-out model received a FLU designation. In places where features overlapped multiple FLU areas, the feature was assigned the FLU class its center fell within. Build-out population was only modeled for residential FLU types. Table 3 shows which FLU classes were assigned residential densities in the build-out models.

Table 3. Generalized Future Land Use (FLU) categories allowing projected residential development by Model

Future Land Use Class (Generalized)	Residential Development Allowed by Model?
Agricultural	Yes
Low Density Residential	Yes
Medium Density Residential	Yes
High Density Residential	Yes
Mixed Use	Yes
Commercial	No
Recreation / Open Space	No
Conservation / Preservation	No
Industrial	No
Institutional	No
Right of Way	No
Water	No

G. Build-out Density Calculation

For each county, the above data layers were overlaid with the parcel layer to assign attributes to the parcels and make the build-out calculations. For the purposes of this model, the build-out population represents the total permanent residential population (existing and future) that can inhabit a parcel. Permanent population is calculated by multiplying the parcel-level dwelling units by the Census block's average persons per dwelling unit, and then multiplying that result by the Census block's average housing unit occupancy.

For areas developed after the 2000 Census and where the 2000 average persons per dwelling unit may not represent the new development, the county's average persons per dwelling unit was used. An example of this is a largely undeveloped Census block in 2000 that had perhaps one or two homes with an average of 4.8 persons per dwelling unit. If after 2000, a large multi-family development was built, the block-level average persons per dwelling unit would likely be too high. For this reason, the county's average persons per dwelling unit was used instead of the Census block-based numbers.

Figure 7. Example of Build-out Density Model shaded by dwelling units per acre

Table 4 shows the existing build-out population calculations for a hypothetical block composed of six single family units, two duplexes and an apartment complex.

Table 4. The build-out calculations of a hypothetical Census block

Residential Land Use	Dwelling Units	Average Persons Per Dwelling Unit	Average Dwelling Unit Occupancy	Parcel-level Build-out Population
Single Family	1	2.41	0.87	2.10
Single Family	1	2.41	0.87	2.10
Single Family	1	2.41	0.87	2.10
Single Family	1	2.41	0.87	2.10
Single Family	1	2.41	0.87	2.10
Single Family	1	2.41	0.87	2.10
Multi-Family	2	2.41	0.87	4.19
Multi-Family	2	2.41	0.87	4.19
Multi-Family	118	2.41	0.87	247.41
BLOCK TOTAL	**128**	**2.41**	**0.87**	**268.38**

H. Developments of Regional Impact

The final step in the development of the County-wide Build-out Models is adjusting build-out densities to jibe with approved Developments of Regional Impact (DRI), or other large development plans (where available). DRI plans are another component of Florida's growth management legislation required by Chapter 380, F.S. DRIs are defined by Section 380.06(1), F.S., as "any development that, because of its character, magnitude or location, would have a substantial effect on the health, safety or welfare of citizens in more than one county." The state annually updates population-based thresholds by county to determine when a development must undergo the DRI review process. For residential DRIs, dwelling unit thresholds range from 250 units (in counties with fewer than 25,000 people) to 3,000 units (in counties with more than 500,000 people). A DRI plan delineates the boundaries of a DRI, the number of dwelling units within the boundaries, and the projected timing of when these units will be built. Although DRIs often do not develop as originally planned by the developer, the total number of units planned (regardless of timing) is likely to be a more accurate control for the build-out of that DRI than the average historic densities. Therefore, in each of the build-out models, parcel features that are within a DRI are attributed with the name of the DRI. Parcels within a particular DRI are then controlled to the DRI development plan and the build-out population for that area is recalculated.

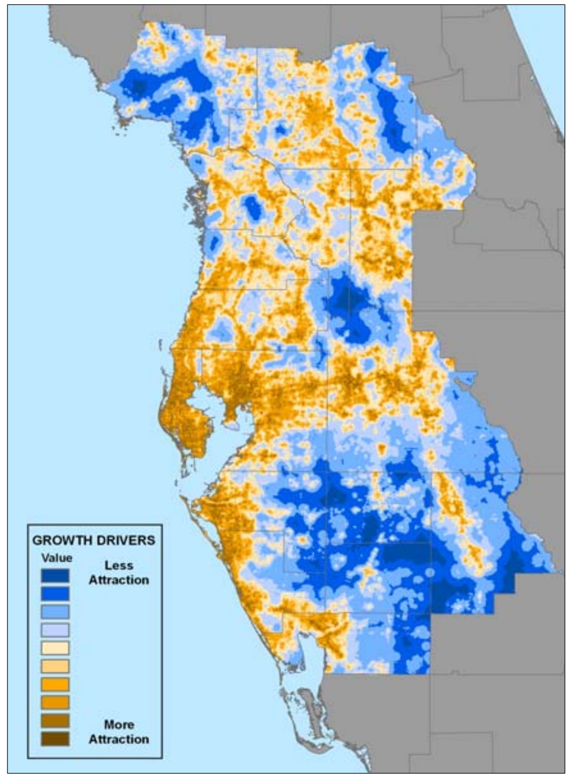
Figure 8. Example of DRI data used by County-wide Build-out Models

IV. REGIONAL GROWTH DRIVERS MODEL

The Regional Growth Drivers Model is a raster (cell-based) dataset representing development potential. This model is a continuous surface of 10-meter cells containing relative values of 1-10, with 10 having the highest development potential and 1 having the lowest development potential. It influences the Population Projection Model by factoring in the attraction of certain spatial features, or growth drivers, have on development. These drivers are defined from transportation features and land use/cover types including:

1. Distance from roads grouped by 4 levels of use (with each road type modeled separately, additionally, one of the levels of use included limited access interchanges),
2. Distance from existing residential development with a year built before 1995,
3. Distance from to existing commercial centers (selected from parcels with commercial land use codes deemed attractors to residential growth),
4. Distance from to coastal and inland waters, and the
5. Distance from active Developments of Regional Impact and Planned Unit Developments.

Figure 9. Regional Growth Drivers Model



The data layers included in the Growth Influence Surface are listed in Table 5:

Table 5. GIS Data Layers in Regional Growth Drivers Model and their Data Sources

Data Layer	Data Source
Distance from Roads and Limited Access Road Interchanges	Florida Department of Transportation (FDOT) Road Characteristics Inventory (RCI) Database
Distance from Existing Residential Development	County Property Appraiser Parcel Data
Distance from Existing Commercial Centers	County Property Appraiser Parcel Data
Distance from Coastal and Inland Waters	SJRWMD Land Cover Data
Distance from active DRIs and PUDs	GIS Associates Compiled Data

Each of the drivers listed in Table 5 were used as independent variables in a logistic regression equation. Dependent variables included existing residential built after 1994 as the measure of "presence", and large undeveloped vacant parcels outside of DRIs or PUDs were used to measure "absence". The resulting equation could then be applied back to each of the regional grids resulting in a single regional grid with values of 0 through 1. These were scaled up to a range of 0 through 10 in the resulting grid, for which a value of 0 represented the lowest relative likelihood of development, and a value or 10 represented the highest relative likelihood of development.

This seamless, “regional” model covers all the counties all or partially within the Southwest Florida Water Management District, plus a one-county buffer to eliminate “edge effects”. In this case, the edge effects refer to the presence or absence of growth drivers outside the District that could influence growth within the District. This model was then used by the Population Projection Model to rank parcels in undeveloped Census blocks based on their development potential.

V. POPULATION PROJECTION MODEL

The Population Projection Model integrates the County-wide Build-out Models and the Regional Growth Drivers Model with historic growth trends and county-level population controls from BEBR.

A. Historic Growth Trends

The historic growth trends are based on historic population estimates at the 2000 Census block level of geography. The population estimates for 1990 and 2000 are from the U.S. Census Bureau, and a 2005 estimate is derived from property parcel data summarized by Census block. These estimates are used to produce six projection calculations using four different methods. The minimum and maximum calculations are discarded, and the remaining four are averaged.

The four methods utilized by the model include: Linear, Exponential, Share of Growth, and Shift Share. The Linear and Exponential techniques employ a “bottom-up” approach, extrapolating the historic growth trends of each census block with no consideration for the county’s overall growth. The Share of Growth and Shift Share techniques employ a “top-down” approach, allocating a portion of the total projected county growth to each census block based on that census block’s percentage of county growth over the historical period. Each of the four methods is a good predictor of growth in different situations and growth patterns, so an average of the four was the best way to avoid the largest possible errors resulting from the least appropriate techniques for each census block within the 18 county area (Sipe and Hopkins 1984: p. 23). This methodology is patterned after that used by BEBR, and is well suited for small area population projections. The details of the methods are as follows:

1. Linear Projection Method. The Linear Projection Method assumes that future population change for each census block will be the same as over the historic period (Sipe and Hopkins 1984: p. 25). Two linear growth rate calculations were made, one from 1990 through 2005, and one from 2000 through 2005. In the two Linear methods (LIN), five-year population growth was calculated using the following formulas (using the 2005–2010 growth projections as an example):

$$LIN_1 = \frac{(BlockPop2005 - BlockPop1990)}{15} * 5$$

$$LIN_2 = BlockPop2005 - BlockPop2000$$

2. Exponential Projection Method. The Exponential Projection Method assumes that population will continue to change at the same annual growth rate as over the historic period. In the Exponential method (EXP), five-year population growth was calculated using the following formula (using the 2005–2010 growth projections as an example):

$$EXP = (BlockPop2005 * e^{5r}) - BlockPop2005$$

$$where,$$

$$r = \frac{\ln \frac{BlockPop2005}{BlockPop1990}}{15}$$

3. Share of Growth Projection Method. The Share of Growth Projection Method assumes that each census block's percentage of the county's total growth will be the same as over the historic period (Sipe and Hopkins 1984: p. 23). Two share of growth rate calculations were made, one from 1990 through 2005, and one from 2000 through 2005. In the two Share of Growth methods (SOG), five-year population growth was calculated using the following formulas (using the 2005–2010 growth projections as an example):

$$SOG_1 = \frac{(BlockPop2005 - BlockPop1990)}{(CountyPop2005 - CountyPop1990)} * (CountyPop2010 - CountyPop2005)$$

$$SOG_2 = \frac{(BlockPop2005 - BlockPop2000)}{(CountyPop2005 - CountyPop2000)} * (CountyPop2010 - CountyPop2005)$$

4. Shift Share Projection Method. The Shift Share Projection Method assumes that each census block's percentage of the county's total annual growth will change by the same annual amount as over the historic period (Sipe and Hopkins 1984: p. 25). In the Shift Share method (SSH), five-year population growth was calculated with the following formula (using the 2005–2010 growth projection as an example):

$$\begin{aligned} SSH &= \\ &\frac{(BlockPop2005 - BlockPop2000)}{(CountyPop2005 - CountyPop2000)} * (CountyPop2010 - CountyPop2005) \\ &+ \\ &\frac{(BlockPop2005 - BlockPop2000)}{(CountyPop2005 - CountyPop2000)} * (CountyPop2010 - CountyPop2005) \\ &- \\ &\frac{(BlockPop2005 - BlockPop1990)}{(CountyPop2005 - CountyPop1990)} * (CountyPop2010 - CountyPop2005) \end{aligned}$$

By their definitions, the "Share of Growth" and the "Shift Share" Methods will project census block population that will add up to the BEBR projected county totals.

5. Average of the Projection Extrapolations. The minimum and maximum of the six extrapolations are dropped to reduce errors resulting from the "worst" techniques for each census block. The four remaining extrapolations are then averaged to account for the considerable variation in growth rates and patterns over all of the census blocks within the 18 county area (Sipe and Hopkins 1984: p. 26). All four remaining methods are weighted equally, so the average is calculated with the basic formula:

$$AVG = \frac{(LIN_1 + LIN_2 + EXP + SOG_1 + SOG_2 + SSH - MIN - MAX)}{4}$$

where,

MIN = method resulting in the minimum growth

and,

MAX = method resulting in the maximum growth

The averaging of the four remaining projection methods reduces the errors associated with using various techniques for each census block.

B. Growth Calculation Methodology

The methodology for calculating growth within the Population Model includes the following steps:

1. Apply Census block-level average historical growth rate to parcels within that block.
2. Check growth projections against build-out population, and reduce any projections exceeding build-out to the build-out numbers.
3. After projecting growth for all Census blocks within the particular county, summarize the resulting growth and compare against the County-wide BEBR target growth.
    a. If the Model's projections exceed the BEBR target (which is unlikely), reduce the projected growth for all blocks by the percentage that the projections exceeded the BEBR target, and go on to the next time increment.
    b. If the Model's projections are less than the BEBR target (which is typical due to high growth areas building out), continue growing the county using the Growth Drivers.
4. Select parcels in undeveloped Census blocks with the highest Growth Driver value and develop them. (Note that most parcels are projected to completely build out in this step, which represents a five-year interval. However, some large parcels may require two or more five-year intervals to build out.) Summarize growth and check against build-out. Continue this process until the county growth target is reached.

VI. NON-PERMANENT POPULATION PROJECTIONS

In addition to the permanent population projections generated by the Population Projection Model, projections of non-permanent population were also made. Those projections include peak seasonal population, functionalized seasonal population, tourist population and net commuter population. The methods derived by SWFWMD and implemented by GIS Associates for projecting those population types are described in this section. For a more detailed explanation of these methods, see SWFWMD's SWUCA II Population Guidelines.

A. Peak Population

Seasonal population is estimated using a combination of 2000 Census data (at the Zip Code Tabulation Area or ZCTA level) and hospital admissions data. Average 1999 - 2001 emergency room admissions data was utilized for a population cohort typical of seasonal residents (between the ages of 45 and 74).

A "Seasonal Resident Ratio" was calculated by ZCTA to estimate the proportion of peak (including seasonal) to permanent population. This 2000 Census era ratio is held constant over time when applied to future projections of population, but it will be updated with each **decennial Census**. The ratio was derived using the following generalized steps:

1. Subtract total 1999 – 2001 total third quarter (Q3, or July, August and September) hospital admissions from first quarter (Q1, or January, February and March) admissions.
2. Calculate the average annual difference between Q1 and Q3 by dividing above result by three.
3. Calculate a seasonal population estimate for ZCTA by dividing above difference by the general population's probability of being admitted to the emergency room.
4. Calculate the Seasonal Resident Ratio by adding the seasonal population to the permanent population and dividing that total by the permanent population.

This ratio can then be applied to future projections of permanent population to derive peak population projections.

B. Functional Population

The functional population is the peak seasonal resident population adjusted downward to account for the percentage of the year seasonal residents typically reside elsewhere, and the lack of indoor water use during that time. It was calculated using the following generalized steps:

1. Determine the appropriate proportion of the year seasonal residents spend in Florida. This varies from beach destination counties (44.2%) to non-beach destination counties (56.7%). These values were provided by SWFWMD, having been derived from a separate study. *Should we reference this, Jay? Can you provide a citation for this?*
2. Develop a seasonal resident adjustment based on average per capita water use.
   a. The five-year Districtwide average per capita use is 132 gallons per person per day, and 69.3 is estimated indoor per capita use.
   b. The adjustment factor is calculated using the following equation for "beach destination" counties (Charlotte, Manatee, Pinellas and Sarasota):
   ((0.442 x 132 gpd) + ((1 – 0.442) x (132 gpd – 69.3 gpd) / 132 gpd = 0.707
   c. The adjustment factor is calculated using the following equation for "non-beach destination counties":
   ((0.567 x 132 gpd) + ((1 – 0.567) x (132 gpd – 69.3 gpd) / 132 gpd = 0.773
3. Calculate "functionalized" seasonal population by multiplying the seasonal population by the appropriate seasonal resident adjustment factor for the particular county (0.707 or 0.773).
4. Calculate total functional population by adding the functionalized seasonal population to the permanent population.
5. Calculate ratio of census era functional population to permanent population.
6. Apply above ratio to future projections of permanent population to derive functional population projections.

C. <u>Tourist Population</u>

The tourist population projections were based on 10 years (1996 – 2005) of county level lodging room data from the Florida Department of Business and Professional Regulation (DBPR). This data was used to extrapolate a linear trend for the increase in rooms by county. This linear trend was then applied to existing lodging facility locations. This projection on future rooms was then converted to tourist population by applying county level average unit occupancy and party size ratios. The ratios were provided by SWFWMD.

D. <u>Net Commuter Population</u>

The net commuter population projections were based on net commuter data from the 2000 Census at the tract level. A census era ratio was developed by tract of net commuters to permanent population. This ratio was then applied to future projections of permanent population to derive projections for net commuter population. That population was then "functionalized" with the following ratios:

1. 8 / 24 (typical working hours per day)
2. 5 / 7 (typical working days per week)

By applying both of these ratios to the net commuter population, the resulting functional net commuter population is 23.8% of the actual net commuter population. This functional number better reflects the water use that is expected for net commuters.

VII. SUMMARIZE BY UTILITY SERVICE AREAS

The parcel-level results are then summarized by water utility retail service area boundaries for all utilities District-wide that average more than 0.1 million gallons per day (mgd) of total water use. These boundaries, maintained by the District, are overlaid with each county's parcel-level results, and each parcel within a service area is assigned a unique identifier for that service area. The projected population can then be summarized by that identifier and joined to the District's potable service area database to produce tabular or GIS output.

<u>Spatial Incongruity of Boundaries</u>

Due to mapping errors, the service area boundaries do often bisect parcel boundaries. However, the error associated with this spatial incongruity at the parcel level is inconsequential. (This is one of the benefits of disaggregating Census block-level data to the parcel level.) Parcels are deemed to be within a given service area if its center point (or "centroids") falls inside the service area boundary. The percentage of parcels erroneously attributed or excluded from a service area by this process is insignificant.

Figure 10. Using parcel centroids (yellow points) reduces errors in summarizing parcels (yellow) to utility service areas (blue).

VIII. FINAL RESULTS

The final results are provided in tabular format (Microsoft Excel spreadsheet) and GIS format (ESRI's file based geodatabase). The utility-level spreadsheets were distributed by District staff to utilities for comparison with their own and/or other projections for their service areas. If there are discrepancies, the spatial results (each county's parcel-level population layer) are useful in that they graphically depict projected patterns of future growth. The spatial data is available for download from GIS Associates' server via File Transfer Protocol (FTP).

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APPENDIX E: WATER SYSTEM CAPITAL IMPROVEMENTS COST ESTIMATES

ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON UTILITY CAPITAL IMPROVEMENTS							
ITEM	**PROJECT**	**DESCRIPTION OF WORK**	**AMOUNT**	**2013**	**2014**	**2015**	**Beyond**
Water System Improvements							
1	New Generator for Rainbow Springs WTP	Replace Rainbow Springs WTP Backup Generator (Use Juliette Falls and Replace)	$60,000	$60,000	-		-
2	Water Meter Replacement	Replace Existing Meters with Radio Read Meters	$754,000	$251,333	$251,333	$251,333	
3	Rainbow Springs Fire Hydrant Program	Construct 96 Fire Hydrants (some with WM extensions) in Rainbow Springs	$1,731,000	-	-	-	$1,731,000
4	Watermain Replacement Program	Comprehensive Line Replacement Program for AC, Pit Cast, and Ductile Pipes	$150,000 / year	$150,000	$150,000	$150,000	$150,000
5	Rainbow Springs Service Line Replacement	As Needed Replacement of Poly-Butylene Service Lines in Rainbow Springs	$92,400				
6	Rainbow Springs/City of Dunnellon Interconnect	Construct 12" Watermain to Connect RBS and City Systems (w/ Chatmire Extension)	$501,000	$288,200	$212,800	-	-
7	City of Dunnellon CRA Fire Hydrant Program	Construct 21 Fire Hydrants (some with WM extensions) in City Limits	$546,000	$109,200	$109,200	$109,200	$218,400
8	CR 484 12" Watermain Extension	Construct 12" Watermain to connect Dunnellon Airport	$1,480,000	$1,480,000	-	-	-
9	New Water Treatment Plant - Phase 1	Design and Construct New WTP East of City	$1,050,000	$85,000	$965,000	-	-
10	E. McKinney Interconnect	Construct 12" Watermain Underneath CSX Railroad	$139,000	$139,000	-	-	-
11	Pennsylvania Ave. Watermain Replacement	Construct 8" Watermain to Replace Existing 8" Watermain	$322,000	-	$161,000	$161,000	
12	Powell Road 6" Watermain Extension	Construct 6" Watermain East of Illinois Street	$39,000	-	-	$39,000	-
13	West McKinney Watermain Extension	Extend Existing 6" Watermain to West and South to Connect uknown Road	$73,000	-	-	$73,000	-
14	South Ohio Street 6" WM Extension	Extend Existing 6" Watermain from Datesman Ave. to Hwy 40	$74,000	-	$74,000	-	-
15	Brooks Street Watermain Extension	Construct 6" Watermain Underneath CSX Railroad	$121,000	-	-	$121,000	-
16	SR 41 Watermain Replacement	Construct 12" Replacement Watermain along SR 41 and Illinois Street	$227,000	$151,333	$75,667	-	-
17	Well #1 Chlorine Contact Time	Improvements Required to Correct Chlorine Contact Time Isssue at City WTP	$50,000	$50,000	-	-	-
18	Isolation Valve Program	Construct Valves to Enable Isolation of Existing Fire Hydrants (4 per year)	$28,000.00 / year	$28,000	$28,000	$28,000	$28,000
19	Rolling Hills Road 6" to 8" WM Upgrade	Construct 8" Watermain along Rolling Hills Road North of Hwy. 40	$155,000	-	-	-	$155,000
20	Hytovick Watermain Relocation	Relocate 6" Watermain currently on Hytovick Property	$114,000	$38,000	$76,000	-	-
21	The Granada Watermain Extension	Extend 6" Watermain on the Granada to Palmetto Way	$97,000	-	$97,000	-	-
22	Rio Vista / Rainbow Springs Interconnect	Construct 8" Watermain to Connect Rio Vista and Rainbow Springs	$65,000	$65,000	-	-	-
Sanitary Sewer Improvements							
1	Rainbow Springs Lift Station Improvements	Safety and Operational Improvements for Lift Stations in Rainbow Springs	$500,300	$166,767	$166,767	$166,767	-
2	Infiltration and Inflow Study	Investigation into I&I Through Testing and Video	$67,500	-	$33,750	$33,750	-
3	Infiltration and Inflow Repairs	Repair damage found by Infiltration and Inflow Study	Annual TBD	Annual TBD	Annual TBD	Annual TBD	Annual TBD
4	Rio Vista WWTF Decommissioning	FM Construction, Lift Station Retrofit, Repair I&I sections, and Plant Decommission	$803,000	$803,000	-	-	-
System-wide Improvements							
1	S.C.A.D.A System Phase 1	SCADA system for Water Treatment Plants	$206,000	$206,000	-	-	-
2	S.C.A.D.A System Phase 2	SCADA system for Wastewater Treatment Plants	$160,000	$160,000	-	-	-
3	S.C.A.D.A System Phase 3	SCADA system for Lift Stations	$370,000	-	$92,500	$92,500	$185,000
Grand Total			**$9,797,200.00**	**$ 4,230,833.33**	**$ 2,493,016.67**	**$ 1,225,550.00**	**$2,467,400**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON WATER TREATMENT PLANT GENERATOR IMPROVEMENTS					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Mobilization	1	LS	5,000.00	$ 5,000.00
2	Relocate/Install Juliette Falls Generator at Rainbow Springs WTP	1	LS	15,000.00	$ 15,000.00
3	Juliette Falls Generator Replacement and Installation	1	EA	20,500.00	$ 20,500.00
				SUBTOTAL	**$ 40,500.00**
	SUMMARY				
CONSTRUCTION HARD COSTS					**$ 40,500.00**
ENGINEERING DESIGN AND PERMITTING					**$ 5,000.00**
SURVEY					**$ 1,500.00**
BID AND CONSTRUCTION ADMINISTRATION					**$ 3,000.00**
SUBTOTAL					**$ 50,000.00**
20% CONTINGENCY					**$ 10,000.00**
GRAND TOTAL					**$ 60,000.00**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON WATER METER IMPROVEMENTS					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Replace Water Meters with Radio Read Meters	1	LS	628,000.00	$ 628,000.00
				SUBTOTAL	**$ 628,000.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 628,000.00**
SUBTOTAL					**$ 628,000.00**
20% CONTINGENCY					**$ 125,600.00**
GRAND TOTAL					**$ 753,600.00**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON WATERMAIN REPLACEMENT PROGRAM					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Replacement of AC, Ductile Iron and Pit Cast Pipes	1	LS	150,000.00	$ 150,000.00
				SUBTOTAL	**$ 150,000.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 150,000.00**
GRAND TOTAL					**$ 150,000.00**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON RAINBOW SPRINGS SERVICE LINE REPLACEMENTS					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Replace Poly-Butylene Service Lines	140	LS	550.00	$ 77,000.00
				SUBTOTAL	**$ 77,000.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 77,000.00**
SUBTOTAL					**$ 77,000.00**
20% CONTINGENCY					**$ 15,400.00**
GRAND TOTAL					**$ 92,400.00**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON RAINBOW SPRINGS/CITY OF DUNNELLON WATERMAIN INTERCONNECT						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**		**AMOUNT**
1	Mobilization	1	LS	10,000.00	$	10,000.00
2	Maintenance of Traffic	1	LS	10,000.00	$	10,000.00
3	12" PVC WM	6,100	LF	35.00	$	213,500.00
4	8" PVC WM	500	LF	30.00	$	15,000.00
5	Directional Bore	700	LF	100.00	$	70,000.00
6	12"x8" Wet Tap and Valve	1	EA	5,000.00	$	5,000.00
7	12" Pressure Sustaining Valve	1	EA	15,000.00	$	15,000.00
8	Pavement Restoration	100	SY	25.00	$	2,500.00
				SUBTOTAL	**$**	**341,000.00**
SUMMARY						
CONSTRUCTION HARD COSTS					**$**	**341,000.00**
ENGINEERING DESIGN AND PERMITTING					**$**	**60,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$**	**15,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$**	**20,000.00**
SUBTOTAL					**$**	**436,000.00**
15% CONTINGENCY					**$**	**65,400.00**
GRAND TOTAL					**$**	**501,400.00**

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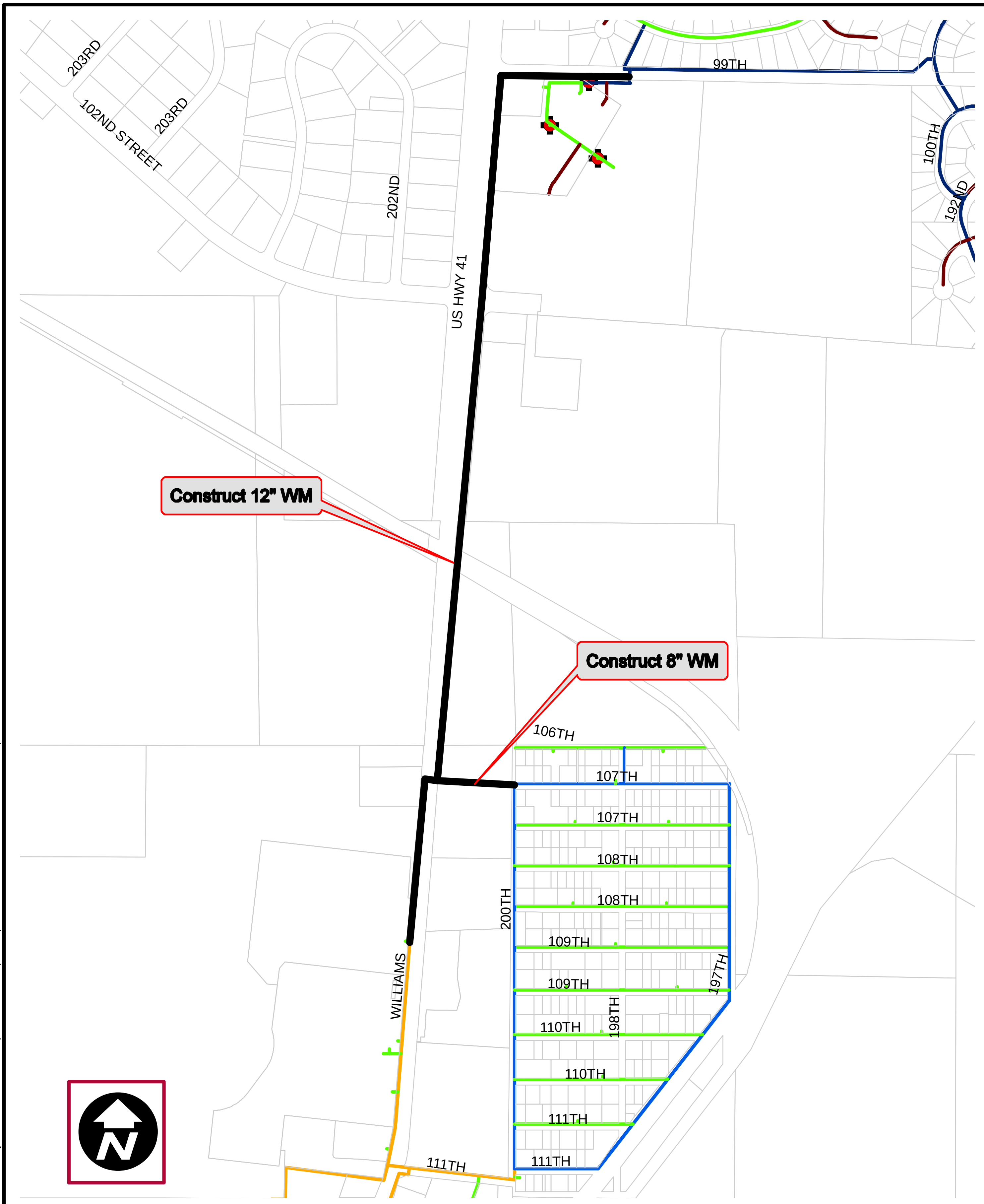

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LOCATION MAP

Capital Improvement Project
Rainbow Springs Interconnect

Scale: As Noted	Project No.: 042382024	JULY 2012	

ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON CITY OF DUNNELLON FIRE HYDRANT IMPROVEMENTS						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
1	Mobilization	1	LS	20,000.00	$	20,000.00
2	Maintenance of Traffic	1	LS	50,000.00	$	50,000.00
3	6" PVC WM	8,000	LF	20.00	$	160,000.00
4	6" Wet Tap and Valve	21	EA	3,500.00	$	73,500.00
5	Fire Hydrant Assembly	21	EA	3,500.00	$	73,500.00
6	Restoration (Sod)	7,433	SY	2.50	$	18,582.50
				SUBTOTAL	**$**	**395,582.50**
SUMMARY						
CONSTRUCTION HARD COSTS					**$**	**395,582.50**
ENGINEERING DESIGN AND PERMITTING					**$**	**39,558.25**
SURVEYING FOR ROUTE CORRIDOR					**$**	**19,779.13**
BID AND CONSTRUCTION ADMINISTRATION					**$**	**19,779.13**
SUBTOTAL					**$**	**474,699.00**
15% CONTINGENCY					**$**	**71,204.85**
GRAND TOTAL					**$**	**545,903.85**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON DUNNELLON AIRPORT UTILITY EXTENSION					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
I. POTABLE WATER					
1	12" PVC Water Main, DR-18, Includes restrained joints	23,000	LF	35.00	$ 805,000.00
2	12" Jack and Bore with 24" Casing Pipe	100	LF	300.00	$ 30,000.00
3	12" Gate Valve and Box	23	EA	2,500.00	$ 57,500.00
4	Future Hydrant Stubouts (Includes tee, pipe, valve, and cap)	24	EA	2,125.00	$ 51,000.00
5	Connect to Water Main at Bridges Road (Includes 12"x12"x6" Te	1	EA	2,000.00	$ 2,000.00
6	12" Pressure Sustaining Valve Vault (Includes valves and fittings	1	EA	20,000.00	$ 20,000.00
7	8" Pressure Sustaining Valve Vault (Includes taps, valves, and fit	1	EA	30,000.00	$ 30,000.00
8	Flow Meter Valve Vault (Includes meter, valves, and fittings)	1	LS	35,000.00	$ 35,000.00
9	2" Air Release Valve, including vault	4	EA	4,000.00	$ 16,000.00
10	Open Cut and Driveway Rehabilitation	4	LS	5,000.00	$ 20,000.00
11	Chlorination, Pressure Testing, and Bacteriological Testing	1	LS	10,000.00	$ 10,000.00
12	Survey (Stakeout & As-Builts)	1	LS	15,000.00	$ 15,000.00
13	Right-of-Way Restoration	15,500	SY	2.50	$ 38,750.00
CONSTRUCTION HARD COST SUBTOTAL					**$ 1,130,250.00**
SUMMARY					
MARION COUNTY IMPACT FEES					**$ 105,000.00**
SURVEY					**$ 30,000.00**
ENGINEERING DESIGN AND PERMITTING					**$ 30,000.00**
CONSTRUCTION ADMINISTRATION AND INSPECTIONS					**$ 30,000.00**
SUBTOTAL					**$ 1,325,250.00**
10% CONTINGENCY					**$ 132,525.00**
GRAND TOTAL					**$ 1,457,775.00**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON WATER TREATMENT PLANT - PHASE 1					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
Construct WTP Site with hydropneumatic tanks, well, well head, and connect to existing system					
1	WTP Site (Includes control building, yard piping, electrical, paved drive and parking, fence, chlorination system, etc.)	1	LS	300,000.00	$ 300,000.00
2	10,000 Gallon Hydropneumatic Tanks	2	EA	50,000.00	$ 100,000.00
3	1500 GPM Well Pump and Well Head	1	EA	50,000.00	$ 50,000.00
4	12" Public Supply Well	1	EA	65,000.00	$ 65,000.00
5	250kW Diesel Generator	1	EA	100,000.00	$ 100,000.00
6	12" Water Main	4,000	LF	30.00	$ 120,000.00
7	Associated Valves, Fittings, and Fire Hydrants	1	LS	20,000.00	$ 20,000.00
				SUBTOTAL	**$ 755,000.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 755,000.00**
ENGINEERING DESIGN AND PERMITTING					**$ 75,000.00**
SURVEYING					**$ 10,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$ 35,000.00**
SUBTOTAL					**$ 875,000.00**
20% CONTINGENCY					**$ 175,000.00**
GRAND TOTAL					**$ 1,050,000.00**

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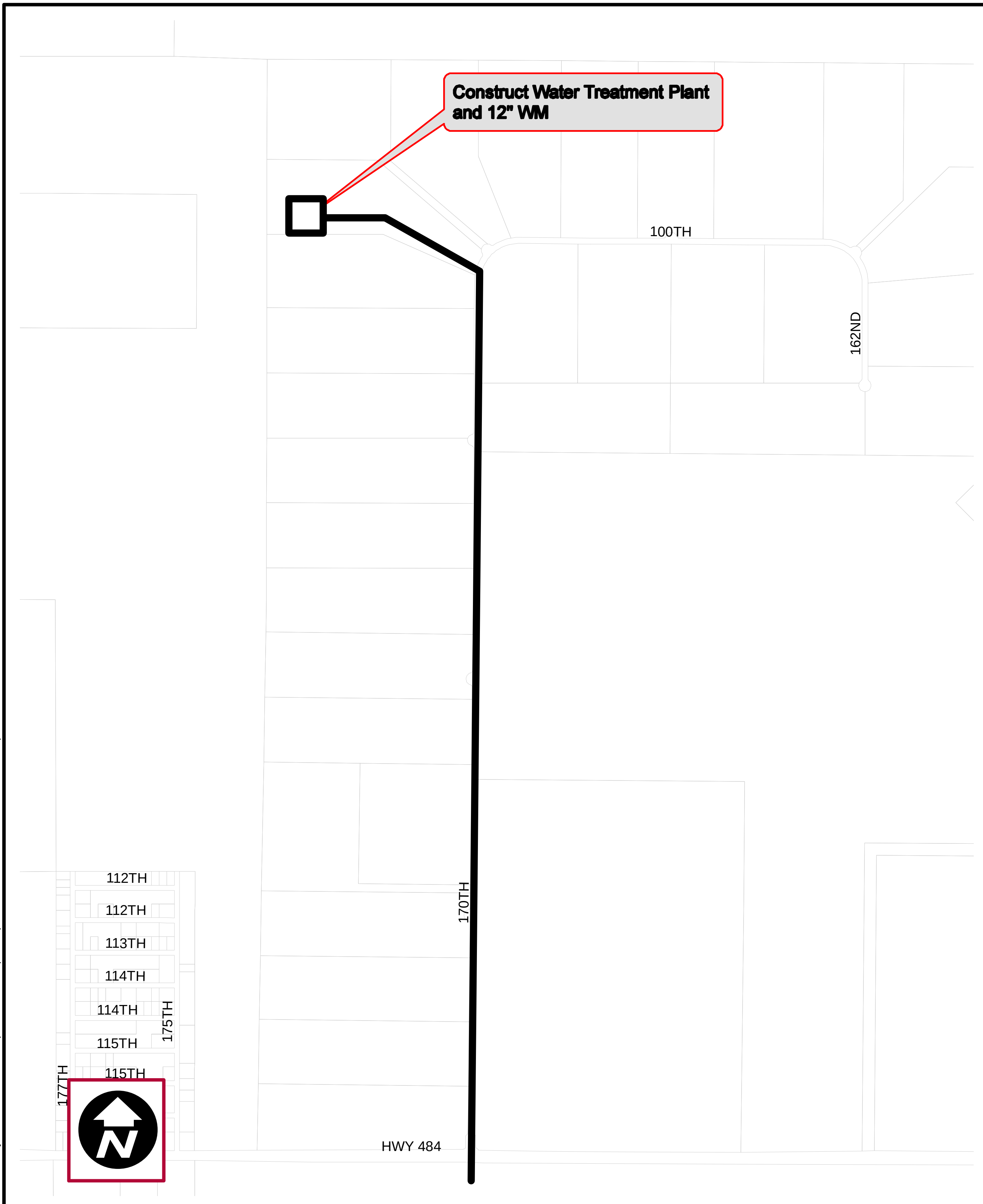

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LOCATION MAP

Capital Improvement Project
New Water Treatment Plant

Scale: As Noted	Project No.: 042382024	JULY 2012	

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON EAST MCKINNEY AVENUE WATER MAIN EXTENSION						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
Extend water main under CSX railroad to add connection between east and west side systems						
1	Mobilization	1	LS	10,000.00	$	10,000.00
2	Maintenance of Traffic	1	LS	10,000.00	$	10,000.00
3	12" PVC Water Main	285	LF	30.00	$	8,550.00
4	24" Jack and Bore (24" Casing)	120	LF	220.00	$	26,400.00
5	12" Gate Valve w/ Box	2	EA	2,500.00	$	5,000.00
6	Fire Hydrant Assembly	1	EA	3,000.00	$	3,000.00
7	6" Wet Tap w/ Valve	1	EA	4,000.00	$	4,000.00
8	Roadway Restoration	1	LS	2,000.00	$	2,000.00
9	Driveway Restoration	1	LS	2,000.00	$	2,000.00
10	Erosion Control	1	LS	3,000.00	$	3,000.00
11	Restoration (Sod)	400	SY	2.50	$	1,000.00
				SUBTOTAL	**$**	**74,950.00**
SUMMARY						
CONSTRUCTION HARD COSTS					**$**	**74,950.00**
ENGINEERING DESIGN AND PERMITTING					**$**	**28,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$**	**5,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$**	**7,500.00**
SUBTOTAL					**$**	**115,450.00**
20% CONTINGENCY					**$**	**23,090.00**
GRAND TOTAL					**$**	**138,540.00**
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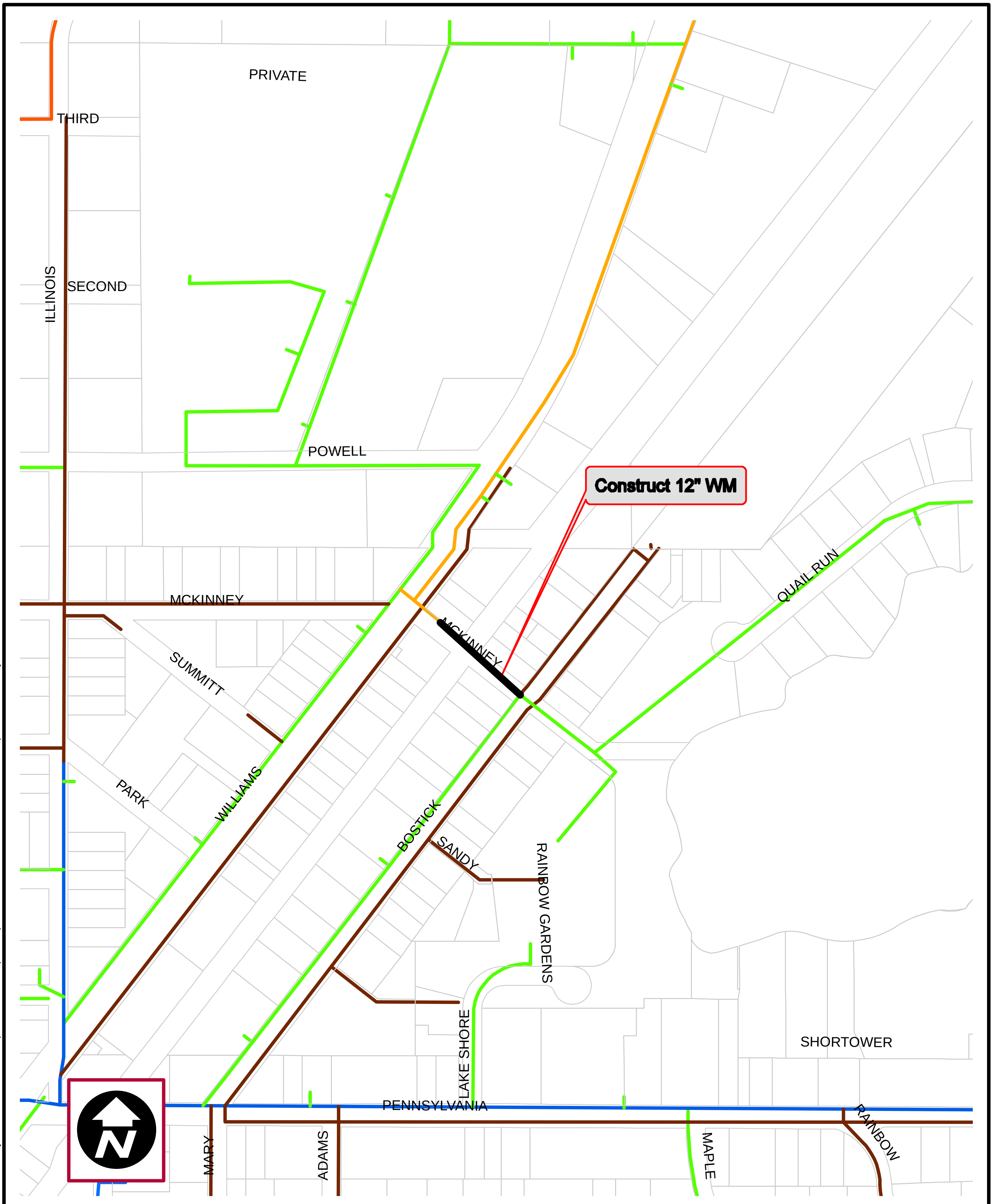

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LOCATION MAP

Capital Improvement Project
East McKinney Avenue Connection

Scale: As Noted	Project No.: 042382024	JULY 2012	

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON PENNSYLVANIA AVENUE WATERMAIN REPLACEMENT					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Mobilization	1	LS	10,000.00	$ 10,000.00
2	Maintenance of Traffic	1	LS	10,000.00	$ 10,000.00
3	Construct 8" PVC WM Pipe	5,500	LF	30.00	$ 165,000.00
				SUBTOTAL	**$ 185,000.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 185,000.00**
ENGINEERING DESIGN AND PERMITTING					**$ 60,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$ 15,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$ 20,000.00**
SUBTOTAL					**$ 280,000.00**
15% CONTINGENCY					**$ 42,000.00**
GRAND TOTAL					**$ 322,000.00**

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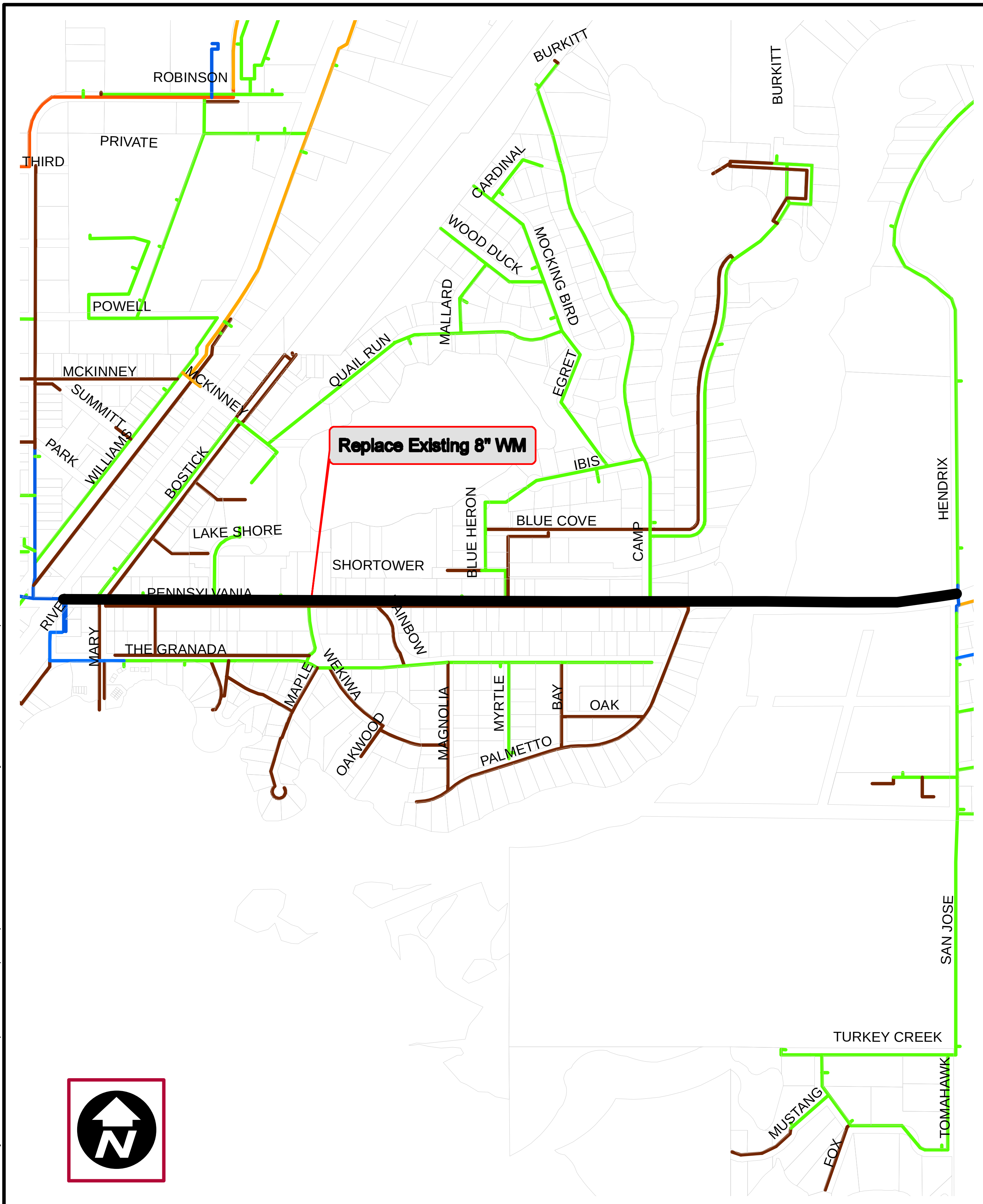

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LOCATION MAP

Capital Improvement Project
Pennsylvania Avenue Watermain Replacement

Scale: As Noted	Project No.: 042382024	JULY 2012	

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON POWELL ROAD WATER MAIN EXTENSION						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
1	Modilization	1	LS	5,000.00	$	5,000.00
2	Maintenance of Traffic	1	LS	2,000.00	$	2,000.00
3	6" PVC Water Main	400	LF	25.00	$	10,000.00
4	6" Wet Tap and Valve	2	EA	3,500.00	$	7,000.00
5	Pavement Restoration	1	LS	5,000.00	$	5,000.00
				CONSTRUCTION HARD COST SUBTOTAL	**$**	**29,000.00**
				SURVEY	**$**	**-**
				ENGINEERING DESIGN AND PERMITTING	**$**	**5,000.00**
				CONSTRUCTION ADMINISTRATION AND INSPECTIONS	**$**	**1,000.00**
				SUBTOTAL	**$**	**35,000.00**
				10% CONTINGENCY	**$**	**3,500.00**
				GRAND TOTAL	**$**	**38,500.00**

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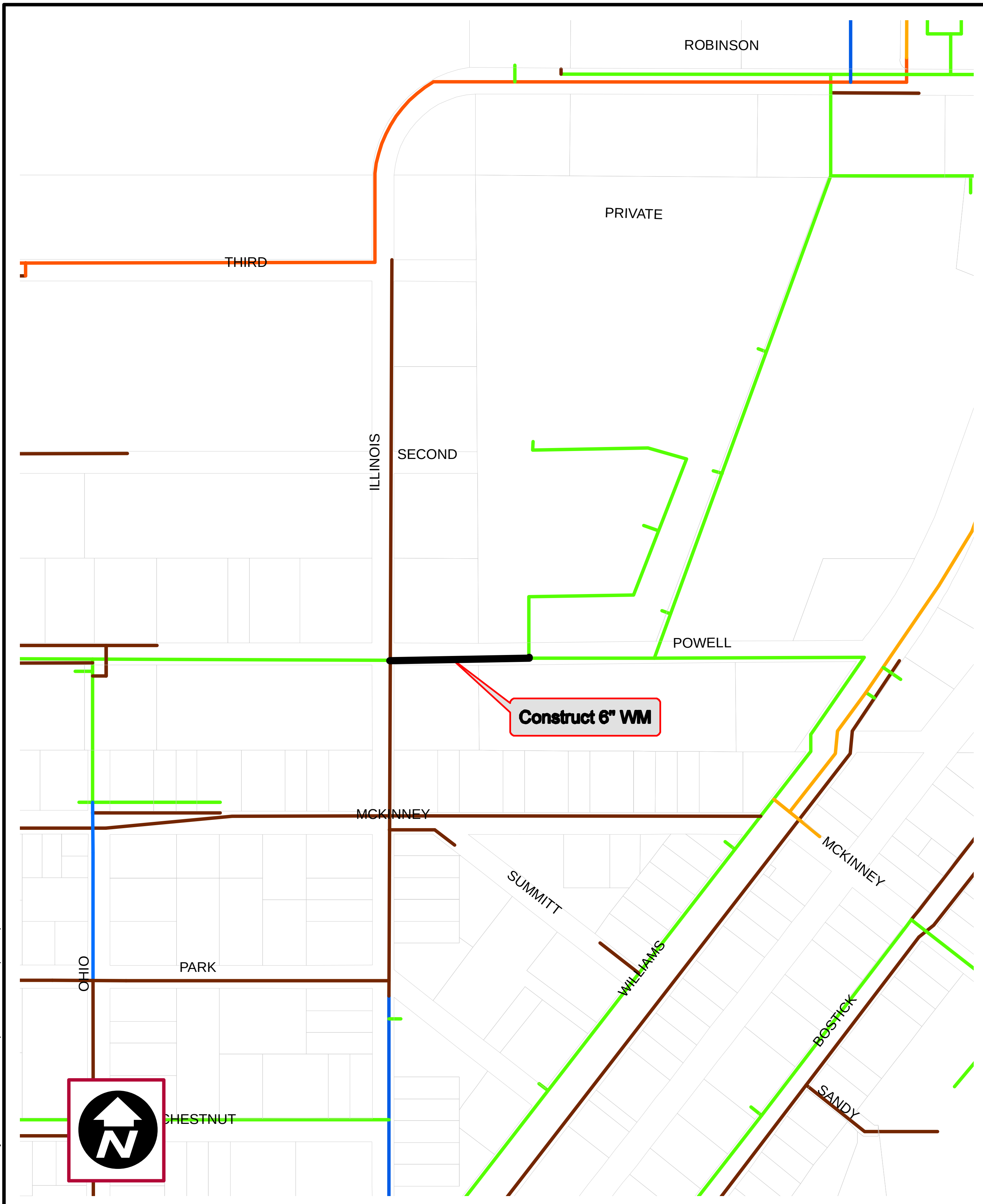

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LOCATION MAP

Capital Improvement Project
Powell Road Watermain Extension

Scale: As Noted	Project No.: 042382024	JULY 2012	

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON W. MCKINNEY AVENUE WATERMAIN EXTENSION					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Mobilization	1	LS	5,000.00	$ 5,000.00
2	6" PVC WM	750	LF	35.00	$ 26,250.00
3	6"x6" Wet Tap and Valve	2	EA	5,000.00	$ 10,000.00
				SUBTOTAL	**$ 41,250.00**
		SUMMARY			
CONSTRUCTION HARD COSTS					**$ 41,250.00**
ENGINEERING DESIGN AND PERMITTING					**$ 7,500.00**
SURVEYING FOR ROUTE CORRIDOR					**$ 10,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$ 5,000.00**
SUBTOTAL					**$ 63,750.00**
15% CONTINGENCY					**$ 9,562.50**
GRAND TOTAL					**$ 73,312.50**

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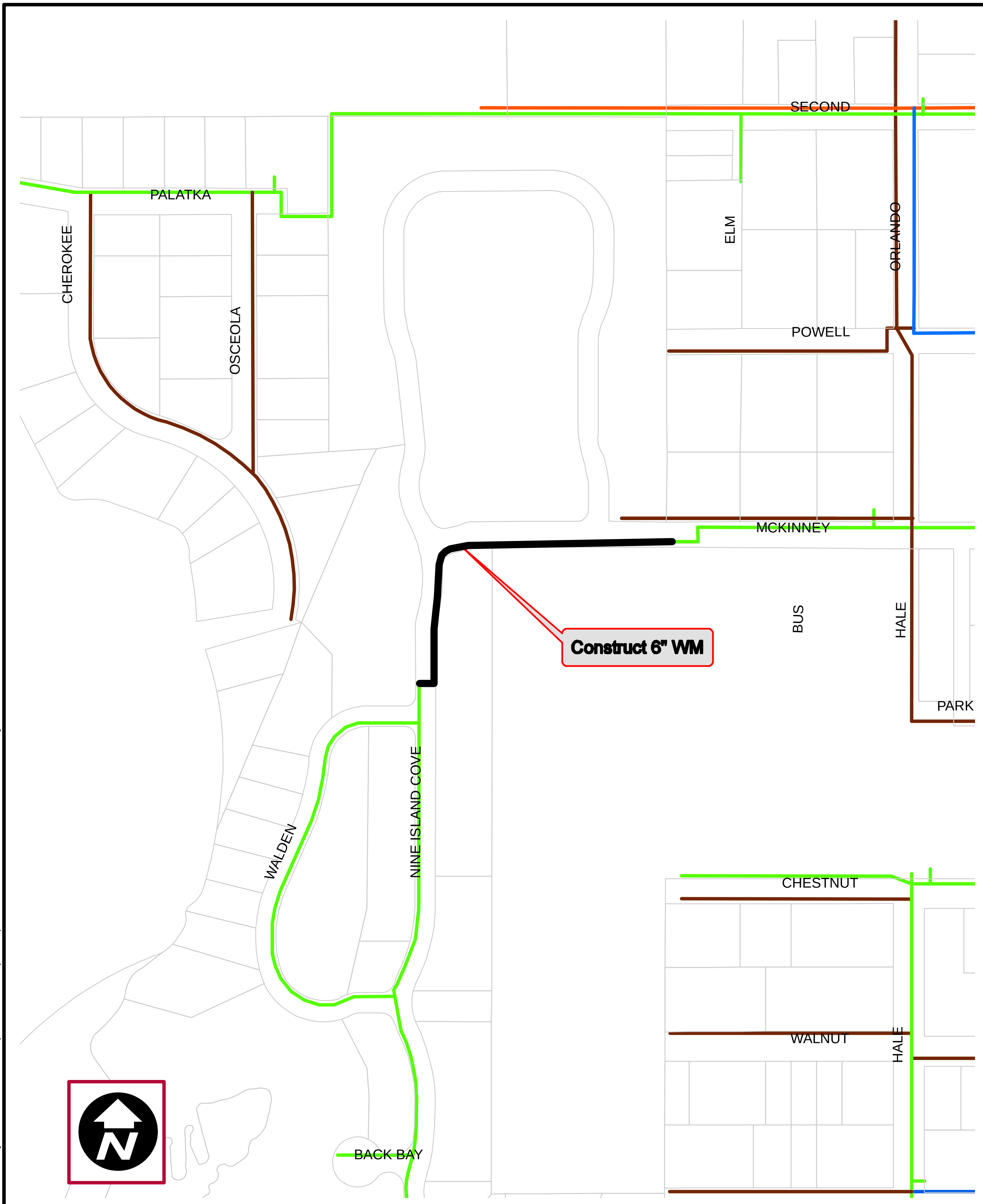

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Kimley-Horn and Associates, Inc.

1823 SE Fort King Street, Suite 200, Ocala FL 34471
Phone: (352) 438-3000
www.kimley-horn.com CA 00000696

LOCATION MAP

Capital Improvement Project
West McKinney Watermain Extension

Scale: As Noted	Project No.: 042382024	JULY 2012	

ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON SOUTH OHIO STREET WATERMAIN EXTENSION						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
1	Mobilization	1	LS	5,000.00	$	5,000.00
2	6" PVC WM	450	LF	35.00	$	15,750.00
3	6"x6" Wet Tap and Valve	1	EA	5,000.00	$	5,000.00
4	8"x6" Wet Tap and Valve	1	EA	5,000.00	$	5,000.00
5	Directional Bore	60	LF	100.00	$	6,000.00
6	Pavement Restoration	1	LS	5,000.00	$	5,000.00
				SUBTOTAL	**$**	**41,750.00**
SUMMARY						
CONSTRUCTION HARD COSTS					**$**	**41,750.00**
ENGINEERING DESIGN AND PERMITTING					**$**	**10,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$**	**7,500.00**
BID AND CONSTRUCTION ADMINISTRATION					**$**	**5,000.00**
SUBTOTAL					**$**	**64,250.00**
15% CONTINGENCY					**$**	**9,637.50**
GRAND TOTAL					**$**	**73,887.50**

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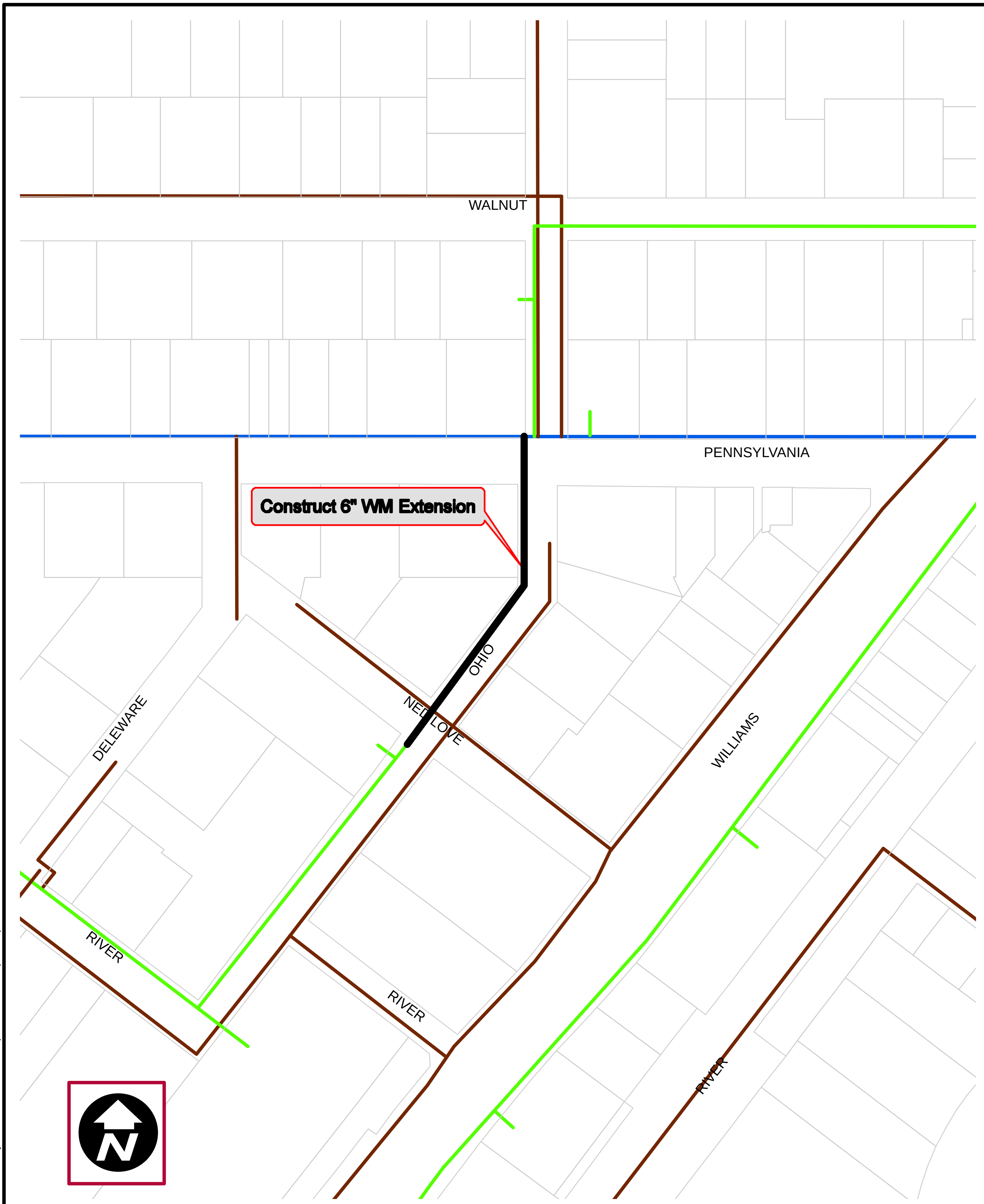

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LOCATION MAP

Capital Improvement Project
South Ohio Street Watermain Extension

Scale: As Noted	Project No.: 042382024	JULY 2012

ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON BROOKS STREET WATER MAIN EXTENSION						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
1	Mobilization	1	LS	10,000.00	$	10,000.00
2	Maintenance of Traffic	1	LS	10,000.00	$	10,000.00
3	6" PVC WM	800	LF	35.00	$	28,000.00
4	6"x6" Wet Tap and Valve	2	EA	5,000.00	$	10,000.00
5	Directional Bore Under CSX	100	LF	100.00	$	10,000.00
6	Pavement Restoration	1	EA	5,000.00	$	5,000.00
				SUBTOTAL	**$**	**73,000.00**
SUMMARY						
CONSTRUCTION HARD COSTS					**$**	**73,000.00**
ENGINEERING DESIGN AND PERMITTING					**$**	**20,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$**	**7,500.00**
BID AND CONSTRUCTION ADMINISTRATION					**$**	**5,000.00**
SUBTOTAL					**$**	**105,500.00**
15% CONTINGENCY					**$**	**15,825.00**
GRAND TOTAL					**$**	**121,325.00**

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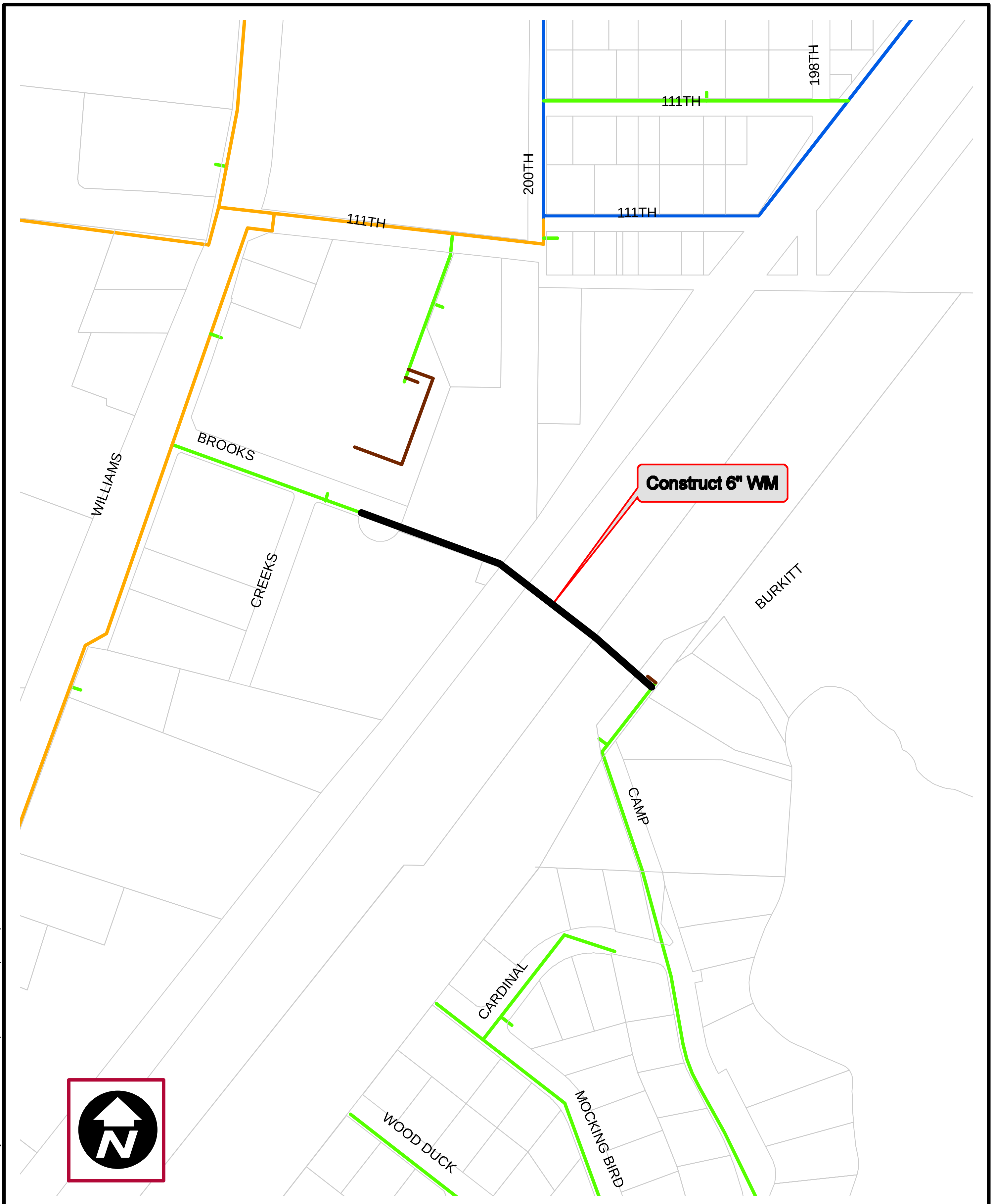

LOCATION MAP

Capital Improvement Project
Brooks Street Watermain Connection

Scale: As Noted	Project No.: 042382024	JULY 2012	

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON SR 41 / ILLINOIS STREET WATER MAIN REPLACEMENT					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Mobilization	1	LS	5,000.00	$ 5,000.00
2	Maintenance of Traffic	1	LS	10,000.00	$ 10,000.00
3	8" PVC WM	2,150	LF	30.00	$ 64,500.00
4	8"x8" Wet Tap and Valve	2	EA	5,000.00	$ 10,000.00
5	Directional Bore	250	LF	100.00	$ 25,000.00
6	Replaced Sidewalk	1,100	SY	30.00	$ 33,000.00
				SUBTOTAL	**$ 147,500.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 147,500.00**
ENGINEERING DESIGN AND PERMITTING					**$ 25,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$ 15,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$ 10,000.00**
SUBTOTAL					**$ 197,500.00**
15% CONTINGENCY					**$ 29,625.00**
GRAND TOTAL					**$ 227,125.00**

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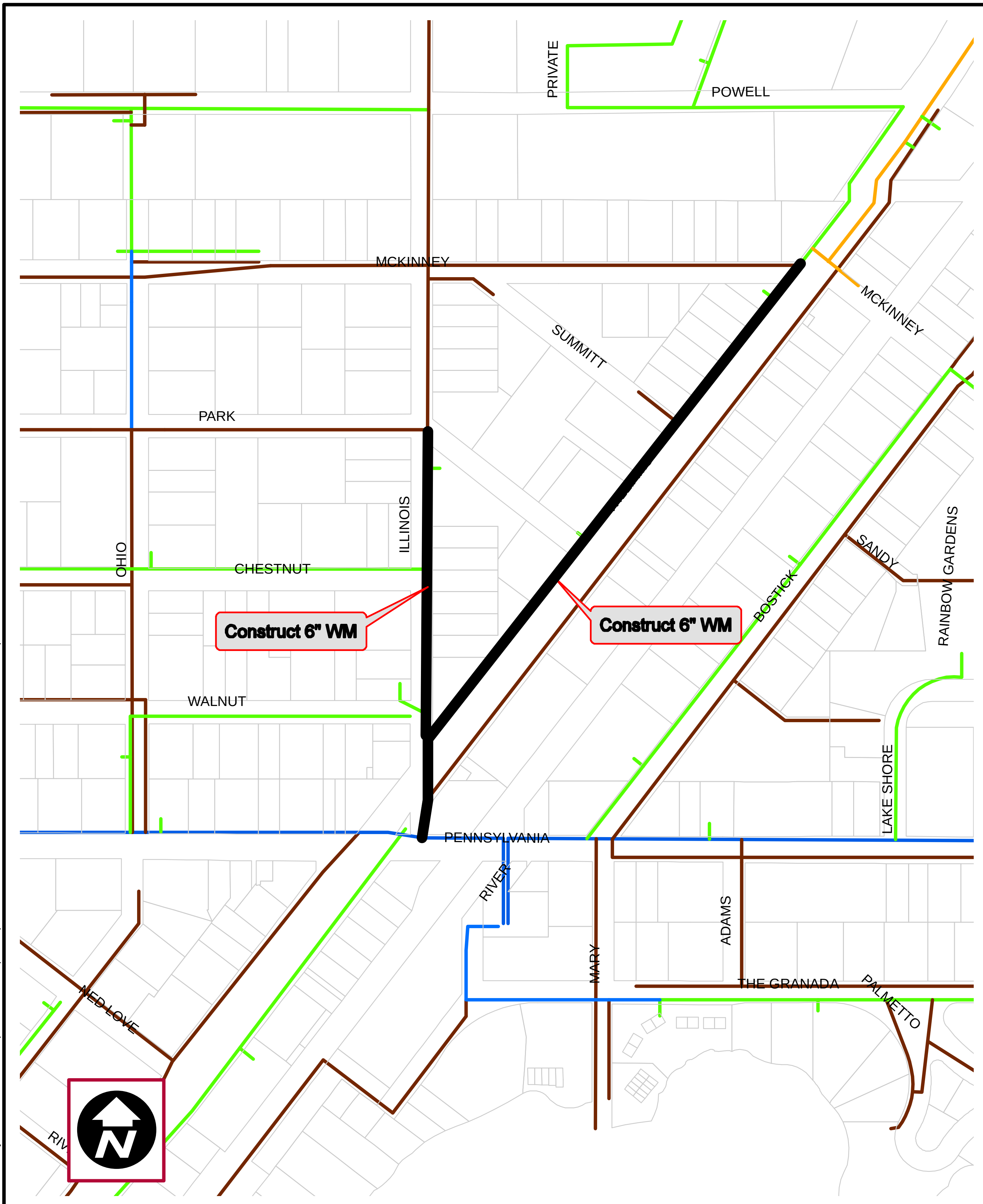

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LOCATION MAP

Capital Improvement Project
SR 41 / Illinois Street Watermain Replacement

Scale: As Noted	Project No.: 042382024	JULY 2012	

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON CHLORINE CONTACT TIME PROJECT						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
1	Construction to Correct Contact Time	1	LS	18,000.00	$	18,000.00
				SUBTOTAL	**$**	**18,000.00**
SUMMARY						
CONSTRUCTION HARD COSTS					**$**	**18,000.00**
ENGINEERING DESIGN AND PERMITTING					**$**	**5,000.00**
SUBTOTAL					**$**	**23,000.00**
15% CONTINGENCY					**$**	**3,450.00**
GRAND TOTAL					**$**	**49,450.00**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON ISOLATION VALVE PROGRAM					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Annual Isolation Valve Construction (2 planned, 2 emergency)	4	EA	7,000.00	$ 28,000.00
				SUBTOTAL	**$ 28,000.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 28,000.00**
GRAND TOTAL					**$ 28,000.00**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON HYTOVICK WATERMAIN REPLACEMENT						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
1	Mobilization	1	LS	5,000.00	$	5,000.00
2	Maintenance of Traffic	1	LS	10,000.00	$	10,000.00
3	6" PVC WM	1,150	LF	30.00	$	34,500.00
4	6"x6" Wet Tap and Valve	2	EA	5,000.00	$	10,000.00
				SUBTOTAL	**$**	**59,500.00**
SUMMARY						
CONSTRUCTION HARD COSTS					**$**	**59,500.00**
ENGINEERING DESIGN AND PERMITTING					**$**	**15,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$**	**20,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$**	**5,000.00**
SUBTOTAL					**$**	**99,500.00**
15% CONTINGENCY					**$**	**14,925.00**
GRAND TOTAL					**$**	**114,425.00**

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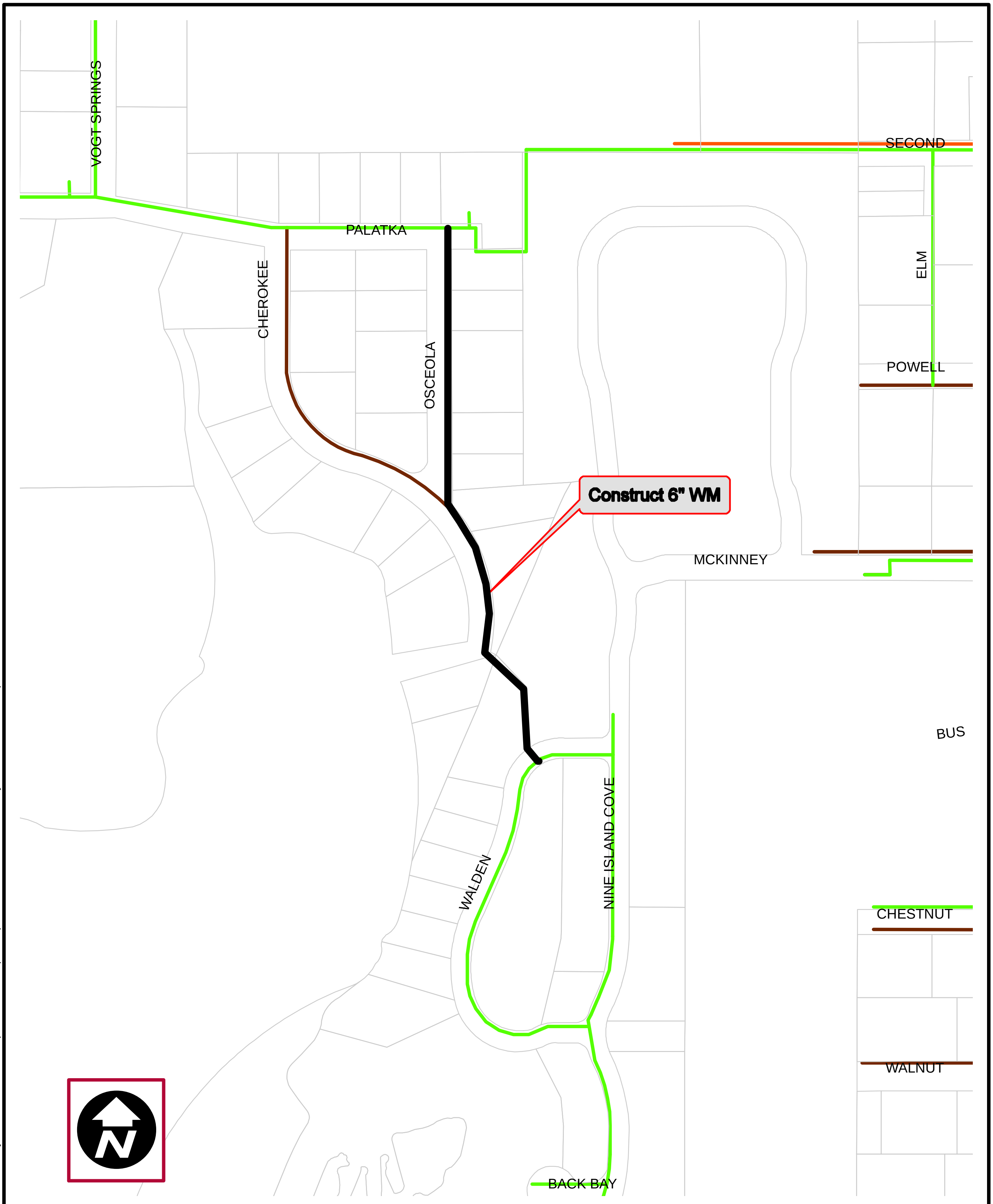

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LOCATION MAP

Capital Improvement Project
Hytovick Watermain Replacement

Scale: As Noted	Project No.: 042382024	JULY 2012

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON THE GRANADA WATERMAIN EXTENSION					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
From Bay Street to Palmetto Way					
1	Mobilization	1	LS	10,000.00	$ 10,000.00
2	Maintenance of Traffic	1	LS	10,000.00	$ 10,000.00
3	6" PVC Pipe	600	LF	20.00	$ 12,000.00
4	6" Gate Valve	3	EA	675.00	$ 2,025.00
5	Pavement Restoration	75	SY	20.00	$ 1,500.00
6	6" HDPE Horizontal Directional Drill	70	LF	100.00	$ 7,000.00
7	Restoration (Sod)	778	SY	2.50	$ 1,945.00
				SUBTOTAL	**$ 44,470.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 44,470.00**
ENGINEERING DESIGN AND PERMITTING					**$ 15,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$ 20,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$ 5,000.00**
SUBTOTAL					**$ 84,470.00**
15% CONTINGENCY					**$ 12,670.50**
GRAND TOTAL					**$ 97,140.50**

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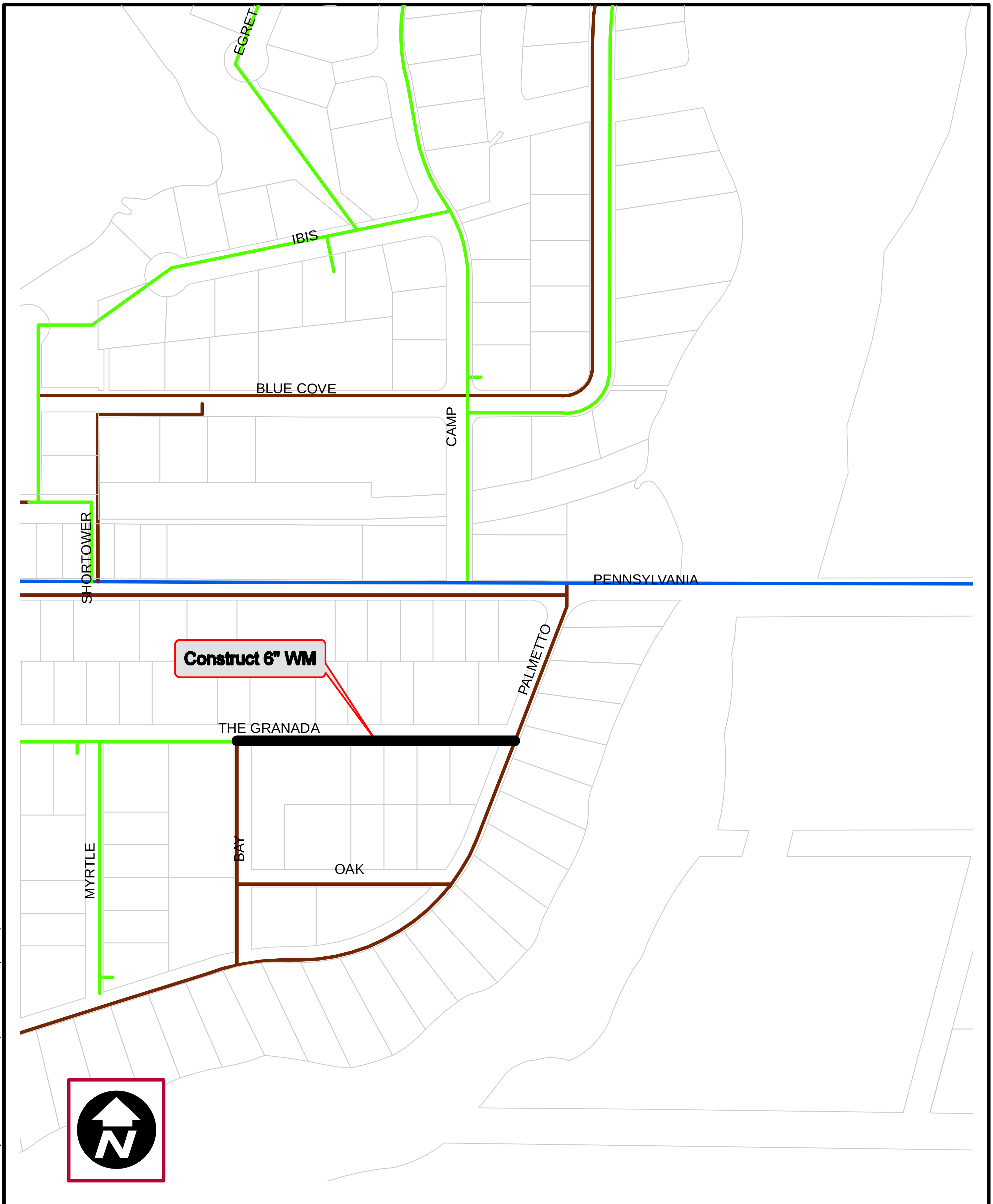

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LOCATION MAP

Capital Improvement Project
The Granada Watermain Extension

Scale: As Noted	Project No.: 042382024	JULY 2012	

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON RIO VISTA / RAINBOW SPRINGS INTERCONNECT					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	Mobilization	1	LS	5,000.00	$ 5,000.00
2	6" PVC WM	650	LF	25.00	$ 16,250.00
3	6"x6" Wet Tap and Valve	1	EA	5,000.00	$ 5,000.00
4	4"x6" Wet Tap and Valve	1	EA	5,000.00	$ 5,000.00
				SUBTOTAL	**$ 31,250.00**
SUMMARY					
CONSTRUCTION HARD COSTS					**$ 31,250.00**
ENGINEERING DESIGN AND PERMITTING					**$ 10,000.00**
SURVEYING FOR ROUTE CORRIDOR					**$ 10,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$ 5,000.00**
SUBTOTAL					**$ 56,250.00**
15% CONTINGENCY					**$ 8,437.50**
GRAND TOTAL					**$ 64,687.50**

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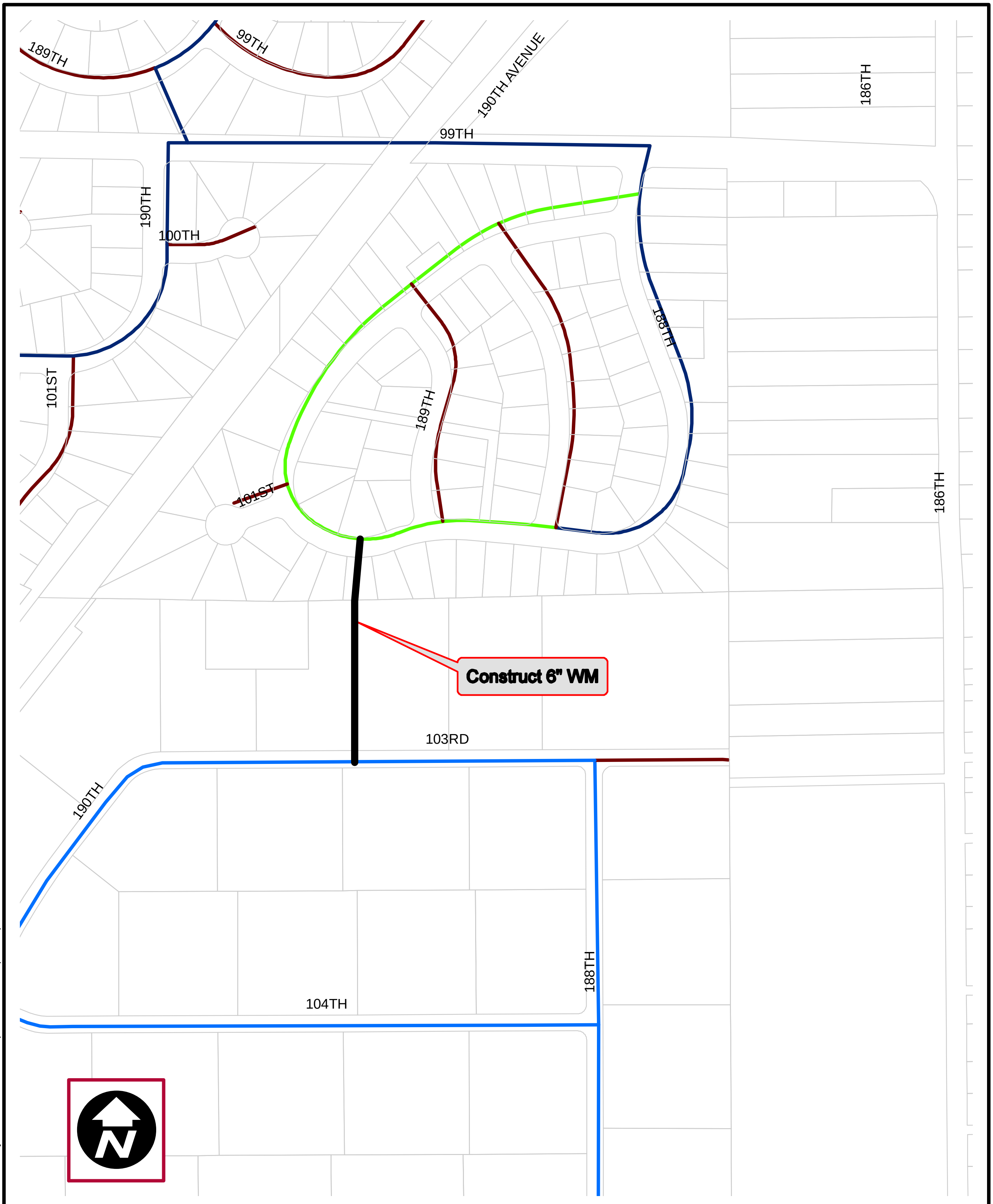

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Phone: (352) 438-3000
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LOCATION MAP

Capital Improvement Project
Rio Vista to Rainbow Springs Interconnect

Scale: As Noted	Project No.: 042382024	JULY 2012	

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON SCADA SYSTEM FOR WATER TREATMENT PLANTS					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	PLC - Hardware	3	LS	30,000.00	$ 90,000.00
2	PLC - Configuration/Programming of System	3	LS	10,000.00	$ 30,000.00
3	PLC - Loading/Testing/Startup	3	LS	5,000.00	$ 15,000.00
4	SCADA - Hardware	2	LS	3,000.00	$ 6,000.00
5	SCADA - Software	2	LS	10,000.00	$ 20,000.00
6	SCADA - Configuration/Programming	2	LS	10,000.00	$ 20,000.00
7	SCADA - Loading/Testing/Startup	2	LS	5,000.00	$ 10,000.00
8	SCADA - Submittal Review/Training/Warranty	1	LS	15,000.00	$ 15,000.00
9	Base Radio - Hardware	1	LS	5,000.00	$ 5,000.00
10	Base Radio - Software	1	LS	5,000.00	$ 5,000.00
11	Base Radio - Configuration/Programming	1	LS	2,500.00	$ 2,500.00
12	Base Radio - Loading/Testing/Startup	1	LS	2,500.00	$ 2,500.00
				SUBTOTAL	**$ 221,000.00**
SUMMARY					
GRAND TOTAL					**$ 221,000.00**

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APPENDIX F:
WASTEWATER SYSTEM CAPITAL IMPROVEMENTS COST ESTIMATES

ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON UTILITY CAPITAL IMPROVEMENTS							
ITEM	**PROJECT**	**DESCRIPTION OF WORK**	**AMOUNT**	**2013**	**2014**	**2015**	**Beyond**
		Water System Improvements					
1	New Generator for Rainbow Springs WTP	Replace Rainbow Springs WTP Backup Generator (Use Juliette Falls and Replace)	$60,000	$60,000	-		-
2	Water Meter Replacement	Replace Existing Meters with Radio Read Meters	$754,000	$251,333	$251,333	$251,333	
3	Rainbow Springs Fire Hydrant Program	Construct 96 Fire Hydrants (some with WM extensions) in Rainbow Springs	$1,731,000	-	-	-	$1,731,000
4	Watermain Replacement Program	Comprehensive Line Replacement Program for AC, Pit Cast, and Ductile Pipes	$150,000 / year	$150,000	$150,000	$150,000	$150,000
5	Rainbow Springs Service Line Replacement	As Needed Replacement of Poly-Butylene Service Lines in Rainbow Springs	$92,400				
6	Rainbow Springs/City of Dunnellon Interconnect	Construct 12" Watermain to Connect RBS and City Systems (w/ Chatmire Extension)	$501,000	$288,200	$212,800	-	-
7	City of Dunnellon CRA Fire Hydrant Program	Construct 21 Fire Hydrants (some with WM extensions) in City Limits	$546,000	$109,200	$109,200	$109,200	$218,400
8	CR 484 12" Watermain Extension	Construct 12" Watermain to connect Dunnellon Airport	$1,480,000	$1,480,000	-	-	-
9	New Water Treatment Plant - Phase 1	Design and Construct New WTP East of City	$1,050,000	$85,000	$965,000	-	-
10	E. McKinney Interconnect	Construct 12" Watermain Underneath CSX Railroad	$139,000	$139,000	-	-	-
11	Pennsylvania Ave. Watermain Replacement	Construct 8" Watermain to Replace Existing 8" Watermain	$322,000	-	$161,000	$161,000	
12	Powell Road 6" Watermain Extension	Construct 6" Watermain East of Illinois Street	$39,000	-	-	$39,000	-
13	West McKinney Watermain Extension	Extend Existing 6" Watermain to West and South to Connect uknown Road	$73,000	-	-	$73,000	-
14	South Ohio Street 6" WM Extension	Extend Existing 6" Watermain from Datesman Ave. to Hwy 40	$74,000	-	$74,000	-	-
15	Brooks Street Watermain Extension	Construct 6" Watermain Underneath CSX Railroad	$121,000	-	-	$121,000	-
16	SR 41 Watermain Replacement	Construct 12" Replacement Watermain along SR 41 and Illinois Street	$227,000	$151,333	$75,667	-	-
17	Well #1 Chlorine Contact Time	Improvements Required to Correct Chlorine Contact Time Isssue at City WTP	$50,000	$50,000	-	-	-
18	Isolation Valve Program	Construct Valves to Enable Isolation of Existing Fire Hydrants (4 per year)	$28,000.00 / year	$28,000	$28,000	$28,000	$28,000
19	Rolling Hills Road 6" to 8" WM Upgrade	Construct 8" Watermain along Rolling Hills Road North of Hwy. 40	$155,000	-	-	-	$155,000
20	Hytovick Watermain Relocation	Relocate 6" Watermain currently on Hytovick Property	$114,000	$38,000	$76,000	-	-
21	The Granada Watermain Extension	Extend 6" Watermain on the Granada to Palmetto Way	$97,000	-	$97,000	-	-
22	Rio Vista / Rainbow Springs Interconnect	Construct 8" Watermain to Connect Rio Vista and Rainbow Springs	$65,000	$65,000	-	-	-
		Sanitary Sewer Improvements					
1	Rainbow Springs Lift Station Improvements	Safety and Operational Improvements for Lift Stations in Rainbow Springs	$500,300	$166,767	$166,767	$166,767	-
2	Infiltration and Inflow Study	Investigation into I&I Through Testing and Video	$67,500	-	$33,750	$33,750	-
3	Infiltration and Inflow Repairs	Repair damage found by Infiltration and Inflow Study	Annual TBD	Annual TBD	Annual TBD	Annual TBD	Annual TBD
4	Rio Vista WWTF Decommissioning	FM Construction, Lift Station Retrofit, Repair I&I sections, and Plant Decommission	$803,000	$803,000	-	-	-
		System-wide Improvements					
1	S.C.A.D.A System Phase 1	SCADA system for Water Treatment Plants	$206,000	$206,000	-	-	-
2	S.C.A.D.A System Phase 2	SCADA system for Wastewater Treatment Plants	$160,000	$160,000	-	-	-
3	S.C.A.D.A System Phase 3	SCADA system for Lift Stations	$370,000	-	$92,500	$92,500	$185,000
Grand Total			**$9,797,200.00**	**$ 4,230,833.33**	**$ 2,493,016.67**	**$ 1,225,550.00**	**$2,467,400**

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ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON RAINBOW SPRINGS LIFT STATION IMPROVEMENTS						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**		**AMOUNT**
1	Mobilization	1	LS	5,000.00	$	5,000.00
2	Control Panel Orientation	12	EA	7,500.00	$	90,000.00
3	Electrical Disconnect	10	EA	4,000.00	$	40,000.00
4	Water Tap for Water Supply	10	EA	1,200.00	$	12,000.00
5	Physical Damage Repair	8	EA	5,000.00	$	40,000.00
6	Add Bypass Valves	10	EA	1,500.00	$	15,000.00
7	Add Bypass Piping and Assembly	3	EA	1,000.00	$	3,000.00
8	Add Drain to Valve Box	4	EA	800.00	$	3,200.00
9	Add/Repair Pump Railing	7	EA	3,000.00	$	21,000.00
10	Back up Generators	3	EA	40,000.00	$	120,000.00
11	Valves/Check Valves in Need of Repair/Replacement	8	EA	2,000.00	$	16,000.00
				SUBTOTAL	**$**	**365,200.00**
SUMMARY						
CONSTRUCTION HARD COSTS					**$**	**365,200.00**
ENGINEERING DESIGN AND PERMITTING					**$**	**43,824.00**
SURVEY					**$**	**10,000.00**
BID AND CONSTRUCTION ADMINISTRATION					**$**	**18,260.00**
SUBTOTAL					**$**	**437,284.00**
15% CONTINGENCY					**$**	**65,592.60**
GRAND TOTAL					**$**	**502,876.60**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON INFILTRATION AND INFLOW STUDY						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
1	Infiltration and Inflow Study	1	LS	67,500.00	$	67,500.00
				SUBTOTAL	**$**	**67,500.00**
		SUMMARY				
GRAND TOTAL					**$**	**67,500.00**

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CAPITAL COST CITY OF DUNNELLON RIO VISTA WWTF DECOMMISSIONING						
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**	
I. CAPITAL COSTS						
1	Decommission Rio Vista WWTF	1	LS	35,000.00	$	35,000.00
2	Lift Station Retrofit and Force Main Construction (Option 4)	1	LS	432,000.00	$	432,000.00
3	Existing Lift Station Rehabilitation	4	EA	15,000.00	$	60,000.00
4	Slip Lining 8" Gravity Sewer	1,000	LF	35.00	$	35,000.00
6	Survey	1	LS	17,500.00	$	17,500.00
7	Easement Acquisition	1	LS	15,000.00	$	15,000.00
				SUBTOTAL	**$**	**594,500.00**
				10% CONTINGENCY	**$**	**59,450.00**
				GRAND TOTAL	**$**	**653,950.00**

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4. Financially disadvantaged small community eligibility. Project sponsor eligibility is limited to municipalities having jurisdiction over collection, transmission, treatment, or disposal of wastewater and its residuals. Eligibility is established according to a municipality's population and income levels at the time a project is listed on the Department's fundable list. The latest census data is used in this determination. Data may be obtained at http://censtats.census.gov/pub/Profiles.shtml . If the answer to any of the following is "No", stop you are not eligible.

a. Sponsor is a municipality? Yes ☒ No ☐

b. Sponsor has a total population (according to the latest decennial census) and a service area population of 7,500 or less. Yes ☒ No ☐ Population: **1933**

c. Sponsor has a per capita annual income (according to the latest decennial census) less than the state average per capita annual income. Yes ☒ No ☒ Income: **14,265**

5. Eligible Projects. A project may encompass systems associated with wastewater collection, transmission, treatment or disposal facilities. This includes facilities to reuse reclaimed water from wastewater treatment plants. The principal purpose of the project shall be for domestic wastewater pollution control. Stormwater projects are not eligible.

6. Project Information. (Attach documentation for items 6a through 6j below. Incomplete documentation will result in a minimum priority score for the project) — Documents Attached

a. Describe the project. (Give specific details as to the scope of the project.) **See Attachment A** ☒

b. Why is the project needed? **See Attachment B** ☒

c. What will be the environmental benefits of the project? **See Attachment C** ☒

d. Attach map showing system boundary. **See Attachment D** ☒

e. Attach map showing existing service area and any additional areas proposed to be serviced by the project. ☒

f. Attach map showing the project area. ☒

g. Does the project help correct a public health hazard? Yes ☒ No ☐ ☒

h. Has a consent order or DEP-ordered upgrade/rehab been issued? Yes ☒ No ☐ ☒

i. Census tract numbers of the existing and proposed service area. Census tract information will be used to determine the project's affordability index. List the census tracts for the municipality's service area after project completion. ☒

27.02-83 (County Code)

j. Will this project initially be funded through a State Revolving Fund loan? Yes ☐ No ☒

If "No" how will the local share be funded?

7. Preconstruction costs.

a.	Estimated Construction, Equipment, Materials, Demolition and Related Procurement Costs.	**594,500.00**
b.	Specialized Field Studies (explain): **Environmental Asessment, Gophor Tortoise Survey**	**25,000**
c.	Enter the lesser of a., above, or $10,000,000	**619,500.00**
d.	Preconstruction grant amount: ((25 – natural log of costs in c) x Costs in c / 1000) plus 50% of costs in b.	**19,725.43**

8. Construction costs.

a.	Estimated Construction, Equipment, Materials, Demolition and Related Procurement Costs	**594,500.00**
b.	Specialized Field Studies (explain): **Gophor Tortoise Relocation**	**50,000**
c.	Contingency (10% of item a., above, if costs are unknown, otherwise 5%)	**59,450.00**
d.	Eligible Land	-
e.	Other (explain):	-
f.	Technical Services during Construction	**29,725.00**
g.	Sum of Items a. through f.	**733,700.00**
h.	Administration/Planning/Engineering Funds: ((25 – natural log of costs in a.) x Costs in a. / 100). For design build projects the amount is 30% of the calculated amount.	**69,583.40**
i.	Total (sum of Items g. and h.)	**803,283.40**
j.	Service fees (for projects with a State Revolving Fund loan 2% of item i).	**16,065.67**

ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON SCADA SYSTEM FOR WASTEWATER TREATMENT PLANTS					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	PLC - Hardware	3	EA	30,000.00	$ 90,000.00
2	PLC - Configuration/Programming of System	3	EA	10,000.00	$ 30,000.00
3	PLC - Loading/Testing/Startup	3	EA	5,000.00	$ 15,000.00
4	SCADA - Configuration/Programming	1	EA	10,000.00	$ 10,000.00
5	SCADA - Loading/Testing/Startup	1	EA	5,000.00	$ 5,000.00
6	SCADA - Submittal Review/Training/Warranty	1	LS	10,000.00	$ 10,000.00
				SUBTOTAL	**$ 160,000.00**
SUMMARY					
GRAND TOTAL					**$ 160,000.00**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

ENGINEER'S OPINION OF PROBABLE COST CITY OF DUNNELLON SCADA SYSTEM FOR LIFT STATIONS					
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**		**UNIT PRICE**	**AMOUNT**
1	SCADA Hardware and Software	37	EA	10,000.00	$ 370,000.00
				SUBTOTAL	**$ 370,000.00**
		SUMMARY			
GRAND TOTAL					**$ 370,000.00**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

APPENDIX G:
SANITARY SURVEY REPORT

Florida Department of
Environmental Protection
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

August 9, 2011

Mr. Richard Grabbe
12014 South Williams Street
Dunnellon, FL 34432
rgrabbe@dunnellon.org

Re: Sanitary Survey Report
City of Dunnellon
PWS-ID No. 642-4073
Marion County

Dear Mr. Grabbe:

Enclosed please find a copy of the Sanitary Survey Report for the above-referenced potable water system. No deficiencies were noted during the recent inspection.

If you have any questions, please contact me at (813) 632-7600, extension 314, or e-mail: nick.noreika@dep.state.fl.us.

Sincerely,

Nick Noreika
Environmental Specialist
Drinking Water Section

NN/dm

Enclosure

cc: Teresa Malmberg, Administrator, tmalmberg@dunnellon.org

SURVEY

Water system: CITY OF DUNNELLON System PWS #: 642-4073 Date of survey: 07/12/2011

Inspector name: NICK NOREIKA Person(s) contacted: RICHARD GRABBE

System type: C Population: 1,922 Connections: 1,120 Design capacity: 1,366,000 Storage capacity: 250,000

SYSTEM

System address: 11924 BOSTICK STREET City DUNNELLON State FL Zip 34432

System phone: 352-465-8592 Cell:

Fax number: Email:

OWNER

Owner name: RICHARD GRABBE Owner title: OPERATOR

Owner address: 11924 BOSTICK STREET City: DUNNELLON State FL Zip 34432

Owner phone: 352-465-8590 Cell:

Fax number: Email:

OPERATOR

Operator required? ☒Yes ☐No (If "No", *Operator* sections not applicable) Operator class & cert. number: C 6143

Operator name: RICHARD GRABBE Phone:

Fax number: Email: rgrabbe@dunnellon.org

SOURCE – WELL INFORMATION

Well Name and/or FL Unique Well ID	Well 1 AAC 1568	Well 2 AAC 1569
Well head sealed? (Pad/conduit/openings)	Yes	Yes
Well casing 12" above grade?	Yes	Yes
Casing vent compliant? (installed, screened)	Yes	Yes
Check valve compliant? (installed/no leak)	Yes	Yes
Tap Compliant? (Smooth/12" high/precheck)	Yes	Yes
Flow measurable? (if applicable, GPM@psi)	Yes	Yes
Flow meter accuracy checked?	Yes	Yes
Well capacity > maximum day?	Yes	Yes
Setbacks compliant? (hazard type and distance)	Yes	Yes

TREATMENT

Name of plant & type of chlorination	Plant 1 / Gas	Plant 2 / Gas
O & M log compliant?	Yes	Yes
O & M manual compliant?	Yes	Yes
Cl storage compliant? (no organics/acid/sun)	Yes	Yes
Chlorinator flow proportionate?	Yes	Yes
Treated sample tap provided?	Yes	Yes
HYPO CL: Cl solution strength?		
HYPO CL: Solution tank compliant? (covered/etc)	N/A	N/A
HYPO CL: Antisiphon protection compliant?	N/A	N/A
HYPO CL: Safety: (Gloves/Apron/Eyewash/etc)	N/A	N/A
GAS CL: Cl room compliant? (separate/ventilation)	Yes	Yes
GAS CL: Scales compliant? (installed/functional)	Yes	Yes
GAS CL: Safety: (SCBA/Gloves/Ammonia)	Yes	Yes

AERATE: Choose type: "X" box below if not compliant N/A
☐Screen ☐Tray ☐Lid ☐Bypass ☐Drain ☐Algae Free ☐*Compliant*

DISTRIBUTION

Flushing of dead ends compliant?	Yes
Valve maintenance compliant?	Yes
Distribution PSI compliant? (> 20 PSI)	Yes
Chlorine residual above minimum?	Yes

STORAGE FACILITIES

Storage type used: ☐Hydro ☐Ground ☒Elevated ☐Bladder ☐N/A

Inspections compliant? (annual/5yr)	Yes
Washouts compliant? (every 5 yrs)	Yes
Storage capacity compliant? (¼ max)	Yes

HYDRO: APPURTENANCES: "X" box below if not compliant, NA
☐PRV ☐Gauge ☐Sight glass ☐Bypass ☐Drain ☐*Compliant*

GROUND ELEVATED: APPURTENANCES: "X" box below if not compliant .
☐Hatch ☐Vent ☐Overflow ☐Drain ☐Bypass ☒*Compliant*

PUMPS/CONTROLS

Manual or automatic controls?	Automatic
On/Off pressure of pumps?	Psi @ 60
HSP: High Service Pumps functional?	Yes
HSP: HSP capacity compliant?	Yes

MONITORING

Chlorine test kit compliant?	Yes
Chlorine grab sampling compliant?	Yes
Bacti sampling compliant?	Yes
Chemical sampling compliant?	Yes
Lead/copper sampling compliant? (C,P)	Yes
DBP monitoring compliant? (C, P)	Yes

MANAGERIAL

MONITORING PLANS: "X" box below if not compliant
☐Bacteriological ☐Disinfection By-Products (C, P) ☐Lead & Copper (C, P)

NSF: "X" box below if not compliant
☐Treatment Chemicals/Components ☐Storage ☐Pipe ☐New Meters

CCC / Plan(C) implemented?	Yes
Record keeping compliant?	Yes
Security measures compliant?	Yes

OPERATOR

Plant category and type?	Cat V / Class C
Plant checked 5 days/week? (owner/rep)	Yes
Operator visits compliant?	Yes
MORs submittal compliant?	Yes

FIELD SAMPLING RESULTS	Plant Cl (mg/L) /pH	0.29 /	Distribution Cl (mg/L) /pH	0.42 /

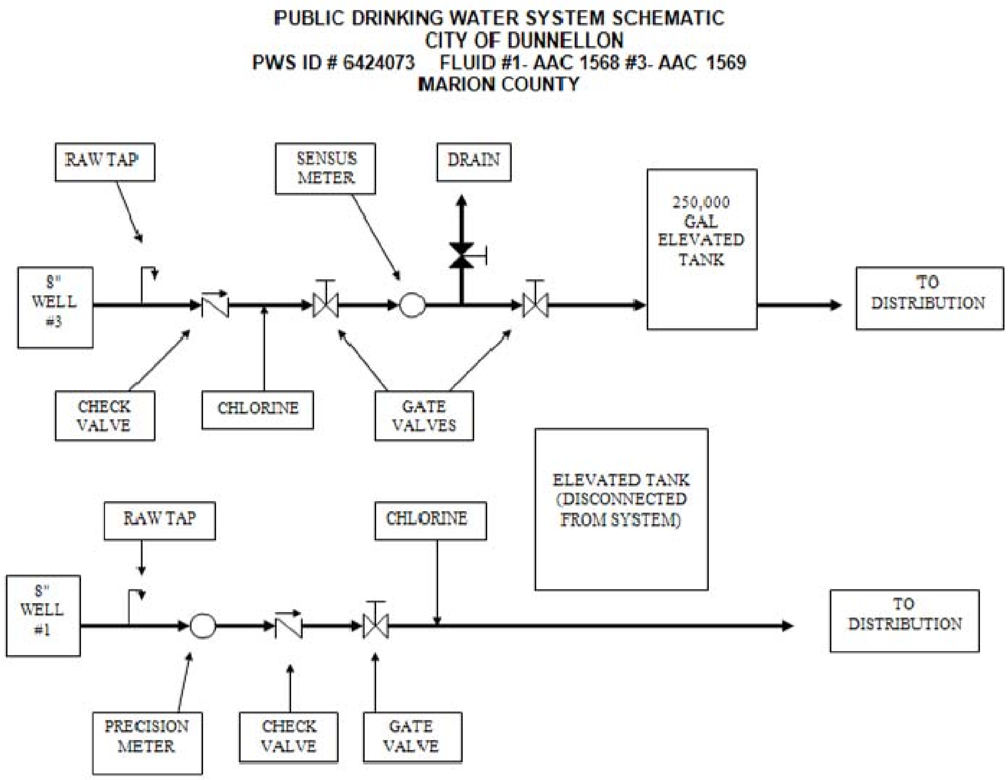
TECHNICAL ASSISTANCE PROVIDERS (TAP) RECOMMENDED? ☐Yes (see enclosed TAP information) ☒No TAP recommended at this time

COMMENTS: Distribution taken at tap off of Highway 40 near Plant#2

DEFICIENCIES

No deficiencies were observed during the inspection.

SYSTEM SCHEMATIC



DIGITAL PHOTOS

Main Well AAC-1569 at Plant#2

New generator at Plant #2

A 911 Communications tower is added to the storage tank

Chart recorder at Plant #2

Chlorine treatment system at Plant #2

Elevated storage tank at Plant #2

Chart recorder at Plant #1

Flow meter

Back-up Well AAC-1568 at Plant #1

Booster pump at Plant #1

Chlorine gas treatment at Plant #1

INSPECTOR'S SIGNATURE [illegible signature] TITLE ENVIRONMENTAL SPECIALIST DATE: July 25, 2011

REVIEWED BY Gerald B. Foster TITLE ENV. MANAGER DATE: AUG. 4, 2011

.COMPLIANCE MONITORING
COMMUNITY PUBLIC WATER SYSTEMS WITH POPULATION LESS THAN 350

[redacted] CONTAMINANT	# Samples Required	Sampling Location	Frequency	Sample Date	Due Date
Microbiological (Bacte)	1	Each well	monthly	monthly	monthly
	2	Distribution		monthly	monthly
Volatile Organics	*(Note A)*	*(Note G)*	*(Notes A, 2)*	2012	2012
Synthetic Organics	*(Notes B, E)*	*(Note G)*	3 years *(Note 2)*	2012	2012
Nitrate & Nitrite (as N)	1	Each POE	annually	2011	2011
Inorganics	1	Each POE	3 years *(Note 2)*	2012	2012
Asbestos	1 *(Note F)*	Distribution	9 years *(Note 4)*	2012	2012
Secondaries	1	Each POE	3 years *(Note 2)*	2012	2012
Uranium	*(Note C)*	Each POE	3, 6, or 9 years *(Note 2)*	2015	2015
Gross Alpha	*(Note C)*	Each POE	3, 6, or 9 years *(Note 2)*	2018	2018
Radium 226, 228	*(Note C)*	Each POE	3, 6, or 9 years *(Note 2)*	2018	2018
Lead and Copper	*(Note D)*	---	---	2012	2012
DBP (Stage 1)	1 / plant	Max Res	Quarterly, annually, or triennial Note 7	2012	2012

POE = Point of Entry (Samples shall be taken at each entry point to the distribution system that is representative of each source after treatment.)

Note A See Rule 62-550.515(1), F.A.C. Each system shall take four consecutive quarterly samples during its assigned year in the system's first compliance period. If no contaminant is detected, the system shall monitor annually during the next three-year compliance period. If still no contaminants are detected, systems shall take one sample during each subsequent three-year compliance period.

Note B Four consecutive quarterly samples for the first year of operation. Credit will be given for samples taken before January 1, 1993. After initial sampling, may go to triennial sampling in second year of a three-year compliance period.

Note C See Rule 62-550.519, F.A.C.

Note D Contact the Southwest District Drinking Water Program at {813} 632-7600, or contact the Florida Rural Water Association.

Note E Contact Nick Noreika, DEP Drinking Water Program, at {813} 632-7600, extension 314, to obtain an application for reduced monitoring, or visit: http://www.dep.state.fl.us/water/drinkingwater/forms.htm.

Note F See Rule 62-550.511(4), F.A.C. A system without asbestos-containing components shall certify to the Department, in writing, using DEP Form No. 62-555.910(10), that it is asbestos free. Certification shall satisfy subsections (1), (2), and (3) of the referenced rule, and shall be submitted each nine-year compliance cycle during the specified year the system is required to monitor.

Note G First quarter samples shall be representative of each well. Subsequent samples shall be taken at each entry point to the distribution system that is representative of each source after treatment.

Note 1 First year of each three-year compliance period (calendar years 2005, 2008, 2011, etc.).

Note 2 Second year of each three-year compliance period (calendar years 2006, 2009, 2012, etc.).

Note 3 First year of each nine-year compliance cycle (calendar years 2005, 2008, etc.).

Note 4 Second year of each nine-year compliance cycle (calendar years 2006, 2009, etc.).

Note 5 Third year of each three-year compliance period (2007, 2010, 2013, etc.).

Note 6 Third year of each nine-year compliance cycle (2004, 2013, etc.).

Note 7 Requirements vary. Please contact your local District office for specific information.

APPENDIX H: GROWTH, WATER AND WASTEWATER PROJECTIONS

Existing Service Area	Present			1-Year			2-Year			3-Year			4-Year			5-Year		
	2012			2013			2014			2015			2016			2017		
	Pop	Water Demand	WW Demand	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Demand	WW Demand
City of Dunnellon (West of River)	1,602	271,127	143,856	1,610	273,463	133,597	1,617	274,813	134,194	1,624	276,163	134,792	1,632	277,764	135,489	1,641	279,366	136,186
City of Dunnellon (East of River)	131			132		10,973	134		11,089	135		11,205	137		11,354	139		11,504
Rainbow Springs	2,372	739,141	135,227	2,376	741,187	135,409	2,379	742,186	135,592	2,382	743,184	135,774	2,386	744,370	135,991	2,390	745,555	136,207
Rio Vista	338	40,928	3,718	339	41,358	3,729	340	41,480	3,740	341	41,602	3,751	342	41,748	3,764	343	41,895	3,777
Juliette Falls	45	43,271		48	45,760		50	48,249		53	50,738		56	53,419		59	56,099	
Developments to Increase Population																		
Rainbow River Ranches	0	0	0	0	0	0	0	0	0	0	0	0	56	8,752	7,024	111	17,504	14,048
McBride Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pruitt Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Boger Property		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Optional Additions to Network w/o Pop. Increase																		
Chatmire	187	29,256	15,538	188	29,350	15,587	188	29,444	15,637	189	29,537	15,687	190	29,694	15,770	191	29,850	15,853
Dunnellon Airport Flows (Industrial Park)	-	4,730	3,784	-	4,746	3,797	-	4,762	3,810	-	4,779	3,823	-	4,856	3,885	-	4,934	3,947
Dunnellon High School (ERU)	-	26,068	5,250	-	26,158	5,268	-	26,247	5,286	-	26,336	5,304	-	26,765	5,390	-	27,193	5,477
Dunnellon Elementary School (ERU)	-			-			-			-			-			-		

Existing Service Area	6-Year			7-Year			8-Year			9-Year			10-Year		
	2018			2019			2020			2021			2022		
	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Demand	WW Demand
City of Dunnellon (West of River)	1,649	280,967	136,884	1,658	282,569	137,581	1,666	284,170	138,278	1,674	285,614	138,909	1,681	287,059	139,540
City of Dunnellon (East of River)	140		11,653	142		11,803	144		11,952	146		12,085	147		12,218
Rainbow Springs	2,393	746,741	136,424	2,397	747,926	136,640	2,401	749,112	136,857	2,404	750,173	137,051	2,408	751,234	137,245
Rio Vista	345	42,041	3,791	346	42,188	3,804	347	42,334	3,817	348	42,432	3,826	349	42,529	3,835
Juliette Falls	61	58,780		64	61,460		67	64,141		70	66,630		72	69,119	
Developments to Increase Population															
Rainbow River Ranches	149	23,339	18,731	186	29,174	23,414	223	35,009	28,096	260	40,844	32,779	297	46,679	37,462
McBride Development	47	7,406	5,943	94	14,811	11,887	142	22,217	17,830	189	29,622	23,773	236	37,028	29,716
Pruitt Development	333	52,236	41,922	665	104,472	83,843	998	156,707	125,765	1,331	208,943	167,687	1,664	261,179	209,609
Boger Property	24	3,758	3,016	48	7,517	6,032	72	11,275	9,049	96	15,033	12,065	120	18,792	15,081
Optional Additions to Network w/o Pop. Increase															
Chatmire	192	30,006	15,936	193	30,162	16,019	194	30,319	16,102	195	30,412	16,152	195	30,506	16,202
Dunnellon Airport Flows (Industrial Park)	-	5,418	4,334	-	5,901	4,721	-	6,385	5,108	-	6,867	5,493	-	7,348	5,878
Dunnellon High School (ERU)	-	29,858	6,013	-	32,524	6,550	-	35,189	7,087	-	37,843	7,621	-	40,497	8,156
Dunnellon Elementary School (ERU)	-			-			-			-			-		

Existing Service Area	11-Year			12-Year			13-Year			14-Year			15-Year		
	2023			2024			2025			2026			2027		
	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow
City of Dunnellon (West of River)	1,689	288,503	140,170	1,696	289,948	140,801	1,704	291,392	141,432	1,712	292,993	142,129	1,721	294,595	142,826
City of Dunnellon (East of River)	149		12,350	150		12,483	152		12,616	154		12,765	156		12,915
Rainbow Springs	2,411	752,294	137,438	2,415	753,355	137,632	2,418	754,416	137,826	2,422	755,602	138,043	2,426	756,787	138,259
Rio Vista	349	42,627	3,843	350	42,724	3,852	351	42,822	3,861	352	42,968	3,874	353	43,115	3,887
Juliette Falls	75	71,608		77	74,097		80	76,586		83	79,458		86	82,330	
Developments to Increase Population															
Rainbow River Ranches	323	50,763	40,740	349	54,847	44,018	375	58,932	47,296	401	63,016	50,573	427	67,101	53,851
McBride Development	301	47,210	37,889	366	57,393	46,061	430	67,576	54,233	495	77,758	62,405	560	87,941	70,577
Pruitt Development	2,121	333,003	267,251	2,579	404,827	324,893	3,036	476,652	382,536	3,493	548,476	440,178	3,951	620,300	497,820
Boger Property	153	23,959	19,228	186	29,127	23,376	218	34,295	27,523	251	39,462	31,670	284	44,630	35,818
Optional Additions to Network w/o Pop. Increase															
Chatmire	196	30,600	16,251	196	30,694	16,301	197	30,788	16,351	198	30,944	16,434	199	31,100	16,517
Dunnellon Airport Flows (Industrial Park)	-	7,977	6,382	-	8,607	6,885	-	9,236	7,389	-	9,868	7,894	-	10,500	8,400
Dunnellon High School (ERU)	-	43,966	8,854	-	47,434	9,553	-	50,903	10,252	-	54,384	10,953	-	57,865	11,654
Dunnellon Elementary School (ERU)	-			-			-			-			-		

Existing Service Area	16-Year			17-Year			18-Year			19-Year			20-Year		
	2028			2029			2030			2031			2032		
	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Flow	WW Flow	Pop	Water Demand	WW Demand
City of Dunnellon (West of River)	1,729	296,196	143,524	1,738	297,798	144,221	1,746	299,399	144,918	1,754	300,938	145,582	1,762	302,476	146,246
City of Dunnellon (East of River)	157		13,064	159		13,214	161		13,363	163		13,512	165		13,662
Rainbow Springs	2,429	757,973	138,476	2,433	759,158	138,692	2,437	760,344	138,909	2,441	761,467	139,114	2,444	762,590	139,319
Rio Vista	355	43,261	3,901	356	43,408	3,914	357	43,554	3,927	358	43,700	3,940	359	43,847	3,953
Juliette Falls	89	85,202		92	88,074		95	90,946		98	93,626		101	96,307	
Developments to Increase Population															
Rainbow River Ranches	453	71,185	57,129	479	75,269	60,407	505	79,354	63,685	531	83,438	66,963	557	87,522	70,241
McBride Development	625	98,123	78,749	690	108,306	86,921	755	118,489	95,093	820	128,671	103,265	884	138,854	111,437
Pruitt Development	4,408	692,124	555,463	4,866	763,948	613,105	5,323	835,773	670,747	5,781	907,597	728,390	6,238	979,421	786,032
Boger Property	317	49,798	39,965	350	54,965	44,112	383	60,133	48,259	416	65,301	52,407	449	70,468	56,554
Optional Additions to Network w/o Pop. Increase															
Chatmire	200	31,256	16,600	201	31,413	16,683	202	31,569	16,766	203	31,663	16,816	203	31,757	16,866
Dunnellon Airport Flows (Industrial Park)	-	11,131	8,905	-	11,763	9,410	-	12,395	9,916	-	13,025	10,420	-	13,656	10,925
Dunnellon High School (ERU)	-	61,347	12,355	-	64,828	13,056	-	68,309	13,757	-	71,786	14,457	-	75,263	15,158
Dunnellon Elementary School (ERU)	-			-			-			-			-		