MODEL CAPACITY REPORT

City of St. Pete Beach

Project No. 148404010
September 2016
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Prepared for:

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

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Executive Summary

On February 24, 2015 the St. Pete Beach City Commission authorized the City Manager to engage the services of Kimley-Horn and Associates, Inc. (Kimley-Horn) to provide general engineering services for the Inflow and Infiltration Study. Task 4 included the following scope to create a hydraulic and statistical model of the City's sanitary sewer system with the following goals:

- Determine remaining flow capacity within the system for a maximum of 3 projected scenarios
- Identify potential problem areas and recommendations for future capital improvement plans to fix outstanding issues.
- Create a City wide map showing capacity ratings at each lift station and within existing gravity pipes and force mains.

Kimley-Horn created hydraulic standards based on flow capacity, modeled the City's system analyzing these capacity standards, and identified potential problems areas. The wastewater system hydraulic standards and operating guidelines described below were developed to address the City's concern for sewer capacity in the existing system.

- Gravity pipe capacity:
    - 0%-60% (Low Priority)
    - 60%-80% (Medium Priority)
    - 80%-100% (High Priority)
    - Exceeding 100% (Critical Priority)
- Manhole indications:
    - No Surcharge (Low Priority)
    - Surcharge or Overflow (Critical Priority)

The following results are shown for the Peak Flow Scenario:

- A summary of the wastewater system capacity for current operating conditions per service area is shown in **Table 1**.
- A summary of each service area is shown following **Table 3** with a description and review of the different components within the system.
- **Appendix B** contains a set of maps illustrating the entire model and its results.
    - Maps Includes: Pipe Capacity, Surcharging Manholes, Remaining Capacity, and Maximum Force Main Velocity.
- **Appendix C** contains the entire database for the SewerGEMS model.
    - Includes: Input and Results Tables for Manholes, Conduit, Lift Stations, Pump Stations, Force Mains, Pressure Junctions, and Outfalls

Table 1: Wastewater System Capacity Summary

Wastewater System Capacity Summary			
Service Area	Service Area Remaining Capacity (GPM)	Percent Capacity Remaining of Limiting Factor	Capacity Limiting Factor
1	0	0%	Surcharging Gravity System - 24-inch along Boca Ciega Drive
2	0	0%	Surcharging Gravity System - 21-inch along Gulf Blvd
3	13	1%	Gravity System - 15-inch along Pass a Grille Way
4	0	0%	Lift Station Pump exceeds operating point during peak flow
5	131	44%	Lift Station limits additional flow
6	0	0%	Lift Station Pump not capable of handling peak flow; Both pumps required
7	0	0%	Lift Station Pump not capable of handling peak flow; Both pumps required
8	73	33%	Lift Station limits additional flow
9	258	87%	Gravity System - 8-inch along Boca Ciega Isle Drive
10	0	0%	Surcharging Gravity System - 8-inch along Sunset Way
11	139	52%	Lift Station limits additional flow
12	69	21%	Lift Station limits additional flow
13	142	65%	Lift Station limits additional flow
14	0	0%	Lift Station Pump not operating efficiently due to downstream HGL
15	52	22%	Lift Station limits additional flow
16	90	63%	Lift Station limits additional flow
17	0	0%	Downstream Gravity System limits flow

Some of the potential problem areas identified in the model are as follows:

- Significant surcharging is occurring along the primary 24-inch gravity main running along Gulf Winds Drive and Boca Ciega Drive
- Significant surcharging is occurring along the primary 21-inch gravity main running along Gulf Boulevard.
- Surcharging is occurring in the 10-inch gravity main serving the area north of 55th Avenue.
- Lift Station No. 6, 7, and 14 require both pumps to run to prevent surcharging or overflow in the wet well, indicating that the station does not meet the requirements specified on the Florida Department of Environmental Protection (FDEP) Application for Constructing a Domestic Wastewater Collection/Transmission System and Section 42.31 of the "Recommended Standards for Wastewater Facilities", 2014.

As a result of the Model Capacity Report findings, Kimley-Horn and the City recommends a two-phase approach to rehabilitating the City's wastewater collection and transmission system.

<u>Phase 1:</u>

- Inspect the wastewater system and complete the Inflow and Infiltration Report
- Address recommendations within the Model Capacity Report

- Implement proposed capital improvement projects

In order to recommend proposed capital improvement projects, Kimley-Horn created a series of alternatives based on input from the City to determine what capital improvement projects may help alleviate the capacity problems. A complete list and corresponding descriptions of the alternatives analyzed are shown in **Appendix D**. After analysis of these proposed alternatives, it was determined by a collaborative effort between Kimley-Horn and the City that the majority of potential problems regarding the surcharging and overflow within the system can be addressed with the following capital improvement project recommendations:

- **Force Main 2 Extension – Pump Station 2 to Pump Station 1**
    - Includes approximately 7,800 LF of 24-inch force main
    - Conceptual opinion of probable cost: $4,430,270.00
- **Force Main 3 Extension – Pump Station 3 to Force Main 2**
    - Includes approximately 8,050 LF of 16-inch force main
    - Includes addition of backup diesel pump at Pump Station 3
    - Conceptual opinion of probable cost: $2,986,550.00
- **Hotel District Force Main and Lift Station Improvements**
    - Includes three new lift stations
    - Includes approximately 3,200 LF of 6-inch force main
    - Includes approximately 190 LF of 8-inch gravity main – 150 FT for new construction of gravity pipe to proposed wet wells; 40 FT for replacement of southern cross-over
    - Conceptual opinion of probable cost: $1,655,940.00

In addition to the capital improvement projects listed above, continuous maintenance efforts are recommended to reduce inflow and infiltration in the system. This includes gravity main lining, spot repairs, and manhole repairs. The City has allocated $500,000 a year for maintenance efforts.

<u>Phase 2 (To begin after implementation of proposed capital improvement projects):</u>

- Implement a flow monitoring plan to determine inflow and infiltration reduction
- Update the Model Capacity Report to reflect new pump run time, flow meter, and flow monitoring data

A summary of the available capacity in the major components of the system resulting from the implementation of the proposed improvements is shown in **Table 4.** A complete summary of the model results incorporating the proposed improvements is shown in **Table 5**. A geographical representation of the proposed capital improvements is shown in **Appendix E.** A detailed opinion of probable cost for the proposed improvements are shown in **Appendix F.** Corresponding model results are shown in **Appendix G.**

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Authorization

On February 24, 2015 the St. Pete Beach City Commission authorized the City Manager to engage the services of Kimley-Horn and Associates, Inc. (Kimley-Horn) to provide general engineering services for the Inflow and Infiltration Study. Task 4 included the following scope:

The Engineer will develop a hydraulic and statistical model using the management software package, Bentley SewerGEMS (Bentley SewerGEMS, 2015), to analyze the City's entire sanitary sewer system. Model will be developed using the following data sources.

- *Physical data collected through the Inspection during the Inflow and Infiltration Study*
- *Pump flow and run times collected from the City's "Pump Watch" monitoring system*
- *Water use data collected from Pinellas County for meter readings.*
- *Records and As-built drawings from the City's public records.*

Upon completion of model, the Engineer will prepare a report containing the following results:

- *Remaining flow capacity within system for a maximum of 3 projected scenarios*
  - *Example Scenarios: Dry Weather Peak Hour Flow Event, Wet Weather Peak Hour Flow Event, Average Daily Flow Event*
  - *Engineer will coordinate and discuss scenarios with the City before finalization of model and report.*
- *Identification of potential problem areas and recommendations for future capital improvement plans to fix outstanding issues.*
- *City wide map showing capacity ratings at each lift station and within existing gravity pipes and force mains.*

Public Services staff at the City authorized Kimley-Horn to proceed with the Model Capacity Report before the Inflow and Infiltration Report, due to the anticipated schedule for the cleaning and inspection by the Contractor. The pre-cleaning inspection has been recently completed. The cleaning and post-inspection portions of the project are expected to be completed by the end of 2016.

Introduction

Background

In 1957, the City of St. Pete Beach consisted of four independent municipalities – St. Petersburg Beach, Belle Vista, Don Cesar, and Pass a Grille. The Cities then merged to become the City of St. Pete Beach. At this time, the Long Key Sewer District construction project was also completed to provide the entire beach community with a sewer system capable of handling flows for the development at the time of construction. A large majority of the original infrastructure is still in place today.

The City's wastewater system includes a transmission system and several gravity collection systems. The transmission system includes 17 wastewater pumping stations – the Master Pump Station (Pump Station 1), two major re-pump stations (Pump Stations 2 and 3), and 14 smaller lift stations. The City's gravity collection system includes 17 service areas. The number of the downstream lift station designates the number of the Service Area. IE Service Area 5 is served by Lift Station No. 5. The gravity system is prone to high levels of inflow and infiltration, partially due to the high water table elevation.

The City of St. Pete Beach is anticipating growth over the upcoming years with the approval of the Community Redevelopment Plan for the Downtown and Gulf Boulevard Redevelopment Districts. This capacity report and accompanying hydraulic model was assembled to assist the City in identifying and selecting capital improvement projects to efficiently and cost-effectively meet the demands of current conditions.

Scope and Objectives

- Create a system wide model of the existing wastewater pump stations, lift stations, force mains, and gravity sewers.
- Develop hydraulic standards for the City's sanitary sewer system.
- Evaluate affected portions of the City's existing infrastructure under present year conditions for the peak flow.
- Make collection system improvement recommendations for the system to meet the hydraulic standards under the scenario above.

Hydraulic Model Development

A system-wide SewerGEMS hydraulic model was completed by incorporating the following:

- Flows calculated from pump run times gathered over the past year through the City's Pump Watch monitoring software.
- Flow estimate for Pump Station 1 service area was estimated using the monthly flow measured from the City of St. Petersburg billing data.
- Additional field data for the gravity system collected from the pre-cleaning inspection of the City wide cleaning and inspection project.
- Records and as-built drawings from the City's public records, for Service Areas 1-14.
- The original project scope contained an objective to use Pinellas County water use data from Meter readings. After receiving this data from the county, it was concluded to be insufficient in regards to scope and timeframe and inconsistent in its documentation. Flow estimates from pump watch monitoring software were sufficient in lieu of the water use data.
- Service Area 15, 16 and 17 are included based on the "Recommended Standards for Wastewater Facilities", 2014. Accurate as-built data was unavailable.

The model is organized into a series of seventeen service areas that each contain a system of gravity sewer pipes and a downstream lift station. The system-wide model was used to (1) evaluate the available capacity in the existing wastewater collection system under the peak flow scenario and (2) evaluate short-term and long-term system improvements.

System Hydraulic Standards

The wastewater system hydraulic standards and operating guidelines described below were developed in accordance with the City's concern for sewer capacity in the existing system.

- Gravity pipe capacity:
    - 0%-60% (Low Priority)

  - 60%-80% (Medium Priority)
  - 80%-100% (High Priority)
  - Exceeding 100% (Critical Priority)
- Manhole indications:
  - No Surcharge (Low Priority)
  - Surcharge or Overflow (Critical Priority)

Model Calculation Methodology

The hydraulic model was calculated over a time period of 24 hours using an Extended Period Simulation (EPS) model. The EPS calculation method requires the use of a Diurnal Curve to multiply a base flow amount by a factor at hourly time steps. A Diurnal or "Daily" curve represents the variation of flow throughout a 24 hour cycle. Two diurnal curves were created to simulate flow through the City's sewer system. The average flow diurnal curve was created using historical data from local coastal communities in the Tampa Bay Area. This data was used because the hourly time-step data from Pump Station No. 1 was unavailable. The average flow diurnal curve is shown in **Figure 1** below.

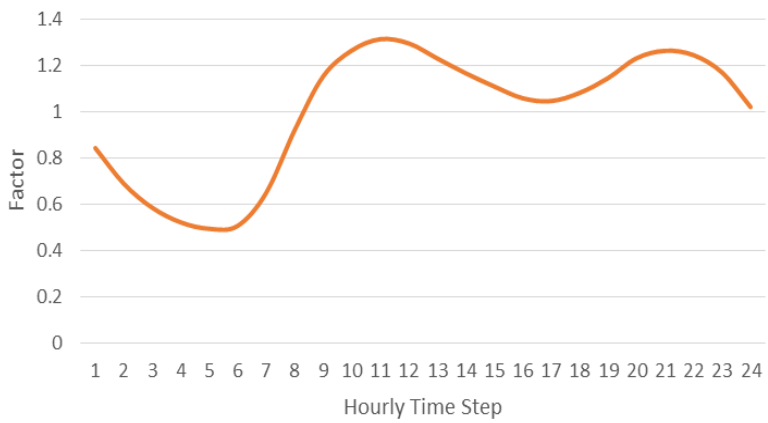


Figure 1: Average Flow Diurnal Curve

The peak flow diurnal curve follows the same pattern as the average flow diurnal curve with a modified peaking factor. The peaking factor established for this report is based on population data and is representative of the entire wastewater system as a whole. It does not represent the recommended peaking factor for individual commercial or residential users.

Peak Hour Flow Calculation (PHF):

- Peak Hour Flow is based on the population calculation from the Ten State Standards ("Recommended Standards for Wastewater Facilities", 2014)
- The population within the City Limits is 9,373 (See **Appendix A** for a population report)
- Using the equation shown in **Figure 2** below, the peaking factor is **2.98** for PHF

$$Q\ Peak\ Hourly/Q\ Design\ Ave = \frac{18 + \sqrt{P}}{4 + \sqrt{P}} \quad \text{- - -} \quad (P = \text{population in thousands})$$

Figure 2: Ten State Standards Peaking Factor Equation (Population = 9,373)
("Recommended Standards for Wastewater Facilities", 2014)

The peak flow diurnal curve is shown in **Figure 3** below.

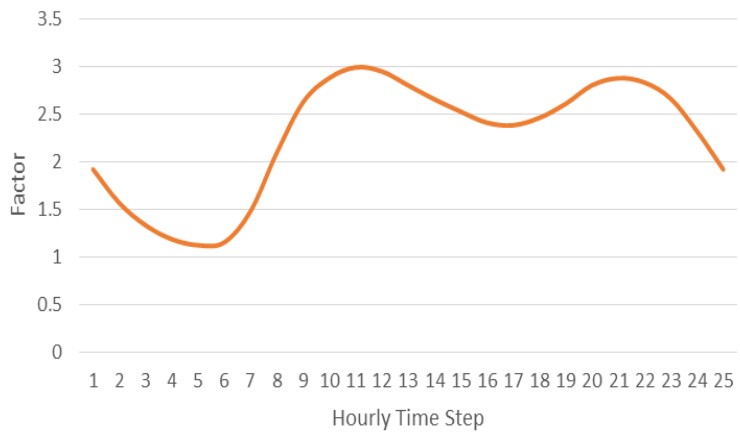


Figure 3: Peak Flow Diurnal Curve

Wastewater Base Load Calculations

Service Area 1 – Flow Measurement

Wastewater flows for Service Area 1 were calculated using flow meter data provided from the City of St. Petersburg. The City of St. Pete Beach discharges to the City of St. Petersburg's wastewater system. The total flow is monitored using a flow meter for billing purposes. The monthly flow data was analyzed from March 2015 – March 2016. The total flow measured over a year was divided by 365 days to determine an average daily flow.

Service Areas 2 - 17 – Flow Estimation

Wastewater flows for Service Areas 2 – 17 were established using pump run time data multiplied by the pump's design operating point to obtain the total gallons pumped in one day. For example, if the average run time of a lift station over the course of a year is 270 minutes per day and the associated design point is 300 gallon per minute, the average daily flow for that service area is 270 minutes multiplied by 300 gallons per minute (GPM), which equals 81,000 gallons per day (GPD). These flows are then distributed across the associated service area's manholes.

Pump Run Times

The City's existing pump run time data came from two different sources:

1. Primex Pump Watch Software
2. Manually Recorded Data

Flows for service areas 4-17 were monitored and collected by the Primex Pump Watch software (*Primex Pump Watch*, 2016). Pump run times for each pump were pulled from March 02, 2015 to March 03, 2016. Combined daily run times were established per lift station and averaged over that year. Service Area 3 utilized one week of pump run time data from April 25, 2016 – May 2, 2016, because a year of accurate pump run time data was not available for Pump Station 3.

Service Area 2 utilized manually recorded data from 2010 and 2011, as current run time data was not available. Following the replacement of Pump Station 2, Pump Watch software does not log run time data at this station.

Pump Design Points

Pump design points were established by analyzing the required total dynamic head (TDH) for each lift/pump station. The TDH of a submersible lift station is the total energy loss of the fluid between the pump and the outlet of the station. The required TDH was then compared with each station's pump curve to determine its design point. The pump curve is a summary of the manufacturer's calculations for a specific pumps' rate of flow versus the TDH. See **Figure 4** for an example.

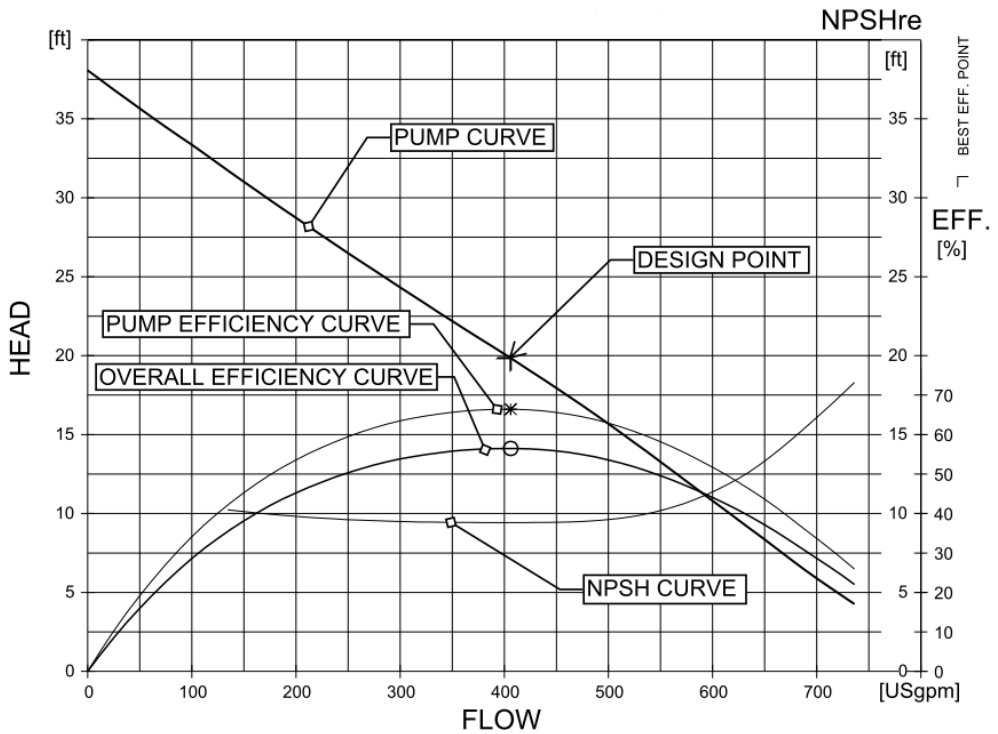


Figure 4: Pump Curve

Flow Distribution

With the exception of Service Area 2, the estimated flows calculated in each service area were distributed over the total number of manholes included per service area. For instances of lift stations that re-pump flow, only the flow from the gravity system was applied to the manholes.

Flows for Pump Station 2 were distributed differently due to the heavy flows coming from the commercial developments along Gulf Boulevard. Flows of 0.5 GPM were applied to 45 manholes in residential areas. The remaining estimated flow was dispersed evenly among 55 manholes within the commercial area, approximately 10.51 GPM per manhole.

A summary of the wastewater flows per service area is shown in **Table 2** below.

Table 2: Wastewater Flows per Service Area

Wastewater Flows per Service Area						
Service Area	Total Flow (GPD)	Directly Contributing Lift Stations	Flow From Corresponding Gravity System (GPD)	Manholes with Sanitary Load	Base Flow Applied to each MH (GPD)	Base Flow Applied to each MH (GPM)
1	2,786,301	2, 10, 11, 12, 14	252,539	153	1,651	1.15
2	2,010,000	3, 7, 9, 13, 15	865,125	Res: 45 Com: 55	Res: 720 Com: 15,140	Res: 0.50 Com: 10.51
3	731,802	4, 6, 17	252,464	104	2,428	2.08
4	220,390	5	137,216	64	2,144	1.04
5	83,174		83,174	62	1,342	0.93
6	164,225		164,225	39	4,211	2.92
7	253,657	8, 16	156,649	37	4,234	2.56
8	71,085		71,085	32	2,221	1.98
9	33,636		33,636	15	2,242	1.56
10	215,609		215,609	52	4,146	2.88
11	55,891		55,891	22	2,541	1.76
12	123,427		123,427	13	9,494	6.59
13	37,308		37,308	9	4,145	2.88
14	128,836		128,836	29	4,443	3.09
15	88,472		88,472	28	3,160	2.19
16	25,923		25,923	17	1,525	1.06
17	94,723		94,723	33	2,870	1.62

System Capacity Summary

The model for current operating conditions was run under two different scenarios:

- Average Daily Flow
  - Pump operating point was synchronized with run times to finalize flow data
  - Model was calibrated using the data explained in the scope of services
- Peak Flow Scenario
  - Model was used to create a capacity analysis within the City's sewer system when put under a critical event

The hydraulic standards were analyzed in the model using the following methods:

- **Pipe Capacity**: The capacity of each gravity main is determined from the maximum flow at its individual critical time step within the model divided by its full flow calculation for its size and slope using the Manning's equation.
- **Surcharging Manholes**: Surcharging occurs when the water level rises above the top of any pipe connected to a manhole. The number of manholes surcharging is representative of the entire 24-hour cycle, showing whether or not the manhole surcharges at any point. Not all manholes are necessarily surcharging at the same time.

Summary of Results

- A summary of the wastewater system capacity per service area is shown in **Table 3**.
- A summary of each service area is shown following **Table 3** with a description and review of the different components within the system.
- **Appendix B** contains a set of maps illustrating the entire model and its results.
  - Maps Includes: Pipe Capacity, Surcharging Manholes, Remaining Capacity, and Maximum Force Main Velocity.
- **Appendix C** contains the entire database for the SewerGEMS model.
  - Includes: Input and Results Tables for Manholes, Conduit, Lift Stations, Pump Stations, Force Mains, Pressure Junctions, and Outfalls

Table 3: Wastewater System Detailed Capacity Summary

Wastewater System Detailed Capacity Summary								
Service Area	Number of Manholes Ever Surcharging	Gravity Mains 0% – 60% Capacity	Gravity Mains 60% – 80% Capacity	Gravity Mains 80% – 100% Capacity	Gravity Mains Exceeding 100% Capacity	Service Area Remaining Capacity (GPM)	Percent Capacity Remaining of Limiting Factor	Capacity Limiting Factor
1	111	76%	2%	0%	22%	0	0%	Surcharging Gravity System - 24-inch along Boca Ciega Drive
2	87	68%	4%	9%	19%	0	0%	Surcharging Gravity System - 21-inch along Gulf Blvd

3	2	65%	10%	23%	2%	13	1%	Gravity System - 15-inch along Pass a Grille Way
4	1	84%	10%	6%	0%	0	0%	Lift Station Pump exceeds operating point during peak flow
5	0	100%	0%	0%	0%	131	44%	Lift Station limits additional flow
6	1	100%	0%	0%	0%	0	0%	Lift Station Pump not capable of handling peak flow; Both pumps required
7	8	95%	5%	0%	0%	0	0%	Lift Station Pump not capable of handling peak flow; Both pumps required
8	0	99%	1%	0%	0%	73	33%	Lift Station limits additional flow
9	0	100%	0%	0%	0%	258	87%	Gravity System - 8-inch along Boca Ciega Isle Drive
10	14	94%	3%	0%	2%	0	0%	Surcharging Gravity System - 8-inch along Sunset Way
11	0	100%	0%	0%	0%	139	52%	Lift Station limits additional flow
12	0	100%	0%	0%	0%	69	21%	Lift Station limits additional flow
13	1	100%	0%	0%	0%	142	65%	Lift Station limits additional flow
14	1	100%	0%	0%	0%	0	0%	Lift Station Pump not operating efficiently due to downstream HGL
15	0	100%	0%	0%	0%	52	22%	Lift Station limits additional flow
16	0	100%	0%	0%	0%	90	63%	Lift Station limits additional flow
17	0	100%	0%	0%	0%	0	0%	Downstream Gravity System limits flow

Service Area 1

The hydraulic model developed includes the following infrastructure from Service Area 1 (SA 1):

- 153 Manholes/Clean Outs

- 25,139 Linear Feet (LF) of 8-inch Gravity Main
- 1,464 LF of 10-inch Gravity Main
- 4,233 LF of 12-inch Gravity Main
- 7,560 LF of 24-inch Gravity Main
- Total Length of Gravity Main: 38,396 LF
- Pump Station No. 1 Outfall

Pump Station 1 serves as the master pump station for the entire sewer system in St. Pete Beach. Pump Station 2 and Lift Stations 10, 11, 12, and 14 directly contribute flow to SA 1. Pump Station 1 is fed by two 24-inch Polyvinyl Chloride (PVC) Pipes. Each pipe discharges into a separate north and south wetwell. For modelling purposes, Lift Station 1 is shown as the final outfall for the system. The outfall elevation (-7.28 FT) was set to the gravity invert elevation of the pump station.

Significant surcharging is occurring along the primary 24-inch gravity main running along Gulf Winds Drive and Boca Ciega Drive.

- This surcharging causes the HGL to increase. The Hydraulic Grade Line (HGL) is a line representing the TDH available to the fluid.
- **Figure 5** shows the HGL along the 24-inch Gravity Main at the Critical Time Step (12:00).
- The elevated HGL causes surcharging in additional gravity sewer mains that connect into the primary gravity main.
- The increase in HGL also impacts Lift Station 10 and 14 pumping operations. The pumps have to overcome the water elevation in the manhole instead of pumping into an open or empty manhole.
- When the HGL level rises above the top of the pipe, the pipe segment is being forced to operate under pressure.

A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 1.

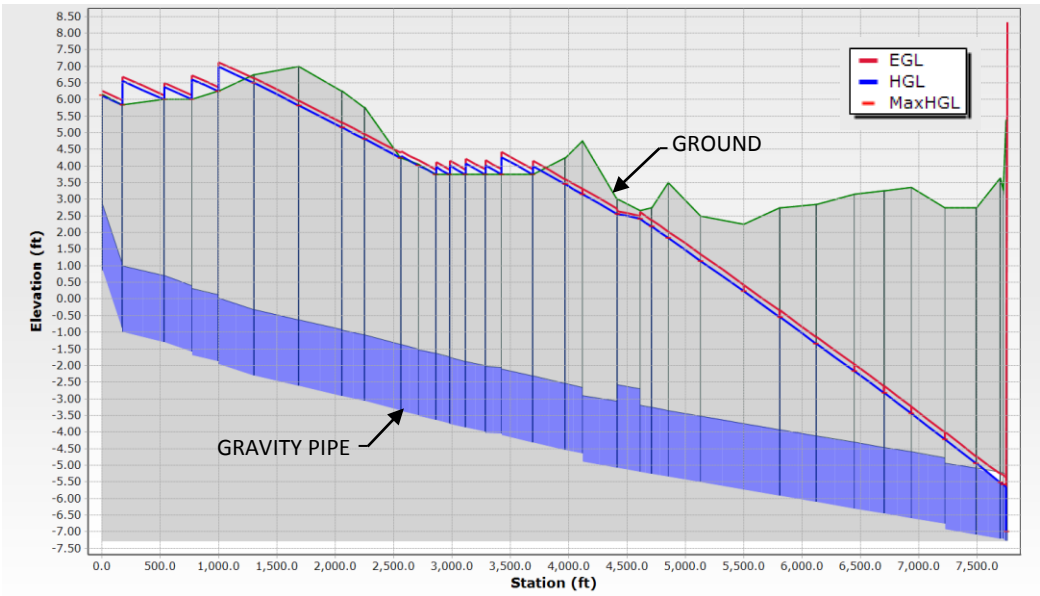


Figure 5: 24-inch Gravity Sewer Main along Gulf Winds and Boca Ciega Drive

Service Area 2

The hydraulic model developed includes the following infrastructure from Service Area 2 (SA 2):

- 102 Manholes/Clean Outs
- 15,374 LF of 8-inch Gravity Main
- 2,975 LF of 10-inch Gravity Main
- 397 LF of 12-inch Gravity Main
- 1,282 LF of 18-inch Gravity Main
- 5,713 LF of 21-inch Gravity Main
- 120 LF of 24-inch Gravity Main
- Total Length of Gravity Main: 25,861 LF
- 1,290 LF of 16-inch Force Main
- Pump Station No. 2 Wet Well and Pumps
    - Design Flow: 4,000 GPM (2,000 GPM per pump)
    - Triplex Design – two standard duty pumps and one standby pump
    - Speed was limited to 50Hz for both pumps during the peak flow scenario to mimic the flow controls set for the station to limit overflow downstream.

SA 2 discharges directly into SA 1. SA 2 is located directly upstream of SA 1 and serves the area due south of 59th Ave within the City limits of St. Pete Beach. Pump Station 3 and Lift Stations 7, 9, 13, and 15 directly contribute flow to SA 2. Pump Station No. 2 is a triplex submersible pump station.

Significant surcharging is occurring along the primary 21-inch gravity main running along Gulf Boulevard.

- This surcharging causes the HGL to increase.
- **Figure 6** shows the HGL along the 21-inch Gravity Main at the Critical Time Step (11:00)
- The elevated HGL causes surcharging in additional gravity sewer mains that connect into the primary gravity main.
- The increase in HGL causes impacts Lift Station 7 in its pumping operations

A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 2.

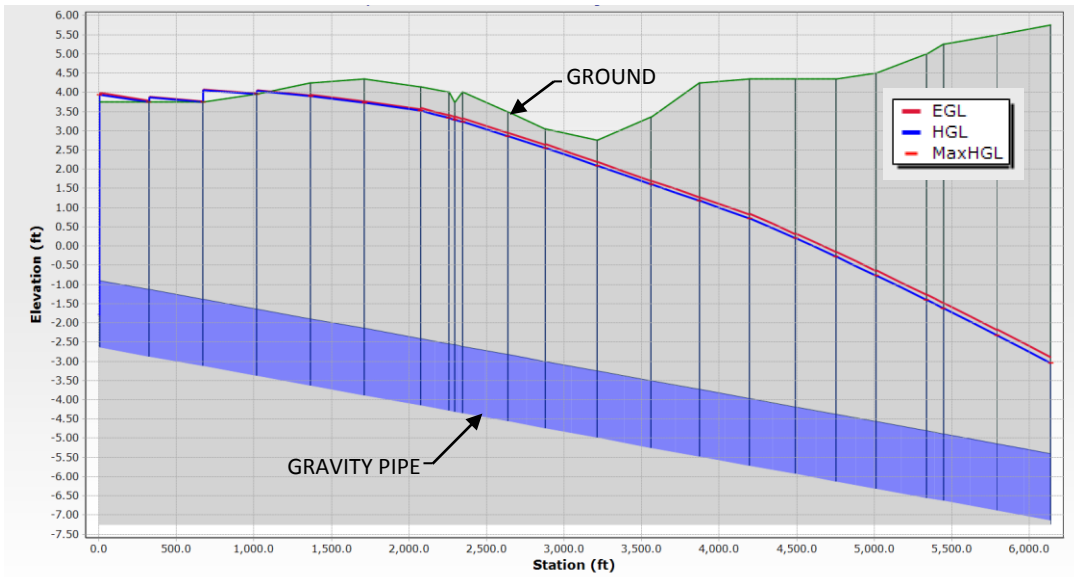


Figure 6: 21-inch Gravity Sewer Main along Gulf Blvd.

Service Area 3

The hydraulic model developed includes the following infrastructure from Service Area 3 (SA 3):

- 100 Manholes/Clean Outs
- 12,919 LF of 8-inch Gravity Main
- 2,947 LF of 15-inch Gravity Main
- 2,395 LF of 18-inch Gravity Main
- Total Length of Gravity Main: 18,261 LF
- 2,642 LF of 10-inch Force Main
- Pump Station No. 3 Wet Well and Pump
    - Design Flow: 1,000 GPM per pump
    - Triplex Design
    - Pump Station has been operating as a duplex for a significant timeframe
    - Pump Station 3 is currently under construction; completion anticipated November 2016. The Pump Station 3 upgrade was only included in the model when evaluating proposed capital improvement project alternatives.

SA 3 is directly upstream of SA 2 and discharges flow to the SA 2 gravity system. SA 3 receives flows from surrounding neighborhoods within the City limits of St. Pete Beach for the southern half of the island from the 37th Avenue south to the end of Pass a Grille Way. Lift stations 4, 6 and 17 contribute flow to SA 3.

Unlike SA 1 and 2 significant surcharging does not occur along the primary 15-inch and 18-inch gravity main running along Pass a Grille Way, however it only has a small amount of remaining available capacity to accommodate future flows. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 3.

Service Area 4

The hydraulic model developed includes the following infrastructure from Service Area 4 (SA 4):

- 64 Manholes/Clean Outs
- 2,143 LF of 6-inch Gravity Main
- 5,980 LF of 8-inch Gravity Main
- 2,369 LF of 10-inch Gravity Main
- Total Length of Gravity Main: 8,492 LF
- 300 LF of 6-inch Force Main
- Lift Station No. 4 Wet Well and Pump
    - Design Flow: 350 GPM
    - Duplex station

SA 4 is directly upstream of SA 3 and receives flow from surrounding neighborhoods from 21st Avenue south to 11th Ave as well as flow from Lift Station 5. SA 4 discharges directly to the gravity system of SA 3. Lift Station 4 is a standard duplex submersible station. While significant surcharging does not occur in SA 4, the lift station pumps have no capacity for additional flow. The flow contributing to the lift station from the gravity system exceeds the design operating point of the pump. Additional flow would require both pumps to turn on to avoid overflow. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 4.

Service Area 5

The hydraulic model developed includes the following infrastructure from Service Area 5 (SA 5):

- 62 Manholes
- 8,130 LF of 8-inch Gravity Main
- Total Length of Gravity Main: 8,130 LF
- 1,250 LF of 6-inch Force Main
- Lift Station No. 5 Wet Well and Pump
    - Design Flow: 305 GPM
    - Duplex station

SA 5 is directly upstream of SA 4 and is the most upstream portion of the system. SA 5 receives flows from surrounding neighborhoods from 11th Ave to the southern tip of the island. Lift Station 5 is a standard duplex submersible station. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 5.

Service Area 6

The hydraulic model developed includes the following infrastructure from Service Area 6 (SA 6):

- 39 Manholes/Clean Outs
- 8,809 LF of 8-inch Gravity Main
- 35 LF of 10-inch Gravity Main
- Total Length of Gravity Main: 8,844 LF
- 1,750 LF of 8-inch Force Main
- Lift Station No. 6 Wet Well and Pumps
    - Design Flow: 260 GPM
    - Duplex station

Service Area 6 is located to the east of SA 3 and receives flow from surrounding residential neighborhoods in the Vina Del Mar area. SA 6 discharges to the upstream area of the SA 3 gravity system. SA 6 was not completely built out in the model because as-built data was not available for the northern half of the island. Approximately 6,000 LF of 8-inch gravity pipe and 16 manholes were not included in the model, according to the GIS information of the City's sewer system.

Lift Station 6 is a standard duplex submersible station. In order to meet the peak hour flow condition without surcharge or overflow, both pumps are required to run. Surcharging or overflow would occur if only one of the pumps in the station were in operation during the peak flow scenario. Therefore the lift station does not meet the requirements specified on the FDEP Application for Constructing a Domestic Wastewater Collection/Transmission System and Section 42.31 of the "Recommended Standards for Wastewater Facilities", 2014. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 6.

Service Area 7

The hydraulic model developed includes the following infrastructure from Service Area 7 (SA 7):

- 37 Manholes/Clean Outs
- 8,809 LF of 8-inch Gravity Main
- 310 LF of 10-inch Gravity Main
- 35 LF of 12-inch Gravity Main
- Total Length of Gravity Main: 9,454 LF
- 150 LF of 8-inch Force Main
- Lift Station No. 7 Wet Well and Pump
    - Design Flow: 290 GPM
    - Duplex station

SA 7 is located to the east of SA 2 and receives flow from surrounding residential neighborhoods as well as flow from Lift Stations 8 and 16. SA 7 discharges to the upstream portion of the SA 2 gravity system.
Lift Station 7 is a standard duplex submersible station. In order to meet the peak hour flow condition without surcharge or overflow, both pumps are required to run. Surcharging or overflow would occur if only one of the pumps in the station were in operation during the peak flow scenario. Therefore the lift station does not meet the requirements specified on the FDEP Application for Constructing a Domestic Wastewater Collection/Transmission System and Section 42.31 of the "Recommended Standards for Wastewater Facilities", 2014. An exemption would be required if station was modified in the future. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 7.

Service Area 8

The hydraulic model developed includes the following infrastructure from Service Area 8 (SA 8):

- 32 Manholes/Clean Outs
- 6,471 LF of 8-inch Gravity Main
- 1,350 LF of 8-inch Force Main
- Lift Station No. 8 Wet Well and Pump
    - Design Flow: 270 GPM
    - Duplex station

- The rehabilitation of Lift Station 8 is currently under design; Completion anticipated 2017. The Lift Station 8 upgrade was only included in the model when evaluating proposed capital improvement project alternatives.

SA 8 is located to the east of SA 2 and receives flow from surrounding residential neighborhoods. SA 8 discharges into the upstream manhole of SA 7. Approximately 2,400 LF of 8-inch gravity pipe and 8 manholes were not included in the model, according to the GIS information of the City's sewer system. Lift Station 8 is a standard duplex submersible station. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 8.

Service Area 9

The hydraulic model developed includes the following infrastructure from Service Area 9 (SA 9):

- 15 Manholes/Clean Outs
- 3,332 LF of 8-inch Gravity Main
- 275 LF of 6-inch Force Main
- Lift Station No. 9 Wet Well and Pump
  - Design Flow: 410 GPM
  - Duplex station

SA 9 is located to the east of SA 1 and receives flow from surrounding residential neighborhoods. SA 9 discharges to the upstream portion of the SA 2 gravity system. Lift Station 9 is a standard duplex submersible station. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 9.

Service Area 10

The hydraulic model developed includes the following infrastructure from Service Area 10 (SA 10):

- 51 Manholes/Clean Outs
- 13,569 LF of 8-inch Gravity Main
- 1,150 LF of 8-inch Force Main
- Lift Station No. 10 Wet Well and Pump
  - Design Flow: 350 GPM
  - Duplex station

SA 10 is located to the west of SA 1 and receives flow from the area west of Blind Pass Road from 78th Avenue to 67th Avenue from surrounding residential neighborhoods. SA 10 discharges to the SA 1 gravity system. Lift Station 10 is a standard duplex submersible station. The lift station pumps have no capacity for additional flow. The flow contributing to the lift station from the gravity system exceeds the design operating point of the pump. Additional flow would require both pumps to turn on to avoid overflow. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 10.

Service Area 11

The hydraulic model developed includes the following infrastructure from Service Area 11 (SA 11):

- 22 Manholes/Clean Outs
- 5,898 LF of 8-inch Gravity Main

- 650 LF of 6-inch Force Main
- Lift Station No. 11 Wet Well and Pump
    - Design Flow: 200 GPM
    - Duplex station

SA 11 is located to the west of SA 1 and receives flow from the area west of Blind Pass Road from 88th Avenue to 76th Avenue from surrounding residential neighborhoods. SA 11 discharges to the SA 1 gravity system. Lift Station 11 is a standard duplex submersible station. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 11.

Service Area 12

The hydraulic model developed includes the following infrastructure from Service Area 12 (SA 12):

- 13 Manholes/Clean Outs
- 1,820 LF of 8-inch Gravity Main
- 128 LF of 12-inch Gravity Main
- Total Length of Gravity Main: 1,948 LF
- 875 LF of 8-inch Force Main
- Lift Station No. 12 Wet Well and Pump
    - Design Flow: 390 GPM
    - Duplex station

SA 12 is located to the north of SA 1 and receives flow from the residential area along Blind Pass Road from the northern point of the island to Captiva Circle. SA 12 discharges to the SA 1 gravity system. Lift Station 12 is a standard duplex submersible station. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 12.

Service Area 13

The hydraulic model developed includes the following infrastructure from Service Area 13 (SA 13):

- 9 Manholes/Clean Outs
- 2,644 LF of 8-inch Gravity Main
- 220 LF of 4-inch Force Main
- Lift Station No. 13 Wet Well and Pump
    - Design Flow: 200 GPM
    - Duplex station

SA 13 is located to the east of SA 2 and receives flow from the residential area along 55th Ave, from Pali Way to the eastern tip of the island. SA 13 discharges to the SA 2 gravity system. Lift Station 13 is a standard duplex submersible station. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 13.

Service Area 14

The hydraulic model developed includes the following infrastructure from Service Area 14 (SA 14):

- 29 Manholes/Clean Outs
- 7,461 LF of 8-inch Gravity Main

- 1,370 LF of 6-inch Force Main
- Lift Station No. 14 Wet Well and Pump
    - Design Flow: 200 GPM
    - Duplex station

SA 14 is located to the east of SA 1 and receives flow from the residential area along 64th Ave from Bay Street east. SA 14 discharges to the SA 1 gravity system.

Lift Station 14 is a standard duplex submersible station. In order to meet the peak hour flow condition without surcharging or overflow, both pumps are required to turn on. Surcharging or overflow would occur if only one of the pumps in the station were in operation during the peak flow scenario. Because of the elevated HGL of the gravity sewer system connected to the Lift Station 14 force main, the pumps do not operate as efficiently. The lift station does not meet the requirements specified on the FDEP Application for Constructing a Domestic Wastewater Collection/Transmission System and Section 42.31 of the "Recommended Standards for Wastewater Facilities", 2014. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 14.

Service Area 15

The hydraulic model developed includes the following infrastructure from Service Area 15 (SA 15) based on standard design criteria and GIS information:

- 28 Manholes/Clean Outs
- 4,700 LF of 8-inch Gravity Main
- 1,120 LF of 6-inch Force Main
- Lift Station No. 15 Wet Well and Pump
    - Design Flow: 200 GPM
    - Duplex station

SA 15 is located to the east of SA 2 and receives flow from the residential area along 59th Ave from Bahia Way to Bimini Way South. SA 15 discharges to the SA 2 gravity system. Lift Station 15 is a standard duplex submersible station. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 15.

Service Area 16

The hydraulic model developed includes the following infrastructure from Service Area 16 (SA 16) based on standard design criteria and GIS information:

- 17 Manholes/Clean Outs
- 4,350 LF of 8-inch Gravity Main
- 830 LF of 6-inch Force Main
- Lift Station No. 16 Wet Well and Pump
    - Design Flow: 150 GPM
    - Duplex station

SA 16 is located to the east of SA 7 and receives flow from the residential area along 41th Avenue. SA 16 discharges to the SA 7 gravity system. Lift Station 16 is a standard duplex submersible station. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 16.

Service Area 17

The hydraulic model developed includes the following infrastructure from Service Area 17 (SA 17) based on standard design criteria and GIS information:

- 33 Manholes/Clean Outs
- 9,100 LF of 8-inch Gravity Main
- 490 LF of 6-inch Force Main
- Lift Station No. 17 Wet Well and Pump
    - Design Flow: 300 GPM
    - Duplex station

SA 17 is located southeast of SA 3 and receives flow from surrounding residential areas. SA 17 discharges to the SA 3 gravity system. Lift Station 17 is a standard duplex submersible station. Because of the elevated HGL of the gravity sewer system connected to the Lift Station 17 force main, the pumps do not operate as efficiently and do not have any available capacity. Additional flow would require both pumps to turn on to avoid overflow. A summary of the model results is shown in **Table 3** above. See **Appendix B** for a geographical representation of SA 17.

Recommendations

As a result of the Model Capacity Report findings, Kimley-Horn and the City recommends a two-phase approach to rehabilitating the City's wastewater collection and transmission system.

<u>Phase 1:</u>

- Inspect the wastewater system and complete the Inflow and Infiltration Report
- Address recommendations within the Model Capacity Report
- Implement proposed capital improvement projects

<u>Phase 2 (To begin after implementation of proposed capital improvement projects):</u>

- Implement a flow monitoring plan to determine inflow and infiltration reduction
- Update the Model Capacity Report to reflect new pump run time, flow meter, and flow monitoring data

In order to recommend proposed capital improvement projects, Kimley-Horn created a series of alternatives based on input from the City to determine what projects may help alleviate the capacity problems. A complete list and corresponding descriptions of the alternatives analyzed are shown in **Appendix D**. After analysis of these proposed alternatives, it was determined by a collaborative effort between Kimley-Horn and the City that the majority of potential problems regarding the surcharging and overflow within the system can be addressed with three major capital improvement plan projects. A geographical representation of the proposed capital improvements is shown in **Appendix E.** A detailed opinion of probable cost for the proposed improvements is shown in **Appendix F.** Corresponding model results are shown in **Appendix G.** These recommendations were considered based on the Pump Station 3 upgrade and Lift Station 8 and 16 upgrades being previously completed. These capital improvement projects are budgeted and scheduled to be completed over the next fiscal year. A 10% reduction was applied to the peak flow when analyzing the proposed improvements to represent inflow and infiltration reduction efforts. According to the report titled

"Sanitary Sewer System I/I Reduction Study – Phase 1" a reduction of flow by 10% is an conservative estimate with a consistent inflow and infiltration reduction program (Camp Dresser & McKee, 2001).

Capital Improvement Projects

Force Main 2 Extension – Pump Station 2 to Pump Station 1
A force main extension from Pump Station 2 along Boca Ciega Drive and Gulf Winds Drive would provide additional capacity in the northern part of the system. In comparison to the Parallel Gravity Main and Gravity Main Upsizing Capital Improvement Projects described in **Appendix D**, this project is more cost effective and creates the most available capacity. This force main extension would act as a transmission system and would create available capacity for future development.

Project Summary:
- Includes Approximately 7,800 LF of 24-inch force main
- Conceptual opinion of probable cost: $4,430,270.00

Force Main 3 Extension – Pump Station 3 to Pump Station 2
Manifolding the existing force main from Pump Station 2 into a proposed force main from Pump Station 3 would increase the available capacity of Pump Station 2 and the existing gravity system upstream and downstream of Pump Station 2. This allows flow to be directly sent to the proposed transmission force main, relieving the overloaded gravity system along Gulf Boulevard and avoiding re-pumping by Pump Station 2. This project should be constructed in conjunction with or following the Force Main 2 Extension to avoid further overloading of the downstream system.

Project Summary:
- Includes approximately 8,050 LF of 16-inch force main
- Includes addition of diesel pump at Pump Station 3
- Conceptual opinion of probable cost: $2,986,550.00

Hotel District Force Main and Lift Station Improvements
The existing cross-over gravity mains along Gulf Boulevard have deteriorated significantly and require replacement. The construction of three lift stations and connecting force mains along Gulf Boulevard to replace the northern three cross-overs will increase capacity in the gravity system serving the commercial properties. The gravity system and existing cross over to the south has adequate capacity and can be rehabilitated or replaced. The new lift stations would serve as a transmission system to Pump Station 2 from the hotel district, creating capacity for new development.

Project Summary:
- Includes the construction of three new lift stations
- Includes approximately 3,200 LF of 6-inch force main
- Includes approximately 190 LF of 8-inch gravity main – 150 FT for new construction of gravity pipe to proposed wet wells; 40 FT for replacement of southern cross-over
- Conceptual opinion of probable cost: $1,655,940.00

Proposed Improvement Results

These capital improvement projects produce the following results in the model:

- Surcharging along the primary 24-inch gravity main running along Gulf Winds Drive and Boca Ciega Drive is alleviated
- Additional capacity is added to the primary 24-inch gravity main running along Gulf Winds Drive and Boca Ciega Drive
- Surcharging within the 21-inch gravity main running along Gulf Boulevard is alleviated

Implementing the capital improvement projects above results in the available capacity within the main components of the system as shown in **Table 4** below. The available capacity was determined by subtracting the peak flow from the maximum capacity of the gravity main, force main or pump station. In the case of gravity mains, maximum capacity is established when the pipe is flowing at 100% full.

Table 4: Available Capacity

Available Capacity	
System Component	**Available Capacity**
24-inch Gravity Sewer Pipe (Boca Ciega Drive)	1,365 GPM
Force Main 2	1,398 GPM
Pump Station 2	2,040 GPM
21-inch Gravity Sewer Pipe (Gulf Boulevard)	610 GPM
Pump Station 3	588 GPM
Hotel District Gravity Collection Systems	702 GPM

The detailed capacity summary and the limiting capacity component in each service area is shown in **Table 5** below. Overall, the downstream portion of the system in Service Area 1 now has additional capacity. Service Area 2 was split into 2 effective service areas – SA 2 and the Hotel District. The Hotel District was isolated from the main gravity pipe serving Service Area 2 and discharges flow directly to Pump Station 2. By creating the Hotel District, surcharging was eliminated and available capacity was created. The force main extension from Pump Station 3 to Force Main 2 creates additional capacity in Pump Station 2 by eliminating re-pumping and alleviating the gravity system by allowing flow to travel directly to the Pump Station 1 outfall.

Table 5: Wastewater System Detailed Capacity Summary – Post Improvements

Wastewater System Detailed Capacity Summary								
Service Area	Number of Manholes Ever Surcharging	Gravity Mains	Gravity Mains	Gravity Mains	Gravity Mains	Service Area Remaining Capacity (GPM)	Percent Capacity Remaining of Limiting Factor	Capacity Limiting Factor
		0% – 60% Capacity	60% – 80%	80% – 100%	Exceeding 100%			

			Capacity	Capacity	Capacity			
1	5	99%	1%	0%	0%	1365	55%	Gravity System - 24-inch along Boca Ciega Drive
2	2	92%	8%	0%	0%	610	31%	Gravity System - 21-inch along Gulf Blvd
Hotel District	2	100%	0%	0%	0%	702	71%	Gravity System*
3	2	66%	17%	17%	0%	121	12%	Gravity System - 15-inch along Pass A Grille Way
4	1	84%	16%	0%	0%	35	8%	Lift Station limits additional flow
5	0	100%	0%	0%	0%	148	49%	Lift Station limits additional flow
6	0	100%	0%	0%	0%	0	0%	Lift Station Pump not capable of handling peak flow; Both pumps required
7	8	95%	5%	0%	0%	0	0%	Lift Station Pump not capable of handling peak flow; Both pumps required
8	0	100%	0%	0%	0%	108	46%	Gravity System - 8-inch along Clearview Way
9	0	100%	0%	0%	0%	262	89%	Gravity System - 8-inch along Boca Ciega Isle Drive
10	0	96%	2%	0%	2%	0	0%	Lift Station limits additional flow
11	0	100%	0%	0%	0%	152	57%	Lift Station limits additional flow
12	0	100%	0%	0%	0%	105	31%	Lift Station limits additional flow

13	1	100%	0%	0%	0%	150	68%	Lift Station limits additional flow
14	2	100%	0%	0%	0%	0	0%	Lift Station Pump not capable of handling peak flow; Both pumps required
15	0	100%	0%	0%	0%	71	30%	Lift Station limits additional flow
16	0	100%	0%	0%	0%	102	68%	Lift Station limits additional flow
17	0	100%	0%	0%	0%	6	2%	Downstream Gravity System limits flow

* The gravity collection systems for **each** lift station has an additional capacity of approximately 234 GPM. The total capacity is 702 GPM in this area.

Maintenance of Existing System

Inflow and Infiltration Reduction

In addition to the capital improvement projects, continuous maintenance efforts are recommended to reduce inflow and infiltration in the system. Reducing flow by limiting inflow and infiltration would greatly reduce the number of surcharging manholes and reduce the percentage of gravity mains exceeding capacity. While the reduction of inflow and infiltration would decrease the total flow entering the system, it would not increase capacity within the system enough to be operating within normal design parameters. The system still requires capital improvement projects for additional capacity. To address inflow and infiltration, approximately $500,000 is budgeted by the City each year for gravity main lining, spot repairs, and manhole repairs. Inflow and infiltration reduction efforts over the next three years should result in a decrease of flow within the system. A more detailed approach for inflow and infiltration reduction will be addressed in the Inflow and Infiltration Report.

Connection Fee Assessment Coordination

Scope and Objective

Along with the completion of the Model Capacity Report, the City has requested Kimley-Horn to coordinate connection fee assessment efforts with the City's financial consultant. Coordination will be provided in the following ways:

- Capacity Comparison of Recommended Alternatives
    - Kimley-Horn will provide a capacity comparison analysis. The capacity comparison analysis will estimate how much sewer capacity is relieved, bringing the system

back down to under capacity, versus additionally created capacity in a maximum of three recommended project alternatives.

Remaining Capacity for Development

The available capacity for development within the system after the implementation of the recommended capital improvement projects is controlled by the downstream limiting factor. By comparing the remaining capacity and the total maximum flow during a peak event with the capacity of the downstream limiting factor, the percentage of the proposed improvements that go toward relieving existing flow problems versus creating additional capacity can be determined.

The furthest downstream limiting factor for the City is the combination of the existing 24-inch gravity sewer pipe and the proposed 24-inch force main. This downstream limiting factor was analyzed and the remaining capacities and there existing flows can be seen in **Figure 7**.

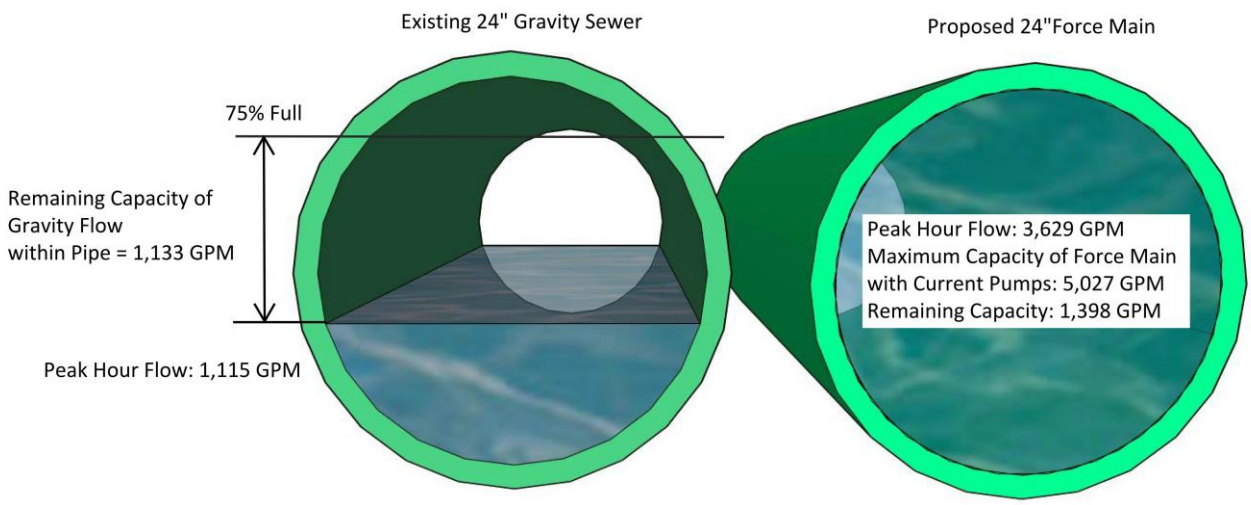


Figure 7: Remaining Capacity of Downstream Limiting Factor

*Per the American Society of Civil Engineers (ASCE), the maximum operating condition of the gravity system is when the gravity pipes are flowing at 75% full (ASCE 1992). The calculation of Total Available Capacity within the model and shown in Tables 3, 4, and 5 is based on 100% full flow.

With the implementation of the proposed improvements, 65% of the total capacity is being used, and 35% is available for additional development. A detailed breakdown of the system-wide capacity is shown below in **Table 6**.

Table 6: Remaining Capacity for Development

Remaining Capacity for Development	
24-inch Gravity Main Total Capacity (75% Full) (A):	2,248 GPM
Peak Flow contributing to Gravity Main (B):	1,115 GPM
Remaining Capacity in Gravity Main (A-B):	1,133 GPM
Maximum Capacity of Force Main with Proposed Pumps (C):	5,027 GPM
Peak Flow contributing to Force Main (D):	3,629 GPM
Remaining Capacity in Force Main (C-D):	1,398 GPM
Total Capacity (TC) of System (A+C):	7,275 GPM
Total Peak Flow (TPF) Contributing to System (B+D):	4,744 GPM
Total Remaining Capacity (TRC) for Development [(A+C)/(B+D)]:	**2,531 GPM**
Percent of TPF versus TC: TPF / TC = (4,744/7,275)	65%
Percent of TRC versus TC: TRC / TC = (2,531/7,275)	35%

References

1. *Recommended Standards for Wastewater Facilities*. (2014). *Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (GLUMRB)*. Retrieved 11 May 2016, from http://10statesstandards.com/

2. Primex Pump Watch (Version 1.7.172a). (2016). Nevada.

3. Bentley SewerGEMS (Version V8i Select Series 5 (8.11.05.58). (2015). Watertown CT.

4. American Society of Civil Engineers, comp. *Gravity Sanitary Sewer Design and Construction*. New York, NY, 1982. Print.

5. Camp Dresser & McKee, comp. *Sanitary Sewer System I&I Reduction Study Phase 1 Report*. City of St. Pete Beach, FL, May 2001.

APPENDICES

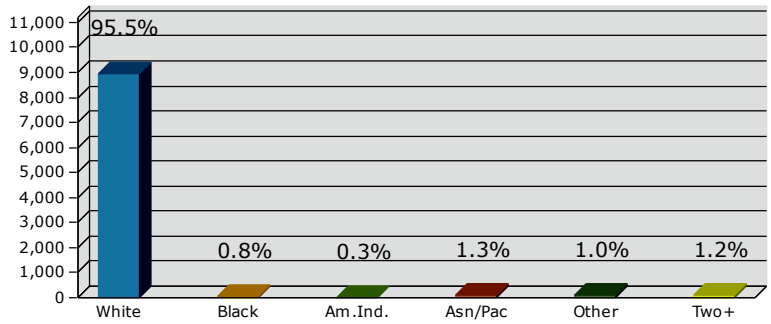
APPENDIX A:
Population Calculation

Graphic Profile

St. Pete Beach City, FL
Geography: Place

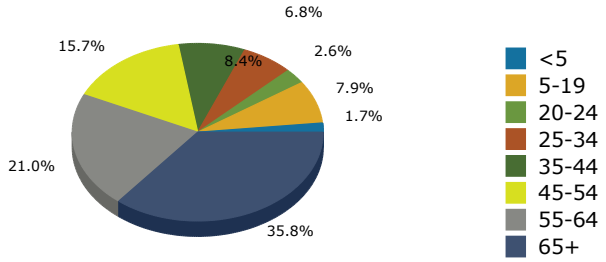
Prepared by Esri

2015 Population by Race

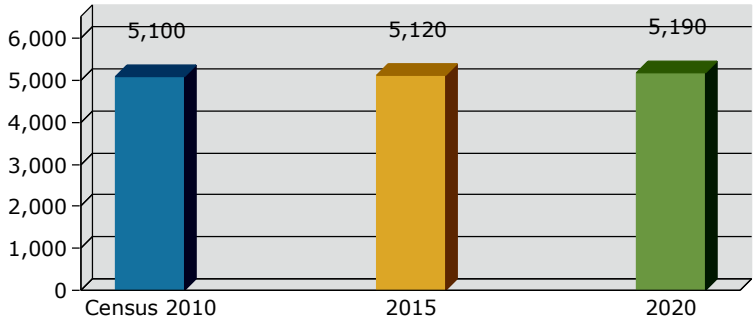


2015 Percent Hispanic Origin:5.2%

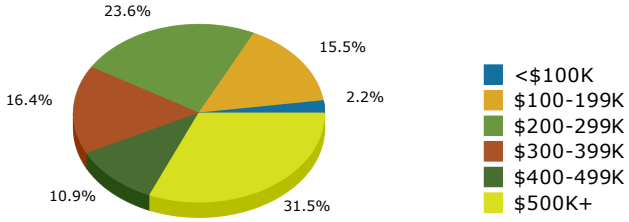
2015 Population by Age



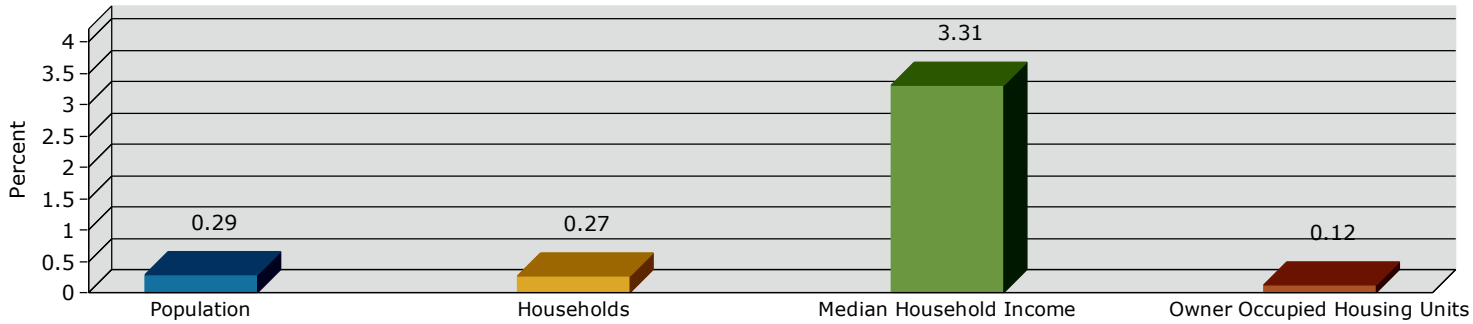
Households



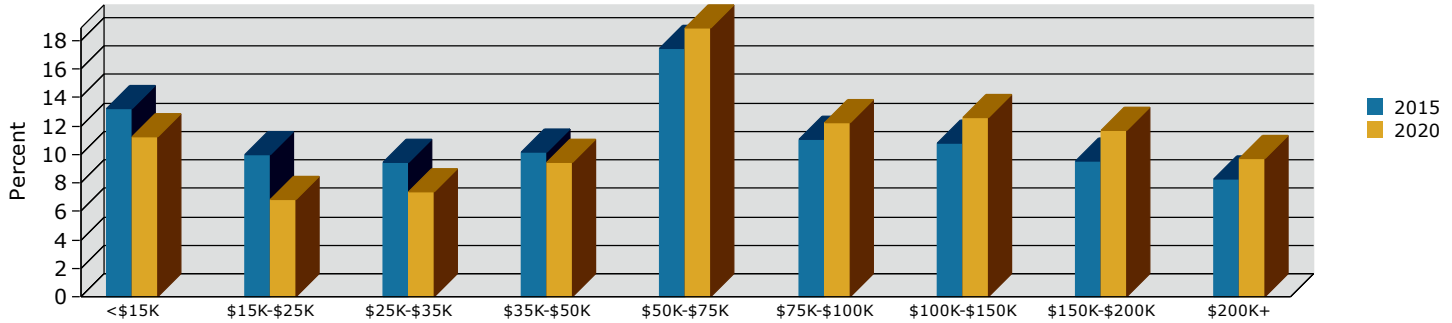
2015 Home Value



2015-2020 Annual Growth Rate



Household Income



Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015 and 2020.

May 05, 2016

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Community Profile

St. Pete Beach City, FL
Geography: Place

Prepared by Esri

Population Summary	
2000 Total Population	10,117
2010 Total Population	9,346
2015 Total Population	9,373
2015 Group Quarters	8
2020 Total Population	9,508
2015-2020 Annual Rate	0.29%
Household Summary	
2000 Households	5,401
2000 Average Household Size	1.82
2010 Households	5,100
2010 Average Household Size	1.83
2015 Households	5,120
2015 Average Household Size	1.83
2020 Households	5,190
2020 Average Household Size	1.83
2015-2020 Annual Rate	0.27%
2010 Families	2,563
2010 Average Family Size	2.41
2015 Families	2,539
2015 Average Family Size	2.42
2020 Families	2,558
2020 Average Family Size	2.43
2015-2020 Annual Rate	0.15%
Housing Unit Summary	
2000 Housing Units	7,954
Owner Occupied Housing Units	47.6%
Renter Occupied Housing Units	20.3%
Vacant Housing Units	32.1%
2010 Housing Units	7,854
Owner Occupied Housing Units	43.8%
Renter Occupied Housing Units	21.1%
Vacant Housing Units	35.1%
2015 Housing Units	7,906
Owner Occupied Housing Units	40.8%
Renter Occupied Housing Units	24.0%
Vacant Housing Units	35.2%
2020 Housing Units	7,995
Owner Occupied Housing Units	40.6%
Renter Occupied Housing Units	24.3%
Vacant Housing Units	35.1%
Median Household Income	
2015	$57,997
2020	$68,263
Median Home Value	
2015	$353,314
2020	$421,006
Per Capita Income	
2015	$49,081
2020	$56,519
Median Age	
2010	56.1
2015	58.4
2020	61.1

Data Note: Household population includes persons not residing in group quarters. Average Household Size is the household population divided by total households. Persons in families include the householder and persons related to the householder by birth, marriage, or adoption. Per Capita Income represents the income received by all persons aged 15 years and over divided by the total population.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015 and 2020. Esri converted Census 2000 data into 2010 geography.

May 05, 2016

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APPENDIX B:
Model Results – Geographical Exhibits

ST. PETE BEACH MODEL RESULTS

KEY SHEET

Legend

Page Number

ST. PETE BEACH MODEL RESULTS

Service Area 5 - Page 1

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

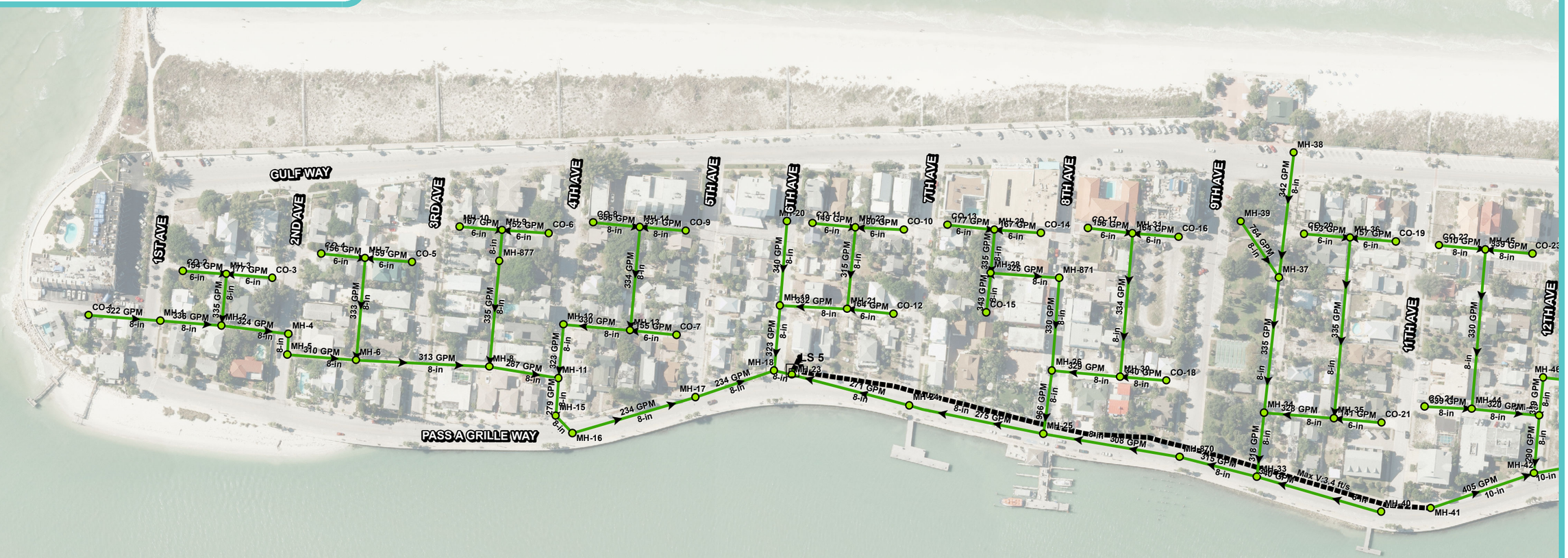
Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

N

200 100 0 200 Ft.



Kimley»Horn

ST. PETE BEACH MODEL RESULTS

Service Area 4 - Page 2

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

ST. PETE BEACH MODEL RESULTS

Service Area 6 - Page 3

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH MODEL RESULTS

Service Area 3 - Page 4

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

N

200 100 0 200 Ft.

Kimley»Horn

ST. PETE BEACH MODEL RESULTS

Service Area 3 - Page 5

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
- XXX GPM
- PIPE SIZE

ST. PETE BEACH MODEL RESULTS

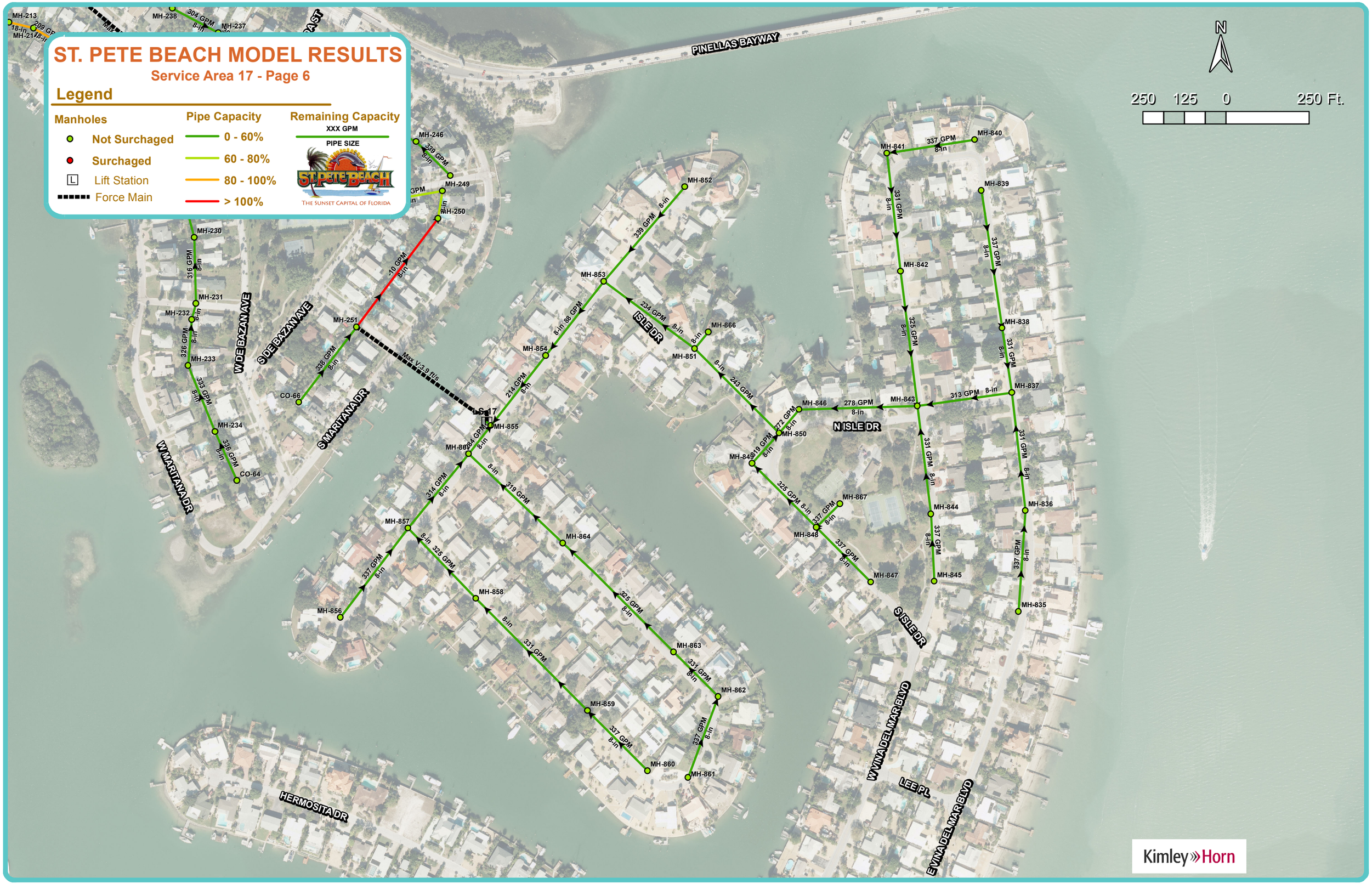
Service Area 17 - Page 6

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE



ST. PETE BEACH MODEL RESULTS

Service Area 8 - Page 7

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH MODEL RESULTS

Service Area 7 - Page 8

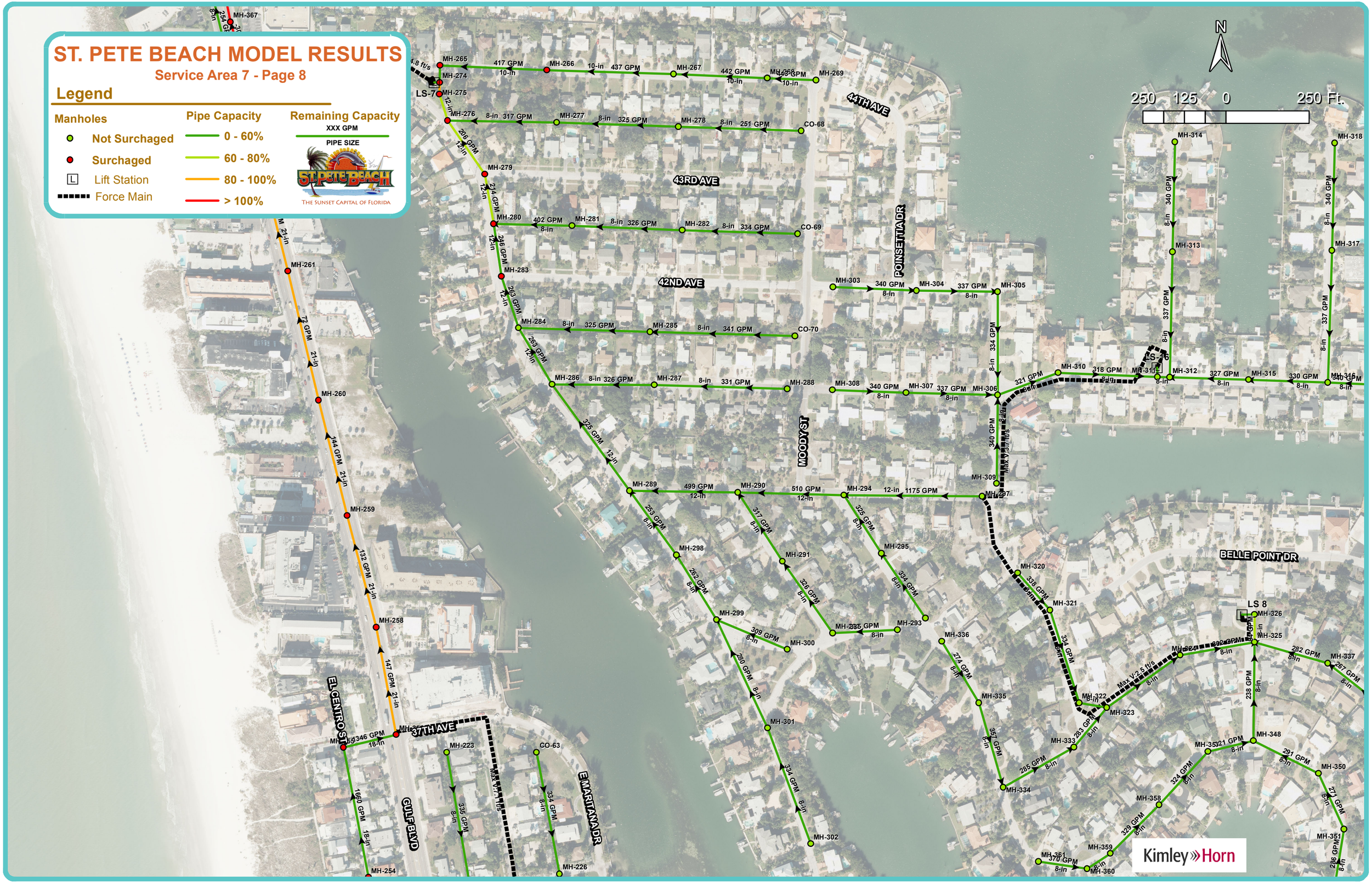
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA



ST. PETE BEACH MODEL RESULTS

Service Area 16 - Page 9

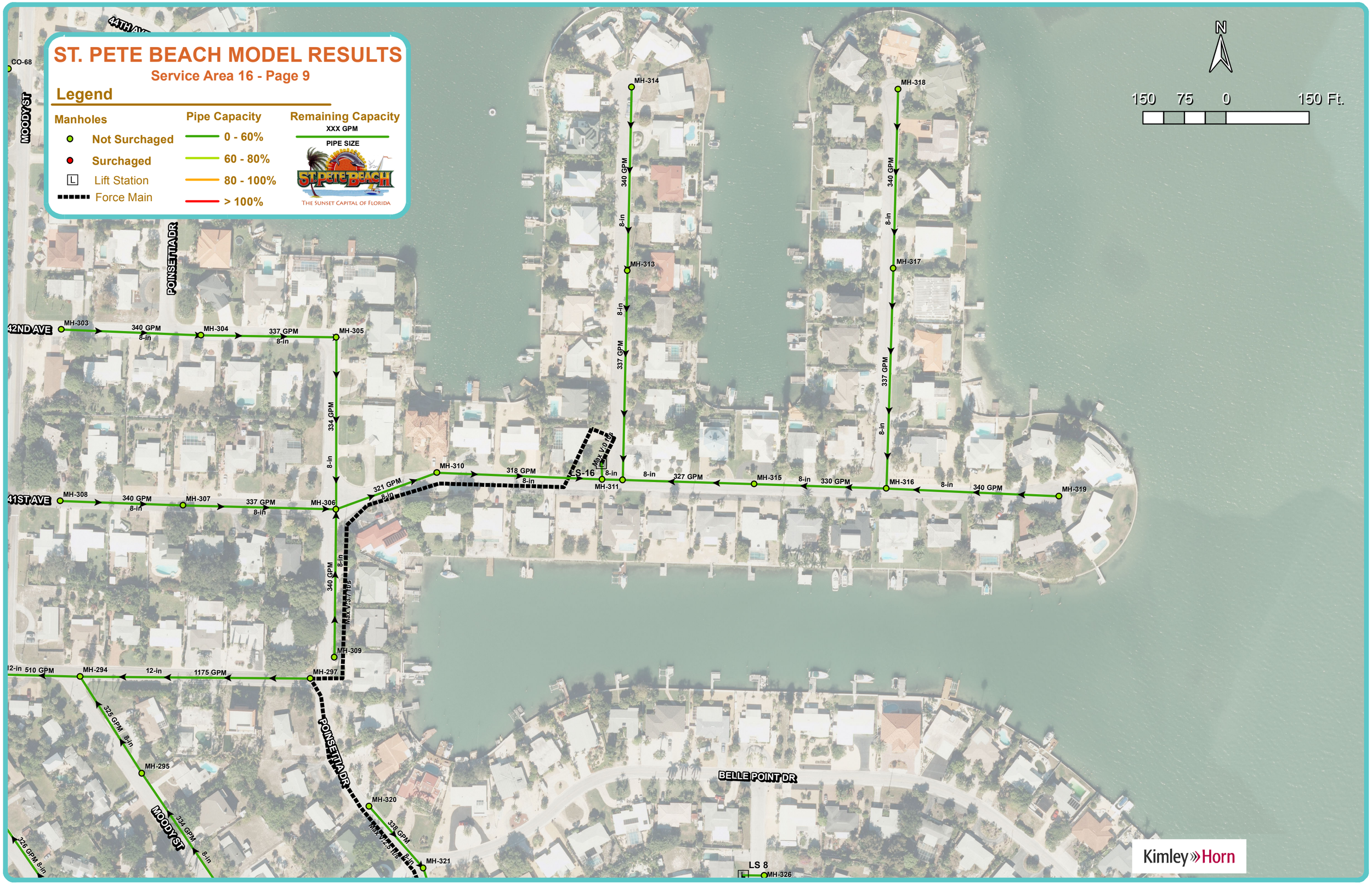
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA



ST. PETE BEACH MODEL RESULTS

Service Area 9 - Page 10

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH MODEL RESULTS

Service Area 2 - Page 11

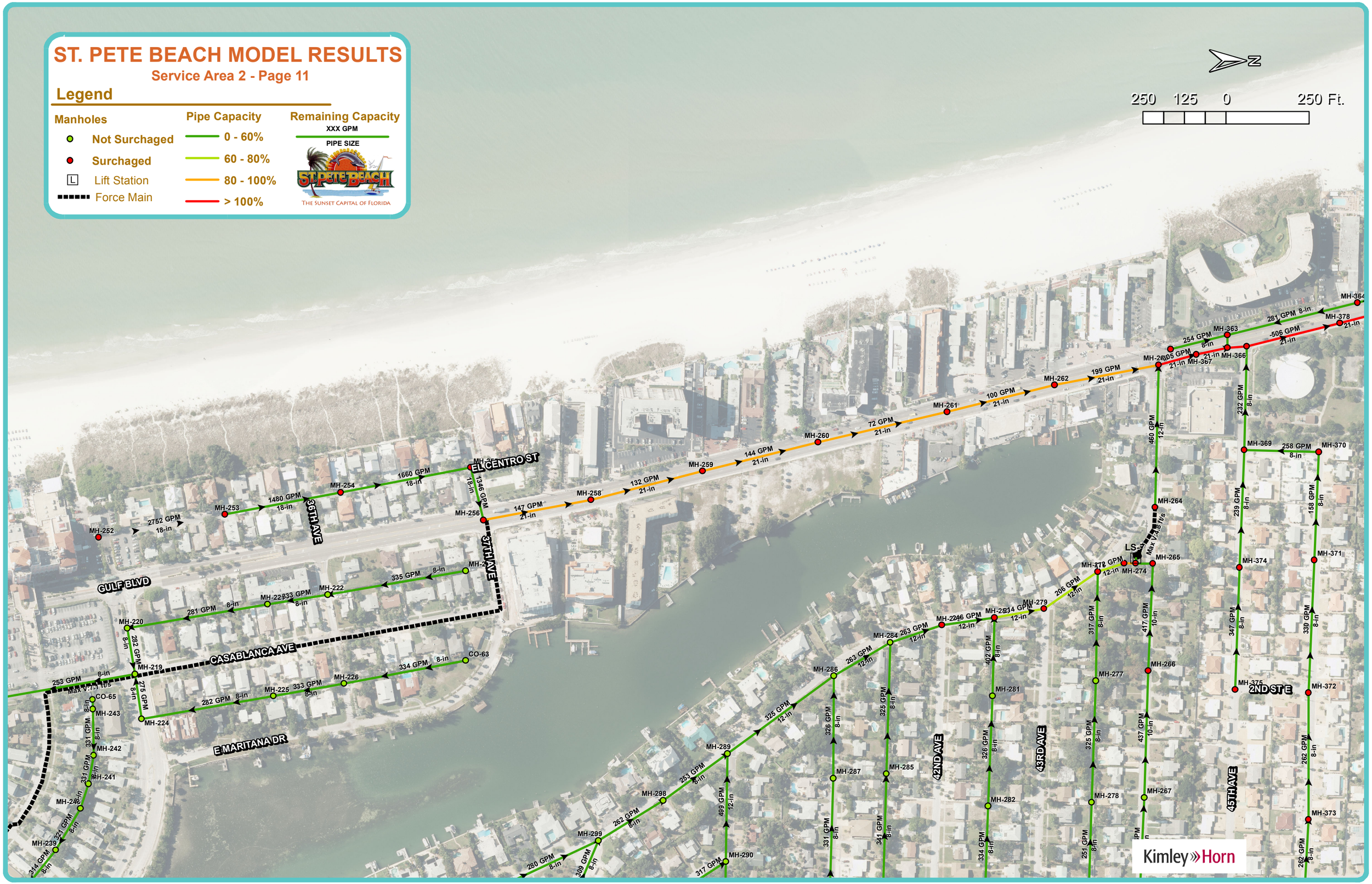
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA



ST. PETE BEACH MODEL RESULTS

Service Area 2 - Page 12

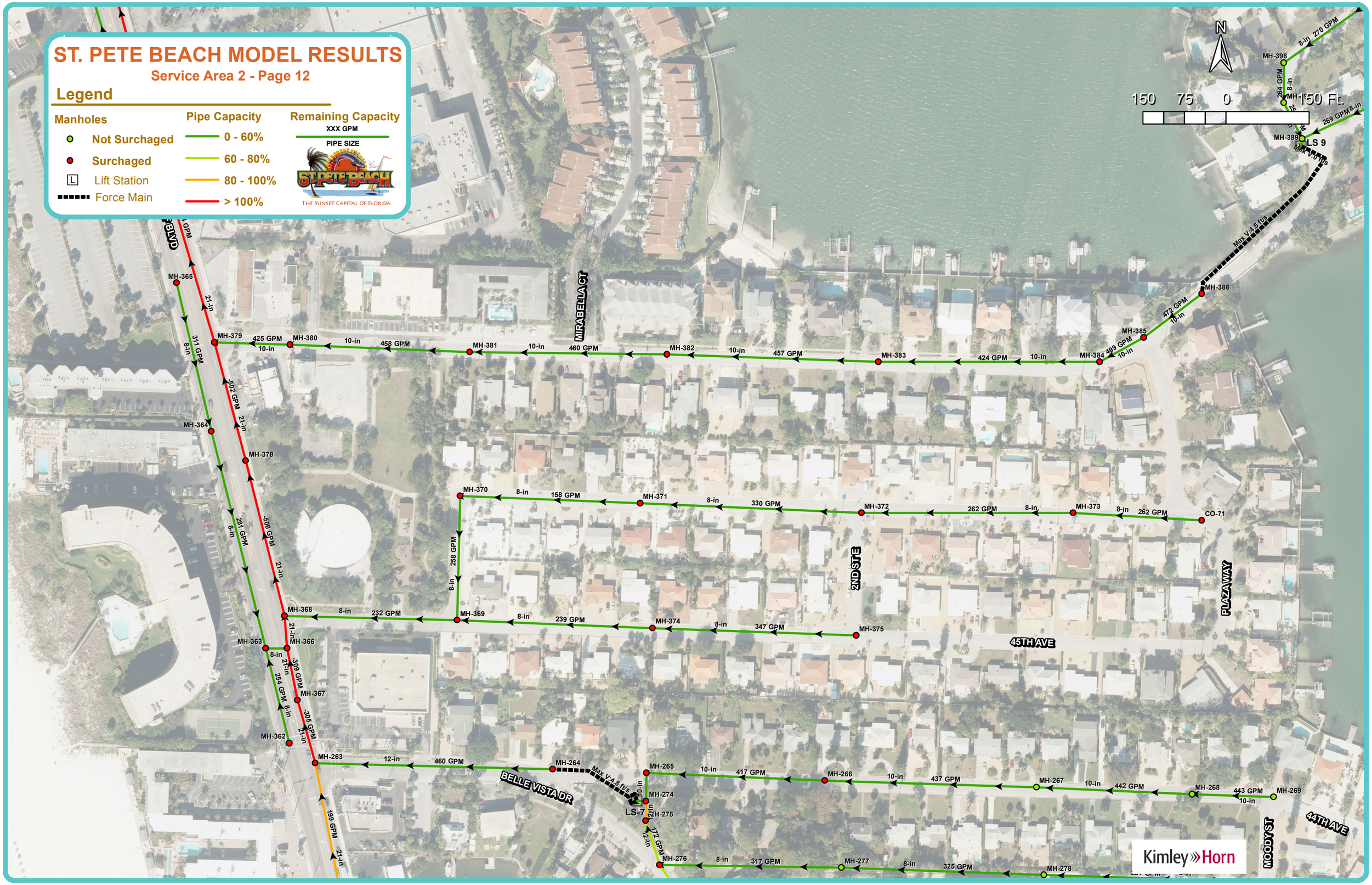
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

St. Pete Beach
The Sunset Capital of Florida



ST. PETE BEACH MODEL RESULTS

Service Area 2 - Page 13

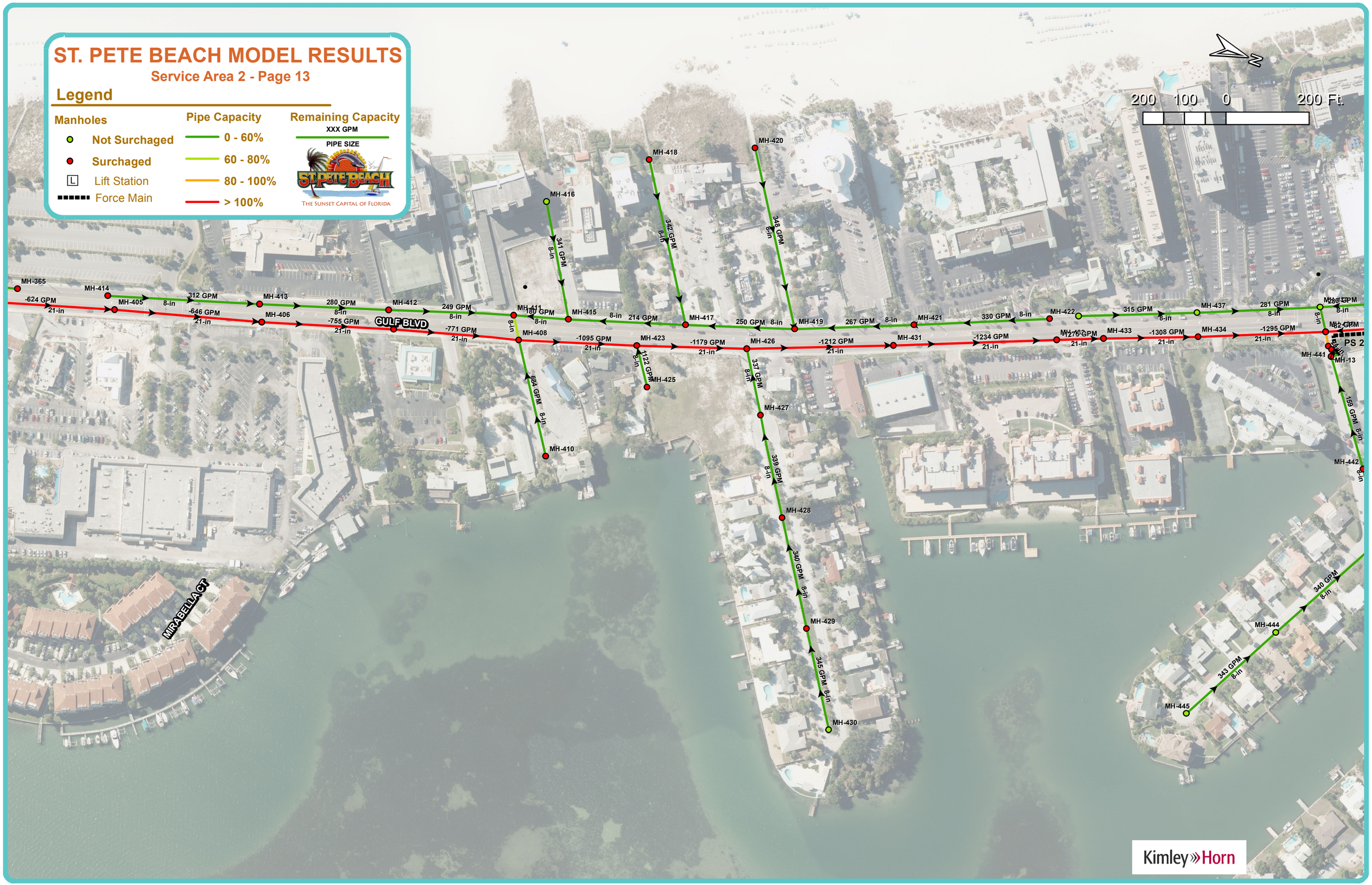
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM

PIPE SIZE



ST. PETE BEACH MODEL RESULTS

Service Area 1 & 2 - Page 14

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

St. Pete Beach — The Sunset Capital of Florida

ST. PETE BEACH MODEL RESULTS

Service Area 13 - Page 15

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM

PIPE SIZE

ST. PETE BEACH MODEL RESULTS

Service Area 15 - Page 16

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH MODEL RESULTS

Service Area 14 - Page 17

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

ST. PETE BEACH MODEL RESULTS

Service Area 1 & 10 - Page 18

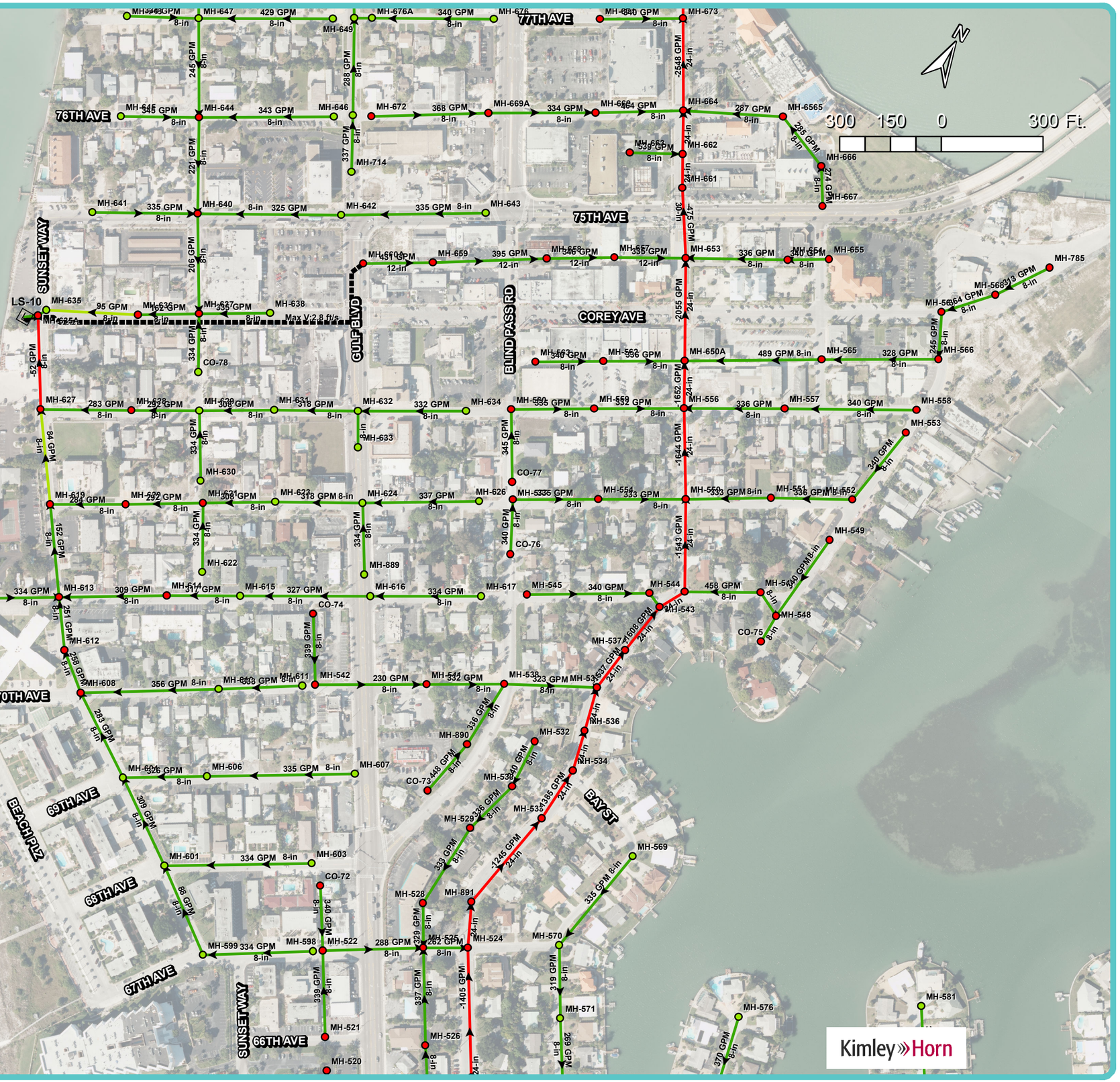
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA



ST. PETE BEACH MODEL RESULTS

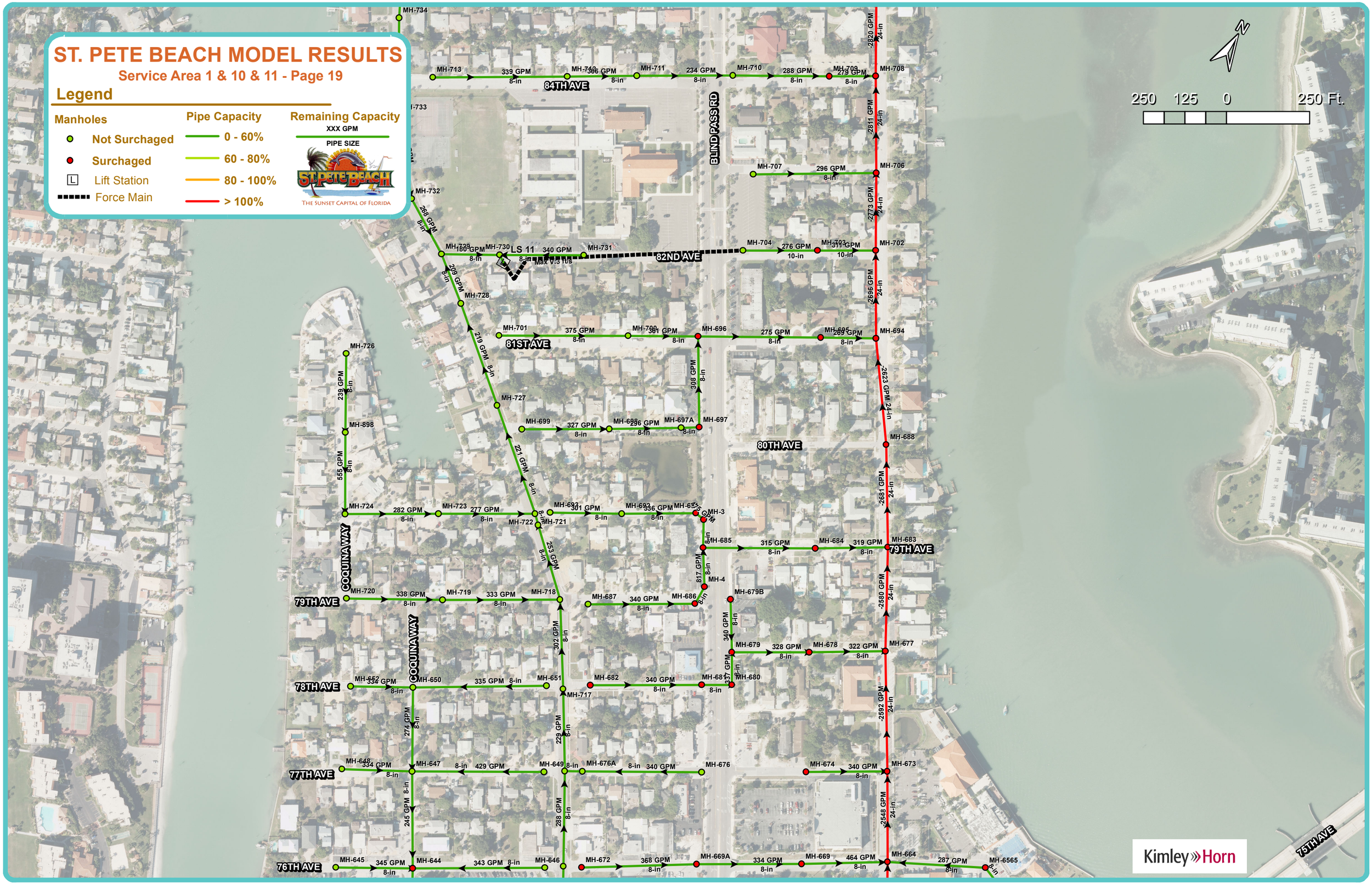
Service Area 1 & 10 & 11 - Page 19

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE



ST. PETE BEACH MODEL RESULTS

Service Area 1 & 10 & 11 - Page 20

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH MODEL RESULTS

Service Area 12 - Page 21

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

APPENDIX C: SewerGEMS Model Input and Result Tables

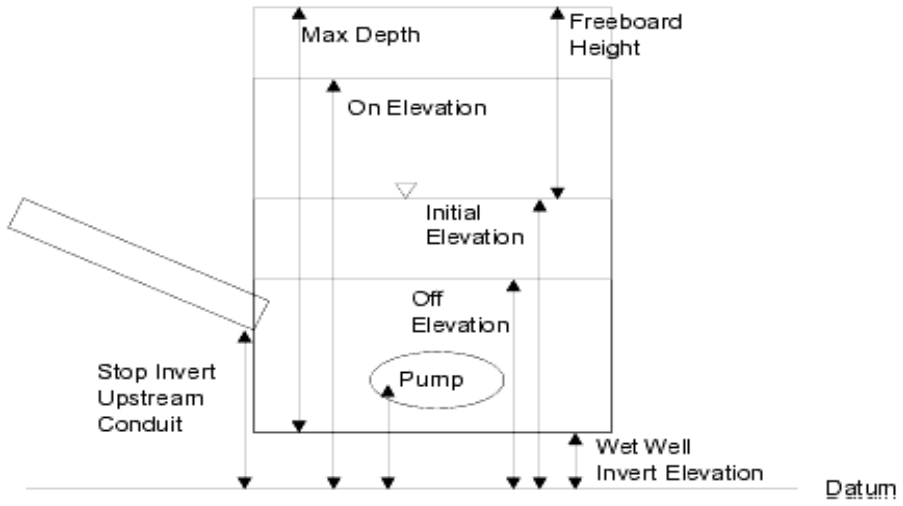
Flex Table Field Descriptions	
Conduit Flex Table	
Start Node	Conduit start node
Stop Node	Conduit stop node
Notes	Service area
Invert (Start) (ft)	Conduit start invert
Invert (Stop) (ft)	Conduit stop invert
Length (User Defined) (ft)	Length from as-built data
Length (Scaled) (ft)	Length from GIS data
Slope (Calculated) (ft/ft)	Slope of conduit
Diameter (in)	Pipe Size
Capacity (Full Flow) (gpm)	The capacity of the conduit at the normal full flow depth. This is a calculated result field.
Flow (Maximum) (gpm)	Maximum flow through conduit at critical time step
#REF!	Maximum height of the Hydraulic Grade Line (HGL)
Is Ever Surcharged?	Indicates if conduit is ever surcharged within 24-hour cycle
Time (Maximum Flow) (hours)	Indicates time step when maximum flow is occurring
Velocity (Maximum Calculated) (ft/s)	Maximum velocity calculated
Critical Pipe Capacity (%)	Flow Maximum/Capacity Full Flow

Flex Table Field Descriptions	
Manhole Flex Table	
Label	Manhole label
Notes	Service Area
Elevation (Rim) (ft)	Rim elevation of manhole, set by elevation from as-builts data
Elevation (Invert) (ft)	Invert elevation of manhole
Diameter (in)	Diameter of manhole (48" Typ.)
Hydraulic Grade Line (Out) (ft)	Hydraulic grade line downstream of the manhole
Hydraulic Grade Line (In) (ft)	Hydraulic grade line upstream of the manhole
Is Ever Surcharged?	Indicates if manhole is ever surcharged within 24-hour cycle. Surcharging in manhole is indicated when the HGL is above the top of pipe
Is Ever Overflowing?	Indicates if manhole is ever overflowing within the 24-hour cycle. Overflow in a manhole is indicated when the HGL is above the rim elevation

Flex Table Field Descriptions	
Pressure Pipe Flex Table	
Start Node	Conduit start node
Stop Node	Conduit stop node
Length (User Defined) (ft)	User defined length
Length (Scaled) (ft)	Length from GIS data
Diameter (in)	Pipe Size
Hazen-Williams C	The Hazen-Williams roughness coefficient of the pressure pipe
Minor Loss Coefficient (Local)	Headloss coefficient for the minor loss. This unitless number represents the ratio of the headloss across the minor loss element to the velocity head of the flow through the element
Flow (Maximum) (gpm)	Maximum flow through the pressure pipe
Velocity (Maximum Calculated) (ft/s)	Maximum velocity calculated
Pump Flex Table	
Label	Pump Label
Elevation (Ground) (ft)	Ground elevation above pump
Elevation (Invert) (ft)	Invert elevation of pump
Pump Definition	Assigned Pump Curve
Elevation (On) (ft)	Elevation in wet well when pump is called to run
Elevation (Off) (ft)	Elevation in wet well when pump shuts off

Flex Table Field Descriptions	
Outfall Flex Table	
Label	Outfall Label
Elevation (Ground) (ft)	Ground elevation at outfall location
Elevation (Invert) (ft)	Invert elevation of outfall
Boundary Condition Type	Indicates the boundary condition of the outfall. A "Free Outfall" control assumes the downstream discharge conditions do not affect the hydraulic response of the structure.
Notes	Service Area
Hydraulic Grade (ft)	Calculated hydraulic grade at the outfall
Flow (Total In Maximum) (gpm)	Maximum flow into outfall

Flex Table Field Descriptions	
Wet Well Flex Table	
Label	Wet Well Label
Elevation (Ground) (ft)	Ground elevation of wet well
Elevation (Maximum) (ft)	Maximum water surface elevation in wet well
Elevation (Initial) (ft)	Initial water surface elevation in wet well
Is Ever Overflowing?	Indicates if overflow occurs in wet well during 24-hour cycle
Elevation (Base) (ft)	Bottom of wet well
Elevation (Minimum) (ft)	Minimum elevation in wet well (pump off elevation)
Flow (Total In Maximum) (gpm)	Total flow entering wet well
Hydraulic Grade (Maximum) (ft)	Maximum HGL in wet well
Wet Well Schematic:	



SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
CO-72	MH-522	1	0.9	0.35	137	190.4	0.004	8	343.63	3.43	TRUE	10	0.67	1.00%
CO-73	MH-890	1	2.15	-0.14	330	178.7	0.007	8	451.79	3.43	TRUE	10	0.84	0.76%
CO-74	MH-542	1	1.16	0.4	191	209.7	0.004	8	342.11	3.43	TRUE	10	0.69	1.00%
CO-75	MH-548	1	-0.15	-0.76	152	88.3	0.004	8	343.57	3.43	TRUE	10	0.67	1.00%
CO-76	MH-555	1	0.21	-0.48	172	161.1	0.004	8	343.51	3.43	TRUE	10	0.69	1.00%
CO-77	MH-560	1	-0.09	-0.66	138	213.6	0.004	8	348.56	3.43	TRUE	10	0.7	0.98%
CO-80	MH-526	1	3.86	2.63	307	163.4	0.004	8	343.29	3.43	TRUE	10	0.69	1.00%
MH-4	MH-685	1	-2.09	-3.8	73.5	117.7	0.023	8	827.38	10.26	TRUE	10	1.8	1.24%
MH-504	MH-505	1	0.85	-0.9	172	268.2	0.01	24	10,241.25	4,070.80	TRUE	11	6.67	39.75%
MH-505	MH-511	1	-1	-1.3	360	354.8	0.001	24	2,930.94	4,073.61	TRUE	11	2.89	138.99%
MH-511	MH-512	1	-1.3	-1.59	237	130.3	0.001	24	3,551.59	4,073.76	TRUE	11	2.89	114.70%
MH-512	MH-513	1	-1.69	-1.87	225	234.9	0.001	24	2,871.73	4,075.22	TRUE	11	2.89	141.91%
MH-513	MH-514	1	-1.97	-2.31	306	320.5	0.001	24	3,384.36	4,076.15	TRUE	11	2.89	120.44%
MH-514	MH-523	1	-2.31	-2.62	384	378.4	0.001	24	2,884.78	4,322.60	TRUE	11	3.07	149.84%
MH-515	MH-514	1	-0.68	-2.31	160	137.1	0.01	8	547.4	20.45	TRUE	10	1.48	3.74%
MH-516	MH-515	1	0.82	-0.68	283	312.9	0.005	8	394.85	10.25	TRUE	10	1.03	2.60%
MH-517	MH-516	1	1.95	0.82	282	245.6	0.004	8	343.31	6.85	TRUE	10	0.83	2.00%
MH-518	MH-517	1	2.51	1.95	139	135.5	0.004	8	344.24	3.43	TRUE	10	0.67	1.00%
MH-519	MH-515	1	0.38	-0.52	300	295.3	0.003	8	297.05	6.83	TRUE	10	0.75	2.30%
MH-520	MH-519	1	1.9	0.38	382	416.5	0.004	8	342.11	3.43	TRUE	10	0.67	1.00%
MH-521	MH-522	1	0.73	-0.32	263	255.7	0.004	8	342.68	3.43	TRUE	10	0.67	1.00%
MH-522	MH-525	1	-0.92	-1.81	295	297.6	0.003	8	297.89	10.26	TRUE	10	0.79	3.44%
MH-523	MH-524	1	-2.62	-2.92	371	383.3	0.001	24	2,887.17	4,291.97	TRUE	12	3.04	148.66%
MH-524	MH-891	1	-2.93	-3.08	194	136.3	0.001	24	2,823.21	4,332.55	TRUE	12	3.07	153.46%
MH-525	MH-524	1	-1.81	-2.29	161	131.4	0.003	8	296.13	34.09	TRUE	10	1.12	11.51%
MH-526	MH-525	1	2.63	1.49	284	289	0.004	8	343.61	6.84	TRUE	10	0.85	1.99%
MH-528	MH-525	1	-0.53	-1.11	145	131.2	0.004	8	343.01	13.65	TRUE	10	1.02	3.98%
MH-529	MH-528	1	0.33	-0.53	215	261.5	0.004	8	343.01	10.25	TRUE	10	0.94	2.99%
MH-530	MH-529	1	1.27	0.33	235	174.4	0.004	8	343.01	6.85	TRUE	10	0.83	2.00%
MH-532	MH-530	1	1.79	1.27	130	149.5	0.004	8	343.01	3.43	TRUE	10	0.67	1.00%
MH-533	MH-534	1	-3.37	-3.5	151	168.3	0.001	24	2,979.07	4,364.18	TRUE	12	3.1	146.49%
MH-534	MH-536	1	-3.52	-3.64	149	121.5	0.001	24	2,881.35	4,375.34	TRUE	12	3.1	151.85%
MH-536	MH-537	1	-3.64	-3.74	116	133.5	0.001	24	2,981.05	4,386.11	TRUE	12	3.11	147.13%
MH-537	MH-537A	1	-3.76	-3.87	137	137.2	0.001	24	2,876.96	4,414.42	TRUE	12	3.13	153.44%
MH-537A	MH-543	1	-3.87	-4	169	163.7	0.001	24	2,815.96	4,423.96	TRUE	12	3.14	157.10%
MH-538	MH-537	1	-1.95	-3.09	284	274	0.004	8	343.61	20.46	TRUE	10	1.07	5.95%
MH-541	MH-538	1	-0.79	-1.95	291	229.1	0.004	8	342.42	10.24	TRUE	10	0.93	2.99%
MH-542	MH-541	1	-0.23	-0.79	294	328.8	0.002	8	236.7	6.84	TRUE	10	0.64	2.89%
MH-543	MH-546	1	-4.03	-4.06	140	86.6	0	24	1,486.26	4,441.01	TRUE	12	3.15	298.80%
MH-544	MH-543	1	-1.67	-1.75	20	51.1	0.004	8	343.01	6.83	TRUE	10	0.83	1.99%
MH-545	MH-544	1	-0.02	-1.62	400	360.8	0.004	8	343.01	3.43	TRUE	10	0.67	1.00%
MH-546	MH-550	1	-4.1	-4.32	266	272.9	0.001	24	2,919.90	4,462.80	TRUE	12	3.17	152.84%
MH-547	MH-546	1	-2.33	-4.45	280	223.8	0.008	8	471.91	13.68	TRUE	10	1.19	2.90%
MH-548	MH-547	1	-2.18	-2.28	24	83.3	0.004	8	350.08	10.26	TRUE	10	0.89	2.93%
MH-549	MH-548	1	-1.2	-2.08	220	274.3	0.004	8	343.01	3.43	TRUE	10	0.67	1.00%
MH-550	MH-556	1	-4.32	-4.54	279	267.2	0.001	24	2,851.07	4,495.47	TRUE	12	3.19	157.68%
MH-551	MH-550	1	-2.63	-3.65	255	252.8	0.004	8	343.01	10.25	TRUE	10	0.87	2.99%
MH-552	MH-551	1	-1.61	-2.63	255	239.6	0.004	8	343.01	6.84	TRUE	10	0.83	1.99%
MH-553	MH-552	1	-0.57	-1.51	235	253.2	0.004	8	343.01	3.43	TRUE	10	0.67	1.00%
MH-554	MH-550	1	-1.5	-2.5	250	257.2	0.004	8	343.01	10.25	TRUE	10	0.94	2.99%
MH-555	MH-554	1	-0.58	-1.5	231	252.5	0.004	8	342.27	6.84	TRUE	10	0.83	2.00%
MH-556	MH-650A	1	-4.54	-4.66	150	140.4	0.001	24	2,871.73	4,523.97	TRUE	12	3.21	157.53%
MH-557	MH-556	1	-2.47	-3.87	350	297.1	0.004	8	343.01	6.83	TRUE	10	0.78	1.99%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-558	MH-557	1	-0.99	-2.47	370	388.7	0.004	8	343.01	3.43	TRUE	10	0.67	1.00%
MH-559	MH-556	1	-1.7	-2.68	246	264.7	0.004	8	342.31	10.25	TRUE	10	0.94	2.99%
MH-560	MH-559	1	-0.76	-1.7	236	245	0.004	8	342.28	6.85	TRUE	10	0.83	2.00%
MH-562	MH-650A	1	-2.63	-3.75	280	240.1	0.004	8	343.01	6.84	TRUE	10	0.78	1.99%
MH-563	MH-562	1	-1.51	-2.63	280	199.6	0.004	8	343.01	3.43	TRUE	10	0.67	1.00%
MH-565	MH-650A	1	-1.45	-4.9	397	404.8	0.009	8	505.58	17.03	TRUE	10	1.42	3.37%
MH-566	MH-565	1	0.14	-1.45	400	345	0.004	8	341.93	13.66	TRUE	10	1.05	3.99%
MH-567	MH-566	1	0.52	0.24	126	138.9	0.002	8	255.66	10.25	TRUE	10	0.79	4.01%
MH-568	MH-567	1	1.52	0.82	150	167	0.005	8	370.49	6.84	TRUE	10	0.91	1.85%
MH-650A	MH-653	1	-4.9	-5.08	297	302.9	0.001	24	2,499.52	4,554.03	TRUE	12	3.23	182.20%
MH-653	MH-661	1	-5.08	-5.2	197	207.2	0.001	30	4,543.41	5,018.44	TRUE	12	2.28	110.46%
MH-654	MH-653	1	-0.01	-0.91	225	301	0.004	8	343.01	6.84	TRUE	10	0.85	1.99%
MH-655	MH-654	1	0.89	-0.01	225	121.7	0.004	8	343.01	3.43	TRUE	10	0.7	1.00%
MH-6565	MH-664	1	-3.53	-4.45	306	294.4	0.003	8	297.38	10.26	TRUE	10	0.79	3.45%
MH-657	MH-653	1	-2.56	-3.05	205	209.7	0.002	12	781.76	447.2	TRUE	12	2.2	57.20%
MH-658	MH-657	1	-2.17	-2.56	160	200.5	0.002	12	789.45	443.87	TRUE	11	2.22	56.23%
MH-659	MH-658	1	-1.24	-2.17	340	335.6	0.003	12	836.28	440.84	TRUE	11	2.31	52.71%
MH-660A	MH-659	1	-0.65	-1.24	200	206	0.003	12	868.49	437.66	TRUE	11	2.4	50.39%
MH-661	MH-662	1	-5.2	-5.26	97	100.1	0.001	24	2,525.15	5,025.89	TRUE	12	3.56	199.03%
MH-662	MH-664	1	-5.26	-5.35	143	127.9	0.001	24	2,547.13	5,033.81	TRUE	12	3.57	197.63%
MH-663	MH-662	1	0.7	-1.5	220	155.6	0.01	8	542.34	3.43	TRUE	10	0.96	0.63%
MH-664	MH-673	1	-5.35	-5.52	278	272.5	0.001	24	2,510.73	5,058.43	TRUE	12	3.59	201.47%
MH-666	MH-6565	1	-2.97	-3.53	193	185	0.003	8	292.14	6.85	TRUE	10	0.74	2.34%
MH-667	MH-666	1	-2.73	-2.97	92	117.9	0.003	8	277	3.43	TRUE	10	0.58	1.24%
MH-669	MH-664	1	-3.42	-5.35	252	258.5	0.008	8	474.63	10.25	TRUE	10	1.1	2.16%
MH-669A	MH-669	1	-1.86	-2.36	124.3	316.1	0.004	8	341.19	6.83	TRUE	10	0.83	2.00%
MH-672	MH-669A	1	-0.01	-1.86	395	345.7	0.005	8	371.56	3.43	TRUE	10	0.74	0.92%
MH-673	MH-677	1	-5.52	-5.74	370	362	0.001	24	2,475.76	5,068.21	TRUE	12	3.59	204.71%
MH-674	MH-673	1	-3.59	-4.6	252	245	0.004	8	343.35	3.43	TRUE	10	0.63	1.00%
MH-676	MH-676A	1	-0.55	-1.7	286.3	358.9	0.004	8	343.4	3.43	FALSE	10	0.7	1.00%
MH-676A	MH-716	1	-1.7	-1.93	52.9	52.9	0.004	8	357.23	6.84	FALSE	10	0.89	1.91%
MH-677	MH-683	1	-5.74	-5.93	310	312.4	0.001	24	2,513.59	5,093.91	TRUE	12	3.61	202.65%
MH-678	MH-677	1	-3.81	-4.82	254	229.3	0.004	8	341.99	20.48	TRUE	10	1.15	5.99%
MH-679	MH-678	1	-2.82	-3.81	245	232.5	0.004	8	344.75	17.1	TRUE	10	1.1	4.96%
MH-679B	MH-679	1	-2.09	-2.72	155.5	158.6	0.004	8	343.37	3.43	TRUE	10	0.69	1.00%
MH-680	MH-679	1	-2.72	-2.82	23.9	98.4	0.004	8	347.68	10.25	TRUE	10	0.95	2.95%
MH-681	MH-680	1	-1.8	-2.19	98.1	90.3	0.004	8	343.58	6.84	TRUE	10	0.85	1.99%
MH-682	MH-681	1	-0.49	-1.8	328	335.8	0.004	8	343.01	3.43	TRUE	10	0.7	1.00%
MH-683	MH-688	1	-5.93	-6.11	310	308.1	0.001	24	2,446.55	5,127.35	TRUE	12	3.64	209.57%
MH-684	MH-683	1	-4	-5.05	252	218.5	0.004	8	350.08	30.7	TRUE	10	1.32	8.77%
MH-685	MH-3	1	-3.8	-2.82	47.4	84.9	0.021	8	780.15	13.67	TRUE	10	1.87	1.75%
MH-685	MH-684	1	-2.8	-4	301	336.9	0.004	8	342.44	27.35	TRUE	10	1.29	7.99%
MH-686	MH-4	1	-1.94	-2.09	45.3	58.1	0.003	8	312.22	6.84	TRUE	10	0.81	2.19%
MH-687	MH-686	1	-0.64	-1.94	325	321.6	0.004	8	343.01	3.43	TRUE	10	0.7	1.00%
MH-688	MH-694	1	-6.11	-6.31	328	321.4	0.001	24	2,507.13	5,130.50	TRUE	12	3.64	204.64%
MH-691	MH-3	1	-2.59	-2.82	28.7	31.2	0.008	8	485.21	10.25	TRUE	10	1.23	2.11%
MH-692	MH-691	1	-1.07	-2.05	245	222.2	0.004	8	343.01	6.84	TRUE	10	0.87	1.99%
MH-693	MH-692	1	-0.39	-1.07	216	216	0.003	8	304.3	3.43	FALSE	10	0.64	1.13%
MH-694	MH-702	1	-6.31	-6.46	255	264.3	0.001	24	2,462.48	5,158.50	TRUE	12	3.66	209.48%
MH-695	MH-694	1	-4.66	-5.39	244	165.6	0.003	8	296.65	27.22	TRUE	10	1.13	9.18%
MH-696	MH-695	1	-3.79	-4.66	287	369.4	0.003	8	298.6	23.86	TRUE	10	1.13	7.99%
MH-697	MH-696	1	-2.52	-3.44	261.4	272.9	0.004	8	321.46	13.66	TRUE	10	1.02	4.25%
MH-697A	MH-697	1	-2.79	-2.85	54.1	54.1	0.001	8	180.63	10.24	TRUE	10	0.62	5.67%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-698	MH-697A	1	-2.07	-2.79	231	216	0.003	8	302.79	6.84	FALSE	10	0.79	2.26%
MH-699	MH-698	1	-0.9	-2.07	315	263.5	0.004	8	330.53	3.43	FALSE	10	0.68	1.04%
MH-700	MH-696	1	-2.49	-3.96	320	209.6	0.005	8	367.59	6.84	TRUE	10	0.91	1.86%
MH-701	MH-700	1	-1.29	-2.49	246	389.1	0.005	8	378.79	3.43	FALSE	10	0.75	0.91%
MH-702	MH-706	1	-6.46	-6.6	232	233.2	0.001	24	2,494.12	5,267.29	TRUE	12	3.74	211.19%
MH-703	MH-702	1	-3.86	-4.56	234	175.2	0.003	10	537.83	226.53	TRUE	24	2.1	42.12%
MH-704	MH-703	1	-3.19	-3.86	223	223.7	0.003	10	539	262.94	TRUE	24	2.19	48.78%
MH-706	MH-708	1	-6.6	-6.77	288	291.7	0.001	24	2,466.76	5,277.95	TRUE	12	3.74	213.96%
MH-707	MH-706	1	-1.13	-1.62	161	369.5	0.003	8	299.2	3.43	FALSE	10	0.64	1.15%
MH-708	MH-738	1	-6.93	-7.09	268	550.7	0.001	24	2,480.79	5,301.21	TRUE	12	3.76	213.69%
MH-709	MH-708	1	-5.14	-5.85	239	139.4	0.003	8	295.6	17.03	TRUE	10	1.03	5.76%
MH-710	MH-709	1	-4.44	-5.14	227	289.7	0.003	8	301.17	13.64	TRUE	10	0.97	4.53%
MH-711	MH-710	1	-3.99	-4.44	221	289.4	0.002	8	244.73	10.24	FALSE	10	0.77	4.18%
MH-712	MH-711	1	-2.45	-3.79	283	208.9	0.005	8	373.19	6.84	FALSE	10	0.92	1.83%
MH-713	MH-712	1	-1.32	-2.45	283	404.8	0.004	8	342.71	3.43	FALSE	10	0.7	1.00%
MH-738	MH-739	1	-7.09	-7.21	207	105.2	0.001	24	2,486.99	5,305.77	TRUE	12	3.76	213.34%
MH-739	MH-740	1	-7.21	-7.23	25	39.7	0.001	24	2,486.99	5,308.48	FALSE	12	3.76	213.45%
MH-740	PS 1 WET WELL	1	-7.23	-7.28	31	36.8	0.002	24	4,077.58	5,311.52	FALSE	12	3.77	130.26%
MH-740A	PS 1 WET WELL	1	-7.18	-7.28	22	45.5	0.005	24	6,845.21	343.3	FALSE	10	2.53	5.02%
MH-741A	MH-740A	1	-6.12	-7.18	54.4	54.4	0.019	16	4,808.43	339.98	FALSE	10	4.43	7.07%
MH-744	MH-741A	1	-5.61	-6.12	233	443.7	0.002	12	748.1	337.87	FALSE	10	2.07	45.16%
MH-744B	MH-744	1	-3.87	-5.61	150	90.6	0.012	8	584.12	37.37	FALSE	10	2.09	6.40%
MH-746	MH-754	1	-0.82	-2.34	379	401	0.004	8	343.46	3.43	FALSE	10	0.7	1.00%
MH-747	MH-744B	1	-4.14	-5.01	268	258.6	0.003	8	309.01	27.22	TRUE	10	1.22	8.81%
MH-748	MH-747	1	-2.92	-4.04	282	207.2	0.004	8	341.79	10.24	FALSE	10	0.97	3.00%
MH-749	MH-748	1	-1.81	-2.92	277	298.4	0.004	8	343.32	6.84	FALSE	10	0.87	1.99%
MH-750	MH-749	1	-0.7	-1.81	277	293.4	0.004	8	343.32	3.43	FALSE	10	0.7	1.00%
MH-751	MH-747	1	-3.43	-4.14	235	229.6	0.003	8	298.11	13.62	FALSE	10	0.96	4.57%
MH-752	MH-751	1	-3.14	-3.38	79	43.9	0.003	8	298.93	10.2	FALSE	10	0.89	3.41%
MH-753	MH-752	1	-0.57	-3.09	388	423.4	0.006	8	437.08	6.81	FALSE	10	1.03	1.56%
MH-754	MH-744B	1	-2.34	-3.87	386	265.3	0.004	8	341.45	6.83	FALSE	10	0.86	2.00%
MH-755	MH-744	1	-5.1	-5.61	232	261.8	0.002	10	461.04	299.68	FALSE	10	2	65.00%
MH-756	MH-755	1	-2.22	-3.49	318	287.5	0.004	8	342.74	6.84	FALSE	10	0.87	2.00%
MH-757	MH-756	1	-0.95	-2.22	318	376.5	0.004	8	342.74	3.43	FALSE	10	0.7	1.00%
MH-758	MH-755	1	-4.09	-4.8	255	259.1	0.003	10	518.87	295.86	FALSE	10	2.19	57.02%
MH-759	MH-758	1	-1.63	-2.71	270	262.4	0.004	8	343.01	6.84	FALSE	10	0.87	1.99%
MH-760	MH-759	1	-0.55	-1.63	270	252.7	0.004	8	343.01	3.43	FALSE	10	0.7	1.00%
MH-761	MH-758	1	-3.55	-4.09	260	258	0.002	10	448.14	304.44	FALSE	10	1.97	67.93%
MH-763	MH-761	1	-1.25	-3.55	223	226	0.01	8	550.79	6.82	FALSE	10	1.2	1.24%
MH-765	MH-761	1	-2.82	-3.55	260	216	0.003	10	521.05	322.89	FALSE	10	2.24	61.97%
MH-783	MH-763	1	-1.98	-2.05	224	329	0	8	95.87	3.43	TRUE	10	0.02	3.58%
MH-785	MH-568	1	2.49	1.62	255	179	0.003	8	316.78	3.43	TRUE	10	0.66	1.08%
MH-890	MH-538	1	-0.24	-0.82	145	208.8	0.004	8	343.01	6.84	TRUE	10	0.83	1.99%
MH-891	MH-533	1	-3.07	-3.36	311	322.3	0.001	24	3,100.39	4,344.97	TRUE	12	3.08	140.14%
MH-893	MH-753	1	-0.38	-0.57	388	378.6	0	8	120.02	3.43	FALSE	10	0.34	2.86%
PS 1 WET WELL	PS 1 OUTFALL	1	-7.28	-8	1	45.4	0.72	48	547,029.69	5,631.62	FALSE	12	31.42	0.00%
CO-71	MH-373	2	0.83	0.14	293	233.1	0.002	8	263.19	1.49	TRUE	10	0.45	0.57%
MH-12	PS 2	2	-8.51	-9.06	25	18	0.022	24	15,059.46	3,998.70	TRUE	11	8.88	26.55%
MH-13	PS 2	2	-6.32	-6.42	8.6	14.6	0.012	8	584.82	91.07	TRUE	11	2.69	15.57%
MH-252	MH-253	2	-0.35	-1.5	337	386.1	0.003	18	2,753.99	1.49	TRUE	10	0.46	0.05%
MH-253	MH-254	2	-1.5	-1.89	394	354	0.001	18	1,483.24	2.97	TRUE	10	0.36	0.20%
MH-254	MH-255	2	-1.89	-2.38	393	398	0.001	18	1,664.68	4.42	TRUE	11	0.42	0.27%
MH-255	MH-256	2	-2.38	-2.51	158	162.8	0.001	18	1,352.29	5.9	TRUE	11	0.4	0.44%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-256	T-1	2	-2.64	-2.65	12.4	12.4	0.001	21	2,020.70	37.16	TRUE	10	0.69	1.84%
MH-258	MH-259	2	-2.88	-3.13	347	346.5	0.001	21	1,908.79	1,777.06	TRUE	22	1.88	93.10%
MH-259	MH-260	2	-3.13	-3.39	347	358.3	0.001	21	1,946.59	1,802.44	TRUE	10	1.91	92.59%
MH-260	MH-261	2	-3.39	-3.64	347	398.8	0.001	21	1,908.79	1,836.85	TRUE	11	1.89	96.23%
MH-261	MH-262	2	-3.64	-3.89	347	333.3	0.001	21	1,908.79	1,809.04	TRUE	11	1.9	94.77%
MH-262	MH-263	2	-3.89	-4.16	363	319	0.001	21	1,939.46	1,740.18	TRUE	11	1.93	89.72%
MH-263	MH-367	2	-4.16	-4.29	181	118.1	0.001	21	1,905.83	2,211.11	TRUE	21	2.05	116.02%
MH-264	MH-263	2	-1.99	-3.71	397	429	0.004	12	1,052.50	592.21	TRUE	21	3.03	56.27%
MH-362	MH-363	2	-0.69	-1.15	166	176.2	0.003	8	285.5	31.33	TRUE	10	1.18	10.97%
MH-363	MH-366	2	-3.68	-3.84	41	38.4	0.004	8	338.8	125.04	TRUE	10	1.8	36.91%
MH-364	MH-363	2	-2.13	-3.54	351	403.2	0.004	8	343.74	62.57	TRUE	10	1.6	18.20%
MH-365	MH-364	2	-0.7	-2.13	358	275.5	0.004	8	342.77	31.33	TRUE	10	1.35	9.14%
MH-366	MH-368	2	-4.32	-4.36	50	58.5	0.001	21	2,011.40	2,380.08	TRUE	21	2.2	118.33%
MH-367	MH-366	2	-4.29	-4.32	41	95.5	0.001	21	1,923.63	2,233.11	TRUE	21	2.07	116.09%
MH-368	MH-378	2	-4.36	-4.57	290	288.6	0.001	21	1,913.65	2,419.30	TRUE	21	2.24	126.42%
MH-369	MH-368	2	-3.07	-3.65	288	311.7	0.002	8	243.38	11.81	TRUE	11	0.76	4.85%
MH-370	MH-369	2	-2.41	-2.96	230	223.9	0.002	8	265.21	7.38	TRUE	11	0.7	2.78%
MH-371	MH-370	2	-2.11	-2.41	329	325.1	0.001	8	163.77	5.9	TRUE	10	0.47	3.60%
MH-372	MH-371	2	-0.78	-2.11	350	399.9	0.004	8	334.32	4.44	TRUE	10	0.74	1.33%
MH-373	MH-372	2	0.14	-0.78	384	382	0.002	8	265.46	2.97	TRUE	10	0.56	1.12%
MH-374	MH-369	2	-2.34	-3.05	356	353.3	0.002	8	242.2	2.97	TRUE	10	0.5	1.23%
MH-375	MH-374	2	-0.87	-2.34	356	367.6	0.004	8	348.5	1.49	TRUE	10	0.54	0.43%
MH-378	MH-379	2	-4.57	-4.75	243	220.6	0.001	21	1,935.47	2,437.43	TRUE	21	2.26	125.93%
MH-379	MH-405	2	-4.75	-5	335	359.4	0.001	21	1,942.68	2,566.74	TRUE	21	2.38	132.12%
MH-380	MH-379	2	-3.4	-4.2	268	136.1	0.003	10	537.25	112.73	TRUE	11	1.65	20.98%
MH-381	MH-380	2	-2.46	-3.4	312	325.2	0.003	10	539.74	82.17	TRUE	21	1.53	15.22%
MH-382	MH-381	2	-1.52	-2.46	312	355.6	0.003	10	539.74	79.91	TRUE	21	1.58	14.81%
MH-383	MH-382	2	-0.58	-1.52	312	382.2	0.003	10	539.74	83.23	TRUE	21	1.6	15.42%
MH-384	MH-383	2	0.36	-0.58	321	399.5	0.003	10	532.12	108.53	TRUE	10	1.71	20.40%
MH-385	MH-384	2	0.85	0.41	110	90.4	0.004	10	621.92	123.38	TRUE	10	1.98	19.84%
MH-386	MH-385	2	1.42	0.9	130	131.7	0.004	10	621.92	149.7	TRUE	10	2.09	24.07%
MH-405	MH-406	2	-5	-5.26	347	355.4	0.001	21	1,946.59	2,592.51	TRUE	11	2.4	133.18%
MH-406	MH-407	2	-5.26	-5.48	310	317.6	0.001	21	1,894.45	2,649.30	TRUE	11	2.45	139.85%
MH-407	MH-408	2	-5.48	-5.72	325	302.4	0.001	21	1,932.49	2,703.32	TRUE	11	2.5	139.89%
MH-408	MH-423	2	-5.72	-5.94	296	284.4	0.001	21	1,938.73	3,033.78	TRUE	11	2.81	156.48%
MH-410	MH-408	2	-1.29	-5.72	277	286.5	0.016	8	685.86	1.49	TRUE	10	0.88	0.22%
MH-411	MH-408	2	-4.87	-5.11	55	61.8	0.004	8	358.26	285.38	TRUE	10	2.33	79.66%
MH-412	MH-411	2	-3.31	-4.77	366	301.5	0.004	8	342.54	93.79	TRUE	10	1.84	27.38%
MH-413	MH-412	2	-2.31	-3.31	250	311.2	0.004	8	343.01	62.56	TRUE	10	1.66	18.24%
MH-414	MH-413	2	-0.71	-2.31	400	365.7	0.004	8	343.01	31.33	TRUE	10	1.36	9.13%
MH-415	MH-411	2	-4.23	-4.77	137	131.8	0.004	8	340.5	160.58	TRUE	10	2.06	47.16%
MH-416	MH-415	2	0.95	0.15	201	287.9	0.004	8	342.15	1.49	TRUE	10	0.55	0.44%
MH-417	MH-415	2	-3.14	-4.23	274	282.1	0.004	8	342.07	127.96	TRUE	10	2	37.41%
MH-418	MH-417	2	0.35	-0.87	305	406.9	0.004	8	343.01	1.49	TRUE	10	0.55	0.43%
MH-419	MH-417	2	-2.1	-3.14	257	263.4	0.004	8	345	95.29	TRUE	10	1.88	27.62%
MH-420	MH-419	2	0.54	-0.92	352	445.9	0.004	8	349.28	1.49	TRUE	10	0.55	0.43%
MH-421	MH-419	2	-0.98	-2.1	304	287.5	0.004	8	329.19	62.61	TRUE	10	1.62	19.02%
MH-422	MH-421	2	0.02	-0.98	225	326.8	0.004	8	361.56	31.33	TRUE	10	1.42	8.67%
MH-423	MH-426	2	-5.94	-6.13	260	264.9	0.001	21	1,922.40	3,101.18	TRUE	11	2.87	161.32%
MH-425	MH-423	2	-1.15	-5.94	106	103	0.045	8	1,152.89	31.33	TRUE	10	3.19	2.72%
MH-426	MH-431	2	-6.13	-6.32	259	353.5	0.001	21	1,926.10	3,138.10	TRUE	11	2.91	162.93%
MH-427	MH-426	2	-3.36	-4.1	185	163.5	0.004	8	343.01	5.92	TRUE	10	0.83	1.73%
MH-428	MH-427	2	-2.21	-3.36	287	252.3	0.004	8	343.31	4.45	TRUE	10	0.77	1.30%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-429	MH-428	2	-1.28	-2.21	233	273.3	0.004	8	342.64	2.97	TRUE	10	0.67	0.87%
MH-430	MH-429	2	-0.3	-1.28	240	249.1	0.004	8	346.56	1.49	TRUE	10	0.55	0.43%
MH-431	MH-432	2	-6.32	-6.56	325	392.8	0.001	21	1,932.49	3,166.55	TRUE	11	2.93	163.86%
MH-432	MH-433	2	-6.56	-6.64	110	112.6	0.001	21	1,917.79	3,192.74	TRUE	11	2.96	166.48%
MH-433	MH-434	2	-6.64	-6.89	345	228.2	0.001	21	1,914.31	3,221.86	TRUE	11	2.98	168.30%
MH-434	MH-435	2	-6.89	-7.15	345	306.7	0.001	21	1,952.23	3,247.48	TRUE	11	3.01	166.35%
MH-435	MH-441	2	-7.25	-7.41	68	35.9	0.002	24	4,924.97	3,968.24	TRUE	11	3.87	80.57%
MH-436	MH-435	2	-2.3	-2.55	63	60.5	0.004	8	341.64	156.18	FALSE	10	2.13	45.71%
MH-437	MH-436	2	-0.95	-2.2	312	295.8	0.004	8	343.28	62.59	FALSE	10	1.66	18.23%
MH-438	MH-437	2	0.25	-0.95	295	285.7	0.004	8	345.9	31.33	FALSE	10	1.37	9.06%
MH-439	MH-436	2	-0.55	-2.15	400	383.3	0.004	8	343.01	62.56	FALSE	10	1.66	18.24%
MH-440	MH-439	2	1.05	-0.55	400	426.5	0.004	8	343.01	31.33	FALSE	10	1.36	9.13%
MH-441	MH-12	2	-7.51	-8.48	27.5	11.3	0.035	24	19,068.54	3,998.75	TRUE	11	10.62	20.97%
MH-442	MH-13	2	-5.72	-6.26	248.7	281.4	0.002	8	252.71	93.79	TRUE	11	1.48	37.11%
MH-443	MH-442	2	-4.96	-5.72	190	175.7	0.004	8	343.01	94.19	TRUE	11	1.84	27.46%
MH-444	MH-443	2	-1.81	-3.07	315	335.3	0.004	8	343.01	2.97	FALSE	10	0.67	0.87%
MH-445	MH-444	2	-0.62	-1.81	295	290.7	0.004	8	344.46	1.49	FALSE	10	0.55	0.43%
MH-446	MH-443	2	-3.76	-4.96	299	269.4	0.004	8	343.58	95.88	TRUE	11	1.83	27.91%
MH-447	MH-446	2	-2.56	-3.76	299	317.7	0.004	8	343.58	100.6	TRUE	11	1.91	29.28%
MH-450	MH-447	2	-0.96	-2.56	400	467.2	0.004	8	343.01	179.41	FALSE	9	2.21	52.30%
MH-461	MH-435	2	-5.79	-6.65	398	378.7	0.002	10	457.1	539.43	TRUE	11	2.2	118.01%
MH-462	MH-461	2	-4.91	-5.79	398	427	0.002	10	462.38	508.29	TRUE	11	2.15	109.93%
MH-463	MH-462	2	-4.63	-4.91	127	115.7	0.002	10	461.72	477.31	TRUE	11	2.14	103.38%
MH-464	MH-463	2	-1.36	-2.47	278	269.4	0.004	8	342.7	2.97	TRUE	10	0.67	0.87%
MH-465	MH-464	2	-0.31	-1.36	262	268.5	0.004	8	343.34	1.49	TRUE	10	0.55	0.43%
MH-466	MH-463	2	-4	-4.63	287	268.8	0.002	10	460.71	443.25	TRUE	11	2.13	96.21%
MH-468	MH-876	2	0.61	-2.66	115	141.6	0.028	8	914.53	1.49	TRUE	10	1.07	0.16%
MH-469	MH-876	2	-0.49	-2.66	248	263.2	0.009	8	507.32	2.97	TRUE	10	0.88	0.59%
MH-470	MH-469	2	0.35	-0.39	185	180.7	0.004	8	343.01	1.49	TRUE	10	0.55	0.43%
MH-474	MH-876	2	-1.82	-2.66	280	229.3	0.003	8	297.05	190.01	TRUE	10	2.01	63.97%
MH-475	MH-474	2	-0.98	-1.82	280	307.6	0.003	8	297.05	189.74	TRUE	10	2.01	63.87%
MH-476	MH-475	2	-0.33	-0.88	137	151.4	0.004	8	343.63	1.49	TRUE	10	0.55	0.43%
MH-477	MH-475	2	-0.17	-0.88	178	126.7	0.004	8	342.53	1.49	TRUE	10	0.55	0.43%
MH-478	MH-475	2	0.17	-0.98	300	290.2	0.004	8	335.79	185.51	TRUE	10	2.2	55.25%
MH-501	MH-466	2	-3.69	-3.91	54	42	0.004	8	346.17	218.64	TRUE	10	2.31	63.16%
MH-502	MH-501	2	-0.15	-0.45	75	114.5	0.004	8	343.01	31.33	TRUE	10	1.36	9.13%
MH-503	MH-501	2	-2.77	-3.59	271	284.3	0.003	8	298.33	156.24	TRUE	10	1.93	52.37%
MH-507	MH-503	2	-2.38	-2.77	130	95.9	0.003	8	297.05	125.01	TRUE	10	1.82	42.08%
MH-508	MH-507	2	-1.48	-2.38	302	218.4	0.003	8	296.07	93.86	TRUE	10	1.68	31.70%
MH-509	MH-508	2	-1.07	-1.48	136	67.3	0.003	8	297.78	62.59	TRUE	10	1.5	21.02%
MH-510	MH-509	2	-0.33	-1.07	249	100.8	0.003	8	295.66	31.33	TRUE	10	1.23	10.60%
MH-876	MH-466	2	-2.66	-3.9	413	406.1	0.003	8	297.17	195.69	TRUE	11	2.02	65.85%
T-1	MH-258	2	-2.65	-2.88	317.6	316.8	0.001	21	1,913.67	1,767.03	TRUE	21	1.87	92.34%
CO-49	MH-170	3	0.85	0.45	100	86.4	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
CO-50	MH-170	3	0.85	0.57	70	91.3	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
CO-51	MH-169	3	-0.21	-0.49	70	89.1	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
CO-52	MH-171	3	-0.38	-0.58	50	56.7	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
CO-53	MH-184	3	0.25	-0.55	198	126.1	0.004	8	344.74	5.04	FALSE	10	0.79	1.46%
CO-54	MH-185	3	0.92	0.3	155	124.8	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
CO-55	MH-185	3	-0.5	-1.05	137	212.6	0.004	8	343.63	5.04	FALSE	10	0.79	1.47%
CO-56	MH-184	3	-0.75	-1.35	170	213.4	0.004	8	322.2	5.04	FALSE	10	0.76	1.56%
CO-57	MH-197	3	0.15	-1.42	350	343.6	0.004	8	363.24	5.04	FALSE	10	0.83	1.39%
CO-58	MH-198	3	-0.64	-1.21	143	91.1	0.004	8	342.41	5.04	FALSE	10	0.79	1.47%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
CO-59	MH-199	3	-0.45	-0.81	90	99.1	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
CO-60	MH-200	3	1.47	0.55	229	152.5	0.004	8	343.76	5.04	FALSE	10	0.79	1.47%
CO-61	MH-201	3	-0.21	-5.75	260	265.5	0.021	8	791.67	5.04	TRUE	10	1.41	0.64%
CO-62	MH-203	3	2.35	-1.15	145	119.9	0.024	8	842.61	5.04	FALSE	10	1.47	0.60%
CO-63	MH-226	3	-0.75	-2.13	353	372.6	0.004	8	339.1	5.04	FALSE	10	0.79	1.49%
CO-64	MH-234	3	0.31	-0.55	217	160.7	0.004	8	341.42	5.04	FALSE	10	0.79	1.48%
CO-65	MH-243	3	-0.38	-0.55	43	27.9	0.004	8	341.01	5.04	FALSE	10	0.79	1.48%
CO-66	MH-251	3	-0.43	-1.79	340	285.5	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
MH-166	MH-167	3	-1.78	-2.02	196	216	0.001	15	1,014.51	840.31	FALSE	13	2.06	82.83%
MH-167	MH-173	3	-2.02	-2.12	88	100.8	0.001	15	977.32	892.44	FALSE	10	2.01	91.32%
MH-168	MH-167	3	-1.12	-1.65	136	129	0.004	8	338.57	45.23	FALSE	10	1.5	13.36%
MH-169	MH-168	3	-0.52	-1.02	128	127.9	0.004	8	338.96	25.13	FALSE	10	1.26	7.41%
MH-170	MH-169	3	0.45	-0.42	206	210.8	0.004	8	352.45	15.1	FALSE	10	1.12	4.28%
MH-171	MH-168	3	-0.68	-1.02	40	25.7	0.009	8	500.02	15.09	FALSE	10	1.43	3.02%
MH-172	MH-171	3	0.29	-0.58	217	217.4	0.004	8	343.4	5.04	FALSE	10	0.79	1.47%
MH-173	MH-174	3	-2.12	-2.3	157	147.3	0.001	15	981.67	893.42	FALSE	10	2.02	91.01%
MH-174	MH-180	3	-2.3	-2.62	266	266.8	0.001	15	1,005.57	922.12	FALSE	11	2.07	91.70%
MH-175	MH-174	3	-1.11	-2.1	333	314.7	0.003	8	295.71	25.07	TRUE	10	1.15	8.48%
MH-176	MH-175	3	0.07	-1.11	389	386.5	0.003	8	298.7	20.11	FALSE	10	1.09	6.73%
MH-177	MH-176	3	1.5	1.01	123	152.1	0.004	8	342.31	5.04	FALSE	10	0.79	1.47%
MH-178	MH-176	3	0.45	0.07	115	138.5	0.003	8	311.76	10.06	FALSE	10	0.91	3.23%
MH-179	MH-178	3	0.91	0.45	115	169.1	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
MH-180	MH-181	3	-2.62	-2.93	261	251	0.001	15	999.17	928.9	FALSE	11	2.06	92.97%
MH-181	MH-182	3	-2.93	-3.25	257	256.2	0.001	15	1,023.03	933.15	FALSE	11	2.11	91.21%
MH-182	MH-183	3	-3.25	-3.58	275	273.6	0.001	15	1,004.31	933.39	FALSE	11	2.07	92.94%
MH-183	MH-186	3	-3.58	-3.89	270	264.2	0.001	15	982.37	958.3	FALSE	11	2.03	97.55%
MH-184	MH-183	3	-1.55	-2.14	145	141.4	0.004	8	345.95	30.15	FALSE	10	1.36	8.72%
MH-185	MH-184	3	-1.15	-1.55	100	103.9	0.004	8	343.01	15.09	FALSE	10	1.1	4.40%
MH-186	MH-187	3	-3.89	-4.19	242	286.8	0.001	15	1,020.78	949.38	FALSE	11	2.11	93.01%
MH-187	MH-188	3	-4.19	-4.49	251	211.3	0.001	15	1,002.31	956.48	FALSE	12	2.07	95.43%
MH-188	MH-195	3	-4.49	-4.9	342	339.2	0.001	15	1,003.82	986.88	FALSE	12	2.08	98.31%
MH-190	MH-188	3	-3.44	-4.09	168	160.2	0.004	8	337.35	25.09	FALSE	10	1.26	7.44%
MH-191	MH-190	3	-2.37	-3.34	243	216.7	0.004	8	342.66	10.05	FALSE	10	0.97	2.93%
MH-192	MH-191	3	-1.36	-2.37	252	275.2	0.004	8	343.35	5.04	FALSE	10	0.79	1.47%
MH-193	MH-190	3	-1.64	-2.63	243	269.1	0.004	8	346.17	10.06	FALSE	10	0.98	2.91%
MH-194	MH-193	3	-0.65	-1.64	214	210.3	0.005	8	368.88	5.04	FALSE	10	0.83	1.37%
MH-195	MH-196	3	-4.9	-5.31	342	365	0.001	15	1,003.82	989.53	FALSE	12	2.08	98.58%
MH-196	MH-201	3	-5.43	-5.75	392	398.8	0.001	18	1,346.98	1,024.80	FALSE	12	1.87	76.08%
MH-197	MH-196	3	-1.42	-1.9	120	121.3	0.004	8	343.01	40.2	FALSE	10	1.47	11.72%
MH-198	MH-197	3	-1.31	-1.42	29	27.6	0.004	8	334.02	30.16	FALSE	10	1.32	9.03%
MH-199	MH-198	3	-0.92	-1.31	99	102.6	0.004	8	340.4	20.11	FALSE	10	1.19	5.91%
MH-200	MH-199	3	0.44	-0.92	105	110.9	0.013	8	617.23	10.06	FALSE	10	1.47	1.63%
MH-201	MH-202	3	-5.75	-5.9	182	186.1	0.001	18	1,353.44	1,020.49	FALSE	12	1.87	75.40%
MH-202	MH-204	3	-5.9	-5.98	108	87.9	0.001	18	1,283.10	1,027.58	FALSE	12	1.8	80.09%
MH-203	MH-202	3	-1.27	-1.87	150	144.6	0.004	8	343.01	10.07	FALSE	10	0.97	2.94%
MH-204	MH-209	3	-6.08	-6.2	151	153.6	0.001	18	1,329.02	1,050.75	FALSE	10	1.86	79.06%
MH-205	MH-204	3	-1.75	-1.89	35	35.1	0.004	8	343.01	20.09	FALSE	10	1.2	5.86%
MH-206	MH-205	3	-0.82	-1.75	208	252.9	0.004	8	362.65	15.08	FALSE	10	1.15	4.16%
MH-207	MH-206	3	0.28	-0.72	125	125.6	0.008	8	485.09	10.06	FALSE	10	1.24	2.07%
MH-208	MH-207	3	1.16	0.38	195	220	0.004	8	343.01	5.04	FALSE	10	0.79	1.47%
MH-209	MH-210	3	-6.3	-6.58	353	369.3	0.001	18	1,327.76	1,059.81	FALSE	10	1.86	79.82%
MH-210	MH-211	3	-6.6	-6.71	134	117.2	0.001	18	1,350.74	1,071.85	FALSE	10	1.89	79.35%
MH-211	MH-212	3	-6.74	-6.84	130	124.4	0.001	18	1,307.54	1,077.32	FALSE	10	1.84	82.39%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-212	MH-213	3	-6.94	-7.02	102	137.4	0.001	18	1,320.30	1,126.83	FALSE	10	1.87	85.35%
MH-213	MH-214	3	-7.02	-7.08	78	75.6	0.001	18	1,307.54	1,130.95	FALSE	10	1.86	86.49%
MH-214	MH-215	3	-7.08	-7.18	123	77.4	0.001	18	1,344.24	1,134.96	FALSE	10	1.9	84.43%
MH-215	MH-216	3	-7.18	-7.47	365	365.6	0.001	18	1,328.86	1,138.18	FALSE	11	1.88	85.65%
MH-216	MH-217	3	-7.55	-7.7	177	187.9	0.001	18	1,372.42	1,197.47	FALSE	11	1.95	87.25%
MH-217	MH-868	3	-7.67	-7.8	69	35.8	0.002	18	2,046.33	1,269.48	FALSE	11	2.72	62.04%
MH-219	MH-212	3	-4.89	-6.19	431	435.9	0.003	8	297.86	45.03	FALSE	10	1.37	15.12%
MH-220	MH-219	3	-4.38	-4.79	132	139.9	0.003	8	302.26	20.02	FALSE	10	1.09	6.62%
MH-221	MH-220	3	-3.24	-4.28	348	428.6	0.003	8	296.48	15.04	FALSE	10	0.99	5.07%
MH-222	MH-221	3	-1.87	-3.24	342	183.3	0.004	8	343.26	10.05	FALSE	10	0.97	2.93%
MH-223	MH-222	3	-0.5	-1.87	349	421.2	0.004	8	339.8	5.04	FALSE	10	0.79	1.48%
MH-224	MH-219	3	-4.39	-4.79	135	136.7	0.003	8	295.21	20.03	FALSE	10	1.08	6.79%
MH-225	MH-224	3	-3.31	-4.29	327	402.6	0.003	8	296.9	15.05	FALSE	10	0.99	5.07%
MH-226	MH-225	3	-2.13	-3.31	295	215.9	0.004	8	343.01	10.05	FALSE	10	0.97	2.93%
MH-227	MH-216	3	-4.14	-4.25	28	28.7	0.004	8	339.93	45.12	FALSE	10	1.51	13.27%
MH-228	MH-227	3	-3.79	-4.14	87	56.5	0.004	8	343.99	40.11	FALSE	10	1.47	11.66%
MH-229	MH-228	3	-3.45	-3.79	95	112.7	0.004	8	324.45	35.1	FALSE	10	1.36	10.82%
MH-230	MH-229	3	-2.7	-3.45	175	186	0.004	8	355.05	30.11	FALSE	10	1.38	8.48%
MH-231	MH-230	3	-1.93	-2.7	195	198.6	0.004	8	340.8	25.11	FALSE	10	1.27	7.37%
MH-232	MH-231	3	-1.37	-1.93	139	50	0.004	8	344.24	20.1	FALSE	10	1.2	5.84%
MH-233	MH-232	3	-1.05	-1.37	81	138.6	0.004	8	340.88	15.08	FALSE	10	1.1	4.42%
MH-234	MH-233	3	-0.55	-1.05	125	214.9	0.004	8	343.01	10.06	FALSE	10	0.97	2.93%
MH-235	MH-217	3	-6.85	-7.05	65	51.6	0.003	8	300.84	63.85	FALSE	11	1.52	21.22%
MH-236	MH-235	3	-6.45	-6.8	117	139.8	0.003	8	296.63	58.88	FALSE	11	1.47	19.85%
MH-237	MH-236	3	-3.58	-3.98	100	102.6	0.004	8	343.01	40.12	FALSE	10	1.47	11.70%
MH-238	MH-237	3	-2.98	-3.58	153	157	0.004	8	339.63	35.13	FALSE	10	1.4	10.34%
MH-239	MH-238	3	-2.14	-2.98	209	222.8	0.004	8	343.83	30.15	FALSE	10	1.35	8.77%
MH-240	MH-239	3	-1.61	-2.14	130	145.4	0.004	8	346.29	25.14	FALSE	10	1.29	7.26%
MH-241	MH-240	3	-1.28	-1.61	83	78	0.004	8	341.97	20.12	FALSE	10	1.19	5.88%
MH-242	MH-241	3	-0.91	-1.28	91	87.7	0.004	8	345.82	15.09	FALSE	10	1.11	4.36%
MH-243	MH-242	3	-0.55	-0.91	91	139.4	0.004	8	341.12	10.07	FALSE	10	0.97	2.95%
MH-245	MH-236	3	-5.53	-6.45	274	290.7	0.003	8	314.26	14.14	FALSE	11	1.01	4.50%
MH-246	MH-245	3	-4.59	-4.54	314	286.1	0	8	68.44	10.06	FALSE	10	0.06	14.70%
MH-246A	MH-246	3	-4.02	-4.54	129	145.6	0.004	8	344.34	5.04	FALSE	10	0.79	1.46%
MH247	MH-869	3	-5.12	-6.22	340.2	340.2	0.003	8	308.37	225.26	FALSE	10	2.15	73.05%
MH-248	MH247	3	-4.88	-5.12	73.1	73.1	0.003	8	308.22	220.32	FALSE	10	2.14	71.48%
MH-249	MH-248	3	-4.02	-4.88	269.9	269.9	0.003	8	306.87	243	FALSE	24	2.17	79.19%
MH-250	MH-249	3	-3.28	-3.95	166	83.4	0.004	8	344.55	264.98	FALSE	24	2.43	76.91%
MH-251	MH-250	3	-1.79	-3.23	360	408.2	0.004	8	343.01	352.93	FALSE	24	2.49	102.89%
MH-868	PS 3	3	-7.8	-7.86	31	61.7	0.002	18	2,074.07	1,275.13	FALSE	11	2.75	61.48%
MH-869	PS 3	3	-6.22	-6.3	31.4	63.2	0.003	8	273.75	229.73	FALSE	10	1.96	83.92%
CO-22	MH-45	4	0.96	0.66	89	89.7	0.003	8	314.88	4.44	FALSE	10	0.72	1.41%
CO-23	MH-45	4	0.93	0.65	70	90.9	0.004	8	343.01	4.44	FALSE	10	0.76	1.29%
CO-24	MH-44	4	-0.36	-0.7	85	91	0.004	8	343.01	4.44	FALSE	10	0.76	1.29%
CO-25	MH-48	4	0.81	0.63	89	51.9	0.002	6	113.25	4.44	FALSE	10	0.62	3.92%
CO-26	MH-48	4	0.95	0.63	54	50.8	0.006	6	193.86	4.44	FALSE	10	0.91	2.29%
CO-27	MH-47	4	-0.07	-0.37	63	87.2	0.005	8	374.25	4.44	FALSE	10	0.8	1.19%
CO-28	MH-54	4	-0.54	-0.82	62	91	0.005	8	364.47	4.44	FALSE	10	0.79	1.22%
CO-29	MH-54	4	-0.53	-0.77	57	91.7	0.004	8	351.92	4.44	FALSE	10	0.78	1.26%
CO-30	MH-875	4	-1.49	-1.73	70	81.5	0.003	8	317.56	4.44	FALSE	10	0.72	1.40%
CO-31	MH-56	4	-0.52	-0.79	67	92.1	0.004	8	344.29	4.44	FALSE	10	0.77	1.29%
CO-32	MH-56	4	-0.53	-0.77	65	95.3	0.004	8	329.55	4.44	FALSE	10	0.74	1.35%
CO-33	MH-55	4	-1.39	-1.73	85	89	0.004	8	343.01	4.44	FALSE	10	0.76	1.29%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
CO-34	MH-61	4	-0.3	-0.51	60	94.6	0.004	8	320.85	4.44	FALSE	10	0.73	1.38%
CO-35	MH-61	4	-0.27	-0.55	60	87.4	0.005	8	370.49	4.44	FALSE	10	0.8	1.20%
CO-36	MH-60	4	-1.33	-1.61	85	92.6	0.003	8	311.27	4.44	FALSE	10	0.71	1.43%
CO-37	MH-67	4	-0.12	-0.33	52	93	0.004	8	344.65	4.44	FALSE	10	0.77	1.29%
CO-38	MH-67	4	-0.13	-0.33	50	88.5	0.004	8	343.01	4.44	FALSE	10	0.76	1.29%
CO-39	MH-66	4	-1.07	-1.23	50	92.9	0.003	8	306.8	4.44	FALSE	10	0.71	1.45%
CO-40	MH-69	4	-0.19	-0.35	52	92.8	0.003	8	300.84	4.44	FALSE	10	0.7	1.48%
CO-41	MH-69	4	-0.13	-0.37	60	92.5	0.004	8	343.01	4.44	FALSE	10	0.76	1.29%
CO-42	MH-68	4	-1.05	-1.29	59	90	0.004	8	345.9	4.44	FALSE	10	0.77	1.28%
CO-43	MH-74	4	0.19	-0.07	107	93.3	0.002	8	267.34	4.44	FALSE	10	0.64	1.66%
CO-44	MH-74	4	0.23	-0.05	63	94.1	0.004	8	361.56	4.44	FALSE	10	0.78	1.23%
CO-45	MH-73	4	-0.91	-1.11	63	93.3	0.003	8	305.58	4.44	FALSE	10	0.7	1.45%
CO-46	MH-76	4	0.06	-0.15	63	90.4	0.003	8	313.12	4.44	FALSE	10	0.72	1.42%
CO-47	MH-76	4	0.1	-0.14	66	93.1	0.004	8	327.05	4.44	FALSE	10	0.74	1.36%
CO-48	MH-75	4	-0.95	-1.19	66	89.4	0.004	8	327.05	4.44	FALSE	10	0.74	1.36%
MH-41	MH-42	4	-1.6	-2.1	174	209.4	0.003	10	527.12	122.36	FALSE	23	1.75	23.21%
MH-42	MH-49	4	-2.1	-2.51	147	145.2	0.003	10	519.32	204.75	FALSE	20	2	39.43%
MH-43	MH-42	4	-1.39	-1.93	135	111.8	0.004	8	343.01	53.11	FALSE	10	1.59	15.48%
MH-44	MH-43	4	-0.76	-1.29	133	130.1	0.004	8	342.36	22.14	FALSE	10	1.23	6.47%
MH-45	MH-44	4	0.56	-0.66	305	308.5	0.004	8	343.01	13.31	FALSE	10	1.06	3.88%
MH-46	MH-43	4	-1.11	-1.39	69	73.6	0.004	8	345.48	26.57	FALSE	10	1.31	7.69%
MH-47	MH-46	4	-0.48	-1.01	130	130.8	0.004	8	346.29	22.15	FALSE	10	1.24	6.40%
MH-48	MH-47	4	0.53	-0.38	228	224	0.004	8	342.63	13.31	FALSE	10	1.06	3.88%
MH-49	MH-50	4	-2.51	-2.89	127	128.6	0.003	10	537.89	223.36	FALSE	20	2.1	41.53%
MH-50	MH-51	4	-2.89	-3.61	258	263.3	0.003	10	519.47	234.96	TRUE	20	2.07	45.23%
MH-51	MH-874	4	-2.98	-4.19	263	257.4	0.005	10	666.99	295.55	FALSE	10	2.64	44.31%
MH-52	MH-51	4	-2.44	-2.98	135	128.4	0.004	8	343.01	48.71	FALSE	10	1.55	14.20%
MH-53	MH-64	4	-5.46	-6.04	262	264.3	0.002	10	462.66	341.5	FALSE	11	2.07	73.81%
MH-54	MH-875	4	-0.92	-1.74	204	214.6	0.004	8	343.85	13.31	FALSE	10	1.06	3.87%
MH-55	MH-52	4	-1.81	-2.35	134	129.5	0.004	8	344.29	22.16	FALSE	10	1.23	6.44%
MH-56	MH-55	4	-0.89	-1.71	207	212.9	0.004	8	341.35	13.31	FALSE	10	1.05	3.90%
MH-58	MH-53	4	-4.88	-5.46	265	265.5	0.002	10	460.04	339.92	FALSE	10	2.06	73.89%
MH-59	MH-58	4	-2.2	-2.75	139	127.4	0.004	8	341.15	31	FALSE	10	1.35	9.09%
MH-60	MH-59	4	-1.54	-2.1	134	131.2	0.004	8	350.6	22.16	FALSE	10	1.25	6.32%
MH-61	MH-60	4	-0.61	-1.44	212	211.3	0.004	8	339.35	13.31	FALSE	10	1.05	3.92%
MH-62	MH-59	4	-1.13	-1.81	170	175	0.004	8	343.01	4.44	FALSE	10	0.76	1.29%
MH-64	MH-70	4	-6.04	-6.63	267	268.2	0.002	10	462.24	391.62	FALSE	11	2.12	84.72%
MH-65	MH-64	4	-2.01	-2.56	136	130.5	0.004	8	344.89	48.71	FALSE	10	1.56	14.12%
MH-66	MH-65	4	-1.37	-1.91	135	137.4	0.004	8	343.01	22.16	FALSE	10	1.23	6.46%
MH-67	MH-66	4	-0.43	-1.27	208	212.3	0.004	8	344.65	13.31	FALSE	10	1.06	3.86%
MH-68	MH-65	4	-1.39	-1.93	139	126.1	0.004	8	338.04	22.16	FALSE	10	1.22	6.56%
MH-69	MH-68	4	-0.45	-1.29	207	211.6	0.004	8	345.48	13.31	FALSE	10	1.06	3.85%
MH-70	MH-71	4	-6.63	-7.2	260	256.3	0.002	10	460.42	394.17	FALSE	11	2.11	85.61%
MH-71	LS 4	4	-7.2	-8.53	25	45.4	0.053	10	2,268.07	450.64	TRUE	10	7.22	19.87%
MH-72	MH-71	4	-1.77	-2.31	135	130.8	0.004	8	343.01	48.7	FALSE	10	1.55	14.20%
MH-73	MH-72	4	-1.14	-1.67	132	134.3	0.004	8	343.66	22.15	FALSE	10	1.23	6.45%
MH-74	MH-73	4	-0.17	-1.04	220	213.7	0.004	8	341.05	13.31	FALSE	10	1.05	3.90%
MH-75	MH-72	4	-1.19	-1.69	125	132	0.004	8	343.01	22.16	FALSE	10	1.23	6.46%
MH-76	MH-75	4	-0.24	-1.09	214	214.8	0.004	8	341.8	13.31	FALSE	10	1.06	3.89%
MH-874	MH-58	4	-4.19	-4.88	321	315.2	0.002	10	455.9	303.89	FALSE	10	1.99	66.66%
MH-875	MH-52	4	-1.84	-2.34	125	134.4	0.004	8	343.01	22.16	FALSE	10	1.23	6.46%
MH-897	MH-71	4	-1.79	-2.59	200	225.4	0.004	8	343.01	4.44	FALSE	10	0.76	1.29%
CO-1	MH-1	5	-0.48	-1.13	181	138.4	0.004	8	325.01	2.77	FALSE	10	0.63	0.85%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
CO-10	MH-22	5	1.53	1.24	55	93.2	0.005	6	182.86	2.77	FALSE	10	0.76	1.51%
CO-11	MH-22	5	1.51	1.27	66	83	0.004	6	151.86	2.77	FALSE	10	0.66	1.82%
CO-12	MH-21	5	0.67	0.53	32	89.6	0.004	6	166.57	2.77	FALSE	10	0.71	1.66%
CO-13	MH-29	5	1.45	1.11	67	91.1	0.005	6	179.39	2.77	FALSE	10	0.75	1.54%
CO-14	MH-29	5	1.47	1.17	66	89.1	0.005	6	169.78	2.77	FALSE	10	0.72	1.63%
CO-15	MH-28	5	0.95	0.73	54	76.8	0.004	8	346.17	2.77	FALSE	10	0.66	0.80%
CO-16	MH-31	5	1.52	1.24	64	88.5	0.004	6	166.57	2.77	FALSE	10	0.71	1.66%
CO-17	MH-31	5	1.51	1.21	75	86.6	0.004	6	159.27	2.77	FALSE	10	0.68	1.74%
CO-18	MH-30	5	0.33	-0.05	95	89.7	0.004	8	343.01	2.77	FALSE	10	0.65	0.81%
CO-19	MH-36	5	0.18	-0.16	84	87.8	0.004	6	160.22	2.77	FALSE	10	0.69	1.73%
CO-2	MH-3	5	-0.7	-0.84	36	84.1	0.004	6	157.04	2.77	FALSE	10	0.67	1.76%
CO-20	MH-36	5	0.1	-0.16	68	89.3	0.004	6	155.72	2.77	FALSE	10	0.68	1.78%
CO-21	MH-35	5	-1.35	-1.63	86	92.1	0.003	6	143.69	2.77	FALSE	10	0.64	1.93%
CO-3	MH-3	5	-0.56	-0.84	55	88.8	0.005	6	179.68	2.77	FALSE	10	0.75	1.54%
CO-4	MH-7	5	-0.65	-0.95	75	85.2	0.004	6	159.27	2.77	FALSE	10	0.68	1.74%
CO-5	MH-7	5	-0.65	-0.95	73	91	0.004	6	161.44	2.77	FALSE	10	0.69	1.72%
CO-6	MH-9	5	0.44	0.14	79	90.7	0.004	6	155.19	2.77	FALSE	10	0.68	1.78%
CO-7	MH-13	5	-0.28	-0.89	156	89.7	0.004	6	157.47	2.77	FALSE	10	0.68	1.76%
CO-8	MH-14	5	0.45	0.17	64	90.2	0.004	8	358.73	2.77	FALSE	10	0.68	0.77%
CO-9	MH-14	5	0.47	0.17	79	89	0.004	8	334.21	2.77	FALSE	10	0.64	0.83%
MH-1	MH-2	5	-1.13	-1.46	83	118.7	0.004	8	341.97	5.53	FALSE	10	0.81	1.62%
MH-10	MH-9	5	0.75	0.14	135	82	0.005	6	169.28	2.77	FALSE	10	0.72	1.64%
MH-11	MH-15	5	-4.6	-4.96	89	72.8	0.004	8	344.93	66.17	FALSE	10	1.7	19.18%
MH-12	MH-11	5	-1.58	-1.96	97	103.7	0.004	8	339.45	16.57	FALSE	10	1.12	4.88%
MH-13	MH-12	5	-0.9	-1.43	132	128.6	0.004	8	343.66	13.82	FALSE	10	1.07	4.02%
MH-14	MH-13	5	0.07	-0.75	206	200.1	0.004	8	342.17	8.31	FALSE	10	0.92	2.43%
MH-15	MH-16	5	-5.1	-5.2	36	46.5	0.003	8	285.84	68.9	FALSE	10	1.5	24.10%
MH-16	MH-17	5	-5.2	-5.98	246	247.4	0.003	8	305.39	71.66	FALSE	10	1.59	23.47%
MH-17	MH-18	5	-5.98	-6.5	161	159.8	0.003	8	308.22	74.3	FALSE	10	1.62	24.11%
MH-18	MH-23	5	-6.5	-6.66	50	34.5	0.003	8	306.8	96.31	FALSE	10	1.73	31.39%
MH-19	MH-18	5	-0.19	-0.81	156	126	0.004	8	341.91	19.35	FALSE	10	1.18	5.66%
MH-2	MH-4	5	-1.46	-1.99	134	129.8	0.004	8	341.08	16.6	FALSE	10	1.13	4.87%
MH-20	MH-19	5	0.55	-0.09	160	163	0.004	8	343.01	2.77	FALSE	10	0.65	0.81%
MH-21	MH-19	5	0.47	-0.09	138	129.3	0.004	8	345.48	13.83	FALSE	10	1.08	4.00%
MH-22	MH-21	5	1.17	0.57	169	158.3	0.004	8	323.15	8.31	FALSE	10	0.88	2.57%
MH-23	LS 5	5	-6.7	-8.11	8.3	8.3	0.169	8	2,226.79	170.49	TRUE	10	8.43	7.66%
MH-24	MH-23	5	-5.84	-6.7	215	234.1	0.004	8	343.01	71.54	FALSE	10	1.73	20.86%
MH-25	MH-24	5	-4.75	-5.84	271	264	0.004	8	343.96	68.89	FALSE	10	1.71	20.03%
MH-26	MH-25	5	-0.78	-4.75	117	123.4	0.034	8	999.03	33.13	FALSE	10	2.94	3.32%
MH-28	MH-871	5	0.57	0.05	133	132.5	0.004	8	339.12	13.84	FALSE	10	1.06	4.08%
MH-29	MH-28	5	1.01	0.67	85	83.5	0.004	8	343.01	8.31	FALSE	10	0.92	2.42%
MH-3	MH-2	5	-0.94	-1.37	107	100	0.004	8	343.81	8.31	FALSE	10	0.92	2.42%
MH-30	MH-26	5	-0.09	-0.65	140	131.8	0.004	8	343.01	13.82	FALSE	10	1.07	4.03%
MH-31	MH-30	5	1.14	0.01	283	277.8	0.004	8	342.71	8.31	FALSE	10	0.92	2.42%
MH-33	MH-870	5	-3.1	-3.65	136	153.4	0.004	8	344.89	30.34	FALSE	10	1.36	8.80%
MH-34	MH-33	5	-2.41	-2.91	125	124.5	0.004	8	343.01	24.83	FALSE	10	1.27	7.24%
MH-35	MH-34	5	-1.75	-2.31	141	135.3	0.004	8	341.79	13.81	FALSE	10	1.07	4.04%
MH-36	MH-35	5	-0.26	-1.65	346	349.5	0.004	8	343.75	8.31	FALSE	10	0.92	2.42%
MH-37	MH-34	5	-0.4	-1.42	255	261.8	0.004	8	343.01	8.3	FALSE	10	0.92	2.42%
MH-38	MH-37	5	0.59	-0.4	245	242.4	0.004	8	344.75	2.77	FALSE	10	0.66	0.80%
MH-39	MH-37	5	2.7	-0.34	152	130.8	0.02	8	766.99	2.77	FALSE	10	1.16	0.36%
MH-4	MH-5	5	-2.09	-2.25	36	40.2	0.004	8	361.56	19.35	FALSE	10	1.23	5.35%
MH-40	MH-33	5	-1.15	-2.23	270	249.3	0.004	8	343.01	2.77	FALSE	10	0.65	0.81%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-5	MH-6	5	-2.35	-2.85	133	133.1	0.004	8	332.53	22.11	FALSE	10	1.2	6.65%
MH-6	MH-8	5	-2.85	-3.93	265	256.9	0.004	8	346.23	33.14	FALSE	10	1.4	9.57%
MH-7	MH-6	5	-1.05	-1.85	202	197.6	0.004	8	341.31	8.31	FALSE	10	0.91	2.43%
MH-8	MH-11	5	-3.93	-4.45	137	135	0.004	8	334.13	46.89	FALSE	10	1.5	14.03%
MH-870	MH-25	5	-3.65	-4.75	278	266.8	0.004	8	341.15	33.07	FALSE	10	1.38	9.69%
MH-871	MH-26	5	-0.05	-0.78	179	178.8	0.004	8	346.35	16.59	FALSE	10	1.14	4.79%
MH-877	MH-8	5	-0.29	-1.04	184	204.7	0.004	8	346.26	11.07	FALSE	10	1.01	3.20%
MH-9	MH-877	5	0.04	-0.29	82	59.8	0.004	8	344.05	8.3	FALSE	10	0.92	2.41%
MH-791	MH-792	6	-1.32	-2.26	235	219.9	0.004	8	343.01	43.35	FALSE	10	1.5	12.64%
MH-792	MH-884	6	-2.36	-2.77	102	78.2	0.004	8	343.85	51.98	FALSE	10	1.58	15.12%
MH-793	MH-794	6	1.59	0.32	318	231.1	0.004	8	342.74	8.7	FALSE	10	0.93	2.54%
MH-794	MH-791	6	0.22	-1.22	360	316	0.004	8	343.01	17.37	FALSE	10	1.15	5.06%
MH-795	MH-796	6	-3.6	-4.7	275	255.7	0.004	8	343.01	129.89	FALSE	10	2.04	37.87%
MH-796	MH-800	6	-4.7	-6.14	361	354.9	0.004	8	342.53	164.37	FALSE	10	2.16	47.99%
MH-797	MH-798	6	1.44	0.24	282	194.2	0.004	8	353.79	8.7	FALSE	10	0.95	2.46%
MH-798	MH-799	6	0.24	-0.56	200	199.9	0.004	8	343.01	17.37	FALSE	10	1.15	5.06%
MH-799	MH-796	6	-0.56	-1.76	300	387	0.004	8	343.01	26.04	FALSE	10	1.29	7.59%
MH-800	LS 6	6	-7.05	-8.69	35	55.6	0.047	10	2,128.58	336.7	TRUE	10	6.35	15.82%
MH-801	MH-802	6	1.64	0.82	205	215.1	0.004	8	343.01	8.7	FALSE	10	0.93	2.54%
MH-802	MH-803	6	0.72	0.42	75	82.7	0.004	8	343.01	17.38	FALSE	10	1.15	5.07%
MH-803	MH-804	6	0.42	-0.54	240	226.3	0.004	8	343.01	26.07	FALSE	10	1.29	7.60%
MH-804	MH-805	6	-0.54	-2	365	292.9	0.004	8	343.01	34.72	FALSE	10	1.41	10.12%
MH-805	MH-806	6	-2	-3.04	265	147.5	0.004	8	339.76	43.32	FALSE	10	1.49	12.75%
MH-806	MH-807	6	-3.04	-4.06	255	361.4	0.004	8	343.01	51.93	FALSE	10	1.58	15.14%
MH-807	MH-808	6	-4.06	-5.06	250	320.9	0.004	8	343.01	60.54	FALSE	10	1.65	17.65%
MH-808	MH-800	6	-6.42	-6.95	178	191.1	0.003	8	295.94	164.1	TRUE	10	1.94	55.45%
MH-809	MH-810	6	1.7	0.58	281	275.3	0.004	8	342.4	8.7	FALSE	10	0.93	2.54%
MH-810	MH-811	6	0.58	-0.82	350	316.5	0.004	8	343.01	17.37	FALSE	10	1.15	5.06%
MH-811	MH-812	6	-0.82	-1.81	248	212	0.004	8	342.66	26.02	FALSE	10	1.29	7.59%
MH-812	MH-813	6	-1.81	-3.15	336	207.9	0.004	8	342.5	34.66	FALSE	10	1.4	10.12%
MH-813	MH-814	6	-3.15	-3.96	202	279.1	0.004	8	343.43	43.27	FALSE	10	1.5	12.60%
MH-814	MH-815	6	-3.96	-4.76	200	292.7	0.004	8	343.01	51.91	FALSE	10	1.58	15.13%
MH-815	MH-808	6	-5.45	-6.42	322	293.6	0.003	8	297.67	95.16	FALSE	10	1.69	31.97%
MH-816	MH-816A	6	1.26	0.65	151	110.8	0.004	8	344.71	8.7	FALSE	10	0.93	2.52%
MH-816A	MH-817	6	0.65	-0.2	213	165.8	0.004	8	342.61	17.39	FALSE	10	1.14	5.08%
MH-817	MH-818	6	-0.2	-1.05	213	287.4	0.004	8	342.61	26.05	FALSE	10	1.29	7.60%
MH-818	MH-815	6	-1.15	-2.24	273	290.1	0.004	8	342.69	34.71	FALSE	10	1.4	10.13%
MH-873	MH-884	6	-0.47	-0.87	100	76.3	0.004	8	343.01	60.7	FALSE	10	1.65	17.70%
MH-878	MH-791	6	-0.25	-1.32	250	189.6	0.004	8	354.81	17.38	FALSE	10	1.17	4.90%
MH-879	MH-878	6	0.55	-0.25	200	245.6	0.004	8	343.01	8.7	FALSE	10	0.93	2.54%
MH-880	MH-873	6	0.5	-0.42	230	311.9	0.004	8	343.01	34.73	FALSE	10	1.41	10.13%
MH-881	MH-880	6	1.43	0.5	235	211	0.004	8	341.18	26.08	FALSE	10	1.29	7.64%
MH-882	MH-881	6	1.82	1.48	85	91.1	0.004	8	343.01	17.39	FALSE	10	1.15	5.07%
MH-883	MH-882	6	2.45	1.87	130	166.1	0.004	8	362.26	8.7	FALSE	10	0.97	2.40%
MH-884	MH-795	6	-2.94	-3.6	164	210.1	0.004	8	344.05	121.3	FALSE	10	2.01	35.26%
MH-885	MH-873	6	3.09	2.15	235	206.4	0.004	8	343.01	17.38	FALSE	10	1.15	5.07%
MH-886	MH-885	6	3.19	3.09	125	93.8	0.001	8	153.4	8.7	FALSE	10	0.53	5.67%
CO-68	MH-278	7	-0.18	-0.96	339	370.1	0.002	8	260.15	8.76	FALSE	10	0.77	3.37%
CO-69	MH-282	7	0.26	-0.98	310	348.1	0.004	8	343.01	8.76	FALSE	10	0.93	2.55%
CO-70	MH-285	7	-2.06	-3.69	392	436.7	0.004	8	349.72	8.76	FALSE	10	0.95	2.50%
MH-265	MH-274	7	-6.89	-6.95	27	51.1	0.002	10	463.55	43.5	TRUE	10	1.19	9.38%
MH-266	MH-265	7	-6.16	-6.79	298	322.3	0.002	10	452.13	34.84	TRUE	10	1.1	7.71%
MH-267	MH-266	7	-5.44	-6.16	325	382.1	0.002	10	462.83	26.18	TRUE	10	1.02	5.66%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-268	MH-267	7	-4.73	-5.44	325	281.5	0.002	10	459.61	17.49	FALSE	10	0.9	3.81%
MH-269	MH-268	7	-4.15	-4.73	275	147.2	0.002	10	451.59	8.76	FALSE	10	0.72	1.94%
MH-274	LS-7	7	-7.05	-10.03	50	16.4	0.06	12	3,903.68	503.99	TRUE	11	7.63	12.91%
MH-275	MH-274	7	-6.91	-6.95	37	35.4	0.001	12	525.75	452.18	TRUE	11	1.68	86.01%
MH-276	MH-275	7	-6.65	-6.87	148	83.3	0.001	12	616.5	444.39	TRUE	10	1.9	72.08%
MH-277	MH-276	7	-2.89	-4.25	339	328.8	0.004	8	343.51	26.18	FALSE	10	1.3	7.62%
MH-278	MH-277	7	-1.54	-2.89	339	365.6	0.004	8	342.25	17.48	FALSE	10	1.15	5.11%
MH-279	MH-276	7	-6.37	-6.65	188	196.1	0.001	12	617.09	410.99	TRUE	10	1.87	66.60%
MH-280	MH-279	7	-6.13	-6.37	161	152.2	0.001	12	617.37	403.42	TRUE	10	1.87	65.34%
MH-281	MH-280	7	-2.22	-3.9	270	235.9	0.006	8	427.81	26.2	FALSE	10	1.51	6.12%
MH-282	MH-281	7	-0.98	-2.22	310	331.5	0.004	8	343.01	17.49	FALSE	10	1.15	5.10%
MH-283	MH-280	7	-5.9	-6.13	155	159.7	0.001	12	615.96	369.52	TRUE	10	1.83	59.99%
MH-284	MH-283	7	-5.65	-5.9	164	163.7	0.002	12	624.31	361.53	TRUE	11	1.84	57.91%
MH-285	MH-284	7	-3.69	-5.32	408	395.9	0.004	8	342.8	17.48	FALSE	10	1.15	5.10%
MH-286	MH-284	7	-5.4	-5.65	178	197.1	0.001	12	599.25	335.89	FALSE	11	1.75	56.05%
MH-287	MH-286	7	-3.73	-5.05	330	307.6	0.004	8	343.01	17.48	FALSE	10	1.15	5.10%
MH-288	MH-287	7	-2.25	-3.73	376	400.1	0.004	8	340.26	8.76	FALSE	10	0.93	2.57%
MH-289	MH-286	7	-4.75	-5.4	422	396.2	0.002	12	627.55	303.01	FALSE	11	1.77	48.28%
MH-290	MH-289	7	-3.91	-4.65	335	325.8	0.002	12	751.53	252.32	FALSE	12	1.92	33.57%
MH-291	MH-290	7	-2.6	-3.62	254	247.6	0.004	8	343.68	26.22	FALSE	10	1.3	7.63%
MH-292	MH-291	7	-1.58	-2.6	254	263.4	0.004	8	343.68	17.5	FALSE	10	1.15	5.09%
MH-293	MH-292	7	-0.67	-1.48	202	195.9	0.004	8	343.43	8.76	FALSE	10	0.93	2.55%
MH-294	MH-290	7	-3.31	-3.91	275	319.9	0.002	12	746.9	236.53	FALSE	10	1.88	31.67%
MH-295	MH-294	7	-1.81	-2.92	278	207.2	0.004	8	342.7	17.5	FALSE	10	1.15	5.11%
MH-296	MH-295	7	-0.8	-1.81	253	236.2	0.004	8	342.67	8.76	FALSE	10	0.93	2.56%
MH-297	MH-294	7	-0.26	-3.31	378	415.6	0.008	12	1,436.33	261.79	FALSE	18	3.1	18.23%
MH-298	MH-289	7	-3.64	-4.42	261	239.2	0.003	8	296.48	43.62	FALSE	10	1.35	14.71%
MH-299	MH-298	7	-2.86	-3.64	261	229.8	0.003	8	296.48	34.94	FALSE	10	1.27	11.78%
MH-300	MH-299	7	-2.2	-2.63	125	230.6	0.003	8	318.09	8.76	FALSE	10	0.88	2.75%
MH-301	MH-299	7	-2.02	-2.86	280	360.1	0.003	8	297.05	17.48	FALSE	10	1.04	5.88%
MH-302	MH-301	7	-0.39	-2.02	407	371.6	0.004	8	343.22	8.76	FALSE	10	0.93	2.55%
MH-320	MH-321	8	-1.64	-2.74	275	148.4	0.004	8	343.01	4.59	FALSE	10	0.77	1.34%
MH-321	MH-322	8	-2.74	-3.84	275	292.5	0.004	8	343.01	9.16	FALSE	10	0.95	2.67%
MH-322	MH-323	8	-3.94	-4.24	15	85	0.02	8	766.99	13.72	FALSE	10	1.88	1.79%
MH-323	MH-324	8	-4.29	-5.43	285	271.2	0.004	8	343.01	36.55	FALSE	10	1.43	10.66%
MH-324	MH-325	8	-5.43	-6.29	215	226.8	0.004	8	343.01	41.06	FALSE	10	1.48	11.97%
MH-325	MH-326	8	-7.05	-7.2	80	83.8	0.002	8	234.84	141.05	FALSE	10	1.57	60.06%
MH-326	LS 8	8	-7.3	-8.25	13	37.7	0.073	8	1,466.10	145.56	TRUE	10	5.97	9.93%
MH-333	MH-323	8	-3.75	-4.29	175	155.5	0.003	8	301.27	18.28	FALSE	10	1.06	6.07%
MH-334	MH-333	8	-3.05	-3.75	230	244.9	0.003	8	299.2	13.73	FALSE	10	0.97	4.59%
MH-335	MH-334	8	-1.82	-3.05	270	265.1	0.005	8	366.05	9.17	FALSE	10	0.99	2.51%
MH-336	MH-335	8	-1.45	-1.82	140	216	0.003	8	278.81	4.59	FALSE	10	0.66	1.65%
MH-337	MH-325	8	-6.2	-6.95	218	228.8	0.003	8	318.11	36.4	FALSE	10	1.35	11.44%
MH-338	MH-337	8	-5.54	-6.2	217	253.5	0.003	8	299.1	31.87	FALSE	10	1.24	10.66%
MH-339	MH-338	8	-4.79	-5.54	250	142.6	0.003	8	297.05	27.35	FALSE	10	1.18	9.21%
MH-340	MH-339	8	-4.32	-4.79	159	244.5	0.003	8	294.87	22.8	FALSE	10	1.11	7.73%
MH-341	MH-340	8	-3.65	-4.32	225	200.4	0.003	8	295.95	18.25	FALSE	10	1.05	6.17%
MH-342	MH-341	8	-2.72	-3.65	309	269.8	0.003	8	297.53	13.71	FALSE	10	0.97	4.61%
MH-343	MH-342	8	-1.9	-2.6	272	302.1	0.003	8	275.13	9.16	FALSE	10	0.81	3.33%
MH-348	MH-325	8	-5.97	-6.85	293	296.6	0.003	8	297.22	59.27	FALSE	10	1.48	19.94%
MH-350	MH-348	8	-5.31	-5.97	186	218.7	0.004	8	323.07	31.92	FALSE	10	1.31	9.88%
MH-351	MH-350	8	-4.63	-5.26	208	184.3	0.003	8	298.48	27.38	FALSE	10	1.19	9.17%
MH-352	MH-351	8	-4.1	-4.63	163	212.5	0.003	8	309.26	22.83	FALSE	10	1.15	7.38%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-353	MH-352	8	-3.37	-4.05	225	388.3	0.003	8	298.15	18.28	FALSE	10	1.05	6.13%
MH-354	MH-353	8	-2.4	-3.32	310	200.9	0.003	8	295.45	13.74	FALSE	10	0.96	4.65%
MH-355	MH-354	8	-1.77	-2.4	160	87.6	0.004	8	340.32	9.17	FALSE	10	0.94	2.69%
MH-356	MH-355	8	-1.37	-1.77	98	65	0.004	8	346.49	4.59	FALSE	10	0.78	1.32%
MH-357	MH-348	8	-3.65	-4.23	144	140.6	0.004	8	344.2	22.84	FALSE	10	1.25	6.64%
MH-358	MH-357	8	-2.49	-3.6	278	217.4	0.004	8	342.7	18.3	FALSE	10	1.16	5.34%
MH-359	MH-358	8	-1.58	-2.49	228	207.4	0.004	8	342.63	13.74	FALSE	10	1.07	4.01%
MH-360	MH-359	8	-0.99	-1.53	135	83.3	0.004	8	343.01	9.17	FALSE	10	0.95	2.67%
MH-361	MH-360	8	-0.25	-0.94	145	148.2	0.005	8	374.12	4.59	FALSE	10	0.81	1.23%
MH-896	MH-343	8	-1.08	-1.9	275	223.7	0.003	8	296.15	4.59	FALSE	10	0.69	1.55%
MH-389	LS 9	9	-7.35	-8.17	35	13.3	0.023	8	830.13	69.05	TRUE	10	3.21	8.32%
MH-390	MH-389	9	-6.07	-7.15	360	365.9	0.003	8	297.05	27.65	FALSE	10	1.19	9.31%
MH-391	MH-390	9	-4.99	-6.07	353	380.6	0.003	8	299.98	23.08	FALSE	10	1.13	7.69%
MH-392	MH-391	9	-3.91	-4.99	369	381	0.003	8	293.41	18.51	FALSE	10	1.05	6.31%
MH-394	MH-392	9	-2.03	-2.7	361	388.3	0.002	8	233.65	13.93	FALSE	10	0.82	5.96%
MH-395	MH-394	9	-2.14	-2.42	71	72.4	0.004	8	340.58	9.29	FALSE	10	0.94	2.73%
MH-396	MH-395	9	-1.53	-2.09	140	53.5	0.004	8	343.01	4.65	FALSE	10	0.77	1.36%
MH-397	MH-389	9	-7.01	-7.25	81	72.9	0.003	8	295.21	36.87	FALSE	10	1.29	12.49%
MH-398	MH-397	9	-6.73	-6.96	77	72	0.003	8	296.41	32.24	FALSE	10	1.24	10.88%
MH-399	MH-398	9	-5.67	-6.68	335	313.5	0.003	8	297.79	27.68	FALSE	10	1.19	9.30%
MH-400	MH-399	9	-4.6	-5.67	357	392	0.003	8	296.92	23.12	FALSE	10	1.13	7.79%
MH-401	MH-400	9	-3.65	-4.6	315	380.6	0.003	8	297.84	18.53	FALSE	10	1.06	6.22%
MH-402	MH-401	9	-2.64	-3.65	336	312.8	0.003	8	297.35	13.93	FALSE	10	0.97	4.68%
MH-403	MH-402	9	-2.38	-2.64	66	53.7	0.004	8	340.4	9.29	FALSE	10	0.94	2.73%
MH-404	MH-403	9	-2.08	-2.38	76	50.1	0.004	8	340.74	4.65	FALSE	10	0.77	1.36%
CO-78	MH-637	10	-0.31	-1.11	200	171.5	0.004	8	343.01	8.58	FALSE	10	0.93	2.50%
MH-598	MH-599	10	1.26	-0.06	330	325.6	0.004	8	343.01	8.58	FALSE	10	0.93	2.50%
MH-599	MH-601	10	-0.06	-0.16	266	286.7	0	8	105.16	17.13	FALSE	10	0.49	16.29%
MH-601	MH-604	10	-1.22	-2.36	285	286.8	0.004	8	343.01	34.15	FALSE	10	1.4	9.96%
MH-603	MH-601	10	2.13	0.59	385	435.3	0.004	8	343.01	8.58	FALSE	10	0.93	2.50%
MH-604	MH-608	10	-2.36	-3.57	303	280.3	0.004	8	342.73	59.76	TRUE	10	1.64	17.44%
MH-606	MH-604	10	0.62	-0.41	258	247.7	0.004	8	342.68	17.14	FALSE	10	1.14	5.00%
MH-607	MH-606	10	1.49	0.62	217	435.6	0.004	8	343.4	8.58	FALSE	10	0.93	2.50%
MH-608	MH-612	10	-3.57	-4.15	145	134.1	0.004	8	343.01	85.3	TRUE	10	1.81	24.87%
MH-610	MH-608	10	0.21	-1.37	334	407.1	0.005	8	373.02	17.14	FALSE	10	1.21	4.59%
MH-611	MH-610	10	1.3	0.21	274	247.4	0.004	8	342.07	8.58	FALSE	10	0.93	2.51%
MH-612	MH-613	10	-4.18	-4.7	129	157.6	0.004	8	344.34	93.8	TRUE	10	1.87	27.24%
MH-613	MH-619	10	-4.7	-5.65	316	274.3	0.003	8	297.37	144.96	TRUE	10	1.87	48.75%
MH-614	MH-613	10	-3.37	-4.6	308	317.6	0.004	8	342.73	34.17	TRUE	10	1.4	9.97%
MH-615	MH-614	10	-2.14	-3.37	308	216.9	0.004	8	342.73	25.66	TRUE	10	1.29	7.49%
MH-616	MH-615	10	-0.9	-2.14	308	383.9	0.004	8	344.12	17.13	FALSE	10	1.14	4.98%
MH-617	MH-616	10	0.43	-0.9	333	327.2	0.004	8	342.75	8.58	FALSE	10	0.93	2.50%
MH-618	MH-613	10	-3.58	-4.6	255	278.3	0.004	8	343.01	8.58	TRUE	10	0.93	2.50%
MH-619	MH-627	10	-5.65	-6.34	230	282.1	0.003	8	297.05	212.99	TRUE	10	2.04	71.70%
MH-620	MH-619	10	-4.1	-4.99	222	223.3	0.004	8	343.39	59.8	TRUE	10	1.65	17.41%
MH-621	MH-620	10	-3.3	-4.1	200	227.6	0.004	8	343.01	51.3	TRUE	10	1.57	14.96%
MH-622	MH-621	10	0.22	-0.45	168	203.9	0.004	8	342.5	8.58	FALSE	10	0.93	2.51%
MH-623	MH-621	10	-2.29	-3.3	253	213.6	0.004	8	342.67	34.22	TRUE	10	1.4	9.99%
MH-624	MH-623	10	-1.26	-2.29	257	257.8	0.004	8	343.34	25.69	FALSE	10	1.29	7.48%
MH-626	MH-624	10	0.16	-1.26	350	343.5	0.004	8	345.45	8.58	FALSE	10	0.93	2.48%
MH-627	MH-635A	10	-6.34	-6.88	304	277.1	0.002	8	228.58	281.02	TRUE	10	1.79	122.94%
MH-628	MH-627	10	-4.16	-5.09	233	267.4	0.004	8	342.64	59.8	TRUE	10	1.64	17.45%
MH-629	MH-628	10	-3.22	-4.16	234	200.3	0.004	8	343.74	51.31	TRUE	10	1.58	14.93%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-630	MH-629	10	-0.55	-1.05	125	207.5	0.004	8	343.01	8.58	FALSE	10	0.93	2.50%
MH-631	MH-629	10	-2.26	-3.22	241	220.5	0.004	8	342.3	34.22	FALSE	10	1.4	10.00%
MH-632	MH-631	10	-1.3	-2.26	239	247.1	0.004	8	343.73	25.69	FALSE	10	1.29	7.47%
MH-633	MH-632	10	-0.55	-1.19	158	107.4	0.004	8	345.17	8.58	FALSE	10	0.93	2.49%
MH-634	MH-632	10	0.15	-1.3	368	319.2	0.004	8	340.44	8.58	FALSE	10	0.92	2.52%
MH-635	MH-635A	10	-6.82	-6.91	29.2	29.2	0.003	8	301.29	153.17	TRUE	10	1.91	50.84%
MH-635A	LS-10	10	-6.91	-7.48	20	39.5	0.029	8	915.58	442.21	TRUE	10	5.72	48.30%
MH-636	MH-635	10	-6.29	-6.77	245	270.7	0.002	8	240.06	144.84	TRUE	10	1.59	60.33%
MH-637	MH-636	10	-5.6	-6.29	228	179.9	0.003	8	298.35	136.44	TRUE	10	1.84	45.73%
MH-638	MH-637	10	-1.71	-3.02	326	209.9	0.004	8	343.8	8.58	FALSE	10	0.93	2.50%
MH-640	MH-637	10	-4.73	-5.5	225	294.9	0.003	8	317.27	110.9	TRUE	10	1.85	34.95%
MH-641	MH-640	10	-1.55	-3.12	392	309.7	0.004	8	343.23	8.58	FALSE	10	0.93	2.50%
MH-642	MH-640	10	-1.18	-2.76	396	424.4	0.004	8	342.57	17.13	FALSE	10	1.14	5.00%
MH-643	MH-642	10	0.34	-1.18	379	425.7	0.004	8	343.46	8.58	FALSE	10	0.93	2.50%
MH-644	MH-640	10	-3.75	-4.73	325	284.6	0.003	8	297.81	76.89	TRUE	10	1.59	25.82%
MH-645	MH-644	10	-1.55	-2.78	289	230.9	0.004	8	353.82	8.58	FALSE	10	0.95	2.42%
MH-646	MH-644	10	-1.35	-2.65	309	397.7	0.004	8	351.78	8.58	FALSE	10	0.94	2.44%
MH-647	MH-644	10	-2.99	-3.75	255	291.9	0.003	8	296.08	51.31	TRUE	10	1.42	17.33%
MH-648	MH-647	10	-1.25	-2.43	296	210.7	0.004	8	342.43	8.58	FALSE	10	0.93	2.51%
MH-649	MH-647	10	-0.95	-2.99	314	396.5	0.006	8	437.14	8.58	FALSE	10	1.1	1.96%
MH-650	MH-647	10	-2.18	-2.99	265	253	0.003	8	299.84	25.68	FALSE	10	1.17	8.56%
MH-651	MH-650	10	-0.85	-2.08	306	401.8	0.004	8	343.85	8.58	FALSE	10	0.93	2.50%
MH-652	MH-650	10	-0.87	-2.08	303	187.2	0.004	8	342.73	8.58	FALSE	10	0.93	2.50%
MH-889	MH-624	10	-0.35	-1.07	180	211.1	0.004	8	343.01	8.58	FALSE	10	0.93	2.50%
MH-714	MH-715	11	-0.53	-1.25	181	166.9	0.004	8	342.06	5.24	FALSE	10	0.8	1.53%
MH-715	MH-716	11	-1.25	-2.1	281	287.1	0.003	8	298.28	10.48	FALSE	10	0.89	3.51%
MH-716	MH-717	11	-2.1	-2.61	238	246.9	0.002	8	251.06	22.52	FALSE	10	0.99	8.97%
MH-717	MH-718	11	-2.61	-3.57	260	269.3	0.004	8	329.55	27.7	FALSE	10	1.28	8.41%
MH-718	MH-721	11	-3.62	-4.44	275	233.7	0.003	8	296.15	43.3	FALSE	10	1.35	14.62%
MH-719	MH-718	11	-2.04	-3.47	357	354	0.004	8	343.25	10.46	FALSE	10	0.99	3.05%
MH-720	MH-719	11	-0.61	-2.04	358	288.4	0.004	8	342.77	5.24	FALSE	10	0.8	1.53%
MH-721	MH-722	11	-4.49	-4.65	51	35.2	0.003	8	303.77	48.45	FALSE	10	1.42	15.95%
MH-722	MH-727	11	-4.69	-5.68	333	344.9	0.003	8	295.71	74.51	FALSE	10	1.57	25.20%
MH-723	MH-722	11	-3.81	-4.6	262	290.9	0.003	8	297.81	20.89	FALSE	10	1.1	7.01%
MH-724	MH-723	11	-3.02	-3.81	263	281	0.003	8	297.24	15.69	FALSE	10	1	5.28%
MH-726	MH-898	11	0.05	-0.43	237	236.9	0.002	8	244.07	5.24	FALSE	10	0.63	2.15%
MH-727	MH-728	11	-5.68	-6.7	336	326	0.003	8	298.82	79.58	FALSE	10	1.61	26.63%
MH-728	MH-729	11	-6.7	-7	102	159	0.003	8	294.13	84.67	FALSE	11	1.62	28.79%
MH-729	MH-730	11	-7.23	-7.52	95	174.6	0.003	8	299.65	119.22	FALSE	11	1.8	39.79%
MH-730	LS 11	11	-7.75	-8.75	25	24.1	0.04	8	1,084.69	127.8	TRUE	11	4.65	11.78%
MH-731	MH-730	11	-1.29	-2.49	300	253.7	0.004	8	343.01	3.43	FALSE	10	0.7	1.00%
MH-732	MH-729	11	-5.95	-7.15	398	189.6	0.003	8	297.8	29.43	FALSE	10	1.21	9.88%
MH-733	MH-732	11	-4.96	-5.95	332	256	0.003	8	296.16	24.27	FALSE	10	1.14	8.19%
MH-734	MH-733	11	-3.98	-4.96	328	291.1	0.003	8	296.45	19.09	FALSE	10	1.06	6.44%
MH-735	MH-734	11	-3.34	-3.98	211	340.8	0.003	8	298.69	13.88	FALSE	10	0.97	4.65%
MH-736	MH-735	11	-2.7	-3.34	213	266.1	0.003	8	297.29	8.66	FALSE	10	0.84	2.91%
MH-784	MH-736	11	-2.03	-2.7	224	281.7	0.003	8	296.61	3.43	FALSE	10	0.63	1.16%
MH-898	MH-724	11	-0.43	-3.02	238	244.8	0.011	8	565.76	10.47	FALSE	10	1.39	1.85%
MH-768	LS-12	12	-3.75	-8.55	63.8	63.8	0.075	12	4,385.91	97.97	FALSE	10	5.09	2.23%
MH-769	MH-768	12	-2.85	-3.75	225	254.5	0.004	8	343.01	78.45	FALSE	10	1.78	22.87%
MH-770	MH-769	12	-2.28	-2.85	142	102	0.004	8	343.61	58.87	FALSE	10	1.64	17.13%
MH-771	MH-770	12	-1.88	-2.28	108	53.9	0.004	8	330.06	19.64	FALSE	10	1.16	5.95%
MH-772	MH-770	12	-1.68	-2.28	150	58.3	0.004	8	343.01	19.64	FALSE	10	1.19	5.73%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-773	LS-12	12	-5.85	-8.55	75	117	0.036	8	1,029.02	156.61	TRUE	10	4.74	15.22%
MH-774	MH-773	12	-4.92	-5.75	208	166.1	0.004	8	342.6	137.13	FALSE	10	2.07	40.03%
MH-775	MH-774	12	-4.14	-4.92	194	226.8	0.004	8	343.89	117.62	FALSE	10	1.99	34.20%
MH-776	MH-775	12	-3.55	-4.14	147	200.4	0.004	8	343.59	98.07	FALSE	10	1.89	28.54%
MH-777	MH-776	12	-3.22	-3.45	57	39.3	0.004	8	344.51	39.25	FALSE	10	1.46	11.39%
MH-778	MH-777	12	-2.49	-3.22	157	143	0.005	8	369.82	19.64	FALSE	10	1.25	5.31%
MH-779	MH-776	12	-3.07	-3.55	121	152.8	0.004	8	341.59	39.23	FALSE	10	1.45	11.48%
MH-780	MH-779	12	-2.13	-3.07	236	201.1	0.004	8	342.28	19.64	FALSE	10	1.19	5.74%
MH-451	MH-454	13	-3.05	-3.21	40	136.4	0.004	8	343.01	25.67	FALSE	10	1.29	7.48%
MH-452	MH-451	13	-1.83	-3.05	252	325.6	0.005	8	377.36	17.13	FALSE	10	1.22	4.54%
MH-453	MH-452	13	-0.35	-1.83	372	322.3	0.004	8	342.09	8.58	FALSE	10	0.93	2.51%
MH-454	LS 13	13	-7.25	-7.35	25	45	0.004	8	343.01	76.7	TRUE	10	1.77	22.36%
MH-456	MH-454	13	-5.98	-7.25	391	740.8	0.003	8	309.09	42.59	TRUE	10	1.38	13.78%
MH-457	MH-456	13	-4.81	-5.98	391	358.8	0.003	8	296.67	34.12	FALSE	10	1.26	11.50%
MH-458	MH-457	13	-3.25	-4.81	391	410.7	0.004	8	342.57	25.63	FALSE	10	1.29	7.48%
MH-459	MH-458	13	-2.07	-3.25	391	366.6	0.003	8	297.94	17.12	FALSE	10	1.03	5.75%
MH-460	MH-459	13	-0.89	-2.07	391	296.1	0.003	8	297.94	8.58	FALSE	10	0.84	2.88%
MH-569	MH-570	14	0.21	-0.6	201	340.5	0.004	8	344.29	9.21	FALSE	10	0.95	2.68%
MH-570	MH-571	14	-0.6	-1.57	251	216.1	0.004	8	337.15	18.39	FALSE	10	1.15	5.45%
MH-571	MH-572	14	-1.57	-2.47	300	283.5	0.003	8	297.05	27.56	FALSE	10	1.19	9.28%
MH-572	MH-573	14	-2.47	-4.2	260	263.8	0.007	8	442.4	36.69	FALSE	10	1.71	8.29%
MH-573	MH-574	14	-4.2	-5.76	388	405.3	0.004	8	343.89	45.83	FALSE	10	1.53	13.33%
MH-574	MH-577	14	-5.76	-5.87	38	66.8	0.003	8	291.8	73.27	FALSE	10	1.55	25.11%
MH-576	MH-895	14	1.11	-0.78	386	396.5	0.005	8	379.5	9.21	FALSE	10	1.02	2.43%
MH-577	MH-578	14	-5.87	-6.85	328	337.1	0.003	8	296.45	82.46	FALSE	10	1.62	27.82%
MH-578	MH-579	14	-6.85	-7.75	300	266	0.003	8	297.05	91.48	FALSE	10	1.67	30.80%
MH-579	MH-584	14	-7.75	-7.93	40	26.5	0.004	8	363.82	137.24	TRUE	10	2.16	37.72%
MH-580	MH-579	14	-1.2	-7.75	237	301.8	0.028	8	901.61	18.39	FALSE	10	2.29	2.04%
MH-581	MH-580	14	-0.25	-1.2	237	242.3	0.004	8	343.37	9.21	FALSE	10	0.95	2.68%
MH-582	MH-579	14	-1.32	-7.75	267	262.6	0.024	8	841.64	18.39	FALSE	10	2.18	2.19%
MH-583	MH-582	14	-0.25	-1.32	268	211	0.004	8	342.69	9.21	FALSE	10	0.95	2.69%
MH-584	LS 14	14	-7.93	-10.01	10	37	0.208	8	2,473.47	265.2	TRUE	10	10.3	10.72%
MH-585	MH-584	14	-7.03	-7.93	280	321.6	0.003	8	307.48	118.98	TRUE	10	1.84	38.70%
MH-586	MH-585	14	-6.19	-7.03	280	252.3	0.003	8	297.05	109.97	FALSE	10	1.75	37.02%
MH-587	MH-586	14	-1.32	-6.19	267	296.1	0.018	8	732.46	18.39	FALSE	10	1.98	2.51%
MH-588	MH-587	14	-0.25	-1.32	267	241.3	0.004	8	343.33	9.21	FALSE	10	0.95	2.68%
MH-589	MH-586	14	-1.2	-6.19	237	262.9	0.021	8	786.96	18.39	FALSE	10	2.08	2.34%
MH-590	MH-589	14	-0.25	-1.2	237	216	0.004	8	343.37	9.21	FALSE	10	0.95	2.68%
MH-591	MH-586	14	-3.95	-6.19	300	375.5	0.007	8	468.64	64.14	FALSE	10	2.1	13.69%
MH-592	MH-591	14	-2.35	-3.95	300	224.5	0.005	8	396.07	55.04	FALSE	10	1.78	13.90%
MH-593	MH-592	14	-1	-2.35	300	280.9	0.005	8	363.82	18.39	FALSE	10	1.21	5.05%
MH-594	MH-593	14	-0.06	-1	234	256.8	0.004	8	343.74	9.21	FALSE	10	0.95	2.68%
MH-595	MH-592	14	-1	-2.35	300	275.5	0.005	8	363.82	18.4	FALSE	10	1.21	5.06%
MH-596	MH-595	14	-0.3	-1	174	200	0.004	8	343.99	9.21	FALSE	10	0.95	2.68%
MH-597	MH-592	14	0.09	-2.35	610	250.8	0.004	8	343.01	9.21	FALSE	10	0.95	2.69%
MH-895	MH-574	14	-0.78	-5.76	164	160.4	0.03	8	945.08	18.38	FALSE	10	2.36	1.94%
MH-479	MH-485	15	-4.77	-5.76	249	249	0.004	8	343.01	39.11	FALSE	10	1.45	11.40%
MH-480	MH-479	15	-4.41	-4.77	89.8	89.8	0.004	8	343.01	19.56	FALSE	10	1.19	5.70%
MH-481	MH-480	15	-4.05	-4.41	88.7	88.7	0.004	8	343.01	13.05	FALSE	10	1.05	3.80%
MH-482	MH-481	15	-3.74	-4.05	77.7	77.7	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-483	MH-479	15	-4.56	-4.77	50.1	50.1	0.004	8	343.01	13.04	FALSE	10	1.05	3.80%
MH-484	MH-483	15	-4.11	-4.56	113.6	113.6	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-485	MH-487	15	-5.76	-6.76	250.8	250.8	0.004	8	343.01	45.56	FALSE	10	1.52	13.28%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-486	MH-487	15	-6.53	-6.76	59.3	59.3	0.004	8	343.01	13.04	FALSE	10	1.05	3.80%
MH-487	MH-491	15	-6.76	-7.56	199.6	199.6	0.004	8	343.01	78.07	FALSE	10	1.77	22.76%
MH-488	MH-486	15	-6.1	-6.53	107.9	107.9	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-489	MH-487	15	-6.38	-6.76	96.6	96.6	0.004	8	343.01	13.05	FALSE	10	1.05	3.80%
MH-490	MH-489	15	-6.06	-6.38	79.1	79.1	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-491	MH-492	15	-7.56	-8.04	119.6	119.6	0.004	8	343.01	84.49	FALSE	10	1.82	24.63%
MH-492	LS-15	15	-8.04	-8.33	72.9	72.9	0.004	8	343.01	181.64	FALSE	10	2.22	52.95%
MH-493	MH-492	15	-7.35	-8.04	174	174	0.004	8	343.01	90.78	FALSE	10	1.85	26.47%
MH-494	MH-493	15	-6.7	-7.35	160.8	160.8	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-495	MH-493	15	-6.69	-7.35	163.7	163.7	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-496	MH-493	15	-6.23	-7.35	277.6	277.6	0.004	8	343.01	71.36	FALSE	10	1.73	20.80%
MH-497	MH-498	15	-5.41	-4.76	161.8	161.8	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-497	MH-496	15	-5.41	-6.23	206.9	206.9	0.004	8	343.01	64.92	FALSE	10	1.68	18.93%
MH-499	MH-497	15	-4.76	-5.41	161.1	161.1	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-500	MH-497	15	-4.58	-5.41	205.9	205.9	0.004	8	343.01	45.44	FALSE	10	1.52	13.25%
MH-500A	MH-500	15	-3.52	-4.58	265.1	265.1	0.004	8	343.01	39	FALSE	10	1.45	11.37%
MH-500B	MH-500A	15	-2.86	-3.52	166.7	166.7	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-500C	MH-500A	15	-2.75	-3.52	192.7	192.7	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-500D	MH-500E	15	-0.63	-1.35	181.6	181.6	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-500E	MH-500A	15	-1.35	-3.52	542.3	542.3	0.004	8	343.01	19.55	FALSE	10	1.19	5.70%
MH-500F	MH-500E	15	-0.62	-1.35	183.6	183.6	0.004	8	343.01	6.53	FALSE	10	0.85	1.90%
MH-303	MH-304	16	-2.27	-3.28	252	252	0.004	8	343.01	3.16	FALSE	10	0.68	0.92%
MH-304	MH-305	16	-3.28	-4.26	244.5	244.5	0.004	8	343.01	6.3	FALSE	10	0.85	1.84%
MH-305	MH-306	16	-4.26	-5.5	310.6	310.6	0.004	8	343.01	9.44	FALSE	10	0.95	2.75%
MH-306	MH-310	16	-5.5	-6.28	193.5	193.5	0.004	8	343.01	22	FALSE	10	1.23	6.41%
MH-307	MH-306	16	-4.4	-5.5	276.2	276.2	0.004	8	343.01	6.31	FALSE	10	0.85	1.84%
MH-308	MH-307	16	-3.51	-4.4	221.9	221.9	0.004	8	343.01	3.16	FALSE	10	0.68	0.92%
MH-309	MH-306	16	-4.43	-5.5	266.9	266.9	0.004	8	343.01	3.16	FALSE	10	0.68	0.92%
MH-310	MH-311	16	-6.28	-7.47	298.7	298.7	0.004	8	343.01	25.11	FALSE	10	1.28	7.32%
MH-311	LS-16	16	-7.47	-9.07	28.2	28.2	0.057	8	1,292.32	53.28	FALSE	10	4.05	4.12%
MH-312	MH-311	16	-7.32	-7.47	37.1	37.1	0.004	8	343.01	25.09	FALSE	10	1.28	7.31%
MH-313	MH-312	16	-5.81	-7.32	377.5	377.5	0.004	8	343.01	6.3	FALSE	10	0.85	1.84%
MH-314	MH-313	16	-4.49	-5.81	331.6	331.6	0.004	8	343.01	3.16	FALSE	10	0.68	0.92%
MH-315	MH-312	16	-6.37	-7.32	237.5	237.5	0.004	8	343.01	15.7	FALSE	10	1.11	4.58%
MH-316	MH-315	16	-5.42	-6.37	238.9	238.9	0.004	8	343.01	12.57	FALSE	10	1.04	3.66%
MH-317	MH-316	16	-3.83	-5.42	397.6	397.6	0.004	8	343.01	6.3	FALSE	10	0.85	1.84%
MH-318	MH-317	16	-2.53	-3.83	323.2	323.2	0.004	8	343.01	3.16	FALSE	10	0.68	0.92%
MH-319	MH-316	16	-4.17	-5.42	311.7	311.7	0.004	8	343.01	3.16	FALSE	10	0.68	0.92%
MH-835	MH-836	17	0.16	-1.06	304.8	304.8	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-836	MH-837	17	-1.06	-2.49	357.2	357.2	0.004	8	343.01	11.84	FALSE	10	1.02	3.45%
MH-837	MH-843	17	-2.49	-3.63	286.9	286.9	0.004	8	343.01	29.52	FALSE	10	1.34	8.61%
MH-838	MH-837	17	-1.7	-2.49	195.8	195.8	0.004	8	343.01	11.83	FALSE	10	1.02	3.45%
MH-839	MH-838	17	-0.03	-1.7	419.4	419.4	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-840	MH-841	17	0.5	-0.57	266.9	266.9	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-841	MH-842	17	-0.57	-2	357.2	357.2	0.004	8	343.01	11.84	FALSE	10	1.02	3.45%
MH-842	MH-843	17	-2	-3.63	408.8	408.8	0.004	8	343.01	17.72	FALSE	10	1.15	5.17%
MH-843	MH-846	17	-3.63	-5.06	355.9	355.9	0.004	8	343.01	64.83	FALSE	10	1.68	18.90%
MH-844	MH-843	17	-2.33	-3.63	327	327	0.004	8	343.01	11.84	FALSE	10	1.02	3.45%
MH-845	MH-844	17	-1.51	-2.33	203	203	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-846	MH-850	17	-5.06	-5.43	92.5	92.5	0.004	8	343.01	70.61	FALSE	10	1.72	20.59%
MH-847	MH-848	17	-2.92	-3.85	232.3	232.3	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-848	MH-849	17	-3.85	-4.94	272.5	272.5	0.004	8	343.01	17.76	FALSE	10	1.15	5.18%
MH-849	MH-850	17	-4.94	-5.43	122.1	122.1	0.004	8	343.01	23.65	FALSE	10	1.26	6.89%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-850	MH-851	17	-5.43	-6.86	358.6	358.6	0.004	8	343.01	100.12	FALSE	10	1.9	29.19%
MH-851	MH-853	17	-6.86	-8.25	340.8	340.8	0.004	8	345.53	111.76	FALSE	10	1.97	32.34%
MH-852	MH-853	17	-6.73	-8.25	374.1	374.1	0.004	8	345.31	5.93	FALSE	10	0.83	1.72%
MH-853	MH-854	17	-8.25	-8.68	283.3	283.3	0.002	8	211.56	123.38	FALSE	10	1.4	58.32%
MH-854	MH-855	17	-8.68	-9.78	275.7	267.6	0.004	8	343.01	129.18	FALSE	11	2.04	37.66%
MH-855	LS 17	17	-9.78	-9.92	34	16.9	0.004	8	343.01	193.76	FALSE	11	2.26	56.49%
MH-856	MH-857	17	-6.88	-8.23	336.9	336.9	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-857	MH-865	17	-8.23	-9.38	288.3	288.3	0.004	8	343.01	29.49	FALSE	10	1.34	8.60%
MH-858	MH-857	17	-7.05	-8.23	294.3	294.3	0.004	8	343.01	17.71	FALSE	10	1.15	5.16%
MH-859	MH-858	17	-5.15	-7.05	475.6	475.6	0.004	8	343.01	11.84	FALSE	10	1.02	3.45%
MH-860	MH-859	17	-4.12	-5.15	255.7	255.7	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-861	MH-862	17	-4.15	-5.19	259.9	259.9	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-862	MH-863	17	-5.19	-5.95	189.8	189.8	0.004	8	343.01	11.84	FALSE	10	1.02	3.45%
MH-863	MH-864	17	-5.95	-7.82	467.5	467.5	0.004	8	343.01	17.75	FALSE	10	1.15	5.17%
MH-864	MH-865	17	-7.82	-9.38	389.9	389.9	0.004	8	343.01	23.59	FALSE	10	1.25	6.88%
MH-865	MH-855	17	-9.38	-9.78	100.2	108.2	0.004	8	343.01	58.86	FALSE	10	1.64	17.16%
MH-866	MH-851	17	-6.6	-6.86	64.9	64.9	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%
MH-867	MH-848	17	-3.45	-3.85	100.3	100.3	0.004	8	343.01	5.93	FALSE	10	0.83	1.73%

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
CO-72	1	5.65	0.9	48	0.94	0.94	TRUE	FALSE
CO-73	1	6.25	2.15	48	2.18	2.18	TRUE	FALSE
CO-74	1	5.15	1.16	48	1.2	1.2	TRUE	FALSE
CO-75	1	3.95	-0.15	48	-0.11	-0.11	TRUE	FALSE
CO-76	1	4.25	0.21	48	0.25	0.25	TRUE	FALSE
CO-77	1	4.25	-0.09	48	-0.05	-0.05	TRUE	FALSE
CO-80	1	7.25	3.86	48	3.9	3.9	TRUE	FALSE
MH-504	1	6.15	0.85	48	0.87	0.87	TRUE	FALSE
MH-514	1	6.75	-2.31	48	-2.23	-2.23	TRUE	FALSE
MH-516	1	7.25	0.82	48	0.86	0.86	TRUE	FALSE
MH-521	1	4	0.73	48	0.77	0.77	TRUE	FALSE
MH-523	1	7	-2.62	48	-2.55	-2.55	TRUE	FALSE
MH-524	1	6.25	-2.93	48	-2.85	-2.85	TRUE	FALSE
MH-525	1	6.55	-1.81	48	-1.76	-1.76	TRUE	FALSE
MH-526	1	6.65	2.63	48	2.67	2.67	TRUE	FALSE
MH-528	1	6.75	-0.53	48	-0.48	-0.48	TRUE	FALSE
MH-529	1	6.05	0.33	48	0.37	0.37	TRUE	FALSE
MH-530	1	5.65	1.27	48	1.32	1.32	TRUE	FALSE
MH-534	1	4.05	-3.52	48	-3.44	-3.44	TRUE	FALSE
MH-538	1	3.95	-1.95	48	-1.9	-1.9	TRUE	FALSE
MH-541	1	4	-0.79	48	-0.75	-0.75	TRUE	FALSE
MH-542	1	5.65	-0.23	48	-0.18	-0.18	TRUE	FALSE
MH-545	1	4	-0.02	48	0.02	0.02	TRUE	FALSE
MH-547	1	4	-2.33	48	-2.28	-2.28	TRUE	FALSE
MH-548	1	4.25	-2.18	48	-2.14	-2.14	TRUE	FALSE
MH-551	1	4.25	-2.63	48	-2.59	-2.59	TRUE	FALSE
MH-554	1	4.25	-1.5	48	-1.46	-1.46	TRUE	FALSE
MH-555	1	4.55	-0.58	48	-0.54	-0.54	TRUE	FALSE
MH-556	1	4.25	-4.54	48	-4.44	-4.44	TRUE	FALSE
MH-557	1	3.65	-2.47	48	-2.43	-2.43	TRUE	FALSE
MH-558	1	3.95	-0.99	48	-0.95	-0.95	TRUE	FALSE
MH-559	1	4.75	-1.7	48	-1.66	-1.66	TRUE	FALSE
MH-560	1	4.75	-0.76	48	-0.71	-0.71	TRUE	FALSE
MH-562	1	4.75	-2.63	48	-2.59	-2.59	TRUE	FALSE
MH-563	1	4.75	-1.51	48	-1.47	-1.47	TRUE	FALSE
MH-565	1	4.25	-1.45	48	-1.42	-1.42	TRUE	FALSE
MH-566	1	4.25	0.14	48	0.19	0.19	TRUE	FALSE
MH-567	1	5.25	0.52	48	0.57	0.57	TRUE	FALSE
MH-568	1	6	1.52	48	1.56	1.56	TRUE	FALSE
MH-650A	1	4.75	-4.9	48	-4.8	-4.8	TRUE	FALSE
MH-653	1	3	-5.08	48	-4.9	-4.9	TRUE	FALSE
MH-654	1	4.5	-0.01	48	0.03	0.03	TRUE	FALSE
MH-655	1	4.5	0.89	48	0.93	0.93	TRUE	FALSE
MH-6565	1	4.25	-3.53	48	-3.48	-3.48	TRUE	FALSE
MH-657	1	5.65	-2.56	48	-2.4	-2.4	TRUE	FALSE
MH-658	1	4.25	-2.17	48	-1.99	-1.99	TRUE	FALSE
MH-659	1	3.25	-1.24	48	-1.02	-1.02	TRUE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-660A	1	4.25	-0.65	48	-0.4	-0.4	TRUE	FALSE
MH-661	1	2.65	-5.2	48	-5.03	-5.03	TRUE	FALSE
MH-662	1	2.75	-5.26	48	-5.09	-5.09	TRUE	FALSE
MH-663	1	4.75	0.7	48	0.73	0.73	TRUE	FALSE
MH-664	1	3.5	-5.35	48	-5.19	-5.19	TRUE	FALSE
MH-666	1	4.25	-2.97	48	-2.92	-2.92	TRUE	FALSE
MH-667	1	4.25	-2.73	48	-2.69	-2.69	TRUE	FALSE
MH-669	1	3.65	-3.42	48	-3.38	-3.38	TRUE	FALSE
MH-672	1	3	-2.49	48	0.03	0.03	TRUE	FALSE
MH-673	1	2.5	-5.52	48	-5.37	-5.37	TRUE	FALSE
MH-674	1	2.95	-3.59	48	-3.55	-3.55	TRUE	FALSE
MH-676	1	12.24	-0.55	48	-0.51	-0.51	FALSE	FALSE
MH-677	1	2.25	-5.74	48	-5.61	-5.61	TRUE	FALSE
MH-683	1	2.75	-5.93	48	-5.81	-5.81	TRUE	FALSE
MH-688	1	2.85	-6.11	48	-6	-6	TRUE	FALSE
MH-694	1	3.15	-6.31	48	-6.2	-6.2	TRUE	FALSE
MH-702	1	3.25	-6.46	48	-6.24	-6.24	TRUE	FALSE
MH-706	1	3.35	-6.6	48	-6.4	-6.4	TRUE	FALSE
MH-708	1	2.75	-6.93	48	-6.76	-6.76	TRUE	FALSE
MH-709	1	2.75	-5.14	48	-5.09	-5.09	TRUE	FALSE
MH-710	1	2.55	-4.44	48	-4.4	-4.4	FALSE	FALSE
MH-711	1	2.95	-3.99	48	-3.94	-3.94	FALSE	FALSE
MH-712	1	2.75	-2.45	48	-2.41	-2.41	FALSE	FALSE
MH-713	1	2.35	-1.32	48	-1.28	-1.28	FALSE	FALSE
MH-785	1	6.5	2.49	48	2.53	2.53	TRUE	FALSE
MH-890	1	4.25	-0.24	48	-0.2	-0.2	TRUE	FALSE
MH-891	1	5.75	-3.08	48	-2.99	-2.99	TRUE	FALSE
MH-784	1	2.35	-2.03	48	-1.99	-1.99	FALSE	FALSE
MH-669A	1	3.71	-1.86	48	-1.83	-1.83	TRUE	FALSE
MH-676A	1	3.74	-1.7	48	-1.66	-1.66	FALSE	FALSE
MH-678	1	3.05	-3.81	48	-3.76	-3.76	TRUE	FALSE
MH-679B	1	3.71	-2.09	48	-2.06	-2.06	TRUE	FALSE
MH-680	1	3.38	-2.72	48	-2.67	-2.67	TRUE	FALSE
MH-681	1	3.38	-1.8	48	-1.76	-1.76	TRUE	FALSE
MH-682	1	3.38	-0.49	48	-0.45	-0.45	TRUE	FALSE
MH-684	1	2.75	-4	48	-3.94	-3.94	TRUE	FALSE
MH-685	1	3.71	-3.8	48	-2.72	-2.72	TRUE	FALSE
MH-686	1	3.22	-1.94	48	-1.9	-1.9	TRUE	FALSE
MH-687	1	3.25	-0.64	48	-0.6	-0.6	FALSE	FALSE
MH-691	1	3.71	-2.59	48	-2.56	-2.56	TRUE	FALSE
MH-692	1	3.25	-1.07	48	-1.03	-1.03	FALSE	FALSE
MH-693	1	3.15	-0.39	48	-0.35	-0.35	FALSE	FALSE
MH-695	1	3.75	-4.66	48	-4.61	-4.61	TRUE	FALSE
MH-696	1	2.75	-3.96	48	-3.74	-3.74	TRUE	FALSE
MH-697	1	3.71	-2.85	48	-2.47	-2.47	TRUE	FALSE
MH-698	1	2.75	-2.07	48	-2.03	-2.03	FALSE	FALSE
MH-699	1	2.75	-0.9	48	-0.86	-0.86	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-700	1	2.75	-2.49	48	-2.45	-2.45	FALSE	FALSE
MH-701	1	2.75	-1.29	48	-1.25	-1.25	FALSE	FALSE
MH-703	1	2.65	-3.86	48	-3.65	-3.65	TRUE	FALSE
MH-704	1	2.55	-3.19	48	-2.94	-2.94	FALSE	FALSE
MH-707	1	2.95	-1.13	48	-1.09	-1.09	FALSE	FALSE
MH-731	1	2.75	-1.29	48	-1.25	-1.25	FALSE	FALSE
MH-738	1	2.75	-7.09	48	-6.93	-6.93	TRUE	FALSE
MH-739	1	3.62	-7.21	48	-7.06	-7.06	FALSE	FALSE
MH-744	1	2.25	-5.61	48	-5.46	-5.46	FALSE	FALSE
MH-744B	1	3.25	-5.01	48	-3.83	-3.83	TRUE	FALSE
MH-746	1	3.25	-0.82	48	-0.78	-0.78	FALSE	FALSE
MH-747	1	2	-4.14	48	-3.83	-3.83	FALSE	FALSE
MH-748	1	3.25	-2.92	48	-2.88	-2.88	FALSE	FALSE
MH-749	1	3.35	-1.81	48	-1.77	-1.77	FALSE	FALSE
MH-750	1	3.25	-0.7	48	-0.66	-0.66	FALSE	FALSE
MH-751	1	2.75	-3.43	48	-3.38	-3.38	FALSE	FALSE
MH-752	1	2.75	-3.14	48	-3.1	-3.1	FALSE	FALSE
MH-753	1	3.25	-0.57	48	-0.54	-0.54	FALSE	FALSE
MH-754	1	3.25	-2.34	48	-2.3	-2.3	FALSE	FALSE
MH-755	1	2.25	-5.1	48	-4.92	-4.92	FALSE	FALSE
MH-756	1	3.25	-2.22	48	-2.18	-2.18	FALSE	FALSE
MH-757	1	3.05	-0.95	48	-0.91	-0.91	FALSE	FALSE
MH-758	1	1.3	-4.09	48	-3.89	-3.89	FALSE	FALSE
MH-759	1	3.55	-1.63	48	-1.59	-1.59	FALSE	FALSE
MH-760	1	3.55	-0.55	48	-0.51	-0.51	FALSE	FALSE
MH-761	1	2.25	-3.55	48	-3.28	-3.28	FALSE	FALSE
MH-763	1	3.25	-2.05	48	-1.22	-1.22	TRUE	FALSE
MH-783	1	2.75	-1.98	48	-1.22	-1.22	FALSE	FALSE
MH-893	1	2.25	-0.38	48	-0.32	-0.32	FALSE	FALSE
MH-740	1	3.27	-7.23	48	-7.11	-7.11	FALSE	FALSE
MH-679	1	2.75	-2.82	48	-2.76	-2.76	TRUE	FALSE
MH-765	1	3.25	-2.82	48	-2.51	-2.51	FALSE	FALSE
MH-697A	1	2.75	-2.79	48	-2.47	-2.47	FALSE	FALSE
MH-741A	1	2.25	-6.12	48	-6.05	-6.05	FALSE	FALSE
MH-3	1	3.71	-2.82	48	-2.72	-2.72	TRUE	FALSE
MH-4	1	3.41	-2.09	48	-2.06	-2.06	TRUE	FALSE
MH-740A	1	3.22	-7.18	48	-7.09	-7.09	FALSE	FALSE
PS 1 WET WELL	1	5.37	-7.28	121	-7.25	-7.25	FALSE	FALSE
MH-505	1	5.85	-1	48	-0.94	-0.94	TRUE	TRUE
MH-511	1	6	-1.3	48	-1.25	-1.25	TRUE	TRUE
MH-512	1	6	-1.69	48	-1.62	-1.62	TRUE	TRUE
MH-513	1	6.25	-1.97	48	-1.91	-1.91	TRUE	TRUE
MH-515	1	6.15	-0.68	48	-0.65	-0.65	TRUE	TRUE
MH-517	1	5.95	1.95	48	1.99	1.99	TRUE	TRUE
MH-518	1	5.95	2.51	48	2.55	2.55	TRUE	TRUE
MH-519	1	3.85	0.38	48	0.42	0.42	TRUE	TRUE
MH-520	1	3.35	1.9	48	1.94	1.94	TRUE	TRUE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-532	1	5.15	1.79	48	1.83	1.83	TRUE	TRUE
MH-533	1	4.25	-3.37	48	-3.29	-3.29	TRUE	TRUE
MH-536	1	3.75	-3.64	48	-3.56	-3.56	TRUE	TRUE
MH-537	1	3.75	-3.76	48	-3.67	-3.67	TRUE	TRUE
MH-537A	1	3.75	-3.87	48	-3.78	-3.78	TRUE	TRUE
MH-543	1	3.75	-4.03	48	-3.89	-3.89	TRUE	TRUE
MH-544	1	3.75	-1.67	48	-1.63	-1.63	TRUE	TRUE
MH-546	1	3.75	-4.45	48	-4	-4	TRUE	TRUE
MH-549	1	3.65	-1.2	48	-1.16	-1.16	TRUE	TRUE
MH-550	1	3.75	-4.32	48	-4.22	-4.22	TRUE	TRUE
MH-552	1	3.75	-1.61	48	-1.57	-1.57	TRUE	TRUE
MH-553	1	3.55	-0.57	48	-0.53	-0.53	TRUE	TRUE
MH-522	1	3.25	-0.92	48	-0.87	-0.87	TRUE	TRUE
CO-71	2	3.75	0.83	48	0.86	0.86	TRUE	FALSE
MH-252	2	4.25	-0.35	48	-0.33	-0.33	TRUE	FALSE
MH-253	2	4.25	-1.5	48	-1.47	-1.47	TRUE	FALSE
MH-254	2	4.25	-1.89	48	-1.86	-1.86	TRUE	FALSE
MH-255	2	4.35	-2.38	48	-2.35	-2.35	TRUE	FALSE
MH-261	2	4.25	-3.64	48	-3.47	-3.47	TRUE	FALSE
MH-262	2	4.35	-3.89	48	-3.72	-3.72	TRUE	FALSE
MH-263	2	4.15	-4.16	48	-3.98	-3.98	TRUE	FALSE
MH-362	2	4.5	-0.69	48	-0.57	-0.57	TRUE	FALSE
MH-363	2	3.75	-3.68	48	-3.52	-3.52	TRUE	FALSE
MH-364	2	3.75	-2.13	48	-2.01	-2.01	TRUE	FALSE
MH-365	2	3.75	-0.7	48	-0.59	-0.59	TRUE	FALSE
MH-366	2	3.75	-4.32	48	-4.05	-4.05	TRUE	FALSE
MH-367	2	4	-4.29	48	-4.05	-4.05	TRUE	FALSE
MH-368	2	4	-4.36	48	-4.06	-4.06	TRUE	FALSE
MH-371	2	3	-2.11	48	-2.07	-2.07	TRUE	FALSE
MH-372	2	3.25	-0.78	48	-0.75	-0.75	TRUE	FALSE
MH-373	2	3.75	0.14	48	0.17	0.17	TRUE	FALSE
MH-378	2	3.5	-4.57	48	-4.31	-4.31	TRUE	FALSE
MH-379	2	3.05	-4.75	48	-4.49	-4.49	TRUE	FALSE
MH-380	2	3.15	-3.4	48	-3.28	-3.28	TRUE	FALSE
MH-381	2	3.55	-2.46	48	-2.39	-2.39	TRUE	FALSE
MH-382	2	3.55	-1.52	48	-1.42	-1.42	TRUE	FALSE
MH-383	2	3.75	-0.58	48	-0.43	-0.43	TRUE	FALSE
MH-384	2	4.25	0.36	48	0.59	0.59	TRUE	FALSE
MH-385	2	4.95	0.85	48	1.08	1.08	TRUE	FALSE
MH-386	2	5.75	1.42	48	1.67	1.67	TRUE	FALSE
MH-405	2	2.75	-5	48	-4.77	-4.77	TRUE	FALSE
MH-406	2	3.35	-5.26	48	-5.05	-5.05	TRUE	FALSE
MH-407	2	4.25	-5.48	48	-5.28	-5.28	TRUE	FALSE
MH-408	2	4.35	-5.72	48	-5.43	-5.43	TRUE	FALSE
MH-410	2	2.75	-1.29	48	-1.27	-1.27	TRUE	FALSE
MH-411	2	4.25	-4.87	48	-4.67	-4.67	TRUE	FALSE
MH-412	2	4.05	-3.31	48	-3.17	-3.17	TRUE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-413	2	3.55	-2.31	48	-2.19	-2.19	TRUE	FALSE
MH-414	2	3.05	-0.71	48	-0.6	-0.6	TRUE	FALSE
MH-415	2	5.15	-4.23	48	-4.07	-4.07	TRUE	FALSE
MH-416	2	5.45	0.95	48	0.98	0.98	FALSE	FALSE
MH-417	2	5.5	-3.14	48	-2.99	-2.99	TRUE	FALSE
MH-418	2	4.25	0.35	48	0.38	0.38	TRUE	FALSE
MH-419	2	4.75	-2.1	48	-1.96	-1.96	TRUE	FALSE
MH-420	2	4.5	0.54	48	0.57	0.57	TRUE	FALSE
MH-421	2	5.25	-0.98	48	-0.84	-0.84	TRUE	FALSE
MH-422	2	5.75	0.02	48	0.13	0.13	TRUE	FALSE
MH-423	2	4.35	-5.94	48	-5.66	-5.66	TRUE	FALSE
MH-425	2	3.25	-1.15	48	-1.09	-1.09	TRUE	FALSE
MH-426	2	4.35	-6.13	48	-5.87	-5.87	TRUE	FALSE
MH-427	2	4.75	-3.36	48	-3.33	-3.33	TRUE	FALSE
MH-428	2	4.25	-2.21	48	-2.18	-2.18	TRUE	FALSE
MH-429	2	4.25	-1.28	48	-1.25	-1.25	TRUE	FALSE
MH-430	2	3.75	-0.3	48	-0.27	-0.27	FALSE	FALSE
MH-431	2	4.5	-6.32	48	-6.08	-6.08	TRUE	FALSE
MH-432	2	5	-6.56	48	-6.33	-6.33	TRUE	FALSE
MH-433	2	5.25	-6.64	48	-6.4	-6.4	TRUE	FALSE
MH-434	2	5.5	-6.89	48	-6.67	-6.67	TRUE	FALSE
MH-435	2	5.75	-7.25	48	-7.03	-7.03	TRUE	FALSE
MH-436	2	5.55	-2.3	48	-2.15	-2.15	FALSE	FALSE
MH-437	2	4.75	-0.95	48	-0.82	-0.82	FALSE	FALSE
MH-438	2	5.25	0.25	48	0.36	0.36	FALSE	FALSE
MH-439	2	6.65	-0.55	48	-0.43	-0.43	FALSE	FALSE
MH-440	2	6.95	1.05	48	1.16	1.16	FALSE	FALSE
MH-442	2	3.65	-5.72	48	-5.68	-5.68	TRUE	FALSE
MH-443	2	4	-4.96	48	-4.92	-4.92	TRUE	FALSE
MH-444	2	3.95	-1.81	48	-1.78	-1.78	FALSE	FALSE
MH-445	2	3.65	-0.62	48	-0.59	-0.59	FALSE	FALSE
MH-446	2	3.95	-3.76	48	-3.73	-3.73	TRUE	FALSE
MH-447	2	3.55	-2.56	48	-2.53	-2.53	FALSE	FALSE
MH-450	2	3.55	-0.96	48	-0.93	-0.93	FALSE	FALSE
MH-461	2	6.25	-5.79	48	-5.59	-5.59	TRUE	FALSE
MH-462	2	7.35	-4.91	48	-4.67	-4.67	TRUE	FALSE
MH-463	2	6.75	-4.63	48	-4.41	-4.41	TRUE	FALSE
MH-464	2	5	-1.36	48	-1.33	-1.33	TRUE	FALSE
MH-465	2	4	-0.31	48	-0.28	-0.28	FALSE	FALSE
MH-466	2	6.25	-4	48	-3.76	-3.76	TRUE	FALSE
MH-468	2	5.25	0.61	48	0.63	0.63	FALSE	FALSE
MH-469	2	3.75	-0.49	48	-0.47	-0.47	TRUE	FALSE
MH-470	2	3.95	0.35	48	0.38	0.38	FALSE	FALSE
MH-474	2	3.55	-1.82	48	-1.71	-1.71	TRUE	FALSE
MH-475	2	3.25	-0.98	48	-0.84	-0.84	TRUE	FALSE
MH-476	2	3.25	-0.33	48	-0.3	-0.3	TRUE	FALSE
MH-477	2	3.55	-0.17	48	-0.14	-0.14	TRUE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-478	2	3.25	0.17	48	0.34	0.34	TRUE	FALSE
MH-501	2	6	-3.69	48	-3.49	-3.49	TRUE	FALSE
MH-502	2	6	-0.15	48	-0.04	-0.04	FALSE	FALSE
MH-503	2	6.15	-2.77	48	-2.58	-2.58	TRUE	FALSE
MH-507	2	6	-2.38	48	-2.22	-2.22	TRUE	FALSE
MH-508	2	5.75	-1.48	48	-1.31	-1.31	TRUE	FALSE
MH-509	2	6	-1.07	48	-0.93	-0.93	TRUE	FALSE
MH-510	2	6.05	-0.33	48	-0.21	-0.21	TRUE	FALSE
MH-876	2	3.25	-2.66	48	-2.57	-2.57	TRUE	FALSE
MH-441	2	4.75	-7.51	48	-7.39	-7.39	TRUE	FALSE
MH-12	2	4.92	-8.51	48	-8.38	-8.38	TRUE	FALSE
MH-13	2	4.66	-6.32	48	-6.3	-6.3	TRUE	FALSE
MH-256	2	3.75	-2.64	48	-2.52	-2.52	TRUE	TRUE
MH-258	2	3.75	-2.88	48	-2.73	-2.73	TRUE	TRUE
MH-259	2	3.75	-3.13	48	-2.97	-2.97	TRUE	TRUE
MH-260	2	3.95	-3.39	48	-3.22	-3.22	TRUE	TRUE
MH-264	2	2.75	-1.99	48	-1.97	-1.97	TRUE	TRUE
MH-369	2	3.25	-3.07	48	-3.04	-3.04	TRUE	TRUE
MH-370	2	2.75	-2.41	48	-2.38	-2.38	TRUE	TRUE
MH-374	2	3	-2.34	48	-2.31	-2.31	TRUE	TRUE
MH-375	2	2.5	-0.87	48	-0.84	-0.84	TRUE	TRUE
CO-49	3	3.95	0.85	48	0.9	0.9	FALSE	FALSE
CO-50	3	4.75	0.85	48	0.9	0.9	FALSE	FALSE
CO-51	3	3.25	-0.21	48	-0.16	-0.16	FALSE	FALSE
CO-52	3	3.25	-0.38	48	-0.33	-0.33	FALSE	FALSE
CO-53	3	3.75	0.25	48	0.3	0.3	FALSE	FALSE
CO-54	3	4.5	0.92	48	0.97	0.97	FALSE	FALSE
CO-55	3	3.75	-0.5	48	-0.45	-0.45	FALSE	FALSE
CO-56	3	3	-0.75	48	-0.7	-0.7	FALSE	FALSE
CO-57	3	4.25	0.15	48	0.19	0.19	FALSE	FALSE
CO-58	3	2.85	-0.64	48	-0.59	-0.59	FALSE	FALSE
CO-59	3	3.55	-0.45	48	-0.4	-0.4	FALSE	FALSE
CO-60	3	5.25	1.47	48	1.52	1.52	FALSE	FALSE
CO-61	3	4.25	-0.21	48	-0.18	-0.18	FALSE	FALSE
CO-62	3	4.25	2.35	48	2.38	2.38	FALSE	FALSE
CO-63	3	2.25	-0.75	48	-0.7	-0.7	FALSE	FALSE
CO-64	3	4.25	0.31	48	0.36	0.36	FALSE	FALSE
CO-65	3	2.75	-0.38	48	-0.33	-0.33	FALSE	FALSE
CO-66	3	2.65	-0.43	48	-0.38	-0.38	FALSE	FALSE
MH-166	3	3.25	-1.78	48	-1.37	-1.37	FALSE	FALSE
MH-167	3	3.15	-2.02	48	-1.65	-1.65	FALSE	FALSE
MH-168	3	3.25	-1.12	48	-1.02	-1.02	FALSE	FALSE
MH-169	3	3.25	-0.52	48	-0.45	-0.45	FALSE	FALSE
MH-170	3	4.75	0.45	48	0.52	0.52	FALSE	FALSE
MH-171	3	3.25	-0.68	48	-0.63	-0.63	FALSE	FALSE
MH-172	3	4	0.29	48	0.34	0.34	FALSE	FALSE
MH-173	3	3	-2.12	48	-1.78	-1.78	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-174	3	3	-2.3	48	-2	-2	TRUE	FALSE
MH-175	3	2.75	-1.11	48	-1.06	-1.06	FALSE	FALSE
MH-176	3	4.75	0.07	48	0.15	0.15	FALSE	FALSE
MH-177	3	4.5	1.5	48	1.55	1.55	FALSE	FALSE
MH-178	3	5	0.45	48	0.51	0.51	FALSE	FALSE
MH-179	3	4.75	0.91	48	0.96	0.96	FALSE	FALSE
MH-180	3	3.15	-2.62	48	-2.38	-2.38	FALSE	FALSE
MH-181	3	2.85	-2.93	48	-2.73	-2.73	FALSE	FALSE
MH-182	3	2.35	-3.25	48	-3.08	-3.08	FALSE	FALSE
MH-183	3	2.95	-3.58	48	-3.42	-3.42	FALSE	FALSE
MH-184	3	4.25	-1.55	48	-1.47	-1.47	FALSE	FALSE
MH-186	3	2.5	-3.89	48	-3.76	-3.76	FALSE	FALSE
MH-187	3	3.15	-4.19	48	-4.07	-4.07	FALSE	FALSE
MH-188	3	3.15	-4.49	48	-4.37	-4.37	FALSE	FALSE
MH-190	3	3	-3.44	48	-3.38	-3.38	FALSE	FALSE
MH-191	3	3.25	-2.37	48	-2.32	-2.32	FALSE	FALSE
MH-192	3	2.75	-1.36	48	-1.31	-1.31	FALSE	FALSE
MH-193	3	3	-1.64	48	-1.59	-1.59	FALSE	FALSE
MH-194	3	1.95	-0.65	48	-0.61	-0.61	FALSE	FALSE
MH-195	3	3.35	-4.9	48	-4.8	-4.8	FALSE	FALSE
MH-196	3	3.35	-5.43	48	-5.3	-5.3	FALSE	FALSE
MH-197	3	3.15	-1.42	48	-1.33	-1.33	FALSE	FALSE
MH-198	3	3	-1.31	48	-1.23	-1.23	FALSE	FALSE
MH-199	3	3.25	-0.92	48	-0.85	-0.85	FALSE	FALSE
MH-200	3	4.5	0.44	48	0.48	0.48	FALSE	FALSE
MH-201	3	3.75	-5.75	48	-5.65	-5.65	TRUE	FALSE
MH-202	3	3.35	-5.9	48	-5.79	-5.79	FALSE	FALSE
MH-203	3	3.5	-1.27	48	-1.21	-1.21	FALSE	FALSE
MH-204	3	3.5	-6.08	48	-5.95	-5.95	FALSE	FALSE
MH-205	3	3.25	-1.75	48	-1.69	-1.69	FALSE	FALSE
MH-206	3	3.55	-0.82	48	-0.76	-0.76	FALSE	FALSE
MH-207	3	4.5	0.28	48	0.32	0.32	FALSE	FALSE
MH-208	3	4.75	1.16	48	1.21	1.21	FALSE	FALSE
MH-209	3	2	-6.3	48	-6.17	-6.17	FALSE	FALSE
MH-210	3	1.75	-6.6	48	-6.5	-6.5	FALSE	FALSE
MH-211	3	2	-6.74	48	-6.64	-6.64	FALSE	FALSE
MH-212	3	2.55	-6.94	48	-6.83	-6.83	FALSE	FALSE
MH-213	3	2.25	-7.02	48	-6.91	-6.91	FALSE	FALSE
MH-214	3	2.25	-7.08	48	-6.96	-6.96	FALSE	FALSE
MH-215	3	2.65	-7.18	48	-7.06	-7.06	FALSE	FALSE
MH-216	3	1.75	-7.55	48	-7.42	-7.42	FALSE	FALSE
MH-217	3	2.05	-7.7	48	-7.55	-7.55	FALSE	FALSE
MH-219	3	2	-4.89	48	-4.82	-4.82	FALSE	FALSE
MH-220	3	2.25	-4.38	48	-4.33	-4.33	FALSE	FALSE
MH-221	3	2.75	-3.24	48	-3.19	-3.19	FALSE	FALSE
MH-222	3	2.25	-1.87	48	-1.82	-1.82	FALSE	FALSE
MH-223	3	3	-0.5	48	-0.45	-0.45	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-224	3	1.75	-4.39	48	-4.34	-4.34	FALSE	FALSE
MH-225	3	2.75	-3.31	48	-3.26	-3.26	FALSE	FALSE
MH-226	3	2.75	-2.13	48	-2.08	-2.08	FALSE	FALSE
MH-227	3	2.25	-4.14	48	-4.06	-4.06	FALSE	FALSE
MH-228	3	3	-3.79	48	-3.71	-3.71	FALSE	FALSE
MH-229	3	2.75	-3.45	48	-3.38	-3.38	FALSE	FALSE
MH-230	3	2.55	-2.7	48	-2.63	-2.63	FALSE	FALSE
MH-231	3	2.25	-1.93	48	-1.86	-1.86	FALSE	FALSE
MH-232	3	2.75	-1.37	48	-1.3	-1.3	FALSE	FALSE
MH-233	3	3	-1.05	48	-0.99	-0.99	FALSE	FALSE
MH-234	3	3.25	-0.55	48	-0.5	-0.5	FALSE	FALSE
MH-235	3	3.25	-6.85	48	-6.76	-6.76	FALSE	FALSE
MH-236	3	3.5	-6.45	48	-6.36	-6.36	FALSE	FALSE
MH-237	3	3.05	-3.58	48	-3.51	-3.51	FALSE	FALSE
MH-238	3	3.25	-2.98	48	-2.91	-2.91	FALSE	FALSE
MH-239	3	2.5	-2.14	48	-2.06	-2.06	FALSE	FALSE
MH-240	3	2.5	-1.61	48	-1.53	-1.53	FALSE	FALSE
MH-241	3	2.95	-1.28	48	-1.21	-1.21	FALSE	FALSE
MH-242	3	3	-0.91	48	-0.84	-0.84	FALSE	FALSE
MH-243	3	3.15	-0.55	48	-0.49	-0.49	FALSE	FALSE
MH-245	3	2.65	-5.53	48	-5.48	-5.48	FALSE	FALSE
MH-246	3	3.25	-4.59	48	-4.18	-4.18	FALSE	FALSE
MH-249	3	1.75	-4.02	48	-3.93	-3.93	FALSE	FALSE
MH-250	3	2.25	-3.28	48	-3.2	-3.2	FALSE	FALSE
MH-251	3	1.5	-1.79	48	-1.7	-1.7	FALSE	FALSE
MH-868	3	2.75	-7.8	48	-7.67	-7.67	FALSE	FALSE
MH-185	3	3.25	-1.55	48	-1.09	-1.09	FALSE	FALSE
MH-246A	3	3.3	-4.03	48	-3.97	-3.97	FALSE	FALSE
MH-248	3	3	-4.88	48	-4.8	-4.8	FALSE	FALSE
MH247	3	3	-5.12	48	-5.03	-5.03	FALSE	FALSE
MH-869	3	3.46	-6.22	48	-6.13	-6.13	FALSE	FALSE
CO-22	4	4.15	0.96	48	1.01	1.01	FALSE	FALSE
CO-23	4	4.25	0.93	48	0.97	0.97	FALSE	FALSE
CO-24	4	3.25	-0.36	48	-0.32	-0.32	FALSE	FALSE
CO-25	4	3.25	0.81	48	0.86	0.86	FALSE	FALSE
CO-26	4	4.25	0.95	48	0.99	0.99	FALSE	FALSE
CO-27	4	2.75	-0.07	48	-0.03	-0.03	FALSE	FALSE
CO-28	4	2.75	-0.54	48	-0.5	-0.5	FALSE	FALSE
CO-29	4	3	-0.53	48	-0.49	-0.49	FALSE	FALSE
CO-30	4	2.85	-1.49	48	-1.45	-1.45	FALSE	FALSE
CO-31	4	3.25	-0.52	48	-0.48	-0.48	FALSE	FALSE
CO-32	4	2.75	-0.53	48	-0.49	-0.49	FALSE	FALSE
CO-33	4	2.65	-1.39	48	-1.35	-1.35	FALSE	FALSE
CO-34	4	3.5	-0.3	48	-0.26	-0.26	FALSE	FALSE
CO-35	4	3.25	-0.27	48	-0.23	-0.23	FALSE	FALSE
CO-36	4	2.75	-1.33	48	-1.28	-1.28	FALSE	FALSE
CO-37	4	3.35	-0.12	48	-0.08	-0.08	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
CO-38	4	3.75	-0.13	48	-0.09	-0.09	FALSE	FALSE
CO-39	4	2.75	-1.07	48	-1.02	-1.02	FALSE	FALSE
CO-40	4	3.85	-0.19	48	-0.14	-0.14	FALSE	FALSE
CO-41	4	3.75	-0.13	48	-0.09	-0.09	FALSE	FALSE
CO-42	4	2.75	-1.05	48	-1.01	-1.01	FALSE	FALSE
CO-43	4	3.85	0.19	48	0.24	0.24	FALSE	FALSE
CO-44	4	3.95	0.23	48	0.27	0.27	FALSE	FALSE
CO-45	4	2.75	-0.91	48	-0.86	-0.86	FALSE	FALSE
CO-46	4	4	0.06	48	0.11	0.11	FALSE	FALSE
CO-47	4	4	0.1	48	0.14	0.14	FALSE	FALSE
CO-48	4	2.75	-0.95	48	-0.91	-0.91	FALSE	FALSE
MH-41	4	2.85	-1.6	48	-1.34	-1.34	FALSE	FALSE
MH-42	4	2.75	-2.1	48	-1.85	-1.85	FALSE	FALSE
MH-43	4	3.25	-1.39	48	-1.3	-1.3	FALSE	FALSE
MH-44	4	3.75	-0.76	48	-0.7	-0.7	FALSE	FALSE
MH-45	4	3.15	0.56	48	0.62	0.62	FALSE	FALSE
MH-46	4	3.25	-1.11	48	-1.04	-1.04	FALSE	FALSE
MH-47	4	3.25	-0.48	48	-0.41	-0.41	FALSE	FALSE
MH-48	4	4.25	0.53	48	0.6	0.6	FALSE	FALSE
MH-49	4	2.85	-2.51	48	-2.29	-2.29	FALSE	FALSE
MH-50	4	3	-2.89	48	-2.68	-2.68	FALSE	FALSE
MH-51	4	2.25	-3.61	48	-2.81	-2.81	TRUE	FALSE
MH-52	4	2.65	-2.44	48	-2.35	-2.35	FALSE	FALSE
MH-53	4	3	-5.46	48	-5.33	-5.33	FALSE	FALSE
MH-54	4	2.75	-0.92	48	-0.85	-0.85	FALSE	FALSE
MH-55	4	2.5	-1.81	48	-1.74	-1.74	FALSE	FALSE
MH-56	4	3.25	-0.89	48	-0.82	-0.82	FALSE	FALSE
MH-58	4	2.75	-4.88	48	-4.73	-4.73	FALSE	FALSE
MH-59	4	2.5	-2.2	48	-2.13	-2.13	FALSE	FALSE
MH-60	4	2.25	-1.61	48	-1.47	-1.47	FALSE	FALSE
MH-61	4	3.5	-0.61	48	-0.54	-0.54	FALSE	FALSE
MH-62	4	3	-1.13	48	-1.09	-1.09	FALSE	FALSE
MH-64	4	3.05	-6.04	48	-5.9	-5.9	FALSE	FALSE
MH-65	4	3.25	-2.01	48	-1.92	-1.92	FALSE	FALSE
MH-66	4	3.25	-1.37	48	-1.3	-1.3	FALSE	FALSE
MH-67	4	3.5	-0.43	48	-0.36	-0.36	FALSE	FALSE
MH-68	4	2.75	-1.39	48	-1.32	-1.32	FALSE	FALSE
MH-69	4	3.65	-0.45	48	-0.38	-0.38	FALSE	FALSE
MH-70	4	3.25	-6.63	48	-6.51	-6.51	FALSE	FALSE
MH-71	4	3.25	-7.2	48	-7.14	-7.14	FALSE	FALSE
MH-72	4	2.75	-1.77	48	-1.68	-1.68	FALSE	FALSE
MH-73	4	2.75	-1.14	48	-1.07	-1.07	FALSE	FALSE
MH-74	4	3.75	-0.17	48	-0.11	-0.11	FALSE	FALSE
MH-75	4	2.75	-1.19	48	-1.12	-1.12	FALSE	FALSE
MH-76	4	3.75	-0.24	48	-0.17	-0.17	FALSE	FALSE
MH-874	4	2	-4.19	48	-4.02	-4.02	FALSE	FALSE
MH-875	4	2.65	-1.84	48	-1.77	-1.77	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-897	4	3.25	-1.79	48	-1.75	-1.75	FALSE	FALSE
CO-1	5	3.5	-0.48	48	-0.44	-0.44	FALSE	FALSE
CO-10	5	5.15	1.53	48	1.56	1.56	FALSE	FALSE
CO-11	5	5.5	1.51	48	1.55	1.55	FALSE	FALSE
CO-12	5	4.25	0.67	48	0.71	0.71	FALSE	FALSE
CO-13	5	5.25	1.45	48	1.49	1.49	FALSE	FALSE
CO-14	5	5.25	1.47	48	1.51	1.51	FALSE	FALSE
CO-15	5	4.5	0.95	48	0.98	0.98	FALSE	FALSE
CO-16	5	4.25	1.52	48	1.56	1.56	FALSE	FALSE
CO-17	5	5	1.51	48	1.55	1.55	FALSE	FALSE
CO-18	5	2.75	0.33	48	0.36	0.36	FALSE	FALSE
CO-19	5	4	0.18	48	0.22	0.22	FALSE	FALSE
CO-2	5	3	-0.7	48	-0.66	-0.66	FALSE	FALSE
CO-20	5	4.25	0.1	48	0.14	0.14	FALSE	FALSE
CO-21	5	2.75	-1.35	48	-1.31	-1.31	FALSE	FALSE
CO-3	5	2.75	-0.56	48	-0.52	-0.52	FALSE	FALSE
CO-4	5	2.75	-0.65	48	-0.61	-0.61	FALSE	FALSE
CO-5	5	3.25	-0.65	48	-0.61	-0.61	FALSE	FALSE
CO-6	5	3.85	0.44	48	0.48	0.48	FALSE	FALSE
CO-7	5	4.25	-0.28	48	-0.24	-0.24	FALSE	FALSE
CO-8	5	4.25	0.45	48	0.48	0.48	FALSE	FALSE
CO-9	5	4.5	0.47	48	0.51	0.51	FALSE	FALSE
MH-1	5	2.75	-1.13	48	-1.09	-1.09	FALSE	FALSE
MH-10	5	4.25	0.75	48	0.79	0.79	FALSE	FALSE
MH-11	5	2.75	-4.6	48	-4.52	-4.52	FALSE	FALSE
MH-12	5	3.25	-1.58	48	-1.53	-1.53	FALSE	FALSE
MH-13	5	4.25	-0.9	48	-0.85	-0.85	FALSE	FALSE
MH-14	5	3.85	0.07	48	0.12	0.12	FALSE	FALSE
MH-15	5	2.45	-5.1	48	-5.01	-5.01	FALSE	FALSE
MH-16	5	2.3	-5.2	48	-5.11	-5.11	FALSE	FALSE
MH-17	5	2.5	-5.98	48	-5.91	-5.91	FALSE	FALSE
MH-18	5	2.75	-6.5	48	-6.42	-6.42	FALSE	FALSE
MH-19	5	4.25	-0.19	48	-0.13	-0.13	FALSE	FALSE
MH-2	5	2.25	-1.46	48	-1.4	-1.4	FALSE	FALSE
MH-20	5	4.75	0.55	48	0.58	0.58	FALSE	FALSE
MH-21	5	4.25	0.47	48	0.53	0.53	FALSE	FALSE
MH-22	5	5.25	1.17	48	1.22	1.22	FALSE	FALSE
MH-23	5	2.75	-6.7	48	-6.66	-6.66	FALSE	FALSE
MH-24	5	2.85	-5.84	48	-5.78	-5.78	FALSE	FALSE
MH-25	5	2.5	-4.75	48	-4.67	-4.67	FALSE	FALSE
MH-26	5	2.75	-0.78	48	-0.74	-0.74	FALSE	FALSE
MH-28	5	4.75	0.57	48	0.63	0.63	FALSE	FALSE
MH-29	5	5.25	1.01	48	1.06	1.06	FALSE	FALSE
MH-3	5	3	-0.94	48	-0.89	-0.89	FALSE	FALSE
MH-30	5	2.75	-0.09	48	-0.05	-0.05	FALSE	FALSE
MH-31	5	5.25	1.14	48	1.19	1.19	FALSE	FALSE
MH-33	5	3.05	-3.1	48	-3.05	-3.05	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-34	5	2.75	-2.41	48	-2.36	-2.36	FALSE	FALSE
MH-35	5	2.75	-1.75	48	-1.71	-1.71	FALSE	FALSE
MH-36	5	3.55	-0.26	48	-0.21	-0.21	FALSE	FALSE
MH-37	5	3.25	-0.4	48	-0.36	-0.36	FALSE	FALSE
MH-38	5	7.25	0.59	48	0.62	0.62	FALSE	FALSE
MH-39	5	7.75	2.7	48	2.72	2.72	FALSE	FALSE
MH-4	5	2.55	-2.09	48	-2.03	-2.03	FALSE	FALSE
MH-40	5	2.75	-1.15	48	-1.12	-1.12	FALSE	FALSE
MH-5	5	2.65	-2.35	48	-2.28	-2.28	FALSE	FALSE
MH-6	5	2.55	-2.85	48	-2.78	-2.78	FALSE	FALSE
MH-7	5	3.25	-1.05	48	-1	-1	FALSE	FALSE
MH-8	5	3	-3.93	48	-3.86	-3.86	FALSE	FALSE
MH-870	5	2.75	-3.65	48	-3.59	-3.59	FALSE	FALSE
MH-871	5	3.95	-0.05	48	0.01	0.01	FALSE	FALSE
MH-877	5	3.75	-0.29	48	-0.24	-0.24	FALSE	FALSE
MH-9	5	4	0.04	48	0.09	0.09	FALSE	FALSE
MH-791	6	6.25	-1.32	48	-1.25	-1.25	FALSE	FALSE
MH-792	6	7.75	-2.36	48	-2.28	-2.28	FALSE	FALSE
MH-793	6	4.85	1.59	48	1.65	1.65	FALSE	FALSE
MH-794	6	6	0.22	48	0.28	0.28	FALSE	FALSE
MH-795	6	6.65	-3.6	48	-3.48	-3.48	FALSE	FALSE
MH-796	6	5.75	-4.7	48	-4.58	-4.58	FALSE	FALSE
MH-797	6	7	1.44	48	1.5	1.5	FALSE	FALSE
MH-798	6	5.75	0.24	48	0.3	0.3	FALSE	FALSE
MH-799	6	5.75	-0.56	48	-0.49	-0.49	FALSE	FALSE
MH-800	6	5.75	-7.05	48	-6.98	-6.98	TRUE	FALSE
MH-801	6	5.5	1.64	48	1.7	1.7	FALSE	FALSE
MH-802	6	5.75	0.72	48	0.79	0.79	FALSE	FALSE
MH-803	6	5.5	0.42	48	0.5	0.5	FALSE	FALSE
MH-804	6	5.25	-0.54	48	-0.46	-0.46	FALSE	FALSE
MH-805	6	5.5	-2	48	-1.93	-1.93	FALSE	FALSE
MH-806	6	5.25	-3.04	48	-2.96	-2.96	FALSE	FALSE
MH-807	6	4.65	-4.06	48	-3.98	-3.98	FALSE	FALSE
MH-808	6	5.75	-6.42	48	-6.31	-6.31	FALSE	FALSE
MH-809	6	6.5	1.7	48	1.76	1.76	FALSE	FALSE
MH-810	6	5	0.58	48	0.64	0.64	FALSE	FALSE
MH-811	6	6.45	-0.82	48	-0.76	-0.76	FALSE	FALSE
MH-812	6	5.75	-1.81	48	-1.74	-1.74	FALSE	FALSE
MH-813	6	5.75	-3.15	48	-3.08	-3.08	FALSE	FALSE
MH-814	6	5.5	-3.96	48	-3.88	-3.88	FALSE	FALSE
MH-815	6	7.25	-5.45	48	-5.34	-5.34	FALSE	FALSE
MH-816	6	5.55	1.26	48	1.32	1.32	FALSE	FALSE
MH-816A	6	6.15	0.65	48	0.72	0.72	FALSE	FALSE
MH-817	6	6.05	-0.2	48	-0.12	-0.12	FALSE	FALSE
MH-818	6	5.95	-1.15	48	-1.07	-1.07	FALSE	FALSE
MH-873	6	7.75	-0.47	48	-0.38	-0.38	FALSE	FALSE
MH-878	6	6.05	-0.25	48	-0.18	-0.18	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-879	6	6	0.55	48	0.61	0.61	FALSE	FALSE
MH-880	6	6.85	0.5	48	0.58	0.58	FALSE	FALSE
MH-881	6	6.5	1.43	48	1.52	1.52	FALSE	FALSE
MH-882	6	6.25	1.82	48	1.89	1.89	FALSE	FALSE
MH-883	6	6.25	2.45	48	2.51	2.51	FALSE	FALSE
MH-884	6	7.25	-2.94	48	-2.82	-2.82	FALSE	FALSE
MH-885	6	9	3.09	48	3.16	3.16	FALSE	FALSE
MH-886	6	8.5	3.19	48	3.28	3.28	FALSE	FALSE
CO-68	7	2.75	-0.18	48	-0.11	-0.11	FALSE	FALSE
CO-69	7	3.95	0.26	48	0.32	0.32	FALSE	FALSE
CO-70	7	5.25	-2.06	48	-2	-2	FALSE	FALSE
MH-265	7	2.5	-6.89	48	-6.82	-6.82	TRUE	FALSE
MH-266	7	2.5	-6.16	48	-6.09	-6.09	TRUE	FALSE
MH-267	7	2.25	-5.44	48	-5.38	-5.38	FALSE	FALSE
MH-268	7	2.25	-4.73	48	-4.67	-4.67	FALSE	FALSE
MH-269	7	1.45	-4.15	48	-4.08	-4.08	FALSE	FALSE
MH-274	7	2.75	-7.05	48	-6.98	-6.98	TRUE	FALSE
MH-275	7	3.25	-6.91	48	-6.77	-6.77	TRUE	FALSE
MH-276	7	2.25	-6.65	48	-6.52	-6.52	TRUE	FALSE
MH-277	7	3.15	-2.89	48	-2.83	-2.83	FALSE	FALSE
MH-278	7	3.25	-1.54	48	-1.48	-1.48	FALSE	FALSE
MH-279	7	2.5	-6.37	48	-6.24	-6.24	TRUE	FALSE
MH-280	7	2.5	-6.13	48	-6	-6	TRUE	FALSE
MH-281	7	3.25	-2.22	48	-2.16	-2.16	FALSE	FALSE
MH-282	7	3.25	-0.98	48	-0.92	-0.92	FALSE	FALSE
MH-283	7	2.75	-5.9	48	-5.78	-5.78	TRUE	FALSE
MH-284	7	2.75	-5.65	48	-5.53	-5.53	FALSE	FALSE
MH-285	7	4.25	-3.69	48	-3.63	-3.63	FALSE	FALSE
MH-286	7	2.75	-5.4	48	-5.28	-5.28	FALSE	FALSE
MH-287	7	3.65	-3.73	48	-3.67	-3.67	FALSE	FALSE
MH-288	7	4.25	-2.25	48	-2.19	-2.19	FALSE	FALSE
MH-289	7	2	-4.75	48	-4.58	-4.58	FALSE	FALSE
MH-290	7	2.25	-3.91	48	-3.71	-3.71	FALSE	FALSE
MH-291	7	2.75	-2.6	48	-2.53	-2.53	FALSE	FALSE
MH-292	7	2.5	-1.58	48	-1.51	-1.51	FALSE	FALSE
MH-293	7	2.75	-0.67	48	-0.61	-0.61	FALSE	FALSE
MH-294	7	2.5	-3.31	48	-3.07	-3.07	FALSE	FALSE
MH-295	7	2.75	-1.81	48	-1.75	-1.75	FALSE	FALSE
MH-296	7	3.25	-0.8	48	-0.74	-0.74	FALSE	FALSE
MH-297	7	3.5	-0.26	48	-0.05	-0.05	FALSE	FALSE
MH-298	7	1.75	-3.64	48	-3.56	-3.56	FALSE	FALSE
MH-300	7	2.25	-2.2	48	-2.14	-2.14	FALSE	FALSE
MH-301	7	2.75	-2.02	48	-1.96	-1.96	FALSE	FALSE
MH-302	7	3.25	-0.39	48	-0.33	-0.33	FALSE	FALSE
MH-299	7	2.75	-3.64	48	-2.78	-2.78	FALSE	FALSE
MH-320	8	2.75	-1.64	48	-1.6	-1.6	FALSE	FALSE
MH-321	8	3.55	-2.74	48	-2.7	-2.7	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-322	8	3.25	-3.94	48	-3.91	-3.91	FALSE	FALSE
MH-323	8	3.25	-4.29	48	-4.22	-4.22	FALSE	FALSE
MH-324	8	2.75	-5.43	48	-5.37	-5.37	FALSE	FALSE
MH-325	8	3.25	-7.05	48	-6.94	-6.94	FALSE	FALSE
MH-326	8	3.25	-7.3	48	-7.25	-7.25	FALSE	FALSE
MH-333	8	2.75	-3.75	48	-3.7	-3.7	FALSE	FALSE
MH-334	8	3.25	-3.05	48	-3	-3	FALSE	FALSE
MH-335	8	3.25	-1.82	48	-1.77	-1.77	FALSE	FALSE
MH-336	8	3	-1.45	48	-1.4	-1.4	FALSE	FALSE
MH-337	8	4.25	-6.2	48	-6.14	-6.14	FALSE	FALSE
MH-338	8	4.25	-5.54	48	-5.48	-5.48	FALSE	FALSE
MH-339	8	4	-4.79	48	-4.73	-4.73	FALSE	FALSE
MH-340	8	3.75	-4.32	48	-4.27	-4.27	FALSE	FALSE
MH-341	8	3.25	-3.65	48	-3.6	-3.6	FALSE	FALSE
MH-342	8	2.5	-2.72	48	-2.67	-2.67	FALSE	FALSE
MH-343	8	3.25	-1.9	48	-1.85	-1.85	FALSE	FALSE
MH-348	8	3.25	-5.97	48	-5.89	-5.89	FALSE	FALSE
MH-350	8	2.75	-5.31	48	-5.25	-5.25	FALSE	FALSE
MH-351	8	2.75	-4.63	48	-4.57	-4.57	FALSE	FALSE
MH-352	8	2.75	-4.1	48	-4.05	-4.05	FALSE	FALSE
MH-353	8	2.75	-3.37	48	-3.32	-3.32	FALSE	FALSE
MH-354	8	2.75	-2.4	48	-2.34	-2.34	FALSE	FALSE
MH-355	8	3.25	-1.77	48	-1.72	-1.72	FALSE	FALSE
MH-356	8	3.25	-1.37	48	-1.33	-1.33	FALSE	FALSE
MH-357	8	2.75	-3.65	48	-3.6	-3.6	FALSE	FALSE
MH-358	8	3.25	-2.49	48	-2.43	-2.43	FALSE	FALSE
MH-359	8	3.35	-1.58	48	-1.52	-1.52	FALSE	FALSE
MH-360	8	3.5	-0.99	48	-0.94	-0.94	FALSE	FALSE
MH-361	8	2.75	-0.25	48	-0.21	-0.21	FALSE	FALSE
MH-896	8	3.25	-1.08	48	-1.03	-1.03	FALSE	FALSE
MH-389	9	3.25	-7.35	48	-7.14	-7.14	FALSE	FALSE
MH-390	9	3.25	-6.07	48	-6.02	-6.02	FALSE	FALSE
MH-391	9	3.95	-4.99	48	-4.94	-4.94	FALSE	FALSE
MH-392	9	2.75	-3.91	48	-3.86	-3.86	FALSE	FALSE
MH-395	9	1.95	-2.14	48	-1.95	-1.95	FALSE	FALSE
MH-396	9	1.75	-1.53	48	-1.49	-1.49	FALSE	FALSE
MH-397	9	3.75	-7.01	48	-6.95	-6.95	FALSE	FALSE
MH-398	9	2.75	-6.73	48	-6.68	-6.68	FALSE	FALSE
MH-399	9	2.75	-5.67	48	-5.62	-5.62	FALSE	FALSE
MH-400	9	2.65	-4.6	48	-4.55	-4.55	FALSE	FALSE
MH-401	9	2.95	-3.65	48	-3.6	-3.6	FALSE	FALSE
MH-402	9	1.65	-2.64	48	-2.57	-2.57	FALSE	FALSE
MH-403	9	1.35	-2.38	48	-2.32	-2.32	FALSE	FALSE
MH-404	9	1.35	-2.08	48	-2.04	-2.04	FALSE	FALSE
MH-394	9	3.25	-2.45	48	-1.95	-1.95	FALSE	FALSE
CO-78	10	6.25	-0.31	48	-0.25	-0.25	FALSE	FALSE
MH-598	10	4.25	1.26	48	1.32	1.32	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-599	10	6.05	-0.06	48	0.04	0.04	FALSE	FALSE
MH-601	10	6.05	-1.22	48	-1.16	-1.16	FALSE	FALSE
MH-603	10	6.25	2.13	48	2.19	2.19	FALSE	FALSE
MH-604	10	5.75	-2.36	48	-2.28	-2.28	FALSE	FALSE
MH-606	10	5.75	0.62	48	0.69	0.69	FALSE	FALSE
MH-607	10	5.75	1.49	48	1.55	1.55	FALSE	FALSE
MH-608	10	5.75	-3.57	48	-3.49	-3.49	TRUE	FALSE
MH-610	10	5	0.21	48	0.27	0.27	FALSE	FALSE
MH-611	10	5.55	1.3	48	1.36	1.36	FALSE	FALSE
MH-612	10	6.25	-4.18	48	-4.09	-4.09	TRUE	FALSE
MH-613	10	4.5	-4.7	48	-4.58	-4.58	TRUE	FALSE
MH-614	10	3.75	-3.37	48	-3.3	-3.3	TRUE	FALSE
MH-615	10	4.75	-2.14	48	-2.08	-2.08	FALSE	FALSE
MH-616	10	3.75	-0.9	48	-0.84	-0.84	FALSE	FALSE
MH-617	10	4	0.43	48	0.49	0.49	FALSE	FALSE
MH-618	10	5.75	-3.58	48	-3.52	-3.52	FALSE	FALSE
MH-619	10	2.75	-5.65	48	-5.52	-5.52	TRUE	FALSE
MH-620	10	2.15	-4.1	48	-4.01	-4.01	TRUE	FALSE
MH-621	10	4	-3.3	48	-3.22	-3.22	TRUE	FALSE
MH-622	10	4.35	0.22	48	0.28	0.28	FALSE	FALSE
MH-623	10	3.75	-2.29	48	-2.22	-2.22	FALSE	FALSE
MH-624	10	3.25	-1.26	48	-1.19	-1.19	FALSE	FALSE
MH-626	10	4.25	0.16	48	0.22	0.22	FALSE	FALSE
MH-627	10	2.5	-6.34	48	-6.18	-6.18	TRUE	FALSE
MH-628	10	2.75	-4.16	48	-4.07	-4.07	TRUE	FALSE
MH-629	10	3.55	-3.22	48	-3.13	-3.13	FALSE	FALSE
MH-630	10	3.75	-0.55	48	-0.49	-0.49	FALSE	FALSE
MH-631	10	3.25	-2.26	48	-2.19	-2.19	FALSE	FALSE
MH-632	10	3.25	-1.3	48	-1.23	-1.23	FALSE	FALSE
MH-633	10	3.25	-0.55	48	-0.49	-0.49	FALSE	FALSE
MH-634	10	3.95	0.15	48	0.21	0.21	FALSE	FALSE
MH-636	10	2.75	-6.29	48	-6.18	-6.18	TRUE	FALSE
MH-637	10	3.25	-5.6	48	-5.5	-5.5	TRUE	FALSE
MH-638	10	3.25	-1.71	48	-1.65	-1.65	FALSE	FALSE
MH-640	10	3.25	-4.73	48	-4.65	-4.65	TRUE	FALSE
MH-641	10	2.5	-1.55	48	-1.49	-1.49	FALSE	FALSE
MH-642	10	3.55	-1.18	48	-1.12	-1.12	FALSE	FALSE
MH-643	10	4.35	0.34	48	0.4	0.4	FALSE	FALSE
MH-644	10	2.75	-3.75	48	-3.67	-3.67	TRUE	FALSE
MH-645	10	2.35	-1.55	48	-1.49	-1.49	FALSE	FALSE
MH-646	10	2.75	-1.35	48	-1.29	-1.29	FALSE	FALSE
MH-647	10	3.25	-2.99	48	-2.91	-2.91	FALSE	FALSE
MH-648	10	2.75	-1.25	48	-1.19	-1.19	FALSE	FALSE
MH-649	10	3.25	-0.95	48	-0.9	-0.9	FALSE	FALSE
MH-650	10	3	-2.18	48	-2.12	-2.12	FALSE	FALSE
MH-651	10	2.95	-0.85	48	-0.79	-0.79	FALSE	FALSE
MH-652	10	2.75	-0.87	48	-0.81	-0.81	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-889	10	3.25	-0.35	48	-0.29	-0.29	FALSE	FALSE
MH-635	10	2.69	-6.82	48	-6.73	-6.73	FALSE	FALSE
MH-635A	10	2.95	-6.91	48	-6.82	-6.82	TRUE	FALSE
MH-714	11	3.25	-0.53	48	-0.48	-0.48	FALSE	FALSE
MH-715	11	2.55	-1.25	48	-1.19	-1.19	FALSE	FALSE
MH-716	11	3.05	-2.1	48	-2.03	-2.03	FALSE	FALSE
MH-717	11	2.65	-2.61	48	-2.55	-2.55	FALSE	FALSE
MH-718	11	2.65	-3.62	48	-3.56	-3.56	FALSE	FALSE
MH-719	11	3.25	-2.04	48	-1.99	-1.99	FALSE	FALSE
MH-720	11	2.75	-0.61	48	-0.56	-0.56	FALSE	FALSE
MH-721	11	3.25	-4.49	48	-4.43	-4.43	FALSE	FALSE
MH-722	11	3.25	-4.69	48	-4.61	-4.61	FALSE	FALSE
MH-723	11	3.25	-3.81	48	-3.75	-3.75	FALSE	FALSE
MH-724	11	2.75	-3.02	48	-2.96	-2.96	FALSE	FALSE
MH-726	11	2.5	-1.12	48	0.1	0.1	FALSE	FALSE
MH-727	11	2.75	-5.68	48	-5.61	-5.61	FALSE	FALSE
MH-728	11	3.15	-6.7	48	-6.63	-6.63	FALSE	FALSE
MH-729	11	2.75	-7.23	48	-7.15	-7.15	FALSE	FALSE
MH-732	11	2.85	-5.95	48	-5.9	-5.9	FALSE	FALSE
MH-733	11	3.25	-4.96	48	-4.91	-4.91	FALSE	FALSE
MH-734	11	3.25	-3.98	48	-3.92	-3.92	FALSE	FALSE
MH-735	11	3.25	-3.34	48	-3.29	-3.29	FALSE	FALSE
MH-736	11	2.75	-2.7	48	-2.65	-2.65	FALSE	FALSE
MH-898	11	2.75	-0.43	48	-0.39	-0.39	FALSE	FALSE
MH-730	11	3.75	-7.75	48	-7.7	-7.7	FALSE	FALSE
MH-769	12	2.65	-2.85	48	-2.71	-2.71	FALSE	FALSE
MH-770	12	2.65	-2.28	48	-2.15	-2.15	FALSE	FALSE
MH-771	12	2.75	-1.88	48	-1.79	-1.79	FALSE	FALSE
MH-772	12	2.65	-1.68	48	-1.59	-1.59	FALSE	FALSE
MH-773	12	2.35	-5.85	48	-5.76	-5.76	FALSE	FALSE
MH-774	12	3	-4.92	48	-4.76	-4.76	FALSE	FALSE
MH-775	12	3.75	-4.14	48	-3.98	-3.98	FALSE	FALSE
MH-776	12	3.75	-3.55	48	-3.39	-3.39	FALSE	FALSE
MH-777	12	3.55	-3.22	48	-3.11	-3.11	FALSE	FALSE
MH-778	12	2.55	-2.49	48	-2.41	-2.41	FALSE	FALSE
MH-779	12	3.75	-3.07	48	-2.97	-2.97	FALSE	FALSE
MH-780	12	3.45	-2.13	48	-2.04	-2.04	FALSE	FALSE
MH-768	12	2.75	-3.75	48	-3.69	-3.69	FALSE	FALSE
MH-451	13	3.75	-3.05	48	-2.98	-2.98	FALSE	FALSE
MH-452	13	4.25	-1.83	48	-1.77	-1.77	FALSE	FALSE
MH-453	13	3.75	-0.35	48	-0.29	-0.29	FALSE	FALSE
MH-454	13	3.75	-7.25	48	-7.16	-7.16	TRUE	FALSE
MH-456	13	4.95	-5.98	48	-5.92	-5.92	FALSE	FALSE
MH-457	13	3.75	-4.81	48	-4.74	-4.74	FALSE	FALSE
MH-458	13	3.75	-3.25	48	-3.19	-3.19	FALSE	FALSE
MH-459	13	3.75	-2.07	48	-2.01	-2.01	FALSE	FALSE
MH-460	13	3.45	-0.89	48	-0.83	-0.83	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-570	14	3.75	-0.6	48	-0.53	-0.53	FALSE	FALSE
MH-571	14	3.75	-1.57	48	-1.49	-1.49	FALSE	FALSE
MH-572	14	3.75	-2.47	48	-2.41	-2.41	FALSE	FALSE
MH-573	14	3.75	-4.2	48	-4.12	-4.12	FALSE	FALSE
MH-574	14	3.95	-5.76	48	-5.66	-5.66	FALSE	FALSE
MH-576	14	3.25	1.11	48	1.17	1.17	FALSE	FALSE
MH-577	14	3.75	-5.87	48	-5.76	-5.76	FALSE	FALSE
MH-578	14	3.75	-6.85	48	-6.76	-6.76	FALSE	FALSE
MH-579	14	3.75	-7.75	48	-7.64	-7.64	FALSE	FALSE
MH-580	14	3.75	-1.2	48	-1.16	-1.16	FALSE	FALSE
MH-581	14	3.75	-0.25	48	-0.19	-0.19	FALSE	FALSE
MH-582	14	3.75	-1.32	48	-1.28	-1.28	FALSE	FALSE
MH-583	14	3.75	-0.25	48	-0.19	-0.19	FALSE	FALSE
MH-584	14	3.95	-7.93	48	-7.87	-7.87	TRUE	FALSE
MH-585	14	3.75	-7.03	48	-6.92	-6.92	FALSE	FALSE
MH-586	14	3.75	-6.19	48	-6.07	-6.07	FALSE	FALSE
MH-587	14	3.75	-1.32	48	-1.27	-1.27	FALSE	FALSE
MH-588	14	3.75	-0.25	48	-0.19	-0.19	FALSE	FALSE
MH-589	14	3.75	-1.2	48	-1.15	-1.15	FALSE	FALSE
MH-590	14	3.75	-0.25	48	-0.19	-0.19	FALSE	FALSE
MH-591	14	3.35	-3.95	48	-3.88	-3.88	FALSE	FALSE
MH-592	14	4.25	-2.35	48	-2.28	-2.28	FALSE	FALSE
MH-593	14	3.35	-1	48	-0.93	-0.93	FALSE	FALSE
MH-594	14	4.15	-0.06	48	0	0	FALSE	FALSE
MH-595	14	3.35	-1	48	-0.93	-0.93	FALSE	FALSE
MH-596	14	4.05	-0.3	48	-0.24	-0.24	FALSE	FALSE
MH-597	14	5.15	0.09	48	0.15	0.15	FALSE	FALSE
MH-895	14	3.75	-0.78	48	-0.74	-0.74	FALSE	FALSE
MH-569	14	3.95	0.21	48	0.27	0.27	FALSE	FALSE
MH-479	15	3.25	-4.77	48	-4.66	-4.66	FALSE	FALSE
MH-480	15	3.25	-4.41	48	-4.33	-4.33	FALSE	FALSE
MH-481	15	3.25	-4.05	48	-3.98	-3.98	FALSE	FALSE
MH-482	15	3.25	-3.74	48	-3.69	-3.69	FALSE	FALSE
MH-483	15	3.25	-4.56	48	-4.5	-4.5	FALSE	FALSE
MH-484	15	3.25	-4.11	48	-4.06	-4.06	FALSE	FALSE
MH-485	15	3.25	-5.76	48	-5.67	-5.67	FALSE	FALSE
MH-486	15	3.25	-6.53	48	-6.46	-6.46	FALSE	FALSE
MH-487	15	3.25	-6.76	48	-6.65	-6.65	FALSE	FALSE
MH-488	15	3.25	-6.1	48	-6.04	-6.04	FALSE	FALSE
MH-489	15	3.25	-6.38	48	-6.31	-6.31	FALSE	FALSE
MH-490	15	3.25	-6.06	48	-6.01	-6.01	FALSE	FALSE
MH-491	15	3.25	-7.56	48	-7.46	-7.46	FALSE	FALSE
MH-492	15	3.25	-8.04	48	-7.91	-7.91	FALSE	FALSE
MH-493	15	3.25	-7.35	48	-7.25	-7.25	FALSE	FALSE
MH-494	15	3.25	-6.7	48	-6.65	-6.65	FALSE	FALSE
MH-495	15	3.25	-6.69	48	-6.64	-6.64	FALSE	FALSE
MH-496	15	3.25	-6.23	48	-6.15	-6.15	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-497	15	3.25	-5.41	48	-5.32	-5.32	FALSE	FALSE
MH-498	15	3.25	-4.76	48	-4.71	-4.71	FALSE	FALSE
MH-499	15	3.25	-4.76	48	-4.71	-4.71	FALSE	FALSE
MH-500	15	3.25	-4.58	48	-4.52	-4.52	FALSE	FALSE
MH-500A	15	3.25	-3.52	48	-3.46	-3.46	FALSE	FALSE
MH-500B	15	3.25	-2.86	48	-2.8	-2.8	FALSE	FALSE
MH-500C	15	3.25	-2.75	48	-2.7	-2.7	FALSE	FALSE
MH-500D	15	3.25	-0.63	48	-0.58	-0.58	FALSE	FALSE
MH-500E	15	3.25	-1.35	48	-1.29	-1.29	FALSE	FALSE
MH-500F	15	3.25	-0.62	48	-0.57	-0.57	FALSE	FALSE
MH-303	16	4	-2.27	48	-2.24	-2.24	FALSE	FALSE
MH-304	16	4	-3.28	48	-3.24	-3.24	FALSE	FALSE
MH-305	16	4	-4.26	48	-4.22	-4.22	FALSE	FALSE
MH-306	16	4	-5.5	48	-5.46	-5.46	FALSE	FALSE
MH-307	16	4	-4.4	48	-4.36	-4.36	FALSE	FALSE
MH-308	16	4	-3.51	48	-3.47	-3.47	FALSE	FALSE
MH-309	16	4	-4.43	48	-4.4	-4.4	FALSE	FALSE
MH-310	16	4	-6.28	48	-6.23	-6.23	FALSE	FALSE
MH-311	16	4	-7.47	48	-7.44	-7.44	FALSE	FALSE
MH-312	16	4	-7.32	48	-7.28	-7.28	FALSE	FALSE
MH-313	16	4	-5.81	48	-5.78	-5.78	FALSE	FALSE
MH-314	16	4	-4.49	48	-4.45	-4.45	FALSE	FALSE
MH-315	16	4	-6.37	48	-6.33	-6.33	FALSE	FALSE
MH-316	16	4	-5.42	48	-5.38	-5.38	FALSE	FALSE
MH-317	16	4	-3.83	48	-3.79	-3.79	FALSE	FALSE
MH-318	16	4	-2.53	48	-2.5	-2.5	FALSE	FALSE
MH-319	16	4	-4.17	48	-4.13	-4.13	FALSE	FALSE
MH-835	17	3	0.16	48	0.21	0.21	FALSE	FALSE
MH-836	17	3	-1.06	48	-1.01	-1.01	FALSE	FALSE
MH-837	17	3	-2.49	48	-2.43	-2.43	FALSE	FALSE
MH-838	17	3	-1.7	48	-1.65	-1.65	FALSE	FALSE
MH-839	17	3	-0.03	48	0.02	0.02	FALSE	FALSE
MH-840	17	3	0.5	48	0.55	0.55	FALSE	FALSE
MH-841	17	3	-0.57	48	-0.52	-0.52	FALSE	FALSE
MH-842	17	3	-2	48	-1.95	-1.95	FALSE	FALSE
MH-843	17	3	-3.63	48	-3.57	-3.57	FALSE	FALSE
MH-844	17	3	-2.33	48	-2.27	-2.27	FALSE	FALSE
MH-845	17	3	-1.51	48	-1.47	-1.47	FALSE	FALSE
MH-846	17	3	-5.06	48	-5	-5	FALSE	FALSE
MH-847	17	3	-2.92	48	-2.87	-2.87	FALSE	FALSE
MH-848	17	3	-3.85	48	-3.78	-3.78	FALSE	FALSE
MH-849	17	3	-4.94	48	-4.88	-4.88	FALSE	FALSE
MH-850	17	3	-5.43	48	-5.34	-5.34	FALSE	FALSE
MH-851	17	3	-6.86	48	-6.78	-6.78	FALSE	FALSE
MH-852	17	3	-6.73	48	-6.68	-6.68	FALSE	FALSE
MH-853	17	3	-8.25	48	-8.15	-8.15	FALSE	FALSE
MH-854	17	3	-8.68	48	-8.61	-8.61	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-855	17	3	-9.78	48	-9.69	-9.69	FALSE	FALSE
MH-856	17	3	-6.88	48	-6.83	-6.83	FALSE	FALSE
MH-857	17	3	-8.23	48	-8.17	-8.17	FALSE	FALSE
MH-858	17	3	-7.05	48	-7	-7	FALSE	FALSE
MH-859	17	3	-5.15	48	-5.1	-5.1	FALSE	FALSE
MH-860	17	3	-4.12	48	-4.07	-4.07	FALSE	FALSE
MH-861	17	3	-4.15	48	-4.1	-4.1	FALSE	FALSE
MH-862	17	3	-5.19	48	-5.14	-5.14	FALSE	FALSE
MH-863	17	3	-5.95	48	-5.89	-5.89	FALSE	FALSE
MH-864	17	3	-7.82	48	-7.77	-7.77	FALSE	FALSE
MH-865	17	3	-9.38	48	-9.32	-9.32	FALSE	FALSE
MH-866	17	3	-6.6	48	-6.55	-6.55	FALSE	FALSE
MH-867	17	3	-3.45	48	-3.4	-3.4	FALSE	FALSE

SewerGEMS Flex Table: Pressure Pipe Table								
Peak Flow Scenario								
Start Node	Stop Node	Length (User Defined) (ft)	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (Maximum) (gpm)	Velocity (Maximum Calculated) (ft/s)
AV-10	MH-450		219.1	4	100	0	218.68	5.58
AV-11	MH-386		273.8	6	100	0	395.25	4.48
AV-13	MH-297		863.2	4	120	0	143.11	3.65
AV-14	MH-297		1,349.40	6	100	0	218.53	2.48
AV-16	MH-251		445.4	6	120	0	346.5	3.93
AV-17	AV-22		1,404.50	8	100	0	404.44	2.58
AV-18	MH-166		298.9	6	100	0	448.33	5.09
AV-19	MH-41		1,245.40	6	100	0	301.48	3.42
AV-21	MH-264		150.7	8	100	0	744.68	4.75
AV-22	MH-166		296.9	8	100	0	404.44	2.58
AV-4	MH-514		1,366.80	6	100	0	303.32	3.44
AV-5	MH-765		871.9	8	100	0	323.37	2.06
AV-6	MH-704		651.8	6	100	0	266.67	3.03
AV-7	MH-660A		1,147.10	8	100	0	436.14	2.78
AV-9	MH-478		1,119.90	6	100	0	233.54	2.65
J-19	J-16		12.6	10	120	0	1,736.54	7.09
J-20	MH-504		27.6	16	120	5	4,086.48	6.52
J-27	J-45		626.7	10	120	0	1,736.54	7.09
J-4	J-27		354.7	10	120	0	1,736.54	7.09
J-40	J-20		1,227.40	16	120	4.5	4,086.48	6.52
J-41	AV-21		0.1	8	100	0	744.68	4.75
J-45	J-46		1,388.70	10	120	0	1,736.54	7.09
J-46	J-19		259.4	10	120	0	1,736.54	7.09
J-9	J-40		33.7	16	120	0	4,086.48	6.52
LS 10 Pump	AV-7	25	11.4	6	120	8	436.14	4.95
LS 11	LS 11 Pump	1	60.5	100	100	0	266.67	0.01
LS 11 Pump	AV-6	25	70.4	4	100	8	266.67	6.81
LS 13	LS 13 Pump	1	52.1	100	100	0	218.68	0.01
LS 13 Pump	AV-10	25	52.8	4	120	8	218.68	5.58
LS 14	LS 14 Pump	1	21.8	100	100	0	230.06	0.01
LS 14	LS 14 Pump 2	1	17.5	100	100	0	151.66	0.01
LS 14 Pump	AV-4	25	18.7	4	120	8	230.06	5.87
LS 14 Pump 2	AV-4	25	21.2	4	120	8	151.66	3.87
LS 15 Pump	AV-9	25	38.5	6	120	8	233.54	2.65
LS 17	LS 17 Pump	1	28.7	100	120	0	346.5	0.01
LS 17 Pump	AV-16	25	29.2	6	120	8	346.5	3.93
LS 2 Pump 1	J-9	25	10.8	12	120	8	2,043.24	5.8
LS 2 Pump 2	J-9	25	9.7	12	120	8	2,043.24	5.8
LS 3 Pump 1	J-4	25	20.3	6	100	8	868.27	9.85
LS 3 Pump 2	J-4	25	24.4	6	100	8	1,184.01	13.44
LS 4	LS 4 Pump	1	9.3	100	100	0	448.33	0.02
LS 4 Pump	AV-18	25	8.3	6	100	8	448.33	5.09
LS 5	LS 5 Pump	1	29.5	100	100	0	301.48	0.01
LS 5 Pump	AV-19	20	29.3	5.5	120	8	301.48	4.07
LS 6	LS 6 Pump 2	1	40.6	100	100	0	274.6	0.01

SewerGEMS Flex Table: Pressure Pipe Table								
Peak Flow Scenario								
Start Node	Stop Node	Length (User Defined) (ft)	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (Maximum) (gpm)	Velocity (Maximum Calculated) (ft/s)
LS 6	LS 6 Pump 1	1	39	100	130	0	202.37	0.01
LS 6 Pump 1	AV-17	25	42.4	6	130	8	202.37	2.3
LS 6 Pump 2	AV-17	25	40.8	6	120	8	274.6	3.12
LS 7 Pump	J-41	25	13	4	120	8	372.34	9.51
LS 7 Pump 2	J-41	25	12	4	120	8	378.87	9.67
LS 8	LS 8 Pump	1	17.3	100	100	0	218.53	0.01
LS 8 Pump	AV-14	25	19.8	4	120	8	218.53	5.58
LS 9	LS 9 Pump	1	48.5	100	100	0	395.25	0.02
LS 9 Pump	AV-11	25	61.8	6	100	8	395.25	4.48
LS-10	LS 10 Pump		12.6	6	100	0	436.14	4.95
LS-12	LS-12 Pump	1	13.3	100	100	0	323.37	0.01
LS-12 Pump	AV-5	25	14.1	4	100	8	323.37	8.26
LS-15	LS 15 Pump	1	79.6	100	120	0	233.54	0.01
LS-16	LS-16 Pump	1	51.4	100	120	0	293.17	0.01
LS-16 Pump	AV-13	25	44.7	4	120	8	293.17	7.49
LS-7	LS 7 Pump 2	1	13.1	100	120	0	378.87	0.02
LS-7	LS 7 Pump	1	11.1	100	130	0	372.34	0.02
PS 2	LS 2 Pump 1	1	9.3	100	100	0	2,043.24	0.08
PS 2	LS 2 Pump 2	1	10.9	100	100	0	2,043.24	0.08
PS 3	LS 3 Pump 1	1	23	100	100	0	868.27	0.04
PS 3	LS 3 Pump 2	1	20.7	100	100	0	1,184.01	0.05

SewerGEMS Flex Table: Pump Table					
Peak Flow Scenario					
Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Pump Definition	Elevation (On) (ft)	Elevation (Off) (ft)
LS 2 Pump 1	5.2	-18.5	PS 2 - 50HZ	-9	-15
LS 2 Pump 2	5.2	-18.5	PS 2 - 50HZ	-9	-15
LS 3 Pump 1	3.3	-19.25	PS 3 - EXISTING	-10.75	-17.75
LS 3 Pump 2	3.3	-19.25	PS 3 - EXISTING	-11.75	-17.75
LS 4 Pump	3.3	-10.97	LS 4	-7.53	-8.43
LS 5 Pump	4	-9.5	LS 5	-7.11	-8.01
LS 6 Pump 1	5.52	-10	LS 6	-6.19	-8.59
LS 6 Pump 2	5.52	-10	LS 6	-7.19	-8.59
LS 7 Pump	3.3	-12.03	LS 7	-5	-10
LS 7 Pump 2	3.3	-12.03	LS 7	-9.03	-10
LS 8 Pump	3.45	-11.75	Hydromatic Pump	-7.25	-8.25
LS 9 Pump	3.55	-9.6	LS 9	-7.14	-8.17
LS 10 Pump	3.39	-10.97	LS 10	-8.44	-9.34
LS 11 Pump	3.25	-11.75	Hydromatic Pump	-7.75	-8.75
LS-12 Pump	5.55	-10.05	LS 12	-7.55	-8.55
LS 13 Pump	4.24	-9.95	Hydromatic Pump	-6.43	-7.43
LS 14 Pump	3.25	-11.51	Hydromatic Pump	-8.01	-9.01
LS 14 Pump 2	3.25	-11.51	Hydromatic Pump	-7.01	-9.01
LS 15 Pump	3.25	-12.53	Hydromatic Pump	-10.33	-10.73
LS-16 Pump	4	-11.27	Hydromatic Pump	-8.57	-9.47
LS 17 Pump	3	-14	LS 17 - CE	-11.92	-12.42

SewerGEMS Flex Table: Outfall Table						
Peak Flow Scenario						
Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Boundary Condition Type	Notes	Hydraulic Grade (ft)	Flow (Total In Maximum) (gpm)
PS 1 OUTFALL	5.00	-8.00	Free Outfall	1	-7.97	5,632.00

SewerGEMS Flex Table: Wet Well								
Peak Flow Scenario								
Label	Elevation (Ground) (ft)	Elevation (Maximum) (ft)	Elevation (Initial) (ft)	Is Ever Overflowing?	Elevation (Base) (ft)	Elevation (Minimum) (ft)	Flow (Total In Maximum) (gpm)	Hydraulic Grade (Maximum) (ft)
PS 2	5.2	5.2	-15	FALSE	-19	-15	4,089	-2.69
PS 3	3.3	3.3	-17.75	FALSE	-19.8	-17.75	1,485	-10.75
LS 4	3.3	3.3	-7.53	FALSE	-11.53	-8.53	451	-6.62
LS 5	3.27	3.27	-7.11	FALSE	-10.11	-8.11	170	-7.11
LS 6	5.52	5.52	-7.69	FALSE	-10.69	-8.69	337	-6.19
LS-7	3.3	3.3	-10.03	FALSE	-13.03	-10.03	504	-5
LS 8	3.45	3.45	-7.25	FALSE	-12.25	-8.25	146	-7.25
LS 9	3.55	3.55	-7.14	FALSE	-10.14	-8.17	69	-7.14
LS-10	3.81	3.81	-8.44	FALSE	-11.44	-9.44	442	-3.51
LS 11	2.75	2.75	-7.75	FALSE	-11.75	-8.75	128	-7.75
LS-12	5.55	5.55	-7.55	FALSE	-10.55	-8.55	254	-7.55
LS 13	4.18	4.18	-7.43	FALSE	-10.43	-8.43	77	-6.43
LS 14	3.75	3.75	-9.01	FALSE	-12.01	-10.01	265	-7.01
LS-15	3.25	3.25	-10.33	FALSE	-12.83	-10.83	182	-10.32
LS-16	4	4	-9.07	FALSE	-11.57	-9.57	53	-8.57
LS 17	3	3	-12.22	FALSE	-14.42	-12.42	194	-11.91

APPENDIX D: Wastewater System Improvement Alternatives

Wastewater System Improvement Alternatives

Nine improvements were considered to address limiting capacity issues within the sewer system. All alternatives were considered based on the following capital improvement projects being completed. These projects are budgeted and scheduled to be completed over the next fiscal year.

- Pump Station 3 upgrade
- Lift Station 8 and 16 upgrades

Inflow and Infiltration Reduction

Reducing flow by limiting inflow and infiltration would greatly reduce the number of surcharging manholes and reduce the percentage of gravity mains exceeding capacity. While the reduction of inflow and infiltration would decrease the total flow entering the system, it would not increase capacity within the system enough to be operating within normal design parameters. The system would still require capital improvement projects for additional capacity. To address inflow and infiltration, approximately $500,000 is budgeted by the City each year for gravity main lining, spot repairs, and manhole repairs. Inflow and infiltration reduction efforts over the next three years should result in a decrease of flow within the system. A more detailed approach for inflow and infiltration reduction will be addressed in the Inflow and Infiltration Report.

Force Main 2 Extension – Pump Station 2 to Pump Station 1

A force main extension from Pump Station 2 along Boca Ciega Drive and Gulf Winds Drive would alleviate flow in the existing gravity system on the northern end of the island. This force main extension would act as part of the primary transmission system and would create available capacity for future development. Capacity would also become available downstream of Pump Station 2 in the existing gravity system. This project includes includes Approximately 7,800 LF of 24-inch force main.

Parallel Gravity Main – Pump Station 2 Outfall to Pump Station 1

Construction of a gravity main parallel to the existing gravity main along Boca Ciega Drive was considered to increase the available capacity along Boca Ciega Drive and Gulf Winds Drive. Capacity would still be limited at the northern end of the island after installation. This project includes approximately 7,800 LF of 24-inch gravity main.

Gravity Main Upsizing – Pump Station 2 Outfall to Pump Station 1

Upsizing the existing gravity main that runs along Boca Ciega Drive and Gulf Winds Drive would increase the available capacity in this portion of the system. This project includes approximately 7,300 LF of 36-inch gravity main and 300 LF of 48-inch gravity main.

Gravity Main Upsizing – Gulf Boulevard and 59th to Pump Station 2

Upsizing the existing gravity main that runs along Gulf Boulevard from 59th Avenue to Pump Station 2 would increase available capacity in the gravity system along Gulf Boulevard. This segment of gravity main is undersized for the commercial flows entering the system in this area. This project includes approximately 100 LF of 36-inch gravity main, 50 LF of 24-inch gravity main, and 1,200 LF of 18-inch gravity main.

Gravity Main Upsizing – Pump Station 3 to Pump Station 2

Upsizing the existing gravity main along Gulf Boulevard from Pump Station 3 to Pump Station 2 would increase capacity at the southern end of the island. This project includes approximately 5,800 LF of 30-inch gravity main upsizing.

Force Main 3 Redirect – New Outfall to St. Petersburg

The construction of a force main to redirect flow from Force Main 3 to a new outfall in St. Petersburg would increase capacity of the existing gravity system upstream and downstream of Pump Station 2. This project would split the sewer system by allowing Pump Station 3 and all contributing flows to be redirected off of the island. The gravity systems of Pump Station 1 and 2 would no longer receive this flow, and in turn would increase available capacity. The feasibility of this project requires coordination with the City of St. Petersburg. This project includes approximately 5,000 LF of 16-inch force main.

Force Main 3 Redirect – Pump Station 3 to Force Main 2

Redirecting flow from Pump Station 3 to Force Main 2 would increase the available capacity of Pump Station 2 and the existing gravity system upstream of Pump Station 2. This alternative allows flow to be directly sent to the proposed transmission force main, relieving the overloaded gravity system along Gulf Boulevard and avoiding re-pumping by Pump Station 2. This project should be constructed in conjunction with or following the Force Main 2 Extension to avoid further overloading of the downstream system. This project includes approximately 8,050 LF of 16-inch force main and the addition of a diesel pump at Pump Station 3.

Hotel District Force Main and Lift Station Improvements

The existing cross-over gravity mains along Gulf Boulevard have deteriorated significantly and require replacement. The construction of three lift stations and connecting force mains along Gulf Boulevard to replace the northern three cross-overs will increase capacity in the gravity system serving the commercial properties. The gravity system and existing cross over to the south has adequate capacity and can be rehabilitated or replaced. The new lift stations would serve as a transmission system to Pump Station 2 from the hotel district, creating capacity for new development. This project includes the construction of three new lift stations and 6,000 LF of 6-inch force main.

APPENDIX E:
Proposed Improvements
Model Results – Geographical Exhibits

ST. PETE BEACH MODEL RESULTS

KEY SHEET

Legend

Page Number

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 5 - Page 1

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

St. Pete Beach
The Sunset Capital of Florida

N

200 100 0 200 Ft.

Kimley»Horn

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 4 - Page 2

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

N

200 100 0 200 Ft.

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 6 - Page 3

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
- XXX GPM
- PIPE SIZE

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 3 - Page 4

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

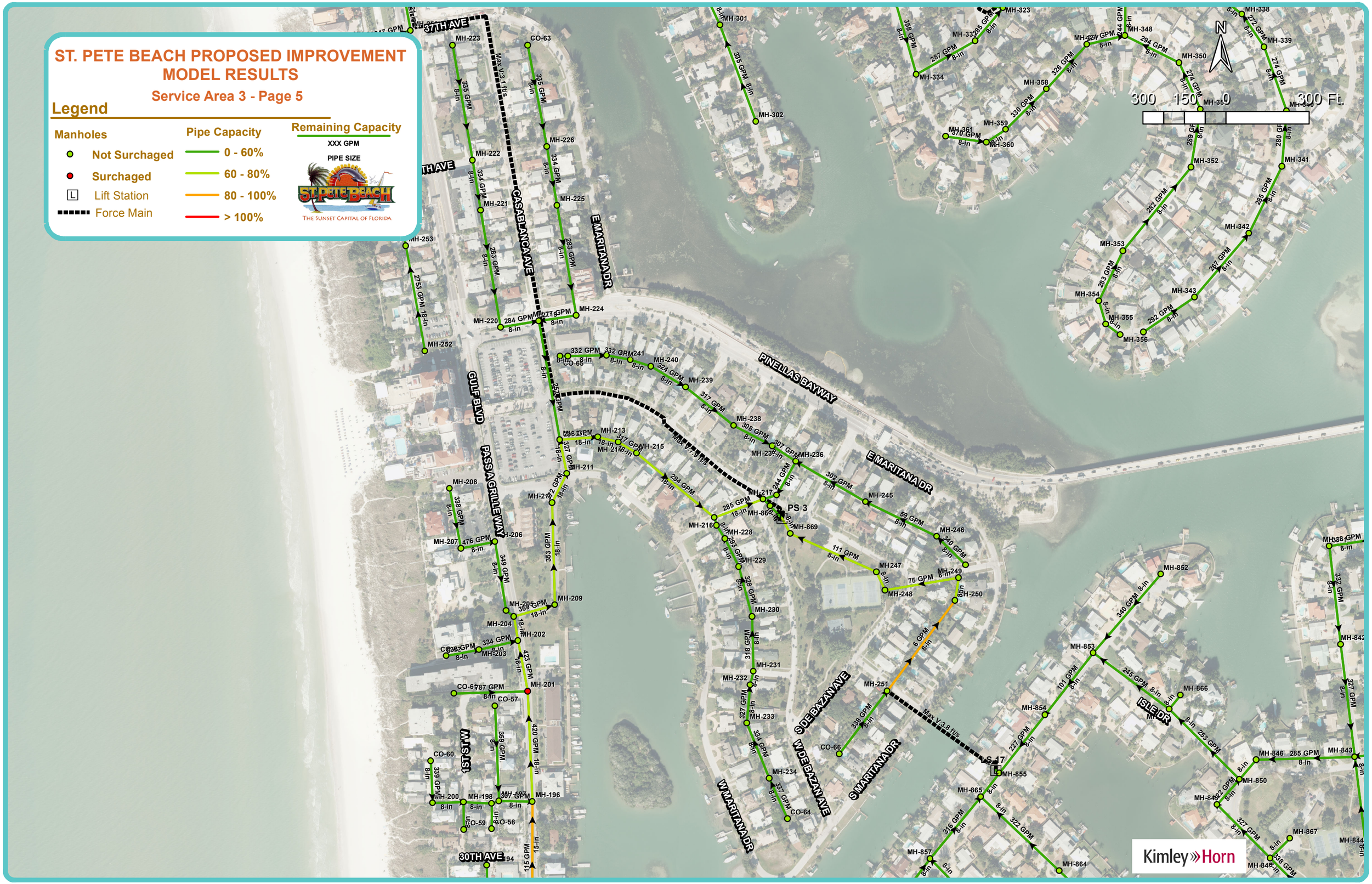
St. Pete Beach
The Sunset Capital of Florida

N

200 100 0 200 Ft.

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 3 - Page 5



ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 17 - Page 6

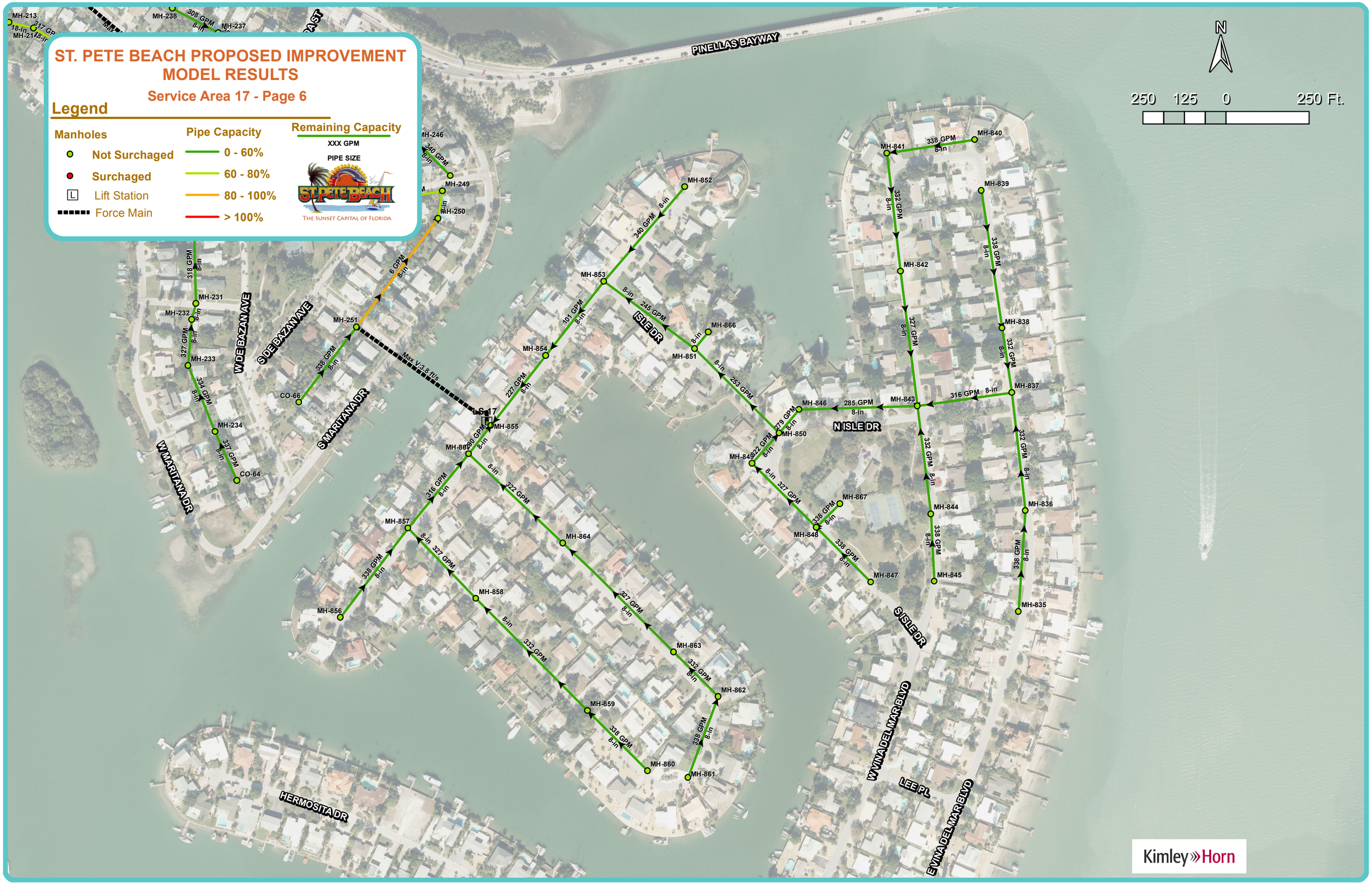
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

THE SUNSET CAPITAL OF FLORIDA



Kimley»Horn

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 8 - Page 7

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

St. Pete Beach — The Sunset Capital of Florida

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 7 - Page 8

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

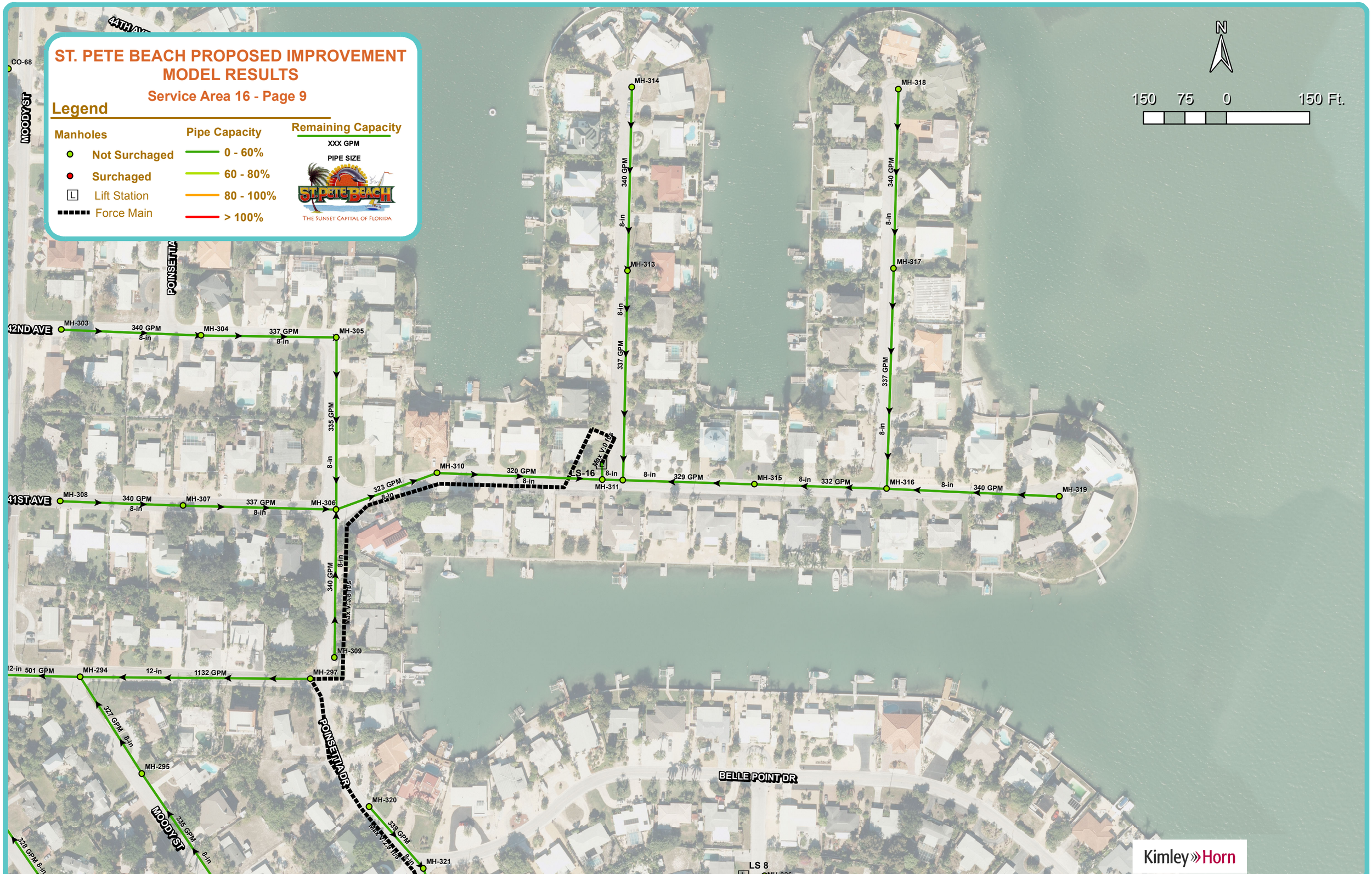
Service Area 16 - Page 9

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE



Kimley»Horn

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 9 - Page 10

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

THE SUNSET CAPITAL OF FLORIDA

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 2 - Page 11

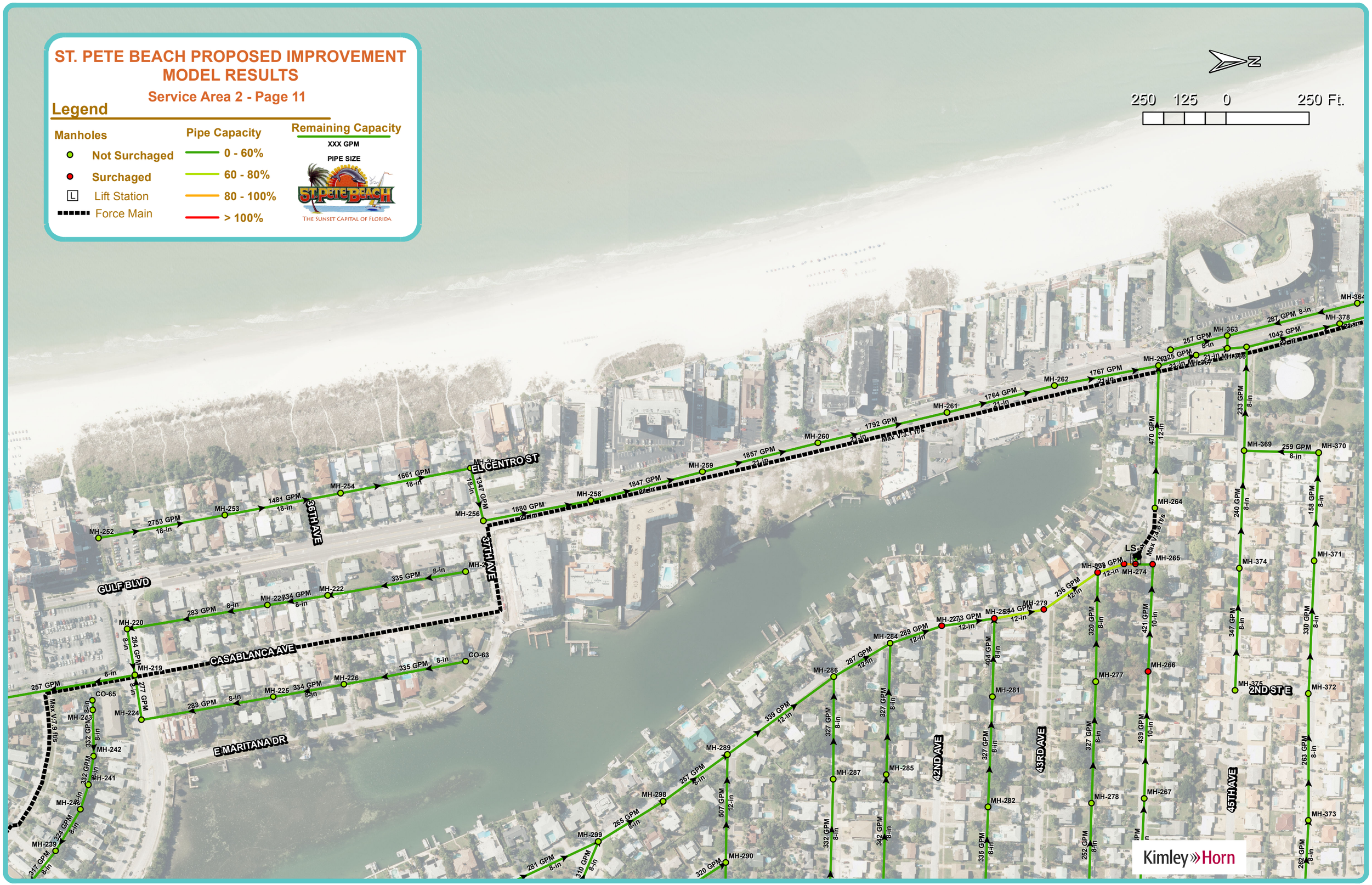
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

St. Pete Beach
The Sunset Capital of Florida



ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 2 - Page 12

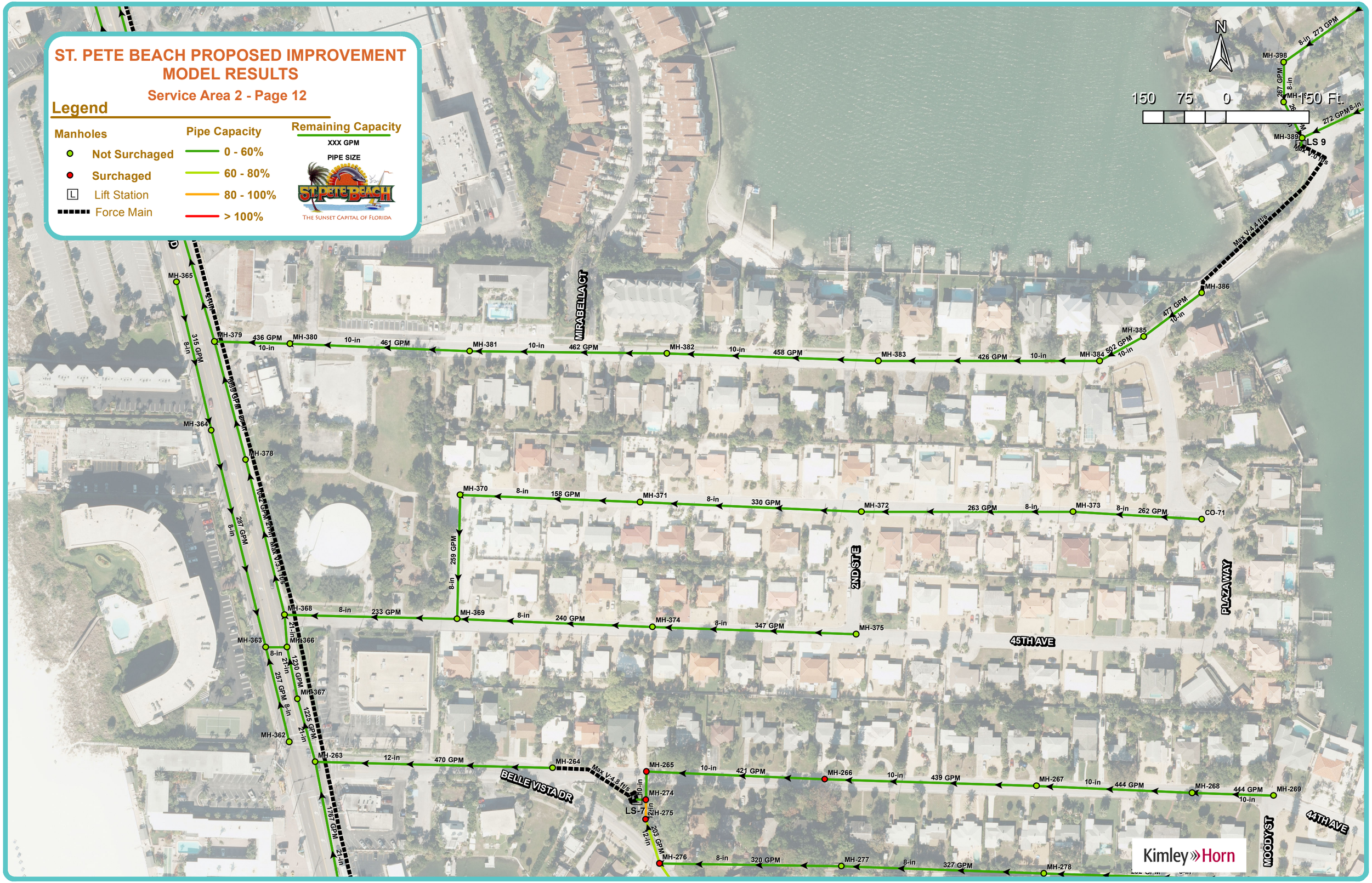
Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA



ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 2 - Page 13

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

St. Pete Beach
The Sunset Capital of Florida

Kimley»Horn

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 1 & 2 - Page 14

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 13 - Page 15

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

ST. PETE BEACH
THE SUNSET CAPITAL OF FLORIDA

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 15 - Page 16

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

St. Pete Beach
The Sunset Capital of Florida

Kimley»Horn

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 14 - Page 17

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE

St. Pete Beach
The Sunset Capital of Florida

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

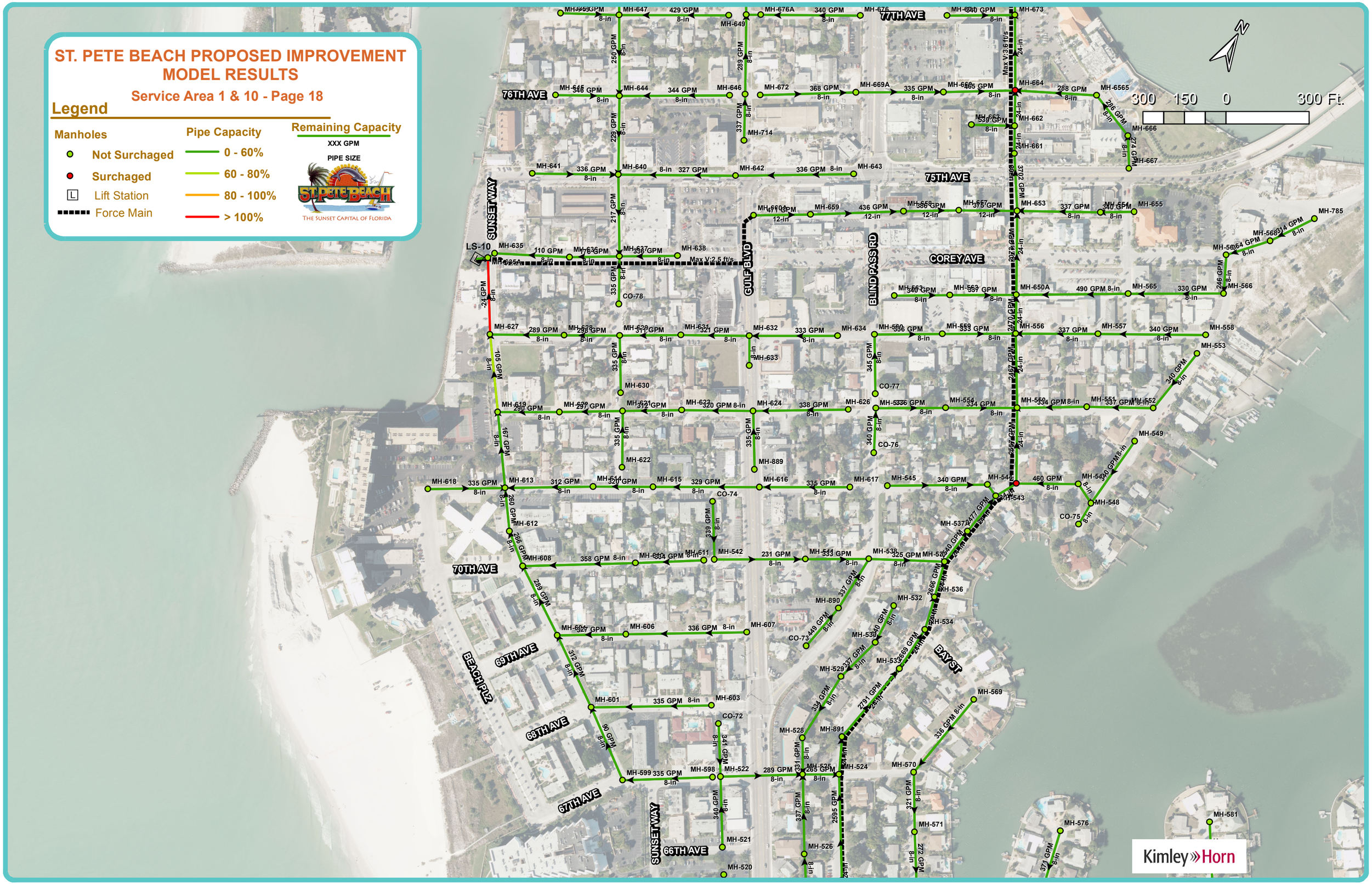
Service Area 1 & 10 - Page 18

Legend

Manholes
- Not Surchaged
- Surchaged
- Lift Station
- Force Main

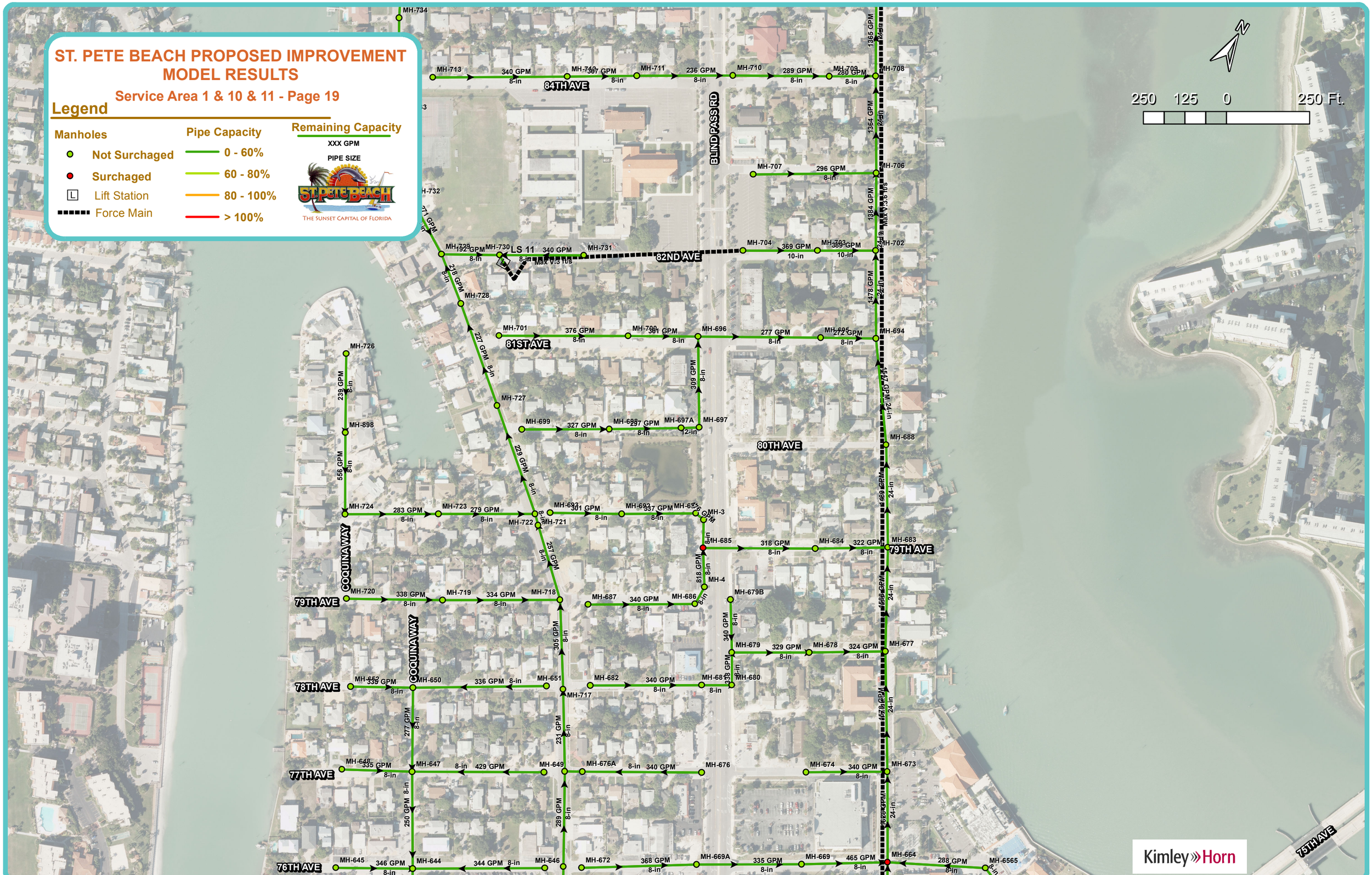
Pipe Capacity
- 0 - 60%
- 60 - 80%
- 80 - 100%
- > 100%

Remaining Capacity
XXX GPM
PIPE SIZE



ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 1 & 10 & 11 - Page 19



ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 1 & 10 & 11 - Page 20

ST. PETE BEACH PROPOSED IMPROVEMENT MODEL RESULTS

Service Area 12 - Page 21

APPENDIX F:
Proposed Improvements
Opinion of Probable Costs

Prepared By:

Kimley»Horn

OPINION OF PROBABLE CONSTRUCTION COSTS
ST. PETERSBURG BEACH
FORCE MAIN 2 EXTENSION -PUMP STATION 2 TO PUMP STATION 1

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	Mobilization	1	LS	369,200.00	369,200.00
2	Maintenance of Traffic	1	LS	369,200.00	369,200.00
3	Miscellaneous Work and Cleanup	1	LS	82,300.00	82,300.00
4	24" PVC Pipe (Open-Cut)	7,800	LF	200.00	1,560,000.00
5	24" Plug Valves	8	EA	21,000.00	163,800.00
6	Air Release Valve Assembly and Vault	8	EA	24,000.00	187,200.00
7	Connection to Pump Station 1 (includes emergency by-pass pumping)	1	LS	80,000.00	80,000.00
8	Existing Force Main Connection to Force Main 2	1	LS	80,000.00	80,000.00
9	Sodding	8,667	SY	10.00	86,670.00
10	Pavement Repair and Road Restoration (Base & Resurface)	8,667	SY	90.00	780,100.00
11	Pavement Repair and Road Restoration (Mill & Resurface)	17,333	SY	25.00	433,400.00
12	Sidewalk/Concrete Driveway Restoration	4,334	SY	55.00	238,400.00
				TOTAL	**$ 4,430,270.00**

Assumptions:

Mobilization and Maintenance of Traffic assumed as 10% of total cost of items 3-12.

Item 3

- Unit price based on bid solicitation for Manatee County's Force Main 34A Replacement Project.
- Project was similar in size regarding the linear footage of force main constructed.

Item 4

- Unit price based on bid solicitation for Manatee County's Tara 20 Force Main Replacement Project.
- Quantity based on alignment that follows parallel to the existing gravity sewer along Gulf Winds and Boca Ciega Drive with open cut construction.

Items 5-6

- Unit price based on on bid solicitation for Town of Palm Beach and City of West Palm Beach North Flagler Drive, 23rd Street, 22nd Street and Currie Park Force Main Improvements Project
- Quantity based on installation every 1,000 linear feet of force main.

Items 7-8

- Unit price based on on bid solicitation for Town of Palm Beach and City of West Palm Beach North Flagler Drive, 23rd Street, 22nd Street and Currie Park Force Main Improvements Project

Items 9-11

- Unit price based on bid solicitation for St. Pete Beach Force Main 3 Project
- Quantity for item 9 based on sodding for the length of the force main assuming a 10 foot wide trench (approximately 1.1 SY of sodding per linear foot of force main installed)
- Quantity for item 10 based on an area the length of the force main assuming a 10 foot wide trench (approximately 1.1 SY of restoration per linear foot of force main installed)
- Quantity for item 11 based on an area the length of the force main assuming a 30 foot wide roadway excluding pavement replacement (approximately 2.2 SY of restoration per linear foot of force main installed)

Item 12

- Unit price based on bid solicitation for Manatee County's 51st Street West Gravity Sewer Replacement Project
- Quantity based on the length of the force main assuming 5 foot wide sidewalk (approximately 0.56 SY of restoration per linear foot of force main installed)

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.

Prepared By:

Kimley»Horn

OPINION OF PROBABLE CONSTRUCTION COSTS
ST. PETERSBURG BEACH
FORCE MAIN 3 EXTENSION -PUMP STATION 3 TO FORCE MAIN 2

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	Mobilization	1	LS	240,600.00	240,600.00
2	Maintenance of Traffic	1	LS	240,600.00	240,600.00
3	Miscellaneous Work and Cleanup	1	LS	82,300.00	82,300.00
4	16" HDPE Pipe (HDD)	7,750	LF	250.00	1,937,500.00
5	16" PVC Pipe (Open-Cut)	300	LF	120.00	36,000.00
6	16" Plug Valves	8	EA	6,000.00	46,500.00
7	Air Release Valve Assemblies	8	EA	7,000.00	54,250.00
8	Connection to Pump Station 2 (includes emergency by-pass pumping)	1	LS	80,000.00	80,000.00
9	Existing Force Main Connection to Force Main 3	1	LS	80,000.00	80,000.00
10	Sodding	345	SY	10.00	3,450.00
11	Pavement Repair and Road Restoration (Base & Resurface)	345	SY	90.00	31,050.00
12	Pavement Repair and Road Restoration (Mill & Resurface)	689	SY	65.00	44,785.00
13	Sidewalk Replacement/Concrete Driveway Restoration	173	SY	55.00	9,515.00
14	Addition of Diesel Pump Backup	1	EA	100,000	100,000.00
				TOTAL	**$ 2,986,550.00**

Assumptions:

Mobilization and Maintenance of Traffic assumed as 10% of total cost of items 3-13.

Item 3

- Unit price based on bid solicitation for Manatee County's Force Main 34A Replacement Project.
- Project was similar in size regarding the linear footage of force main constructed.

Items 4-7

- Unit price based on bid solicitation for Manatee County's Force Main 1A, 2A and 16A Replacement Project.
- Quantity for item 4 based on alignment that follows parallel to the existing gravity sewer along Gulf Boulevard. Project also assumes the use of directional drill for installation to minimize disturbance in FDOT right-of-way. Bore pits needed every 1,000 linear feet.
- Quantity for item 5 based on 40 linear feet needed at each bore pit.
- Quantity for item 6 and 7 based on installation every 1,000 linear feet.

Items 8-9

- Unit price based on on bid solicitation for Town of Palm Beach and City of West Palm Beach North Flagler Drive, 23rd Street, 22nd Street and Currie Park Force Main Improvements Project

Items 10-11

- Unit price based on bid solicitation for St. Pete Beach Force Main 3 Project
- Quantity for item 10 based on sodding for the length of the force main assuming a 10 foot wide trench (approximately 1.1 SY of sodding per linear foot of force main installed)
- Quantity for item 11 based on an area the length of the force main assuming a 10 foot wide trench (approximately 1.1 SY of restoration per linear foot of force main installed)

Item 12

- Unit price based on bid solicitation for Manatee County's Tara 20 Force Main Replacement Project
- Quantity based on an area the length of the force main assuming a 30 foot wide roadway excluding pavement replacement (approximately 2.2 SY of restoration per linear foot of force main installed)

Item 13

- Unit price based on bid solicitation for Manatee County's Force Main 1A, 2A and 16A Replacement Project.

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.

Prepared By:
Kimley»Horn

OPINION OF PROBABLE CONSTRUCTION COSTS
ST. PETERSBURG BEACH
HOTEL DISTRICT IMPROVEMENTS

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	Mobilization	1	LS	127,380.00	127,380.00
2	Maintenance of Traffic	1	LS	127,380.00	127,380.00
3	Miscellaneous Work and Cleanup	1	LS	127,380.00	127,380.00
4	Lift Station Construction	3	EA	300,000.00	900,000.00
5	Bypass Pumping 3 HP -5 HP	1	LS	40,000.00	40,000.00
6	8" PVC Gravity Main	190	LF	100.00	19,000.00
7	Grout Fill Existing 8" Gravity Main (Flowable Fill)	360	CY	145.00	52,200.00
8	Force Main Installation - 6" HDPE (HDD)	3,200	LF	45.00	144,000.00
9	New Force Main Connection to Exisiting Manhole	1	LS	80,000.00	80,000.00
10	Sodding	220	SY	10.00	2,200.00
11	Pavement Repair and Road Restoration (Base & Resurface)	220	SY	90.00	19,800.00
12	Pavement Repair and Road Restoration (Mill & Resurface)	420	SY	25.00	10,500.00
13	Sidewalk/Concrete Driveway Restoration	110	SY	55.00	6,100.00
				TOTAL	**$ 1,655,940.00**

Assumptions:
Mobilization, Maintenance of Traffic, and Miscellaneous Work and Cleanup assumed as 10% of total cost of items 4-13.

Item 4

- Unit price based on bid solicitation for the Pinellas County Lift Station Rehabilitation Contract and quotes from U.S. Pipe
- Cost assumes property aquisition will not be required

Items 5

- Unit price based on bid solicitation for the Pinellas County Lift Station Rehabilitation Contract.

Items 6

- Unit price based on bid solicitation for the Pinellas County Lift Station Rehabilitation Contract; additional cost was added due to complexity of construction and depth of gravity main.

Items 7

- Unit price based on bid solicitation for the Pinellas County Lift Station Rehabilitation Contract

Items 8

- Unit price based on bid solicitation for Manatee County's Forcemain 14 Replacement, additional cost added to include fittings

Item 9

- Unit price based on on bid solicitation for Town of Palm Beach and City of West Palm Beach North Flagler Drive, 23rd Street, 22nd Street and Currie Park Force Main Improvements Project

Items 10-12

- Unit price based on bid solicitation for St. Pete Beach Force Main 3 Project
- Quantity for item 9 based on sodding for the length of gravity main replacement assuming a 10 foot wide trench (approximately 1.1 SY of sodding per linear foot of force main installed)
- Quantity for item 10 based on an area the length of gravity main replacement assuming a 10 foot wide trench (approximately 1.1 SY of restoration per linear foot of force main installed)
- Quantity for item 11 based on an area the length of gravity main replacement assuming a 30 foot wide roadway excluding pavement replacement (approximately 2.2 SY of restoration per linear foot of force main installed)

Item 13

- Unit price based on bid solicitation for Manatee County's 51st Street West Gravity Sewer Replacement Project
- Quantity based on the length of gravity main replacement assuming 5 foot wide sidewalk (approximately 0.56 SY of restoration per linear foot of force main installed)

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:
Proposed Improvements
SewerGEMS Model Input and Result Tables

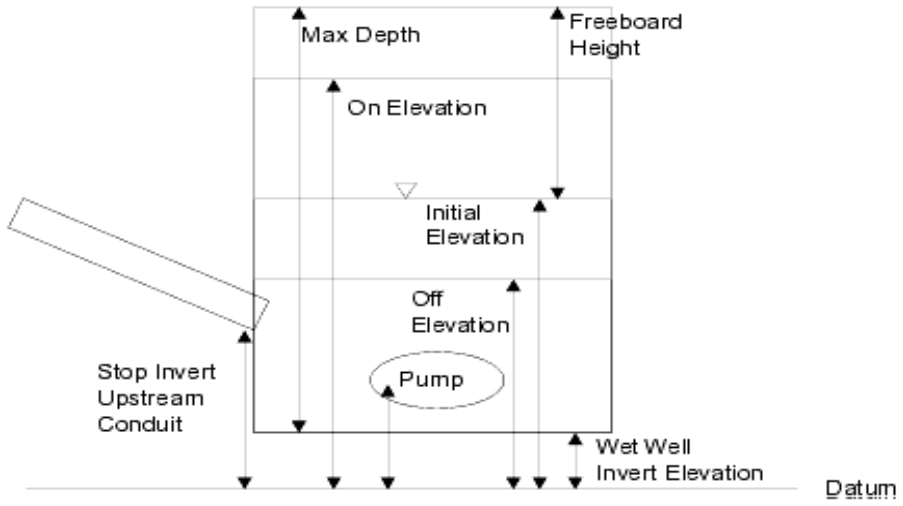
Flex Table Field Descriptions	
Conduit Flex Table	
Start Node	Conduit start node
Stop Node	Conduit stop node
Notes	Service area
Invert (Start) (ft)	Conduit start invert
Invert (Stop) (ft)	Conduit stop invert
Length (User Defined) (ft)	Length from as-built data
Length (Scaled) (ft)	Length from GIS data
Slope (Calculated) (ft/ft)	Slope of conduit
Diameter (in)	Pipe Size
Capacity (Full Flow) (gpm)	The capacity of the conduit at the normal full flow depth. This is a calculated result field.
Flow (Maximum) (gpm)	Maximum flow through conduit at critical time step
#REF!	Maximum height of the Hydraulic Grade Line (HGL)
Is Ever Surcharged?	Indicates if conduit is ever surcharged within 24-hour cycle
Time (Maximum Flow) (hours)	Indicates time step when maximum flow is occurring
Velocity (Maximum Calculated) (ft/s)	Maximum velocity calculated
Critical Pipe Capacity (%)	Flow Maximum/Capacity Full Flow

Flex Table Field Descriptions	
Manhole Flex Table	
Label	Manhole label
Notes	Service Area
Elevation (Rim) (ft)	Rim elevation of manhole, set by elevation from as-builts data
Elevation (Invert) (ft)	Invert elevation of manhole
Diameter (in)	Diameter of manhole (48" Typ.)
Hydraulic Grade Line (Out) (ft)	Hydraulic grade line downstream of the manhole
Hydraulic Grade Line (In) (ft)	Hydraulic grade line upstream of the manhole
Is Ever Surcharged?	Indicates if manhole is ever surcharged within 24-hour cycle. Surcharging in manhole is indicated when the HGL is above the top of pipe
Is Ever Overflowing?	Indicates if manhole is ever overflowing within the 24-hour cycle. Overflow in a manhole is indicated when the HGL is above the rim elevation

Flex Table Field Descriptions	
Pressure Pipe Flex Table	
Start Node	Conduit start node
Stop Node	Conduit stop node
Length (User Defined) (ft)	User defined length
Length (Scaled) (ft)	Length from GIS data
Diameter (in)	Pipe Size
Hazen-Williams C	The Hazen-Williams roughness coefficient of the pressure pipe
Minor Loss Coefficient (Local)	Headloss coefficient for the minor loss. This unitless number represents the ratio of the headloss across the minor loss element to the velocity head of the flow through the element
Flow (Maximum) (gpm)	Maximum flow through the pressure pipe
Velocity (Maximum Calculated) (ft/s)	Maximum velocity calculated
Pump Flex Table	
Label	Pump Label
Elevation (Ground) (ft)	Ground elevation above pump
Elevation (Invert) (ft)	Invert elevation of pump
Pump Definition	Assigned Pump Curve
Elevation (On) (ft)	Elevation in wet well when pump is called to run
Elevation (Off) (ft)	Elevation in wet well when pump shuts off

Flex Table Field Descriptions	
Outfall Flex Table	
Label	Outfall Label
Elevation (Ground) (ft)	Ground elevation at outfall location
Elevation (Invert) (ft)	Invert elevation of outfall
Boundary Condition Type	Indicates the boundary condition of the outfall. A "Free Outfall" control assumes the downstream discharge conditions do not affect the hydraulic response of the structure.
Notes	Service Area
Hydraulic Grade (ft)	Calculated hydraulic grade at the outfall
Flow (Total In Maximum) (gpm)	Maximum flow into outfall

Flex Table Field Descriptions	
Wet Well Flex Table	
Label	Wet Well Label
Elevation (Ground) (ft)	Ground elevation of wet well
Elevation (Maximum) (ft)	Maximum water surface elevation in wet well
Elevation (Initial) (ft)	Initial water surface elevation in wet well
Is Ever Overflowing?	Indicates if overflow occurs in wet well during 24-hour cycle
Elevation (Base) (ft)	Bottom of wet well
Elevation (Minimum) (ft)	Minimum elevation in wet well (pump off elevation)
Flow (Total In Maximum) (gpm)	Total flow entering wet well
Hydraulic Grade (Maximum) (ft)	Maximum HGL in wet well
Wet Well Schematic:	



SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
CO-72	MH-522	1	0.9	0.35	137	190.4	0.004	8	343.63	3.08	FALSE	10	0.68	0.90%
CO-73	MH-890	1	2.15	-0.14	330	178.7	0.007	8	451.79	3.08	FALSE	10	0.82	0.68%
CO-74	MH-542	1	1.16	0.4	191	209.7	0.004	8	342.11	3.08	FALSE	10	0.67	0.90%
CO-75	MH-548	1	-0.15	-0.76	152	88.3	0.004	8	343.57	3.08	FALSE	10	0.68	0.90%
CO-76	MH-555	1	0.21	-0.48	172	161.1	0.004	8	343.51	3.08	FALSE	10	0.68	0.90%
CO-77	MH-560	1	-0.09	-0.66	138	213.6	0.004	8	348.56	3.08	FALSE	10	0.68	0.88%
CO-80	MH-526	1	3.86	2.63	307	163.4	0.004	8	343.29	3.08	FALSE	10	0.68	0.90%
MH-4	MH-685	1	-2.09	-3.8	73.5	117.7	0.023	8	827.38	9.23	TRUE	10	1.74	1.12%
MH-504	MH-505	1	0.85	-0.9	172	268.2	0.01	24	10,241.25	3.08	FALSE	10	0.81	0.03%
MH-505	MH-511	1	-1	-1.3	360	354.8	0.001	24	2,930.94	6.16	FALSE	10	0.42	0.21%
MH-511	MH-512	1	-1.3	-1.59	237	130.3	0.001	24	3,551.59	9.18	FALSE	10	0.53	0.26%
MH-512	MH-513	1	-1.69	-1.87	225	234.9	0.001	24	2,871.73	12.22	FALSE	10	0.51	0.43%
MH-513	MH-514	1	-1.97	-2.31	306	320.5	0.001	24	3,384.36	15.27	FALSE	11	0.6	0.45%
MH-514	MH-523	1	-2.31	-2.62	384	378.4	0.001	24	2,884.78	339.3	FALSE	11	1.37	11.76%
MH-515	MH-514	1	-0.68	-2.31	160	137.1	0.01	8	547.4	18.4	FALSE	10	1.62	3.36%
MH-516	MH-515	1	0.82	-0.68	283	312.9	0.005	8	394.85	9.22	FALSE	10	1.05	2.34%
MH-517	MH-516	1	1.95	0.82	282	245.6	0.004	8	343.31	6.16	FALSE	10	0.84	1.79%
MH-518	MH-517	1	2.51	1.95	139	135.5	0.004	8	344.24	3.08	FALSE	10	0.68	0.89%
MH-519	MH-515	1	0.38	-0.52	300	295.3	0.003	8	297.05	6.15	FALSE	10	0.76	2.07%
MH-520	MH-519	1	1.9	0.38	382	416.5	0.004	8	342.11	3.08	FALSE	10	0.67	0.90%
MH-521	MH-522	1	0.73	-0.32	263	255.7	0.004	8	342.68	3.08	FALSE	10	0.68	0.90%
MH-522	MH-525	1	-0.92	-1.81	295	297.6	0.003	8	297.89	9.23	FALSE	10	0.86	3.10%
MH-523	MH-524	1	-2.62	-2.92	371	383.3	0.001	24	2,887.17	292.17	FALSE	11	1.31	10.12%
MH-524	MH-891	1	-2.93	-3.08	194	136.3	0.001	24	2,823.21	308.89	FALSE	11	1.31	10.94%
MH-525	MH-524	1	-1.81	-2.29	161	131.4	0.003	8	296.13	30.68	FALSE	10	1.22	10.36%
MH-526	MH-525	1	2.63	1.49	284	289	0.004	8	343.61	6.15	FALSE	10	0.84	1.79%
MH-528	MH-525	1	-0.53	-1.11	145	131.2	0.004	8	343.01	12.29	FALSE	10	1.03	3.58%
MH-529	MH-528	1	0.33	-0.53	215	261.5	0.004	8	343.01	9.23	FALSE	10	0.95	2.69%
MH-530	MH-529	1	1.27	0.33	235	174.4	0.004	8	343.01	6.16	FALSE	10	0.84	1.80%
MH-532	MH-530	1	1.79	1.27	130	149.5	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-533	MH-534	1	-3.37	-3.5	151	168.3	0.001	24	2,979.07	310.27	FALSE	11	1.37	10.41%
MH-534	MH-536	1	-3.52	-3.64	149	121.5	0.001	24	2,881.35	312.77	FALSE	11	1.34	10.85%
MH-536	MH-537	1	-3.64	-3.74	116	133.5	0.001	24	2,981.05	315.39	FALSE	11	1.37	10.58%
MH-537	MH-537A	1	-3.76	-3.87	137	137.2	0.001	24	2,876.96	336.48	FALSE	11	1.37	11.70%
MH-537A	MH-543	1	-3.87	-4	169	163.7	0.001	24	2,815.96	339.27	FALSE	11	1.35	12.05%
MH-538	MH-537	1	-1.95	-3.09	284	274	0.004	8	343.61	18.41	FALSE	10	1.17	5.36%
MH-541	MH-538	1	-0.79	-1.95	291	229.1	0.004	8	342.42	9.21	FALSE	10	0.95	2.69%
MH-542	MH-541	1	-0.23	-0.79	294	328.8	0.002	8	236.7	6.16	FALSE	10	0.65	2.60%
MH-543	MH-546	1	-4.03	-4.06	140	86.6	0	24	1,486.26	348.13	FALSE	11	0.86	23.42%
MH-544	MH-543	1	-1.67	-1.75	20	51.1	0.004	8	343.01	6.15	FALSE	10	0.84	1.79%
MH-545	MH-544	1	-0.02	-1.62	400	360.8	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-546	MH-550	1	-4.1	-4.32	266	272.9	0.001	24	2,919.90	363.07	FALSE	11	1.41	12.43%
MH-547	MH-546	1	-2.33	-4.45	280	223.8	0.008	8	471.91	12.32	TRUE	10	1.29	2.61%
MH-548	MH-547	1	-2.18	-2.28	24	83.3	0.004	8	350.08	9.23	FALSE	10	0.96	2.64%
MH-549	MH-548	1	-1.2	-2.08	220	274.3	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-550	MH-556	1	-4.32	-4.54	279	267.2	0.001	24	2,851.07	384.12	FALSE	11	1.41	13.47%
MH-551	MH-550	1	-2.63	-3.65	255	252.8	0.004	8	343.01	9.22	FALSE	10	0.95	2.69%
MH-552	MH-551	1	-1.61	-2.63	255	239.6	0.004	8	343.01	6.16	FALSE	10	0.84	1.80%
MH-553	MH-552	1	-0.57	-1.51	235	253.2	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-554	MH-550	1	-1.5	-2.5	250	257.2	0.004	8	343.01	9.23	FALSE	10	0.95	2.69%
MH-555	MH-554	1	-0.58	-1.5	231	252.5	0.004	8	342.27	6.16	FALSE	10	0.84	1.80%
MH-556	MH-650A	1	-4.54	-4.66	150	140.4	0.001	24	2,871.73	402.15	FALSE	11	1.44	14.00%
MH-557	MH-556	1	-2.47	-3.87	350	297.1	0.004	8	343.01	6.15	FALSE	10	0.84	1.79%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-558	MH-557	1	-0.99	-2.47	370	388.7	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-559	MH-556	1	-1.7	-2.68	246	264.7	0.004	8	342.31	9.23	FALSE	10	0.95	2.70%
MH-560	MH-559	1	-0.76	-1.7	236	245	0.004	8	342.28	6.16	FALSE	10	0.84	1.80%
MH-562	MH-650A	1	-2.63	-3.75	280	240.1	0.004	8	343.01	6.15	FALSE	10	0.84	1.79%
MH-563	MH-562	1	-1.51	-2.63	280	199.6	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-565	MH-650A	1	-1.45	-4.9	397	404.8	0.009	8	505.58	15.33	FALSE	10	1.45	3.03%
MH-566	MH-565	1	0.14	-1.45	400	345	0.004	8	341.93	12.29	FALSE	10	1.03	3.59%
MH-567	MH-566	1	0.52	0.24	126	138.9	0.002	8	255.66	9.23	FALSE	10	0.77	3.61%
MH-568	MH-567	1	1.52	0.82	150	167	0.005	8	370.49	6.15	FALSE	10	0.89	1.66%
MH-650A	MH-653	1	-4.9	-5.08	297	302.9	0.001	24	2,499.52	426.42	FALSE	11	1.32	17.06%
MH-653	MH-661	1	-5.08	-5.2	197	207.2	0.001	30	4,543.41	841.56	FALSE	11	1.58	18.52%
MH-654	MH-653	1	-0.01	-0.91	225	301	0.004	8	343.01	6.16	FALSE	10	0.84	1.80%
MH-655	MH-654	1	0.89	-0.01	225	121.7	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-6565	MH-664	1	-3.53	-4.45	306	294.4	0.003	8	297.38	9.23	FALSE	10	0.86	3.10%
MH-657	MH-653	1	-2.56	-3.05	205	209.7	0.002	12	781.76	406.39	FALSE	11	2.24	51.98%
MH-658	MH-657	1	-2.17	-2.56	160	200.5	0.002	12	789.45	403.44	FALSE	11	2.25	51.10%
MH-659	MH-658	1	-1.24	-2.17	340	335.6	0.003	12	836.28	400.58	FALSE	11	2.35	47.90%
MH-660A	MH-659	1	-0.65	-1.24	200	206	0.003	12	868.49	397.63	FALSE	11	2.41	45.78%
MH-661	MH-662	1	-5.2	-5.26	97	100.1	0.001	24	2,525.15	850.56	FALSE	12	1.62	33.68%
MH-662	MH-664	1	-5.26	-5.35	143	127.9	0.001	24	2,547.13	859.58	FALSE	12	1.63	33.75%
MH-663	MH-662	1	0.7	-1.5	220	155.6	0.01	8	542.34	3.08	FALSE	10	0.93	0.57%
MH-664	MH-673	1	-5.35	-5.52	278	272.5	0.001	24	2,510.73	884.37	FALSE	12	1.63	35.22%
MH-666	MH-6565	1	-2.97	-3.53	193	185	0.003	8	292.14	6.16	FALSE	10	0.75	2.11%
MH-667	MH-666	1	-2.73	-2.97	92	117.9	0.003	8	277	3.08	FALSE	10	0.58	1.11%
MH-669	MH-664	1	-3.42	-5.35	252	258.5	0.008	8	474.63	9.22	TRUE	10	1.19	1.94%
MH-669A	MH-669	1	-1.86	-2.36	124.3	316.1	0.004	8	341.19	6.15	FALSE	10	0.84	1.80%
MH-672	MH-669A	1	-0.01	-1.86	395	345.7	0.005	8	371.56	3.08	FALSE	10	0.71	0.83%
MH-673	MH-677	1	-5.52	-5.74	370	362	0.001	24	2,475.76	897.82	FALSE	12	1.62	36.26%
MH-674	MH-673	1	-3.59	-4.6	252	245	0.004	8	343.35	3.08	FALSE	10	0.68	0.90%
MH-676	MH-676A	1	-0.55	-1.7	286.3	358.9	0.004	8	343.4	3.08	FALSE	10	0.68	0.90%
MH-676A	MH-716	1	-1.7	-1.93		52.9	0.004	12	1,053.22	6.15	FALSE	10	0.81	0.58%
MH-677	MH-683	1	-5.74	-5.93	310	312.4	0.001	24	2,513.59	925.53	FALSE	12	1.65	36.82%
MH-678	MH-677	1	-3.81	-4.82	254	229.3	0.004	8	341.99	18.43	FALSE	10	1.16	5.39%
MH-679	MH-678	1	-2.82	-3.81	245	232.5	0.004	8	344.75	15.39	FALSE	10	1.11	4.46%
MH-679B	MH-679	1	-2.09	-2.72	155.5	158.6	0.004	8	343.37	3.08	FALSE	10	0.68	0.90%
MH-680	MH-679	1	-2.72	-2.82	23.9	98.4	0.004	8	347.68	9.23	FALSE	10	0.96	2.65%
MH-681	MH-680	1	-1.8	-2.19	98.1	90.3	0.004	8	343.58	6.15	FALSE	10	0.84	1.79%
MH-682	MH-681	1	-0.49	-1.8	328	335.8	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-683	MH-688	1	-5.93	-6.11	310	308.1	0.001	24	2,446.55	957.17	FALSE	12	1.63	39.12%
MH-684	MH-683	1	-4	-5.05	252	218.5	0.004	8	350.08	27.63	FALSE	10	1.34	7.89%
MH-685	MH-3	1	-3.8	-2.82	47.4	84.9	0.021	8	780.15	12.3	TRUE	10	1.84	1.58%
MH-685	MH-684	1	-2.8	-4	301	336.9	0.004	8	342.44	24.61	FALSE	10	1.27	7.19%
MH-686	MH-4	1	-1.94	-2.09	45.3	58.1	0.003	8	312.22	6.15	FALSE	10	0.78	1.97%
MH-687	MH-686	1	-0.64	-1.94	325	321.6	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-688	MH-694	1	-6.11	-6.31	328	321.4	0.001	24	2,507.13	959.96	FALSE	12	1.66	38.29%
MH-691	MH-3	1	-2.59	-2.82	28.7	31.2	0.008	8	485.21	9.22	FALSE	10	1.21	1.90%
MH-692	MH-691	1	-1.07	-2.05	245	222.2	0.004	8	343.01	6.16	FALSE	10	0.84	1.80%
MH-693	MH-692	1	-0.39	-1.07	216	216	0.003	8	304.3	3.08	FALSE	10	0.62	1.01%
MH-694	MH-702	1	-6.31	-6.46	255	264.3	0.001	24	2,462.48	984.1	FALSE	12	1.65	39.96%
MH-695	MH-694	1	-4.66	-5.39	244	165.6	0.003	8	296.65	24.49	FALSE	10	1.14	8.26%
MH-696	MH-695	1	-3.79	-4.66	287	369.4	0.003	8	298.6	21.47	FALSE	10	1.11	7.19%
MH-697	MH-696	1	-2.52	-3.44	261.4	272.9	0.004	8	321.46	12.29	FALSE	10	0.99	3.82%
MH-697A	MH-697	1	-2.79	-2.85		54.1	0.001	12	532.55	9.22	FALSE	10	0.57	1.73%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-698	MH-697A	1	-2.07	-2.79	231	216	0.003	8	302.79	6.15	FALSE	10	0.77	2.03%
MH-699	MH-698	1	-0.9	-2.07	315	263.5	0.004	8	330.53	3.08	FALSE	10	0.66	0.93%
MH-700	MH-696	1	-2.49	-3.96	320	209.6	0.005	8	367.59	6.16	FALSE	10	0.88	1.68%
MH-701	MH-700	1	-1.29	-2.49	246	389.1	0.005	8	378.79	3.08	FALSE	10	0.72	0.81%
MH-702	MH-706	1	-6.46	-6.6	232	233.2	0.001	24	2,494.12	1,109.93	FALSE	12	1.72	44.50%
MH-703	MH-702	1	-3.86	-4.56	234	175.2	0.003	10	537.83	149.25	FALSE	20	1.88	27.75%
MH-704	MH-703	1	-3.19	-3.86	223	223.7	0.003	10	539	170.37	FALSE	20	1.95	31.61%
MH-706	MH-708	1	-6.6	-6.77	288	291.7	0.001	24	2,466.76	1,103.04	FALSE	12	1.7	44.72%
MH-707	MH-706	1	-1.13	-1.62	161	369.5	0.003	8	299.2	3.08	FALSE	10	0.62	1.03%
MH-708	MH-738	1	-6.93	-7.09	268	550.7	0.001	24	2,480.79	1,115.33	FALSE	12	1.71	44.96%
MH-709	MH-708	1	-5.14	-5.85	239	139.4	0.003	8	295.6	15.32	FALSE	10	0.99	5.18%
MH-710	MH-709	1	-4.44	-5.14	227	289.7	0.003	8	301.17	12.27	FALSE	10	0.94	4.07%
MH-711	MH-710	1	-3.99	-4.44	221	289.4	0.002	8	244.73	9.22	FALSE	10	0.75	3.77%
MH-712	MH-711	1	-2.45	-3.79	283	208.9	0.005	8	373.19	6.15	FALSE	10	0.89	1.65%
MH-713	MH-712	1	-1.32	-2.45	283	404.8	0.004	8	342.71	3.08	FALSE	10	0.68	0.90%
MH-738	MH-739	1	-7.09	-7.21	207	105.2	0.001	24	2,444.58	1,118.08	FALSE	12	1.7	45.74%
MH-739	MH-740	1	-7.21	-7.23	25	39.7	0.001	24	2,871.73	1,120.47	FALSE	12	1.91	39.02%
MH-740	PS 1 WET WELL	1	-7.23	-7.28	31	36.8	0.002	24	4,077.58	1,123.24	FALSE	12	2.47	27.55%
MH-740A	PS 1 WET WELL	1	-7.18	-7.28	22	45.5	0.005	24	6,845.21	305.45	FALSE	11	2.45	4.46%
MH-741A	MH-740A	1	-6.12	-7.18		54.4	0.019	16	4,808.43	302.52	FALSE	11	4.28	6.29%
MH-744	MH-741A	1	-5.61	-6.12	233	443.7	0.002	12	748.1	299.28	FALSE	10	2	40.01%
MH-744B	MH-744	1	-3.87	-5.61	150	90.6	0.012	8	584.12	33.63	FALSE	10	2.03	5.76%
MH-746	MH-754	1	-0.82	-2.34	379	401	0.004	8	343.46	3.08	FALSE	10	0.68	0.90%
MH-747	MH-744B	1	-4.14	-5.01	268	258.6	0.003	8	309.01	24.49	TRUE	10	1.18	7.93%
MH-748	MH-747	1	-2.92	-4.04	282	207.2	0.004	8	341.79	9.22	FALSE	10	0.94	2.70%
MH-749	MH-748	1	-1.81	-2.92	277	298.4	0.004	8	343.32	6.15	FALSE	10	0.84	1.79%
MH-750	MH-749	1	-0.7	-1.81	277	293.4	0.004	8	343.32	3.08	FALSE	10	0.68	0.90%
MH-751	MH-747	1	-3.43	-4.14	235	229.6	0.003	8	298.11	12.26	FALSE	10	0.93	4.11%
MH-752	MH-751	1	-3.14	-3.38	79	43.9	0.003	8	298.93	9.18	FALSE	10	0.86	3.07%
MH-753	MH-752	1	-0.57	-3.09	388	423.4	0.006	8	437.08	6.13	FALSE	10	1	1.40%
MH-754	MH-744B	1	-2.34	-3.87	386	265.3	0.004	8	341.45	6.15	FALSE	10	0.84	1.80%
MH-755	MH-744	1	-5.1	-5.61	232	261.8	0.002	10	461.04	261.14	FALSE	10	1.94	56.64%
MH-756	MH-755	1	-2.22	-3.49	318	287.5	0.004	8	342.74	6.15	FALSE	10	0.84	1.79%
MH-757	MH-756	1	-0.95	-2.22	318	376.5	0.004	8	342.74	3.08	FALSE	10	0.68	0.90%
MH-758	MH-755	1	-4.09	-4.8	255	259.1	0.003	10	518.87	252.63	FALSE	21	2.11	48.69%
MH-759	MH-758	1	-1.63	-2.71	270	262.4	0.004	8	343.01	6.15	FALSE	10	0.84	1.79%
MH-760	MH-759	1	-0.55	-1.63	270	252.7	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-761	MH-758	1	-3.55	-4.09	260	258	0.002	10	448.14	283.46	FALSE	9	1.94	63.25%
MH-763	MH-761	1	-1.25	-3.55	223	226	0.01	8	550.79	6.14	FALSE	10	1.16	1.11%
MH-765	MH-761	1	-2.82	-3.55	260	216	0.003	10	521.05	337.38	FALSE	9	2.26	64.75%
MH-783	MH-763	1	-1.98	-2.05	224	329	0	8	95.87	3.08	TRUE	10	0.02	3.21%
MH-785	MH-568	1	2.49	1.62	255	179	0.003	8	316.78	3.08	FALSE	10	0.64	0.97%
MH-890	MH-538	1	-0.24	-0.82	145	208.8	0.004	8	343.01	6.15	FALSE	10	0.84	1.79%
MH-891	MH-533	1	-3.07	-3.36	311	322.3	0.001	24	3,100.39	309.52	FALSE	11	1.41	9.98%
MH-893	MH-753	1	-0.38	-0.57	388	378.6	0	8	120.02	3.08	FALSE	10	0.33	2.57%
PS 1 WET WELL	PS 1 OUTFALL	1	-7.28	-8	1	45.4	0.72	48	547,029.69	5,302.75	FALSE	11	30.86	0.00%
CO-71	MH-373	2	0.83	0.14	293	233.1	0.002	8	263.19	1.34	FALSE	10	0.44	0.00%
MH-12	PS 2	2	-8.51	-9.06	25	18	0.022	24	15,059.46	2,279.87	FALSE	11	7.7	15.14%
MH-13	PS 2	2	-6.32	-6.42	8.6	14.6	0.012	8	584.82	80.25	FALSE	21	2.62	13.72%
MH-252	MH-253	2	-0.35	-1.5	337	386.1	0.003	18	2,753.99	1.34	FALSE	10	0.44	0.05%
MH-253	MH-254	2	-1.5	-1.89	394	354	0.001	18	1,483.24	2.67	FALSE	10	0.36	0.18%
MH-254	MH-255	2	-1.89	-2.38	393	398	0.001	18	1,664.68	3.98	FALSE	11	0.43	0.24%
MH-255	MH-256	2	-2.38	-2.51	158	162.8	0.001	18	1,352.29	5.31	FALSE	11	0.41	0.39%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-256	T-1	2	-2.64	-2.65	12.4	12.4	0.001	21	2,020.70	33.44	FALSE	10	0.7	1.65%
MH-258	MH-259	2	-2.88	-3.13	347	346.5	0.001	21	1,908.79	61.45	FALSE	10	0.81	3.22%
MH-259	MH-260	2	-3.13	-3.39	347	358.3	0.001	21	1,946.59	89.34	FALSE	10	0.92	4.59%
MH-260	MH-261	2	-3.39	-3.64	347	398.8	0.001	21	1,908.79	117.15	FALSE	10	0.98	6.14%
MH-261	MH-262	2	-3.64	-3.89	347	333.3	0.001	21	1,908.79	144.86	FALSE	10	1.04	7.59%
MH-262	MH-263	2	-3.89	-4.16	363	319	0.001	21	1,939.46	172.79	FALSE	11	1.11	8.91%
MH-263	MH-367	2	-4.16	-4.29	181	118.1	0.001	21	1,905.83	680.91	FALSE	22	1.62	35.73%
MH-264	MH-263	2	-1.99	-3.71	397	429	0.004	12	1,052.50	582.2	FALSE	22	3.06	55.32%
MH-362	MH-363	2	-0.69	-1.15	166	176.2	0.003	8	285.5	28.2	FALSE	10	1.16	9.88%
MH-363	MH-366	2	-3.68	-3.84	41	38.4	0.004	8	338.8	112.53	FALSE	10	1.94	33.21%
MH-364	MH-363	2	-2.13	-3.54	351	403.2	0.004	8	343.74	56.31	FALSE	10	1.62	16.38%
MH-365	MH-364	2	-0.7	-2.13	358	275.5	0.004	8	342.77	28.2	FALSE	10	1.32	8.23%
MH-366	MH-368	2	-4.32	-4.36	50	58.5	0.001	21	2,011.40	832.8	FALSE	11	1.78	41.40%
MH-367	MH-366	2	-4.29	-4.32	41	95.5	0.001	21	1,923.63	693.15	FALSE	11	1.64	36.03%
MH-368	MH-378	2	-4.36	-4.57	290	288.6	0.001	21	1,913.65	871.8	FALSE	11	1.73	45.56%
MH-369	MH-368	2	-3.07	-3.65	288	311.7	0.002	8	243.38	10.63	FALSE	11	0.78	4.37%
MH-370	MH-369	2	-2.41	-2.96	230	223.9	0.002	8	265.21	6.64	FALSE	11	0.72	2.50%
MH-371	MH-370	2	-2.11	-2.41	329	325.1	0.001	8	163.77	5.31	FALSE	10	0.48	3.24%
MH-372	MH-371	2	-0.78	-2.11	350	399.9	0.004	8	334.32	3.99	FALSE	10	0.72	1.19%
MH-373	MH-372	2	0.14	-0.78	384	382	0.002	8	265.46	2.67	FALSE	10	0.54	1.01%
MH-374	MH-369	2	-2.34	-3.05	356	353.3	0.002	8	242.2	2.67	FALSE	10	0.51	1.10%
MH-375	MH-374	2	-0.87	-2.34	356	367.6	0.004	8	348.5	1.34	FALSE	10	0.53	0.38%
MH-378	MH-379	2	-4.57	-4.75	243	220.6	0.001	21	1,935.47	902.52	FALSE	11	1.76	46.63%
MH-379	MH-405	2	-4.75	-5	335	359.4	0.001	21	1,942.68	1,035.13	FALSE	11	1.83	53.28%
MH-380	MH-379	2	-3.4	-4.2	268	136.1	0.003	10	537.25	101.71	FALSE	11	1.69	18.93%
MH-381	MH-380	2	-2.46	-3.4	312	325.2	0.003	10	539.74	78.51	FALSE	10	1.57	14.55%
MH-382	MH-381	2	-1.52	-2.46	312	355.6	0.003	10	539.74	78.12	FALSE	12	1.57	14.47%
MH-383	MH-382	2	-0.58	-1.52	312	382.2	0.003	10	539.74	81.98	FALSE	10	1.59	15.19%
MH-384	MH-383	2	0.36	-0.58	321	399.5	0.003	10	532.12	105.68	FALSE	12	1.69	19.86%
MH-385	MH-384	2	0.85	0.41	110	90.4	0.004	10	621.92	119.57	FALSE	12	1.96	19.23%
MH-386	MH-385	2	1.42	0.9	130	131.7	0.004	10	621.92	145.4	FALSE	12	2.07	23.38%
MH-405	MH-406	2	-5	-5.26	347	355.4	0.001	21	1,946.59	1,065.53	FALSE	11	1.84	54.74%
MH-406	MH-407	2	-5.26	-5.48	310	317.6	0.001	21	1,894.45	1,094.44	FALSE	11	1.82	57.77%
MH-407	MH-408	2	-5.48	-5.72	325	302.4	0.001	21	1,932.49	1,121.48	FALSE	11	1.86	58.03%
MH-408	MH-423	2	-5.72	-5.94	296	284.4	0.001	21	1,938.73	1,148.50	FALSE	11	1.87	59.24%
MH-410	MH-408	2	-1.29	-5.72	277	286.5	0.016	8	685.86	1.34	TRUE	10	0.87	0.20%
MH-411	HD P-LS 3	2	-4.87	-5.11		52.3	0.005	8	367.42	256.81	FALSE	10	2.54	69.90%
MH-412	MH-411	2	-3.31	-4.77	366	301.5	0.004	8	342.54	84.4	FALSE	10	1.81	24.64%
MH-413	MH-412	2	-2.31	-3.31	250	311.2	0.004	8	343.01	56.3	FALSE	10	1.61	16.41%
MH-414	MH-413	2	-0.71	-2.31	400	365.7	0.004	8	343.01	28.2	FALSE	10	1.32	8.22%
MH-415	MH-411	2	-4.23	-4.77	137	131.8	0.004	8	340.5	144.51	FALSE	10	2.09	42.44%
MH-416	MH-415	2	0.95	0.15	201	287.9	0.004	8	342.15	1.34	FALSE	10	0.53	0.39%
MH-417	MH-415	2	-3.14	-4.23	274	282.1	0.004	8	342.07	115.15	FALSE	10	1.97	33.66%
MH-418	MH-417	2	0.35	-0.87	305	406.9	0.004	8	343.01	1.34	FALSE	10	0.53	0.39%
MH-419	MH-417	2	-2.1	-3.14	257	263.4	0.004	8	345	85.75	FALSE	10	1.82	24.86%
MH-420	MH-419	2	0.54	-0.92	352	445.9	0.004	8	349.28	1.34	FALSE	10	0.54	0.38%
MH-421	MH-419	2	-0.98	-2.1	304	287.5	0.004	8	329.19	56.35	FALSE	10	1.57	17.12%
MH-422	MH-421	2	0.02	-0.98	225	326.8	0.004	8	361.56	28.2	FALSE	10	1.37	7.80%
MH-423	MH-426	2	-5.94	-6.13	260	264.9	0.001	21	1,922.40	1,201.75	FALSE	11	1.88	62.51%
MH-425	MH-423	2	-1.15	-5.94	106	103	0.045	8	1,152.89	28.2	TRUE	10	3.09	2.45%
MH-426	MH-431	2	-6.13	-6.32	259	353.5	0.001	21	1,926.10	1,233.03	FALSE	11	1.89	64.02%
MH-427	MH-426	2	-3.36	-4.1	185	163.5	0.004	8	343.01	5.33	FALSE	10	0.8	1.55%
MH-428	MH-427	2	-2.21	-3.36	287	252.3	0.004	8	343.31	4.01	FALSE	10	0.73	1.17%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-429	MH-428	2	-1.28	-2.21	233	273.3	0.004	8	342.64	2.68	FALSE	10	0.65	0.78%
MH-430	MH-429	2	-0.3	-1.28	240	249.1	0.004	8	346.56	1.34	FALSE	10	0.53	0.39%
MH-431	MH-432	2	-6.32	-6.56	325	392.8	0.001	21	1,932.49	1,259.51	FALSE	11	1.91	65.18%
MH-432	MH-433	2	-6.56	-6.64	110	112.6	0.001	21	1,917.79	1,286.37	FALSE	11	1.9	67.08%
MH-433	MH-434	2	-6.64	-6.89	345	228.2	0.001	21	1,914.31	1,314.14	FALSE	11	1.91	68.65%
MH-434	MH-435	2	-6.89	-7.15	345	306.7	0.001	21	1,952.23	1,342.06	FALSE	11	1.95	68.74%
MH-435	MH-441	2	-7.25	-7.41	68	35.9	0.002	24	4,924.97	1,659.65	FALSE	11	3.15	33.70%
MH-436	HD P-LS 2	2	-2.3	-2.55		52.2	0.005	8	375.19	140.55	FALSE	10	2.22	37.46%
MH-437	MH-436	2	-0.95	-2.2	312	295.8	0.004	8	343.28	56.33	FALSE	10	1.61	16.41%
MH-438	MH-437	2	0.25	-0.95	295	285.7	0.004	8	345.9	28.2	FALSE	10	1.33	8.15%
MH-439	MH-436	2	-0.55	-2.15	400	383.3	0.004	8	343.01	56.3	FALSE	10	1.61	16.41%
MH-440	MH-439	2	1.05	-0.55	400	426.5	0.004	8	343.01	28.2	FALSE	10	1.32	8.22%
MH-441	MH-12	2	-7.51	-8.48	27.5	11.3	0.035	24	19,068.54	2,279.88	FALSE	11	9.12	11.96%
MH-442	MH-13	2	-5.72	-6.26	248.7	281.4	0.002	8	252.71	80.73	FALSE	20	1.44	31.95%
MH-443	MH-442	2	-4.96	-5.72	190	175.7	0.004	8	343.01	81.39	FALSE	20	1.79	23.73%
MH-444	MH-443	2	-1.81	-3.07	315	335.3	0.004	8	343.01	2.67	FALSE	10	0.65	0.78%
MH-445	MH-444	2	-0.62	-1.81	295	290.7	0.004	8	344.46	1.34	FALSE	10	0.53	0.39%
MH-446	MH-443	2	-3.76	-4.96	299	269.4	0.004	8	343.58	85.78	FALSE	20	1.82	24.97%
MH-447	MH-446	2	-2.56	-3.76	299	317.7	0.004	8	343.58	94.14	FALSE	20	1.87	27.40%
MH-450	MH-447	2	-0.96	-2.56	400	467.2	0.004	8	343.01	173.83	FALSE	11	2.2	50.68%
MH-461	MH-435	2	-5.79	-6.65	398	378.7	0.002	10	457.1	289.1	FALSE	10	1.98	63.25%
MH-462	MH-461	2	-4.91	-5.79	398	427	0.002	10	462.38	261.27	FALSE	10	1.95	56.51%
MH-463	MH-462	2	-4.63	-4.91	127	115.7	0.002	10	461.72	233.16	FALSE	10	1.89	50.50%
MH-464	MH-463	2	-1.36	-2.47	278	269.4	0.004	8	342.7	2.67	FALSE	10	0.65	0.78%
MH-465	MH-464	2	-0.31	-1.36	262	268.5	0.004	8	343.34	1.34	FALSE	10	0.53	0.39%
MH-466	MH-463	2	-4	-4.63	287	268.8	0.002	10	460.71	202.47	FALSE	11	1.82	43.95%
MH-468	MH-876	2	0.61	-2.66	115	141.6	0.028	8	914.53	1.34	FALSE	10	1.05	0.15%
MH-469	MH-876	2	-0.49	-2.66	248	263.2	0.009	8	507.32	2.68	FALSE	10	0.85	0.53%
MH-470	MH-469	2	0.35	-0.39	185	180.7	0.004	8	343.01	1.34	FALSE	10	0.53	0.39%
MH-474	MH-876	2	-1.82	-2.66	280	229.3	0.003	8	297.05	169.61	FALSE	11	1.96	57.10%
MH-475	MH-474	2	-0.98	-1.82	280	307.6	0.003	8	297.05	168.36	FALSE	11	1.96	56.68%
MH-476	MH-475	2	-0.33	-0.88	137	151.4	0.004	8	343.63	1.34	FALSE	10	0.53	0.39%
MH-477	MH-475	2	-0.17	-0.88	178	126.7	0.004	8	342.53	1.34	FALSE	10	0.53	0.39%
MH-478	MH-475	2	0.17	-0.98	300	290.2	0.004	8	335.79	164.13	FALSE	11	2.13	48.88%
MH-501	HD P-LS 1	2	-3.69	-3.91		45	0.005	8	379.2	196.76	FALSE	10	2.44	51.89%
MH-502	MH-501	2	-0.15	-0.45	75	114.5	0.004	8	343.01	28.2	FALSE	10	1.32	8.22%
MH-503	MH-501	2	-2.77	-3.59	271	284.3	0.003	8	298.33	140.6	FALSE	10	1.88	47.13%
MH-507	MH-503	2	-2.38	-2.77	130	95.9	0.003	8	297.05	112.5	FALSE	10	1.77	37.87%
MH-508	MH-507	2	-1.48	-2.38	302	218.4	0.003	8	296.07	84.47	FALSE	10	1.63	28.53%
MH-509	MH-508	2	-1.07	-1.48	136	67.3	0.003	8	297.78	56.33	FALSE	10	1.46	18.92%
MH-510	MH-509	2	-0.33	-1.07	249	100.8	0.003	8	295.66	28.2	FALSE	10	1.19	9.54%
MH-876	MH-466	2	-2.66	-3.9	413	406.1	0.003	8	297.17	174.77	FALSE	11	1.97	58.81%
T-1	MH-258	2	-2.65	-2.88	317.6	316.8	0.001	21	1,913.67	33.43	FALSE	10	0.67	1.75%
CO-49	MH-170	3	0.85	0.45	100	86.4	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
CO-50	MH-170	3	0.85	0.57	70	91.3	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
CO-51	MH-169	3	-0.21	-0.49	70	89.1	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
CO-52	MH-171	3	-0.38	-0.58	50	56.7	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
CO-53	MH-184	3	0.25	-0.55	198	126.1	0.004	8	344.74	4.53	FALSE	10	0.77	1.31%
CO-54	MH-185	3	0.92	0.3	155	124.8	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
CO-55	MH-185	3	-0.5	-1.05	137	212.6	0.004	8	343.63	4.53	FALSE	10	0.77	1.32%
CO-56	MH-184	3	-0.75	-1.35	170	213.4	0.004	8	322.2	4.53	FALSE	10	0.73	1.41%
CO-57	MH-197	3	0.15	-1.42	350	343.6	0.004	8	363.24	4.53	FALSE	10	0.79	1.25%
CO-58	MH-198	3	-0.64	-1.21	143	91.1	0.004	8	342.41	4.53	FALSE	10	0.77	1.32%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
CO-59	MH-199	3	-0.45	-0.81	90	99.1	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
CO-60	MH-200	3	1.47	0.55	229	152.5	0.004	8	343.76	4.53	FALSE	10	0.77	1.32%
CO-61	MH-201	3	-0.21	-5.75	260	265.5	0.021	8	791.67	4.53	TRUE	10	1.37	0.57%
CO-62	MH-203	3	2.35	-1.15	145	119.9	0.024	8	842.61	4.53	FALSE	10	1.43	0.54%
CO-63	MH-226	3	-0.75	-2.13	353	372.6	0.004	8	339.1	4.53	FALSE	10	0.76	1.34%
CO-64	MH-234	3	0.31	-0.55	217	160.7	0.004	8	341.42	4.53	FALSE	10	0.77	1.33%
CO-65	MH-243	3	-0.38	-0.55	43	27.9	0.004	8	341.01	4.53	FALSE	10	0.77	1.33%
CO-66	MH-251	3	-0.43	-1.79	340	285.5	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
MH-166	MH-167	3	-1.78	-2.02	196	216	0.001	15	1,014.51	820.74	FALSE	11	2.05	80.90%
MH-167	MH-173	3	-2.02	-2.12	88	100.8	0.001	15	977.32	836.89	FALSE	11	1.99	85.63%
MH-168	MH-167	3	-1.12	-1.65	136	129	0.004	8	338.57	40.7	FALSE	10	1.46	12.02%
MH-169	MH-168	3	-0.52	-1.02	128	127.9	0.004	8	338.96	22.62	FALSE	10	1.23	6.67%
MH-170	MH-169	3	0.45	-0.42	206	210.8	0.004	8	352.45	13.59	FALSE	10	1.09	3.86%
MH-171	MH-168	3	-0.68	-1.02	40	25.7	0.009	8	500.02	13.58	FALSE	10	1.38	2.72%
MH-172	MH-171	3	0.29	-0.58	217	217.4	0.004	8	343.4	4.53	FALSE	10	0.77	1.32%
MH-173	MH-174	3	-2.12	-2.3	157	147.3	0.001	15	981.67	836.21	FALSE	11	2	85.18%
MH-174	MH-180	3	-2.3	-2.62	266	266.8	0.001	15	1,005.57	856.59	FALSE	11	2.05	85.18%
MH-175	MH-174	3	-1.11	-2.1	333	314.7	0.003	8	295.71	22.56	TRUE	10	1.12	7.63%
MH-176	MH-175	3	0.07	-1.11	389	386.5	0.003	8	298.7	18.1	FALSE	10	1.05	6.06%
MH-177	MH-176	3	1.5	1.01	123	152.1	0.004	8	342.31	4.53	FALSE	10	0.77	1.32%
MH-178	MH-176	3	0.45	0.07	115	138.5	0.003	8	311.76	9.06	FALSE	10	0.88	2.91%
MH-179	MH-178	3	0.91	0.45	115	169.1	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
MH-180	MH-181	3	-2.62	-2.93	261	251	0.001	15	999.17	855.53	FALSE	11	2.04	85.62%
MH-181	MH-182	3	-2.93	-3.25	257	256.2	0.001	15	1,023.03	857.44	FALSE	11	2.08	83.81%
MH-182	MH-183	3	-3.25	-3.58	275	273.6	0.001	15	1,004.31	857.34	FALSE	11	2.05	85.37%
MH-183	MH-186	3	-3.58	-3.89	270	264.2	0.001	15	982.37	880.53	FALSE	11	2.02	89.63%
MH-184	MH-183	3	-1.55	-2.14	145	141.4	0.004	8	345.95	27.14	FALSE	10	1.32	7.85%
MH-185	MH-184	3	-1.15	-1.55	100	103.9	0.004	8	343.01	13.58	FALSE	10	1.06	3.96%
MH-186	MH-187	3	-3.89	-4.19	242	286.8	0.001	15	1,020.78	873.94	FALSE	11	2.08	85.61%
MH-187	MH-188	3	-4.19	-4.49	251	211.3	0.001	15	1,002.31	867.11	FALSE	11	2.05	86.51%
MH-188	MH-195	3	-4.49	-4.9	342	339.2	0.001	15	1,003.82	881.72	FALSE	11	2.06	87.84%
MH-190	MH-188	3	-3.44	-4.09	168	160.2	0.004	8	337.35	22.58	FALSE	10	1.22	6.69%
MH-191	MH-190	3	-2.37	-3.34	243	216.7	0.004	8	342.66	9.05	FALSE	10	0.94	2.64%
MH-192	MH-191	3	-1.36	-2.37	252	275.2	0.004	8	343.35	4.53	FALSE	10	0.77	1.32%
MH-193	MH-190	3	-1.64	-2.63	243	269.1	0.004	8	346.17	9.05	FALSE	10	0.95	2.61%
MH-194	MH-193	3	-0.65	-1.64	214	210.3	0.005	8	368.88	4.53	FALSE	10	0.8	1.23%
MH-195	MH-196	3	-4.9	-5.31	342	365	0.001	15	1,003.82	888.55	FALSE	12	2.06	88.52%
MH-196	MH-201	3	-5.43	-5.75	392	398.8	0.001	18	1,346.98	927.28	FALSE	12	1.83	68.84%
MH-197	MH-196	3	-1.42	-1.9	120	121.3	0.004	8	343.01	36.18	FALSE	10	1.42	10.55%
MH-198	MH-197	3	-1.31	-1.42	29	27.6	0.004	8	334.02	27.14	FALSE	10	1.28	8.13%
MH-199	MH-198	3	-0.92	-1.31	99	102.6	0.004	8	340.4	18.1	FALSE	10	1.15	5.32%
MH-200	MH-199	3	0.44	-0.92	105	110.9	0.013	8	617.23	9.05	FALSE	10	1.42	1.47%
MH-201	MH-202	3	-5.75	-5.9	182	186.1	0.001	18	1,353.44	930.45	FALSE	12	1.84	68.75%
MH-202	MH-204	3	-5.9	-5.98	108	87.9	0.001	18	1,283.10	946.03	FALSE	10	1.77	73.73%
MH-203	MH-202	3	-1.27	-1.87	150	144.6	0.004	8	343.01	9.06	FALSE	10	0.94	2.64%
MH-204	MH-209	3	-6.08	-6.2	151	153.6	0.001	18	1,329.02	969.7	FALSE	10	1.83	72.96%
MH-205	MH-204	3	-1.75	-1.89	35	35.1	0.004	8	343.01	18.08	FALSE	10	1.16	5.27%
MH-206	MH-205	3	-0.82	-1.75	208	252.9	0.004	8	362.65	13.57	FALSE	10	1.11	3.74%
MH-207	MH-206	3	0.28	-0.72	125	125.6	0.008	8	485.09	9.05	FALSE	10	1.2	1.87%
MH-208	MH-207	3	1.16	0.38	195	220	0.004	8	343.01	4.53	FALSE	10	0.77	1.32%
MH-209	MH-210	3	-6.3	-6.58	353	369.3	0.001	18	1,327.76	974.82	FALSE	10	1.83	73.42%
MH-210	MH-211	3	-6.6	-6.71	134	117.2	0.001	18	1,350.74	978.24	FALSE	10	1.86	72.42%
MH-211	MH-212	3	-6.74	-6.84	130	124.4	0.001	18	1,307.54	980.46	FALSE	10	1.81	74.99%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-212	MH-213	3	-6.94	-7.02	102	137.4	0.001	18	1,320.30	1,022.58	FALSE	10	1.84	77.45%
MH-213	MH-214	3	-7.02	-7.08	78	75.6	0.001	18	1,307.54	1,024.65	FALSE	10	1.82	78.36%
MH-214	MH-215	3	-7.08	-7.18	123	77.4	0.001	18	1,344.24	1,027.45	FALSE	11	1.87	76.43%
MH-215	MH-216	3	-7.18	-7.47	365	365.6	0.001	18	1,328.86	1,034.74	FALSE	11	1.85	77.87%
MH-216	MH-217	3	-7.55	-7.7	177	187.9	0.001	18	1,372.42	1,086.94	FALSE	11	1.92	79.20%
MH-217	MH-868	3	-7.67	-7.8	69	35.8	0.002	18	2,046.33	1,150.64	FALSE	11	2.66	56.23%
MH-219	MH-212	3	-4.89	-6.19	431	435.9	0.003	8	297.86	40.52	FALSE	10	1.33	13.60%
MH-220	MH-219	3	-4.38	-4.79	132	139.9	0.003	8	302.26	18.01	FALSE	10	1.06	5.96%
MH-221	MH-220	3	-3.24	-4.28	348	428.6	0.003	8	296.48	13.54	FALSE	10	0.96	4.57%
MH-222	MH-221	3	-1.87	-3.24	342	183.3	0.004	8	343.26	9.04	FALSE	10	0.94	2.63%
MH-223	MH-222	3	-0.5	-1.87	349	421.2	0.004	8	339.8	4.53	FALSE	10	0.76	1.33%
MH-224	MH-219	3	-4.39	-4.79	135	136.7	0.003	8	295.21	18.02	FALSE	10	1.04	6.10%
MH-225	MH-224	3	-3.31	-4.29	327	402.6	0.003	8	296.9	13.54	FALSE	10	0.96	4.56%
MH-226	MH-225	3	-2.13	-3.31	295	215.9	0.004	8	343.01	9.04	FALSE	10	0.94	2.64%
MH-227	MH-216	3	-4.14	-4.25	28	28.7	0.004	8	339.93	40.6	FALSE	10	1.46	11.94%
MH-228	MH-227	3	-3.79	-4.14	87	56.5	0.004	8	343.99	36.09	FALSE	10	1.42	10.49%
MH-229	MH-228	3	-3.45	-3.79	95	112.7	0.004	8	324.45	31.58	FALSE	10	1.31	9.73%
MH-230	MH-229	3	-2.7	-3.45	175	186	0.004	8	355.05	27.09	FALSE	10	1.34	7.63%
MH-231	MH-230	3	-1.93	-2.7	195	198.6	0.004	8	340.8	22.6	FALSE	10	1.23	6.63%
MH-232	MH-231	3	-1.37	-1.93	139	50	0.004	8	344.24	18.09	FALSE	10	1.16	5.26%
MH-233	MH-232	3	-1.05	-1.37	81	138.6	0.004	8	340.88	13.57	FALSE	10	1.06	3.98%
MH-234	MH-233	3	-0.55	-1.05	125	214.9	0.004	8	343.01	9.05	FALSE	10	0.94	2.64%
MH-235	MH-217	3	-6.85	-7.05	65	51.6	0.003	8	300.84	57.31	FALSE	11	1.48	19.05%
MH-236	MH-235	3	-6.45	-6.8	117	139.8	0.003	8	296.63	52.83	FALSE	11	1.43	17.81%
MH-237	MH-236	3	-3.58	-3.98	100	102.6	0.004	8	343.01	36.11	FALSE	10	1.42	10.53%
MH-238	MH-237	3	-2.98	-3.58	153	157	0.004	8	339.63	31.61	FALSE	10	1.36	9.31%
MH-239	MH-238	3	-2.14	-2.98	209	222.8	0.004	8	343.83	27.13	FALSE	10	1.31	7.89%
MH-240	MH-239	3	-1.61	-2.14	130	145.4	0.004	8	346.29	22.62	FALSE	10	1.25	6.53%
MH-241	MH-240	3	-1.28	-1.61	83	78	0.004	8	341.97	18.1	FALSE	10	1.16	5.29%
MH-242	MH-241	3	-0.91	-1.28	91	87.7	0.004	8	345.82	13.59	FALSE	10	1.07	3.93%
MH-243	MH-242	3	-0.55	-0.91	91	139.4	0.004	8	341.12	9.06	FALSE	10	0.94	2.66%
MH-245	MH-236	3	-5.53	-6.45	274	290.7	0.003	8	314.26	12.63	FALSE	21	0.98	4.02%
MH-246	MH-245	3	-4.59	-4.54	314	286.1	0	8	68.44	9.06	FALSE	10	0.06	13.24%
MH-246A	MH-246	3	-4.02	-4.54	129	145.6	0.004	8	344.34	4.53	FALSE	10	0.77	1.32%
MH247	MH-869	3	-5.12	-6.22		340.2	0.003	8	308.37	197.81	FALSE	24	2.09	64.15%
MH-248	MH247	3	-4.88	-5.12		73.1	0.003	8	308.22	200.72	FALSE	24	2.09	65.12%
MH-249	MH-248	3	-4.02	-4.88		269.9	0.003	8	306.87	232.1	FALSE	24	2.15	75.63%
MH-250	MH-249	3	-3.28	-3.95	166	83.4	0.004	8	344.55	253.27	FALSE	24	2.4	73.51%
MH-251	MH-250	3	-1.79	-3.23	360	408.2	0.004	8	343.01	336.81	FALSE	24	2.5	98.19%
MH-868	PS 3	3	-7.8	-7.86	31	61.7	0.002	18	2,074.07	1,155.42	FALSE	11	2.69	55.71%
MH-869	PS 3	3	-6.22	-6.3	31.4	63.2	0.003	8	273.75	192.74	FALSE	10	1.89	70.41%
CO-22	MH-45	4	0.96	0.66	89	89.7	0.003	8	314.88	4	FALSE	10	0.7	1.27%
CO-23	MH-45	4	0.93	0.65	70	90.9	0.004	8	343.01	4	FALSE	10	0.73	1.17%
CO-24	MH-44	4	-0.36	-0.7	85	91	0.004	8	343.01	4	FALSE	10	0.73	1.17%
CO-25	MH-48	4	0.81	0.63	89	51.9	0.002	6	113.25	4	FALSE	10	0.6	3.53%
CO-26	MH-48	4	0.95	0.63	54	50.8	0.006	6	193.86	4	FALSE	10	0.88	2.06%
CO-27	MH-47	4	-0.07	-0.37	63	87.2	0.005	8	374.25	4	FALSE	10	0.78	1.07%
CO-28	MH-54	4	-0.54	-0.82	62	91	0.005	8	364.47	4	FALSE	10	0.76	1.10%
CO-29	MH-54	4	-0.53	-0.77	57	91.7	0.004	8	351.92	4	FALSE	10	0.75	1.14%
CO-30	MH-875	4	-1.49	-1.73	70	81.5	0.003	8	317.56	4	FALSE	10	0.7	1.26%
CO-31	MH-56	4	-0.52	-0.79	67	92.1	0.004	8	344.29	4	FALSE	10	0.73	1.16%
CO-32	MH-56	4	-0.53	-0.77	65	95.3	0.004	8	329.55	4	FALSE	10	0.71	1.21%
CO-33	MH-55	4	-1.39	-1.73	85	89	0.004	8	343.01	4	FALSE	10	0.73	1.17%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
CO-34	MH-61	4	-0.3	-0.51	60	94.6	0.004	8	320.85	4	FALSE	10	0.7	1.25%
CO-35	MH-61	4	-0.27	-0.55	60	87.4	0.005	8	370.49	4	FALSE	10	0.77	1.08%
CO-36	MH-60	4	-1.33	-1.61	85	92.6	0.003	8	311.27	4	FALSE	10	0.69	1.29%
CO-37	MH-67	4	-0.12	-0.33	52	93	0.004	8	344.65	4	FALSE	10	0.73	1.16%
CO-38	MH-67	4	-0.13	-0.33	50	88.5	0.004	8	343.01	4	FALSE	10	0.73	1.17%
CO-39	MH-66	4	-1.07	-1.23	50	92.9	0.003	8	306.8	4	FALSE	10	0.69	1.30%
CO-40	MH-69	4	-0.19	-0.35	52	92.8	0.003	8	300.84	4	FALSE	10	0.68	1.33%
CO-41	MH-69	4	-0.13	-0.37	60	92.5	0.004	8	343.01	4	FALSE	10	0.73	1.17%
CO-42	MH-68	4	-1.05	-1.29	59	90	0.004	8	345.9	4	FALSE	10	0.74	1.16%
CO-43	MH-74	4	0.19	-0.07	107	93.3	0.002	8	267.34	4	FALSE	10	0.62	1.50%
CO-44	MH-74	4	0.23	-0.05	63	94.1	0.004	8	361.56	4	FALSE	10	0.76	1.11%
CO-45	MH-73	4	-0.91	-1.11	63	93.3	0.003	8	305.58	4	FALSE	10	0.68	1.31%
CO-46	MH-76	4	0.06	-0.15	63	90.4	0.003	8	313.12	4	FALSE	10	0.7	1.28%
CO-47	MH-76	4	0.1	-0.14	66	93.1	0.004	8	327.05	4	FALSE	10	0.71	1.22%
CO-48	MH-75	4	-0.95	-1.19	66	89.4	0.004	8	327.05	4	FALSE	10	0.71	1.22%
MH-41	MH-42	4	-1.6	-2.1	174	209.4	0.003	10	527.12	185	FALSE	13	1.96	35.10%
MH-42	MH-49	4	-2.1	-2.51	147	145.2	0.003	10	519.32	236.75	FALSE	12	2.07	45.59%
MH-43	MH-42	4	-1.39	-1.93	135	111.8	0.004	8	343.01	47.79	FALSE	10	1.54	13.93%
MH-44	MH-43	4	-0.76	-1.29	133	130.1	0.004	8	342.36	19.93	FALSE	10	1.19	5.82%
MH-45	MH-44	4	0.56	-0.66	305	308.5	0.004	8	343.01	11.98	FALSE	10	1.03	3.49%
MH-46	MH-43	4	-1.11	-1.39	69	73.6	0.004	8	345.48	23.91	FALSE	10	1.27	6.92%
MH-47	MH-46	4	-0.48	-1.01	130	130.8	0.004	8	346.29	19.94	FALSE	10	1.2	5.76%
MH-48	MH-47	4	0.53	-0.38	228	224	0.004	8	342.63	11.98	FALSE	10	1.03	3.50%
MH-49	MH-50	4	-2.51	-2.89	127	128.6	0.003	10	537.89	238.71	FALSE	12	2.13	44.38%
MH-50	MH-51	4	-2.89	-3.61	258	263.3	0.003	10	519.47	241.04	TRUE	11	2.08	46.40%
MH-51	MH-874	4	-2.98	-4.19	263	257.4	0.005	10	666.99	282.08	FALSE	11	2.61	42.29%
MH-52	MH-51	4	-2.44	-2.98	135	128.4	0.004	8	343.01	43.83	FALSE	10	1.5	12.78%
MH-53	MH-64	4	-5.46	-6.04	262	264.3	0.002	10	462.66	299.87	FALSE	10	2.01	64.81%
MH-54	MH-875	4	-0.92	-1.74	204	214.6	0.004	8	343.85	11.98	FALSE	10	1.03	3.48%
MH-55	MH-52	4	-1.81	-2.35	134	129.5	0.004	8	344.29	19.94	FALSE	10	1.2	5.79%
MH-56	MH-55	4	-0.89	-1.71	207	212.9	0.004	8	341.35	11.98	FALSE	10	1.02	3.51%
MH-58	MH-53	4	-4.88	-5.46	265	265.5	0.002	10	460.04	300.38	FALSE	10	2	65.29%
MH-59	MH-58	4	-2.2	-2.75	139	127.4	0.004	8	341.15	27.9	FALSE	10	1.31	8.18%
MH-60	MH-59	4	-1.54	-2.1	134	131.2	0.004	8	350.6	19.94	FALSE	10	1.21	5.69%
MH-61	MH-60	4	-0.61	-1.44	212	211.3	0.004	8	339.35	11.98	FALSE	10	1.02	3.53%
MH-62	MH-59	4	-1.13	-1.81	170	175	0.004	8	343.01	4	FALSE	10	0.73	1.17%
MH-64	MH-70	4	-6.04	-6.63	267	268.2	0.002	10	462.24	346.48	FALSE	11	2.07	74.96%
MH-65	MH-64	4	-2.01	-2.56	136	130.5	0.004	8	344.89	43.83	FALSE	10	1.51	12.71%
MH-66	MH-65	4	-1.37	-1.91	135	137.4	0.004	8	343.01	19.94	FALSE	10	1.19	5.81%
MH-67	MH-66	4	-0.43	-1.27	208	212.3	0.004	8	344.65	11.98	FALSE	10	1.03	3.48%
MH-68	MH-65	4	-1.39	-1.93	139	126.1	0.004	8	338.04	19.94	FALSE	10	1.18	5.90%
MH-69	MH-68	4	-0.45	-1.29	207	211.6	0.004	8	345.48	11.98	FALSE	10	1.03	3.47%
MH-70	MH-71	4	-6.63	-7.2	260	256.3	0.002	10	460.42	351.39	FALSE	11	2.07	76.32%
MH-71	LS 4	4	-7.2	-8.53	25	45.4	0.053	10	2,268.07	404.01	TRUE	11	7.01	17.81%
MH-72	MH-71	4	-1.77	-2.31	135	130.8	0.004	8	343.01	43.82	FALSE	10	1.5	12.78%
MH-73	MH-72	4	-1.14	-1.67	132	134.3	0.004	8	343.66	19.94	FALSE	10	1.19	5.80%
MH-74	MH-73	4	-0.17	-1.04	220	213.7	0.004	8	341.05	11.98	FALSE	10	1.02	3.51%
MH-75	MH-72	4	-1.19	-1.69	125	132	0.004	8	343.01	19.94	FALSE	10	1.19	5.81%
MH-76	MH-75	4	-0.24	-1.09	214	214.8	0.004	8	341.8	11.98	FALSE	10	1.02	3.50%
MH-874	MH-58	4	-4.19	-4.88	321	315.2	0.002	10	455.9	278.31	FALSE	11	1.95	61.05%
MH-875	MH-52	4	-1.84	-2.34	125	134.4	0.004	8	343.01	19.94	FALSE	10	1.19	5.81%
MH-897	MH-71	4	-1.79	-2.59	200	225.4	0.004	8	343.01	4	FALSE	10	0.73	1.17%
CO-1	MH-1	5	-0.48	-1.13	181	138.4	0.004	8	325.01	2.49	FALSE	10	0.61	0.77%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
CO-10	MH-22	5	1.53	1.24	55	93.2	0.005	6	182.86	2.49	FALSE	10	0.74	1.36%
CO-11	MH-22	5	1.51	1.27	66	83	0.004	6	151.86	2.49	FALSE	10	0.64	1.64%
CO-12	MH-21	5	0.67	0.53	32	89.6	0.004	6	166.57	2.49	FALSE	10	0.69	1.49%
CO-13	MH-29	5	1.45	1.11	67	91.1	0.005	6	179.39	2.49	FALSE	10	0.73	1.39%
CO-14	MH-29	5	1.47	1.17	66	89.1	0.005	6	169.78	2.49	FALSE	10	0.7	1.47%
CO-15	MH-28	5	0.95	0.73	54	76.8	0.004	8	346.17	2.49	FALSE	10	0.64	0.72%
CO-16	MH-31	5	1.52	1.24	64	88.5	0.004	6	166.57	2.49	FALSE	10	0.69	1.49%
CO-17	MH-31	5	1.51	1.21	75	86.6	0.004	6	159.27	2.49	FALSE	10	0.67	1.56%
CO-18	MH-30	5	0.33	-0.05	95	89.7	0.004	8	343.01	2.49	FALSE	10	0.63	0.73%
CO-19	MH-36	5	0.18	-0.16	84	87.8	0.004	6	160.22	2.49	FALSE	10	0.67	1.55%
CO-2	MH-3	5	-0.7	-0.84	36	84.1	0.004	6	157.04	2.49	FALSE	10	0.66	1.59%
CO-20	MH-36	5	0.1	-0.16	68	89.3	0.004	6	155.72	2.49	FALSE	10	0.66	1.60%
CO-21	MH-35	5	-1.35	-1.63	86	92.1	0.003	6	143.69	2.49	FALSE	10	0.62	1.73%
CO-3	MH-3	5	-0.56	-0.84	55	88.8	0.005	6	179.68	2.49	FALSE	10	0.73	1.39%
CO-4	MH-7	5	-0.65	-0.95	75	85.2	0.004	6	159.27	2.49	FALSE	10	0.67	1.56%
CO-5	MH-7	5	-0.65	-0.95	73	91	0.004	6	161.44	2.49	FALSE	10	0.67	1.54%
CO-6	MH-9	5	0.44	0.14	79	90.7	0.004	6	155.19	2.49	FALSE	10	0.65	1.60%
CO-7	MH-13	5	-0.28	-0.89	156	89.7	0.004	6	157.47	2.49	FALSE	10	0.66	1.58%
CO-8	MH-14	5	0.45	0.17	64	90.2	0.004	8	358.73	2.49	FALSE	10	0.66	0.69%
CO-9	MH-14	5	0.47	0.17	79	89	0.004	8	334.21	2.49	FALSE	10	0.62	0.75%
MH-1	MH-2	5	-1.13	-1.46	83	118.7	0.004	8	341.97	4.98	FALSE	10	0.79	1.46%
MH-10	MH-9	5	0.75	0.14	135	82	0.005	6	169.28	2.49	FALSE	10	0.7	1.47%
MH-11	MH-15	5	-4.6	-4.96	89	72.8	0.004	8	344.93	59.54	FALSE	10	1.65	17.26%
MH-12	MH-11	5	-1.58	-1.96	97	103.7	0.004	8	339.45	14.92	FALSE	10	1.09	4.40%
MH-13	MH-12	5	-0.9	-1.43	132	128.6	0.004	8	343.66	12.44	FALSE	10	1.04	3.62%
MH-14	MH-13	5	0.07	-0.75	206	200.1	0.004	8	342.17	7.48	FALSE	10	0.89	2.19%
MH-15	MH-16	5	-5.1	-5.2	36	46.5	0.003	8	285.84	62	FALSE	10	1.46	21.69%
MH-16	MH-17	5	-5.2	-5.98	246	247.4	0.003	8	305.39	64.48	FALSE	10	1.54	21.11%
MH-17	MH-18	5	-5.98	-6.5	161	159.8	0.003	8	308.22	66.86	FALSE	10	1.57	21.69%
MH-18	MH-23	5	-6.5	-6.66	50	34.5	0.003	8	306.8	86.66	FALSE	10	1.68	28.25%
MH-19	MH-18	5	-0.19	-0.81	156	126	0.004	8	341.91	17.41	FALSE	10	1.14	5.09%
MH-2	MH-4	5	-1.46	-1.99	134	129.8	0.004	8	341.08	14.94	FALSE	10	1.09	4.38%
MH-20	MH-19	5	0.55	-0.09	160	163	0.004	8	343.01	2.49	FALSE	10	0.63	0.73%
MH-21	MH-19	5	0.47	-0.09	138	129.3	0.004	8	345.48	12.45	FALSE	10	1.04	3.60%
MH-22	MH-21	5	1.17	0.57	169	158.3	0.004	8	323.15	7.48	FALSE	10	0.85	2.31%
MH-23	LS 5	5	-6.7	-8.11	12	8.3	0.117	8	1,857.08	153.4	TRUE	10	7.16	8.26%
MH-24	MH-23	5	-5.84	-6.7	215	234.1	0.004	8	343.01	64.37	FALSE	10	1.68	18.77%
MH-25	MH-24	5	-4.75	-5.84	271	264	0.004	8	343.96	61.99	FALSE	10	1.67	18.02%
MH-26	MH-25	5	-0.78	-4.75	117	123.4	0.034	8	999.03	29.81	FALSE	10	2.85	2.98%
MH-28	MH-871	5	0.57	0.05	133	132.5	0.004	8	339.12	12.46	FALSE	10	1.03	3.67%
MH-29	MH-28	5	1.01	0.67	85	83.5	0.004	8	343.01	7.48	FALSE	10	0.89	2.18%
MH-3	MH-2	5	-0.94	-1.37	107	100	0.004	8	343.81	7.48	FALSE	10	0.89	2.18%
MH-30	MH-26	5	-0.09	-0.65	140	131.8	0.004	8	343.01	12.43	FALSE	10	1.04	3.62%
MH-31	MH-30	5	1.14	0.01	283	277.8	0.004	8	342.71	7.48	FALSE	10	0.89	2.18%
MH-33	MH-870	5	-3.1	-3.65	136	153.4	0.004	8	344.89	27.3	FALSE	10	1.32	7.92%
MH-34	MH-33	5	-2.41	-2.91	125	124.5	0.004	8	343.01	22.35	FALSE	10	1.23	6.52%
MH-35	MH-34	5	-1.75	-2.31	141	135.3	0.004	8	341.79	12.43	FALSE	10	1.03	3.64%
MH-36	MH-35	5	-0.26	-1.65	346	349.5	0.004	8	343.75	7.48	FALSE	10	0.89	2.18%
MH-37	MH-34	5	-0.4	-1.42	255	261.8	0.004	8	343.01	7.47	FALSE	10	0.89	2.18%
MH-38	MH-37	5	0.59	-0.4	245	242.4	0.004	8	344.75	2.49	FALSE	10	0.64	0.72%
MH-39	MH-37	5	2.7	-0.34	152	130.8	0.02	8	766.99	2.49	FALSE	10	1.13	0.32%
MH-4	MH-5	5	-2.09	-2.25	36	40.2	0.004	8	361.56	17.41	FALSE	10	1.19	4.82%
MH-40	MH-33	5	-1.15	-2.23	270	249.3	0.004	8	343.01	2.49	FALSE	10	0.63	0.73%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-5	MH-6	5	-2.35	-2.85	133	133.1	0.004	8	332.53	19.9	FALSE	10	1.17	5.98%
MH-6	MH-8	5	-2.85	-3.93	265	256.9	0.004	8	346.23	29.83	FALSE	10	1.35	8.62%
MH-7	MH-6	5	-1.05	-1.85	202	197.6	0.004	8	341.31	7.48	FALSE	10	0.89	2.19%
MH-8	MH-11	5	-3.93	-4.45	137	135	0.004	8	334.13	42.19	FALSE	10	1.46	12.63%
MH-870	MH-25	5	-3.65	-4.75	278	266.8	0.004	8	341.15	29.76	FALSE	10	1.34	8.72%
MH-871	MH-26	5	-0.05	-0.78	179	178.8	0.004	8	346.35	14.93	FALSE	10	1.1	4.31%
MH-877	MH-8	5	-0.29	-1.04	184	204.7	0.004	8	346.26	9.96	FALSE	10	0.98	2.88%
MH-9	MH-877	5	0.04	-0.29	82	59.8	0.004	8	344.05	7.47	FALSE	10	0.89	2.17%
MH-791	MH-792	6	-1.32	-2.26	235	219.9	0.004	8	343.01	39.01	FALSE	10	1.45	11.37%
MH-792	MH-884	6	-2.36	-2.77	102	78.2	0.004	8	343.85	46.77	FALSE	10	1.53	13.60%
MH-793	MH-794	6	1.59	0.32	318	231.1	0.004	8	342.74	7.83	FALSE	10	0.9	2.28%
MH-794	MH-791	6	0.22	-1.22	360	316	0.004	8	343.01	15.63	FALSE	10	1.11	4.56%
MH-795	MH-796	6	-3.6	-4.7	275	255.7	0.004	8	343.01	116.89	FALSE	10	1.98	34.08%
MH-796	MH-800	6	-4.7	-6.14	361	354.9	0.004	8	342.53	147.91	FALSE	10	2.11	43.18%
MH-797	MH-798	6	1.44	0.24	282	194.2	0.004	8	353.79	7.83	FALSE	10	0.92	2.21%
MH-798	MH-799	6	0.24	-0.56	200	199.9	0.004	8	343.01	15.64	FALSE	10	1.11	4.56%
MH-799	MH-796	6	-0.56	-1.76	300	387	0.004	8	343.01	23.44	FALSE	10	1.25	6.83%
MH-800	LS 6	6	-7.05	-8.69	35	55.6	0.047	10	2,128.58	302.96	TRUE	10	6.16	14.23%
MH-801	MH-802	6	1.64	0.82	205	215.1	0.004	8	343.01	7.83	FALSE	10	0.9	2.28%
MH-802	MH-803	6	0.72	0.42	75	82.7	0.004	8	343.01	15.64	FALSE	10	1.11	4.56%
MH-803	MH-804	6	0.42	-0.54	240	226.3	0.004	8	343.01	23.46	FALSE	10	1.25	6.84%
MH-804	MH-805	6	-0.54	-2	365	292.9	0.004	8	343.01	31.24	FALSE	10	1.36	9.11%
MH-805	MH-806	6	-2	-3.04	265	147.5	0.004	8	339.76	38.98	FALSE	10	1.44	11.47%
MH-806	MH-807	6	-3.04	-4.06	255	361.4	0.004	8	343.01	46.73	FALSE	10	1.53	13.62%
MH-807	MH-808	6	-4.06	-5.06	250	320.9	0.004	8	343.01	54.48	FALSE	10	1.6	15.88%
MH-808	MH-800	6	-6.42	-6.95	178	191.1	0.003	8	295.94	147.66	FALSE	10	1.89	49.90%
MH-809	MH-810	6	1.7	0.58	281	275.3	0.004	8	342.4	7.83	FALSE	10	0.9	2.29%
MH-810	MH-811	6	0.58	-0.82	350	316.5	0.004	8	343.01	15.64	FALSE	10	1.11	4.56%
MH-811	MH-812	6	-0.82	-1.81	248	212	0.004	8	342.66	23.41	FALSE	10	1.25	6.83%
MH-812	MH-813	6	-1.81	-3.15	336	207.9	0.004	8	342.5	31.19	FALSE	10	1.36	9.11%
MH-813	MH-814	6	-3.15	-3.96	202	279.1	0.004	8	343.43	38.94	FALSE	10	1.45	11.34%
MH-814	MH-815	6	-3.96	-4.76	200	292.7	0.004	8	343.01	46.71	FALSE	10	1.53	13.62%
MH-815	MH-808	6	-5.45	-6.42	322	293.6	0.003	8	297.67	85.63	FALSE	10	1.64	28.77%
MH-816	MH-816A	6	1.26	0.65	151	110.8	0.004	8	344.71	7.83	FALSE	10	0.91	2.27%
MH-816A	MH-817	6	0.65	-0.2	213	165.8	0.004	8	342.61	15.65	FALSE	10	1.11	4.57%
MH-817	MH-818	6	-0.2	-1.05	213	287.4	0.004	8	342.61	23.45	FALSE	10	1.25	6.84%
MH-818	MH-815	6	-1.15	-2.24	273	290.1	0.004	8	342.69	31.23	FALSE	10	1.36	9.11%
MH-873	MH-884	6	-0.47	-0.87	100	76.3	0.004	8	343.01	54.63	FALSE	10	1.6	15.93%
MH-878	MH-791	6	-0.25	-1.32	250	189.6	0.004	8	354.81	15.64	FALSE	10	1.14	4.41%
MH-879	MH-878	6	0.55	-0.25	200	245.6	0.004	8	343.01	7.83	FALSE	10	0.9	2.28%
MH-880	MH-873	6	0.5	-0.42	230	311.9	0.004	8	343.01	31.25	FALSE	10	1.36	9.11%
MH-881	MH-880	6	1.43	0.5	235	211	0.004	8	341.18	23.47	FALSE	10	1.25	6.88%
MH-882	MH-881	6	1.82	1.48	85	91.1	0.004	8	343.01	15.65	FALSE	10	1.11	4.56%
MH-883	MH-882	6	2.45	1.87	130	166.1	0.004	8	362.26	7.83	FALSE	10	0.94	2.16%
MH-884	MH-795	6	-2.94	-3.6	164	210.1	0.004	8	344.05	109.16	FALSE	10	1.95	31.73%
MH-885	MH-873	6	3.09	2.15	235	206.4	0.004	8	343.01	15.64	FALSE	10	1.11	4.56%
MH-886	MH-885	6	3.19	3.09	125	93.8	0.001	8	153.4	7.83	FALSE	10	0.51	5.10%
CO-68	MH-278	7	-0.18	-0.96	339	370.1	0.002	8	260.15	7.89	FALSE	10	0.74	3.03%
CO-69	MH-282	7	0.26	-0.98	310	348.1	0.004	8	343.01	7.89	FALSE	10	0.9	2.30%
CO-70	MH-285	7	-2.06	-3.69	392	436.7	0.004	8	349.72	7.89	FALSE	10	0.92	2.26%
MH-265	MH-274	7	-6.89	-6.95	27	51.1	0.002	10	463.55	39.14	TRUE	10	1.15	8.44%
MH-266	MH-265	7	-6.16	-6.79	298	322.3	0.002	10	452.13	31.35	TRUE	10	1.06	6.93%
MH-267	MH-266	7	-5.44	-6.16	325	382.1	0.002	10	462.83	23.55	TRUE	10	0.99	5.09%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-268	MH-267	7	-4.73	-5.44	325	281.5	0.002	10	459.61	15.74	FALSE	10	0.87	3.42%
MH-269	MH-268	7	-4.15	-4.73	275	147.2	0.002	10	451.59	7.89	FALSE	10	0.7	1.75%
MH-274	LS-7	7	-7.05	-10.03	50	16.4	0.06	12	3,903.68	467.79	TRUE	11	7.47	11.98%
MH-275	MH-274	7	-6.91	-6.95	37	35.4	0.001	12	525.75	420.98	TRUE	11	1.66	80.07%
MH-276	MH-275	7	-6.65	-6.87	148	83.3	0.001	12	616.5	413	TRUE	11	1.87	66.99%
MH-277	MH-276	7	-2.89	-4.25	339	328.8	0.004	8	343.51	23.56	FALSE	10	1.26	6.86%
MH-278	MH-277	7	-1.54	-2.89	339	365.6	0.004	8	342.25	15.73	FALSE	10	1.11	4.60%
MH-279	MH-276	7	-6.37	-6.65	188	196.1	0.001	12	617.09	381.58	TRUE	11	1.84	61.84%
MH-280	MH-279	7	-6.13	-6.37	161	152.2	0.001	12	617.37	373.71	TRUE	10	1.83	60.53%
MH-281	MH-280	7	-2.22	-3.9	270	235.9	0.006	8	427.81	23.58	FALSE	10	1.46	5.51%
MH-282	MH-281	7	-0.98	-2.22	310	331.5	0.004	8	343.01	15.74	FALSE	10	1.11	4.59%
MH-283	MH-280	7	-5.9	-6.13	155	159.7	0.001	12	615.96	342.97	TRUE	10	1.79	55.68%
MH-284	MH-283	7	-5.65	-5.9	164	163.7	0.002	12	624.31	335.68	TRUE	10	1.8	53.77%
MH-285	MH-284	7	-3.69	-5.32	408	395.9	0.004	8	342.8	15.73	FALSE	10	1.11	4.59%
MH-286	MH-284	7	-5.4	-5.65	178	197.1	0.001	12	599.25	312.37	FALSE	10	1.72	52.13%
MH-287	MH-286	7	-3.73	-5.05	330	307.6	0.004	8	343.01	15.73	FALSE	10	1.11	4.59%
MH-288	MH-287	7	-2.25	-3.73	376	400.1	0.004	8	340.26	7.89	FALSE	10	0.9	2.32%
MH-289	MH-286	7	-4.75	-5.4	422	396.2	0.002	12	627.55	288.97	FALSE	10	1.74	46.05%
MH-290	MH-289	7	-3.91	-4.65	335	325.8	0.002	12	751.53	244.37	FALSE	11	1.9	32.52%
MH-291	MH-290	7	-2.6	-3.62	254	247.6	0.004	8	343.68	23.6	FALSE	10	1.26	6.87%
MH-292	MH-291	7	-1.58	-2.6	254	263.4	0.004	8	343.68	15.75	FALSE	10	1.11	4.58%
MH-293	MH-292	7	-0.67	-1.48	202	195.9	0.004	8	343.43	7.89	FALSE	10	0.9	2.30%
MH-294	MH-290	7	-3.31	-3.91	275	319.9	0.002	12	746.9	246	FALSE	11	1.9	32.94%
MH-295	MH-294	7	-1.81	-2.92	278	207.2	0.004	8	342.7	15.75	FALSE	10	1.11	4.60%
MH-296	MH-295	7	-0.8	-1.81	253	236.2	0.004	8	342.67	7.89	FALSE	10	0.9	2.30%
MH-297	MH-294	7	-0.26	-3.31	378	415.6	0.008	12	1,436.33	303.98	FALSE	11	3.23	21.16%
MH-298	MH-289	7	-3.64	-4.42	261	239.2	0.003	8	296.48	39.25	FALSE	10	1.31	13.24%
MH-299	MH-298	7	-2.86	-3.64	261	229.8	0.003	8	296.48	31.44	FALSE	10	1.23	10.60%
MH-300	MH-299	7	-2.2	-2.63	125	230.6	0.003	8	318.09	7.89	FALSE	10	0.86	2.48%
MH-301	MH-299	7	-2.02	-2.86	280	360.1	0.003	8	297.05	15.73	FALSE	10	1	5.30%
MH-302	MH-301	7	-0.39	-2.02	407	371.6	0.004	8	343.22	7.89	FALSE	10	0.9	2.30%
MH-320	MH-321	8	-1.64	-2.74	275	148.4	0.004	8	343.01	4.13	FALSE	10	0.74	1.20%
MH-321	MH-322	8	-2.74	-3.84	275	292.5	0.004	8	343.01	8.24	FALSE	10	0.92	2.40%
MH-322	MH-323	8	-3.94	-4.24	15	85	0.02	8	766.99	12.35	FALSE	10	1.82	1.61%
MH-323	MH-324	8	-4.29	-5.43	285	271.2	0.004	8	343.01	32.89	FALSE	10	1.38	9.59%
MH-324	MH-325	8	-5.43	-6.29	215	226.8	0.004	8	343.01	36.95	FALSE	10	1.43	10.77%
MH-325	MH-326	8	-7.05	-7.2	80	83.8	0.002	8	234.84	126.91	FALSE	10	1.53	54.04%
MH-326	LS 8	8	-7.3	-8.25	13	37.7	0.073	8	1,466.10	130.97	TRUE	10	5.79	8.93%
MH-333	MH-323	8	-3.75	-4.29	175	155.5	0.003	8	301.27	16.45	FALSE	10	1.03	5.46%
MH-334	MH-333	8	-3.05	-3.75	230	244.9	0.003	8	299.2	12.35	FALSE	10	0.94	4.13%
MH-335	MH-334	8	-1.82	-3.05	270	265.1	0.005	8	366.05	8.25	FALSE	10	0.96	2.25%
MH-336	MH-335	8	-1.45	-1.82	140	216	0.003	8	278.81	4.13	FALSE	10	0.65	1.48%
MH-337	MH-325	8	-6.2	-6.95	218	228.8	0.003	8	318.11	32.75	FALSE	10	1.31	10.30%
MH-338	MH-337	8	-5.54	-6.2	217	253.5	0.003	8	299.1	28.68	FALSE	10	1.21	9.59%
MH-339	MH-338	8	-4.79	-5.54	250	142.6	0.003	8	297.05	24.61	FALSE	10	1.15	8.28%
MH-340	MH-339	8	-4.32	-4.79	159	244.5	0.003	8	294.87	20.51	FALSE	10	1.08	6.96%
MH-341	MH-340	8	-3.65	-4.32	225	200.4	0.003	8	295.95	16.42	FALSE	10	1.02	5.55%
MH-342	MH-341	8	-2.72	-3.65	309	269.8	0.003	8	297.53	12.34	FALSE	10	0.94	4.15%
MH-343	MH-342	8	-1.9	-2.6	272	302.1	0.003	8	275.13	8.24	FALSE	10	0.78	2.99%
MH-348	MH-325	8	-5.97	-6.85	293	296.6	0.003	8	297.22	53.33	FALSE	10	1.44	17.94%
MH-350	MH-348	8	-5.31	-5.97	186	218.7	0.004	8	323.07	28.72	FALSE	10	1.27	8.89%
MH-351	MH-350	8	-4.63	-5.26	208	184.3	0.003	8	298.48	24.64	FALSE	10	1.15	8.26%
MH-352	MH-351	8	-4.1	-4.63	163	212.5	0.003	8	309.26	20.54	FALSE	10	1.12	6.64%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-353	MH-352	8	-3.37	-4.05	225	388.3	0.003	8	298.15	16.45	FALSE	10	1.02	5.52%
MH-354	MH-353	8	-2.4	-3.32	310	200.9	0.003	8	295.45	12.37	FALSE	10	0.93	4.19%
MH-355	MH-354	8	-1.77	-2.4	160	87.6	0.004	8	340.32	8.25	FALSE	10	0.91	2.42%
MH-356	MH-355	8	-1.37	-1.77	98	65	0.004	8	346.49	4.13	FALSE	10	0.74	1.19%
MH-357	MH-348	8	-3.65	-4.23	144	140.6	0.004	8	344.2	20.55	FALSE	10	1.21	5.97%
MH-358	MH-357	8	-2.49	-3.6	278	217.4	0.004	8	342.7	16.47	FALSE	10	1.13	4.81%
MH-359	MH-358	8	-1.58	-2.49	228	207.4	0.004	8	342.63	12.37	FALSE	10	1.03	3.61%
MH-360	MH-359	8	-0.99	-1.53	135	83.3	0.004	8	343.01	8.25	FALSE	10	0.92	2.41%
MH-361	MH-360	8	-0.25	-0.94	145	148.2	0.005	8	374.12	4.13	FALSE	10	0.79	1.10%
MH-896	MH-343	8	-1.08	-1.9	275	223.7	0.003	8	296.15	4.13	FALSE	10	0.67	1.39%
MH-389	LS 9	9	-7.35	-8.17	35	13.3	0.023	8	830.13	62.13	TRUE	10	3.12	7.48%
MH-390	MH-389	9	-6.07	-7.15	360	365.9	0.003	8	297.05	24.88	FALSE	10	1.15	8.38%
MH-391	MH-390	9	-4.99	-6.07	353	380.6	0.003	8	299.98	20.77	FALSE	10	1.1	6.92%
MH-392	MH-391	9	-3.91	-4.99	369	381	0.003	8	293.41	16.66	FALSE	10	1.01	5.68%
MH-394	MH-392	9	-2.03	-2.7	361	388.3	0.002	8	233.65	12.54	FALSE	10	0.79	5.37%
MH-395	MH-394	9	-2.14	-2.42	71	72.4	0.004	8	340.58	8.36	FALSE	10	0.92	2.45%
MH-396	MH-395	9	-1.53	-2.09	140	53.5	0.004	8	343.01	4.18	FALSE	10	0.74	1.22%
MH-397	MH-389	9	-7.01	-7.25	81	72.9	0.003	8	295.21	33.17	FALSE	10	1.25	11.24%
MH-398	MH-397	9	-6.73	-6.96	77	72	0.003	8	296.41	29.01	FALSE	10	1.2	9.79%
MH-399	MH-398	9	-5.67	-6.68	335	313.5	0.003	8	297.79	24.91	FALSE	10	1.15	8.36%
MH-400	MH-399	9	-4.6	-5.67	357	392	0.003	8	296.92	20.8	FALSE	10	1.09	7.01%
MH-401	MH-400	9	-3.65	-4.6	315	380.6	0.003	8	297.84	16.67	FALSE	10	1.02	5.60%
MH-402	MH-401	9	-2.64	-3.65	336	312.8	0.003	8	297.35	12.54	FALSE	10	0.94	4.22%
MH-403	MH-402	9	-2.38	-2.64	66	53.7	0.004	8	340.4	8.36	FALSE	10	0.91	2.46%
MH-404	MH-403	9	-2.08	-2.38	76	50.1	0.004	8	340.74	4.18	FALSE	10	0.74	1.23%
CO-78	MH-637	10	-0.31	-1.11	200	171.5	0.004	8	343.01	7.72	FALSE	10	0.9	2.25%
MH-598	MH-599	10	1.26	-0.06	330	325.6	0.004	8	343.01	7.72	FALSE	10	0.9	2.25%
MH-599	MH-601	10	-0.06	-0.16	266	286.7	0	8	105.16	15.42	FALSE	10	0.48	14.66%
MH-601	MH-604	10	-1.22	-2.36	285	286.8	0.004	8	343.01	30.73	FALSE	10	1.36	8.96%
MH-603	MH-601	10	2.13	0.59	385	435.3	0.004	8	343.01	7.72	FALSE	10	0.9	2.25%
MH-604	MH-608	10	-2.36	-3.57	303	280.3	0.004	8	342.73	53.77	FALSE	10	1.59	15.69%
MH-606	MH-604	10	0.62	-0.41	258	247.7	0.004	8	342.68	15.43	FALSE	10	1.1	4.50%
MH-607	MH-606	10	1.49	0.62	217	435.6	0.004	8	343.4	7.72	FALSE	10	0.9	2.25%
MH-608	MH-612	10	-3.57	-4.15	145	134.1	0.004	8	343.01	76.75	FALSE	10	1.77	22.38%
MH-610	MH-608	10	0.21	-1.37	334	407.1	0.005	8	373.02	15.42	FALSE	10	1.17	4.13%
MH-611	MH-610	10	1.3	0.21	274	247.4	0.004	8	342.07	7.72	FALSE	10	0.9	2.26%
MH-612	MH-613	10	-4.18	-4.7	129	157.6	0.004	8	344.34	84.41	FALSE	10	1.82	24.51%
MH-613	MH-619	10	-4.7	-5.65	316	274.3	0.003	8	297.37	130.44	FALSE	10	1.84	43.86%
MH-614	MH-613	10	-3.37	-4.6	308	317.6	0.004	8	342.73	30.75	FALSE	10	1.36	8.97%
MH-615	MH-614	10	-2.14	-3.37	308	216.9	0.004	8	342.73	23.09	FALSE	10	1.25	6.74%
MH-616	MH-615	10	-0.9	-2.14	308	383.9	0.004	8	344.12	15.42	FALSE	10	1.11	4.48%
MH-617	MH-616	10	0.43	-0.9	333	327.2	0.004	8	342.75	7.72	FALSE	10	0.9	2.25%
MH-618	MH-613	10	-3.58	-4.6	255	278.3	0.004	8	343.01	7.72	FALSE	10	0.9	2.25%
MH-619	MH-627	10	-5.65	-6.34	230	282.1	0.003	8	297.05	191.64	FALSE	10	2.01	64.51%
MH-620	MH-619	10	-4.1	-4.99	222	223.3	0.004	8	343.39	53.82	FALSE	10	1.6	15.67%
MH-621	MH-620	10	-3.3	-4.1	200	227.6	0.004	8	343.01	46.16	FALSE	10	1.53	13.46%
MH-622	MH-621	10	0.22	-0.45	168	203.9	0.004	8	342.5	7.72	FALSE	10	0.9	2.25%
MH-623	MH-621	10	-2.29	-3.3	253	213.6	0.004	8	342.67	30.79	FALSE	10	1.36	8.99%
MH-624	MH-623	10	-1.26	-2.29	257	257.8	0.004	8	343.34	23.12	FALSE	10	1.25	6.73%
MH-626	MH-624	10	0.16	-1.26	350	343.5	0.004	8	345.45	7.72	FALSE	10	0.9	2.23%
MH-627	MH-635A	10	-6.34	-6.88	304	277.1	0.002	8	228.58	252.85	FALSE	10	1.66	110.62%
MH-628	MH-627	10	-4.16	-5.09	233	267.4	0.004	8	342.64	53.82	FALSE	10	1.59	15.71%
MH-629	MH-628	10	-3.22	-4.16	234	200.3	0.004	8	343.74	46.17	FALSE	10	1.53	13.43%

SewerGEMS Flex Table: Conduit Table														
Peak Flow Scenario														
Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-630	MH-629	10	-0.55	-1.05	125	207.5	0.004	8	343.01	7.72	FALSE	10	0.9	2.25%
MH-631	MH-629	10	-2.26	-3.22	241	220.5	0.004	8	342.3	30.8	FALSE	10	1.35	9.00%
MH-632	MH-631	10	-1.3	-2.26	239	247.1	0.004	8	343.73	23.12	FALSE	10	1.25	6.73%
MH-633	MH-632	10	-0.55	-1.19	158	107.4	0.004	8	345.17	7.72	FALSE	10	0.9	2.24%
MH-634	MH-632	10	0.15	-1.3	368	319.2	0.004	8	340.44	7.72	FALSE	10	0.89	2.27%
MH-635	MH-635A	10	-6.82	-6.91		29.2	0.003	8	301.29	137.82	FALSE	10	1.88	45.74%
MH-635A	LS-10	10	-6.91	-7.48	20	39.5	0.029	8	915.58	397.89	FALSE	10	5.64	43.46%
MH-636	MH-635	10	-6.29	-6.77	245	270.7	0.002	8	240.06	130.32	FALSE	10	1.56	54.29%
MH-637	MH-636	10	-5.6	-6.29	228	179.9	0.003	8	298.35	122.77	FALSE	10	1.81	41.15%
MH-638	MH-637	10	-1.71	-3.02	326	209.9	0.004	8	343.8	7.72	FALSE	10	0.9	2.25%
MH-640	MH-637	10	-4.73	-5.5	225	294.9	0.003	8	317.27	99.79	FALSE	10	1.79	31.45%
MH-641	MH-640	10	-1.55	-3.12	392	309.7	0.004	8	343.23	7.72	FALSE	10	0.9	2.25%
MH-642	MH-640	10	-1.18	-2.76	396	424.4	0.004	8	342.57	15.41	FALSE	10	1.1	4.50%
MH-643	MH-642	10	0.34	-1.18	379	425.7	0.004	8	343.46	7.72	FALSE	10	0.9	2.25%
MH-644	MH-640	10	-3.75	-4.73	325	284.6	0.003	8	297.81	69.19	FALSE	10	1.55	23.23%
MH-645	MH-644	10	-1.55	-2.78	289	230.9	0.004	8	353.82	7.72	FALSE	10	0.92	2.18%
MH-646	MH-644	10	-1.35	-2.65	309	397.7	0.004	8	351.78	7.72	FALSE	10	0.91	2.19%
MH-647	MH-644	10	-2.99	-3.75	255	291.9	0.003	8	296.08	46.17	FALSE	10	1.37	15.59%
MH-648	MH-647	10	-1.25	-2.43	296	210.7	0.004	8	342.43	7.72	FALSE	10	0.9	2.25%
MH-649	MH-647	10	-0.95	-2.99	314	396.5	0.006	8	437.14	7.72	FALSE	10	1.06	1.77%
MH-650	MH-647	10	-2.18	-2.99	265	253	0.003	8	299.84	23.11	FALSE	10	1.14	7.71%
MH-651	MH-650	10	-0.85	-2.08	306	401.8	0.004	8	343.85	7.72	FALSE	10	0.9	2.25%
MH-652	MH-650	10	-0.87	-2.08	303	187.2	0.004	8	342.73	7.72	FALSE	10	0.9	2.25%
MH-889	MH-624	10	-0.35	-1.07	180	211.1	0.004	8	343.01	7.72	FALSE	10	0.9	2.25%
MH-714	MH-715	11	-0.53	-1.25	181	166.9	0.004	8	342.06	4.72	FALSE	10	0.78	1.38%
MH-715	MH-716	11	-1.25	-2.1	281	287.1	0.003	8	298.28	9.43	FALSE	10	0.87	3.16%
MH-716	MH-717	11	-2.1	-2.61	238	246.9	0.002	8	251.06	20.26	FALSE	10	0.96	8.07%
MH-717	MH-718	11	-2.61	-3.57	260	269.3	0.004	8	329.55	24.93	FALSE	10	1.24	7.56%
MH-718	MH-721	11	-3.62	-4.44	275	233.7	0.003	8	296.15	38.97	FALSE	10	1.31	13.16%
MH-719	MH-718	11	-2.04	-3.47	357	354	0.004	8	343.25	9.42	FALSE	10	0.95	2.74%
MH-720	MH-719	11	-0.61	-2.04	358	288.4	0.004	8	342.77	4.72	FALSE	10	0.78	1.38%
MH-721	MH-722	11	-4.49	-4.65	51	35.2	0.003	8	303.77	43.59	FALSE	10	1.38	14.35%
MH-722	MH-727	11	-4.69	-5.68	333	344.9	0.003	8	295.71	67.04	FALSE	10	1.53	22.67%
MH-723	MH-722	11	-3.81	-4.6	262	290.9	0.003	8	297.81	18.8	FALSE	10	1.06	6.31%
MH-724	MH-723	11	-3.02	-3.81	263	281	0.003	8	297.24	14.12	FALSE	10	0.97	4.75%
MH-726	MH-898	11	0.05	-0.43	237	236.9	0.002	8	244.07	4.72	FALSE	10	0.61	1.93%
MH-727	MH-728	11	-5.68	-6.7	336	326	0.003	8	298.82	71.6	FALSE	10	1.57	23.96%
MH-728	MH-729	11	-6.7	-7	102	159	0.003	8	294.13	76.21	FALSE	11	1.57	25.91%
MH-729	MH-730	11	-7.23	-7.52	95	174.6	0.003	8	299.65	107.31	FALSE	11	1.76	35.81%
MH-730	LS 11	11	-7.75	-8.75	25	24.1	0.04	8	1,084.69	115.04	TRUE	11	4.5	10.61%
MH-731	MH-730	11	-1.29	-2.49	300	253.7	0.004	8	343.01	3.08	FALSE	10	0.68	0.90%
MH-732	MH-729	11	-5.95	-7.15	398	189.6	0.003	8	297.8	26.48	FALSE	10	1.17	8.89%
MH-733	MH-732	11	-4.96	-5.95	332	256	0.003	8	296.16	21.84	FALSE	10	1.1	7.37%
MH-734	MH-733	11	-3.98	-4.96	328	291.1	0.003	8	296.45	17.18	FALSE	10	1.03	5.80%
MH-735	MH-734	11	-3.34	-3.98	211	340.8	0.003	8	298.69	12.49	FALSE	10	0.94	4.18%
MH-736	MH-735	11	-2.7	-3.34	213	266.1	0.003	8	297.29	7.79	FALSE	10	0.81	2.62%
MH-784	MH-736	11	-2.03	-2.7	224	281.7	0.003	8	296.61	3.08	FALSE	10	0.61	1.04%
MH-898	MH-724	11	-0.43	-3.02	238	244.8	0.011	8	565.76	9.42	FALSE	10	1.35	1.67%
MH-768	LS-12	12	-3.75	-8.55		63.8	0.075	12	4,385.91	88.17	FALSE	10	4.93	2.01%
MH-769	MH-768	12	-2.85	-3.75	225	254.5	0.004	8	343.01	70.6	FALSE	10	1.72	20.58%
MH-770	MH-769	12	-2.28	-2.85	142	102	0.004	8	343.61	52.98	FALSE	10	1.59	15.42%
MH-771	MH-770	12	-1.88	-2.28	108	53.9	0.004	8	330.06	17.67	FALSE	10	1.12	5.35%
MH-772	MH-770	12	-1.68	-2.28	150	58.3	0.004	8	343.01	17.67	FALSE	10	1.15	5.15%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-773	LS-12	12	-5.85	-8.55	75	117	0.036	8	1,029.02	140.94	TRUE	10	4.6	13.70%
MH-774	MH-773	12	-4.92	-5.75	208	166.1	0.004	8	342.6	123.41	FALSE	10	2.01	36.02%
MH-775	MH-774	12	-4.14	-4.92	194	226.8	0.004	8	343.89	105.85	FALSE	10	1.93	30.78%
MH-776	MH-775	12	-3.55	-4.14	147	200.4	0.004	8	343.59	88.26	FALSE	10	1.83	25.69%
MH-777	MH-776	12	-3.22	-3.45	57	39.3	0.004	8	344.51	35.32	FALSE	10	1.42	10.25%
MH-778	MH-777	12	-2.49	-3.22	157	143	0.005	8	369.82	17.67	FALSE	10	1.21	4.78%
MH-779	MH-776	12	-3.07	-3.55	121	152.8	0.004	8	341.59	35.31	FALSE	10	1.41	10.34%
MH-780	MH-779	12	-2.13	-3.07	236	201.1	0.004	8	342.28	17.67	FALSE	10	1.15	5.16%
MH-451	MH-454	13	-3.05	-3.21	40	136.4	0.004	8	343.01	23.1	FALSE	10	1.25	6.73%
MH-452	MH-451	13	-1.83	-3.05	252	325.6	0.005	8	377.36	15.41	FALSE	10	1.18	4.08%
MH-453	MH-452	13	-0.35	-1.83	372	322.3	0.004	8	342.09	7.72	FALSE	10	0.9	2.26%
MH-454	LS 13	13	-7.25	-7.35	25	45	0.004	8	343.01	69.01	TRUE	10	1.69	20.12%
MH-456	MH-454	13	-5.98	-7.25	391	740.8	0.003	8	309.09	38.32	TRUE	10	1.34	12.40%
MH-457	MH-456	13	-4.81	-5.98	391	358.8	0.003	8	296.67	30.71	FALSE	10	1.22	10.35%
MH-458	MH-457	13	-3.25	-4.81	391	410.7	0.004	8	342.57	23.06	FALSE	10	1.25	6.73%
MH-459	MH-458	13	-2.07	-3.25	391	366.6	0.003	8	297.94	15.41	FALSE	10	1	5.17%
MH-460	MH-459	13	-0.89	-2.07	391	296.1	0.003	8	297.94	7.72	FALSE	10	0.81	2.59%
MH-569	MH-570	14	0.21	-0.6	201	340.5	0.004	8	344.29	8.29	FALSE	10	0.92	2.41%
MH-570	MH-571	14	-0.6	-1.57	251	216.1	0.004	8	337.15	16.55	FALSE	10	1.12	4.91%
MH-571	MH-572	14	-1.57	-2.47	300	283.5	0.003	8	297.05	24.8	FALSE	10	1.15	8.35%
MH-572	MH-573	14	-2.47	-4.2	260	263.8	0.007	8	442.4	33.02	FALSE	10	1.66	7.46%
MH-573	MH-574	14	-4.2	-5.76	388	405.3	0.004	8	343.89	41.24	FALSE	10	1.48	11.99%
MH-574	MH-577	14	-5.76	-5.87	38	66.8	0.003	8	291.8	65.94	FALSE	10	1.51	22.60%
MH-576	MH-895	14	1.11	-0.78	386	396.5	0.005	8	379.5	8.29	FALSE	10	0.98	2.18%
MH-577	MH-578	14	-5.87	-6.85	328	337.1	0.003	8	296.45	74.2	FALSE	10	1.57	25.03%
MH-578	MH-579	14	-6.85	-7.75	300	266	0.003	8	297.05	82.32	TRUE	10	1.62	27.71%
MH-579	MH-584	14	-7.75	-7.93	40	26.5	0.004	8	363.82	123.49	TRUE	10	2.1	33.94%
MH-580	MH-579	14	-1.2	-7.75	237	301.8	0.028	8	901.61	16.55	TRUE	10	2.23	1.84%
MH-581	MH-580	14	-0.25	-1.2	237	242.3	0.004	8	343.37	8.29	FALSE	10	0.92	2.41%
MH-582	MH-579	14	-1.32	-7.75	267	262.6	0.024	8	841.64	16.55	TRUE	10	2.11	1.97%
MH-583	MH-582	14	-0.25	-1.32	268	211	0.004	8	342.69	8.29	FALSE	10	0.92	2.42%
MH-584	LS 14	14	-7.93	-10.01	10	37	0.208	8	2,473.47	238.63	TRUE	10	9.99	9.65%
MH-585	MH-584	14	-7.03	-7.93	280	321.6	0.003	8	307.48	107.07	TRUE	10	1.79	34.82%
MH-586	MH-585	14	-6.19	-7.03	280	252.3	0.003	8	297.05	98.96	FALSE	10	1.7	33.31%
MH-587	MH-586	14	-1.32	-6.19	267	296.1	0.018	8	732.46	16.55	FALSE	10	1.92	2.26%
MH-588	MH-587	14	-0.25	-1.32	267	241.3	0.004	8	343.33	8.29	FALSE	10	0.92	2.41%
MH-589	MH-586	14	-1.2	-6.19	237	262.9	0.021	8	786.96	16.55	FALSE	10	2.02	2.10%
MH-590	MH-589	14	-0.25	-1.2	237	216	0.004	8	343.37	8.29	FALSE	10	0.92	2.41%
MH-591	MH-586	14	-3.95	-6.19	300	375.5	0.007	8	468.64	57.72	FALSE	10	2.03	12.32%
MH-592	MH-591	14	-2.35	-3.95	300	224.5	0.005	8	396.07	49.53	FALSE	10	1.73	12.51%
MH-593	MH-592	14	-1	-2.35	300	280.9	0.005	8	363.82	16.55	FALSE	10	1.17	4.55%
MH-594	MH-593	14	-0.06	-1	234	256.8	0.004	8	343.74	8.29	FALSE	10	0.92	2.41%
MH-595	MH-592	14	-1	-2.35	300	275.5	0.005	8	363.82	16.56	FALSE	10	1.17	4.55%
MH-596	MH-595	14	-0.3	-1	174	200	0.004	8	343.99	8.29	FALSE	10	0.92	2.41%
MH-597	MH-592	14	0.09	-2.35	610	250.8	0.004	8	343.01	8.29	FALSE	10	0.92	2.42%
MH-895	MH-574	14	-0.78	-5.76	164	160.4	0.03	8	945.08	16.54	FALSE	10	2.29	1.75%
MH-479	MH-485	15	-4.77	-5.76	249	249	0.004	8	343.01	35.19	FALSE	10	1.41	10.26%
MH-480	MH-479	15	-4.41	-4.77	89.8	89.8	0.004	8	343.01	17.6	FALSE	10	1.15	5.13%
MH-481	MH-480	15	-4.05	-4.41	88.7	88.7	0.004	8	343.01	11.74	FALSE	10	1.02	3.42%
MH-482	MH-481	15	-3.74	-4.05	77.7	77.7	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-483	MH-479	15	-4.56	-4.77	50.1	50.1	0.004	8	343.01	11.74	FALSE	10	1.02	3.42%
MH-484	MH-483	15	-4.11	-4.56	113.6	113.6	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-485	MH-487	15	-5.76	-6.76	250.8	250.8	0.004	8	343.01	41	FALSE	10	1.48	11.95%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-486	MH-487	15	-6.53	-6.76	59.3	59.3	0.004	8	343.01	11.74	FALSE	10	1.02	3.42%
MH-487	MH-491	15	-6.76	-7.56	199.6	199.6	0.004	8	343.01	70.25	FALSE	10	1.72	20.48%
MH-488	MH-486	15	-6.1	-6.53	107.9	107.9	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-489	MH-487	15	-6.38	-6.76	96.6	96.6	0.004	8	343.01	11.74	FALSE	10	1.02	3.42%
MH-490	MH-489	15	-6.06	-6.38	79.1	79.1	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-491	MH-492	15	-7.56	-8.04	119.6	119.6	0.004	8	343.01	76.03	FALSE	10	1.76	22.17%
MH-492	LS-15	15	-8.04	-8.33	72.9	72.9	0.004	8	343.01	163.45	FALSE	10	2.16	47.65%
MH-493	MH-492	15	-7.35	-8.04	174	174	0.004	8	343.01	81.69	FALSE	10	1.8	23.82%
MH-494	MH-493	15	-6.7	-7.35	160.8	160.8	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-495	MH-493	15	-6.69	-7.35	163.7	163.7	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-496	MH-493	15	-6.23	-7.35	277.6	277.6	0.004	8	343.01	64.21	FALSE	10	1.68	18.72%
MH-497	MH-498	15	-5.41	-4.76	161.8	161.8	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-497	MH-496	15	-5.41	-6.23	206.9	206.9	0.004	8	343.01	58.42	FALSE	10	1.63	17.03%
MH-499	MH-497	15	-4.76	-5.41	161.1	161.1	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-500	MH-497	15	-4.58	-5.41	205.9	205.9	0.004	8	343.01	40.89	FALSE	10	1.47	11.92%
MH-500A	MH-500	15	-3.52	-4.58	265.1	265.1	0.004	8	343.01	35.09	FALSE	10	1.41	10.23%
MH-500B	MH-500A	15	-2.86	-3.52	166.7	166.7	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-500C	MH-500A	15	-2.75	-3.52	192.7	192.7	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-500D	MH-500E	15	-0.63	-1.35	181.6	181.6	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-500E	MH-500A	15	-1.35	-3.52	542.3	542.3	0.004	8	343.01	17.59	FALSE	10	1.15	5.13%
MH-500F	MH-500E	15	-0.62	-1.35	183.6	183.6	0.004	8	343.01	5.87	FALSE	10	0.83	1.71%
MH-303	MH-304	16	-2.27	-3.28	252	252	0.004	8	343.01	2.84	FALSE	10	0.66	0.83%
MH-304	MH-305	16	-3.28	-4.26	244.5	244.5	0.004	8	343.01	5.67	FALSE	10	0.82	1.65%
MH-305	MH-306	16	-4.26	-5.5	310.6	310.6	0.004	8	343.01	8.5	FALSE	10	0.92	2.48%
MH-306	MH-310	16	-5.5	-6.28	193.5	193.5	0.004	8	343.01	19.79	FALSE	10	1.19	5.77%
MH-307	MH-306	16	-4.4	-5.5	276.2	276.2	0.004	8	343.01	5.68	FALSE	10	0.82	1.66%
MH-308	MH-307	16	-3.51	-4.4	221.9	221.9	0.004	8	343.01	2.84	FALSE	10	0.66	0.83%
MH-309	MH-306	16	-4.43	-5.5	266.9	266.9	0.004	8	343.01	2.84	FALSE	10	0.66	0.83%
MH-310	MH-311	16	-6.28	-7.47	298.7	298.7	0.004	8	343.01	22.6	FALSE	10	1.24	6.59%
MH-311	LS-16	16	-7.47	-9.07	28.2	28.2	0.057	8	1,292.32	47.94	FALSE	10	3.93	3.71%
MH-312	MH-311	16	-7.32	-7.47	37.1	37.1	0.004	8	343.01	22.57	FALSE	10	1.24	6.58%
MH-313	MH-312	16	-5.81	-7.32	377.5	377.5	0.004	8	343.01	5.67	FALSE	10	0.82	1.65%
MH-314	MH-313	16	-4.49	-5.81	331.6	331.6	0.004	8	343.01	2.84	FALSE	10	0.66	0.83%
MH-315	MH-312	16	-6.37	-7.32	237.5	237.5	0.004	8	343.01	14.12	FALSE	10	1.07	4.12%
MH-316	MH-315	16	-5.42	-6.37	238.9	238.9	0.004	8	343.01	11.31	FALSE	10	1.01	3.30%
MH-317	MH-316	16	-3.83	-5.42	397.6	397.6	0.004	8	343.01	5.67	FALSE	10	0.82	1.65%
MH-318	MH-317	16	-2.53	-3.83	323.2	323.2	0.004	8	343.01	2.84	FALSE	10	0.66	0.83%
MH-319	MH-316	16	-4.17	-5.42	311.7	311.7	0.004	8	343.01	2.84	FALSE	10	0.66	0.83%
MH-835	MH-836	17	0.16	-1.06	304.8	304.8	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-836	MH-837	17	-1.06	-2.49	357.2	357.2	0.004	8	343.01	10.65	FALSE	10	0.99	3.10%
MH-837	MH-843	17	-2.49	-3.63	286.9	286.9	0.004	8	343.01	26.56	FALSE	10	1.3	7.74%
MH-838	MH-837	17	-1.7	-2.49	195.8	195.8	0.004	8	343.01	10.64	FALSE	10	0.99	3.10%
MH-839	MH-838	17	-0.03	-1.7	419.4	419.4	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-840	MH-841	17	0.5	-0.57	266.9	266.9	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-841	MH-842	17	-0.57	-2	357.2	357.2	0.004	8	343.01	10.65	FALSE	10	0.99	3.10%
MH-842	MH-843	17	-2	-3.63	408.8	408.8	0.004	8	343.01	15.95	FALSE	10	1.12	4.65%
MH-843	MH-846	17	-3.63	-5.06	355.9	355.9	0.004	8	343.01	58.34	FALSE	10	1.63	17.01%
MH-844	MH-843	17	-2.33	-3.63	327	327	0.004	8	343.01	10.66	FALSE	10	0.99	3.11%
MH-845	MH-844	17	-1.51	-2.33	203	203	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-846	MH-850	17	-5.06	-5.43	92.5	92.5	0.004	8	343.01	63.53	FALSE	10	1.67	18.52%
MH-847	MH-848	17	-2.92	-3.85	232.3	232.3	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-848	MH-849	17	-3.85	-4.94	272.5	272.5	0.004	8	343.01	15.99	FALSE	10	1.12	4.66%
MH-849	MH-850	17	-4.94	-5.43	122.1	122.1	0.004	8	343.01	21.28	FALSE	10	1.22	6.20%

SewerGEMS Flex Table: Conduit Table

Peak Flow Scenario

Start Node	Stop Node	Notes	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Capacity (Full Flow) (gpm)	Flow (Maximum) (gpm)	Is Ever Surcharged?	Time (Maximum Flow) (hours)	Velocity (Maximum Calculated) (ft/s)	Critical Pipe Capacity (%)
MH-850	MH-851	17	-5.43	-6.86	358.6	358.6	0.004	8	343.01	90.09	FALSE	10	1.84	26.26%
MH-851	MH-853	17	-6.86	-8.25	340.8	340.8	0.004	8	345.53	100.56	FALSE	10	1.91	29.10%
MH-852	MH-853	17	-6.73	-8.25	374.1	374.1	0.004	8	345.31	5.34	FALSE	10	0.81	1.55%
MH-853	MH-854	17	-8.25	-8.68	283.3	283.3	0.002	8	211.56	111.01	FALSE	10	1.37	52.47%
MH-854	MH-855	17	-8.68	-9.78	275.7	267.6	0.004	8	343.01	116.28	FALSE	11	1.98	33.90%
MH-855	LS 17	17	-9.78	-9.92	34	16.9	0.004	8	343.01	174.4	FALSE	11	2.2	50.84%
MH-856	MH-857	17	-6.88	-8.23	336.9	336.9	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-857	MH-865	17	-8.23	-9.38	288.3	288.3	0.004	8	343.01	26.54	FALSE	10	1.3	7.74%
MH-858	MH-857	17	-7.05	-8.23	294.3	294.3	0.004	8	343.01	15.93	FALSE	10	1.12	4.64%
MH-859	MH-858	17	-5.15	-7.05	475.6	475.6	0.004	8	343.01	10.66	FALSE	10	0.99	3.11%
MH-860	MH-859	17	-4.12	-5.15	255.7	255.7	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-861	MH-862	17	-4.15	-5.19	259.9	259.9	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-862	MH-863	17	-5.19	-5.95	189.8	189.8	0.004	8	343.01	10.65	FALSE	10	0.99	3.10%
MH-863	MH-864	17	-5.95	-7.82	467.5	467.5	0.004	8	343.01	15.97	FALSE	10	1.12	4.66%
MH-864	MH-865	17	-7.82	-9.38	389.9	389.9	0.004	8	343.01	21.23	FALSE	10	1.22	6.19%
MH-865	MH-855	17	-9.38	-9.78	100.2	108.2	0.004	8	343.01	52.96	FALSE	10	1.59	15.44%
MH-866	MH-851	17	-6.6	-6.86	64.9	64.9	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%
MH-867	MH-848	17	-3.45	-3.85	100.3	100.3	0.004	8	343.01	5.34	FALSE	10	0.8	1.56%

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
CO-72	1	5.65	0.9	48	0.93	0.93	FALSE	FALSE
CO-73	1	6.25	2.15	48	2.18	2.18	FALSE	FALSE
CO-74	1	5.15	1.16	48	1.19	1.19	FALSE	FALSE
CO-75	1	3.95	-0.15	48	-0.12	-0.12	FALSE	FALSE
CO-76	1	4.25	0.21	48	0.24	0.24	FALSE	FALSE
CO-77	1	4.25	-0.09	48	-0.06	-0.06	FALSE	FALSE
CO-80	1	7.25	3.86	48	3.89	3.89	FALSE	FALSE
MH-3	1	3.71	-2.82	48	-2.72	-2.72	FALSE	FALSE
MH-4	1	3.41	-2.09	48	-2.06	-2.06	FALSE	FALSE
MH-504	1	6.15	0.85	48	0.87	0.87	FALSE	FALSE
MH-505	1	5.85	-1	48	-0.96	-0.96	FALSE	FALSE
MH-511	1	6	-1.3	48	-1.25	-1.25	FALSE	FALSE
MH-512	1	6	-1.69	48	-1.63	-1.63	FALSE	FALSE
MH-513	1	6.25	-1.97	48	-1.91	-1.91	FALSE	FALSE
MH-514	1	6.75	-2.31	48	-1.97	-1.97	FALSE	FALSE
MH-515	1	6.15	-0.68	48	-0.63	-0.63	FALSE	FALSE
MH-516	1	7.25	0.82	48	0.87	0.87	FALSE	FALSE
MH-517	1	5.95	1.95	48	1.99	1.99	FALSE	FALSE
MH-518	1	5.95	2.51	48	2.54	2.54	FALSE	FALSE
MH-519	1	3.85	0.38	48	0.42	0.42	FALSE	FALSE
MH-520	1	3.35	1.9	48	1.93	1.93	FALSE	FALSE
MH-521	1	4	0.73	48	0.76	0.76	FALSE	FALSE
MH-522	1	3.25	-0.92	48	-0.87	-0.87	FALSE	FALSE
MH-523	1	7	-2.62	48	-2.44	-2.44	FALSE	FALSE
MH-524	1	6.25	-2.93	48	-2.59	-2.59	FALSE	FALSE
MH-525	1	6.55	-1.81	48	-1.72	-1.72	FALSE	FALSE
MH-526	1	6.65	2.63	48	2.67	2.67	FALSE	FALSE
MH-528	1	6.75	-0.53	48	-0.47	-0.47	FALSE	FALSE
MH-529	1	6.05	0.33	48	0.38	0.38	FALSE	FALSE
MH-530	1	5.65	1.27	48	1.31	1.31	FALSE	FALSE
MH-532	1	5.15	1.79	48	1.82	1.82	FALSE	FALSE
MH-533	1	4.25	-3.37	48	-3.08	-3.08	FALSE	FALSE
MH-534	1	4.05	-3.52	48	-3.22	-3.22	FALSE	FALSE
MH-536	1	3.75	-3.64	48	-3.35	-3.35	FALSE	FALSE
MH-537	1	3.75	-3.76	48	-3.45	-3.45	FALSE	FALSE
MH-537A	1	3.75	-3.87	48	-3.56	-3.56	FALSE	FALSE
MH-538	1	3.95	-1.95	48	-1.88	-1.88	FALSE	FALSE
MH-541	1	4	-0.79	48	-0.74	-0.74	FALSE	FALSE
MH-542	1	5.65	-0.23	48	-0.18	-0.18	FALSE	FALSE
MH-543	1	3.75	-4.03	48	-3.59	-3.59	FALSE	FALSE
MH-544	1	3.75	-1.67	48	-1.63	-1.63	FALSE	FALSE
MH-545	1	4	-0.02	48	0.01	0.01	FALSE	FALSE
MH-546	1	3.75	-4.45	48	-3.78	-3.78	TRUE	FALSE
MH-547	1	4	-2.33	48	-2.28	-2.28	FALSE	FALSE
MH-548	1	4.25	-2.18	48	-2.13	-2.13	FALSE	FALSE
MH-549	1	3.65	-1.2	48	-1.17	-1.17	FALSE	FALSE
MH-550	1	3.75	-4.32	48	-3.99	-3.99	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-551	1	4.25	-2.63	48	-2.58	-2.58	FALSE	FALSE
MH-552	1	3.75	-1.61	48	-1.57	-1.57	FALSE	FALSE
MH-553	1	3.55	-0.57	48	-0.54	-0.54	FALSE	FALSE
MH-554	1	4.25	-1.5	48	-1.45	-1.45	FALSE	FALSE
MH-555	1	4.55	-0.58	48	-0.54	-0.54	FALSE	FALSE
MH-556	1	4.25	-4.54	48	-4.2	-4.2	FALSE	FALSE
MH-557	1	3.65	-2.47	48	-2.43	-2.43	FALSE	FALSE
MH-558	1	3.95	-0.99	48	-0.96	-0.96	FALSE	FALSE
MH-559	1	4.75	-1.7	48	-1.65	-1.65	FALSE	FALSE
MH-560	1	4.75	-0.76	48	-0.72	-0.72	FALSE	FALSE
MH-562	1	4.75	-2.63	48	-2.59	-2.59	FALSE	FALSE
MH-563	1	4.75	-1.51	48	-1.48	-1.48	FALSE	FALSE
MH-565	1	4.25	-1.45	48	-1.4	-1.4	FALSE	FALSE
MH-566	1	4.25	0.14	48	0.2	0.2	FALSE	FALSE
MH-567	1	5.25	0.52	48	0.58	0.58	FALSE	FALSE
MH-568	1	6	1.52	48	1.56	1.56	FALSE	FALSE
MH-650A	1	4.75	-4.9	48	-4.53	-4.53	FALSE	FALSE
MH-653	1	3	-5.08	48	-4.61	-4.61	FALSE	FALSE
MH-654	1	4.5	-0.01	48	0.03	0.03	FALSE	FALSE
MH-655	1	4.5	0.89	48	0.92	0.92	FALSE	FALSE
MH-6565	1	4.25	-3.53	48	-3.48	-3.48	FALSE	FALSE
MH-657	1	5.65	-2.56	48	-2.26	-2.26	FALSE	FALSE
MH-658	1	4.25	-2.17	48	-1.87	-1.87	FALSE	FALSE
MH-659	1	3.25	-1.24	48	-0.96	-0.96	FALSE	FALSE
MH-660A	1	4.25	-0.65	48	-0.38	-0.38	FALSE	FALSE
MH-661	1	2.65	-5.2	48	-4.68	-4.68	FALSE	FALSE
MH-662	1	2.75	-5.26	48	-4.74	-4.74	FALSE	FALSE
MH-663	1	4.75	0.7	48	0.72	0.72	FALSE	FALSE
MH-664	1	3.5	-5.35	48	-4.82	-4.82	TRUE	FALSE
MH-666	1	4.25	-2.97	48	-2.93	-2.93	FALSE	FALSE
MH-667	1	4.25	-2.73	48	-2.7	-2.7	FALSE	FALSE
MH-669	1	3.65	-3.42	48	-3.38	-3.38	FALSE	FALSE
MH-669A	1	3.71	-1.86	48	-1.82	-1.82	FALSE	FALSE
MH-672	1	3	-2.49	48	0.02	0.02	FALSE	FALSE
MH-673	1	2.5	-5.52	48	-4.98	-4.98	FALSE	FALSE
MH-674	1	2.95	-3.59	48	-3.56	-3.56	FALSE	FALSE
MH-676	1	12.24	-0.55	48	-0.52	-0.52	FALSE	FALSE
MH-676A	1	3.74	-1.7	48	-1.66	-1.66	FALSE	FALSE
MH-677	1	2.25	-5.74	48	-5.19	-5.19	FALSE	FALSE
MH-678	1	3.05	-3.81	48	-3.74	-3.74	FALSE	FALSE
MH-679	1	2.75	-2.82	48	-2.76	-2.76	FALSE	FALSE
MH-679B	1	3.71	-2.09	48	-2.06	-2.06	FALSE	FALSE
MH-680	1	3.38	-2.72	48	-2.67	-2.67	FALSE	FALSE
MH-681	1	3.38	-1.8	48	-1.76	-1.76	FALSE	FALSE
MH-682	1	3.38	-0.49	48	-0.46	-0.46	FALSE	FALSE
MH-683	1	2.75	-5.93	48	-5.36	-5.36	FALSE	FALSE
MH-684	1	2.75	-4	48	-3.92	-3.92	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-685	1	3.71	-3.8	48	-2.72	-2.72	TRUE	FALSE
MH-686	1	3.22	-1.94	48	-1.9	-1.9	FALSE	FALSE
MH-687	1	3.25	-0.64	48	-0.61	-0.61	FALSE	FALSE
MH-688	1	2.85	-6.11	48	-5.55	-5.55	FALSE	FALSE
MH-691	1	3.71	-2.59	48	-2.55	-2.55	FALSE	FALSE
MH-692	1	3.25	-1.07	48	-1.03	-1.03	FALSE	FALSE
MH-693	1	3.15	-0.39	48	-0.36	-0.36	FALSE	FALSE
MH-694	1	3.15	-6.31	48	-5.74	-5.74	FALSE	FALSE
MH-695	1	3.75	-4.66	48	-4.58	-4.58	FALSE	FALSE
MH-696	1	2.75	-3.96	48	-3.71	-3.71	FALSE	FALSE
MH-697	1	3.71	-2.85	48	-2.46	-2.46	FALSE	FALSE
MH-697A	1	2.75	-2.79	48	-2.46	-2.46	FALSE	FALSE
MH-698	1	2.75	-2.07	48	-2.03	-2.03	FALSE	FALSE
MH-699	1	2.75	-0.9	48	-0.87	-0.87	FALSE	FALSE
MH-700	1	2.75	-2.49	48	-2.45	-2.45	FALSE	FALSE
MH-701	1	2.75	-1.29	48	-1.26	-1.26	FALSE	FALSE
MH-702	1	3.25	-6.46	48	-5.86	-5.86	FALSE	FALSE
MH-703	1	2.65	-3.86	48	-3.64	-3.64	FALSE	FALSE
MH-704	1	2.55	-3.19	48	-2.92	-2.92	FALSE	FALSE
MH-706	1	3.35	-6.6	48	-6	-6	FALSE	FALSE
MH-707	1	2.95	-1.13	48	-1.1	-1.1	FALSE	FALSE
MH-708	1	2.75	-6.93	48	-6.33	-6.33	FALSE	FALSE
MH-709	1	2.75	-5.14	48	-5.07	-5.07	FALSE	FALSE
MH-710	1	2.55	-4.44	48	-4.38	-4.38	FALSE	FALSE
MH-711	1	2.95	-3.99	48	-3.93	-3.93	FALSE	FALSE
MH-712	1	2.75	-2.45	48	-2.41	-2.41	FALSE	FALSE
MH-713	1	2.35	-1.32	48	-1.29	-1.29	FALSE	FALSE
MH-731	1	2.75	-1.29	48	-1.26	-1.26	FALSE	FALSE
MH-738	1	2.75	-7.09	48	-6.48	-6.48	FALSE	FALSE
MH-739	1	3.62	-7.21	48	-6.65	-6.65	FALSE	FALSE
MH-740	1	3.27	-7.23	48	-6.76	-6.76	FALSE	FALSE
MH-740A	1	3.22	-7.18	48	-6.99	-6.99	FALSE	FALSE
MH-741A	1	2.25	-6.12	48	-5.97	-5.97	FALSE	FALSE
MH-744	1	2.25	-5.61	48	-5.33	-5.33	FALSE	FALSE
MH-744B	1	3.25	-5.01	48	-3.8	-3.8	TRUE	FALSE
MH-746	1	3.25	-0.82	48	-0.79	-0.79	FALSE	FALSE
MH-747	1	2	-4.14	48	-3.8	-3.8	FALSE	FALSE
MH-748	1	3.25	-2.92	48	-2.87	-2.87	FALSE	FALSE
MH-749	1	3.35	-1.81	48	-1.77	-1.77	FALSE	FALSE
MH-750	1	3.25	-0.7	48	-0.67	-0.67	FALSE	FALSE
MH-751	1	2.75	-3.43	48	-3.37	-3.37	FALSE	FALSE
MH-752	1	2.75	-3.14	48	-3.09	-3.09	FALSE	FALSE
MH-753	1	3.25	-0.57	48	-0.53	-0.53	FALSE	FALSE
MH-754	1	3.25	-2.34	48	-2.3	-2.3	FALSE	FALSE
MH-755	1	2.25	-5.1	48	-4.83	-4.83	FALSE	FALSE
MH-756	1	3.25	-2.22	48	-2.18	-2.18	FALSE	FALSE
MH-757	1	3.05	-0.95	48	-0.92	-0.92	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-758	1	1.3	-4.09	48	-3.83	-3.83	FALSE	FALSE
MH-759	1	3.55	-1.63	48	-1.59	-1.59	FALSE	FALSE
MH-760	1	3.55	-0.55	48	-0.52	-0.52	FALSE	FALSE
MH-761	1	2.25	-3.55	48	-3.25	-3.25	FALSE	FALSE
MH-763	1	3.25	-2.05	48	-1.22	-1.22	TRUE	FALSE
MH-765	1	3.25	-2.82	48	-2.5	-2.5	FALSE	FALSE
MH-783	1	2.75	-1.98	48	-1.22	-1.22	FALSE	FALSE
MH-784	1	2.35	-2.03	48	-2	-2	FALSE	FALSE
MH-785	1	6.5	2.49	48	2.52	2.52	FALSE	FALSE
MH-890	1	4.25	-0.24	48	-0.2	-0.2	FALSE	FALSE
MH-891	1	5.75	-3.08	48	-2.78	-2.78	FALSE	FALSE
MH-893	1	2.25	-0.38	48	-0.33	-0.33	FALSE	FALSE
PS 1 WET WELL	1	5.37	-7.28	121	-7.08	-7.08	FALSE	FALSE
CO-71	2	3.75	0.83	48	0.85	0.85	FALSE	FALSE
MH-12	2	4.92	-8.51	48	-8.17	-8.17	FALSE	FALSE
MH-13	2	4.66	-6.32	48	-6.22	-6.22	FALSE	FALSE
MH-252	2	4.25	-0.35	48	-0.33	-0.33	FALSE	FALSE
MH-253	2	4.25	-1.5	48	-1.47	-1.47	FALSE	FALSE
MH-254	2	4.25	-1.89	48	-1.85	-1.85	FALSE	FALSE
MH-255	2	4.35	-2.38	48	-2.33	-2.33	FALSE	FALSE
MH-256	2	3.75	-2.64	48	-2.54	-2.54	FALSE	FALSE
MH-258	2	3.75	-2.88	48	-2.74	-2.74	FALSE	FALSE
MH-259	2	3.75	-3.13	48	-2.96	-2.96	FALSE	FALSE
MH-260	2	3.95	-3.39	48	-3.2	-3.2	FALSE	FALSE
MH-261	2	4.25	-3.64	48	-3.43	-3.43	FALSE	FALSE
MH-262	2	4.35	-3.89	48	-3.66	-3.66	FALSE	FALSE
MH-263	2	4.15	-4.16	48	-3.71	-3.71	FALSE	FALSE
MH-264	2	2.75	-1.99	48	-1.71	-1.71	FALSE	FALSE
MH-362	2	4.5	-0.69	48	-0.6	-0.6	FALSE	FALSE
MH-363	2	3.75	-3.68	48	-3.52	-3.52	FALSE	FALSE
MH-364	2	3.75	-2.13	48	-2.01	-2.01	FALSE	FALSE
MH-365	2	3.75	-0.7	48	-0.62	-0.62	FALSE	FALSE
MH-366	2	3.75	-4.32	48	-3.83	-3.83	FALSE	FALSE
MH-367	2	4	-4.29	48	-3.83	-3.83	FALSE	FALSE
MH-368	2	4	-4.36	48	-3.84	-3.84	FALSE	FALSE
MH-369	2	3.25	-3.07	48	-3.01	-3.01	FALSE	FALSE
MH-370	2	2.75	-2.41	48	-2.36	-2.36	FALSE	FALSE
MH-371	2	3	-2.11	48	-2.06	-2.06	FALSE	FALSE
MH-372	2	3.25	-0.78	48	-0.75	-0.75	FALSE	FALSE
MH-373	2	3.75	0.14	48	0.17	0.17	FALSE	FALSE
MH-374	2	3	-2.34	48	-2.31	-2.31	FALSE	FALSE
MH-375	2	2.5	-0.87	48	-0.85	-0.85	FALSE	FALSE
MH-378	2	3.5	-4.57	48	-4.05	-4.05	FALSE	FALSE
MH-379	2	3.05	-4.75	48	-4.18	-4.18	FALSE	FALSE
MH-380	2	3.15	-3.4	48	-3.22	-3.22	FALSE	FALSE
MH-381	2	3.55	-2.46	48	-2.32	-2.32	FALSE	FALSE
MH-382	2	3.55	-1.52	48	-1.42	-1.42	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-383	2	3.75	-0.58	48	-0.53	-0.53	FALSE	FALSE
MH-384	2	4.25	0.36	48	0.39	0.39	FALSE	FALSE
MH-385	2	4.95	0.85	48	0.88	0.88	FALSE	FALSE
MH-386	2	5.75	1.42	48	1.44	1.44	FALSE	FALSE
MH-405	2	2.75	-5	48	-4.43	-4.43	FALSE	FALSE
MH-406	2	3.35	-5.26	48	-4.67	-4.67	FALSE	FALSE
MH-407	2	4.25	-5.48	48	-4.89	-4.89	FALSE	FALSE
MH-408	2	4.35	-5.72	48	-5.12	-5.12	TRUE	FALSE
MH-410	2	2.75	-1.29	48	-1.28	-1.28	FALSE	FALSE
MH-411	2	4.25	-4.87	48	-4.63	-4.63	FALSE	FALSE
MH-412	2	4.05	-3.31	48	-3.17	-3.17	FALSE	FALSE
MH-413	2	3.55	-2.31	48	-2.19	-2.19	FALSE	FALSE
MH-414	2	3.05	-0.71	48	-0.63	-0.63	FALSE	FALSE
MH-415	2	5.15	-4.23	48	-4.04	-4.04	FALSE	FALSE
MH-416	2	5.45	0.95	48	0.97	0.97	FALSE	FALSE
MH-417	2	5.5	-3.14	48	-2.97	-2.97	FALSE	FALSE
MH-418	2	4.25	0.35	48	0.37	0.37	FALSE	FALSE
MH-419	2	4.75	-2.1	48	-1.96	-1.96	FALSE	FALSE
MH-420	2	4.5	0.54	48	0.56	0.56	FALSE	FALSE
MH-421	2	5.25	-0.98	48	-0.86	-0.86	FALSE	FALSE
MH-422	2	5.75	0.02	48	0.1	0.1	FALSE	FALSE
MH-423	2	4.35	-5.94	48	-5.32	-5.32	TRUE	FALSE
MH-425	2	3.25	-1.15	48	-1.1	-1.1	FALSE	FALSE
MH-426	2	4.35	-6.13	48	-5.5	-5.5	FALSE	FALSE
MH-427	2	4.75	-3.36	48	-3.32	-3.32	FALSE	FALSE
MH-428	2	4.25	-2.21	48	-2.18	-2.18	FALSE	FALSE
MH-429	2	4.25	-1.28	48	-1.25	-1.25	FALSE	FALSE
MH-430	2	3.75	-0.3	48	-0.28	-0.28	FALSE	FALSE
MH-431	2	4.5	-6.32	48	-5.68	-5.68	FALSE	FALSE
MH-432	2	5	-6.56	48	-5.91	-5.91	FALSE	FALSE
MH-433	2	5.25	-6.64	48	-5.98	-5.98	FALSE	FALSE
MH-434	2	5.5	-6.89	48	-6.23	-6.23	FALSE	FALSE
MH-435	2	5.75	-7.25	48	-6.73	-6.73	FALSE	FALSE
MH-436	2	5.55	-2.3	48	-2.13	-2.13	FALSE	FALSE
MH-437	2	4.75	-0.95	48	-0.83	-0.83	FALSE	FALSE
MH-438	2	5.25	0.25	48	0.33	0.33	FALSE	FALSE
MH-439	2	6.65	-0.55	48	-0.43	-0.43	FALSE	FALSE
MH-440	2	6.95	1.05	48	1.13	1.13	FALSE	FALSE
MH-441	2	4.75	-7.51	48	-7.2	-7.2	FALSE	FALSE
MH-442	2	3.65	-5.72	48	-5.53	-5.53	FALSE	FALSE
MH-443	2	4	-4.96	48	-4.78	-4.78	FALSE	FALSE
MH-444	2	3.95	-1.81	48	-1.78	-1.78	FALSE	FALSE
MH-445	2	3.65	-0.62	48	-0.6	-0.6	FALSE	FALSE
MH-446	2	3.95	-3.76	48	-3.56	-3.56	FALSE	FALSE
MH-447	2	3.55	-2.56	48	-2.35	-2.35	FALSE	FALSE
MH-450	2	3.55	-0.96	48	-0.94	-0.94	FALSE	FALSE
MH-461	2	6.25	-5.79	48	-5.5	-5.5	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-462	2	7.35	-4.91	48	-4.63	-4.63	FALSE	FALSE
MH-463	2	6.75	-4.63	48	-4.37	-4.37	FALSE	FALSE
MH-464	2	5	-1.36	48	-1.33	-1.33	FALSE	FALSE
MH-465	2	4	-0.31	48	-0.29	-0.29	FALSE	FALSE
MH-466	2	6.25	-4	48	-3.76	-3.76	FALSE	FALSE
MH-468	2	5.25	0.61	48	0.62	0.62	FALSE	FALSE
MH-469	2	3.75	-0.49	48	-0.47	-0.47	FALSE	FALSE
MH-470	2	3.95	0.35	48	0.37	0.37	FALSE	FALSE
MH-474	2	3.55	-1.82	48	-1.6	-1.6	FALSE	FALSE
MH-475	2	3.25	-0.98	48	-0.76	-0.76	FALSE	FALSE
MH-476	2	3.25	-0.33	48	-0.31	-0.31	FALSE	FALSE
MH-477	2	3.55	-0.17	48	-0.15	-0.15	FALSE	FALSE
MH-478	2	3.25	0.17	48	0.37	0.37	FALSE	FALSE
MH-501	2	6	-3.69	48	-3.48	-3.48	FALSE	FALSE
MH-502	2	6	-0.15	48	-0.07	-0.07	FALSE	FALSE
MH-503	2	6.15	-2.77	48	-2.57	-2.57	FALSE	FALSE
MH-507	2	6	-2.38	48	-2.2	-2.2	FALSE	FALSE
MH-508	2	5.75	-1.48	48	-1.33	-1.33	FALSE	FALSE
MH-509	2	6	-1.07	48	-0.95	-0.95	FALSE	FALSE
MH-510	2	6.05	-0.33	48	-0.24	-0.24	FALSE	FALSE
MH-876	2	3.25	-2.66	48	-2.43	-2.43	FALSE	FALSE
CO-49	3	3.95	0.85	48	0.88	0.88	FALSE	FALSE
CO-50	3	4.75	0.85	48	0.88	0.88	FALSE	FALSE
CO-51	3	3.25	-0.21	48	-0.18	-0.18	FALSE	FALSE
CO-52	3	3.25	-0.38	48	-0.35	-0.35	FALSE	FALSE
CO-53	3	3.75	0.25	48	0.28	0.28	FALSE	FALSE
CO-54	3	4.5	0.92	48	0.95	0.95	FALSE	FALSE
CO-55	3	3.75	-0.5	48	-0.47	-0.47	FALSE	FALSE
CO-56	3	3	-0.75	48	-0.71	-0.71	FALSE	FALSE
CO-57	3	4.25	0.15	48	0.18	0.18	FALSE	FALSE
CO-58	3	2.85	-0.64	48	-0.61	-0.61	FALSE	FALSE
CO-59	3	3.55	-0.45	48	-0.42	-0.42	FALSE	FALSE
CO-60	3	5.25	1.47	48	1.5	1.5	FALSE	FALSE
CO-61	3	4.25	-0.21	48	-0.19	-0.19	FALSE	FALSE
CO-62	3	4.25	2.35	48	2.37	2.37	FALSE	FALSE
CO-63	3	2.25	-0.75	48	-0.72	-0.72	FALSE	FALSE
CO-64	3	4.25	0.31	48	0.34	0.34	FALSE	FALSE
CO-65	3	2.75	-0.38	48	-0.35	-0.35	FALSE	FALSE
CO-66	3	2.65	-0.43	48	-0.4	-0.4	FALSE	FALSE
MH-166	3	3.25	-1.78	48	-1.23	-1.23	FALSE	FALSE
MH-167	3	3.15	-2.02	48	-1.48	-1.48	FALSE	FALSE
MH-168	3	3.25	-1.12	48	-1.02	-1.02	FALSE	FALSE
MH-169	3	3.25	-0.52	48	-0.44	-0.44	FALSE	FALSE
MH-170	3	4.75	0.45	48	0.51	0.51	FALSE	FALSE
MH-171	3	3.25	-0.68	48	-0.63	-0.63	FALSE	FALSE
MH-172	3	4	0.29	48	0.32	0.32	FALSE	FALSE
MH-173	3	3	-2.12	48	-1.59	-1.59	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-174	3	3	-2.3	48	-1.79	-1.79	TRUE	FALSE
MH-175	3	2.75	-1.11	48	-1.03	-1.03	FALSE	FALSE
MH-176	3	4.75	0.07	48	0.14	0.14	FALSE	FALSE
MH-177	3	4.5	1.5	48	1.53	1.53	FALSE	FALSE
MH-178	3	5	0.45	48	0.5	0.5	FALSE	FALSE
MH-179	3	4.75	0.91	48	0.94	0.94	FALSE	FALSE
MH-180	3	3.15	-2.62	48	-2.12	-2.12	FALSE	FALSE
MH-181	3	2.85	-2.93	48	-2.44	-2.44	FALSE	FALSE
MH-182	3	2.35	-3.25	48	-2.75	-2.75	FALSE	FALSE
MH-183	3	2.95	-3.58	48	-3.07	-3.07	FALSE	FALSE
MH-184	3	4.25	-1.55	48	-1.47	-1.47	FALSE	FALSE
MH-185	3	3.25	-1.55	48	-1.09	-1.09	FALSE	FALSE
MH-186	3	2.5	-3.89	48	-3.38	-3.38	FALSE	FALSE
MH-187	3	3.15	-4.19	48	-3.68	-3.68	FALSE	FALSE
MH-188	3	3.15	-4.49	48	-3.97	-3.97	FALSE	FALSE
MH-190	3	3	-3.44	48	-3.36	-3.36	FALSE	FALSE
MH-191	3	3.25	-2.37	48	-2.32	-2.32	FALSE	FALSE
MH-192	3	2.75	-1.36	48	-1.33	-1.33	FALSE	FALSE
MH-193	3	3	-1.64	48	-1.59	-1.59	FALSE	FALSE
MH-194	3	1.95	-0.65	48	-0.62	-0.62	FALSE	FALSE
MH-195	3	3.35	-4.9	48	-4.37	-4.37	FALSE	FALSE
MH-196	3	3.35	-5.43	48	-4.88	-4.88	FALSE	FALSE
MH-197	3	3.15	-1.42	48	-1.33	-1.33	FALSE	FALSE
MH-198	3	3	-1.31	48	-1.23	-1.23	FALSE	FALSE
MH-199	3	3.25	-0.92	48	-0.85	-0.85	FALSE	FALSE
MH-200	3	4.5	0.44	48	0.48	0.48	FALSE	FALSE
MH-201	3	3.75	-5.75	48	-5.19	-5.19	TRUE	FALSE
MH-202	3	3.35	-5.9	48	-5.32	-5.32	FALSE	FALSE
MH-203	3	3.5	-1.27	48	-1.22	-1.22	FALSE	FALSE
MH-204	3	3.5	-6.08	48	-5.5	-5.5	FALSE	FALSE
MH-205	3	3.25	-1.75	48	-1.68	-1.68	FALSE	FALSE
MH-206	3	3.55	-0.82	48	-0.76	-0.76	FALSE	FALSE
MH-207	3	4.5	0.28	48	0.32	0.32	FALSE	FALSE
MH-208	3	4.75	1.16	48	1.19	1.19	FALSE	FALSE
MH-209	3	2	-6.3	48	-5.72	-5.72	FALSE	FALSE
MH-210	3	1.75	-6.6	48	-6.02	-6.02	FALSE	FALSE
MH-211	3	2	-6.74	48	-6.15	-6.15	FALSE	FALSE
MH-212	3	2.55	-6.94	48	-6.34	-6.34	FALSE	FALSE
MH-213	3	2.25	-7.02	48	-6.41	-6.41	FALSE	FALSE
MH-214	3	2.25	-7.08	48	-6.48	-6.48	FALSE	FALSE
MH-215	3	2.65	-7.18	48	-6.57	-6.57	FALSE	FALSE
MH-216	3	1.75	-7.55	48	-6.94	-6.94	FALSE	FALSE
MH-217	3	2.05	-7.7	48	-7.16	-7.16	FALSE	FALSE
MH-219	3	2	-4.89	48	-4.78	-4.78	FALSE	FALSE
MH-220	3	2.25	-4.38	48	-4.31	-4.31	FALSE	FALSE
MH-221	3	2.75	-3.24	48	-3.18	-3.18	FALSE	FALSE
MH-222	3	2.25	-1.87	48	-1.82	-1.82	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-223	3	3	-0.5	48	-0.47	-0.47	FALSE	FALSE
MH-224	3	1.75	-4.39	48	-4.32	-4.32	FALSE	FALSE
MH-225	3	2.75	-3.31	48	-3.25	-3.25	FALSE	FALSE
MH-226	3	2.75	-2.13	48	-2.08	-2.08	FALSE	FALSE
MH-227	3	2.25	-4.14	48	-4.04	-4.04	FALSE	FALSE
MH-228	3	3	-3.79	48	-3.7	-3.7	FALSE	FALSE
MH-229	3	2.75	-3.45	48	-3.36	-3.36	FALSE	FALSE
MH-230	3	2.55	-2.7	48	-2.62	-2.62	FALSE	FALSE
MH-231	3	2.25	-1.93	48	-1.86	-1.86	FALSE	FALSE
MH-232	3	2.75	-1.37	48	-1.3	-1.3	FALSE	FALSE
MH-233	3	3	-1.05	48	-0.99	-0.99	FALSE	FALSE
MH-234	3	3.25	-0.55	48	-0.5	-0.5	FALSE	FALSE
MH-235	3	3.25	-6.85	48	-6.72	-6.72	FALSE	FALSE
MH-236	3	3.5	-6.45	48	-6.33	-6.33	FALSE	FALSE
MH-237	3	3.05	-3.58	48	-3.49	-3.49	FALSE	FALSE
MH-238	3	3.25	-2.98	48	-2.89	-2.89	FALSE	FALSE
MH-239	3	2.5	-2.14	48	-2.06	-2.06	FALSE	FALSE
MH-240	3	2.5	-1.61	48	-1.54	-1.54	FALSE	FALSE
MH-241	3	2.95	-1.28	48	-1.21	-1.21	FALSE	FALSE
MH-242	3	3	-0.91	48	-0.85	-0.85	FALSE	FALSE
MH-243	3	3.15	-0.55	48	-0.5	-0.5	FALSE	FALSE
MH-245	3	2.65	-5.53	48	-5.47	-5.47	FALSE	FALSE
MH-246	3	3.25	-4.59	48	-4.19	-4.19	FALSE	FALSE
MH-246A	3	3.3	-4.03	48	-3.99	-3.99	FALSE	FALSE
MH247	3	3	-5.12	48	-4.84	-4.84	FALSE	FALSE
MH-248	3	3	-4.88	48	-4.61	-4.61	FALSE	FALSE
MH-249	3	1.75	-4.02	48	-3.74	-3.74	FALSE	FALSE
MH-250	3	2.25	-3.28	48	-3.02	-3.02	FALSE	FALSE
MH-251	3	1.5	-1.79	48	-1.52	-1.52	FALSE	FALSE
MH-868	3	2.75	-7.8	48	-7.29	-7.29	FALSE	FALSE
MH-869	3	3.46	-6.22	48	-5.92	-5.92	FALSE	FALSE
CO-22	4	4.15	0.96	48	0.99	0.99	FALSE	FALSE
CO-23	4	4.25	0.93	48	0.96	0.96	FALSE	FALSE
CO-24	4	3.25	-0.36	48	-0.33	-0.33	FALSE	FALSE
CO-25	4	3.25	0.81	48	0.85	0.85	FALSE	FALSE
CO-26	4	4.25	0.95	48	0.98	0.98	FALSE	FALSE
CO-27	4	2.75	-0.07	48	-0.04	-0.04	FALSE	FALSE
CO-28	4	2.75	-0.54	48	-0.51	-0.51	FALSE	FALSE
CO-29	4	3	-0.53	48	-0.5	-0.5	FALSE	FALSE
CO-30	4	2.85	-1.49	48	-1.46	-1.46	FALSE	FALSE
CO-31	4	3.25	-0.52	48	-0.49	-0.49	FALSE	FALSE
CO-32	4	2.75	-0.53	48	-0.5	-0.5	FALSE	FALSE
CO-33	4	2.65	-1.39	48	-1.36	-1.36	FALSE	FALSE
CO-34	4	3.5	-0.3	48	-0.27	-0.27	FALSE	FALSE
CO-35	4	3.25	-0.27	48	-0.24	-0.24	FALSE	FALSE
CO-36	4	2.75	-1.33	48	-1.3	-1.3	FALSE	FALSE
CO-37	4	3.35	-0.12	48	-0.09	-0.09	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
CO-38	4	3.75	-0.13	48	-0.1	-0.1	FALSE	FALSE
CO-39	4	2.75	-1.07	48	-1.04	-1.04	FALSE	FALSE
CO-40	4	3.85	-0.19	48	-0.16	-0.16	FALSE	FALSE
CO-41	4	3.75	-0.13	48	-0.1	-0.1	FALSE	FALSE
CO-42	4	2.75	-1.05	48	-1.02	-1.02	FALSE	FALSE
CO-43	4	3.85	0.19	48	0.23	0.23	FALSE	FALSE
CO-44	4	3.95	0.23	48	0.26	0.26	FALSE	FALSE
CO-45	4	2.75	-0.91	48	-0.88	-0.88	FALSE	FALSE
CO-46	4	4	0.06	48	0.09	0.09	FALSE	FALSE
CO-47	4	4	0.1	48	0.13	0.13	FALSE	FALSE
CO-48	4	2.75	-0.95	48	-0.92	-0.92	FALSE	FALSE
MH-41	4	2.85	-1.6	48	-1.57	-1.57	FALSE	FALSE
MH-42	4	2.75	-2.1	48	-1.91	-1.91	FALSE	FALSE
MH-43	4	3.25	-1.39	48	-1.28	-1.28	FALSE	FALSE
MH-44	4	3.75	-0.76	48	-0.69	-0.69	FALSE	FALSE
MH-45	4	3.15	0.56	48	0.61	0.61	FALSE	FALSE
MH-46	4	3.25	-1.11	48	-1.03	-1.03	FALSE	FALSE
MH-47	4	3.25	-0.48	48	-0.41	-0.41	FALSE	FALSE
MH-48	4	4.25	0.53	48	0.58	0.58	FALSE	FALSE
MH-49	4	2.85	-2.51	48	-2.3	-2.3	FALSE	FALSE
MH-50	4	3	-2.89	48	-2.67	-2.67	FALSE	FALSE
MH-51	4	2.25	-3.61	48	-2.75	-2.75	TRUE	FALSE
MH-52	4	2.65	-2.44	48	-2.34	-2.34	FALSE	FALSE
MH-53	4	3	-5.46	48	-5.16	-5.16	FALSE	FALSE
MH-54	4	2.75	-0.92	48	-0.87	-0.87	FALSE	FALSE
MH-55	4	2.5	-1.81	48	-1.74	-1.74	FALSE	FALSE
MH-56	4	3.25	-0.89	48	-0.84	-0.84	FALSE	FALSE
MH-58	4	2.75	-4.88	48	-4.58	-4.58	FALSE	FALSE
MH-59	4	2.5	-2.2	48	-2.12	-2.12	FALSE	FALSE
MH-60	4	2.25	-1.61	48	-1.47	-1.47	FALSE	FALSE
MH-61	4	3.5	-0.61	48	-0.55	-0.55	FALSE	FALSE
MH-62	4	3	-1.13	48	-1.1	-1.1	FALSE	FALSE
MH-64	4	3.05	-6.04	48	-5.72	-5.72	FALSE	FALSE
MH-65	4	3.25	-2.01	48	-1.91	-1.91	FALSE	FALSE
MH-66	4	3.25	-1.37	48	-1.3	-1.3	FALSE	FALSE
MH-67	4	3.5	-0.43	48	-0.38	-0.38	FALSE	FALSE
MH-68	4	2.75	-1.39	48	-1.32	-1.32	FALSE	FALSE
MH-69	4	3.65	-0.45	48	-0.4	-0.4	FALSE	FALSE
MH-70	4	3.25	-6.63	48	-6.3	-6.3	FALSE	FALSE
MH-71	4	3.25	-7.2	48	-7.05	-7.05	FALSE	FALSE
MH-72	4	2.75	-1.77	48	-1.67	-1.67	FALSE	FALSE
MH-73	4	2.75	-1.14	48	-1.07	-1.07	FALSE	FALSE
MH-74	4	3.75	-0.17	48	-0.11	-0.11	FALSE	FALSE
MH-75	4	2.75	-1.19	48	-1.12	-1.12	FALSE	FALSE
MH-76	4	3.75	-0.24	48	-0.19	-0.19	FALSE	FALSE
MH-874	4	2	-4.19	48	-3.91	-3.91	FALSE	FALSE
MH-875	4	2.65	-1.84	48	-1.77	-1.77	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table

Peak Flow Scenario

Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-897	4	3.25	-1.79	48	-1.76	-1.76	FALSE	FALSE
CO-1	5	3.5	-0.48	48	-0.45	-0.45	FALSE	FALSE
CO-10	5	5.15	1.53	48	1.56	1.56	FALSE	FALSE
CO-11	5	5.5	1.51	48	1.54	1.54	FALSE	FALSE
CO-12	5	4.25	0.67	48	0.7	0.7	FALSE	FALSE
CO-13	5	5.25	1.45	48	1.48	1.48	FALSE	FALSE
CO-14	5	5.25	1.47	48	1.5	1.5	FALSE	FALSE
CO-15	5	4.5	0.95	48	0.98	0.98	FALSE	FALSE
CO-16	5	4.25	1.52	48	1.55	1.55	FALSE	FALSE
CO-17	5	5	1.51	48	1.54	1.54	FALSE	FALSE
CO-18	5	2.75	0.33	48	0.36	0.36	FALSE	FALSE
CO-19	5	4	0.18	48	0.21	0.21	FALSE	FALSE
CO-2	5	3	-0.7	48	-0.67	-0.67	FALSE	FALSE
CO-20	5	4.25	0.1	48	0.13	0.13	FALSE	FALSE
CO-21	5	2.75	-1.35	48	-1.32	-1.32	FALSE	FALSE
CO-3	5	2.75	-0.56	48	-0.53	-0.53	FALSE	FALSE
CO-4	5	2.75	-0.65	48	-0.62	-0.62	FALSE	FALSE
CO-5	5	3.25	-0.65	48	-0.62	-0.62	FALSE	FALSE
CO-6	5	3.85	0.44	48	0.47	0.47	FALSE	FALSE
CO-7	5	4.25	-0.28	48	-0.25	-0.25	FALSE	FALSE
CO-8	5	4.25	0.45	48	0.48	0.48	FALSE	FALSE
CO-9	5	4.5	0.47	48	0.5	0.5	FALSE	FALSE
MH-1	5	2.75	-1.13	48	-1.09	-1.09	FALSE	FALSE
MH-10	5	4.25	0.75	48	0.78	0.78	FALSE	FALSE
MH-11	5	2.75	-4.6	48	-4.48	-4.48	FALSE	FALSE
MH-12	5	3.25	-1.58	48	-1.52	-1.52	FALSE	FALSE
MH-13	5	4.25	-0.9	48	-0.84	-0.84	FALSE	FALSE
MH-14	5	3.85	0.07	48	0.11	0.11	FALSE	FALSE
MH-15	5	2.45	-5.1	48	-4.97	-4.97	FALSE	FALSE
MH-16	5	2.3	-5.2	48	-5.07	-5.07	FALSE	FALSE
MH-17	5	2.5	-5.98	48	-5.85	-5.85	FALSE	FALSE
MH-18	5	2.75	-6.5	48	-6.35	-6.35	FALSE	FALSE
MH-19	5	4.25	-0.19	48	-0.12	-0.12	FALSE	FALSE
MH-2	5	2.25	-1.46	48	-1.4	-1.4	FALSE	FALSE
MH-20	5	4.75	0.55	48	0.58	0.58	FALSE	FALSE
MH-21	5	4.25	0.47	48	0.53	0.53	FALSE	FALSE
MH-22	5	5.25	1.17	48	1.22	1.22	FALSE	FALSE
MH-23	5	2.75	-6.7	48	-6.62	-6.62	FALSE	FALSE
MH-24	5	2.85	-5.84	48	-5.71	-5.71	FALSE	FALSE
MH-25	5	2.5	-4.75	48	-4.63	-4.63	FALSE	FALSE
MH-26	5	2.75	-0.78	48	-0.73	-0.73	FALSE	FALSE
MH-28	5	4.75	0.57	48	0.63	0.63	FALSE	FALSE
MH-29	5	5.25	1.01	48	1.05	1.05	FALSE	FALSE
MH-3	5	3	-0.94	48	-0.9	-0.9	FALSE	FALSE
MH-30	5	2.75	-0.09	48	-0.03	-0.03	FALSE	FALSE
MH-31	5	5.25	1.14	48	1.18	1.18	FALSE	FALSE
MH-33	5	3.05	-3.1	48	-3.02	-3.02	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-34	5	2.75	-2.41	48	-2.34	-2.34	FALSE	FALSE
MH-35	5	2.75	-1.75	48	-1.69	-1.69	FALSE	FALSE
MH-36	5	3.55	-0.26	48	-0.22	-0.22	FALSE	FALSE
MH-37	5	3.25	-0.4	48	-0.36	-0.36	FALSE	FALSE
MH-38	5	7.25	0.59	48	0.62	0.62	FALSE	FALSE
MH-39	5	7.75	2.7	48	2.72	2.72	FALSE	FALSE
MH-4	5	2.55	-2.09	48	-2.03	-2.03	FALSE	FALSE
MH-40	5	2.75	-1.15	48	-1.12	-1.12	FALSE	FALSE
MH-5	5	2.65	-2.35	48	-2.28	-2.28	FALSE	FALSE
MH-6	5	2.55	-2.85	48	-2.77	-2.77	FALSE	FALSE
MH-7	5	3.25	-1.05	48	-1.01	-1.01	FALSE	FALSE
MH-8	5	3	-3.93	48	-3.83	-3.83	FALSE	FALSE
MH-870	5	2.75	-3.65	48	-3.56	-3.56	FALSE	FALSE
MH-871	5	3.95	-0.05	48	0.01	0.01	FALSE	FALSE
MH-877	5	3.75	-0.29	48	-0.24	-0.24	FALSE	FALSE
MH-9	5	4	0.04	48	0.08	0.08	FALSE	FALSE
MH-791	6	6.25	-1.32	48	-1.22	-1.22	FALSE	FALSE
MH-792	6	7.75	-2.36	48	-2.25	-2.25	FALSE	FALSE
MH-793	6	4.85	1.59	48	1.64	1.64	FALSE	FALSE
MH-794	6	6	0.22	48	0.28	0.28	FALSE	FALSE
MH-795	6	6.65	-3.6	48	-3.43	-3.43	FALSE	FALSE
MH-796	6	5.75	-4.7	48	-4.51	-4.51	FALSE	FALSE
MH-797	6	7	1.44	48	1.48	1.48	FALSE	FALSE
MH-798	6	5.75	0.24	48	0.3	0.3	FALSE	FALSE
MH-799	6	5.75	-0.56	48	-0.48	-0.48	FALSE	FALSE
MH-800	6	5.75	-7.05	48	-6.91	-6.91	FALSE	FALSE
MH-801	6	5.5	1.64	48	1.69	1.69	FALSE	FALSE
MH-802	6	5.75	0.72	48	0.78	0.78	FALSE	FALSE
MH-803	6	5.5	0.42	48	0.5	0.5	FALSE	FALSE
MH-804	6	5.25	-0.54	48	-0.45	-0.45	FALSE	FALSE
MH-805	6	5.5	-2	48	-1.9	-1.9	FALSE	FALSE
MH-806	6	5.25	-3.04	48	-2.93	-2.93	FALSE	FALSE
MH-807	6	4.65	-4.06	48	-3.95	-3.95	FALSE	FALSE
MH-808	6	5.75	-6.42	48	-6.22	-6.22	FALSE	FALSE
MH-809	6	6.5	1.7	48	1.75	1.75	FALSE	FALSE
MH-810	6	5	0.58	48	0.64	0.64	FALSE	FALSE
MH-811	6	6.45	-0.82	48	-0.74	-0.74	FALSE	FALSE
MH-812	6	5.75	-1.81	48	-1.72	-1.72	FALSE	FALSE
MH-813	6	5.75	-3.15	48	-3.05	-3.05	FALSE	FALSE
MH-814	6	5.5	-3.96	48	-3.85	-3.85	FALSE	FALSE
MH-815	6	7.25	-5.45	48	-5.3	-5.3	FALSE	FALSE
MH-816	6	5.55	1.26	48	1.31	1.31	FALSE	FALSE
MH-816A	6	6.15	0.65	48	0.71	0.71	FALSE	FALSE
MH-817	6	6.05	-0.2	48	-0.12	-0.12	FALSE	FALSE
MH-818	6	5.95	-1.15	48	-1.06	-1.06	FALSE	FALSE
MH-873	6	7.75	-0.47	48	-0.36	-0.36	FALSE	FALSE
MH-878	6	6.05	-0.25	48	-0.19	-0.19	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-879	6	6	0.55	48	0.6	0.6	FALSE	FALSE
MH-880	6	6.85	0.5	48	0.59	0.59	FALSE	FALSE
MH-881	6	6.5	1.43	48	1.51	1.51	FALSE	FALSE
MH-882	6	6.25	1.82	48	1.88	1.88	FALSE	FALSE
MH-883	6	6.25	2.45	48	2.49	2.49	FALSE	FALSE
MH-884	6	7.25	-2.94	48	-2.78	-2.78	FALSE	FALSE
MH-885	6	9	3.09	48	3.15	3.15	FALSE	FALSE
MH-886	6	8.5	3.19	48	3.26	3.26	FALSE	FALSE
CO-68	7	2.75	-0.18	48	-0.13	-0.13	FALSE	FALSE
CO-69	7	3.95	0.26	48	0.31	0.31	FALSE	FALSE
CO-70	7	5.25	-2.06	48	-2.02	-2.02	FALSE	FALSE
MH-265	7	2.5	-6.89	48	-6.78	-6.78	TRUE	FALSE
MH-266	7	2.5	-6.16	48	-6.06	-6.06	TRUE	FALSE
MH-267	7	2.25	-5.44	48	-5.36	-5.36	FALSE	FALSE
MH-268	7	2.25	-4.73	48	-4.66	-4.66	FALSE	FALSE
MH-269	7	1.45	-4.15	48	-4.1	-4.1	FALSE	FALSE
MH-274	7	2.75	-7.05	48	-6.9	-6.9	TRUE	FALSE
MH-275	7	3.25	-6.91	48	-6.51	-6.51	TRUE	FALSE
MH-276	7	2.25	-6.65	48	-6.28	-6.28	TRUE	FALSE
MH-277	7	3.15	-2.89	48	-2.81	-2.81	FALSE	FALSE
MH-278	7	3.25	-1.54	48	-1.48	-1.48	FALSE	FALSE
MH-279	7	2.5	-6.37	48	-6.02	-6.02	TRUE	FALSE
MH-280	7	2.5	-6.13	48	-5.78	-5.78	TRUE	FALSE
MH-281	7	3.25	-2.22	48	-2.15	-2.15	FALSE	FALSE
MH-282	7	3.25	-0.98	48	-0.92	-0.92	FALSE	FALSE
MH-283	7	2.75	-5.9	48	-5.57	-5.57	TRUE	FALSE
MH-284	7	2.75	-5.65	48	-5.32	-5.32	FALSE	FALSE
MH-285	7	4.25	-3.69	48	-3.63	-3.63	FALSE	FALSE
MH-286	7	2.75	-5.4	48	-5.08	-5.08	FALSE	FALSE
MH-287	7	3.65	-3.73	48	-3.67	-3.67	FALSE	FALSE
MH-288	7	4.25	-2.25	48	-2.2	-2.2	FALSE	FALSE
MH-289	7	2	-4.75	48	-4.45	-4.45	FALSE	FALSE
MH-290	7	2.25	-3.91	48	-3.66	-3.66	FALSE	FALSE
MH-291	7	2.75	-2.6	48	-2.52	-2.52	FALSE	FALSE
MH-292	7	2.5	-1.58	48	-1.52	-1.52	FALSE	FALSE
MH-293	7	2.75	-0.67	48	-0.62	-0.62	FALSE	FALSE
MH-294	7	2.5	-3.31	48	-3.06	-3.06	FALSE	FALSE
MH-295	7	2.75	-1.81	48	-1.75	-1.75	FALSE	FALSE
MH-296	7	3.25	-0.8	48	-0.75	-0.75	FALSE	FALSE
MH-297	7	3.5	-0.26	48	-0.06	-0.06	FALSE	FALSE
MH-298	7	1.75	-3.64	48	-3.54	-3.54	FALSE	FALSE
MH-299	7	2.75	-3.64	48	-2.77	-2.77	FALSE	FALSE
MH-300	7	2.25	-2.2	48	-2.15	-2.15	FALSE	FALSE
MH-301	7	2.75	-2.02	48	-1.95	-1.95	FALSE	FALSE
MH-302	7	3.25	-0.39	48	-0.34	-0.34	FALSE	FALSE
MH-320	8	2.75	-1.64	48	-1.61	-1.61	FALSE	FALSE
MH-321	8	3.55	-2.74	48	-2.69	-2.69	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-322	8	3.25	-3.94	48	-3.9	-3.9	FALSE	FALSE
MH-323	8	3.25	-4.29	48	-4.2	-4.2	FALSE	FALSE
MH-324	8	2.75	-5.43	48	-5.34	-5.34	FALSE	FALSE
MH-325	8	3.25	-7.05	48	-6.84	-6.84	FALSE	FALSE
MH-326	8	3.25	-7.3	48	-7.21	-7.21	FALSE	FALSE
MH-333	8	2.75	-3.75	48	-3.68	-3.68	FALSE	FALSE
MH-334	8	3.25	-3.05	48	-2.99	-2.99	FALSE	FALSE
MH-335	8	3.25	-1.82	48	-1.78	-1.78	FALSE	FALSE
MH-336	8	3	-1.45	48	-1.41	-1.41	FALSE	FALSE
MH-337	8	4.25	-6.2	48	-6.11	-6.11	FALSE	FALSE
MH-338	8	4.25	-5.54	48	-5.45	-5.45	FALSE	FALSE
MH-339	8	4	-4.79	48	-4.71	-4.71	FALSE	FALSE
MH-340	8	3.75	-4.32	48	-4.24	-4.24	FALSE	FALSE
MH-341	8	3.25	-3.65	48	-3.58	-3.58	FALSE	FALSE
MH-342	8	2.5	-2.72	48	-2.66	-2.66	FALSE	FALSE
MH-343	8	3.25	-1.9	48	-1.85	-1.85	FALSE	FALSE
MH-348	8	3.25	-5.97	48	-5.85	-5.85	FALSE	FALSE
MH-350	8	2.75	-5.31	48	-5.22	-5.22	FALSE	FALSE
MH-351	8	2.75	-4.63	48	-4.55	-4.55	FALSE	FALSE
MH-352	8	2.75	-4.1	48	-4.02	-4.02	FALSE	FALSE
MH-353	8	2.75	-3.37	48	-3.3	-3.3	FALSE	FALSE
MH-354	8	2.75	-2.4	48	-2.34	-2.34	FALSE	FALSE
MH-355	8	3.25	-1.77	48	-1.72	-1.72	FALSE	FALSE
MH-356	8	3.25	-1.37	48	-1.34	-1.34	FALSE	FALSE
MH-357	8	2.75	-3.65	48	-3.58	-3.58	FALSE	FALSE
MH-358	8	3.25	-2.49	48	-2.43	-2.43	FALSE	FALSE
MH-359	8	3.35	-1.58	48	-1.52	-1.52	FALSE	FALSE
MH-360	8	3.5	-0.99	48	-0.94	-0.94	FALSE	FALSE
MH-361	8	2.75	-0.25	48	-0.22	-0.22	FALSE	FALSE
MH-896	8	3.25	-1.08	48	-1.04	-1.04	FALSE	FALSE
MH-389	9	3.25	-7.35	48	-7.27	-7.27	FALSE	FALSE
MH-390	9	3.25	-6.07	48	-5.99	-5.99	FALSE	FALSE
MH-391	9	3.95	-4.99	48	-4.91	-4.91	FALSE	FALSE
MH-392	9	2.75	-3.91	48	-3.84	-3.84	FALSE	FALSE
MH-394	9	3.25	-2.45	48	-1.96	-1.96	FALSE	FALSE
MH-395	9	1.95	-2.14	48	-1.96	-1.96	FALSE	FALSE
MH-396	9	1.75	-1.53	48	-1.5	-1.5	FALSE	FALSE
MH-397	9	3.75	-7.01	48	-6.91	-6.91	FALSE	FALSE
MH-398	9	2.75	-6.73	48	-6.64	-6.64	FALSE	FALSE
MH-399	9	2.75	-5.67	48	-5.59	-5.59	FALSE	FALSE
MH-400	9	2.65	-4.6	48	-4.52	-4.52	FALSE	FALSE
MH-401	9	2.95	-3.65	48	-3.58	-3.58	FALSE	FALSE
MH-402	9	1.65	-2.64	48	-2.58	-2.58	FALSE	FALSE
MH-403	9	1.35	-2.38	48	-2.33	-2.33	FALSE	FALSE
MH-404	9	1.35	-2.08	48	-2.05	-2.05	FALSE	FALSE
CO-78	10	6.25	-0.31	48	-0.27	-0.27	FALSE	FALSE
MH-598	10	4.25	1.26	48	1.3	1.3	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-599	10	6.05	-0.06	48	0.05	0.05	FALSE	FALSE
MH-601	10	6.05	-1.22	48	-1.13	-1.13	FALSE	FALSE
MH-603	10	6.25	2.13	48	2.17	2.17	FALSE	FALSE
MH-604	10	5.75	-2.36	48	-2.25	-2.25	FALSE	FALSE
MH-606	10	5.75	0.62	48	0.68	0.68	FALSE	FALSE
MH-607	10	5.75	1.49	48	1.53	1.53	FALSE	FALSE
MH-608	10	5.75	-3.57	48	-3.43	-3.43	FALSE	FALSE
MH-610	10	5	0.21	48	0.27	0.27	FALSE	FALSE
MH-611	10	5.55	1.3	48	1.34	1.34	FALSE	FALSE
MH-612	10	6.25	-4.18	48	-4.04	-4.04	FALSE	FALSE
MH-613	10	4.5	-4.7	48	-4.51	-4.51	FALSE	FALSE
MH-614	10	3.75	-3.37	48	-3.28	-3.28	FALSE	FALSE
MH-615	10	4.75	-2.14	48	-2.06	-2.06	FALSE	FALSE
MH-616	10	3.75	-0.9	48	-0.84	-0.84	FALSE	FALSE
MH-617	10	4	0.43	48	0.47	0.47	FALSE	FALSE
MH-618	10	5.75	-3.58	48	-3.54	-3.54	FALSE	FALSE
MH-619	10	2.75	-5.65	48	-5.42	-5.42	FALSE	FALSE
MH-620	10	2.15	-4.1	48	-3.99	-3.99	FALSE	FALSE
MH-621	10	4	-3.3	48	-3.19	-3.19	FALSE	FALSE
MH-622	10	4.35	0.22	48	0.26	0.26	FALSE	FALSE
MH-623	10	3.75	-2.29	48	-2.2	-2.2	FALSE	FALSE
MH-624	10	3.25	-1.26	48	-1.18	-1.18	FALSE	FALSE
MH-626	10	4.25	0.16	48	0.2	0.2	FALSE	FALSE
MH-627	10	2.5	-6.34	48	-6.02	-6.02	FALSE	FALSE
MH-628	10	2.75	-4.16	48	-4.05	-4.05	FALSE	FALSE
MH-629	10	3.55	-3.22	48	-3.11	-3.11	FALSE	FALSE
MH-630	10	3.75	-0.55	48	-0.51	-0.51	FALSE	FALSE
MH-631	10	3.25	-2.26	48	-2.17	-2.17	FALSE	FALSE
MH-632	10	3.25	-1.3	48	-1.22	-1.22	FALSE	FALSE
MH-633	10	3.25	-0.55	48	-0.51	-0.51	FALSE	FALSE
MH-634	10	3.95	0.15	48	0.19	0.19	FALSE	FALSE
MH-635	10	2.69	-6.82	48	-6.62	-6.62	FALSE	FALSE
MH-635A	10	2.95	-6.91	48	-6.72	-6.72	FALSE	FALSE
MH-636	10	2.75	-6.29	48	-6.08	-6.08	FALSE	FALSE
MH-637	10	3.25	-5.6	48	-5.42	-5.42	FALSE	FALSE
MH-638	10	3.25	-1.71	48	-1.67	-1.67	FALSE	FALSE
MH-640	10	3.25	-4.73	48	-4.57	-4.57	FALSE	FALSE
MH-641	10	2.5	-1.55	48	-1.51	-1.51	FALSE	FALSE
MH-642	10	3.55	-1.18	48	-1.12	-1.12	FALSE	FALSE
MH-643	10	4.35	0.34	48	0.38	0.38	FALSE	FALSE
MH-644	10	2.75	-3.75	48	-3.61	-3.61	FALSE	FALSE
MH-645	10	2.35	-1.55	48	-1.51	-1.51	FALSE	FALSE
MH-646	10	2.75	-1.35	48	-1.31	-1.31	FALSE	FALSE
MH-647	10	3.25	-2.99	48	-2.88	-2.88	FALSE	FALSE
MH-648	10	2.75	-1.25	48	-1.21	-1.21	FALSE	FALSE
MH-649	10	3.25	-0.95	48	-0.91	-0.91	FALSE	FALSE
MH-650	10	3	-2.18	48	-2.1	-2.1	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-651	10	2.95	-0.85	48	-0.81	-0.81	FALSE	FALSE
MH-652	10	2.75	-0.87	48	-0.83	-0.83	FALSE	FALSE
MH-889	10	3.25	-0.35	48	-0.31	-0.31	FALSE	FALSE
MH-714	11	3.25	-0.53	48	-0.49	-0.49	FALSE	FALSE
MH-715	11	2.55	-1.25	48	-1.2	-1.2	FALSE	FALSE
MH-716	11	3.05	-2.1	48	-2.02	-2.02	FALSE	FALSE
MH-717	11	2.65	-2.61	48	-2.53	-2.53	FALSE	FALSE
MH-718	11	2.65	-3.62	48	-3.52	-3.52	FALSE	FALSE
MH-719	11	3.25	-2.04	48	-1.99	-1.99	FALSE	FALSE
MH-720	11	2.75	-0.61	48	-0.57	-0.57	FALSE	FALSE
MH-721	11	3.25	-4.49	48	-4.38	-4.38	FALSE	FALSE
MH-722	11	3.25	-4.69	48	-4.55	-4.55	FALSE	FALSE
MH-723	11	3.25	-3.81	48	-3.74	-3.74	FALSE	FALSE
MH-724	11	2.75	-3.02	48	-2.96	-2.96	FALSE	FALSE
MH-726	11	2.5	-1.12	48	0.09	0.09	FALSE	FALSE
MH-727	11	2.75	-5.68	48	-5.54	-5.54	FALSE	FALSE
MH-728	11	3.15	-6.7	48	-6.55	-6.55	FALSE	FALSE
MH-729	11	2.75	-7.23	48	-7.06	-7.06	FALSE	FALSE
MH-730	11	3.75	-7.75	48	-7.65	-7.65	FALSE	FALSE
MH-732	11	2.85	-5.95	48	-5.86	-5.86	FALSE	FALSE
MH-733	11	3.25	-4.96	48	-4.88	-4.88	FALSE	FALSE
MH-734	11	3.25	-3.98	48	-3.91	-3.91	FALSE	FALSE
MH-735	11	3.25	-3.34	48	-3.28	-3.28	FALSE	FALSE
MH-736	11	2.75	-2.7	48	-2.65	-2.65	FALSE	FALSE
MH-898	11	2.75	-0.43	48	-0.39	-0.39	FALSE	FALSE
MH-768	12	2.75	-3.75	48	-3.69	-3.69	FALSE	FALSE
MH-769	12	2.65	-2.85	48	-2.72	-2.72	FALSE	FALSE
MH-770	12	2.65	-2.28	48	-2.17	-2.17	FALSE	FALSE
MH-771	12	2.75	-1.88	48	-1.81	-1.81	FALSE	FALSE
MH-772	12	2.65	-1.68	48	-1.61	-1.61	FALSE	FALSE
MH-773	12	2.35	-5.85	48	-5.74	-5.74	FALSE	FALSE
MH-774	12	3	-4.92	48	-4.75	-4.75	FALSE	FALSE
MH-775	12	3.75	-4.14	48	-3.98	-3.98	FALSE	FALSE
MH-776	12	3.75	-3.55	48	-3.41	-3.41	FALSE	FALSE
MH-777	12	3.55	-3.22	48	-3.13	-3.13	FALSE	FALSE
MH-778	12	2.55	-2.49	48	-2.43	-2.43	FALSE	FALSE
MH-779	12	3.75	-3.07	48	-2.98	-2.98	FALSE	FALSE
MH-780	12	3.45	-2.13	48	-2.06	-2.06	FALSE	FALSE
MH-451	13	3.75	-3.05	48	-2.97	-2.97	FALSE	FALSE
MH-452	13	4.25	-1.83	48	-1.77	-1.77	FALSE	FALSE
MH-453	13	3.75	-0.35	48	-0.31	-0.31	FALSE	FALSE
MH-454	13	3.75	-7.25	48	-7.12	-7.12	TRUE	FALSE
MH-456	13	4.95	-5.98	48	-5.88	-5.88	FALSE	FALSE
MH-457	13	3.75	-4.81	48	-4.72	-4.72	FALSE	FALSE
MH-458	13	3.75	-3.25	48	-3.17	-3.17	FALSE	FALSE
MH-459	13	3.75	-2.07	48	-2	-2	FALSE	FALSE
MH-460	13	3.45	-0.89	48	-0.84	-0.84	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-569	14	3.95	0.21	48	0.26	0.26	FALSE	FALSE
MH-570	14	3.75	-0.6	48	-0.54	-0.54	FALSE	FALSE
MH-571	14	3.75	-1.57	48	-1.49	-1.49	FALSE	FALSE
MH-572	14	3.75	-2.47	48	-2.39	-2.39	FALSE	FALSE
MH-573	14	3.75	-4.2	48	-4.1	-4.1	FALSE	FALSE
MH-574	14	3.95	-5.76	48	-5.62	-5.62	FALSE	FALSE
MH-576	14	3.25	1.11	48	1.15	1.15	FALSE	FALSE
MH-577	14	3.75	-5.87	48	-5.73	-5.73	FALSE	FALSE
MH-578	14	3.75	-6.85	48	-6.7	-6.7	FALSE	FALSE
MH-579	14	3.75	-7.75	48	-7.58	-7.58	TRUE	FALSE
MH-580	14	3.75	-1.2	48	-1.16	-1.16	FALSE	FALSE
MH-581	14	3.75	-0.25	48	-0.2	-0.2	FALSE	FALSE
MH-582	14	3.75	-1.32	48	-1.28	-1.28	FALSE	FALSE
MH-583	14	3.75	-0.25	48	-0.2	-0.2	FALSE	FALSE
MH-584	14	3.95	-7.93	48	-7.84	-7.84	TRUE	FALSE
MH-585	14	3.75	-7.03	48	-6.86	-6.86	FALSE	FALSE
MH-586	14	3.75	-6.19	48	-6.02	-6.02	FALSE	FALSE
MH-587	14	3.75	-1.32	48	-1.27	-1.27	FALSE	FALSE
MH-588	14	3.75	-0.25	48	-0.2	-0.2	FALSE	FALSE
MH-589	14	3.75	-1.2	48	-1.16	-1.16	FALSE	FALSE
MH-590	14	3.75	-0.25	48	-0.2	-0.2	FALSE	FALSE
MH-591	14	3.35	-3.95	48	-3.85	-3.85	FALSE	FALSE
MH-592	14	4.25	-2.35	48	-2.25	-2.25	FALSE	FALSE
MH-593	14	3.35	-1	48	-0.94	-0.94	FALSE	FALSE
MH-594	14	4.15	-0.06	48	-0.01	-0.01	FALSE	FALSE
MH-595	14	3.35	-1	48	-0.94	-0.94	FALSE	FALSE
MH-596	14	4.05	-0.3	48	-0.25	-0.25	FALSE	FALSE
MH-597	14	5.15	0.09	48	0.14	0.14	FALSE	FALSE
MH-895	14	3.75	-0.78	48	-0.74	-0.74	FALSE	FALSE
MH-479	15	3.25	-4.77	48	-4.67	-4.67	FALSE	FALSE
MH-480	15	3.25	-4.41	48	-4.34	-4.34	FALSE	FALSE
MH-481	15	3.25	-4.05	48	-4	-4	FALSE	FALSE
MH-482	15	3.25	-3.74	48	-3.7	-3.7	FALSE	FALSE
MH-483	15	3.25	-4.56	48	-4.51	-4.51	FALSE	FALSE
MH-484	15	3.25	-4.11	48	-4.07	-4.07	FALSE	FALSE
MH-485	15	3.25	-5.76	48	-5.66	-5.66	FALSE	FALSE
MH-486	15	3.25	-6.53	48	-6.47	-6.47	FALSE	FALSE
MH-487	15	3.25	-6.76	48	-6.63	-6.63	FALSE	FALSE
MH-488	15	3.25	-6.1	48	-6.06	-6.06	FALSE	FALSE
MH-489	15	3.25	-6.38	48	-6.32	-6.32	FALSE	FALSE
MH-490	15	3.25	-6.06	48	-6.02	-6.02	FALSE	FALSE
MH-491	15	3.25	-7.56	48	-7.43	-7.43	FALSE	FALSE
MH-492	15	3.25	-8.04	48	-7.84	-7.84	FALSE	FALSE
MH-493	15	3.25	-7.35	48	-7.2	-7.2	FALSE	FALSE
MH-494	15	3.25	-6.7	48	-6.66	-6.66	FALSE	FALSE
MH-495	15	3.25	-6.69	48	-6.65	-6.65	FALSE	FALSE
MH-496	15	3.25	-6.23	48	-6.11	-6.11	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-497	15	3.25	-5.41	48	-5.29	-5.29	FALSE	FALSE
MH-498	15	3.25	-4.76	48	-4.72	-4.72	FALSE	FALSE
MH-499	15	3.25	-4.76	48	-4.72	-4.72	FALSE	FALSE
MH-500	15	3.25	-4.58	48	-4.48	-4.48	FALSE	FALSE
MH-500A	15	3.25	-3.52	48	-3.43	-3.43	FALSE	FALSE
MH-500B	15	3.25	-2.86	48	-2.82	-2.82	FALSE	FALSE
MH-500C	15	3.25	-2.75	48	-2.71	-2.71	FALSE	FALSE
MH-500D	15	3.25	-0.63	48	-0.59	-0.59	FALSE	FALSE
MH-500E	15	3.25	-1.35	48	-1.29	-1.29	FALSE	FALSE
MH-500F	15	3.25	-0.62	48	-0.58	-0.58	FALSE	FALSE
MH-303	16	4	-2.27	48	-2.24	-2.24	FALSE	FALSE
MH-304	16	4	-3.28	48	-3.24	-3.24	FALSE	FALSE
MH-305	16	4	-4.26	48	-4.21	-4.21	FALSE	FALSE
MH-306	16	4	-5.5	48	-5.43	-5.43	FALSE	FALSE
MH-307	16	4	-4.4	48	-4.36	-4.36	FALSE	FALSE
MH-308	16	4	-3.51	48	-3.48	-3.48	FALSE	FALSE
MH-309	16	4	-4.43	48	-4.41	-4.41	FALSE	FALSE
MH-310	16	4	-6.28	48	-6.2	-6.2	FALSE	FALSE
MH-311	16	4	-7.47	48	-7.41	-7.41	FALSE	FALSE
MH-312	16	4	-7.32	48	-7.25	-7.25	FALSE	FALSE
MH-313	16	4	-5.81	48	-5.77	-5.77	FALSE	FALSE
MH-314	16	4	-4.49	48	-4.46	-4.46	FALSE	FALSE
MH-315	16	4	-6.37	48	-6.31	-6.31	FALSE	FALSE
MH-316	16	4	-5.42	48	-5.36	-5.36	FALSE	FALSE
MH-317	16	4	-3.83	48	-3.79	-3.79	FALSE	FALSE
MH-318	16	4	-2.53	48	-2.51	-2.51	FALSE	FALSE
MH-319	16	4	-4.17	48	-4.14	-4.14	FALSE	FALSE
MH-835	17	3	0.16	48	0.2	0.2	FALSE	FALSE
MH-836	17	3	-1.06	48	-1.01	-1.01	FALSE	FALSE
MH-837	17	3	-2.49	48	-2.41	-2.41	FALSE	FALSE
MH-838	17	3	-1.7	48	-1.65	-1.65	FALSE	FALSE
MH-839	17	3	-0.03	48	0.01	0.01	FALSE	FALSE
MH-840	17	3	0.5	48	0.53	0.53	FALSE	FALSE
MH-841	17	3	-0.57	48	-0.52	-0.52	FALSE	FALSE
MH-842	17	3	-2	48	-1.94	-1.94	FALSE	FALSE
MH-843	17	3	-3.63	48	-3.52	-3.52	FALSE	FALSE
MH-844	17	3	-2.33	48	-2.27	-2.27	FALSE	FALSE
MH-845	17	3	-1.51	48	-1.48	-1.48	FALSE	FALSE
MH-846	17	3	-5.06	48	-4.93	-4.93	FALSE	FALSE
MH-847	17	3	-2.92	48	-2.88	-2.88	FALSE	FALSE
MH-848	17	3	-3.85	48	-3.79	-3.79	FALSE	FALSE
MH-849	17	3	-4.94	48	-4.87	-4.87	FALSE	FALSE
MH-850	17	3	-5.43	48	-5.28	-5.28	FALSE	FALSE
MH-851	17	3	-6.86	48	-6.71	-6.71	FALSE	FALSE
MH-852	17	3	-6.73	48	-6.69	-6.69	FALSE	FALSE
MH-853	17	3	-8.25	48	-8.04	-8.04	FALSE	FALSE
MH-854	17	3	-8.68	48	-8.51	-8.51	FALSE	FALSE

SewerGEMS Flex Table: Manhole Table								
Peak Flow Scenario								
Label	Notes	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Diameter (in)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Is Ever Surcharged?	Is Ever Overflowing?
MH-855	17	3	-9.78	48	-9.57	-9.57	FALSE	FALSE
MH-856	17	3	-6.88	48	-6.84	-6.84	FALSE	FALSE
MH-857	17	3	-8.23	48	-8.15	-8.15	FALSE	FALSE
MH-858	17	3	-7.05	48	-6.99	-6.99	FALSE	FALSE
MH-859	17	3	-5.15	48	-5.09	-5.09	FALSE	FALSE
MH-860	17	3	-4.12	48	-4.09	-4.09	FALSE	FALSE
MH-861	17	3	-4.15	48	-4.11	-4.11	FALSE	FALSE
MH-862	17	3	-5.19	48	-5.14	-5.14	FALSE	FALSE
MH-863	17	3	-5.95	48	-5.89	-5.89	FALSE	FALSE
MH-864	17	3	-7.82	48	-7.75	-7.75	FALSE	FALSE
MH-865	17	3	-9.38	48	-9.27	-9.27	FALSE	FALSE
MH-866	17	3	-6.6	48	-6.57	-6.57	FALSE	FALSE
MH-867	17	3	-3.45	48	-3.41	-3.41	FALSE	FALSE

SewerGEMS Flex Table: Pressure Pipe Table								
Peak Flow Scenario								
Start Node	Stop Node	Length (User Defined) (ft)	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (Maximum) (gpm)	Velocity (Maximum Calculated) (ft/s)
AV-10	MH-450		219.1	4	100	0	218.68	5.58
AV-11	MH-386		273.8	6	100	0	384.4	4.36
AV-13	MH-297		863.2	4	120	0	149.8	3.82
AV-14	MH-297		1,349.40	6	100	0	255.73	2.9
AV-16	MH-251		445.4	6	120	4	335.1	3.8
AV-17	AV-22		1,404.50	8	100	0	404.32	2.58
AV-18	MH-166		298.9	6	100	0	439.49	4.99
AV-19	MH-41		1,245.40	6	100	0	301.04	3.42
AV-21	MH-264		150.7	8	100	0	744.68	4.75
AV-22	MH-166		296.9	8	100	0	404.32	2.58
AV-4	MH-514		1,366.80	6	100	0	303.32	3.44
AV-5	MH-765		871.9	8	100	0	334.44	2.13
AV-6	MH-704		651.8	6	100	0	266.67	3.03
AV-7	MH-660A		1,147.10	8	100	0	395.15	2.52
AV-9	MH-478		1,119.90	6	100	0	233.53	2.65
HD P-LS 1	REC LS Pump 1	1	18.4	100	120	0	341.15	0.01
HD P-LS 2	REC LS Pump 2	1	26.6	100	120	0	589.68	0.02
HD P-LS 3	REC LS Pump 4	1	35.6	100	120	0	281.31	0.01
J-19	J-39		6,118.90	16	120	0	1,934.10	3.09
J-20	PS 1 WET WELL		7,834.50	24	120	0	5,027.32	3.57
J-27	J-45		626.7	10	120	0	1,934.10	7.9
J-28	J-29		1,144.30	6	120	0	341.15	3.87
J-29	MH-441		110.7	6	120	0	988.33	11.21
J-30	J-29		44.4	6	120	0	589.68	6.69
J-33	J-34		32.9	6	120	0	281.31	3.19
J-34	J-29		1,930.90	6	120	0	281.31	3.19
J-39	J-40		36.5	16	120	0	1,934.10	3.09
J-4	J-27		354.7	10	120	0	1,934.10	7.9
J-40	J-20		1,227.40	16	120	5	5,027.32	8.02
J-41	AV-21		0.1	8	100	0	744.68	4.75
J-45	J-46		1,388.70	16	120	0	1,934.10	3.09
J-46	J-19		259.4	16	120	0	1,934.10	3.09
J-9	J-40		33.7	16	120	5	4,322.65	6.9
LS 10 Pump	AV-7	25	11.4	6	120	8	395.15	4.48
LS 11	LS 11 Pump	1	60.5	100	100	0	266.67	0.01
LS 11 Pump	AV-6	25	70.4	4	100	8	266.67	6.81
LS 13	LS 13 Pump	1	52.1	100	100	0	218.68	0.01
LS 13 Pump	AV-10	25	52.8	4	120	8	218.68	5.58
LS 14	LS 14 Pump	1	21.8	100	100	0	230.08	0.01
LS 14	LS 14 Pump 2	1	17.5	100	100	0	151.66	0.01
LS 14 Pump	AV-4	25	18.7	4	120	8	230.08	5.87
LS 14 Pump 2	AV-4	25	21.2	4	120	8	151.66	3.87
LS 15 Pump	AV-9	25	38.5	6	120	8	233.53	2.65
LS 17	LS 17 Pump	1	28.7	100	120	0	425.8	0.02
LS 17 Pump	AV-16	25	29.2	6	120	8	425.8	4.83

SewerGEMS Flex Table: Pressure Pipe Table								
Peak Flow Scenario								
Start Node	Stop Node	Length (User Defined) (ft)	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (Maximum) (gpm)	Velocity (Maximum Calculated) (ft/s)
LS 2 Pump 1	J-9	25	10.8	12	120	8	2,161.33	6.13
LS 2 Pump 2	J-9	25	9.7	12	120	8	2,161.33	6.13
LS 3 Pump 1	J-4	25	20.3	6	100	8	967.05	10.97
LS 3 Pump 2	J-4	25	24.4	6	100	8	1,301.45	14.77
LS 4	LS 4 Pump	1	9.3	100	100	0	439.49	0.02
LS 4 Pump	AV-18	25	8.3	6	100	8	439.49	4.99
LS 5	LS 5 Pump	1	29.5	100	100	0	301.04	0.01
LS 5 Pump	AV-19	25	29.3	5.5	120	8	301.04	4.07
LS 6	LS 6 Pump 2	1	40.6	100	100	0	274.73	0.01
LS 6	LS 6 Pump 1	1	39	100	120	0	202.16	0.01
LS 6 Pump 1	AV-17	25	42.4	6	120	8	202.16	2.29
LS 6 Pump 2	AV-17	25	40.8	6	120	8	274.73	3.12
LS 7 Pump	J-41	25	13	4	120	8	372.34	9.51
LS 7 Pump 2	J-41	25	12	4	120	8	378.26	9.66
LS 8	LS 8 Pump	1	17.3	100	100	0	255.73	0.01
LS 8 Pump	AV-14	25	19.8	4	120	8	255.73	6.53
LS 9	LS 9 Pump	1	48.5	100	100	0	384.4	0.02
LS 9 Pump	AV-11		61.8	6	100	8	384.4	4.36
LS-10	LS 10 Pump		12.6	6	100	0	395.15	4.48
LS-12	LS-12 Pump	1	13.3	100	100	0	334.44	0.01
LS-12 Pump	AV-5		14.1	4	100	8	334.44	8.54
LS-15	LS 15 Pump	1	79.6	100	120	0	233.53	0.01
LS-16	LS-16 Pump	1	51.4	100	120	0	149.8	0.01
LS-16 Pump	AV-13	25	44.7	6	120	8	149.8	1.7
LS-7	LS 7 Pump 2	1	13.1	100	130	0	378.26	0.02
LS-7	LS 7 Pump	1	11.1	100	130	0	372.34	0.02
PS 2	LS 2 Pump 1	1	9.3	100	100	0	2,161.33	0.09
PS 2	LS 2 Pump 2	1	10.9	100	100	0	2,161.33	0.09
PS 3	LS 3 Pump 1	1	23	100	100	0	967.05	0.04
PS 3	LS 3 Pump 2	1	20.7	100	100	0	1,301.45	0.05
REC LS Pump 1	J-28	25	19.5	6	120	8	341.15	3.87
REC LS Pump 2	J-30	25	29.4	6	120	0	589.68	6.69
REC LS Pump 4	J-33	25	28.7	6	120	8	281.31	3.19

SewerGEMS Flex Table: Pump Table					
Peak Flow Scenario					
Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Pump Definition	Elevation (On) (ft)	Elevation (Off) (ft)
LS 2 Pump 1	5.2	-18.5	LS 2	-9	-15
LS 2 Pump 2	5.2	-18.5	LS 2	-9	-15
LS 3 Pump 1	3.3	-19.25	PS 3 - PROPOSED	-10.75	-17.75
LS 3 Pump 2	3.3	-19.25	PS 3 - PROPOSED	-11.75	-17.75
LS 4 Pump	3.3	-10.97	LS 4	-7.53	-8.43
LS 5 Pump	4	-9.5	LS 5	-7.11	-8.01
LS 6 Pump 1	5.52	-10	LS 6	-6.19	-8.59
LS 6 Pump 2	5.52	-10	LS 6	-7.19	-8.59
LS 7 Pump	3.3	-12.03	LS 7	-5	-10
LS 7 Pump 2	3.3	-12.03	LS 7	-9.03	-10
LS 8 Pump	3.45	-11.75	LS 8 - PROPOSED	-7.25	-8.25
LS 9 Pump	3.55	-9.6	LS 9	-7.14	-8.17
LS 10 Pump	3.39	-10.97	LS 10	-8.44	-9.34
LS 11 Pump	3.25	-11.75	Hydromatic Pump	-7.75	-8.75
LS-12 Pump	5.55	-10.05	LS 12	-7.55	-8.55
LS 13 Pump	4.24	-9.95	Hydromatic Pump	-6.43	-7.43
LS 14 Pump	3.25	-11.51	Hydromatic Pump	-8.01	-9.01
LS 14 Pump 2	3.25	-11.51	Hydromatic Pump	-7.01	-9.01
LS 15 Pump	3.25	-12.53	Hydromatic Pump	-10.33	-10.73
LS-16 Pump	4	-11.27	Hydromatic Pump	-8.57	-9.47
LS 17 Pump	3	-14	LS 17 - CE	-11.92	-12.42
REC LS Pump 1	6	-9.1	LS 5	-6.41	-6.91
REC LS Pump 2	6	-7.8	LS 5	-5.55	-6.05
REC LS Pump 4	4.25	-10.2	LS 5	-7.61	-8.11

SewerGEMS Flex Table: Outfall Table						
Peak Flow Scenario						
Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Boundary Condition Type	Notes	Hydraulic Grade (ft)	Flow (Total In Maximum) (gpm)
PS 1 OUTFALL	5.00	-8.00	Free Outfall	1	-7.80	5,302.75

SewerGEMS Flex Table: Wet Well								
Peak Flow Scenario								
Label	Elevation (Ground) (ft)	Elevation (Maximum) (ft)	Elevation (Initial) (ft)	Is Ever Overflowing?	Elevation (Base) (ft)	Elevation (Minimum) (ft)	Flow (Total In Maximum) (gpm)	Hydraulic Grade (Maximum) (ft)
PS 2	5.2	5.2	-15	FALSE	-19	-15	2,283	-8.98
PS 3	3.3	3.3	-17.75	FALSE	-19.8	-17.75	1,346	-10.75
LS 4	3.3	3.3	-7.53	FALSE	-11.53	-8.53	404	-7.53
LS 5	3.27	3.27	-7.11	FALSE	-10.11	-8.11	153	-7.11
LS 6	5.52	5.52	-7.69	FALSE	-10.69	-8.69	303	-6.19
LS-7	3.3	3.3	-10.03	FALSE	-13.03	-10.03	468	-5
LS 8	3.45	3.45	-7.25	FALSE	-12.25	-8.25	131	-7.25
LS 9	3.55	3.55	-7.14	FALSE	-10.14	-8.17	62	-7.14
LS-10	3.81	3.81	-8.44	FALSE	-11.44	-9.44	398	-7.08
LS 11	2.75	2.75	-7.75	FALSE	-11.75	-8.75	115	-7.75
LS-12	5.55	5.55	-7.55	FALSE	-10.55	-8.55	229	-7.55
LS 13	4.18	4.18	-7.43	FALSE	-10.43	-8.43	69	-6.43
LS 14	3.75	3.75	-9.01	FALSE	-12.01	-10.01	239	-7.01
LS-15	3.25	-8.83	-10.33	FALSE	-12.83	-10.83	163	-10.32
LS-16	4	4	-9.07	FALSE	-11.57	-9.57	48	-8.57
LS 17	3	-10.42	-12.22	FALSE	-14.42	-12.42	174	-11.91
HD P-LS 1	6	6	-6.91	FALSE	-9.41	-7.41	197	-6.4
HD P-LS 2	6	6	-5.55	FALSE	-8.05	-6.05	141	-5.54
HD P-LS 3	4.25	4.25	-8.11	FALSE	-10.61	-8.61	257	-7.57