

FACILITY PLAN
for the
STORM WATER SYSTEM
in
ALEXANDRIA, SOUTH DAKOTA

PROJECT #15444

DECEMBER 2021

SPN

& Associates

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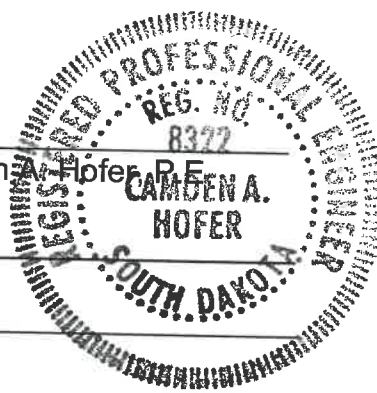
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of South Dakota.

By Camden A. Hofer

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Date 12-9-21



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1 INTRODUCTION

1.1 PURPOSE

The City of Alexandria (Client) has contracted with the engineering firm of Schmucker, Paul, Nohr and Associates (SPN) to complete an investigation of its existing storm water system. The purpose of this analysis is to assist the City in the evaluation of the current system capacity, limitations and deficiencies and the development of future storm water system needs.

The results of the completed study are presented in this Facility Plan. The Facility Plan contains the information with which the Alexandria City Council can make cost-effective decisions. The City Council will, after appropriate public input, determine what the City's options are to make needed improvements that are identified in the Facility Plan.

Loan and grant funding will undoubtedly be desired to make the improvements that are recommended herein. The identified project(s) will need to be placed on the State Water Plan if chosen by the City Council to be funded through the State Revolving Fund program. This Facility Plan will be a valuable tool for the community to utilize in its efforts to make needed public improvements.

1.2 SCOPE OF WORK

The Scope of Work for this study includes:

1. SPN will consult with the Client to define and clarify the Client's requirements for the Project and data that is available for SPN's use in the completion of the Project. The study and evaluation were completed from information obtained from limited topographic surveying completed within the City. The field survey work verified elevations and distances within known problem areas. The Client provided SPN a layout of the existing storm water collection system and indicated on a community map the direction of ditch storm runoff for each block. The Client also identified the locations of known drainage problem areas with a brief description of the problem.

2. SPN identified and analyzed requirements of governmental authorities having jurisdiction to approve the Project.
3. SPN prepared a computer model and performed a computerized hydraulic analysis of drainage basins within the City of Alexandria utilizing the aforementioned data that was obtained. The computerized hydraulic analysis was completed for the five-year storm water runoff event for existing and future conditions to identify the need to improve the existing sewer system.
4. SPN will complete an analysis of the existing storm drainage system relating to identified current and future needs.
5. SPN prepared alternatives for the improvements of the existing storm sewer system to increase the hydraulic capacity with the runoff conditions anticipated for the five-year storm water runoff event for existing and projected future conditions.
6. SPN provided a general economic analysis of the Client's requirements applicable to various alternatives for the correction of identified deficiencies.
7. SPN prepared a written report including, but not limited to, maps and sketches showing the potential locations and routings of any proposed improvements, cost estimates and related information, setting forth the findings and recommendations of the Storm Drainage Study.
8. SPN provided ten (10) copies of said report to the Client.
9. SPN will attend not more than one (1) meeting with the Client to review said report.

2 COMMUNITY DESCRIPTION

2.1 GENERAL INFORMATION

The City of Alexandria is located in central Hanson County, South Dakota, approximately 12 miles east of Mitchell, the regional trade center for the area. It is located on SD Highway 262, south of Interstate Highway 90, approximately one-quarter mile. The location of Alexandria is shown in Figure 2.1-1. The City of Alexandria was established in 1885. The City has an aldermanic type of government, consisting of a mayor, finance officer and six-member council. The City has a full-time utility manager that maintains the City's utilities.

Hanson County is in southeastern South Dakota and has a total surface area of approximately 320,000 acres. Communities located within the county include Emery, Farmer, Fulton, and Alexandria, the county seat. General livestock and farming are the major sources of income within the county.

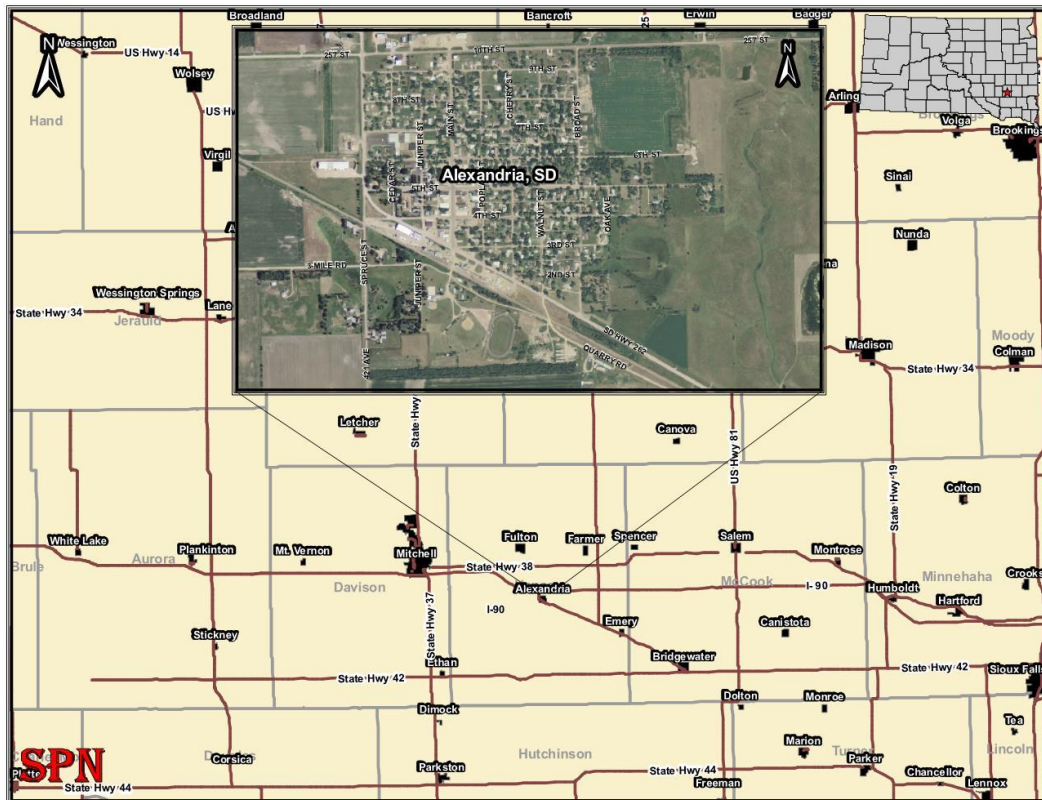


Figure 2.1-1: Location Map

2.2 POPULATION CHARACTERISTICS

Alexandria's population is 649 according to the 2020 census. The most recent Census Bureau data available at the time of this report indicates Alexandria's median age was 31 years as compared to the state's median age of 37. At the time census data was gathered, 17.1% of its population was over the age of 65. In comparison, the state's population that is over the age of 65 is 17.2%. Data from the 2019 census indicates that the community's median household income is \$58,925, which is slightly higher than the state's median household income of \$58,275.

2.3 POPULATION PROJECTIONS

Table 2.3-1 and Figure 2.3-1 indicate Census Bureau population data from 1910 to 2020 and present the estimated population for the community through the year 2040. As shown by the historical data, the population peaked in 1920 and 1940 but has declined overall until 1990, after which the population rebounded. The decline from 1940 to 1990 is typical for rural communities like Alexandria. This can be accredited to the number and size of the farming families decreasing and the large population of elderly people. Since 1990, the City has shown an increase in population.

Table 2.3-1: Historic and Projected Population

Year	Population	Year	Population
1910	955	1980	588
1920	965	1990	518
1930	688	2000	563
1940	746	2010	615
1950	714	2020	649
1960	614	2030 (Est.)	734
1970	598	2040 (Est.)	802

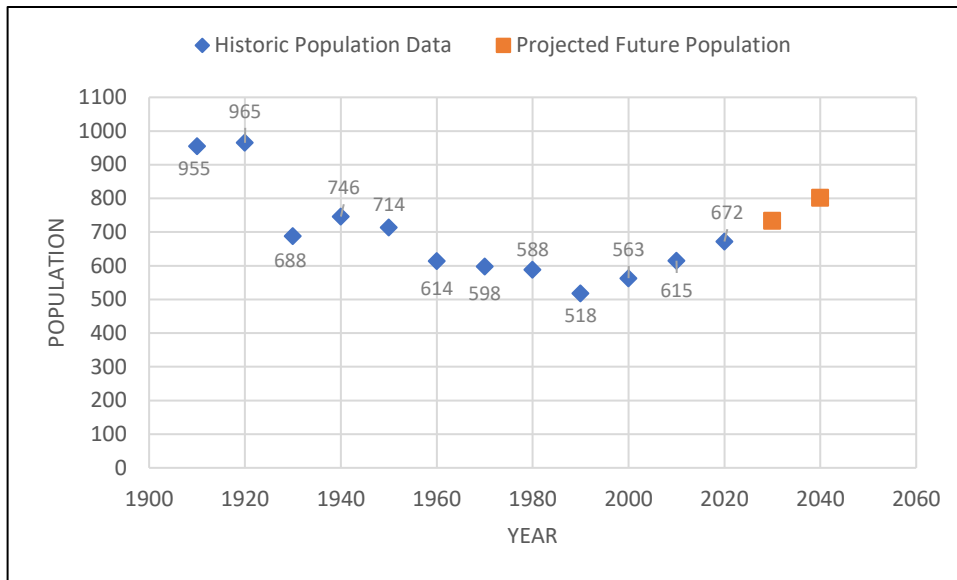


Figure 2.3-1: Historic and Projected Population

2.4 TOPOGRAPHY / CLIMATE

The majority of Hanson County is in the James River Valley. The topography of the Hanson County area can best be characterized as gently undulating landscape except for the hilly to steep breaks adjacent to the James River. The James River and its tributaries drain most of Hanson County. The elevation in the county ranges from less than 1,200 feet above sea level in the James River Basin to 1,400 feet or more above sea level in the northeast. Water is conveyed from the southeast corner of the City to Pierre Creek, which is located to the east of the City. The creek flows south-southwest to Hanson Lake.

The area's climate is generally described as a continental climate. Winters are relatively long and cold, while summers are fair and hot. Normal annual precipitation for the area is about 23 inches. Approximately 74 percent (17 inches) of the total precipitation generally occurs between April and September. Precipitation received from November through March is generally in the form of snowfall.

The temperature ranges from an average daily temperature of 15° F in the winter, to an average daily temperature of 70° F in the summer. However, temperatures can vary greatly depending on the time of year.

2.5 ENVIRONMENTAL REVIEW INFORMATION

As part of the environmental assessment requirement for the facility planning process, the project sponsor is required to contact various state and federal agencies. Environmental assessment letters will be sent to the following agencies. A copy of the letter requesting comments will be included in Appendix A along with the associated comment letters and future related correspondence.

2.5.1 Historic and Archaeological Sites

Upon completion of an application for funding through one or more of various funding agencies, a letter will be sent to the funding agency describing the proposed project location and construction activities as well as a general description of the existing conditions as found within the project limits. An internet search for historic properties in the area was completed on nps.gov and history.sd.gov. There are no historic sites that are listed on the national register. No sites should be affected by any work as work will be proposed in the City rights-of-way.

2.5.2 Floodplains and Wetlands

The US Fish and Wildlife Service, the US Army Corps of Engineers and the South Dakota Department of Game, Fish and Parks were contacted for input related to the proposed improvements. No recorded floodplains or wetlands in the area are expected to be impacted due to the project. The Federal Emergency Management Agency (FEMA) website was searched for a flood hazard evaluation. FEMA has deemed this an area of minimal flood hazard as shown in Figure 2.5.2-1.

The U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and the South Dakota Department of Game, Fish and Parks were contacted for the purpose of soliciting input related to potential impacts on wetlands. Correspondence related to these contacts will be placed in Appendix A upon receipt. A wetland map was created on the US Fish and Wildlife website for Alexandria and is shown in Figure 2.5.2-2. No impact on wetlands is expected due to the proposed project.

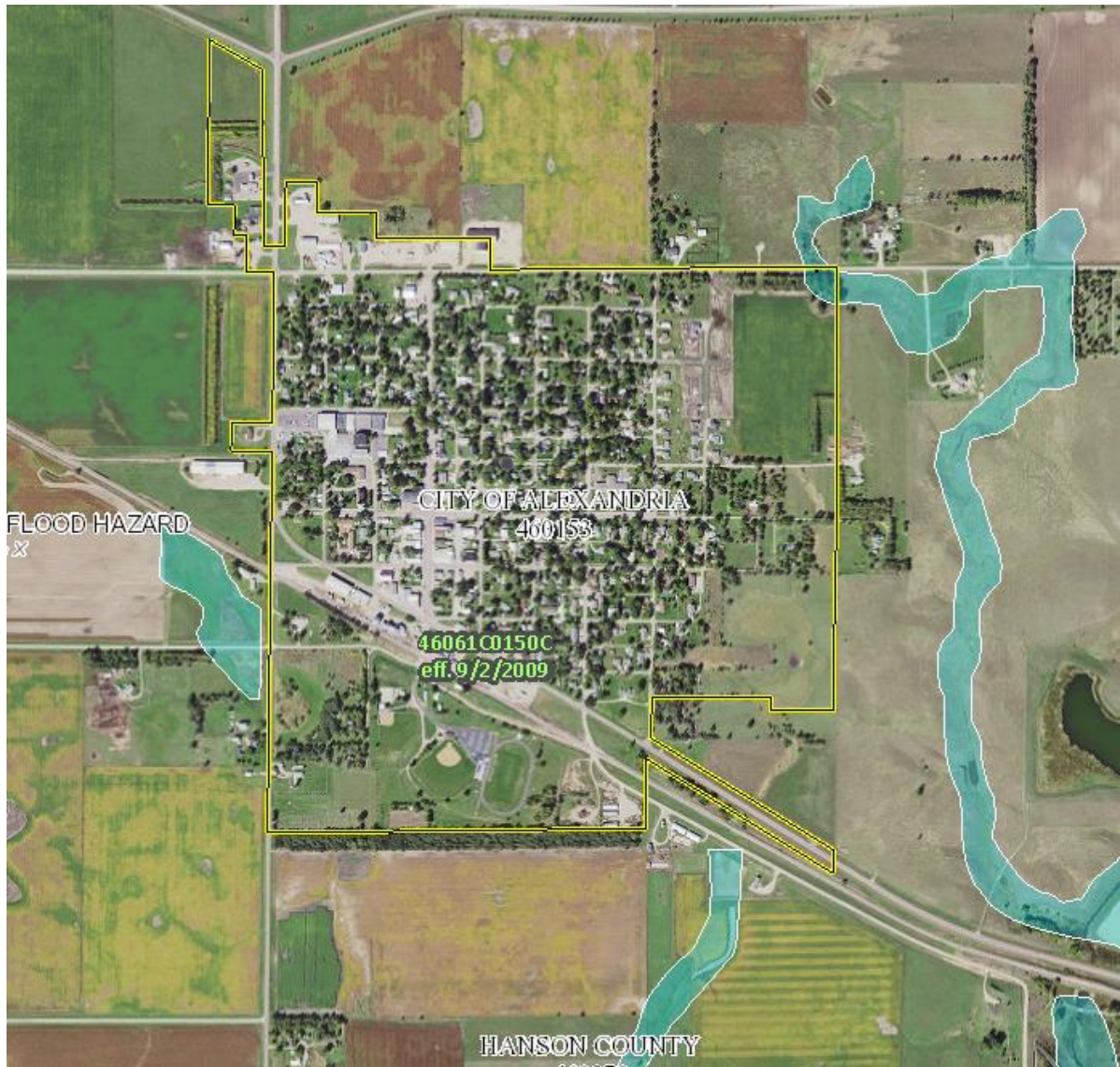


Figure 2.5.2-1: Flood Hazard Map from FEMA

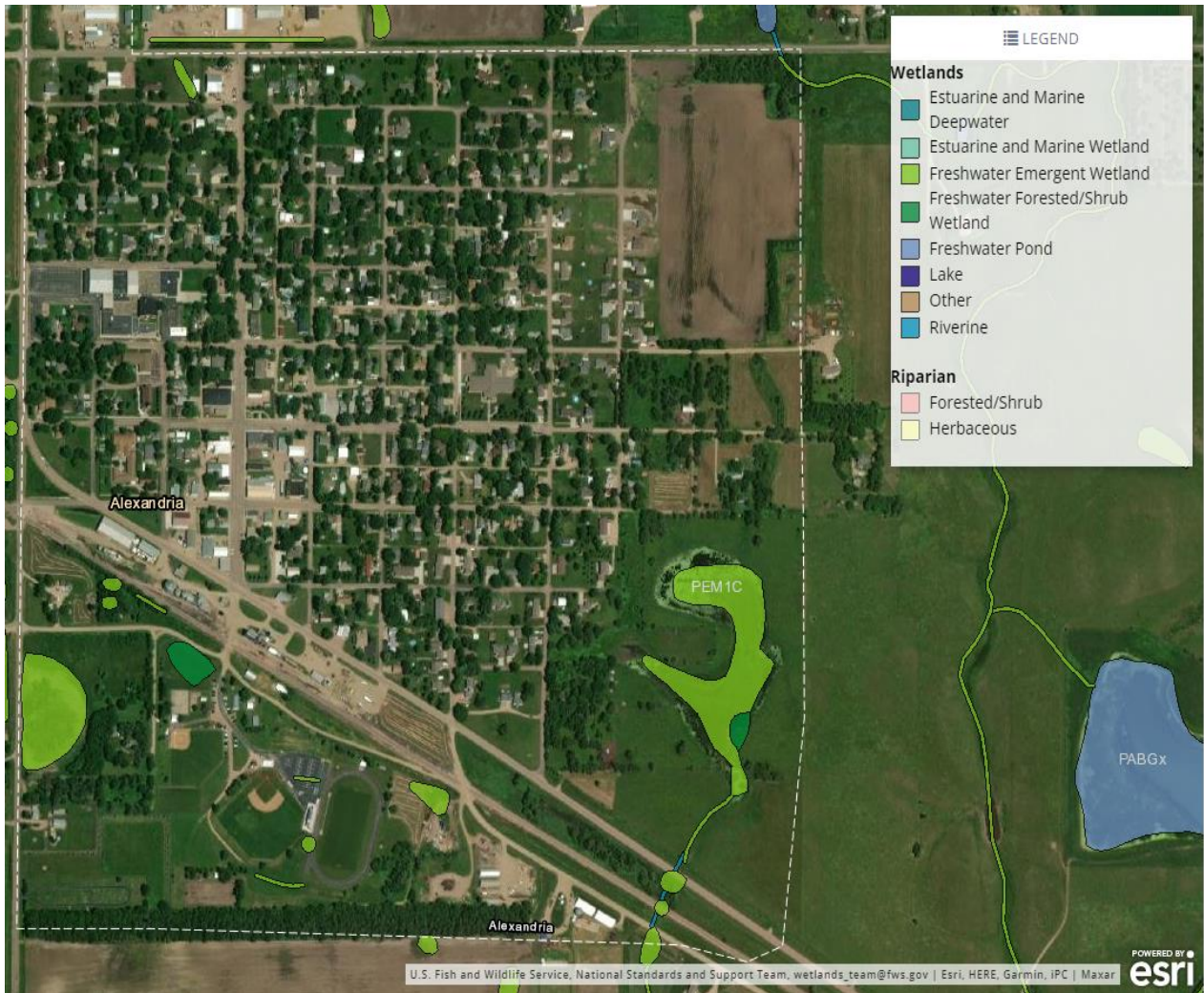


Figure 2.5.2-2: Wetland Map

2.5.3 Agricultural Lands

The US Department of Agriculture’s State Soils Scientist was contacted for input on the proposed improvements. No significant impact on agricultural lands is expected since the proposed project will take place within the City limits or in previously disturbed areas.

2.5.4 Wild and Scenic Rivers

There are no “Wild and Scenic Rivers” in the area. Therefore, the proposed improvements will have no impact on these resources.

2.5.5 Water Quality and Quantity

The South Dakota Department of Agriculture and Natural Resources was contacted for input on the proposed improvements. No impact on water quality and quantity is expected due to the project.

2.5.6 Endangered Species and Critical Habitat

The U.S. Fish and Wildlife Service and the South Dakota Department of Game, Fish and Parks were contacted for the purpose of soliciting input related to potential impacts on endangered species and critical habitat which might result from construction of the proposed improvements. According to the U.S. Fish and Wildlife Service website the Whooping Crane, Red Knot, Northern Long-Eared Bat and Topeka Shiner are identified as candidates for the endangered species list in the Alexandria area. No impact on critical endangered species or critical habitat is expected due to this project since the project will take place in City rights-of-way or in previously disturbed areas.

2.6 DIRECT AND INDIRECT IMPACTS

Negative environmental impacts which may be expected during a project of this nature include, but are not necessarily limited to, soil erosion, noise pollution, traffic obstruction, and increased surface runoff due to trench dewatering operations. However, such impacts are temporary and will not significantly affect the environment over the long term.

Positive environmental impacts include enhanced human health and safety and more efficient drainage of storm water runoff. Such impacts are of long-term value to the residents of Alexandria and Hanson County.

2.7 MITIGATION OF ADVERSE IMPACTS

Adverse impacts will be minimized to the greatest extent possible by the implementation of accepted cautionary measures. Temporary and permanent erosion control will be included in construction contracts. Appropriate permits will be secured prior to the discharge of any trench dewatering or storm waters, and protection of public health, safety and welfare will be incorporated into the specifications and contract documents. Additionally, should any permanent adverse impacts result from the project, mitigating measures will be followed to the satisfaction of the appropriate review agency.

3 METHOD OF ANALYSIS

The analysis was completed using Autodesk Storm and Sewer Analysis 2021 (SSA) which utilized the Environmental Protection Agency's Storm Water Management Model (SWMM) (Rossman and Huber, 2016). The SWMM computation model is used to develop the continuous simulation of surface runoff and routing for large drainage basins. The drainage basins contributing runoff to concentrated areas were broken up into drainage basins to adequately model storm water runoff to curb and gutter, storm sewer inlets, culverts, and ditches.

The Soil Conservation Service (SCS) runoff and infiltration method was used to calculate the volume and intensity of runoff during a synthetic rainfall event for the pervious areas. The SCS method uses "CN" values to characterize and calculate runoff for the surface and soil type being analyzed.

The method used for modeling the movement of storm water through pipes, over roadways and staging in floodplains was the Hydrodynamic Routing Method. Hydrodynamic routing is based on the Saint Venant equations of continuity and momentum of unsteady flow. Hydrodynamic routing allows the EPA SWMM model to account for flow reversal, pressurized flow, and the effects of backwater on pipes and culverts. Hydrodynamic routing is ideal for modeling the effects of backwater and ponding due to downstream culverts, roadways, and other flow restrictions.

Inlet and outlet conditions for each structure were modeled. The flow rate for each segment modeled is dependent on the material type, size, inlet, slope characteristics of the pipe or ditch flow line, curb and gutter flow line and inlet or outlet type as well as the head differential across the structure that is generated during a particular modeled event. The software is capable of modeling inlet capture as well as by-pass flows. The amount of runoff in a street with curb and gutter is modeled by entering a cross section which represents half of the street. The model will indicate the height of the accumulated runoff at each inlet.

Field work was completed to identify pipe types, inlet types and elevations to accurately depict the storm sewer conditions. Where plan information was not available, assumptions were made as to pipe size, pipe type, pipe slope and street slope.

It is impractical to design a storm drainage system for the worst-case storm. As a result, designing for a storm event that is common will lessen the impacts of larger storm events and is reasonably economical to construct. A five-year storm frequency was analyzed for the evaluation of the existing inlet and piping systems. A five-year storm event means that there is a 20 percent chance that at least one event of that magnitude will happen each year. The time duration of the storm event studied was a 24-hour storm. The total precipitation and peak intensity for the five-year storm frequency is shown in Table 3-1.

Table 3-1: Storm Frequency Information

Storm Frequency	24-Hour Precipitation (inches)	Peak Rain Intensity (inch/hour)
5-Year	3.50	5.37
100-Year	5.80	8.90

A synthetic 24-hour storm distribution curve was used to model the rainfall event. A Soil Conservation Service (SCS) Type II curve applicable for this region was used to distribute the total rainfall of the modeled frequency throughout a 24-hour period. This synthetic rainfall distribution was assembled by the SCS by studying the duration and intensity of rainfall events for this region. The 24-hour curve follows a typical rainfall event that starts as a period of light rain, followed by a short period of heavy, high intensity rainfall, and ends the event with a period of light rain. The SCS Type II curve used for the five-year storm event is shown in Figure 3-1.

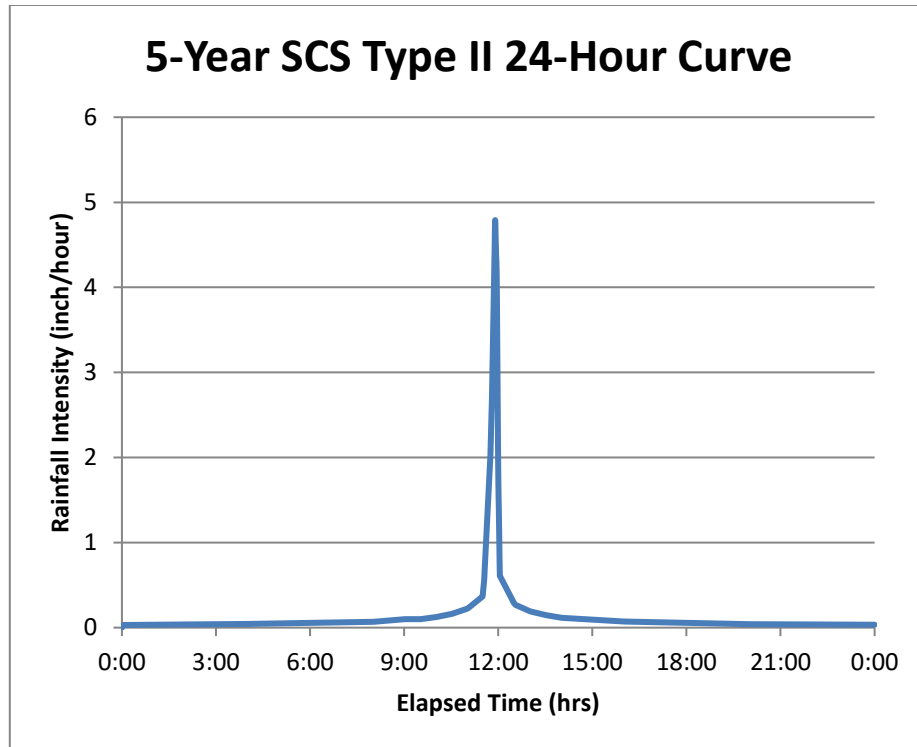


Figure 3-1: 5-Year SCS Type II 24-Hour Curve

The five-year storm event will be utilized for the evaluation and design of the storm sewer systems within this report unless specifically referenced otherwise. It should be noted that the existing and proposed storm sewer systems were modeled as clean and free of debris. Sump condition inlets were modeled with a percent clogging factor based on the City of Sioux Falls Design Criteria Table 11.2 (Sioux Falls, 2021). A clogging factor of 20% was used for Curb Inlets and 40% for Type C and Area Inlets. Ditches are assumed to have grass and few weeds.

The 100-year storm event was utilized to briefly evaluate how the existing storm sewer system handles the event. The difference in 24-hour precipitation and peak rain intensity between the five-year and 100-year events can be seen above in Table 3-1. Between the two events, a 73% increase of inflow occurs during the 100-year event, compared to that of the five-year event. This causes a substantial change in how the existing system handles the events. Increased inflow causes more areas of the existing system to be undersized and flooded. Inlets in the existing system are flooded twice as long during the 100-year event. In

addition, storm sewer pipes that are currently surcharging during the five-year event are surcharging twice as long during the 100-year event.

Illustrations similar to the one shown in Figure 3-2 were utilized throughout the completion of the report to visually show the hydraulic conditions of the existing pipes and inlets. The red line is the hydraulic grade line or the water elevation within the pipes at peak flow conditions. The pipe becomes surcharged when the hydraulic grade line is at or above the top of pipe. Pipe surcharging is due to inadequate pipe sizing or backflow of storm water from connecting pipes. Surcharged pipes are not considered to be an issue until the hydraulic grade line is above the top of structures (street surface) which indicates flooding. This is subjective since flood water that accumulates but recedes quickly is not typically much of an issue.

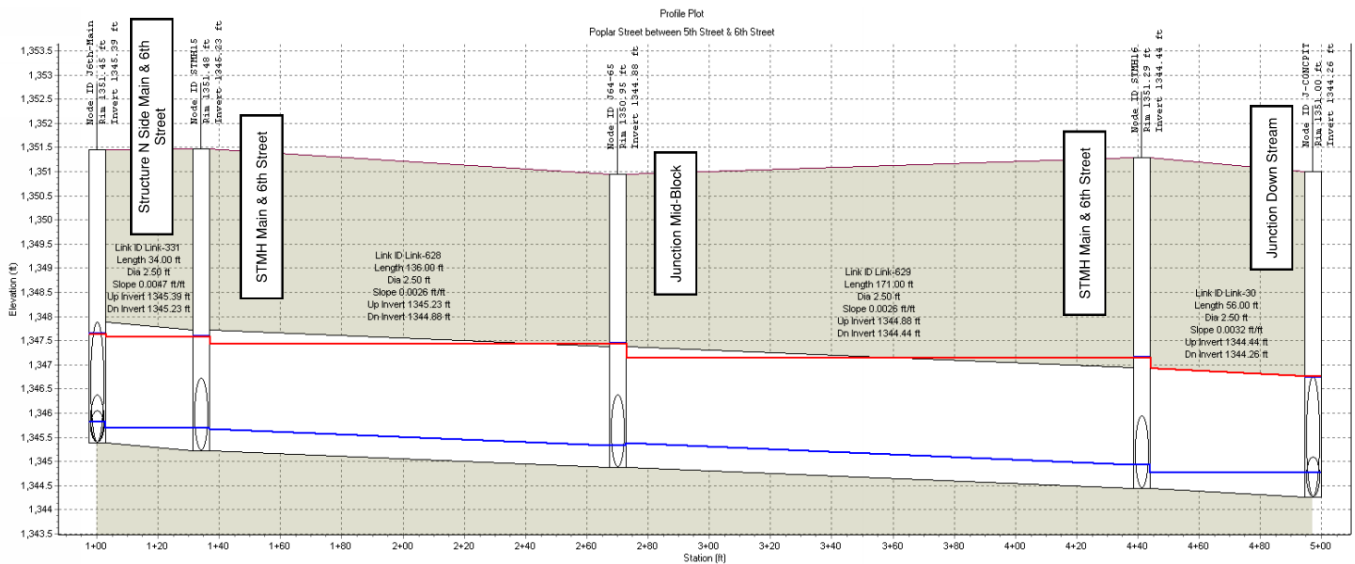


Figure 3-2: Profile View of SSA Piping System

Figure 3-2 shows the profile view of the existing storm sewer on Main Street between 5th and 6th Streets. This profile view is typical for the entire system. The storm sewer in general is overly flat, causing storm sewer pipe to flow at full capacity at the peak of the five-year event. Profiles similar to this were used to evaluate and understand how the existing storm sewer system was responding to the storm event.

4 EVALUATION OF EXISTING STORM WATER SYSTEM

The storm water system in Alexandria consists of concrete curb and gutter on Main Street, asphalt streets, storm sewer inlets, storm sewer piping, culverts, and ditches. The majority of the City utilizes overland flow by means of ditches and street surfacing to convey storm water to storm sewer inlets and piping or ditches. Almost all streets within the City have asphalt surfacing with little to no concrete curb and gutter. The storm water runoff generated ultimately is conveyed to Pierre Creek east of the City and to Hanson Lake south of the City. The pipe totals for the complete system are shown below in Table 4-1. This includes all storm sewer pipe as well as culverts in the system. Pipe types in the system include polyvinyl chloride (PVC), vitrified clay pipe (VCP), corrugated metal pipe (CMP), high-density polyethylene (HDPE), and reinforced concrete pipe (RCP). Other totals including the number of storm sewer manholes in the system are listed below in Table 4-2.

Table 4-1: Storm Sewer Pipe Totals

Diameter (in)	4"	6"	8"	8"	10"	10"	10"	12"
Type	PVC	PVC	VCP	PVC	PVC	CMP	HPDE	RCP
Total (ft)	3,787	7,570	2,264	1,780	565	64	228	1,595

Diameter (in)	12"	12"	12"	15"	15"	18"	18"	18"
Type	PVC	CMP	HPDE	RCP	CMP	RCP	PVC	CMP
Total (ft)	924	333	895	273	262	525	5,082	335

Diameter (in)	18"	24"	24"	24"	30"	36"	36"	
Type	HPDE	RCP	CMP	HPDE	RCP	RCP	CMP	Total (ft)
Total (ft)	585	367	295	1,108	2,715	375	957	32,884

Table 4-2: Structure Totals in Storm Sewer System

Description	Total (each)
Storm Sewer Manholes	27
Storm Sewer Cleanouts	3
Storm Sewer Inlets	193

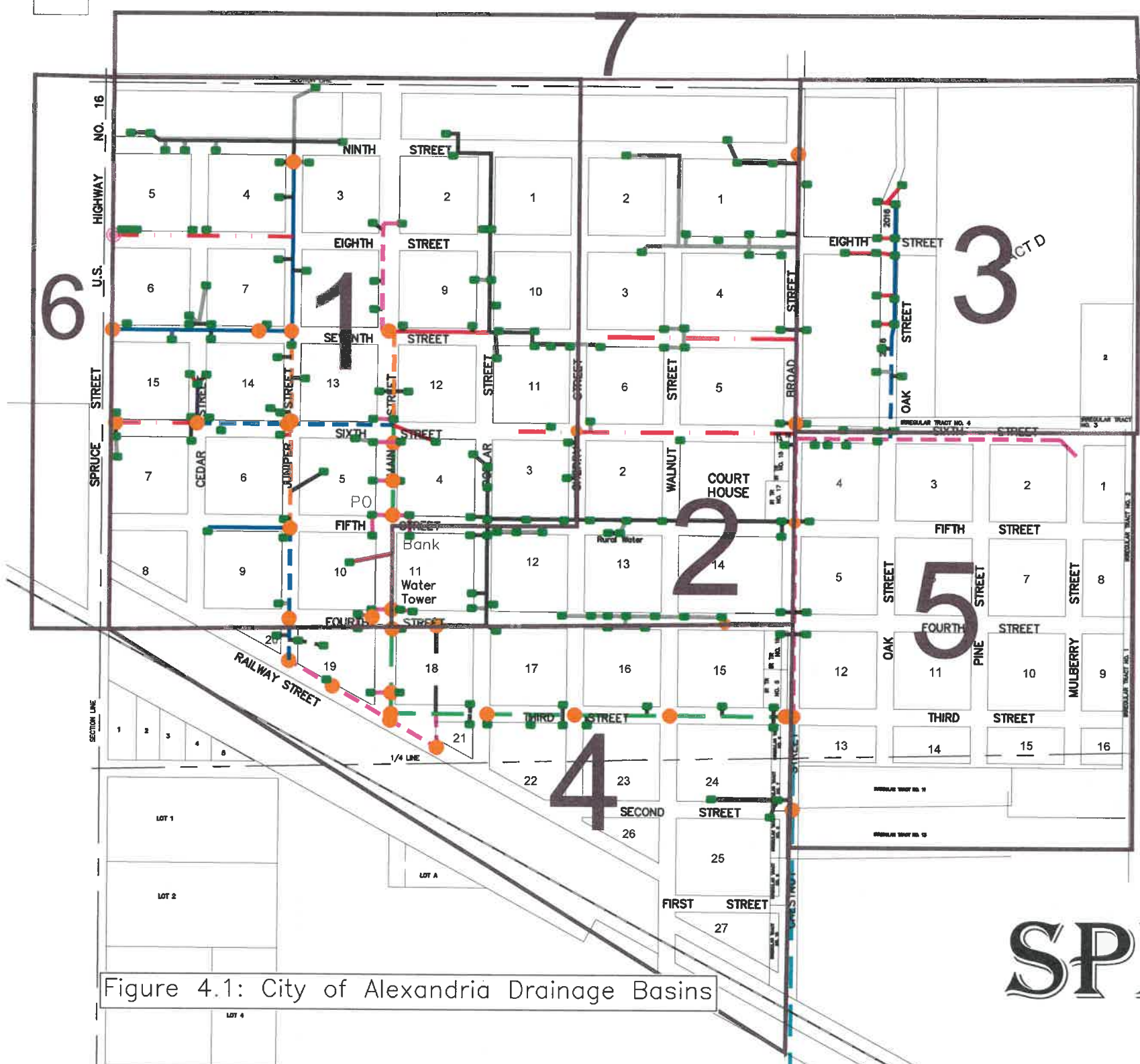
Figure 4-1 has been provided to show the drainage basins within the City. Seven basins have been identified. The basins were derived using aerial contours from elevation data sets, information obtained from the City and topographic survey data completed by SPN. The basins were entered into the Storm Sewer Analysis software and analyzed for any potential deficiencies. The model identified deficiencies in Drainage Basins 1-4. The next sections of this report will discuss the identified deficiencies and solutions to those deficiencies.

In each of the existing drainage basins, the City has added catch basins in ditches that don't drain and have caused flooding issues during rain events. In the existing system, ditches have acted as a detention basin. A detention basin can be defined as an area that holds water, waiting to reach an outflow structure. Hence, the City has added catch basins in those areas to help the ponding and flooding of the existing ditches. Refer to Appendix B for detailed information on the existing system.

STORM SEWER MAP CITY OF ALEXANDRIA



SCALE: 1" = 500'



LEGEND

- = PVC STORM SEWER
- = RCP STORM SEWER
- = HPDE STORM SEWER
- = VCP STORM SEWER
- = STORM SEWER 36"
- = STORM SEWER 30"
- = STORM SEWER 24"
- = STORM SEWER 18"
- = STORM SEWER 12"
- = STORM SEWER 10"
- = STORM SEWER 8"
- = STORM SEWER 6"
- = STORM SEWER 4"
- = STORM MANHOLE
- = RE-PURPOSED SANITARY SEWER MANHOLE
- = CATCH BASIN
- = STORM CLEANOUT

Figure 4.1: City of Alexandria Drainage Basins

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4.1 DRAINAGE BASIN 1

The first drainage basin is located between Spruce and Cherry Streets, between 257th and 4th Streets. Spruce Street is South Dakota Highway 262 and is maintained by the South Dakota Department of Transportation. The storm water system consists of concrete curb and gutter on Main Street, storm sewer inlets, storm sewer piping, culverts, and ditches. Piping sizes range from 4” to 36” and pipe material includes the previously stated types. Culverts range in size from 4” to 12” and pipe material includes the previously stated types. Inlets in the storm system include sizes from 12”- 24” diameter round catch basins, and 1’x1’ up to 3’x4’ for the rectangular inlets in the curb. This basin generates a peak of 34.3 cfs during the five-year event and has a total area of 75 acres. City personnel noted that eventually the basin will completely drain but takes an extended amount of time. This basin is relatively flat compared to other basins in the City, accounting for roughly 30% of the total area, 40% of the total inlets and 30% of total storm sewer piping.

Starting in the west side of the basin, 12” PVC pipe serves as the storm sewer main on Juniper Street between 7th and 9th Streets, before moving to 24” HDPE pipe between 6th and 7th Streets, then switching to 18” HDPE pipe until meeting the existing storm sewer main at the intersection of Juniper and Railway Streets. The existing storm sewer along this stretch flows 60-115% of full capacity and surcharges 15 minutes to one hour. Looking at the side streets between Spruce Street, South Dakota Highway 262, and Juniper Street, between 5th and 9th Streets, there are numerous different sizes and types of pipes used for storm sewer. Six-inch PVC pipe serves as the storm sewer main in the north part of the basin with 4” PVC pipe used to connect inlets. This pipe flows 90-115% of full capacity and surcharges 20-30 minutes. On 8th Street between Juniper and Spruce Streets, repurposed 8” VCP sanitary sewer pipe serves as storm sewer pipe for the area. The existing pipe has sufficient size and capacity to handle the five-year event. The pipe flows 80-90% of full capacity and surcharges 45-60 minutes at the peak. Twelve-inch PVC pipe serves as the storm sewer pipe on both 6th and 7th Streets between Juniper and Spruce Streets. The pipe has sufficient size and capacity to handle the five-year event, flowing 40-75% of full capacity and surcharging 20-30 minutes at the peak.

Main Street between 3rd and 7th Streets on the east side of the basin serves as the storm sewer main in the east side of the basin. Twenty-four inch or 30” RCP storm sewer pipe runs down the center of Main Street with 18” RCP connecting the 2’x3’ or 3’x4’ inlets in the curb line. The RCP pipe flows 60-110% of full capacity and surcharges 15-30 minutes at the peak of the event. Moving to the middle and east side of the basin, 6” PVC pipe serves as the storm sewer pipe on Poplar Street between 4th and 6th Streets, 5th Street between Poplar and Cherry Streets, and 7th Street between Main and Cherry Streets. Four-inch to 6” PVC pipe is used to connect catch basins to the storm sewer main. The pipe flows at 80-140% of full capacity and surcharges 20 minutes to 1.5 hours. Catch basins are sized 18”-24” in diameter and are of sufficient size to handle the five-year storm event.

4.2 DRAINAGE BASIN 2

The second drainage basin is located between Cherry and Broad Streets between 4th and 257th Streets. Storm water is conveyed through ditches to inlets and storm sewer piping. Water flows from the side streets to the existing 18” HDPE storm sewer main running north and south on Broad Street. The second drainage basin has an area of 46 acres and has a peak runoff of 28.6 cfs for the five-year event. There is a significantly less amount of storm inlets and piping in the second basin compared to the first basin.

The existing storm sewer main on Broad Street has the size and capacity to withstand the rain event with the existing pipe running 30-100% of capacity during the event. Between Cherry and Broad Streets, on 6th and 7th Streets, repurposed sanitary sewer main (8” VCP) is used for storm sewer pipe. This pipe runs at 95-115% of full capacity and surcharges 45-60 minutes at the peak of the event. Four-inch to 6” PVC piping is used to connect inlets to the repurposed sanitary sewer main, which is undersized and causes inlets to pond up to one foot of water in places.

The existing 4” to 6” PVC storm sewer main on 5th Street between Broad and Cherry Streets, along with 4th Street between Broad and Main Streets is undersized to handle the water produced by the event. The pipe runs at 95-140% of full capacity. The model shows the existing PVC storm sewer main surcharging 15 minutes to two hours. Inlets are connected to the storm sewer main using 4” to 6” PVC pipe which causes these lateral connections to surcharge. The existing 4” PVC storm sewer piping on 8th Street between Broad and Walnut Streets is undersized and surcharges one to two hours during the five-year event. In the area, inlets are ponding over one foot of water due to the undersized storm sewer pipe.

4.3 DRAINAGE BASIN 3

The third drainage basin is located in the northeast corner of the City and includes the area between 6th Street and 257th Street and east of Broad Street. The existing 12” RCP storm sewer main runs in the east ditch of Oak Street. Eight-inch PVC pipe is used to connect inlets in the north half of the basin to the storm sewer main while 4” or 6” PVC pipe is used to connect the inlets in the south half of the basin. In the middle of the basin, the existing storm main turns from 12” RCP to 12” HDPE pipe which runs 50-95% of full capacity during the five-year event. Inlets in the basin are all 24” round catch basins with water ponding 3” to 5” around the inlets at the peak of the event. Throughout the basin, the storm sewer pipe is very flat which causes the pipe to surcharge 15-30 minutes at the peak of the event. Although the pipe is surcharging a short amount of time, the existing pipe has sufficient size and capacity to handle the five-year rain event.

4.4 DRAINAGE BASIN 4

The fourth drainage basin is located in the southern part of the City and includes the area between 4th Street and Railway Street, between Broad and Railway Streets. Railway Street is South Dakota Highway 262 and is maintained by the South Dakota Department of Transportation. The existing 30” RCP storm sewer main runs down the middle of Main Street before heading down the center of 3rd Street. After reaching Broad Street, the storm sewer main turns to 36” RCP and flows south to the outfall in the southeast corner of the City. The existing 30” RCP pipe surcharges 15 to 30 minutes at the peak of the event while the 36” RCP pipe doesn’t surcharge. The existing 30” RCP pipe on Main Street flows 90-95% of full capacity at the peak of the event. Four-inch or 6” PVC pipe is used to connect inlets to the existing storm sewer main. Inlets in the basin are either 18” or 24” round catch basins. Inlets pond in the area 4” to 6” at the peak runoff.

This basin includes the culverts on the north and south sides of Railway Street which are maintained by the South Dakota Department of Transportation. Culverts in the basin have sufficient capacity and size to handle the event with two culverts surcharging for 10 minutes at the peak.

Plans obtained from the City show old 8” VCP sanitary sewer main down the alley between 3rd and 4th Streets, between Main and Poplar Streets that serves as storm sewer. The repurposed VCP sanitary sewer main has sufficient capacity to handle the storm water received from the inlets and storm sewer piping from the north. As stated earlier, the storm sewer pipe in the basin is extremely flat causing small surcharging times in the pipe and ponding around existing inlets. Even with that said, the pipe and inlets have sufficient size and capacity to handle the five-year event.

4.5 DRAINAGE BASINS 5, 6, AND 7

The remaining drainage basins consist of ditches with culverts. No deficiencies were identified for the drainage basins.

5 DEVELOPMENT AND EVALUATION OF STORM WATER OPTIONS

The operating characteristics and deficiencies of the existing drainage areas that were discussed in Section 4 of this report require the attention of the City of Alexandria. Since Spruce and Railway Streets is South Dakota Highway 262 and owned by the SD DOT, any work proposed should be coordinated with the South Dakota Department of Transportation. The alternatives relating to the storm water systems that were evaluated to assist in the prevention and/or mitigation of the flooding problems are described below.

5.1 CAUTIONARY NOTES CONCERNING COST ESTIMATES

The opinions of probable cost provided with the following options reflect the anticipated costs for administration, engineering design, construction, contingencies, construction observation, and other costs related to completion of the project. The costs as presented are based on an analysis and comparison of projects of similar size and scope. The actual construction and project costs will vary on an individual project basis. The actual bid cost will reflect the bidder's evaluation of construction problems, weather, soils, and difficulty of work. Thus, the engineer cannot be held responsible for the accuracy of the estimates made in this report as the engineer has no control over the contractors' bid costs.

Changes in materials, equipment, and energy costs, as well as availability of other construction work at the time of the bid opening, could substantially influence actual project cost. Construction costs will also vary somewhat based on the quantity of items necessary to construct the project. The quantities and costs contained in this report are preliminary estimates based on our best judgment without field measurements. Final quantities and opinions of probable cost and final construction costs must be based upon final design.

Different funding sources have different requirements for some non-construction items. Therefore, actual costs of non-construction items should be considered tentative at this time and subject to later modifications and adjustments as current situations and funding sources dictate. Further, since the period of construction cannot be accurately predicted, the costs as presented in this report have not been adjusted to reflect projected inflation factors. Therefore, it is important that the estimate of costs as presented be reviewed and updated periodically to reflect construction cost trends.

5.2 EQUIVALENT UNIFORM ANNUAL COST

The alternatives relating to Alexandria's stormwater system that were evaluated are described in the following sections. In addition to an opinion of cost for each alternative discussed in this section, a breakdown of the estimated equivalent uniform annual cost (EUAC) is also given. The EUAC not only takes the capital costs into account when evaluating the alternatives, but also looks at the salvage value of the components and the expected annual operation and maintenance costs. The result is a comparison of the alternatives on an overall basis throughout a design life of 30 years. As a result, the EUAC may show that the lowest capital cost alternative is not the lowest cost alternative. This situation would occur when options have a low capital cost but high operation and maintenance costs. The terms and values utilized in performing the EUAC are given in Table 5.2-1.

Table 5.2-1: Equivalent Uniform Annual Cost Terminology and Values Used

Term	Definition	Value Used
Interest = I	Annual interest rate	5%
Salvage Value = SV	Value of component at end of 20-year design life	Variable
Present Worth = PW	Present worth (equal to opinion of cost for that item)	Variable
Net Present Worth of Salvage Value = PWSV	Present worth of salvage value	23.1%
Net Present Worth of Capital Costs = NPW	Present worth less the present worth of the salvage value	Variable
Net Present Worth of Annual Costs	Present worth of annual costs over the 20-year design life	1540%
Equivalent Uniform Annual Costs = EUAC	Annual cost of total present worth of capital and annual costs	6.51%
Design Life	Length of time facilities are projected to operate and/or meet design parameters	Variable

5.3 ALTERNATIVE #1: DO NOTHING

The first alternative that was considered for the previously described drainage system was the “do nothing” option. The “do nothing” option does not rectify any of the previously noted deficiencies within the drainage system. Since the “do nothing” option will not address the identified issues, the “do nothing” alternative is not considered as an acceptable alternative for the storm water system.

5.4 ALTERNATIVE #2: RAILWAY STREET STORM SEWER ADDITION

The second alternative considered is the addition of storm sewer pipe from an existing storm sewer manhole between Juniper and Main Streets, to Broad Street, along Railway Street, known as South Dakota Highway 262. The addition of this storm sewer would intercept the storm water on Juniper Street and to the west to Spruce Street. Personnel with the City have spoken about previous storm sewer problems in the area where this addition would occur. This addition would alleviate those storm sewer issues. Furthermore, this alternative would provide capacity that would allow the existing storm sewer pipe on 3rd Street and Main Street to remain in service, rather than increasing the size. This would result in overall savings for the City. The cost estimate for this addition is in Table 5.4-1. The EUAC estimate is shown in Table 5.4-2. Figure 5.4-1 shows a general layout of the proposed addition.

Table 5.4-1: Railway Street Storm Sewer Addition Cost Estimate

Item	Description	Quantity	Unit Price	Total Price
1	Mobilization	1 LS	\$122,700.00	\$122,700.00
2	Remove and Dispose of Existing Storm Sewer	230 LF	\$10.00	\$2,300.00
3	Mill, Salvage, and Stockpile Asphalt Surfacing	9,200 SY	\$9.00	\$82,800.00
4	Furnish and Install 36" RCP	2,100 LF	\$125.00	\$262,500.00
5	Furnish and Install 36" RCP Flared End	1 EA	\$1,600.00	\$1,600.00
6	Storm Sewer Manhole	5 EA	\$4,000.00	\$20,000.00
7	Street Excavation	2,000 CY	\$12.00	\$24,000.00
8	Gravel Base Course and Surfacing	802 TN	\$25.00	\$20,050.00
9	4" Asphalt Surfacing	2,208 TN	\$150.00	\$331,200.00
10	Seed, Fertilize, and Mulch	3,000 SY	\$3.00	\$9,000.00
11	Traffic Control	1 LS	\$8,500.00	\$8,500.00
12	Erosion Control	1 LS	\$2,000.00	\$2,000.00
13	Incidental Construction	1 LS	\$53,500.00	\$53,500.00
Subtotal				\$941,000.00
Contingencies				\$95,000.00
Total Construction Cost				\$1,036,000.00
Legal and Administration Cost				\$41,500.00
Design Engineering				\$61,500.00
Bidding Phase Engineering				\$5,000.00
Construction Engineering				\$92,300.00
Total Project Cost				\$1,236,300.00

Table 5.4-2: EUAC for Railway Street Storm Sewer Addition

Item	Cost	SV	PW SV	NPW	Life, Yr
Mobilization	\$122,700.00	\$0.00	\$0.00	\$122,700.00	
Remove and Dispose of Existing Storm Sewer	\$2,300.00	\$0.00	\$0.00	\$2,300.00	
Mill, Salvage, and Stockpile Asphalt Surfacing	\$82,800.00	\$0.00	\$0.00	\$82,800.00	
Furnish and Install 36" RCP	\$262,500.00	\$105,000.00	\$24,294.63	\$238,205.37	50
Furnish and Install 36" RCP Flared End	\$1,600.00	\$640.00	\$148.08	\$1,451.92	50
Storm Sewer Manhole	\$20,000.00	\$8,000.00	\$1,851.02	\$18,148.98	50
Street Excavation	\$24,000.00	\$0.00	\$0.00	\$24,000.00	
Gravel Base Course and Surfacing	\$20,050.00	\$0.00	\$0.00	\$20,050.00	
4" Asphalt Surfacing	\$331,200.00	\$0.00	\$0.00	\$331,200.00	
Seed, Fertilize, and Mulch	\$9,000.00	\$0.00	\$0.00	\$9,000.00	
Traffic Control	\$8,500.00	\$0.00	\$0.00	\$8,500.00	
Erosion Control	\$2,000.00	\$0.00	\$0.00	\$2,000.00	
Incidental Construction	\$53,500.00	\$0.00	\$0.00	\$53,500.00	
Total Construction Cost	1,236,300.00	\$113,640.00	\$26,300.00	\$913,860.00	

A. Operation and Maintenance Costs for Proposed Construction

Item	Existing Annual Cost	Additional Annual Cost	Estimated Annual Cost	NPW
Wages	\$25,000.00		\$25,000.00	\$384,311.28
OASI	\$2,500.00		\$2,500.00	\$38,431.13
Repairs and Maintenance	\$4,500.00	-\$3,500.00	\$1,000.00	\$69,176.03
Supplies	\$5,000.00		\$5,000.00	\$76,862.26
Utilities	\$5,500.00		\$5,500.00	\$84,548.48
Other	\$3,000.00		\$3,000.00	\$46,117.35
Subtotal	\$45,500.00	-\$3,500.00	\$42,000.00	\$699,446.52

B. Equivalent Uniform Annual Cost

NPW Construction Cost	\$913,860.00
NPW of O & M Costs	\$699,446.52
Total Net Present Worth	\$1,613,306.52

Equivalent Uniform Annual Cost \$104,947.90

Railway Street Addition



Legend

- 36" RCP Storm Sewer Pipe
- Flared End Outfall
- Stormwater Manhole

Figure 5.4-1: Railway Street Addition

5.5 ALTERNATIVE #3: REMAINING SYSTEM IMPROVEMENTS

The third alternative considered is the improvements of the remaining system. This project includes replacing all deficient storm sewer piping and culverts in the system except for the existing RCP in the system. It also includes replacing existing storm inlets and catch basins, manholes, and parts of existing street surfaces. This alternative would relieve nearly all flooding issues throughout the system. The model shows that the existing 30" RCP on 3rd Street between Main and Broad Streets surcharges for 90 minutes at the peak of the event. The existing 36" RCP on Broad Street between 3rd and Main Streets surcharges roughly the same amount of time. Inlets on these blocks are able to handle the event with minimal flooding and ponding. Refer to Appendix C for more detailed information on the proposed model. Figure 5.5-1 shows a profile of the hydraulic grade line in the remaining system improvements. This profile is typical of the rest of the system after the improvements were made. Figure 5.5-2 shows the pipe sizes and layout for the remaining system. Table 5.5-1 consists of a cost estimate for the remaining system. The EUAC estimate is shown in Table 5.5-2.

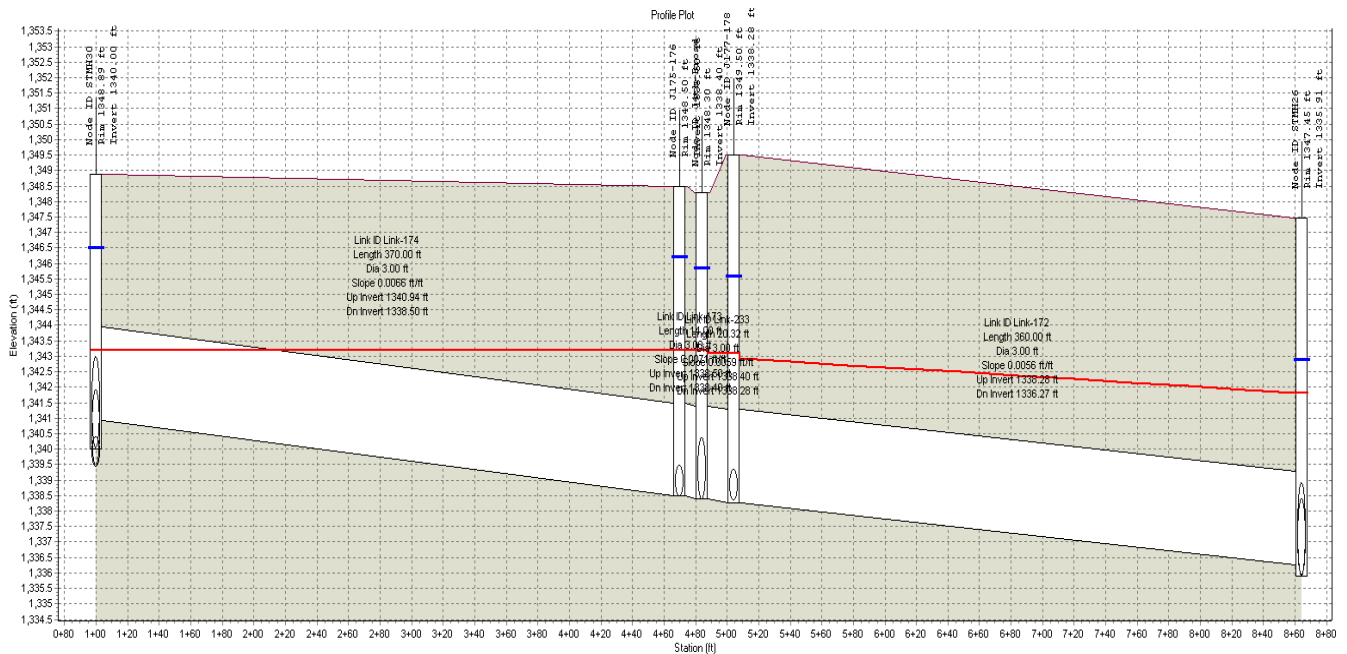


Figure 5.5-1: Profile View of Proposed System

Table 5.5-1: Remaining System Improvements Cost Estimate

Item	Description	Quantity	Unit Price	Total Price
1	Mobilization	1 LS	\$567,400.00	\$567,400.00
2	Remove and Dispose of Existing Storm Sewer	1,150 LF	\$10.00	\$11,500.00
3	Remove and Dispose of Existing Culvert	2,490 LF	\$15.00	\$37,350.00
4	Remove and Dispose of Existing Storm Inlet	182 EA	\$700.00	\$127,400.00
5	Mill, Salvage, and Stockpile Asphalt Surfacing	13,400 SY	\$9.00	\$120,600.00
6	Furnish and Install 12" RCP	6,950 LF	\$50.00	\$347,500.00
7	Furnish and Install 15" RCP	2,600 LF	\$60.00	\$156,000.00
8	Furnish and Install 18" RCP	5,800 LF	\$70.00	\$406,000.00
9	Furnish and Install 24" RCP	6,360 LF	\$85.00	\$540,600.00
10	Furnish and Install 30" RCP	1,790 LF	\$100.00	\$179,000.00
11	Furnish and Install 36" RCP	5,270 LF	\$125.00	\$658,750.00
12	Storm Sewer Manhole	30 EA	\$4,000.00	\$120,000.00
13	2' x 3' Type B Storm Inlet and Grate	60 EA	\$2,500.00	\$150,000.00
14	Type 1 Storm Inlet	122 EA	\$2,000.00	\$244,000.00
15	Street Excavation	2,000 CY	\$12.00	\$24,000.00
16	Gravel Base Course and Surfacing	1,229 TN	\$25.00	\$30,725.00
17	2" Asphalt Surfacing	1,608 TN	\$150.00	\$241,200.00
18	Seed, Fertilize, and Mulch	32,000 SY	\$3.00	\$96,000.00
19	Traffic Control	1 LS	\$39,100.00	\$39,100.00
20	Erosion Control	1 LS	\$5,000.00	\$5,000.00
21	Incidental Construction	1 LS	\$247,500.00	\$247,500.00
Subtotal				\$4,350,000.00
Contingencies				\$435,000.00
Total Construction Cost				\$4,785,000.00
Legal and Administration Cost				\$191,400.00
Design Engineering				\$382,800.00
Bidding Phase Engineering				\$7,000.00
Construction Engineering				\$574,200.00
Total Project Cost				\$5,940,400.00

Table 5.5-2: EUAC for Remaining System Improvements

Item	Cost	SV	PW SV	NPW	Life, Yr
Mobilization	\$567,400.00	\$0.00	\$0.00	\$567,400.00	
Remove and Dispose of Existing Storm Sewer	\$11,500.00	\$0.00	\$0.00	\$11,500.00	
Remove and Dispose of Existing Culvert	\$37,350.00	\$0.00	\$0.00	\$37,350.00	
Remove and Dispose of Existing Storm Inlet	\$127,400.00	\$0.00	\$0.00	\$127,400.00	
Mill, Salvage, and Stockpile Asphalt Surfacing	\$120,600.00	\$0.00	\$0.00	\$120,600.00	
Furnish and Install 12" RCP	\$347,500.00	\$139,000.00	\$32,161.47	\$315,338.53	50
Furnish and Install 15" RCP	\$156,000.00	\$156,000.00	\$36,094.88	\$119,905.12	50
Furnish and Install 18" RCP	\$406,000.00	\$406,000.00	\$93,939.24	\$312,060.76	50
Furnish and Install 24" RCP	\$540,600.00	\$540,600.00	\$125,082.65	\$415,517.35	50
Furnish and Install 30" RCP	\$179,000.00	\$179,000.00	\$41,416.56	\$137,583.44	50
Furnish and Install 36" RCP	\$658,750.00	\$658,750.00	\$152,419.89	\$506,330.11	50
Storm Sewer Manhole	\$120,000.00	\$120,000.00	\$27,765.29	\$92,234.71	50
2' x 3' Type B Storm Inlet and Grate	\$150,000.00	\$150,000.00	\$34,706.62	\$115,293.38	50
Type 1 Storm Inlet	\$244,000.00	\$244,000.00	\$56,456.10	\$187,543.90	50
Street Excavation	\$24,000.00	\$0.00	\$0.00	\$24,000.00	
Gravel Base Course and Surfacing	\$30,725.00	\$0.00	\$0.00	\$30,725.00	
2" Asphalt Surfacing	\$241,200.00	\$0.00	\$0.00	\$241,200.00	
Seed, Fertilize, and Mulch	\$96,000.00	\$0.00	\$0.00	\$96,000.00	
Traffic Control	\$39,100.00	\$0.00	\$0.00	\$39,100.00	
Erosion Control	\$5,000.00	\$0.00	\$0.00	\$5,000.00	
Incidental Construction	\$247,500.00	\$0.00	\$0.00	\$247,500.00	
Total Construction Cost	5,940,400.00	\$2,593,350.00	\$600,050.00	\$3,749,590.00	

A. Operation and Maintenance Costs for Proposed Construction

Item	Existing Annual Cost	Additional Annual Cost	Estimated Annual Cost	NPW
Wages	\$25,000.00		\$25,000.00	\$384,311.28
OASI	\$2,500.00		\$2,500.00	\$38,431.13
Repairs and Maintenance	\$4,500.00	-\$3,500.00	\$1,000.00	\$69,176.03
Supplies	\$5,000.00		\$5,000.00	\$76,862.26
Utilities	\$5,500.00		\$5,500.00	\$84,548.48
Other	\$3,000.00		\$3,000.00	\$46,117.35
Subtotal	\$45,500.00	-\$3,500.00	\$42,000.00	\$207,528.09

B. Equivalent Uniform Annual Cost

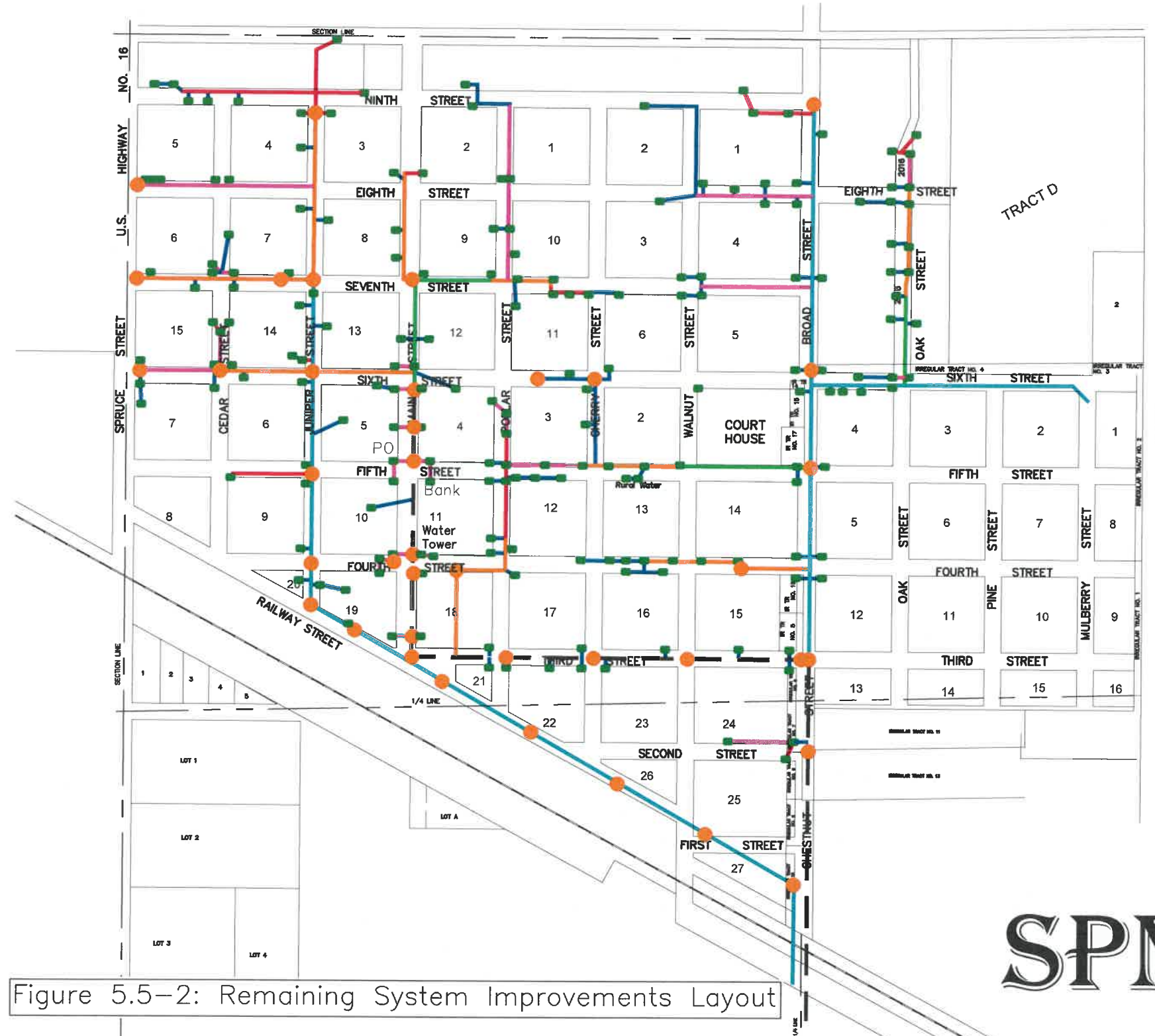
NPW Construction Cost \$3,749,590.00
 NPW of O & M Costs \$207,528.09
 Total Net Present Worth \$3,957,118.09

Equivalent Uniform Annual Cost \$257,416.21

STORM SEWER MAP CITY OF ALEXANDRIA



SCALE: 1" = 500'



LEGEND

- = EXISTING STORM SEWER
- = PROPOSED STORM SEWER
- = 36" RCP STORM SEWER
- = 30" RCP STORM SEWER
- = 24" RCP STORM SEWER
- = 18" RCP STORM SEWER
- = 15" RCP STORM SEWER
- = 12" RCP STORM SEWER
- = STORM MANHOLE/CLEANOUT
- = INLET/CATCH BASIN

Figure 5.5-2: Remaining System Improvements Layout

SPN

& Associates
Engineers, Planners and Surveyors
 2100 North Sanborn Blvd. - P.O. Box 398 Mitchell, South Dakota 57301
 Phone: (605) 996-7761 Fax: (605) 996-0015

6 SELECTION OF STORM WATER ALTERNATIVES

A summary of the total project costs for each of the improvements discussed in Section 5 is presented in Table 6-1. The options discussed in Section 5 have been analyzed and the following is a recommendation for the implementation of the options for the City of Alexandria.

Table 6-1: Summary of Costs and Recommendations

Storm Water Improvement Options	Cost	Recommended
Alternative #1: Do Nothing	\$0	
Alternative #2: Railway Street Storm Sewer Addition	\$1,236,300	\$1,236,300
Alternative #3: Remaining System Improvements	\$5,940,400	
	Total	\$1,236,300

6.1 ALTERNATIVE #1: DO NOTHING

The first storm water system option that was considered was the “do nothing” alternative. The “do nothing” alternative includes no improvements. Since this alternative does not address the issues previously discussed, the Do-Nothing alternative is not considered a viable alternative.

6.2 ALTERNATIVE #2: RAILWAY STREET STORM SEWER ADDITION

The installation of 36” RCP storm sewer pipe on Railway Street would divert storm water from the west side of Main Street, allowing the existing storm sewer pipe on 3rd Street to have sufficient capacity. The installation of storm sewer pipe along Railway Street would improve the capacity of the storm sewer in the area. SPN recommends that the City of Alexandria proceed to budget and secure funding for the construction of the proposed improvements.

6.3 ALTERNATIVE #3: REMAINING SYSTEM IMPROVEMENTS

The remaining system improvements would improve the capacity and flooding issues of the rest of the existing storm sewer system. The existing system eventually drains after an extended period. SPN does not recommend the remaining system improvement at this time due to the high costs associated with the improvement.

6.4 DEMONSTRATION OF FINANCIAL CAPABILITY

As part of the cost analysis of the recommended improvements, the ability to pay for the improvements is evaluated. The capital cost of the proposed improvements would be difficult, if not impossible, for the City of Alexandria to finance with 100% city funding.

For the purpose of this financial evaluation, the total cost of the improvements is assumed to be eligible for a low interest loan from the SD DANR State Revolving Fund Program. This, however, is subject to change due to decisions that must be made by the appropriate funding agencies. The City qualifies for a loan with up to a 30-year period at an interest rate of 2.125%. Table 6.4-1 summarizes the financial data that was used to determine the current and proposed operational status of the wastewater/stormwater fund. The budget information is from available data provided by the City.

Table 6.4-1: Financial Evaluation

	0/100	20/80	40/60	50/50	60/40	80/20	100/0
	loan/grant	loan/grant	loan/grant	loan/grant	loan/grant	loan/grant	loan/grant
Annual O & M	\$45,500	\$45,500	\$45,500	\$45,500	\$45,500	\$45,500	\$45,500
Amount Amortized	\$0	\$247,260	\$494,520	\$618,150	\$741,780	\$989,040	\$1,236,300
Grant Amount	\$1,236,300	\$989,040	\$741,780	\$618,150	\$494,520	\$247,260	\$0
Annual Payment	\$0	\$9,238	\$18,476	\$23,095	\$27,714	\$36,952	\$46,190
Debt Reserves	\$0	\$924	\$1,848	\$2,310	\$2,771	\$3,695	\$4,619
Current Debt/Asset/Other Cost	\$3,200	\$3,200	\$3,200	\$3,200	\$3,200	\$3,200	\$3,200
Total Annual Costs	\$48,700	\$58,862	\$69,024	\$74,105	\$79,186	\$89,348	\$99,510
Annual Revenue	\$54,096	\$54,096	\$54,096	\$54,096	\$54,096	\$54,096	\$54,096
Surplus/Deficit After Project	\$5,396	-\$4,766	-\$14,928	-\$20,009	-\$25,090	-\$35,252	-\$45,414
Minimum Sewer Rate Increase	\$0.00	\$1.25	\$4.00	\$5.25	\$6.50	\$9.25	\$12.00
New Sewer Rate	\$14.00	\$15.25	\$18.00	\$19.25	\$20.50	\$23.25	\$26.00

6.5 CAPITAL FINANCING PLAN

SPN recommends that the City of Alexandria make application to state and federal resources for loan and grant assistance to complete the project during the upcoming construction season.

6.6 ENVIRONMENTAL EVALUATION

The City of Alexandria has requested comments from concerned federal agencies. The correspondence related to these inquiries will be found in Appendix A of this Facility Plan when the documents are made available.

6.7 VIEW OF THE PUBLIC AND CONCERNED INTEREST GROUPS

The City of Alexandria is planning to conduct a public hearing on the proposed project. Information related to the hearing will be submitted after it is conducted.

6.8 DESIGN OF SELECTED PLAN

The proposed improvements to the storm sewer system will require design work to be completed. The proposed improvements will be designed in accordance with the accepted principles and standards for the design of storm drainage systems.

6.9 ENVIRONMENTAL IMPACTS OF SELECTED PLAN

Environmental information gathered thus far does not indicate that any of the state or federal agencies will have environmental concerns related to the project or its proposed construction activities.

6.10 ARRANGEMENT FOR IMPLEMENTATION

This report provides information to describe the proposed project and to support the City Council's decision to proceed with it as quickly as possible. Final design will be completed by the City of Alexandria's consultant and approved by the appropriate agencies. Cost estimates have been prepared and are referenced elsewhere in this document. The project will be bid in accordance with state statutes that govern municipal corporations and will be constructed by the lowest responsible bidder.

Table 6.10-1: Implementation Schedule

Task	Date
Facility Plan Submitted to Funding Agencies	December 2021
Environmental Review Completed	January 2022
State Water Plan Application	October 2022
Funding Application	January 2023
Final Funding Package Complete	April 2023
Begin Design	June 2023
Plans and Specifications Submitted to Funding Agency	October 2023
Plans and Specifications Approved by Funding Agency	November 2023
Advertisement for Bids	December 2023
Open Bids	January 2024
Award Bids	January 2024
Begin Construction	April 2024
Construction Complete	November 2024
Project Close-out	December 2024

6.11 LAND ACQUISITION

No land acquisition will be required for the proposed improvements located in existing street rights-of-way, in easements that have already been obtained or on City property.

7 REFERENCES

City of Sioux Falls (2021) Engineering Design Standards for Public Improvements (adopted 1999, last revised 2021).

NOAA National Centers for Environmental Information, Climate Data Online Search, data accessed 11/22/2021, <https://www.ncdc.noaa.gov/cdo-web/search>.

Rossman, L.A., & Huber, W. C. (2016). Storm water management model reference manual Volume I-Hydrology (Revised). *US Environmental Protection Agency: Cincinnati, OH, USA*.

Appendix A

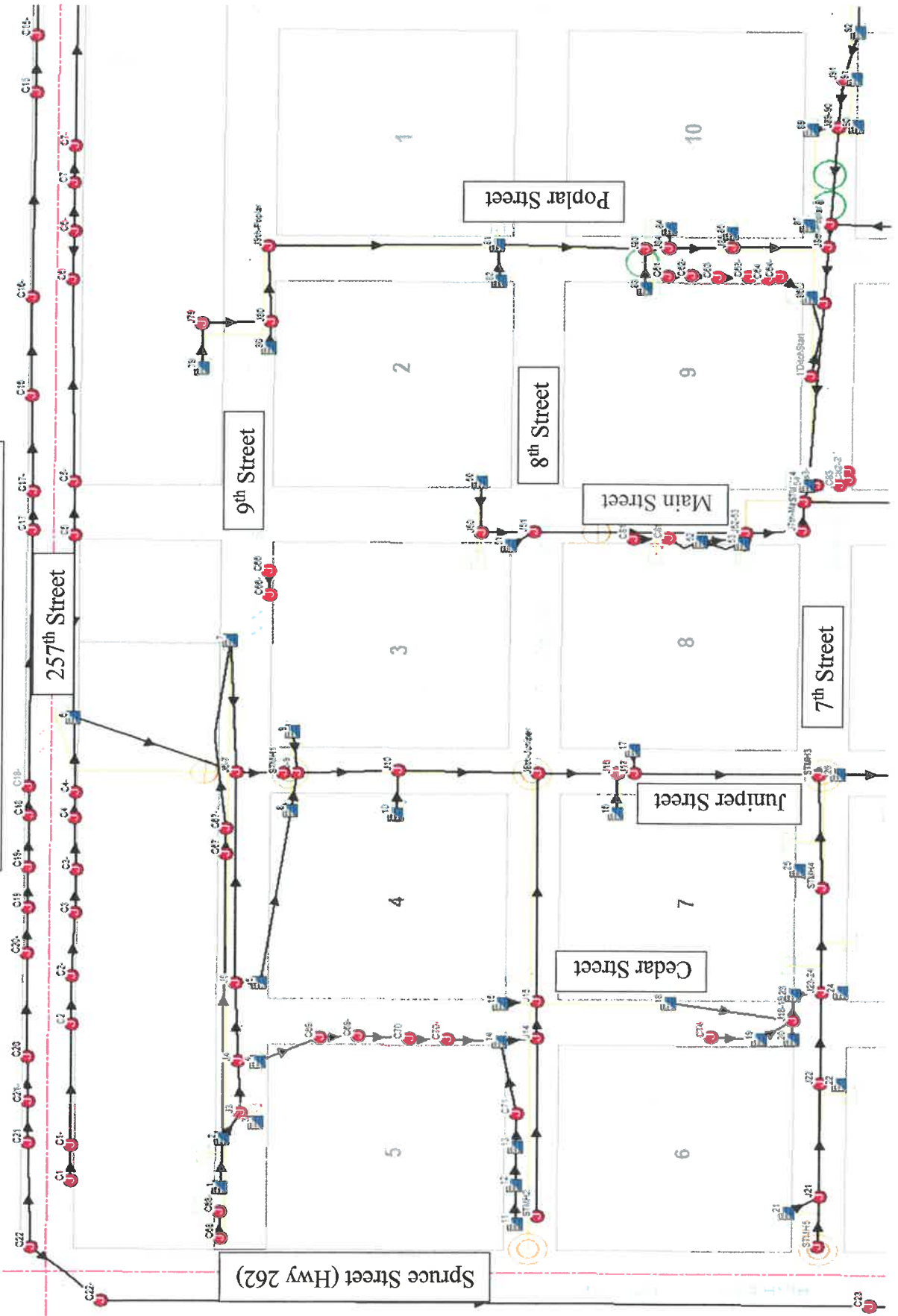
Environmental Assessment Correspondence

Correspondence will be inserted when available.

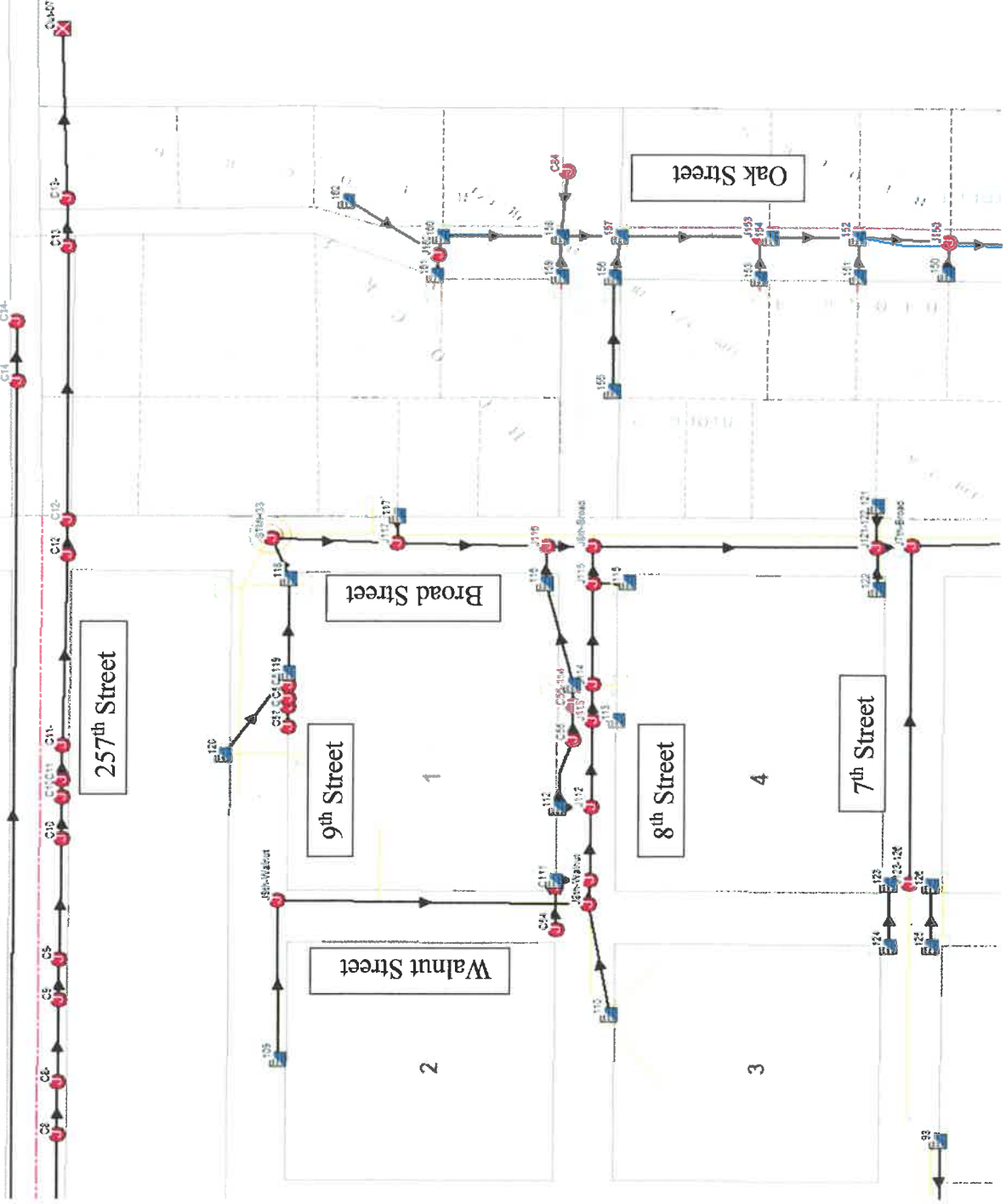
Appendix B

Existing System Detailed Information

Northwest Alexandria Storm Sewer



Northeast Alexandria Storm Sewer



TRACT D

257th Street

9th Street

Broad Street

Walnut Street

8th Street

Oak Street

7th Street

1

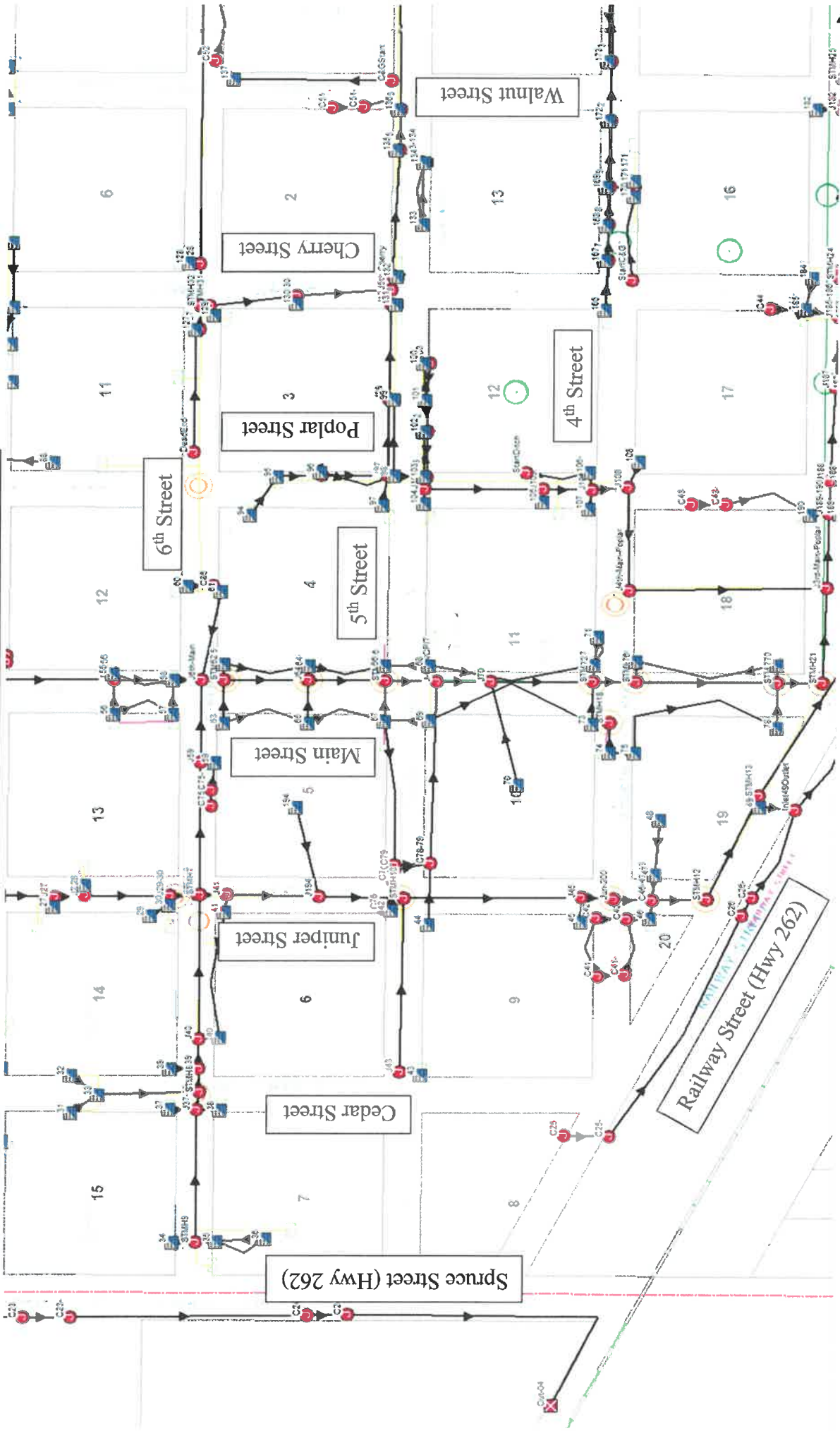
2

4

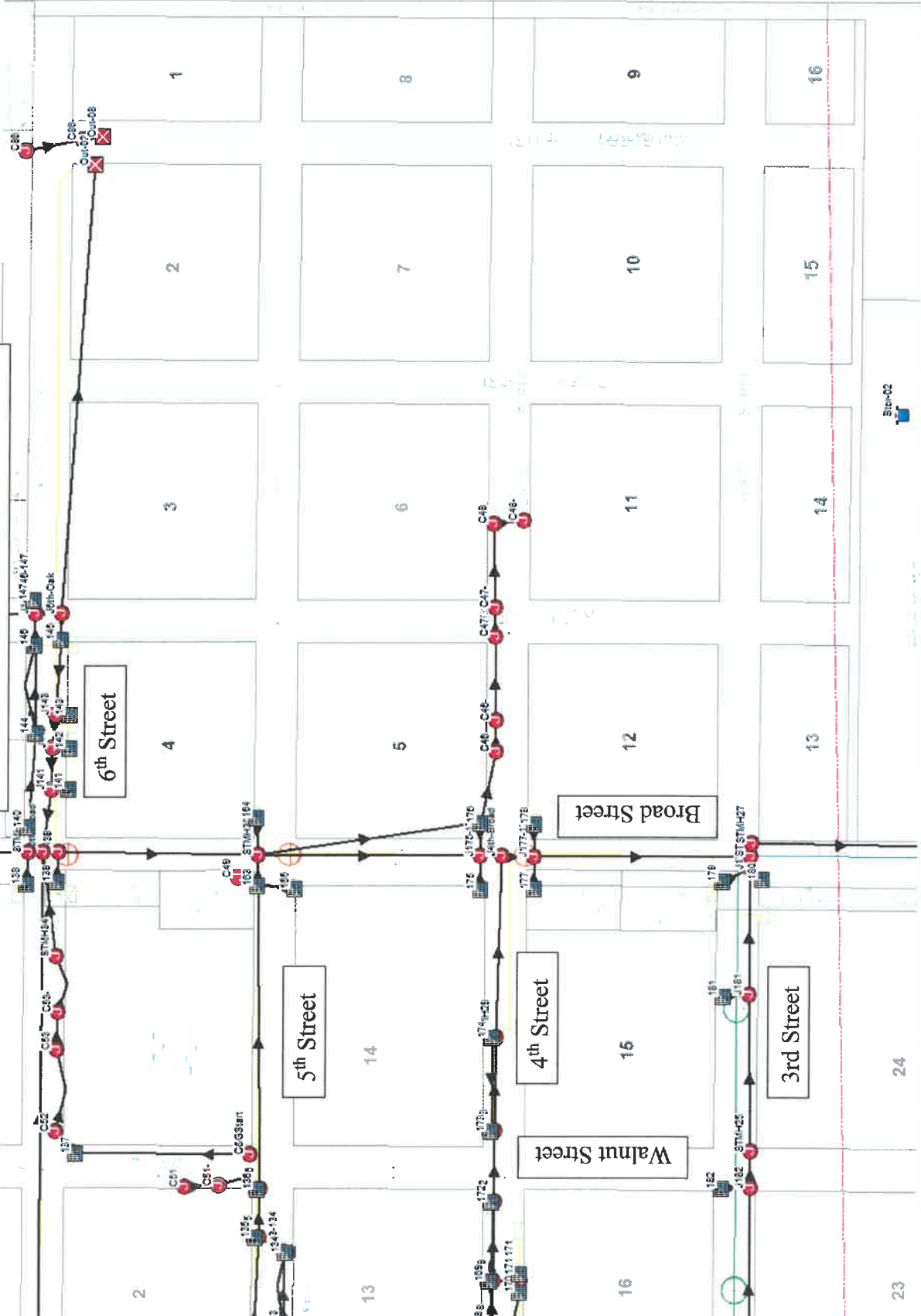
3

93

West Central Alexandria Storm Sewer



East Central Alexandria Storm Sewer



6th Street

5th Street

4th Street

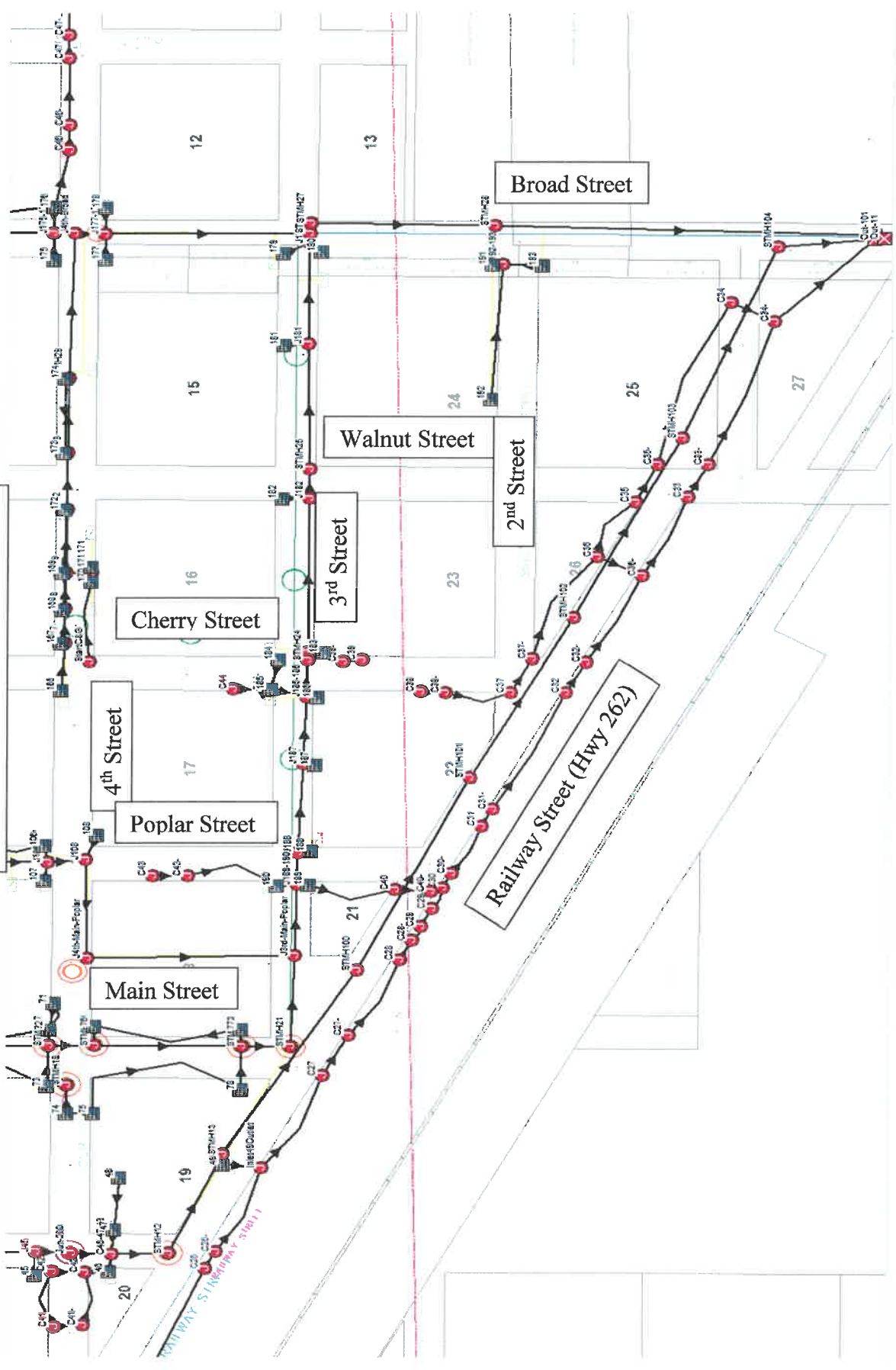
Walnut Street

Broad Street

3rd Street

Stop-C2

South Alexandria Storm Sewer



Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim Elevation (Max) (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft ²)	Peak Inflow (cfs)	Max HGL Elevation (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1'DitchStart	Junction	1351.10	1352.00	1351.10	1352.00	0.00	0.00	1351.10	0.00	1.20	0 00:00	0.00	0.00
C&Gstart	Junction	1352.00	1352.50	1352.00	1352.50	0.00	0.00	1352.00	0.00	0.69	0 00:00	0.00	0.00
C1	Junction	1352.89	1354.14	1352.89	1354.14	0.00	0.03	1353.23	0.00	0.91	0 00:00	0.00	0.00
C1-	Junction	1352.67	1353.92	1352.67	1353.92	0.00	3.75	1353.23	0.00	2.89	0 00:00	0.00	0.00
C10	Junction	1350.33	1351.58	1350.33	1351.58	0.00	1.31	1351.12	0.00	3.60	0 00:00	0.00	0.00
C10-	Junction	1350.13	1351.38	1350.13	1351.38	0.00	1.33	1351.02	0.00	3.50	0 00:00	0.00	0.00
C11	Junction	1349.97	1351.22	1349.97	1351.22	0.00	1.34	1351.02	0.00	3.34	0 00:00	0.00	0.00
C11-	Junction	1349.93	1351.18	1349.93	1351.18	0.00	2.02	1350.93	0.00	3.39	0 00:00	0.00	0.00
C12	Junction	1349.09	1351.09	1349.09	1351.09	0.00	4.94	1350.93	0.00	2.55	0 00:00	0.00	0.00
C12-	Junction	1349.02	1351.02	1349.02	1351.02	0.00	9.10	1350.91	0.00	1.56	0 00:00	0.00	0.00
C13	Junction	1348.52	1350.02	1348.52	1350.02	0.00	9.63	1350.90	0.00	1.07	0 00:00	0.00	0.00
C13-	Junction	1348.27	1349.77	1348.27	1349.77	0.00	5.73	1348.42	0.00	1.35	0 00:00	0.00	0.00
C14	Junction	1349.05	1352.05	1349.05	1352.05	0.00	3.04	1351.14	0.00	2.41	0 00:00	0.00	0.00
C14-	Junction	1348.52	1351.52	1348.52	1351.52	0.00	1.34	1351.14	0.00	0.38	0 00:00	0.00	0.00
C15	Junction	1350.26	1353.26	1350.26	1353.26	0.00	1.26	1351.14	0.00	3.62	0 00:00	0.00	0.00
C15-	Junction	1350.08	1353.08	1350.08	1353.08	0.00	4.30	1351.14	0.00	3.44	0 00:00	0.00	0.00
C16	Junction	1349.88	1352.88	1349.88	1352.88	0.00	1.22	1351.14	0.00	3.24	0 00:00	0.00	0.00
C16-	Junction	1349.69	1352.69	1349.69	1352.69	0.00	1.87	1351.14	0.00	3.05	0 00:00	0.00	0.00
C17	Junction	1349.53	1352.53	1349.53	1352.53	0.00	1.89	1351.14	0.00	2.89	0 00:00	0.00	0.00
C17-	Junction	1349.36	1352.36	1349.36	1352.36	0.00	1.49	1351.14	0.00	2.72	0 00:00	0.00	0.00
C18	Junction	1349.98	1352.98	1349.98	1352.98	0.00	1.96	1351.14	0.00	3.34	0 00:00	0.00	0.00
C18-	Junction	1349.98	1352.98	1349.98	1352.98	0.00	2.90	1351.14	0.00	3.34	0 00:00	0.00	0.00
C19	Junction	1351.42	1353.42	1351.42	1353.42	0.00	1.84	1351.97	0.00	3.95	0 00:00	0.00	0.00
C19-	Junction	1351.19	1353.19	1351.19	1353.19	0.00	1.96	1351.50	0.00	4.19	0 00:00	0.00	0.00
C2	Junction	1351.18	1352.68	1351.18	1352.68	0.00	3.59	1353.22	0.00	1.41	0 00:00	0.00	0.00
C2-	Junction	1351.27	1352.77	1351.27	1352.77	0.00	2.28	1353.15	0.00	1.57	0 00:00	0.00	0.00
C20	Junction	1351.16	1353.16	1351.16	1353.16	0.00	1.62	1352.69	0.00	2.97	0 00:00	0.00	0.00
C20-	Junction	1352.12	1354.12	1352.12	1354.12	0.00	1.84	1352.45	0.00	4.17	0 00:00	0.00	0.00
C21	Junction	1350.91	1352.91	1350.91	1352.91	0.00	2.25	1352.70	0.00	2.71	0 00:00	0.00	0.00
C21-	Junction	1351.13	1353.13	1351.13	1353.13	0.00	2.00	1352.69	0.00	2.94	0 00:00	0.00	0.00
C22	Junction	1353.05	1355.05	1353.05	1355.05	0.00	3.01	1353.39	0.00	4.16	0 00:00	0.00	0.00
C22-	Junction	1352.50	1354.50	1352.50	1354.50	0.00	3.42	1352.93	0.00	2.45	0 00:00	0.00	0.00
C23	Junction	1351.83	1353.08	1351.83	1353.08	0.00	9.97	1352.93	0.00	1.78	0 00:00	0.00	0.00
C23-	Junction	1351.95	1353.45	1351.95	1353.45	0.00	2.06	1352.72	0.00	1.23	0 00:00	0.00	0.00
C24	Junction	1351.58	1352.83	1351.58	1352.83	0.00	6.06	1352.71	0.00	0.87	0 00:00	0.00	0.00
C24-	Junction	1351.02	1352.27	1351.02	1352.27	0.00	3.56	1351.58	0.00	1.44	0 00:00	0.00	0.00
C25	Junction	1349.68	1351.18	1349.68	1351.18	0.00	4.56	1351.18	0.00	0.00	0 12:05	1.01	49.00
C25-	Junction	1349.21	1350.71	1349.21	1350.71	0.00	4.67	1351.21	0.00	0.33	0 00:00	0.00	0.00
C26	Junction	1349.77	1351.02	1349.77	1351.02	0.00	3.77	1351.22	0.00	0.88	0 00:00	0.00	0.00
C26-	Junction	1350.81	1352.06	1350.81	1352.06	0.00	0.98	1351.04	0.00	1.02	0 00:00	0.00	0.00
C27	Junction	1347.92	1348.92	1347.92	1348.92	0.00	2.87	1348.89	0.00	0.23	0 00:00	0.00	0.00
C27-	Junction	1347.21	1348.21	1347.21	1348.21	0.00	1.84	1348.09	0.00	0.32	0 00:00	0.00	0.00
C28	Junction	1346.93	1348.18	1346.93	1348.18	0.00	2.09	1348.08	0.00	0.10	0 00:00	0.00	0.00
C28-	Junction	1347.23	1348.48	1347.23	1348.48	0.00	1.96	1347.51	0.00	0.97	0 00:00	0.00	0.00
C29	Junction	1346.60	1347.85	1346.60	1347.85	0.00	1.98	1347.28	0.00	0.57	0 00:00	0.00	0.00
C29-	Junction	1346.48	1347.73	1346.48	1347.73	0.00	1.98	1346.89	0.00	0.84	0 00:00	0.00	0.00
C3	Junction	1351.94	1353.44	1351.94	1353.44	0.00	4.81	1353.15	0.00	2.24	0 00:00	0.00	0.00
C3-	Junction	1351.59	1353.09	1351.59	1353.09	0.00	4.50	1352.58	0.00	2.46	0 00:00	0.00	0.00
C30	Junction	1345.92	1346.92	1345.92	1346.92	0.00	2.02	1346.88	0.00	0.24	0 00:00	0.00	0.00
C30-	Junction	1345.93	1346.93	1345.93	1346.93	0.00	1.80	1346.29	0.00	1.64	0 00:00	0.00	0.00
C31	Junction	1345.03	1346.28	1345.03	1346.28	0.00	1.96	1345.69	0.00	1.34	0 00:00	0.00	0.00
C31-	Junction	1344.94	1346.19	1344.94	1346.19	0.00	1.92	1345.32	0.00	1.62	0 00:00	0.00	0.00
C32	Junction	1342.97	1344.22	1342.97	1344.22	0.00	3.23	1344.20	0.00	0.77	0 00:00	0.00	0.00
C32-	Junction	1343.11	1344.36	1343.11	1344.36	0.00	2.33	1344.00	0.00	1.11	0 00:00	0.00	0.00
C33	Junction	1343.05	1345.05	1343.05	1345.05	0.00	4.17	1343.98	0.00	1.07	0 00:00	0.00	0.00
C33-	Junction	1342.84	1344.84	1342.84	1344.84	0.00	3.96	1343.31	0.00	1.53	0 00:00	0.00	0.00
C34	Junction	1340.82	1342.82	1340.82	1342.82	0.00	10.83	1342.11	0.00	0.71	0 00:00	0.00	0.00
C34-	Junction	1339.69	1341.69	1339.69	1341.69	0.00	14.27	1339.92	0.00	1.77	0 00:00	0.00	0.00
C35	Junction	1342.88	1344.88	1342.88	1344.88	0.00	6.83	1343.96	0.00	1.25	0 00:00	0.00	0.00
C35-	Junction	1342.75	1344.75	1342.75	1344.75	0.00	6.82	1343.23	0.00	1.52	0 00:00	0.00	0.00
C36	Junction	1342.72	1344.72	1342.72	1344.72	0.00	10.52	1344.00	0.00	1.05	0 00:00	0.00	0.00
C36-	Junction	1342.59	1344.59	1342.59	1344.59	0.00	5.13	1343.99	0.00	0.60	0 00:00	0.00	0.00
C37	Junction	1344.45	1345.70	1344.45	1345.70	0.00	7.35	1345.70	0.00	0.00	0 11:58	0.47	13.00
C37-	Junction	1344.49	1345.74	1344.49	1345.74	0.00	3.11	1344.92	0.00	1.90	0 00:00	0.00	0.00
C38	Junction	1344.72	1345.72	1344.72	1345.72	0.00	1.65	1345.72	0.00	0.00	0 11:58	0.08	10.00
C38-	Junction	1344.79	1345.79	1344.79	1345.79	0.00	1.59	1345.72	0.00	0.27	0 00:00	0.00	0.00
C39	Junction	1345.35	1346.35	1345.35	1346.35	0.00	1.34	1345.92	0.00	0.43	0 00:00	0.00	0.00
C39-	Junction	1345.32	1346.32	1345.32	1346.32	0.00	1.34	1345.62	0.00	0.90	0 00:00	0.00	0.00
C4	Junction	1351.59	1353.09	1351.59	1353.09	0.00	4.41	1352.55	0.00	2.49	0 00:00	0.00	0.00
C4-	Junction	1351.37	1352.87	1351.37	1352.87	0.00	4.39	1351.95	0.00	2.87	0 00:00	0.00	0.00
C40	Junction	1346.10	1347.35	1346.10	1347.35	0.00	0.58	1346.88	0.00	0.47	0 00:00	0.00	0.00
C40-	Junction	1345.63	1346.88	1345.63	1346.88	0.00	0.31	1346.88	0.00	0.00	0 12:22	0.12	47.00
C41	Junction	1351.09	1352.09	1351.09	1352.09	0.00	1.49	1351.34	0.00	0.95	0 00:00	0.00	0.00
C41-	Junction	1350.40	1351.40	1350.40	1351.40	0.00	1.65	1350.80	0.00	0.80	0 00:00	0.00	0.00
C42	Junction	1350.35	1351.60	1350.35	1351.60	0.00	0.82	1350.73	0.00	0.87	0 00:00	0.00	0.00
C42-	Junction	1349.75	1351.00	1349.75	1351.00	0.00	2.29	1350.00	0.00	1.00	0 00:00	0.00	0.00
C43	Junction	1349.50	1350.17	1349.50	1350.17	0.00	2.66	1350.17	0.00	0.00	0 12:00	0.17	16.00
C43-	Junction	1349.15	1349.82	1349.15	1349.82	0.00	1.20	1349.42	0.00	0.93	0 00:00	0.00	0.00
C44	Junction	1346.47	1346.97	1346.47	1346.97	0.00	2.42	1347.14	0.00	0.00	0 12:00	0.07	8.00
C44-	Junction	1344.70	1345.37	1344.70	1345.37	0.00	5.59	1345.90	0.00	0.00	0 12:00	0.79	25.00

Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim Elevation (Max) (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft ²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
C45	Junction	1347.54	1348.21	1347.54	1348.21	0.00	0.00	1347.54	0.00	0.67	0 00:00	0.00	0.00
C45-	Junction	1347.38	1348.05	1347.38	1348.05	0.00	0.00	1347.38	0.00	0.67	0 00:00	0.00	0.00
C46	Junction	1345.36	1345.86	1345.36	1345.86	0.00	4.11	1346.56	0.00	0.00	0 12:00	0.26	11.00
C46-	Junction	1344.84	1345.34	1344.84	1345.34	0.00	1.07	1345.10	0.00	0.94	0 00:00	0.00	0.00
C47	Junction	1343.38	1344.38	1343.38	1344.38	0.00	3.29	1344.44	0.00	0.14	0 00:00	0.00	0.00
C47-	Junction	1343.15	1344.15	1343.15	1344.15	0.00	2.28	1343.42	0.00	0.93	0 00:00	0.00	0.00
C48	Junction	1337.76	1338.76	1337.76	1338.76	0.00	8.03	1338.96	0.00	0.00	0 12:00	0.63	19.00
C48-	Junction	1336.47	1337.47	1336.47	1337.47	0.00	3.73	1336.92	0.00	1.55	0 00:00	0.00	0.00
C49	Junction	1347.82	1348.15	1347.82	1348.15	0.00	0.00	1347.82	0.00	0.33	0 00:00	0.00	0.00
C5	Junction	1351.49	1352.99	1351.49	1352.99	0.00	1.29	1351.95	0.00	2.99	0 00:00	0.00	0.00
C5-	Junction	1351.15	1352.65	1351.15	1352.65	0.00	2.27	1352.20	0.00	2.40	0 00:00	0.00	0.00
C50	Junction	1350.73	1351.23	1350.73	1351.23	0.00	0.00	1350.73	0.00	0.50	0 00:00	0.00	0.00
C50-	Junction	1350.63	1351.13	1350.63	1351.13	0.00	0.00	1350.63	0.00	0.50	0 00:00	0.00	0.00
C51	Junction	1350.31	1351.31	1350.31	1351.31	0.00	4.79	1351.31	0.00	0.00	0 12:00	0.44	20.00
C51-	Junction	1350.20	1351.20	1350.20	1351.20	0.00	1.82	1350.65	0.00	0.75	0 00:00	0.00	0.00
C52	Junction	1349.85	1350.35	1349.85	1350.35	0.00	0.00	1349.85	0.00	1.20	0 00:00	0.00	0.00
C53	Junction	1347.89	1348.89	1347.89	1348.89	0.00	3.36	1348.75	0.00	0.34	0 00:00	0.00	0.00
C53-	Junction	1347.64	1348.64	1347.64	1348.64	0.00	2.06	1347.90	0.00	0.94	0 00:00	0.00	0.00
C54	Junction	1350.98	1351.98	1350.98	1351.98	0.00	6.60	1351.98	0.00	0.00	0 12:00	0.92	30.00
C54-	Junction	1350.73	1351.73	1350.73	1351.73	0.00	2.41	1351.73	0.00	0.20	0 00:00	0.00	0.00
C55	Junction	1350.81	1351.31	1350.81	1351.31	0.00	1.85	1351.26	0.00	0.75	0 00:00	0.00	0.00
C55-	Junction	1350.75	1351.25	1350.75	1351.25	0.00	0.35	1351.13	0.00	0.82	0 00:00	0.00	0.00
C56	Junction	1350.15	1350.65	1350.15	1350.65	0.00	1.28	1350.65	0.00	0.00	0 12:00	0.13	20.00
C56-	Junction	1350.13	1350.63	1350.13	1350.63	0.00	0.42	1350.46	0.00	0.87	0 00:00	0.00	0.00
C57	Junction	1351.58	1352.58	1351.58	1352.58	0.00	5.91	1352.58	0.00	0.00	0 12:00	0.71	25.00
C57-	Junction	1351.43	1352.43	1351.43	1352.43	0.00	2.02	1351.65	0.00	0.98	0 00:00	0.00	0.00
C58	Junction	1350.29	1351.29	1350.29	1351.29	0.00	2.01	1351.40	0.00	0.09	0 00:00	0.00	0.00
C58-	Junction	1349.69	1350.69	1349.69	1350.69	0.00	1.89	1350.89	0.00	0.00	0 12:16	3.75	1219.00
C59	Junction	1350.58	1351.08	1350.58	1351.08	0.00	0.04	1350.89	0.00	0.89	0 00:00	0.00	0.00
C59-	Junction	1350.80	1351.30	1350.80	1351.30	0.00	0.04	1350.85	0.00	1.15	0 00:00	0.00	0.00
C6	Junction	1351.40	1352.90	1351.40	1352.90	0.00	3.16	1352.21	0.00	2.64	0 00:00	0.00	0.00
C6-	Junction	1351.56	1353.06	1351.56	1353.06	0.00	0.50	1352.21	0.00	2.80	0 00:00	0.00	0.00
C60	Junction	1351.29	1352.29	1351.29	1352.29	0.00	0.00	1351.29	0.00	1.00	0 00:00	0.00	0.00
C60-	Junction	1351.25	1352.25	1351.25	1352.25	0.00	0.00	1351.25	0.00	1.00	0 00:00	0.00	0.00
C61	Junction	1351.30	1351.80	1351.30	1351.80	0.00	1.67	1351.80	0.00	0.00	0 12:00	0.24	31.00
C62-	Junction	1350.83	1351.33	1350.83	1351.33	0.00	0.40	1351.46	0.00	0.57	0 00:00	0.00	0.00
C63	Junction	1350.39	1350.89	1350.39	1350.89	0.00	0.32	1351.46	0.00	0.13	0 00:00	0.00	0.00
C63-	Junction	1350.66	1351.16	1350.66	1351.16	0.00	0.26	1350.82	0.00	1.04	0 00:00	0.00	0.00
C64	Junction	1350.47	1351.14	1350.47	1351.14	0.00	0.26	1350.70	0.00	0.97	0 00:00	0.00	0.00
C64-	Junction	1350.27	1350.94	1350.27	1350.94	0.00	0.45	1350.44	0.00	1.03	0 00:00	0.00	0.00
C65	Junction	1351.90	1352.73	1351.90	1352.73	0.00	0.00	1351.90	0.00	0.83	0 00:00	0.00	0.00
C65-	Junction	1351.87	1352.70	1351.87	1352.70	0.00	0.00	1351.87	0.00	0.83	0 00:00	0.00	0.00
C66	Junction	1352.80	1353.80	1352.80	1353.80	0.00	0.00	1352.80	0.00	1.00	0 00:00	0.00	0.00
C66-	Junction	1352.27	1353.27	1352.27	1353.27	0.00	0.00	1352.27	0.00	1.00	0 00:00	0.00	0.00
C67	Junction	1353.12	1353.95	1353.12	1353.95	0.00	3.51	1353.90	0.00	0.42	0 00:00	0.00	0.00
C67-	Junction	1352.59	1353.42	1352.59	1353.42	0.00	1.63	1352.93	0.00	1.66	0 00:00	0.00	0.00
C68	Junction	1354.35	1355.35	1354.35	1355.35	0.00	0.00	1354.35	0.00	1.00	0 00:00	0.00	0.00
C68-	Junction	1354.31	1355.31	1354.31	1355.31	0.00	0.00	1354.31	0.00	1.00	0 00:00	0.00	0.00
C69	Junction	1353.23	1353.56	1353.23	1353.56	0.00	1.61	1354.43	0.00	0.00	0 12:00	0.28	43.00
C69-	Junction	1354.02	1354.35	1354.02	1354.35	0.00	0.12	1354.14	0.00	1.08	0 00:00	0.00	0.00
C7	Junction	1351.41	1352.91	1351.41	1352.91	0.00	1.93	1352.22	0.00	2.64	0 00:00	0.00	0.00
C7-	Junction	1351.36	1352.86	1351.36	1352.86	0.00	1.23	1352.21	0.00	2.60	0 00:00	0.00	0.00
C70	Junction	1353.47	1354.30	1353.47	1354.30	0.00	0.13	1353.59	0.00	1.08	0 00:00	0.00	0.00
C70-	Junction	1353.16	1353.99	1353.16	1353.99	0.00	0.12	1353.25	0.00	1.11	0 00:00	0.00	0.00
C71	Junction	1353.35	1353.68	1353.35	1353.68	0.00	2.69	1353.85	0.00	0.70	0 00:00	0.00	0.00
C72	Junction	1352.70	1353.20	1352.70	1353.20	0.00	0.00	1352.70	0.00	0.50	0 00:00	0.00	0.00
C72-	Junction	1352.66	1353.16	1352.66	1353.16	0.00	0.00	1352.66	0.00	0.50	0 00:00	0.00	0.00
C73	Junction	1352.65	1353.15	1352.65	1353.15	0.00	0.00	1352.65	0.00	0.50	0 00:00	0.00	0.00
C74	Junction	1352.10	1352.93	1352.10	1352.93	0.00	5.71	1352.93	0.00	0.00	0 12:00	1.29	57.00
C75	Junction	1350.01	1350.84	1350.01	1350.84	0.00	0.81	1350.84	0.00	0.00	0 12:00	0.05	15.00
C75-	Junction	1350.37	1351.20	1350.37	1351.20	0.00	0.36	1350.52	0.00	1.05	0 00:00	0.00	0.00
C76	Junction	1350.78	1351.78	1350.78	1351.78	0.00	5.81	1351.98	0.00	0.00	0 12:00	0.73	27.00
C77	Junction	1350.60	1351.60	1350.60	1351.60	0.00	1.72	1351.35	0.00	0.45	0 00:00	0.00	0.00
C78	Junction	1350.53	1351.53	1350.53	1351.53	0.00	1.66	1351.35	0.00	0.38	0 00:00	0.00	0.00
C78-79	Junction	1347.00	1351.00	1347.00	1351.00	0.00	5.39	1351.00	0.00	0.00	0 12:01	0.87	40.00
C79	Junction	1350.50	1351.50	1350.50	1351.50	0.00	37.77	1351.70	0.00	0.00	0 12:01	0.38	10.00
C8	Junction	1350.68	1352.18	1350.68	1352.18	0.00	1.31	1352.21	0.00	1.92	0 00:00	0.00	0.00
C8-	Junction	1350.47	1351.97	1350.47	1351.97	0.00	1.83	1352.21	0.00	2.65	0 00:00	0.00	0.00
C80-	Junction	1351.15	1351.65	1351.15	1351.65	0.00	0.56	1351.65	0.00	0.70	0 00:00	0.00	0.00
C81	Junction	1351.00	1351.50	1351.00	1351.50	0.00	2.45	1351.50	0.00	0.00	0 12:00	0.75	110.00
C82	Junction	1349.98	1350.65	1349.98	1350.65	0.00	3.96	1350.65	0.00	0.00	0 12:00	1.08	83.00
C82-	Junction	1350.30	1350.97	1350.30	1350.97	0.00	0.35	1350.43	0.00	1.07	0 00:00	0.00	0.00
C83	Junction	1350.03	1351.53	1350.03	1351.53	0.00	0.35	1350.27	0.00	1.26	0 00:00	0.00	0.00
C83-	Junction	1349.37	1350.87	1349.37	1350.87	0.00	0.98	1350.04	0.00	0.83	0 00:00	0.00	0.00
C84	Junction	1347.53	1348.36	1347.53	1348.36	0.00	0.09	1347.56	0.00	1.47	0 00:00	0.00	0.00
C85	Junction	1349.90	1350.90	1349.90	1350.90	0.00	1.03	1350.56	0.00	0.54	0 00:00	0.00	0.00
C86	Junction	1340.31	1341.31	1340.31	1341.31	0.00	13.12	1341.31	0.00	0.00	0 12:00	2.82	47.00
C86-	Junction	1339.99	1340.99	1339.99	1340.99	0.00	3.50	1340.31	0.00	0.88	0 00:00	0.00	0.00
C9	Junction	1351.36	1352.19	1351.36	1352.19	0.00	3.45	1352.21	0.00	3.54	0 00:00	0.00	0.00
C9-	Junction	1350.98	1351.81	1350.98	1351.81	0.00	1.31	1351.32	0.00	4.05	0 00:00	0.00	0.00

Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft ²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
DeadEnd	Junction	1350.77	1351.10	1350.77	1351.10	0.00	0.00	1350.77	0.00	0.33	0 00:00	0.00	0.00
DitchStart	Junction	1349.00	1350.00	1349.00	1350.00	0.00	0.00	1349.00	0.00	1.20	0 00:00	0.00	0.00
Inlet49Outlet	Junction	1348.08	1349.58	1348.08	1349.58	0.00	2.54	1348.90	0.00	0.68	0 00:00	0.00	0.00
J	Junction	1342.75	1344.25	1342.75	1344.25	0.00	4.71	1344.25	0.00	0.00	0 12:02	0.21	26.00
J10	Junction	1345.81	1353.00	1345.81	1353.00	0.00	2.10	1350.54	0.00	2.46	0 00:00	0.00	0.00
J100	Junction	1346.79	1347.29	1346.79	1347.29	0.00	2.54	1347.29	0.00	0.00	0 12:00	1.02	78.00
J102	Junction	1346.46	1346.96	1346.46	1346.96	0.00	0.57	1346.96	0.00	0.00	0 12:00	0.13	89.00
J103	Junction	1346.28	1346.78	1346.28	1346.78	0.00	0.65	1346.78	0.00	0.00	0 11:57	0.35	96.00
J104	Junction	1346.25	1346.75	1346.25	1346.75	0.00	1.98	1346.75	0.00	0.00	0 12:00	0.32	41.00
J105	Junction	1345.00	1345.50	1345.00	1345.50	0.00	2.88	1345.50	0.00	0.00	0 12:00	1.62	250.00
J106-107	Junction	1344.80	1345.30	1344.80	1345.30	0.00	2.51	1345.30	0.00	0.00	0 11:54	1.75	163.00
J108	Junction	1344.51	1346.51	1344.51	1346.51	0.00	1.98	1346.51	0.00	0.00	0 11:44	0.00	0.00
J111	Junction	1347.03	1347.36	1347.03	1347.36	0.00	1.74	1347.36	0.00	0.00	0 12:02	6.08	998.00
J112	Junction	1346.00	1352.00	1346.00	1352.00	0.00	0.45	1351.63	0.00	0.37	0 00:00	0.00	0.00
J113	Junction	1345.28	1351.75	1345.28	1351.75	0.00	0.45	1350.85	0.00	0.90	0 00:00	0.00	0.00
J114	Junction	1344.48	1351.50	1344.48	1351.50	0.00	0.33	1350.66	0.00	0.84	0 00:00	0.00	0.00
J115	Junction	1343.74	1351.50	1343.74	1351.50	0.00	0.79	1348.77	0.00	2.73	0 00:00	0.00	0.00
J116	Junction	1343.60	1345.10	1343.60	1345.10	0.00	5.16	1345.10	0.00	0.00	0 12:03	0.49	28.00
J117	Junction	1344.49	1345.99	1344.49	1345.99	0.00	2.53	1345.47	0.00	0.52	0 00:00	0.00	0.00
J121-122	Junction	1342.00	1343.50	1342.00	1343.50	0.00	9.08	1343.50	0.00	0.00	0 12:00	7.44	217.00
J123-126	Junction	1347.51	1348.18	1347.51	1348.18	0.00	1.52	1348.18	0.00	0.00	0 12:00	0.23	68.00
J127	Junction	1349.25	1349.92	1349.25	1349.92	0.00	0.47	1349.44	0.00	0.48	0 00:00	0.00	0.00
J128	Junction	1346.55	1347.22	1346.55	1347.22	0.00	2.19	1347.22	0.00	0.00	0 12:00	0.73	63.00
J130	Junction	1346.24	1346.74	1346.24	1346.74	0.00	2.77	1346.74	0.00	0.00	0 12:00	0.62	58.00
J131	Junction	1345.92	1347.42	1345.92	1347.42	0.00	1.27	1347.25	0.00	0.17	0 00:00	0.00	0.00
J132	Junction	1345.84	1346.34	1345.84	1346.34	0.00	2.84	1346.34	0.00	0.00	0 12:00	2.03	427.00
J133-134	Junction	1347.40	1347.90	1347.40	1347.90	0.00	1.64	1347.90	0.00	0.00	0 12:00	0.10	20.00
J135	Junction	1345.43	1345.93	1345.43	1345.93	0.00	1.64	1345.93	0.00	0.00	0 11:50	1.79	594.00
J136	Junction	1345.17	1345.67	1345.17	1345.67	0.00	2.60	1345.67	0.00	0.00	0 11:54	3.65	908.00
J139	Junction	1340.26	1349.00	1340.26	1349.00	0.00	2.93	1343.22	0.00	5.78	0 00:00	0.00	0.00
J14	Junction	1347.05	1347.72	1347.05	1347.72	0.00	1.11	1347.72	0.00	0.00	0 12:05	0.59	73.00
J141	Junction	1341.37	1342.87	1341.37	1342.87	0.00	6.82	1342.87	0.00	0.00	0 12:00	1.27	42.00
J142	Junction	1341.08	1342.58	1341.08	1342.58	0.00	3.69	1342.58	0.00	0.00	0 12:00	0.13	43.00
J143	Junction	1340.74	1342.24	1340.74	1342.24	0.00	5.27	1342.24	0.00	0.00	0 12:00	14.15	546.00
J144-146-147	Junction	1341.74	1342.74	1341.74	1342.74	0.00	3.96	1342.74	0.00	0.00	0 12:00	1.47	93.00
J148	Junction	1343.02	1344.02	1343.02	1344.02	0.00	3.82	1344.02	0.00	0.00	0 11:58	0.27	21.00
J149	Junction	1343.10	1344.10	1343.10	1344.10	0.00	2.74	1344.10	0.00	0.00	0 12:01	0.82	76.00
J15	Junction	1346.95	1347.62	1346.95	1347.62	0.00	2.32	1347.62	0.00	0.00	0 12:00	1.71	122.00
J150	Junction	1343.66	1344.66	1343.66	1344.66	0.00	4.67	1344.66	0.00	0.00	0 12:00	0.64	69.00
J153	Junction	1344.64	1345.64	1344.64	1345.64	0.00	8.94	1345.64	0.00	0.00	0 12:00	2.39	69.00
J16	Junction	1345.48	1353.25	1345.48	1353.25	0.00	2.95	1350.22	0.00	3.03	0 00:00	0.00	0.00
J162	Junction	1345.68	1346.48	1345.68	1346.48	0.00	5.82	1346.48	0.00	0.00	0 11:59	2.46	61.00
J166-167	Junction	1346.54	1346.87	1346.54	1346.87	0.00	1.63	1346.87	0.00	0.00	0 12:00	0.90	152.00
J168	Junction	1346.16	1346.49	1346.16	1346.49	0.00	0.91	1346.49	0.00	0.00	0 11:49	0.77	266.00
J169	Junction	1345.64	1345.97	1345.64	1345.97	0.00	1.88	1345.97	0.00	0.00	0 12:00	5.83	1174.00
J17	Junction	1345.44	1353.30	1345.44	1353.30	0.00	3.80	1350.03	0.00	3.27	0 00:00	0.00	0.00
J170-171	Junction	1347.50	1347.83	1347.50	1347.83	0.00	1.09	1347.83	0.00	0.00	0 11:59	0.27	38.00
J172	Junction	1345.38	1349.10	1345.38	1349.10	0.00	0.50	1348.48	0.00	0.62	0 00:00	0.00	0.00
J173	Junction	1345.27	1349.00	1345.27	1349.00	0.00	0.34	1348.37	0.00	0.63	0 00:00	0.00	0.00
J175-176	Junction	1338.47	1341.47	1338.47	1341.47	0.00	12.80	1341.47	0.00	0.00	0 11:56	0.00	0.00
J177-178	Junction	1338.25	1340.25	1338.25	1340.25	0.00	18.65	1340.25	0.00	0.00	0 12:00	4.02	50.00
J179-180	Junction	1336.00	1339.00	1336.00	1339.00	0.00	21.76	1339.00	0.00	0.00	0 12:00	0.93	28.00
J181	Junction	1337.11	1339.61	1337.11	1339.61	0.00	23.82	1339.61	0.00	0.00	0 12:03	3.41	48.00
J18-19-20	Junction	1350.90	1351.40	1350.90	1351.40	0.00	1.63	1351.40	0.00	0.00	0 12:00	0.43	141.00
J182	Junction	1338.74	1341.24	1338.74	1341.24	0.00	21.69	1341.19	0.00	0.05	0 00:00	0.00	0.00
J183	Junction	1340.61	1343.11	1340.61	1343.11	0.00	19.14	1342.24	0.00	1.26	0 00:00	0.00	0.00
J185-186	Junction	1340.72	1343.22	1340.72	1343.22	0.00	17.90	1343.22	0.00	0.00	0 12:00	0.04	8.00
J187	Junction	1341.03	1344.52	1341.03	1344.52	0.00	15.22	1343.57	0.00	0.95	0 00:00	0.00	0.00
J189-190	Junction	1341.65	1344.15	1341.65	1344.15	0.00	16.44	1344.15	0.00	0.00	0 12:00	0.65	21.00
J192-193	Junction	1340.11	1340.61	1340.11	1340.61	0.00	4.14	1340.61	0.00	0.00	0 11:59	1.47	103.00
J21	Junction	1347.65	1348.65	1347.65	1348.65	0.00	1.98	1348.31	0.00	0.34	0 00:00	0.00	0.00
J22	Junction	1347.00	1348.00	1347.00	1348.00	0.00	4.24	1348.00	0.00	0.00	0 12:00	0.17	10.00
J23-24	Junction	1346.51	1347.51	1346.51	1347.51	0.00	5.54	1347.51	0.00	0.00	0 12:00	1.70	41.00
J27	Junction	1344.43	1346.43	1344.43	1346.43	0.00	8.52	1346.43	0.00	0.00	0 12:00	1.32	33.00
J28	Junction	1344.37	1346.37	1344.37	1346.37	0.00	6.77	1346.37	0.00	0.00	0 12:01	0.56	27.00
J29-30	Junction	1344.05	1346.05	1344.05	1346.05	0.00	7.81	1346.05	0.00	0.00	0 12:00	0.59	23.00
J3	Junction	1350.25	1350.75	1350.25	1350.75	0.00	4.06	1350.75	0.00	0.00	0 11:59	1.18	61.00
J37-38	Junction	1347.46	1348.46	1347.46	1348.46	0.00	6.49	1348.46	0.00	0.00	0 12:00	3.42	86.00
J39	Junction	1347.38	1348.38	1347.38	1348.38	0.00	2.70	1348.38	0.00	0.00	0 12:00	0.49	52.00
J3rd-Main-Poplar	Junction	1341.90	1344.50	1341.90	1344.50	0.00	18.79	1344.50	0.00	0.00	0 12:02	0.00	1.00
J4	Junction	1349.65	1350.15	1349.65	1350.15	0.00	1.37	1350.15	0.00	0.00	0 12:00	0.32	68.00
J40	Junction	1347.00	1353.00	1347.00	1353.00	0.00	1.77	1348.30	0.00	4.70	0 00:00	0.00	0.00
J41	Junction	1343.92	1352.90	1343.92	1352.90	0.00	8.49	1345.95	0.00	6.95	0 00:00	0.00	0.00
J43	Junction	1348.95	1350.45	1348.95	1350.45	0.00	1.39	1349.38	0.00	1.07	0 00:00	0.00	0.00
J45	Junction	1341.86	1352.75	1341.86	1352.75	0.00	8.78	1344.94	0.00	7.81	0 00:00	0.00	0.00
J46-47-48	Junction	1341.00	1342.50	1341.00	1342.50	0.00	17.55	1342.50	0.00	0.00	0 12:00	51.32	1293.00
J4th-Broad	Junction	1338.37	1348.00	1338.37	1348.00	0.00	13.13	1341.18	0.00	6.82	0 00:00	0.00	0.00
J4th-Main-Poplar	Junction	1343.73	1344.73	1343.73	1344.73	0.00	1.26	1344.73	0.00	0.00	0 12:02	0.41	66.00
J5	Junction	1349.34	1349.84	1349.34	1349.84	0.00	0.69	1349.84	0.00	0.00	0 12:00	0.04	40.00
J50	Junction	1347.95	1349.45	1347.95	1349.45	0.00	1.70	1349.38	0.00	0.07	0 00:00	0.00	0.00

Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft ²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
J51	Junction	1347.84	1349.34	1347.84	1349.34	0.00	3.18	1349.34	0.00	0.00	0 11:59	0.00	5.00
J52	Junction	1348.03	1348.53	1348.03	1348.53	0.00	2.43	1348.53	0.00	0.00	0 12:08	1.10	56.00
J52-53	Junction	1347.14	1348.64	1347.14	1348.64	0.00	3.19	1348.60	0.00	0.04	0 00:00	0.00	0.00
J55-56	Junction	1345.94	1347.94	1345.94	1347.94	0.00	7.72	1347.94	0.00	0.00	0 12:00	0.19	7.00
J59	Junction	1345.86	1346.86	1345.86	1346.86	0.00	5.11	1346.86	0.00	0.00	0 12:02	2.32	58.00
J5th-Cherry	Junction	1345.88	1346.38	1345.88	1346.38	0.00	1.38	1346.38	0.00	0.00	0 12:00	1.74	397.00
J64-65	Junction	1344.88	1350.95	1344.88	1350.95	0.00	10.84	1347.80	0.00	3.15	0 00:00	0.00	0.00
J6-7	Junction	1347.16	1347.66	1347.16	1347.66	0.00	3.79	1347.66	0.00	0.00	0 12:00	5.77	259.00
J6th-Broad	Junction	1340.28	1349.10	1340.28	1349.10	0.00	8.00	1343.26	0.00	5.84	0 00:00	0.00	0.00
J6th-Main	Junction	1345.39	1351.45	1345.39	1351.45	0.00	10.42	1347.80	0.00	3.65	0 00:00	0.00	0.00
J6th-Oak	Junction	1341.54	1343.04	1341.54	1343.04	0.00	2.46	1342.37	0.00	0.67	0 00:00	0.00	0.00
J70	Junction	1343.89	1346.39	1343.89	1346.39	0.00	23.31	1346.39	0.00	0.00	0 12:02	3.53	27.00
J79	Junction	1348.46	1348.96	1348.46	1348.96	0.00	1.34	1348.96	0.00	0.00	0 12:03	0.46	55.00
J7th-Broad	Junction	1341.88	1348.50	1341.88	1348.50	0.00	2.71	1343.50	0.00	5.00	0 00:00	0.00	0.00
J7th-Main	Junction	1346.78	1348.28	1346.78	1348.28	0.00	3.06	1348.28	0.00	0.00	0 11:59	0.33	14.00
J80	Junction	1348.30	1348.80	1348.30	1348.80	0.00	0.39	1348.80	0.00	0.00	0 11:43	0.03	59.00
J83	Junction	1348.34	1348.84	1348.34	1348.84	0.00	1.52	1348.84	0.00	0.00	0 12:01	1.17	142.00
J84	Junction	1348.25	1348.75	1348.25	1348.75	0.00	2.04	1348.75	0.00	0.00	0 12:02	1.48	191.00
J85	Junction	1348.09	1348.59	1348.09	1348.59	0.00	1.76	1348.59	0.00	0.00	0 12:00	0.23	34.00
J86	Junction	1347.50	1348.00	1347.50	1348.00	0.00	2.47	1348.00	0.00	0.00	0 12:03	0.98	99.00
J87-88	Junction	1347.40	1347.90	1347.40	1347.90	0.00	2.30	1347.90	0.00	0.00	0 12:00	2.18	390.00
J8-9	Junction	1346.10	1353.35	1346.10	1353.35	0.00	2.26	1350.51	0.00	2.84	0 00:00	0.00	0.00
J89-90	Junction	1347.67	1348.17	1347.67	1348.17	0.00	3.63	1348.17	0.00	0.00	0 12:00	1.79	209.00
J8th-Broad	Junction	1343.53	1351.00	1343.53	1351.00	0.00	3.91	1344.99	0.00	6.01	0 00:00	0.00	0.00
J8th-Juniper	Junction	1345.53	1352.75	1345.53	1352.75	0.00	2.10	1350.25	0.00	2.50	0 00:00	0.00	0.00
J8th-Poplar	Junction	1347.35	1347.85	1347.35	1347.85	0.00	1.18	1347.85	0.00	0.00	0 11:43	11.59	1382.00
J8th-Walnut	Junction	1347.25	1347.58	1347.25	1347.58	0.00	0.73	1347.58	0.00	0.00	0 12:00	1.09	363.00
J91	Junction	1347.78	1348.28	1347.78	1348.28	0.00	2.38	1348.28	0.00	0.00	0 11:59	0.90	114.00
J96	Junction	1347.40	1347.90	1347.40	1347.90	0.00	2.20	1347.90	0.00	0.00	0 12:00	1.45	176.00
J97	Junction	1347.45	1347.95	1347.45	1347.95	0.00	1.47	1347.95	0.00	0.00	0 12:00	0.16	21.00
J99	Junction	1346.63	1347.13	1346.63	1347.13	0.00	3.00	1347.13	0.00	0.00	0 12:01	1.04	88.00
J9th-Poplar	Junction	1348.00	1348.50	1348.00	1348.50	0.00	1.04	1348.50	0.00	0.00	0 11:51	4.53	1355.00
J9th-Walnut	Junction	1349.91	1350.24	1349.91	1350.24	0.00	0.24	1350.24	0.00	0.00	0 11:24	0.03	173.00
J-CONCPIT	Junction	1344.26	1351.00	1344.26	1351.00	0.00	21.31	1347.31	0.00	3.69	0 00:00	0.00	0.00
StartC&G	Junction	1349.70	1350.70	1349.70	1350.70	0.00	0.32	1349.89	0.00	0.81	0 00:00	0.00	0.00
StartDitch	Junction	1350.25	1351.00	1350.25	1351.00	0.00	1.32	1350.53	0.00	0.92	0 00:00	0.00	0.00
STMH1	Junction	1346.16	1353.46	1346.16	1353.46	0.00	1.44	1350.45	0.00	3.01	0 00:00	0.00	0.00
STMH10	Junction	1343.31	1352.86	1343.31	1352.86	0.00	9.14	1350.65	0.00	2.21	0 00:00	0.00	0.00
STMH11	Junction	1341.53	1352.63	1341.53	1352.63	0.00	8.78	1343.83	0.00	8.80	0 00:00	0.00	0.00
STMH12	Junction	1340.37	1352.22	1340.37	1352.22	0.00	3.65	1343.15	0.00	9.07	0 00:00	0.00	0.00
STMH13	Junction	1339.32	1351.72	1339.32	1351.72	0.00	3.65	1344.40	0.00	7.32	0 00:00	0.00	0.00
STMH14	Junction	1346.72	1351.72	1346.72	1351.72	0.00	5.04	1348.27	0.00	3.45	0 00:00	0.00	0.00
STMH15	Junction	1345.23	1351.48	1345.23	1351.48	0.00	8.98	1347.80	0.00	3.68	0 00:00	0.00	0.00
STMH16	Junction	1344.44	1351.29	1344.44	1351.29	0.00	18.47	1347.67	0.00	3.62	0 00:00	0.00	0.00
STMH17	Junction	1343.31	1350.76	1343.31	1350.76	0.00	15.51	1346.84	0.00	3.92	0 00:00	0.00	0.00
STMH18	Junction	1345.83	1350.58	1345.83	1350.58	0.00	0.02	1350.05	0.00	0.53	0 00:00	0.00	0.00
STMH19	Junction	1343.03	1350.48	1343.03	1350.48	0.00	16.41	1346.67	0.00	3.81	0 00:00	0.00	0.00
STMH2	Junction	1348.23	1355.40	1348.23	1355.40	0.00	0.00	1348.23	0.00	7.17	0 00:00	0.00	0.00
STMH20	Junction	1342.55	1350.70	1342.55	1350.70	0.00	18.28	1345.95	0.00	4.75	0 00:00	0.00	0.00
STMH21	Junction	1342.31	1351.11	1342.31	1351.11	0.00	18.28	1345.36	0.00	5.75	0 00:00	0.00	0.00
STMH22	Junction	1341.28	1351.03	1341.28	1351.03	0.00	3.65	1345.57	0.00	5.46	0 00:00	0.00	0.00
STMH23	Junction	1343.21	1350.21	1343.21	1350.21	0.00	3.70	1343.91	0.00	6.30	0 00:00	0.00	0.00
STMH24	Junction	1340.68	1347.23	1340.68	1347.23	0.00	17.44	1342.97	0.00	4.26	0 00:00	0.00	0.00
STMH25	Junction	1338.41	1348.31	1338.41	1348.31	0.00	21.68	1340.65	0.00	7.66	0 00:00	0.00	0.00
STMH26	Junction	1335.85	1347.45	1335.85	1347.45	0.00	25.24	1338.79	0.00	8.66	0 00:00	0.00	0.00
STMH27	Junction	1335.81	1346.51	1335.81	1346.51	0.00	25.23	1338.31	0.00	8.20	0 00:00	0.00	0.00
STMH28	Junction	1335.03	1345.13	1335.03	1345.13	0.00	26.67	1337.45	0.00	7.68	0 00:00	0.00	0.00
STMH29	Junction	1342.77	1348.82	1342.77	1348.82	0.00	0.34	1346.18	0.00	2.64	0 00:00	0.00	0.00
STMH3	Junction	1344.84	1354.14	1344.84	1354.14	0.00	4.60	1347.49	0.00	6.65	0 00:00	0.00	0.00
STMH30	Junction	1340.96	1348.89	1340.96	1348.89	0.00	8.29	1341.52	0.00	8.57	0 00:00	0.00	0.00
STMH31	Junction	1347.07	1351.48	1347.07	1351.48	0.00	1.44	1348.20	0.00	3.28	0 00:00	0.00	0.00
STMH32	Junction	1346.80	1351.50	1346.80	1351.50	0.00	1.24	1347.62	0.00	3.88	0 00:00	0.00	0.00
STMH33	Junction	1345.08	1351.68	1345.08	1351.68	0.00	1.83	1345.81	0.00	5.87	0 00:00	0.00	0.00
STMH34	Junction	1344.54	1348.67	1344.54	1348.67	0.00	3.10	1344.93	0.00	3.74	0 00:00	0.00	0.00
STMH35	Junction	1340.30	1349.00	1340.30	1349.00	0.00	4.35	1343.47	0.00	5.53	0 00:00	0.00	0.00
STMH36	Junction	1341.57	1348.62	1341.57	1348.62	0.00	14.81	1344.00	0.00	4.62	0 00:00	0.00	0.00
STMH4	Junction	1345.86	1354.26	1345.86	1354.26	0.00	1.79	1347.55	0.00	6.71	0 00:00	0.00	0.00
STMH5	Junction	1347.80	1354.95	1347.80	1354.95	0.00	0.06	1348.32	0.00	6.63	0 00:00	0.00	0.00
STMH6	Junction	1343.96	1353.16	1343.96	1353.16	0.00	7.73	1345.98	0.00	7.18	0 00:00	0.00	0.00
STMH7	Junction	1343.66	1352.77	1343.66	1352.77	0.00	1.77	1347.69	0.00	5.08	0 00:00	0.00	0.00
STMH8	Junction	1347.42	1352.92	1347.42	1352.92	0.00	3.07	1348.80	0.00	4.12	0 00:00	0.00	0.00
STMH9	Junction	1347.75	1353.77	1347.75	1353.77	0.00	1.33	1352.64	0.00	1.13	0 00:00	0.00	0.00
Out-01	Outfall	1333.41					28.16	1335.62					
Out-02	Outfall	1339.67					6.33	1340.49					
Out-04	Outfall	1349.00					7.52	1349.56					
Out-05	Outfall	0.00					5.73	0.15					
Out-06	Outfall	0.00					19.27	0.00					
Out-07	Outfall	1338.00					3.50	1338.32					
Out-08	Outfall	0.00					14.27	0.24					
Stor-02	Storage Node	1329.00	1335.00	1329.00		340000.00	29.72	1335.59				56.56	732.00

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Capacity Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	161	J162	33.00	1346.32	1345.68	1.9400	8.000	0.0100	1.79	2.19	0.82	5.14	0.67	1.00	19.00	SURCHARGED
Pipe	160	158	132.00	1345.38	1344.80	0.4400	12.000	0.0150	1.03	2.05	0.50	1.35	1.00	1.00	60.00	SURCHARGED
Pipe	159	158	44.00	1345.90	1344.80	2.5000	8.000	0.0150	1.39	2.48	0.56	3.99	0.67	1.00	29.00	SURCHARGED
Pipe	158	157	66.00	1344.80	1344.75	0.0800	12.000	0.0150	1.80	0.85	2.12	2.30	1.00	1.00	82.00	SURCHARGED
Pipe	155	156	152.00	1345.97	1344.07	0.5900	8.000	0.0100	0.69	1.21	0.57	1.98	0.67	1.00	20.00	SURCHARGED
Pipe	156	157	44.00	1345.07	1344.75	0.7300	8.000	0.0100	0.97	1.34	0.73	2.79	0.67	1.00	83.00	SURCHARGED
Pipe	154	152	100.00	1344.61	1344.27	0.3400	12.000	0.0150	1.88	1.80	1.04	2.52	1.00	1.00	30.00	SURCHARGED
Pipe	C42	47	46.00	1350.35	1349.75	1.3000	15.000	0.0250	0.69	3.84	0.18	2.85	0.30	0.25	0.00	Calculated
Pipe	48	47	145.00	1350.05	1348.37	1.1600	6.000	0.0120	0.80	0.65	1.23	4.41	0.50	1.00	5.00	SURCHARGED
Pipe	49	Inlet490outlet	65.00	1348.16	1348.08	0.1200	18.000	0.0150	2.04	3.19	0.64	2.48	0.78	0.52	0.00	Calculated
Pipe	J189-190	190	31.00	1341.65	1341.57	0.2600	30.000	0.0150	14.42	18.06	0.80	2.96	2.47	0.99	0.00	Calculated
Pipe	190	J189-190	28.00	1346.26	1341.65	16.4600	6.000	0.0100	1.92	2.96	0.85	9.79	0.50	1.00	27.00	SURCHARGED
Pipe	189	J189-190	12.00	1345.81	1341.65	34.6700	6.000	0.0100	1.12	4.29	0.26	6.93	0.38	0.77	0.00	Calculated
Pipe	151	152	44.00	1345.74	1344.27	3.3400	8.000	0.0100	1.64	2.87	0.57	4.71	0.67	1.00	2.00	SURCHARGED
Pipe	188	187	11.00	1346.54	1341.57	45.1800	6.000	0.0100	0.99	4.90	0.20	6.69	0.35	0.70	0.00	Calculated
Pipe	J185-186	J187	120.00	1341.03	1340.72	0.2600	30.000	0.0150	15.18	18.07	0.84	3.10	2.50	1.00	8.00	SURCHARGED
Pipe	J185-186	187	16.00	1340.72	1340.68	0.2500	30.000	0.0150	17.44	17.77	0.98	3.62	2.40	0.96	0.00	Calculated
Pipe	187	J187	5.00	1344.72	1341.03	73.8000	4.000	0.0100	0.94	2.13	0.44	10.79	0.33	1.00	17.00	SURCHARGED
Pipe	186	J185-186	14.00	1344.60	1340.72	27.7100	6.000	0.0100	1.34	3.84	0.35	7.56	0.42	0.85	0.00	Calculated
Pipe	J182	J182	56.00	1338.74	1338.41	0.5900	30.000	0.0100	2.62	3.35	0.78	13.34	0.50	1.00	21.00	SURCHARGED
Pipe	J179-180	180	9.00	1336.00	1335.85	1.6700	30.000	0.0150	18.40	45.89	0.40	3.75	2.50	1.00	76.00	SURCHARGED
Pipe	180	J179-180	15.00	1342.18	1338.36	25.4700	6.000	0.0100	3.25	3.68	0.88	16.56	0.50	1.00	7.00	SURCHARGED
Pipe	179	J179-180	36.00	1342.54	1338.36	11.6100	6.000	0.0100	2.52	2.49	1.01	12.83	0.50	1.00	8.00	SURCHARGED
Pipe	193	J192-193	67.70	1340.23	1340.11	0.1800	6.000	0.0100	1.51	0.31	4.93	7.71	0.50	1.00	66.00	SURCHARGED
Pipe	J192-193	191	5.00	1340.11	1340.09	0.4000	6.000	0.0100	1.84	0.46	3.99	9.37	0.50	1.00	103.00	SURCHARGED
Pipe	J192-193	192	168.00	1339.82	1340.11	-0.1700	6.000	0.0100	0.79	0.30	2.60	4.01	0.50	1.00	15.00	SURCHARGED
Pipe	191	191	36.00	1340.09	1335.03	14.0600	6.000	0.0100	2.03	2.73	0.74	10.31	0.50	1.00	15.00	SURCHARGED
Pipe	J55-56	58	120.00	1345.94	1345.54	0.3300	24.000	0.0150	7.05	11.32	0.62	2.00	2.00	1.00	7.00	SURCHARGED
Pipe	STMH14	J55-56	230.00	1346.72	1345.94	0.3400	18.000	0.0120	5.14	6.63	0.78	3.01	1.50	1.00	12.00	SURCHARGED
Pipe	55	J55-56	14.00	1348.20	1345.94	16.1400	8.000	0.0100	2.31	6.31	0.37	6.61	0.67	1.00	1.00	SURCHARGED
Pipe	56	J55-56	42.00	1348.24	1345.94	5.4800	8.000	0.0100	1.59	3.68	0.43	8.76	0.59	0.89	0.00	Calculated
Pipe	54	STMH14	15.00	1348.57	1346.72	12.3300	8.000	0.0100	3.06	5.52	0.55	8.76	0.67	1.00	14.00	SURCHARGED
Pipe	140	STMH35	22.00	1344.50	1340.30	19.0900	6.000	0.0100	1.19	3.19	0.37	6.57	0.43	0.87	0.00	Calculated
Pipe	C81	160	35.00	1351.00	1351.15	-0.4300	8.000	0.0250	0.18	0.19	0.95	1.05	0.48	1.00	0.00	Calculated
Pipe	J162	162	100.00	1346.34	1345.68	0.6600	8.000	0.0100	1.74	1.28	1.36	4.98	0.67	1.00	67.00	SURCHARGED
Pipe	C84	158	120.00	1347.53	1344.80	2.2800	18.000	0.0100	0.09	20.60	0.00	0.10	0.76	0.51	0.00	Calculated
Pipe	153	J153	44.00	1345.78	1344.64	2.5900	8.000	0.0100	2.32	2.53	0.92	6.64	0.67	1.00	7.00	SURCHARGED
Pipe	J153	154	10.00	1344.64	1344.61	0.3000	12.000	0.0150	3.82	1.69	2.26	4.87	1.00	1.00	30.00	SURCHARGED
Pipe	157	J6th-Oak	157.00	1344.75	1344.64	0.0700	12.000	0.0150	2.86	0.82	3.50	3.65	1.00	1.00	69.00	SURCHARGED
Pipe	145	J6th-Oak	20.00	1341.60	1341.54	0.3000	18.000	0.0250	0.91	2.99	0.30	1.05	0.79	0.52	0.00	Calculated
Pipe	J6th-Oak	Out-02	682.00	1341.54	1339.67	0.2700	18.000	0.0250	1.66	2.86	0.58	1.66	0.82	0.55	0.00	Calculated
Pipe	150	J150	34.00	1344.29	1343.66	1.8500	6.000	0.0100	1.38	0.99	1.39	7.02	0.50	1.00	23.00	SURCHARGED
Pipe	149	J149	31.00	1344.22	1343.10	3.6100	4.000	0.0100	0.60	0.47	1.27	6.83	0.33	1.00	39.00	SURCHARGED
Pipe	148	J148	3.00	1343.64	1343.02	20.6700	6.000	0.0100	2.39	3.32	0.72	12.17	0.50	1.00	32.00	SURCHARGED
Pipe	152	J150	100.00	1344.27	1343.66	0.6100	12.000	0.0150	3.30	2.41	1.37	4.20	1.00	1.00	36.00	SURCHARGED
Pipe	150	J149	92.00	1343.66	1343.10	0.6100	12.000	0.0150	2.16	2.41	0.90	2.76	1.00	1.00	69.00	SURCHARGED
Pipe	J149	J148	13.00	1343.10	1343.02	0.6200	12.000	0.0150	2.21	2.42	0.91	2.93	1.00	1.00	21.00	SURCHARGED
Pipe	J148	J148	199.40	1343.02	1341.74	0.6400	12.000	0.0150	2.42	2.47	0.98	3.11	1.00	1.00	21.00	SURCHARGED
Pipe	J144-146-147	J144-146-147	33.00	1341.74	1341.54	0.6100	12.000	0.0150	2.46	2.40	1.02	3.94	0.91	0.91	0.00	> CAPACITY
Pipe	146	J144-146-147	45.00	1342.62	1341.74	1.9600	6.000	0.0250	0.69	0.41	1.68	3.50	0.50	1.00	103.00	SURCHARGED
Pipe	147	J144-146-147	8.00	1343.79	1341.74	25.6200	4.000	0.0100	0.92	1.25	0.74	10.58	0.33	1.00	31.00	SURCHARGED
Pipe	144	146	134.00	1344.18	1342.62	1.1600	4.000	0.0100	0.29	0.27	1.10	3.37	0.33	1.00	86.00	SURCHARGED
Pipe	145	J143	117.00	1341.60	1340.74	0.7400	18.000	0.0250	1.48	4.68	0.32	1.04	1.12	0.75	0.00	Calculated
Pipe	J142	J142	90.00	1341.08	1340.74	0.3800	18.000	0.0250	3.11	3.36	0.93	1.76	1.50	1.00	43.00	SURCHARGED
Pipe	J141	J141	77.00	1341.37	1341.08	0.3800	18.000	0.0250	3.07	3.35	0.92	1.74	1.50	1.00	42.00	SURCHARGED
Pipe	J143	J143	13.00	1344.25	1340.74	27.0000	8.000	0.0100	0.68	8.16	0.08	3.13	0.40	0.60	0.00	Calculated

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	142	J142	21.00	1344.20	1341.08	14.8600	8.000	0.0100	0.62	6.06	0.10	2.76	0.41	0.61	0.00	Calculated
Pipe	141	J141	31.00	1345.82	1341.37	14.3500	4.000	0.0100	0.73	0.94	0.78	8.36	0.33	1.00	7.00	SURCHARGED
Pipe	163	STMH30	18.00	1344.18	1340.94	18.0000	6.000	0.0100	2.91	3.09	0.94	14.82	0.50	1.00	34.00	SURCHARGED
Pipe	J121-122	J8th-Broad	27.00	1342.00	1341.88	0.4400	18.000	0.0250	3.73	3.69	0.58	1.73	1.50	1.00	217.00	SURCHARGED
Pipe	J121-122	J116	335.00	1343.53	1342.00	0.4600	18.000	0.0250	3.73	3.69	1.01	2.13	1.48	0.99	0.00	> CAPACITY
Pipe	J116	J8th-Broad	27.00	1343.60	1343.53	0.2600	18.000	0.0250	3.15	2.78	1.13	1.86	1.48	0.99	0.00	> CAPACITY
Pipe	J117	J116	171.02	1344.49	1343.60	0.5200	18.000	0.0250	2.49	3.94	0.63	1.71	1.23	0.83	0.00	Calculated
Pipe	J117	J117	15.00	1345.91	1343.60	15.4000	6.000	0.0100	2.68	2.86	0.94	13.64	0.50	1.00	20.00	SURCHARGED
Pipe	C55-	J117	23.00	1347.14	1344.49	11.5200	4.000	0.0100	0.95	0.84	1.13	10.87	0.33	1.00	876.00	SURCHARGED
Pipe	C55-	J117	32.00	1350.81	1350.75	0.1900	6.000	0.0120	0.35	0.26	1.33	2.48	0.34	0.75	0.00	> CAPACITY
Pipe	164	STMH30	26.00	1343.95	1340.94	11.5800	6.000	0.0100	2.47	2.47	1.00	12.55	0.50	1.00	22.00	SURCHARGED
Pipe	J139	STMH30	326.00	1340.26	1340.96	-0.2100	18.000	0.0250	2.93	2.53	1.16	2.26	1.03	0.69	0.00	> CAPACITY
Pipe	165	J177-178	38.00	1344.54	1344.18	0.9500	6.000	0.0100	0.87	0.71	1.23	4.44	0.50	1.00	36.00	SURCHARGED
Pipe	J177-178	J175-176	360.00	1338.25	1335.85	0.6700	24.000	0.0250	7.93	9.60	0.83	2.61	2.00	1.00	50.00	SURCHARGED
Pipe	J175-176	J4th-Broad	13.68	1338.47	1338.37	0.7300	24.000	0.0250	12.82	10.06	1.27	4.08	2.00	1.00	46.00	SURCHARGED
Pipe	STMH30	J175-176	370.00	1340.94	1338.47	0.6700	18.000	0.0250	1.34	4.48	0.30	1.03	1.03	0.69	0.00	Calculated
Pipe	C49	J177-178	13.00	1347.82	1344.18	28.0000	4.000	0.0100	0.00	1.31	0.00	0.17	0.17	0.50	0.00	Calculated
Pipe	177	J177-178	21.00	1343.26	1338.25	23.8600	6.000	0.0100	2.83	3.56	0.79	14.39	0.50	1.00	21.00	SURCHARGED
Pipe	178	J177-178	24.00	1344.32	1338.25	25.2900	6.000	0.0100	2.72	3.67	0.74	13.87	0.50	1.00	8.00	SURCHARGED
Pipe	176	J175-176	22.00	1343.66	1338.47	23.5900	6.000	0.0100	1.95	3.54	0.55	10.04	0.48	0.96	0.00	Calculated
Pipe	175	J175-176	20.00	1343.94	1338.47	27.3500	6.000	0.0100	2.80	3.81	0.73	14.27	0.50	1.00	19.00	SURCHARGED
Pipe	94	J96	49.00	1347.75	1347.73	0.0400	6.000	0.0100	0.71	0.15	4.79	3.60	0.50	1.00	73.00	SURCHARGED
Pipe	95	J97	72.46	1347.73	1347.40	0.4600	6.000	0.0100	0.41	0.49	2.72	6.83	0.50	1.00	73.00	SURCHARGED
Pipe	J97	J97	12.00	1347.45	1347.42	0.2500	6.000	0.0100	1.47	0.36	1.12	2.19	0.50	1.00	5.00	SURCHARGED
Pipe	98	J103	41.00	1347.17	1347.45	-0.6800	6.000	0.0100	1.47	0.60	2.44	7.48	0.50	1.00	21.00	SURCHARGED
Pipe	98	J103	39.00	1347.42	1346.88	1.3800	6.000	0.0100	0.67	0.86	0.78	5.27	0.33	0.65	0.00	Calculated
Pipe	103	J104	14.00	1346.88	1346.25	4.5000	6.000	0.0100	0.32	1.55	0.21	2.36	0.33	0.85	0.00	Calculated
Pipe	137	STMH33	20.00	1349.86	1349.85	0.0500	6.000	0.0100	0.00	1.90	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	118	STMH33	48.00	1346.59	1345.08	3.1500	6.000	0.0100	1.83	1.29	1.41	9.30	0.50	1.00	38.00	SURCHARGED
Pipe	C59-	C59	16.00	1350.80	1350.58	1.3800	6.000	0.0100	0.04	0.86	0.04	0.56	0.18	0.36	0.00	Calculated
Pipe	109	J8th-Walnut	165.00	1351.19	1349.91	0.7900	4.000	0.0100	0.24	0.22	1.09	2.79	0.33	1.00	0.00	SURCHARGED
Pipe	J9th-Walnut	J8th-Walnut	343.00	1349.91	1347.25	0.7800	4.000	0.0100	0.23	0.22	1.05	2.68	0.33	1.00	0.00	SURCHARGED
Pipe	110	J8th-Walnut	78.00	1348.28	1347.25	1.3200	4.000	0.0100	0.52	0.28	1.81	5.91	0.33	1.00	69.00	SURCHARGED
Pipe	C54	C54	30.00	1350.98	1350.73	0.8300	12.000	0.0120	2.41	3.52	0.68	5.30	1.00	1.00	0.00	Calculated
Pipe	111	J111	7.00	1349.67	1347.03	37.7100	4.000	0.0100	1.17	1.52	0.77	13.41	0.33	1.00	0.00	SURCHARGED
Pipe	J8th-Walnut	J111	28.00	1347.25	1347.03	0.7900	4.000	0.0100	0.18	0.22	0.84	2.12	0.33	1.00	0.00	SURCHARGED
Pipe	114	J112	5.00	1346.18	1344.48	34.0000	4.000	0.0100	0.25	1.44	0.18	2.92	0.33	1.00	165.00	SURCHARGED
Pipe	J111	J112	126.00	1347.03	1346.00	0.8200	4.000	0.0100	0.39	0.22	1.74	4.46	0.33	1.00	0.00	SURCHARGED
Pipe	57	J112	46.00	1347.49	1345.54	4.2400	18.000	0.0150	3.02	18.74	0.16	2.55	0.95	0.64	0.00	Calculated
Pipe	J114	J115	95.00	1344.48	1343.74	0.7800	4.000	0.0100	0.33	0.22	1.51	3.79	0.33	1.00	1124.00	SURCHARGED
Pipe	115	J115	29.00	1348.65	1343.74	16.9300	4.000	0.0100	0.49	1.02	0.48	5.64	0.33	1.00	54.00	SURCHARGED
Pipe	J115	J8th-Broad	27.00	1343.74	1343.53	0.7800	4.000	0.0100	0.79	0.22	3.61	9.02	0.33	1.00	1246.00	SURCHARGED
Pipe	185	J185-186	28.00	1343.33	1340.72	9.3200	6.000	0.0100	1.81	2.23	0.81	9.21	0.50	1.00	65.00	SURCHARGED
Pipe	50	J50	26.00	1348.03	1347.95	0.3100	6.000	0.0100	1.70	0.40	4.19	8.64	0.50	1.00	72.00	SURCHARGED
Pipe	J50	J51	36.00	1347.95	1347.84	0.3100	18.000	0.0250	1.68	3.02	0.56	1.36	1.46	0.98	0.00	Calculated
Pipe	51	J51	23.00	1349.20	1347.84	5.9100	6.000	0.0100	1.65	1.77	0.93	8.43	0.50	1.00	19.00	SURCHARGED
Pipe	J51	J52-53	233.00	1347.84	1347.14	0.3000	18.000	0.0250	3.12	2.99	1.04	1.77	1.48	0.99	0.00	> CAPACITY
Pipe	53	J52	6.00	1348.91	1348.03	14.6700	6.000	0.0100	1.93	2.79	0.69	9.85	0.50	1.00	36.00	SURCHARGED
Pipe	J52	J52-53	6.00	1348.03	1347.14	14.8300	6.000	0.0100	1.00	2.81	0.36	5.10	0.50	1.00	56.00	SURCHARGED
Pipe	58	J6th-Main	34.00	1345.54	1345.39	0.4400	30.000	0.0150	0.92	23.61	0.39	2.17	2.33	0.94	0.00	Calculated
Pipe	52	J52	39.00	1348.85	1348.03	2.1000	6.000	0.0100	0.31	1.06	0.29	2.25	0.33	0.68	0.00	Calculated
Pipe	J52-53	J7th-Main	119.00	1347.14	1346.78	0.3000	18.000	0.0250	3.06	3.00	1.02	2.00	1.48	0.99	0.00	> CAPACITY
Pipe	J7th-Main	STMH14	24.00	1346.78	1346.72	0.2500	18.000	0.0250	3.11	2.73	1.14	2.25	1.50	1.00	12.00	SURCHARGED
Pipe	125	J25	42.00	1349.41	1349.22	0.4500	4.000	0.0100	0.28	0.17	1.66	3.17	0.33	1.00	82.00	SURCHARGED
Pipe	124	STMH35	28.00	1350.18	1349.71	1.6800	4.000	0.0100	0.44	0.32	1.38	5.42	0.33	1.00	79.00	SURCHARGED
Pipe	J7th-Broad	J123-126	360.00	1341.88	1340.30	0.4400	18.000	0.0250	2.67	3.62	0.74	1.51	1.50	1.00	232.00	SURCHARGED
Pipe	J123-126	J126	325.00	1347.51	1341.88	1.7300	8.000	0.0150	1.31	1.38	0.95	3.86	0.67	1.00	68.00	SURCHARGED
Pipe	126	J123-126	29.00	1349.22	1347.51	5.9000	4.000	0.0100	0.66	0.60	1.09	7.52	0.33	1.00	82.00	SURCHARGED

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	123	J123-126	15.00	1349.71	1347.51	14.6700	4.000	0.0100	0.87	0.95	0.92	9.94	0.33	1.00	79.00	SURCHARGED
Pipe	63	STMH15	55.00	1347.39	1345.23	3.9300	18.000	0.0150	0.89	18.04	0.05	0.87	0.93	0.63	0.00	Calculated
Pipe	119	118	156.00	1347.39	1346.59	0.5100	6.000	0.0100	0.99	0.52	1.71	4.54	0.50	1.00	37.00	SURCHARGED
Pipe	120	119	58.00	1348.23	1347.39	1.4500	4.000	0.0100	0.42	0.30	1.41	4.80	0.33	1.00	255.00	SURCHARGED
Pipe	C85	60	37.00	1349.90	1349.74	0.4300	8.000	0.0120	1.03	0.86	1.19	2.95	0.66	0.99	0.00	> CAPACITY
Pipe	130	131	20.00	1344.20	1340.30	19.5000	6.000	0.0100	2.30	3.22	0.71	11.72	0.50	1.00	44.00	SURCHARGED
Pipe	J6th-Broad	J139	19.96	1340.28	1340.26	0.1000	18.000	0.0250	2.39	1.73	1.38	1.35	1.50	1.00	1111.00	SURCHARGED
Pipe	139	139	19.00	1347.21	1340.22	36.7900	4.000	0.0100	1.03	1.50	0.69	11.78	0.33	1.00	9.00	SURCHARGED
Pipe	62	STMH15	8.00	1347.31	1345.23	26.0000	18.000	0.0150	1.26	46.42	0.03	1.04	0.96	0.67	0.00	Calculated
Pipe	J4th-Broad	J177-178	20.32	1338.00	1338.25	-1.2300	24.000	0.0250	13.12	9.04	1.45	4.18	2.00	1.00	48.00	SURCHARGED
Pipe	166	J166-167	33.00	1347.88	1346.54	4.0600	4.000	0.0100	0.99	0.45	1.18	6.76	0.33	1.00	0.00	SURCHARGED
Pipe	167	J166-167	3.00	1346.64	1346.54	3.3300	4.000	0.0100	1.04	0.45	2.30	11.92	0.33	1.00	0.00	SURCHARGED
Pipe	J166-167	J168	77.00	1346.54	1346.16	0.4900	4.000	0.0100	0.17	0.17	0.96	1.92	0.33	1.00	0.00	SURCHARGED
Pipe	168	J168	8.00	1348.75	1346.16	32.3700	4.000	0.0150	0.75	0.94	0.80	8.64	0.33	1.00	0.00	SURCHARGED
Pipe	170	J170-171	28.00	1348.03	1347.50	1.8900	4.000	0.0100	0.48	0.34	1.42	5.54	0.33	1.00	0.00	SURCHARGED
Pipe	171	J170-171	10.00	1347.96	1347.50	4.6000	4.000	0.0100	0.61	0.53	1.15	6.96	0.33	1.00	0.00	SURCHARGED
Pipe	J168	J169	103.00	1346.16	1345.64	0.5000	4.000	0.0100	0.17	0.18	0.98	2.01	0.33	1.00	0.00	SURCHARGED
Pipe	J169	J169	7.00	1348.77	1345.64	44.7100	4.000	0.0150	0.91	1.10	0.83	10.44	0.33	1.00	0.00	SURCHARGED
Pipe	J169	J172	150.00	1345.64	1345.38	0.1700	4.000	0.0100	0.31	0.29	2.96	3.50	0.33	1.00	0.00	SURCHARGED
Pipe	J172	J172	6.00	1347.55	1345.38	36.1700	4.000	0.0100	0.50	1.49	0.33	5.70	0.33	1.00	209.00	SURCHARGED
Pipe	J172	J173	44.00	1345.38	1345.27	0.2500	4.000	0.0100	0.21	0.12	1.73	2.65	0.33	1.00	433.00	SURCHARGED
Pipe	J173	J173	6.00	1347.57	1345.27	38.3300	4.000	0.0100	0.23	1.53	0.15	6.02	0.33	1.00	145.00	SURCHARGED
Pipe	STMH29	J4th-Broad	320.00	1342.77	1338.37	1.3800	4.000	0.0100	0.34	0.29	1.16	3.85	0.33	1.00	558.00	SURCHARGED
Pipe	J104	J104	26.00	1346.48	1346.25	0.8800	6.000	0.0100	1.45	1.69	2.11	7.38	0.50	1.00	18.00	SURCHARGED
Pipe	J3rd-Main-Poplar	J189-190	146.61	1341.90	1341.65	0.1700	30.000	0.0150	13.59	14.68	0.93	2.77	2.50	1.00	21.00	SURCHARGED
Pipe	J104	J105	216.00	1346.25	1345.00	0.5800	6.000	0.0100	0.56	0.55	1.00	2.89	0.50	1.00	41.00	SURCHARGED
Pipe	107	J106-107	35.82	1348.40	1344.80	10.0500	8.730	0.0100	0.76	0.78	0.97	8.73	0.33	1.00	20.00	SURCHARGED
Pipe	106	J106-107	33.26	1347.53	1344.80	8.2100	4.000	0.0100	0.71	0.71	1.01	8.19	0.33	1.00	38.00	SURCHARGED
Pipe	J106-107	J108	49.00	1344.80	1344.51	0.5900	6.000	0.0100	0.72	0.56	1.29	3.69	0.50	1.00	80.00	SURCHARGED
Pipe	108	J108	32.00	1348.14	1344.51	11.3400	6.000	0.0100	1.98	2.46	0.81	10.09	0.50	1.00	14.00	SURCHARGED
Pipe	J108	J4th-Main-Poplar	165.00	1344.51	1343.73	0.4700	8.000	0.0100	1.26	1.08	1.17	3.61	0.67	1.00	53.00	SURCHARGED
Pipe	J4th-Main-Poplar	J3rd-Main-Poplar	366.00	1343.73	1341.90	0.5000	8.000	0.0100	0.86	1.11	0.78	2.47	0.67	1.00	95.00	SURCHARGED
Pipe	100	J100	7.00	1348.21	1346.79	20.2900	6.000	0.0100	2.16	3.29	0.66	11.02	0.50	1.00	16.00	SURCHARGED
Pipe	101	J101	83.00	1346.79	1346.62	0.2000	6.000	0.0100	0.37	0.33	1.13	1.90	0.50	1.00	77.00	SURCHARGED
Pipe	102	J102	79.00	1346.62	1346.46	0.2000	6.000	0.0100	0.57	0.33	1.72	2.88	0.50	1.00	88.00	SURCHARGED
Pipe	102	J102	5.21	1348.39	1346.46	37.0400	4.000	0.0100	0.00	1.51	0.00	0.00	0.17	0.50	0.00	Calculated
Pipe	102	J103	86.00	1346.46	1346.28	0.2100	6.000	0.0100	0.30	0.33	0.89	1.52	0.50	1.00	89.00	SURCHARGED
Pipe	103	J103	6.00	1346.88	1346.28	10.0000	6.000	0.0100	0.35	2.31	0.15	2.58	0.33	0.65	0.00	Calculated
Pipe	J103	J104	15.00	1346.28	1346.25	0.2000	6.000	0.0100	0.39	0.33	1.20	2.11	0.50	1.00	41.00	SURCHARGED
Pipe	J99	J99	154.00	1346.63	1345.92	0.4600	6.000	0.0100	0.43	0.50	0.86	2.20	0.50	1.00	88.00	SURCHARGED
Pipe	J97	J99	179.00	1347.45	1346.63	0.4600	6.000	0.0100	0.49	0.49	0.98	2.52	0.50	1.00	21.00	SURCHARGED
Pipe	99	J99	3.00	1346.64	1346.63	0.3300	6.000	0.0100	2.37	9.42	5.62	12.06	0.50	1.00	88.00	SURCHARGED
Pipe	131	J131	9.33	1346.02	1345.92	1.0700	18.000	0.0150	1.27	9.42	0.13	0.79	1.29	0.86	0.00	Calculated
Pipe	J131	J5th-Cherry	19.00	1345.92	1345.88	0.2100	6.000	0.0100	1.07	0.33	3.20	5.46	0.50	1.00	306.00	SURCHARGED
Pipe	132	J132	6.00	1346.76	1345.84	15.3300	6.000	0.0100	2.61	2.86	0.91	13.27	0.50	1.00	26.00	SURCHARGED
Pipe	J132	J135	197.00	1345.84	1345.43	0.2100	6.000	0.0100	0.32	0.33	0.97	1.66	0.50	1.00	427.00	SURCHARGED
Pipe	135	J135	6.00	1346.36	1345.43	15.5000	6.000	0.0100	0.00	2.87	0.00	0.00	0.25	0.50	0.00	Calculated
Pipe	133	J133-134	4.00	1347.47	1347.40	1.6600	6.000	0.0150	0.79	0.63	2.60	9.75	0.33	1.00	24.00	SURCHARGED
Pipe	J133	J133-134	65.00	1348.48	1347.40	1.6600	6.000	0.0150	1.33	1.56	1.26	4.03	0.50	1.00	18.00	SURCHARGED
Pipe	J133-134	J135	43.00	1347.40	1345.43	4.5800	6.000	0.0100	1.33	0.93	0.85	6.83	0.50	1.00	20.00	SURCHARGED
Pipe	J135	J136	125.00	1345.43	1345.17	0.2100	6.000	0.0100	0.31	0.33	0.93	1.58	0.50	1.00	594.00	SURCHARGED
Pipe	136	J136	6.00	1346.50	1345.17	22.1700	6.000	0.0100	1.83	3.43	0.53	9.30	0.50	1.00	23.00	SURCHARGED
Pipe	J136	163	486.00	1345.17	1344.18	0.2000	6.000	0.0100	0.47	0.33	1.43	2.65	0.50	1.00	40.00	SURCHARGED
Pipe	67	STMH16	73.00	1348.00	1344.44	4.8800	18.000	0.0150	4.51	20.10	0.22	3.63	0.96	0.66	0.00	Calculated
Pipe	STMH35	J6th-Broad	18.07	1340.30	1340.28	0.1100	18.000	0.0250	4.35	1.82	2.40	2.46	1.50	1.00	1106.00	SURCHARGED
Pipe	127	J127	10.00	1349.49	1349.25	2.4000	4.000	0.0100	0.47	0.38	1.22	6.33	0.26	0.79	0.00	> CAPACITY

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	129	STMH31	6.00	1347.13	1347.07	1.0000	6.000	0.0100	1.44	0.73	1.97	7.33	0.50	1.00	7.00	SURCHARGED
Pipe	STMH31	STMH32	27.00	1347.07	1346.80	1.0000	6.000	0.0100	0.77	0.73	1.06	3.92	0.50	1.00	7.00	SURCHARGED
Pipe	J127	STMH32	95.00	1349.25	1346.80	2.5800	8.000	0.0100	0.47	2.52	0.19	3.22	0.43	0.65	0.00	Calculated
Pipe	STMH32	J128	33.00	1346.80	1346.55	0.7600	8.000	0.0100	1.24	1.37	0.91	3.55	0.67	1.00	6.00	SURCHARGED
Pipe	128	J128	14.00	1346.83	1346.55	2.0000	4.000	0.0100	0.95	0.35	2.73	10.94	0.33	1.00	124.00	SURCHARGED
Pipe	66	STMH16	24.00	1347.10	1344.44	11.0800	18.000	0.0150	4.48	30.31	0.15	3.68	0.98	0.67	0.00	Calculated
Pipe	C86	C86	25.00	1340.31	1339.99	1.2800	12.000	0.0120	3.50	4.37	0.80	6.54	0.66	0.66	0.00	Calculated
Pipe	C56	C56	21.00	1350.15	1350.13	0.1000	6.000	0.0100	0.42	0.23	1.85	2.51	0.42	0.83	0.00	> CAPACITY
Pipe	J114	J113	61.77	1345.28	1344.48	1.3000	4.000	0.0100	0.27	0.28	0.96	3.11	0.33	1.00	1058.00	SURCHARGED
Pipe	C51	C51	29.00	1350.31	1350.28	0.3800	12.000	0.0250	0.45	3.39	0.13	2.69	0.50	1.00	53.00	SURCHARGED
Pipe	C50	C50	60.00	1350.73	1350.63	0.1700	6.000	0.0250	0.00	0.12	0.00	0.00	0.00	0.00	0.00	> CAPACITY
Pipe	C46	C46	30.00	1345.36	1344.84	1.7300	6.000	0.0100	1.07	0.96	1.11	6.72	0.38	0.76	0.00	> CAPACITY
Pipe	C47	C47	29.00	1343.38	1343.15	0.7900	12.000	0.0250	2.28	1.65	1.38	4.47	0.63	0.63	0.00	> CAPACITY
Pipe	STMH16	J-CONCPIT	56.00	1344.44	1344.26	0.3200	30.000	0.0150	18.47	20.15	0.92	3.76	2.50	1.00	17.00	SURCHARGED
Pipe	C48	C48	28.00	1337.76	1336.47	4.6100	12.000	0.0250	3.73	3.98	0.94	6.53	0.72	0.72	0.00	Calculated
Pipe	C39	C39	20.00	1345.35	1345.32	0.1500	12.000	0.0120	1.34	1.49	0.89	4.07	0.44	0.44	0.00	Calculated
Pipe	C38	C38	14.00	1344.72	1344.79	-0.5000	12.000	0.0120	1.29	2.73	0.47	1.70	0.96	0.96	0.00	Calculated
Pipe	C43	C43	39.00	1349.50	1349.15	0.9000	8.000	0.0120	1.20	1.24	0.96	4.79	0.47	0.70	0.00	Calculated
Pipe	C41	C41	34.00	1351.09	1350.40	2.0300	12.000	0.0120	0.64	5.50	0.12	2.89	0.33	0.33	0.00	Calculated
Pipe	STMH11	J46-47-48	61.00	1341.53	1341.00	0.8700	18.000	0.0120	8.78	10.61	0.83	4.97	1.50	1.00	46.00	SURCHARGED
Pipe	J46-47-48	STMH12	106.00	1341.00	1340.37	0.5900	18.000	0.0120	3.65	4.77	0.42	2.06	1.50	1.00	1293.00	SURCHARGED
Pipe	46	J46-47-48	16.00	1347.41	1341.00	40.0600	6.000	0.0100	2.93	8.62	0.63	14.92	0.50	1.00	12.00	SURCHARGED
Pipe	47	J46-47-48	59.00	1348.37	1341.00	12.4900	6.000	0.0100	2.27	2.58	0.88	11.58	0.50	1.00	5.00	SURCHARGED
Pipe	45	J45	21.00	1342.73	1341.86	4.1400	4.000	0.0150	1.12	0.50	0.22	12.80	0.33	1.00	94.00	SURCHARGED
Pipe	72	STMH17	8.00	1346.01	1343.31	33.7500	18.000	0.0150	10.55	52.89	0.20	6.46	1.04	0.99	0.00	Calculated
Pipe	J45	STMH11	67.00	1341.86	1341.53	0.4900	18.000	0.0120	8.78	7.99	1.10	4.97	1.50	1.00	46.00	SURCHARGED
Pipe	STMH10	J45	296.00	1343.31	1341.86	0.4900	18.000	0.0120	7.84	7.96	0.98	4.44	1.50	1.00	50.00	SURCHARGED
Pipe	44	C78-79	43.00	1350.12	1347.00	7.2600	10.000	0.0150	1.57	5.11	0.31	2.87	0.83	1.00	44.00	SURCHARGED
Pipe	C76	C76	11.00	1350.78	1350.71	0.6400	12.000	0.0250	0.33	5.53	0.06	0.70	0.58	0.58	0.00	Calculated
Pipe	C77	C77	40.00	1350.71	1350.60	0.2800	12.000	0.0250	1.72	0.97	1.77	2.83	0.88	0.88	0.00	> CAPACITY
Pipe	C78	C78-79	42.00	1350.53	1347.00	8.4000	12.000	0.0250	1.66	5.37	0.31	2.82	0.91	0.91	0.00	Calculated
Pipe	C79	C78-79	42.00	1350.50	1347.00	8.3300	12.000	0.0250	2.18	5.35	0.41	3.29	1.00	1.00	27.00	SURCHARGED
Pipe	43	J43	27.00	1349.51	1348.95	2.0700	6.000	0.0100	1.39	1.05	1.32	7.35	0.47	0.93	0.00	> CAPACITY
Pipe	J43	STMH10	285.00	1348.95	1343.31	1.9800	18.000	0.0250	1.39	7.68	0.18	1.16	0.97	0.64	0.00	Calculated
Pipe	C13	C13-	41.00	1348.52	1348.27	0.6100	18.000	0.0250	5.73	4.27	1.34	5.76	0.82	0.55	0.00	> CAPACITY
Pipe	71	C72	55.00	1346.71	1346.01	1.2700	18.000	0.0150	12.34	10.27	1.20	7.64	0.57	0.96	0.00	> CAPACITY
Pipe	29	STMH6	67.00	1352.73	1348.43	6.4200	6.000	0.0100	1.59	1.85	0.86	9.83	0.41	0.82	0.00	Calculated
Pipe	J29-30	STMH6	40.00	1344.05	1343.96	0.2200	24.000	0.0250	7.73	5.58	1.39	2.70	2.00	1.00	5.00	SURCHARGED
Pipe	J26	J27	130.00	1344.71	1344.43	0.2200	24.000	0.0250	5.28	5.46	0.97	1.68	2.00	1.00	6.00	SURCHARGED
Pipe	J28	J28	29.00	1344.43	1344.37	0.2100	24.000	0.0250	5.26	5.35	0.98	1.70	2.00	1.00	27.00	SURCHARGED
Pipe	J28	J29-30	150.01	1344.37	1344.05	0.2100	24.000	0.0250	6.60	5.43	1.21	2.15	2.00	1.00	23.00	SURCHARGED
Pipe	41	J41	16.00	1349.94	1343.92	37.6200	6.000	0.0100	2.23	10.22	0.50	12.24	0.44	0.87	0.00	Calculated
Pipe	STMH6	J41	23.00	1343.96	1343.92	0.1700	24.000	0.0120	7.69	10.22	0.75	2.97	2.00	1.00	5.00	SURCHARGED
Pipe	30	STMH10	342.00	1343.92	1343.31	0.1800	24.000	0.0120	8.09	10.35	0.76	3.44	2.00	1.00	5.00	SURCHARGED
Pipe	28	J28	20.19	1350.33	1344.37	29.5200	6.000	0.0100	1.58	3.94	0.40	9.14	0.41	0.83	0.00	Calculated
Pipe	73	STMH17	54.00	1344.88	1343.31	2.9100	18.000	0.0150	4.19	15.52	0.27	2.37	1.50	1.00	15.00	SURCHARGED
Pipe	27	J27	13.00	1349.10	1344.43	35.9200	6.000	0.0100	3.23	4.37	0.74	16.47	0.50	1.00	2.00	SURCHARGED
Pipe	J6th-Main	STMH15	34.00	1345.39	1345.23	0.4700	30.000	0.0150	7.83	24.39	0.32	2.71	2.44	0.98	0.00	Calculated
Pipe	61	J6th-Main	161.00	1347.55	1345.39	1.3400	8.000	0.0150	1.43	1.21	1.18	4.10	0.67	1.00	35.00	SURCHARGED
Pipe	59	J59	16.00	1349.14	1345.86	20.5000	4.000	0.0100	0.96	1.12	0.32	5.41	0.24	0.71	0.00	Calculated
Pipe	J59	J6th-Main	115.00	1345.86	1345.39	0.4100	12.000	0.0120	2.99	2.47	1.21	3.81	1.00	1.00	58.00	SURCHARGED
Pipe	STMH7	J59	295.00	1347.07	1345.86	0.4100	12.000	0.0120	1.76	2.47	0.71	3.09	0.81	0.81	0.00	Calculated
Pipe	36	C35	68.00	1350.86	1349.02	2.7100	4.000	0.0100	0.47	0.61	1.16	5.68	0.33	1.00	78.00	SURCHARGED
Pipe	34	STMH9	20.00	1347.92	1347.75	0.8500	6.000	0.0100	0.92	0.67	1.36	4.67	0.50	1.00	125.00	SURCHARGED
Pipe	35	STMH9	13.00	1349.02	1347.75	9.7700	6.000	0.0100	0.54	2.28	0.24	2.77	0.50	1.00	72.00	SURCHARGED
Pipe	69	C67	45.00	1348.34	1348.00	0.7600	18.000	0.0150	1.44	7.91	0.18	3.30	0.45	0.32	0.00	Calculated

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	J39	J40	67.00	1347.38	1347.00	0.5700	12.000	0.0120	1.56	2.91	0.54	2.06	1.00	1.00	52.00	SURCHARGED
Pipe	J37	J38	44.00	1348.90	1347.46	3.2700	6.000	0.0100	1.72	1.32	1.30	8.76	0.50	1.00	15.00	SURCHARGED
Pipe	J37-38	J37-38	14.00	1349.28	1347.46	13.0000	6.000	0.0100	2.27	2.63	0.86	11.54	0.50	1.00	23.00	SURCHARGED
Pipe	STMH8	STMH8	16.00	1347.46	1347.42	0.2500	12.000	0.0120	1.17	1.93	0.61	1.49	1.00	1.00	86.00	SURCHARGED
Pipe	J37-38	J37-38	245.00	1347.75	1347.46	0.1200	8.000	0.0150	1.33	0.36	3.68	3.80	0.67	1.00	121.00	SURCHARGED
Pipe	J39	J39	35.00	1350.58	1347.38	9.1400	6.000	0.0100	0.80	2.21	0.36	5.27	0.36	0.72	0.00	Calculated
Pipe	31	33	45.00	1351.13	1348.30	6.2900	8.000	0.0100	2.16	3.94	0.55	6.18	0.67	1.00	20.00	SURCHARGED
Pipe	33	STMH8	197.00	1348.30	1347.42	0.4500	10.000	0.0120	3.07	1.59	1.94	5.63	0.83	1.00	38.00	SURCHARGED
Pipe	C74	19	126.00	1352.10	1351.38	0.5700	10.000	0.0100	0.86	2.15	0.40	1.75	0.83	1.00	0.00	SURCHARGED
Pipe	68	66	43.00	1347.39	1347.10	0.6700	18.000	0.0150	1.10	7.48	0.15	2.90	0.45	0.30	0.00	Calculated
Pipe	25	STMH4	35.00	1351.09	1345.86	14.9400	12.000	0.0100	1.14	17.90	0.06	2.39	0.59	0.59	0.00	Calculated
Pipe	STMH4	STMH3	174.00	1345.86	1344.84	0.5900	12.000	0.0100	1.79	3.55	0.51	2.28	1.00	1.00	55.00	SURCHARGED
Pipe	STMH3	26	20.00	1344.84	1344.71	0.6500	12.000	0.0100	4.60	3.73	1.23	5.86	1.00	1.00	220.00	SURCHARGED
Pipe	19	J18-19-20	45.00	1351.38	1350.90	1.0700	4.000	0.0100	0.38	0.26	1.50	4.39	0.33	1.00	276.00	SURCHARGED
Pipe	20	J18-19-20	21.00	1351.00	1350.90	0.4800	6.000	0.0100	0.74	0.50	1.48	3.78	0.50	1.00	17.00	SURCHARGED
Pipe	J18-19-20	23	22.00	1350.90	1350.81	0.4100	6.000	0.0100	0.55	0.47	1.18	4.01	0.50	1.00	6.00	SURCHARGED
Pipe	C73	18	42.00	1352.65	1351.93	1.7100	6.000	0.0100	0.00	0.96	0.00	0.00	0.25	0.50	0.00	Calculated
Pipe	18	J18-19-20	198.00	1351.93	1350.90	0.5200	4.000	0.0100	0.18	1.00	1.00	2.04	0.33	1.00	100.00	SURCHARGED
Pipe	STMH5	J21	38.00	1347.80	1347.65	0.3900	12.000	0.0100	0.06	2.91	0.02	0.19	0.58	0.59	0.00	Calculated
Pipe	J21	J22	171.00	1347.65	1347.00	0.3800	12.000	0.0100	1.84	2.86	0.65	2.65	0.83	0.83	0.00	Calculated
Pipe	STMH18	73	21.00	1345.83	1344.88	4.5200	18.000	0.0150	0.00	42.38	0.00	0.00	0.75	0.50	0.00	Calculated
Pipe	J22	J23-24	130.00	1347.00	1346.51	0.3800	12.000	0.0100	2.39	2.84	0.84	3.05	1.00	1.00	10.00	SURCHARGED
Pipe	J23-24	STMH4	169.00	1346.51	1345.86	0.3800	12.000	0.0100	1.67	0.08	3.10	2.78	0.33	1.00	41.00	SURCHARGED
Pipe	22	J22	24.00	1348.32	1347.00	5.5000	10.000	0.0100	2.41	6.68	0.36	5.09	0.68	0.81	0.00	Calculated
Pipe	J21	J21	30.00	1350.55	1347.65	9.6700	6.000	0.0100	1.98	2.27	0.87	10.07	0.50	1.00	2.00	SURCHARGED
Pipe	J23-24	J23-24	21.00	1350.81	1346.51	20.4800	6.000	0.0100	2.25	3.30	0.68	11.51	0.50	1.00	6.00	SURCHARGED
Pipe	24	J23-24	18.00	1350.54	1346.51	22.3900	6.000	0.0100	0.54	3.45	0.16	4.12	0.32	0.63	0.00	Calculated
Pipe	11	12	50.00	1353.96	1353.91	0.1000	4.000	0.0100	0.24	0.08	3.10	2.78	0.33	1.00	122.00	SURCHARGED
Pipe	12	13	40.00	1353.91	1353.86	0.1300	4.000	0.0100	0.22	0.09	2.47	2.95	0.31	0.96	0.00	> CAPACITY
Pipe	13	C71	40.00	1353.86	1353.35	1.2700	4.000	0.0100	0.21	0.28	0.75	2.99	0.31	0.96	0.00	Calculated
Pipe	C72	C72	5.00	1352.70	1352.66	0.8000	6.000	0.0250	0.00	0.26	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	74	STMH18	20.00	1346.33	1345.83	2.5000	18.000	0.0150	0.02	14.39	0.00	0.53	1.50	1.00	1287.00	SURCHARGED
Pipe	C70	C70	22.00	1353.47	1353.16	1.4100	10.000	0.0100	0.12	3.38	0.04	2.96	0.11	0.13	0.00	Calculated
Pipe	C69	C69	27.00	1354.02	1353.23	2.9300	4.000	0.0120	0.12	0.35	0.35	1.96	0.23	0.68	0.00	Calculated
Pipe	C68	C68	30.00	1354.35	1354.31	0.1300	12.000	0.0250	0.00	0.68	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	C61	C62	29.00	1351.30	1350.83	1.6200	6.000	0.0250	0.40	0.37	1.07	2.78	0.50	1.00	17.00	SURCHARGED
Pipe	C63	C63	35.00	1350.39	1350.66	-0.7700	6.000	0.0250	0.26	0.26	1.01	1.88	0.33	0.66	0.00	> CAPACITY
Pipe	C64	C64	4.00	1350.47	1350.27	5.0000	8.000	0.0250	0.26	1.41	0.18	3.56	0.17	0.29	0.00	Calculated
Pipe	C60	C60	31.00	1351.29	1351.25	0.1300	12.000	0.0250	0.00	0.67	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	J6-7	STMH1	50.00	1347.16	1346.16	2.0000	6.000	0.0100	1.44	1.03	1.40	7.34	0.50	1.00	259.00	SURCHARGED
Pipe	7	J6-7	100.00	1349.26	1347.16	2.1000	6.000	0.0100	1.01	1.06	0.96	5.23	0.50	1.00	60.00	SURCHARGED
Pipe	75	74	40.00	1346.44	1346.33	0.2800	18.000	0.0150	4.34	4.77	0.91	2.46	1.50	1.00	1285.00	SURCHARGED
Pipe	6	J6-7	200.00	1348.86	1347.16	0.8500	6.000	0.0100	0.78	0.67	1.16	3.97	0.50	1.00	153.00	SURCHARGED
Pipe	8	J8-9	14.00	1349.88	1346.10	27.0000	6.000	0.0100	1.90	3.79	0.48	9.19	0.50	1.00	25.00	SURCHARGED
Pipe	9	J8-9	20.00	1346.14	1346.10	0.2000	4.000	0.0100	0.75	0.11	6.77	8.59	0.33	1.00	970.00	SURCHARGED
Pipe	STMH1	J8-9	6.00	1346.16	1346.10	1.0000	12.000	0.0100	1.44	4.63	0.31	1.83	1.00	1.00	162.00	SURCHARGED
Pipe	J16	J17	21.00	1345.48	1345.44	0.1900	12.000	0.0100	2.95	2.02	1.46	3.76	1.00	1.00	206.00	SURCHARGED
Pipe	J10	J8th-Juniper	151.00	1345.81	1345.53	0.1900	12.000	0.0100	2.10	1.99	1.05	2.68	1.00	1.00	198.00	SURCHARGED
Pipe	J8-9	J10	179.00	1346.10	1345.81	0.1600	12.000	0.0100	1.17	1.86	0.63	1.98	1.00	1.00	169.00	SURCHARGED
Pipe	10	J10	14.00	1348.97	1345.81	22.5700	6.000	0.0100	1.77	3.47	0.51	9.02	0.50	1.00	27.00	SURCHARGED
Pipe	16	J16	15.00	1349.79	1345.48	28.7300	6.000	0.0100	1.76	3.91	0.45	8.94	0.50	1.00	21.00	SURCHARGED
Pipe	82	81	39.00	1349.90	1347.16	7.0300	4.000	0.0100	0.51	0.66	0.78	5.87	0.33	1.00	95.00	SURCHARGED
Pipe	76	STMH19	7.00	1345.87	1343.03	40.5700	18.000	0.0150	4.21	57.99	0.07	3.37	0.89	0.79	0.00	Calculated
Pipe	80	J80	16.00	1348.37	1348.30	0.4400	6.000	0.0100	0.01	0.48	0.03	0.36	0.47	0.94	0.00	Calculated
Pipe	79	J79	63.00	1348.70	1348.46	0.3800	6.000	0.0100	1.34	0.45	2.97	6.81	0.50	1.00	52.00	SURCHARGED
Pipe	J79	J80	40.00	1348.46	1348.30	0.4000	6.000	0.0100	0.38	0.46	0.83	2.01	0.50	1.00	55.00	SURCHARGED
Pipe	J80	J8th-Poplar	118.00	1348.30	1348.00	0.2500	6.000	0.0100	0.34	0.37	0.90	1.75	0.50	1.00	59.00	SURCHARGED
Pipe	J8th-Poplar	81	325.00	1348.00	1347.16	0.2600	6.000	0.0100	0.70	0.37	1.88	3.55	0.50	1.00	1355.00	SURCHARGED

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	93	92	112.00	1349.42	1347.87	1.3800	4.000	0.0100	0.41	0.29	1.42	4.74	0.33	1.00	57.00	SURCHARGED
Pipe	1	2	54.00	1350.67	1350.43	0.4400	6.000	0.0100	0.95	0.49	1.95	4.83	0.50	1.00	24.00	SURCHARGED
Pipe	J141	J6th-Broad	58.00	1341.37	1340.28	1.8800	18.000	0.0120	6.09	15.60	0.39	3.45	1.50	1.00	42.00	SURCHARGED
Pipe	J128	J6th-Broad	858.00	1346.55	1340.28	0.7300	8.000	0.0150	0.80	0.90	0.90	2.42	0.67	1.00	64.00	SURCHARGED
Pipe	STMH34	J6th-Broad	130.00	1344.54	1340.28	3.2800	18.000	0.0120	3.08	20.60	0.15	2.62	0.94	0.63	0.00	Calculated
Pipe	STMH17	STMH19	78.00	1343.31	1343.03	0.3600	30.000	0.0150	14.70	21.30	0.69	3.16	2.50	1.00	34.00	SURCHARGED
Pipe	J	J3rd-Main-Poplar	75.00	1342.75	1341.90	1.1300	18.000	0.0120	4.71	12.11	0.39	2.67	1.50	1.00	26.00	SURCHARGED
Pipe	STMH23	J	45.00	1343.21	1342.75	1.0200	18.000	0.0120	3.70	11.51	0.32	2.73	1.10	0.73	0.00	Calculated
Pipe	83	J83	32.00	1348.58	1348.34	0.7500	4.000	0.0100	0.55	0.21	2.58	6.33	0.33	1.00	87.00	SURCHARGED
Pipe	81	J83	139.00	1347.16	1348.34	-0.8500	6.000	0.0100	0.97	0.67	1.44	4.93	0.50	1.00	142.00	SURCHARGED
Pipe	J83	J84	31.00	1348.34	1348.25	0.2900	6.000	0.0100	0.30	0.39	0.77	1.54	0.50	1.00	140.00	SURCHARGED
Pipe	84	J84	4.00	1348.35	1348.25	2.5000	6.000	0.0100	1.74	1.15	1.51	8.87	0.50	1.00	63.00	SURCHARGED
Pipe	85	J85	4.00	1348.19	1348.09	2.5000	6.000	0.0150	1.47	1.91	1.91	7.50	0.50	1.00	21.00	SURCHARGED
Pipe	78	STMH20	56.00	1346.65	1342.55	7.3200	18.000	0.0150	1.09	24.63	0.04	1.04	0.86	0.57	0.00	Calculated
Pipe	J84	J85	84.00	1348.25	1348.09	0.1900	6.000	0.0100	0.37	0.32	1.16	2.15	0.50	1.00	34.00	SURCHARGED
Pipe	32	J86	29.00	1349.68	1348.30	4.7600	8.000	0.0100	1.06	3.43	0.31	3.03	0.67	1.00	23.00	SURCHARGED
Pipe	J86	J87-88	310.00	1347.50	1348.57	-0.3500	6.000	0.0100	0.57	0.43	1.33	2.91	0.50	1.00	16.00	SURCHARGED
Pipe	J8th-Poplar	J86	47.00	1347.35	1347.50	-0.3200	6.000	0.0100	0.34	0.41	0.83	1.74	0.50	1.00	99.00	SURCHARGED
Pipe	J87-88	J87-88	7.00	1347.40	1347.35	0.2100	6.000	0.0100	0.31	0.62	0.50	1.56	0.50	1.00	390.00	SURCHARGED
Pipe	J89-90	J87-88	127.00	1347.67	1347.40	0.7000	6.000	0.0100	0.31	0.34	0.93	1.61	0.50	1.00	209.00	SURCHARGED
Pipe	J91	J89-90	76.00	1347.78	1347.67	0.1400	6.000	0.0100	0.25	0.28	0.88	1.25	0.50	1.00	114.00	SURCHARGED
Pipe	92	J91	61.00	1347.87	1347.78	0.1500	6.000	0.0100	1.27	0.28	4.52	6.45	0.50	1.00	73.00	SURCHARGED
Pipe	77	STMH20	7.00	1345.85	1342.55	47.1400	18.000	0.0150	1.03	62.51	0.02	1.05	0.82	0.54	0.00	Calculated
Pipe	87	J87-88	11.00	1348.28	1347.40	8.0000	6.000	0.0100	0.83	2.06	0.40	4.81	0.41	0.82	0.00	Calculated
Pipe	88	J87-88	101.00	1348.80	1347.40	1.3900	4.000	0.0100	1.16	0.86	1.35	5.91	0.50	1.00	41.00	SURCHARGED
Pipe	91	J87-88	4.00	1347.80	1347.78	0.5000	4.000	0.0100	1.11	0.17	6.35	12.72	0.33	1.00	251.00	SURCHARGED
Pipe	89	J89-90	20.00	1347.65	1347.67	-0.1000	6.000	0.0100	1.92	0.23	8.34	9.79	0.50	1.00	208.00	SURCHARGED
Pipe	90	J89-90	10.00	1347.89	1347.67	2.2000	6.000	0.0100	1.47	1.08	1.35	7.47	0.50	1.00	12.00	SURCHARGED
Pipe	J85	J8th-Poplar	127.00	1348.09	1347.35	0.5800	6.000	0.0100	0.53	0.56	0.96	2.76	0.50	1.00	34.00	SURCHARGED
Pipe	86	J86	15.00	1348.35	1347.50	5.6700	6.000	0.0100	1.89	1.74	1.09	9.65	0.50	1.00	24.00	SURCHARGED
Pipe	STMH12	STMH12	212.00	1340.37	1339.32	0.5000	18.000	0.0150	3.65	6.41	0.57	2.06	1.50	1.00	1317.00	SURCHARGED
Pipe	STMH13	STMH13	227.00	1339.32	1341.28	-0.8600	18.000	0.0150	3.65	8.46	0.43	2.06	1.50	1.00	55.00	SURCHARGED
Pipe	STMH22	STMH23	202.00	1341.28	1343.21	-0.9600	18.000	0.0150	3.65	8.90	0.41	2.64	1.10	0.73	0.00	Calculated
Pipe	STMH19	STMH20	203.00	1343.03	1342.55	0.2400	30.000	0.0150	16.42	17.29	0.95	3.35	2.50	1.00	35.00	SURCHARGED
Pipe	2	J3	17.00	1350.43	1350.25	1.0600	6.000	0.0100	1.82	0.75	2.43	9.29	0.50	1.00	30.00	SURCHARGED
Pipe	3	J3	16.00	1351.54	1350.25	8.0600	6.000	0.0100	2.24	2.07	1.08	11.39	0.50	1.00	16.00	SURCHARGED
Pipe	4	J4	22.00	1351.94	1349.65	10.4100	6.000	0.0100	0.84	2.35	0.36	5.53	0.36	0.73	0.00	Calculated
Pipe	J3	J4	96.00	1350.25	1349.65	0.6200	6.000	0.0100	0.54	0.58	0.93	2.76	0.50	1.00	61.00	SURCHARGED
Pipe	J4	J5	48.00	1349.65	1349.34	0.6500	6.000	0.0100	0.55	0.59	0.94	3.04	0.50	1.00	40.00	SURCHARGED
Pipe	J5	J6-7	36.00	1349.95	1349.34	1.6900	4.000	0.0100	0.20	0.32	0.62	2.53	0.28	0.85	0.00	Calculated
Pipe	J6	J6-7	347.00	1349.34	1347.16	0.6300	6.000	0.0100	0.60	0.58	1.03	3.11	0.50	1.00	40.00	SURCHARGED
Pipe	J16	J6th-Juniper	30.00	1345.53	1345.48	0.1700	12.000	0.0100	1.70	1.89	0.90	2.16	1.00	1.00	218.00	SURCHARGED
Pipe	STMH2	STMH2	293.00	1348.23	1347.05	0.4000	8.000	0.0150	0.00	0.66	0.00	0.00	0.33	0.50	0.00	Calculated
Pipe	STMH20	STMH21	125.00	1342.55	1342.31	0.1900	30.000	0.0150	18.28	15.58	1.17	3.72	2.50	1.00	30.00	SURCHARGED
Pipe	J14	J15	28.00	1347.05	1346.95	0.3600	8.000	0.0150	0.51	0.63	0.82	1.47	0.67	1.00	74.00	SURCHARGED
Pipe	J15	J8th-Juniper	354.00	1346.95	1345.53	0.4000	8.000	0.0150	0.88	1.13	1.33	2.52	0.67	1.00	123.00	SURCHARGED
Pipe	15	J15	26.00	1352.36	1346.95	20.8100	4.000	0.0100	0.94	1.13	0.83	10.91	0.33	1.00	15.00	SURCHARGED
Pipe	14	J14	13.00	1351.17	1347.05	31.6900	4.000	0.0100	1.11	1.39	0.80	12.72	0.33	1.00	60.00	SURCHARGED
Pipe	C14	C12	44.00	1349.05	1348.52	1.2000	36.000	0.0250	1.31	38.07	0.03	0.51	2.36	0.79	0.00	Calculated
Pipe	C12	C11	43.00	1349.09	1349.02	0.1600	24.000	0.0250	2.72	4.75	0.57	1.56	1.86	0.93	0.00	Calculated
Pipe	C11	C10	43.86	1349.97	1349.93	0.0900	15.000	0.0250	1.36	1.01	1.34	1.79	1.03	0.82	0.00	> CAPACITY
Pipe	C10	C9	30.00	1350.33	1350.13	0.6700	15.000	0.0250	1.33	2.74	0.48	1.93	0.84	0.87	0.00	Calculated
Pipe	C9	C8	34.00	1351.36	1350.98	1.1200	10.000	0.0250	1.31	1.20	1.09	3.65	0.58	0.70	0.00	> CAPACITY
Pipe	C8	J3rd-Main-Poplar	27.00	1350.68	1350.47	0.7800	18.000	0.0250	1.25	4.82	0.26	0.72	1.50	1.00	15.00	SURCHARGED
Pipe	STMH21	C15	188.39	1342.31	1341.90	0.2200	30.000	0.0150	16.38	16.58	1.11	3.75	2.50	1.00	25.00	SURCHARGED
Pipe	C15	C7	100.00	1350.26	1350.08	0.1600	36.000	0.0250	1.23	14.71	0.08	1.33	0.97	0.32	0.00	Calculated
Pipe	C7	C6	30.00	1351.41	1351.36	0.1700	18.000	0.0250	1.23	2.23	0.55	1.55	0.83	0.55	0.00	Calculated
Pipe	C6	C6	30.00	1351.56	1351.40	0.5300	18.000	0.0250	0.36	3.99	0.09	0.43	0.73	0.49	0.00	Calculated

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	C16	C16-	131.00	1349.88	1349.69	0.1500	36.000	0.0250	1.10	13.21	0.08	0.49	1.36	0.45	0.00	Calculated
Pipe	C17	C17-	60.00	1349.53	1349.36	0.2800	36.000	0.0250	1.18	18.46	0.06	0.38	1.70	0.57	0.00	Calculated
Pipe	C5	C5-	72.00	1351.49	1351.15	0.4700	18.000	0.0250	1.29	4.700	3.75	1.56	0.74	0.49	0.00	Calculated
Pipe	C18	C18-	40.00	1349.98	1349.98	0.0000	36.000	0.0250	1.84	11.76	1.06	1.26	1.16	0.39	0.00	> CAPACITY
Pipe	C19	C19-	23.00	1351.42	1351.19	1.0000	24.000	0.0250	1.82	11.76	0.16	3.69	0.43	0.21	0.00	Calculated
Pipe	C20	C20-	189.00	1351.16	1352.12	-0.5100	24.000	0.0250	1.48	8.38	0.18	1.04	0.93	0.47	0.00	Calculated
Pipe	C21	C21-	40.00	1350.91	1351.13	-0.5500	24.000	0.0250	1.34	8.72	0.15	0.50	1.67	0.84	0.00	Calculated
Pipe	STMH36	J187	215.00	1341.57	1341.03	0.2500	30.000	0.0150	14.89	17.82	0.82	3.00	2.47	0.99	0.00	Calculated
Pipe	C4	C4-	20.00	1351.59	1351.37	1.1000	18.000	0.0250	4.39	5.73	0.77	5.05	0.74	0.49	0.00	Calculated
Pipe	C3	C3-	41.00	1351.94	1351.59	0.8500	18.000	0.0250	4.50	5.05	0.89	3.33	1.09	0.73	0.00	Calculated
Pipe	C2	C2-	31.00	1351.18	1351.27	-0.2900	18.000	0.0250	2.28	2.94	0.77	1.29	1.50	1.00	0.00	Calculated
Pipe	C1	C1-	30.00	1352.89	1352.67	0.7300	15.000	0.0250	0.03	2.88	0.01	0.10	0.44	0.36	0.00	Calculated
Pipe	C67	C67-	30.00	1353.12	1352.59	1.7700	10.000	0.0250	1.63	1.51	1.07	4.20	0.56	0.68	0.00	> CAPACITY
Pipe	C66	C66-	32.00	1352.80	1352.27	1.6600	12.000	0.0120	0.00	4.97	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	C65	C65-	31.00	1351.90	1351.87	0.1000	10.000	0.0120	0.00	0.74	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	C57	C57-	32.00	1351.58	1351.43	0.4700	12.000	0.0250	2.02	1.27	1.59	4.23	0.61	0.61	0.00	> CAPACITY
Pipe	C58	C58-	40.00	1350.29	1349.69	1.5000	12.000	0.0250	1.89	2.27	0.83	2.41	1.00	1.00	0.00	> CAPACITY
Pipe	C82	C82-	13.00	1350.30	1349.98	2.4600	8.000	0.0100	0.35	2.46	0.14	1.58	1.00	0.60	0.00	Calculated
Pipe	STMH24	J183	13.00	1340.68	1341.00	-2.4600	30.000	0.0150	17.44	55.77	0.31	4.89	1.77	0.71	0.00	Calculated
Pipe	C53	C53-	28.00	1347.89	1347.64	0.8900	12.000	0.0250	2.06	1.75	1.18	4.53	0.56	0.56	0.00	> CAPACITY
Pipe	C75	C75-	19.00	1350.01	1350.37	-1.8900	8.000	0.0250	0.36	0.86	0.42	1.60	0.41	0.61	0.00	> CAPACITY
Pipe	C23	C23-	50.00	1351.83	1351.95	-0.2400	18.000	0.0250	2.06	2.68	0.77	1.92	0.92	0.62	0.00	Calculated
Pipe	C24	C24-	53.00	1351.58	1351.02	1.0600	15.000	0.0250	3.56	3.45	1.03	4.25	0.84	0.68	0.00	> CAPACITY
Pipe	C25	C25-	72.00	1349.68	1349.21	0.6500	18.000	0.0150	3.66	7.36	0.50	2.07	1.50	1.00	0.00	> CAPACITY
Pipe	C26	C26-	46.00	1349.77	1350.81	-2.2600	15.000	0.0150	0.98	8.42	0.12	1.30	0.74	0.59	0.00	Calculated
Pipe	C27	C27-	84.00	1347.92	1347.21	0.8500	12.000	0.0250	1.84	1.70	1.08	2.51	0.92	0.92	0.00	> CAPACITY
Pipe	C28	C28-	36.00	1346.93	1347.23	-0.8300	15.000	0.0150	1.96	5.11	0.38	2.68	0.72	0.57	0.00	Calculated
Pipe	C29	C29-	41.00	1346.60	1346.48	0.2900	15.000	0.0150	1.98	3.03	0.65	3.93	0.54	0.44	0.00	Calculated
Pipe	C40	C40-	59.23	1346.10	1345.63	0.7900	12.000	0.0250	0.10	2.99	0.03	0.13	1.02	0.81	0.00	Calculated
Pipe	C30	C30-	35.00	1345.92	1345.93	-0.0300	15.000	0.0150	1.80	3.62	3.45	3.26	0.66	0.66	0.00	> CAPACITY
Pipe	C31	C31-	30.00	1345.03	1344.94	0.3000	15.000	0.0150	1.92	3.07	0.62	4.03	0.52	0.41	0.00	Calculated
Pipe	C32	C32-	65.00	1342.97	1343.11	-0.2200	15.000	0.0150	2.33	2.60	0.90	2.40	1.05	0.85	0.00	Calculated
Pipe	C37	C37-	55.00	1344.45	1344.49	-0.0700	15.000	0.0150	3.11	1.51	2.06	3.56	0.84	0.87	0.00	> CAPACITY
Pipe	C36	C36-	43.00	1342.72	1342.59	0.3000	24.000	0.0150	3.27	10.78	0.30	1.67	1.34	0.39	0.00	Calculated
Pipe	C35	C35-	42.00	1342.88	1342.75	0.3100	24.000	0.0150	6.82	10.91	0.62	6.02	0.78	0.67	0.00	Calculated
Pipe	C33	C33-	65.38	1343.05	1342.84	0.3200	18.000	0.0150	3.96	5.16	0.77	4.93	0.69	0.46	0.00	Calculated
Pipe	C34	C34-	47.00	1340.82	1339.69	2.4000	24.000	0.0150	9.61	30.40	0.32	8.74	0.76	0.38	0.00	Calculated
Pipe	STMH25	J181	236.00	1338.41	1337.11	0.5500	30.000	0.0150	21.68	26.38	0.82	4.51	2.37	0.95	0.00	Calculated
Pipe	STMH26	STMH27	19.00	1335.85	1335.81	0.2100	30.000	0.0150	25.23	16.31	1.55	5.15	2.50	1.00	4.00	SURCHARGED
Pipe	STMH27	STMH28	337.00	1335.81	1335.03	0.2300	36.000	0.0150	24.88	27.81	0.89	4.17	2.46	0.82	0.00	Calculated
Pipe	STMH28	Out-01	620.00	1335.03	1333.41	0.2600	36.000	0.0150	28.42	29.55	0.89	4.51	2.32	0.77	0.00	Calculated
Pipe	174	173	136.00	1346.62	1347.57	-0.7000	4.000	0.0100	0.17	0.21	0.81	1.92	0.33	1.00	145.00	SURCHARGED
Pipe	C45	C45-	43.00	1347.54	1347.38	0.3700	8.000	0.0250	0.00	0.38	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	C22	C22-	115.00	1353.05	1352.50	0.4800	24.000	0.0150	0.67	13.56	0.05	3.30	0.29	0.14	0.00	Calculated
Pipe	STMH8	J39	16.00	1347.42	1347.38	0.2500	12.000	0.0120	1.91	1.93	0.99	2.43	1.00	1.00	0.00	Calculated
Pipe	J106-107	J105	90.00	1345.00	1344.80	0.2200	6.000	0.0100	0.35	0.34	1.02	1.81	0.50	1.00	52.00	SURCHARGED
Pipe	J105	J105	17.00	1345.04	1345.00	0.2400	6.000	0.0100	2.35	0.33	6.64	11.96	0.50	1.00	163.00	SURCHARGED
Pipe	J132	J132	19.00	1345.88	1345.84	0.2100	6.000	0.0100	0.23	0.33	0.69	1.29	0.50	1.00	397.00	SURCHARGED
Pipe	J130	J130	10.00	1346.34	1346.24	1.0000	6.000	0.0100	2.11	0.73	2.88	10.75	0.50	1.00	31.00	SURCHARGED
Pipe	STMH31	J130	147.00	1347.07	1346.24	0.5600	6.000	0.0100	0.67	0.55	1.22	3.41	0.50	1.00	7.00	SURCHARGED
Pipe	J130	J6th-Cherry	182.00	1346.24	1345.88	0.2000	6.000	0.0100	0.31	0.32	0.96	1.60	0.50	1.00	58.00	SURCHARGED
Pipe	J-CONCPIT	J70	113.00	1344.26	1343.89	0.3300	30.000	0.0150	21.36	20.34	1.05	4.35	2.50	1.00	17.00	SURCHARGED
Pipe	C78-79	J97	350.00	1347.00	1344.26	0.7800	10.000	0.0100	3.19	2.52	1.27	5.85	0.83	1.00	66.00	SURCHARGED
Pipe	J96	J96	108.84	1347.40	1347.45	-0.0500	6.000	0.0100	0.22	0.16	1.43	1.47	0.50	1.00	21.00	SURCHARGED
Pipe	J96	J96	4.00	1347.41	1347.40	0.2500	6.000	0.0150	0.71	0.24	2.93	3.63	0.50	1.00	35.00	SURCHARGED
Pipe	184	185	38.00	1344.40	1343.33	2.8200	8.000	0.0100	0.99	2.64	0.38	3.31	0.50	1.00	50.00	SURCHARGED
Pipe	DeadEnd	127	255.00	1350.77	1349.49	0.5000	4.000	0.0150	0.00	0.12	0.00	0.00	0.17	0.50	0.00	Calculated
Pipe	J70	STMH17	181.00	1343.89	1343.31	0.3200	30.000	0.0150	13.66	20.12	0.68	3.19	2.50	1.00	27.00	SURCHARGED

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	70	J70	205.00	1344.45	1343.89	0.2700	8.000	0.0100	2.16	0.82	2.63	6.19	0.67	1.00	76.00	SURCHARGED
Pipe	STMH15	J64-65	136.00	1345.23	1344.88	0.2600	30.000	0.0150	9.13	18.03	0.51	2.71	2.50	1.00	1.00	SURCHARGED
Pipe	STMH16	J64-65	171.00	1344.88	1344.44	0.2600	30.000	0.0150	10.70	18.03	0.59	2.46	2.50	1.00	9.00	SURCHARGED
Pipe	65	J64-65	55.00	1347.46	1344.88	4.6900	18.000	0.0150	2.70	19.72	0.14	2.31	0.89	0.67	0.00	Calculated
Pipe	64	J64-65	10.00	1347.51	1344.88	26.3000	18.000	0.0150	1.61	46.69	0.03	1.57	0.83	0.61	0.00	Calculated
Pipe	J40	STMH7	235.00	1347.00	1343.66	1.4200	12.000	0.0120	1.77	4.60	0.38	2.25	1.00	1.00	104.00	SURCHARGED
Pipe	40	J40	31.00	1349.70	1347.00	8.7100	4.000	0.0150	0.48	0.49	0.98	5.49	0.33	1.00	36.00	SURCHARGED
Pipe	J181	J179-180	220.00	1337.11	1336.00	0.5000	30.000	0.0150	16.39	25.25	0.65	3.34	2.50	1.00	48.00	SURCHARGED
Pipe	J181	J113	28.00	1343.35	1337.11	22.2900	6.000	0.0150	2.14	2.30	0.93	10.90	0.50	1.00	11.00	SURCHARGED
Pipe	J112	J113	101.00	1346.00	1345.28	0.7700	4.000	0.0100	0.29	0.21	1.41	3.37	0.33	1.00	1030.00	SURCHARGED
Pipe	J112	J113	9.00	1348.65	1346.00	29.4400	4.000	0.0150	0.89	0.44	4.49	4.49	0.33	1.00	107.00	SURCHARGED
Pipe	J183	J182	314.00	1340.61	1338.74	0.6000	30.000	0.0150	19.11	27.43	0.70	4.66	2.04	0.82	0.00	Calculated
Pipe	183	J183	12.00	1344.62	1340.61	33.4200	6.000	0.0150	1.84	2.81	0.65	9.42	0.50	1.00	206.00	SURCHARGED
Pipe	J17	STMH3	321.00	1345.44	1344.84	0.1900	12.000	0.0100	3.80	2.00	1.90	4.84	1.00	1.00	10.00	SURCHARGED
Pipe	17	J17	18.00	1349.77	1345.44	24.0600	6.000	0.0150	1.38	2.39	0.58	7.04	0.50	1.00	10.00	SURCHARGED
Pipe	STMH33	J117	146.25	1345.08	1344.49	0.4000	18.000	0.0250	1.62	3.47	0.47	1.59	0.82	0.57	0.00	Calculated
Pipe	122	J121-122	16.00	1344.87	1342.00	17.9400	6.000	0.0100	2.43	3.09	0.79	12.40	0.50	1.00	12.00	SURCHARGED
Pipe	121	J121-122	19.00	1345.97	1342.00	20.8900	6.000	0.0100	2.53	3.33	0.76	12.89	0.50	1.00	10.00	SURCHARGED
Pipe	C83	C83	33.00	1350.03	1349.37	2.0000	18.000	0.0250	0.37	7.72	0.05	2.93	0.43	0.30	0.00	Calculated
Pipe	C44	C44	70.00	1346.47	1344.70	2.5300	8.000	0.0120	1.58	2.08	0.76	6.15	0.67	1.00	8.00	SURCHARGED
Channel	C5	6	265.35	1351.49	1348.86	0.9900	41.400	0.0320	1.34	284.61	0.00	0.82	1.10	0.32	0.00	
Channel	C4	6	109.43	1351.37	1350.19	1.0800	41.400	0.0320	4.39	422.24	0.01	1.35	1.16	0.34	0.00	
Channel	C3	C4	75.87	1351.59	1351.59	0.0000	41.400	0.0320	4.41	14.76	0.30	0.64	0.97	0.28	0.00	
Channel	C2	C3	92.62	1351.27	1351.94	-0.7200	41.400	0.0320	2.54	345.84	0.01	0.48	1.54	0.45	0.00	
Channel	C1	C2	176.08	1352.67	1351.16	0.8500	41.400	0.0320	3.59	374.05	0.01	0.58	1.30	0.38	0.00	
Channel	C20	C20	65.14	1351.13	1351.16	-0.0500	54.000	0.0320	1.62	186.61	0.01	0.09	1.54	0.34	0.00	
Channel	C19	C19	66.85	1352.12	1351.42	1.0500	54.000	0.0320	1.84	889.80	0.00	0.89	0.44	0.10	0.00	
Channel	C18	C18	75.42	1351.19	1349.98	1.6000	54.000	0.0320	1.96	1101.39	0.00	0.58	0.62	0.14	0.00	
Channel	C18	C17	373.61	1349.98	1349.53	0.1200	54.000	0.0320	1.89	301.78	0.01	0.22	1.39	0.31	0.00	
Channel	C17	C16	139.29	1349.36	1349.88	-0.3700	54.000	0.0320	1.22	531.29	0.00	0.10	1.52	0.34	0.00	
Channel	C16	C15	297.44	1349.69	1350.26	-0.1900	54.000	0.0320	2.26	390.65	0.00	0.18	1.17	0.26	0.00	
Channel	C15	C14	1082.11	1350.08	1349.05	0.1000	54.000	0.0320	2.49	268.27	0.00	0.36	1.58	0.35	0.00	
Channel	C5	C6	294.68	1351.15	1351.40	-0.0800	41.400	0.0320	2.27	118.44	0.02	0.40	0.93	0.27	0.00	
Channel	C12	C13	345.21	1349.02	1348.52	0.1400	41.400	0.0320	4.65	154.75	0.03	0.56	2.13	0.62	0.00	
Channel	C11	C12	240.64	1349.93	1349.09	0.3500	52.680	0.0320	1.85	477.68	0.00	0.27	1.42	0.32	0.00	
Channel	C10	C11	21.68	1350.13	1349.97	0.7400	52.680	0.0320	1.34	694.56	0.00	0.41	0.97	0.22	0.00	
Channel	C8	C9	103.30	1350.47	1351.36	-0.8600	52.680	0.0320	1.83	750.45	0.00	0.50	1.29	0.30	0.00	
Channel	C9	C10	152.54	1350.98	1350.33	0.4300	52.680	0.0320	1.31	527.77	0.00	0.60	0.56	0.13	0.00	
Channel	C6	C7	70.28	1351.56	1351.41	0.2100	41.400	0.0320	0.50	187.85	0.00	0.16	0.73	0.21	0.00	
Channel	C7	C8	293.50	1351.36	1350.68	0.2300	41.400	0.0320	0.41	195.72	0.00	0.30	1.19	0.35	0.00	
Channel	C25	C26	468.75	1349.21	1349.77	-0.1200	27.960	0.0320	1.50	65.63	0.02	0.09	1.72	0.74	0.00	
Channel	C26	Inlet49Outlet	179.31	1350.81	1348.08	1.5200	14.400	0.0320	0.95	81.05	0.01	0.51	0.52	0.43	0.00	
Channel	C27	C28	203.57	1348.08	1347.92	0.0800	14.400	0.0320	1.32	18.42	0.07	0.28	0.89	0.75	0.00	
Channel	C28	C29	168.07	1347.21	1346.93	0.1700	14.400	0.0320	1.78	26.81	0.07	0.14	1.02	0.85	0.00	
Channel	C28	C29	29.08	1347.23	1346.60	2.1700	14.400	0.0320	1.96	96.68	0.02	0.64	0.48	0.40	0.00	
Channel	C29	C30	43.20	1346.48	1345.92	1.3000	14.400	0.0320	1.98	74.79	0.03	0.39	0.68	0.57	0.00	
Channel	C40	C30	21.10	1345.63	1345.92	-1.3700	14.400	0.0320	0.22	77.01	0.00	0.33	1.08	0.26	0.00	
Channel	C30	C31	105.35	1345.93	1345.03	0.8500	24.000	0.0320	1.80	164.49	0.01	0.72	0.51	0.90	0.00	
Channel	C31	C32	254.76	1344.94	1342.97	0.7700	24.000	0.0320	1.91	156.50	0.01	0.36	0.80	0.40	0.00	
Channel	C32	C33	190.43	1343.11	1342.59	0.2700	24.000	0.0320	2.59	93.00	0.03	0.36	1.14	0.57	0.00	
Channel	C36	C33	169.32	1342.59	1343.05	-0.2700	24.000	0.0320	3.71	92.76	0.04	0.28	1.16	0.58	0.00	
Channel	C33	C34	301.16	1342.84	1339.69	1.0500	14.400	0.0320	3.94	67.17	0.06	2.45	0.00	0.09	0.00	
Channel	C33	189	240.48	1349.00	1345.81	1.3300	14.400	0.0320	0.00	55.07	0.00	0.00	0.10	0.26	0.00	
Channel	189	C40	141.22	1345.81	1346.10	-0.2100	14.400	0.0320	0.58	60.80	0.01	0.30	0.42	0.35	0.00	
Channel	C35	C34	344.77	1342.75	1340.82	0.5600	23.520	0.0320	6.78	165.01	0.04	0.62	0.89	0.45	0.00	
Channel	C37	C36	234.69	1344.49	1342.72	0.7500	27.960	0.0320	3.11	164.90	0.02	0.55	0.85	0.37	0.00	
Channel	C36	C35	122.59	1342.72	1342.88	-0.1300	27.960	0.0320	6.83	68.60	0.10	0.65	1.18	0.50	0.00	
Channel	C41	C42	103.85	1350.40	1349.75	0.6300	14.400	0.0320	1.63	51.97	0.03	1.17	0.32	0.27	0.00	

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Channel C41		C42	106.81	1351.09	1350.35	0.6900	14.400	0.0320	0.82	54.68	0.01	0.67	0.31	0.26	0.00	
Channel C42		46	42.22	1349.75	1347.41	5.5400	14.400	0.0320	2.27	154.64	0.01	1.87	0.67	0.57	0.00	
Channel C22		C23	1014.72	1352.50	1351.83	0.0700	34.560	0.0320	2.98	161.42	0.02	0.25	0.76	0.27	0.00	
Channel C23		C24	419.66	1351.95	1351.58	0.0900	24.000	0.0320	2.21	52.84	0.04	0.41	0.95	0.47	0.00	
Channel C22		C61	150.05	1353.05	1350.91	1.4300	54.000	0.0320	2.25	1038.44	0.00	0.53	1.03	0.23	0.00	
Channel 4		C69	87.44	1354.04	1353.23	0.9300	14.400	0.0320	0.28	63.22	0.00	0.06	0.80	0.66	0.00	
Channel C69		C70	63.76	1354.02	1353.47	0.8600	14.400	0.0320	0.13	61.01	0.00	0.65	0.12	0.10	0.00	
Channel C70		14	66.49	1353.16	1351.17	2.9900	14.400	0.0320	0.12	113.64	0.00	0.73	0.65	0.54	0.00	
Channel 45		C42	27.16	1350.83	1350.35	1.7700	14.400	0.0320	0.00	87.33	0.00	0.00	0.18	0.16	0.00	
Channel C53		STMH34	86.31	1347.64	1344.54	3.5900	14.400	0.0320	2.06	124.49	0.02	1.64	0.32	0.27	0.00	
Channel C82		C83	7.76	1350.30	1350.03	3.4800	14.400	0.0320	0.35	122.53	0.00	0.84	0.19	0.16	0.00	
Channel 2		C67	414.13	1353.94	1353.12	0.2000	14.400	0.0320	0.41	29.23	0.01	0.15	0.47	0.40	0.00	
Channel C67		7	274.32	1352.59	1349.99	0.9500	24.000	0.0320	1.62	173.26	0.01	1.49	0.58	0.30	0.00	
Channel C71		8	111.60	1353.35	1352.85	0.4500	14.400	0.0320	2.49	43.97	0.06	1.19	0.39	0.33	0.00	
Channel 5		8	330.00	1354.60	1351.65	0.8900	14.400	0.0320	2.11	61.79	0.03	1.24	0.41	0.36	0.00	
Channel C55		114	26.80	1350.75	1350.75	0.0000	14.400	0.0320	0.86	4.01	0.21	2.63	0.18	0.16	0.00	
Channel 114		116	131.70	1350.78	1350.01	0.5600	14.400	0.0320	0.37	49.24	0.01	50.00	0.08	0.11	0.00	
Channel C&Gstart		137	291.26	1352.00	1351.20	0.2700	8.260	0.0320	0.00	12.88	0.00	0.00	0.00	0.00	0.00	
Channel C52		C53	125.93	1349.85	1347.89	1.5600	14.400	0.0320	0.00	81.95	0.00	0.00	0.43	0.36	0.00	
Channel 176		C46	113.84	1346.09	1345.36	0.6400	14.400	0.0320	2.02	52.60	0.04	0.31	0.82	0.69	0.00	
Channel C46		C47	132.96	1344.84	1343.38	1.1000	14.400	0.0320	1.07	68.83	0.02	0.34	0.66	0.55	0.00	
Channel C47		C48	131.03	1343.15	1337.76	4.1100	14.400	0.0320	2.27	133.23	0.02	0.52	0.73	0.61	0.00	
Channel STMH30		J175-176	364.44	1340.94	1338.47	0.6800	14.400	0.0320	6.94	54.30	0.13	0.66	0.88	0.73	0.00	
Channel STMH30		176	361.59	1348.89	1346.05	0.7900	14.400	0.0320	0.00	57.80	0.00	0.00	0.22	0.19	0.00	
Channel C43		190	162.80	1349.15	1347.38	1.0900	14.400	0.0320	1.18	68.49	0.02	1.21	0.50	0.42	0.00	
Channel 78		75	330.39	1350.50	1349.84	0.2000	8.260	0.0320	1.56	10.98	0.14	0.40	0.43	0.62	0.00	
Channel 77		76	252.97	1350.35	1349.97	0.1500	8.260	0.0320	1.40	9.52	0.15	0.37	0.42	0.61	0.00	
Channel 68		72	297.17	1350.59	1350.41	0.0600	8.260	0.0320	170.14	6.05	28.14	16.69	0.31	1.00	0.00	
Channel 69		73	320.23	1350.64	1350.38	0.0800	8.260	0.0320	2.86	7.00	0.38	0.39	0.65	0.65	0.00	
Channel 65		67	159.12	1350.76	1350.70	0.0400	8.260	0.0320	39.83	4.77	8.35	8.67	0.68	0.98	0.00	
Channel 63		65	170.23	1351.29	1350.70	0.3500	8.260	0.0320	45.55	13.71	3.32	4.33	0.42	1.00	0.00	
Channel 64		66	149.34	1350.61	1350.50	0.0700	8.260	0.0320	1.07	6.67	0.16	0.26	0.48	0.70	0.00	
Channel 62		64	170.81	1351.26	1350.61	0.3800	8.260	0.0320	0.72	15.15	0.05	0.31	0.34	0.49	0.00	
Channel C85		61	22.23	1349.90	1347.55	10.5700	14.400	0.0320	1.01	90.29	0.01	0.64	0.43	0.36	0.00	
Channel 56		57	116.27	1350.85	1350.69	0.1400	8.260	0.0320	1.29	9.11	0.14	0.56	0.34	0.49	0.00	
Channel 58		55	111.78	1351.04	1350.87	0.1500	8.260	0.0320	0.00	9.58	0.00	0.00	0.00	0.00	0.00	
Channel 52		53	56.58	1350.82	1350.46	0.6400	14.400	0.0320	0.98	52.40	0.01	0.43	0.98	0.84	0.00	
Channel C80		52	47.49	1351.15	1350.82	0.6900	14.400	0.0320	0.56	54.76	0.01	0.69	0.63	0.55	0.00	
Channel 35		36	99.18	1353.12	1352.69	0.4300	14.400	0.0320	0.29	43.25	0.01	0.26	0.56	0.51	0.00	
Channel C76		42	16.47	1350.78	1350.71	0.4300	14.400	0.0320	1.45	160.23	0.01	0.21	0.71	0.59	0.00	
Channel 96		98	136.23	1351.04	1350.13	0.6700	8.260	0.0320	0.65	20.08	0.03	0.80	0.21	0.30	0.00	
Channel 103		102	84.30	1350.26	1349.62	0.7600	8.260	0.0320	0.00	21.41	0.00	0.00	0.00	0.00	0.00	
Channel 101		100	67.53	1350.05	1349.79	0.3900	8.260	0.0320	0.91	15.24	0.06	0.49	0.44	0.71	0.00	
Channel 98		99	142.60	1350.13	1349.77	0.2500	8.260	0.0320	0.09	12.34	0.01	0.14	0.25	0.37	0.00	
Channel 133		134	117.51	1349.87	1349.85	0.0200	8.260	0.0320	1.30	3.20	0.41	1.27	0.37	0.54	0.00	
Channel C51		136	67.40	1350.20	1349.78	0.6200	14.400	0.0320	1.85	47.34	0.04	1.20	0.34	0.28	0.00	
Channel 140		144	148.03	1347.60	1345.98	1.0900	14.400	0.0320	0.67	68.72	0.01	0.48	0.32	0.27	0.00	
Channel 144		146	140.06	1345.98	1345.42	0.4000	14.400	0.0320	2.59	41.54	0.06	0.98	0.50	0.43	0.00	
Channel 67		C79	266.53	1350.70	1350.50	0.0800	14.400	0.0320	35.40	17.99	1.97	5.11	0.82	0.74	0.00	
Channel StartDitch		106	115.61	1350.25	1348.92	1.1500	14.400	0.0320	1.29	64.94	0.02	1.06	0.42	0.37	0.00	
Channel StartC&G		170	156.36	1349.70	1349.38	0.2000	8.260	0.0320	0.27	11.11	0.02	0.36	0.21	0.31	0.00	
Channel 170		171	31.83	1349.38	1349.19	0.6000	8.260	0.0320	0.88	18.98	0.05	0.72	0.30	0.44	0.00	
Channel 167		168	65.10	1349.61	1349.20	0.6300	8.260	0.0320	0.76	19.50	0.04	0.60	0.29	0.44	0.00	
Channel 169		168	69.61	1349.80	1349.20	0.8600	8.260	0.0320	0.00	22.81	0.00	0.00	0.18	0.29	0.00	
Channel 169		172	122.90	1349.80	1348.95	0.6900	8.260	0.0320	3.54	20.43	0.17	0.67	0.45	0.71	0.00	
Channel 169		86	118.09	1351.10	1350.50	0.5100	14.400	0.0320	0.00	46.82	0.00	0.00	0.15	0.13	0.00	
Channel 72		71	55.65	1350.41	1350.01	0.7200	8.260	0.0320	155.94	20.83	7.49	50.00	0.17	1.00	0.00	
Channel C13		Out-05	226.22	1348.27	0.00	596.0000	14.400	0.0320	5.73	1603.64	0.00	19.80	0.15	0.12	0.00	

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
Channel C62-	C63	C63	33.46	1350.83	1350.39	1.3200	14.400	0.0320	0.32	75.33	0.00	0.38	0.85	0.71	0.00	0.00
Channel C63-	C64	C64	24.51	1350.66	1350.47	0.7800	14.400	0.0320	0.26	57.83	0.00	0.52	0.20	0.16	0.00	0.00
Channel C64-	86	86	48.37	1350.27	1348.35	3.9700	14.400	0.0320	0.58	130.87	0.00	0.87	0.67	0.57	0.00	0.00
Channel C41	40	40	219.30	1351.84	1351.34	0.2300	8.280	0.0320	0.00	11.73	0.00	0.00	0.00	0.00	0.00	0.00
Channel C57-	C58	C58	13.58	1351.43	1350.29	8.3900	14.400	0.0320	2.01	190.32	0.01	0.78	0.66	0.55	0.00	0.00
Channel C58-	C59	C59	29.87	1349.68	1350.58	-2.9800	14.400	0.0320	0.04	113.39	0.00	0.01	0.76	0.63	0.00	0.00
Channel C59-	118	118	68.72	1350.80	1346.59	6.1300	14.400	0.0320	0.04	162.59	0.00	0.45	0.63	0.52	0.00	0.00
Channel C56-	116	116	124.25	1350.13	1350.01	0.1000	14.400	0.0320	0.39	20.41	0.02	0.54	0.24	0.20	0.00	0.00
Channel C86-	Out-07	Out-07	55.27	1339.99	1338.00	3.6000	14.400	0.0320	3.50	124.64	0.03	2.55	0.32	0.27	0.00	0.00
Channel C48-	Channel C38-	Stor-02	621.88	1336.47	1329.00	1.2000	24.000	0.0320	3.73	195.05	0.02	0.25	1.22	0.61	0.00	0.00
Channel C38-	C37	C37	112.85	1344.79	1344.45	0.3000	14.400	0.0320	1.60	36.06	0.04	0.11	1.06	0.89	0.00	0.00
Channel C44-	185	185	7.38	1344.70	1343.33	18.5600	14.400	0.0320	4.21	283.02	0.01	0.70	1.20	1.00	23.00	0.00
Channel C54-	111	111	11.07	1350.73	1349.67	9.5800	14.400	0.0320	2.52	203.26	0.01	1.90	1.10	0.92	0.00	0.00
Channel 112	C55	C55	93.91	1348.65	1350.81	-2.3000	14.400	0.0320	3.15	99.62	0.03	0.53	0.82	0.69	0.00	0.00
Channel C39-	183	183	98.45	1345.32	1344.62	0.7100	14.400	0.0320	1.31	55.39	0.02	0.87	0.41	0.37	0.00	0.00
Channel C77	C78	C78	26.28	1350.60	1350.53	0.2700	14.400	0.0320	1.66	33.90	0.05	0.83	0.79	0.66	0.00	0.00
Channel C83-	54	54	10.42	1349.37	1348.57	7.6800	14.400	0.0320	1.19	182.01	0.01	1.37	0.93	0.78	0.00	0.00
Channel C24-	Out-04	Out-04	609.93	1351.02	1349.00	0.3300	24.000	0.0320	3.54	102.42	0.03	1.13	0.96	0.78	0.00	0.00
Channel C75-	59	59	52.29	1350.37	1349.14	2.3500	14.400	0.0320	0.36	100.75	0.00	1.32	0.15	0.12	0.00	0.00
Channel 137	C53	C53	162.11	1349.86	1347.89	1.2200	14.400	0.0320	0.00	72.41	0.00	0.00	0.43	0.36	0.00	0.00
Channel C34-	Out-08	Out-08	223.61	1339.69	0.00	599.1200	24.000	0.0320	14.27	4356.15	0.00	26.25	0.23	0.12	0.00	0.00

Inlet Summary

Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Initial Water Elevation (ft)	Ponded Area (ft ²)	Peak Flow (cfs)	Peak Flow Intercepted (cfs)	Peak Flow Bypassing (cfs)	Peak Flow Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
1	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.67	1353.87	1350.67	10.00	1.29	N/A	N/A	N/A	7.00	0.00	1354.03
2	FWHA HEC-22 GENERIC	N/A	On Grade	1	1350.43	1353.94	1350.43	N/A	1.38	0.97	0.41	70.50	7.00	7.21	1354.17
3	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.54	1354.27	1351.54	10.00	3.02	N/A	N/A	N/A	7.00	18.80	1354.91
4	FWHA HEC-22 GENERIC	N/A	On Grade	1	1351.94	1354.04	1351.94	N/A	1.12	0.84	0.28	75.10	7.00	6.50	1354.25
5	FWHA HEC-22 GENERIC	N/A	On Grade	1	1349.95	1354.60	1349.95	N/A	2.31	0.20	2.11	8.63	7.00	9.14	1354.87
6	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.86	1350.19	1348.86	10.00	7.30	N/A	N/A	N/A	7.00	176.40	1351.94
7	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.26	1349.99	1349.26	10.00	4.78	N/A	N/A	N/A	7.00	68.63	1350.82
8	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.88	1351.68	1349.88	10.00	4.13	N/A	N/A	N/A	7.00	47.84	1352.22
9	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.14	1350.64	1346.14	10.00	6.11	N/A	N/A	N/A	7.00	119.60	1353.23
10	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.97	1352.40	1348.97	10.00	3.52	N/A	N/A	N/A	7.00	31.37	1353.27
11	FWHA HEC-22 GENERIC	N/A	On Sag	1	1353.96	1354.96	1353.96	10.00	2.44	N/A	N/A	N/A	7.00	58.30	1356.31
12	FWHA HEC-22 GENERIC	N/A	On Sag	1	1353.91	1354.96	1353.91	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1354.96
13	FWHA HEC-22 GENERIC	N/A	On Sag	1	1353.86	1354.96	1353.86	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1354.96
14	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.17	1352.85	1351.17	10.00	2.04	N/A	N/A	N/A	7.00	2.21	1353.30
15	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.77	1355.49	1349.77	10.00	1.38	N/A	N/A	N/A	7.00	37.10	1352.84
16	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.79	1351.86	1349.79	10.00	3.74	N/A	N/A	N/A	7.00	0.00	1355.66
17	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.93	1352.49	1351.93	10.00	2.56	N/A	N/A	N/A	7.00	10.66	1352.95
18	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.38	1352.78	1351.38	10.00	1.05	N/A	N/A	N/A	7.00	0.00	1352.92
19	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.55	1354.45	1350.55	10.00	0.92	N/A	N/A	N/A	7.00	0.00	1351.97
20	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.84	1351.84	1351.00	10.00	1.89	N/A	N/A	N/A	7.00	0.23	1354.70
21	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.54	1353.04	1350.54	10.00	0.54	N/A	N/A	N/A	7.00	10.36	1352.44
22	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.32	1353.25	1348.32	10.00	2.42	N/A	N/A	N/A	7.00	8.24	1353.66
23	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.81	1351.98	1350.81	10.00	2.54	N/A	N/A	N/A	7.00	10.36	1352.44
24	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.54	1353.04	1350.54	10.00	0.54	N/A	N/A	N/A	7.00	0.00	1353.13
25	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.09	1353.42	1351.09	10.00	1.14	N/A	N/A	N/A	7.00	0.00	1353.57
26	FWHA HEC-22 GENERIC	N/A	On Sag	1	1344.71	1353.41	1344.71	10.00	0.70	N/A	N/A	N/A	7.00	4.60	1353.68
27	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.10	1353.20	1349.10	10.00	3.93	N/A	N/A	N/A	7.00	22.53	1353.90
28	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.33	1352.18	1350.33	10.00	4.99	N/A	N/A	N/A	7.00	75.78	1353.92
29	NEENAH FOUNDRY	R-2586-H	On Sag	1	1352.73	1353.33	1352.73	10.00	4.05	N/A	N/A	N/A	7.00	45.54	1354.48
30	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.43	1352.43	1348.43	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1352.43
31	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.13	1353.70	1351.13	10.00	3.98	N/A	N/A	N/A	7.00	43.67	1354.81
32	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.68	1353.68	1349.68	10.00	0.97	N/A	N/A	N/A	7.00	0.00	1353.81
33	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.30	1352.30	1348.30	10.00	2.54	N/A	N/A	N/A	7.00	10.31	1352.76
34	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.92	1353.12	1347.92	10.00	2.03	N/A	N/A	N/A	7.00	2.15	1353.41
35	FWHA HEC-22 GENERIC	N/A	On Grade	1	1349.02	1353.12	1349.02	N/A	0.91	0.60	0.31	66.05	7.00	5.79	1353.32
36	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.86	1352.69	1350.86	10.00	4.38	N/A	N/A	N/A	7.00	55.42	1353.46
37	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.90	1352.10	1348.90	10.00	1.99	N/A	N/A	N/A	7.00	1.56	1352.38
38	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.28	1351.88	1349.28	10.00	4.32	N/A	N/A	N/A	7.00	53.55	1353.19
39	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.58	1352.08	1350.58	10.00	0.80	N/A	N/A	N/A	7.00	0.00	1352.20
40	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.70	1351.34	1349.70	10.00	2.03	N/A	N/A	N/A	7.00	2.06	1351.63
41	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.94	1351.84	1349.94	10.00	2.23	N/A	N/A	N/A	7.00	5.10	1352.19
42	NEENAH FOUNDRY	R-1792-AG	On Sag	1	1350.71	1351.76	1350.71	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1351.76
43	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.51	1351.21	1349.51	10.00	3.40	N/A	N/A	N/A	7.00	28.37	1352.02
44	FWHA HEC-22 GENERIC	N/A	On Sag	1	1350.12	1351.42	1350.12	10.00	2.25	N/A	N/A	N/A	7.00	35.87	1352.34
45	NEENAH FOUNDRY	R-2586-H	On Sag	1	1342.73	1350.83	1342.73	10.00	2.22	N/A	N/A	N/A	7.00	4.90	1351.18
46	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.41	1350.08	1347.41	10.00	1.69	N/A	N/A	N/A	7.00	0.00	1350.28
47	NEENAH FOUNDRY	R-2560-A	On Sag	1	1348.37	1351.07	1348.37	10.00	1.74	N/A	N/A	N/A	7.00	190.00	1354.79
48	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.05	1351.45	1350.05	10.00	1.62	N/A	N/A	N/A	7.00	0.00	1351.64
49	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.16	1351.26	1348.16	10.00	2.06	N/A	N/A	N/A	7.00	2.56	1351.56
50	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.03	1351.47	1348.03	10.00	5.16	N/A	N/A	N/A	7.00	81.94	1353.33
51	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.20	1351.48	1349.20	10.00	2.49	N/A	N/A	N/A	7.00	9.54	1351.92
52	FWHA HEC-22 GENERIC	N/A	On Grade	1	1348.85	1350.82	1348.85	N/A	0.58	0.40	0.18	69.10	7.00	4.46	1350.99
53	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.91	1350.46	1348.91	10.00	5.47	N/A	N/A	N/A	7.00	93.45	1351.62
54	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.57	1350.03	1348.57	10.00	4.44	N/A	N/A	N/A	7.00	57.26	1351.41
55	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.20	1350.87	1348.20	10.00	2.32	N/A	N/A	N/A	7.00	6.60	1351.25
56	FWHA HEC-22 GENERIC	N/A	On Grade	1	1348.24	1350.85	1348.24	N/A	2.89	1.59	1.29	55.17	7.00	10.06	1351.14
57	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.49	1350.69	1347.49	10.00	3.34	N/A	N/A	N/A	7.00	9.74	1351.02
58	NEENAH FOUNDRY	R 3067 V Type V	On Sag	1	1345.54	1351.04	1345.54	N/A	0.00	0.00	0.00	0.00	7.00	0.00	1351.04

Inlet Summary

Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Initial Water Elevation (ft)	Ponded Area (ft ²)	Peak Flow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
59	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.14	1350.40	1349.14	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1350.40
60	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.74	1350.90	1349.74	10.00	3.32	N/A	N/A	N/A	7.00	26.48	1351.67
61	FWHA HEC-22 GENERIC	N/A	On Sag	1	1347.55	1350.32	1347.55	10.00	1.32	N/A	N/A	N/A	7.00	7.95	1350.73
62	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.31	1351.26	1347.31	N/A	1.47	0.75	0.72	50.84	7.00	0.00	1351.42
63	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.39	1351.29	1347.39	N/A	4.87	1.60	3.27	32.87	7.00	0.57	1351.55
64	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.51	1350.61	1347.51	N/A	2.27	0.99	1.28	43.59	7.00	0.00	1350.81
65	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.46	1350.76	1347.46	N/A	47.34	6.64	40.70	14.02	7.00	18.12	1351.37
66	FWHA HEC-22 GENERIC	N/A	On Sag	1	1347.10	1350.50	1347.10	10.00	3.48	N/A	N/A	N/A	7.00	14.86	1351.02
67	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1348.00	1350.70	1348.00	N/A	41.51	6.11	35.40	14.72	7.00	16.64	1351.28
68	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.39	1350.59	1347.39	N/A	2.68	1.10	1.58	41.01	7.00	0.00	1350.80
69	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1348.34	1350.64	1348.34	N/A	4.11	1.44	2.67	35.04	7.00	0.07	1350.88
70	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.45	1350.87	1344.45	10.00	2.33	N/A	N/A	N/A	7.00	6.78	1351.25
71	FWHA HEC-22 GENERIC	N/A	On Sag	1	1346.71	1350.01	1346.71	10.00	1.57	N/A	N/A	N/A	7.00	8.21	1350.42
72	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1346.01	1350.41	1346.01	N/A	171.29	15.32	155.95	8.94	7.00	38.92	1351.44
73	NEENAH FOUNDRY	R-1792-AG	On Sag	1	1344.88	1350.38	1344.88	10.00	4.36	N/A	N/A	N/A	7.00	1000.80	1351.25
74	FWHA HEC-22 GENERIC	N/A	On Sag	1	1346.33	1350.33	1346.33	10.00	4.33	N/A	N/A	N/A	7.00	17.40	1350.93
75	FWHA HEC-22 GENERIC	N/A	On Sag	1	1346.44	1349.84	1346.44	10.00	4.05	N/A	N/A	N/A	7.00	16.61	1350.35
76	FWHA HEC-22 GENERIC	N/A	On Sag	1	1345.87	1349.97	1345.87	10.00	3.48	N/A	N/A	N/A	7.00	14.87	1350.46
77	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1345.85	1350.35	1345.85	N/A	2.43	1.03	1.40	42.47	7.00	0.00	1350.55
78	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1346.65	1350.50	1346.65	N/A	2.65	1.09	1.56	41.13	7.00	0.00	1350.71
79	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.70	1351.80	1348.70	10.00	3.06	N/A	N/A	N/A	7.00	20.87	1352.46
80	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.37	1351.91	1348.37	10.00	3.00	N/A	N/A	N/A	7.00	0.00	1351.91
81	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.16	1351.66	1347.16	10.00	4.84	N/A	N/A	N/A	7.00	70.60	1353.30
82	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.90	1352.07	1349.90	10.00	4.27	N/A	N/A	N/A	7.00	52.12	1353.35
83	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.58	1351.06	1348.58	10.00	1.70	N/A	N/A	N/A	7.00	0.00	1351.26
84	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.35	1350.20	1348.35	10.00	3.99	N/A	N/A	N/A	7.00	44.02	1351.32
85	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.19	1350.20	1348.19	10.00	1.41	N/A	N/A	N/A	7.00	0.00	1350.37
86	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.35	1350.50	1348.35	10.00	2.20	N/A	N/A	N/A	7.00	4.69	1350.79
87	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.28	1350.63	1348.28	10.00	0.83	N/A	N/A	N/A	7.00	0.00	1350.75
88	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.80	1351.05	1348.80	10.00	4.64	N/A	N/A	N/A	7.00	63.74	1352.51
89	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.65	1351.05	1347.65	10.00	3.57	N/A	N/A	N/A	7.00	32.53	1351.94
90	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.89	1351.44	1347.89	10.00	1.22	N/A	N/A	N/A	7.00	0.00	1351.60
91	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.80	1351.60	1347.80	10.00	1.58	N/A	N/A	N/A	7.00	0.00	1351.79
92	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.87	1351.80	1347.87	10.00	0.99	N/A	N/A	N/A	7.00	0.00	1351.94
93	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.42	1352.01	1349.42	10.00	2.36	N/A	N/A	N/A	7.00	7.20	1352.40
94	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.75	1350.84	1347.75	10.00	2.82	N/A	N/A	N/A	7.00	15.75	1351.40
95	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.73	1351.07	1347.73	10.00	2.38	N/A	N/A	N/A	7.00	7.58	1351.47
96	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.41	1351.04	1347.41	N/A	1.37	0.71	0.65	52.24	7.00	0.00	1351.20
97	FWHA HEC-22 GENERIC	N/A	On Sag	1	1347.17	1350.48	1347.17	10.00	2.91	N/A	N/A	N/A	7.00	17.41	1351.08
98	NEENAH FOUNDRY	R-2586-H	On Grade	1	1347.42	1350.13	1347.42	N/A	0.65	0.56	0.09	85.90	7.00	4.76	1350.31
99	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.64	1349.77	1346.64	10.00	2.87	N/A	N/A	N/A	7.00	16.77	1350.13
100	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.21	1349.79	1348.21	10.00	3.66	N/A	N/A	N/A	7.00	34.84	1350.35
101	FWHA HEC-22 GENERIC	N/A	On Grade	1	1346.62	1350.05	1346.62	N/A	1.87	0.94	0.93	50.13	7.00	8.32	1350.30
102	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.39	1349.62	1348.39	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1349.62
103	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.88	1350.26	1346.88	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1350.26
104	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.48	1350.24	1346.48	10.00	1.40	N/A	N/A	N/A	7.00	0.00	1350.41
105	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.04	1350.10	1345.07	10.00	2.32	N/A	N/A	N/A	7.00	0.00	1350.48
106	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.53	1349.12	1347.53	10.00	3.62	N/A	N/A	N/A	7.00	6.58	1350.48
107	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.40	1349.88	1348.40	10.00	3.52	N/A	N/A	N/A	7.00	33.87	1349.68
108	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.14	1349.93	1348.14	10.00	4.72	N/A	N/A	N/A	7.00	2.25	1350.17
109	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.19	1351.71	1351.19	10.00	4.72	N/A	N/A	N/A	7.00	31.47	1350.80
110	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.28	1351.51	1348.28	10.00	2.84	N/A	N/A	N/A	7.00	66.56	1353.27
111	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.67	1351.72	1349.67	10.00	1.34	N/A	N/A	N/A	7.00	16.09	1352.08
112	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.65	1351.60	1348.65	10.00	1.24	N/A	N/A	N/A	7.00	0.00	1351.89
113	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.81	1350.75	1349.81	10.00	3.08	N/A	N/A	N/A	7.00	21.03	1351.40
114	FWHA HEC-22 GENERIC	N/A	On Grade	1	1346.18	1350.03	1346.18	N/A	1.30	0.93	0.37	71.75	7.00	6.99	1350.97
115	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.65	1350.03	1348.65	10.00	3.24	N/A	N/A	N/A	7.00	24.63	1350.77
116	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.91	1350.01	1345.91	10.00	2.86	N/A	N/A	N/A	7.00	16.52	1350.59

Inlet Summary

Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Initial Water Elevation (ft)	Ponded Area (ft ²)	Peak Flow (cfs)	Peak Flow Intercepted (cfs)	Peak Flow Bypassing (cfs)	Peak Flow Inlet during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
117	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.14	1350.27	1347.14	10.00	19.33	N/A	N/A	N/A	7.00	866.56	1367.80
118	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.59	1350.19	1346.59	10.00	1.40	N/A	N/A	N/A	7.00	0.00	1350.36
119	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.39	1350.14	1347.39	10.00	1.33	N/A	N/A	N/A	7.00	0.00	1350.31
120	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.23	1349.82	1348.23	10.00	8.94	N/A	N/A	N/A	7.00	269.78	1355.27
121	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.97	1348.37	1345.97	10.00	3.11	N/A	N/A	N/A	7.00	26.33	1349.14
122	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.87	1347.67	1344.87	10.00	3.11	N/A	N/A	N/A	7.00	21.81	1348.35
123	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.71	1351.56	1349.71	10.00	2.99	N/A	N/A	N/A	7.00	19.19	1352.19
124	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.18	1351.31	1350.18	10.00	5.93	N/A	N/A	N/A	7.00	112.18	1353.76
125	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.41	1351.13	1349.41	10.00	2.77	N/A	N/A	N/A	7.00	14.58	1351.67
126	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.22	1351.10	1349.22	10.00	3.34	N/A	N/A	N/A	7.00	27.03	1351.89
127	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.49	1350.46	1349.49	10.00	2.70	N/A	N/A	N/A	7.00	13.23	1350.97
128	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.83	1351.16	1346.83	10.00	4.43	N/A	N/A	N/A	7.00	56.88	1352.53
129	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.13	1351.06	1347.13	10.00	1.44	N/A	N/A	N/A	7.00	0.00	1351.24
130	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.34	1350.34	1346.34	10.00	2.01	N/A	N/A	N/A	7.00	1.85	1350.63
131	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.02	1350.36	1346.02	10.00	1.27	N/A	N/A	N/A	7.00	0.00	1350.52
132	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.76	1349.84	1346.76	10.00	4.50	N/A	N/A	N/A	7.00	59.25	1351.26
133	FHWA HEC-22 GENERIC	N/A	On Grade	1	1348.48	1349.87	1348.48	N/A	2.39	1.09	1.30	45.60	7.00	9.27	1350.14
134	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.47	1349.85	1347.47	10.00	2.66	N/A	N/A	N/A	7.00	12.62	1350.17
135	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.36	1349.91	1346.36	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1349.91
136	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.50	1349.85	1346.50	10.00	1.85	N/A	N/A	N/A	7.00	0.00	1350.09
137	FHWA HEC-22 GENERIC	N/A	On Grade	1	1349.86	1351.20	1349.86	N/A	0.00	0.00	0.00	0.00	7.00	0.00	1351.20
138	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.20	1347.35	1344.20	10.00	7.14	N/A	N/A	N/A	7.00	167.97	1350.88
139	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.21	1348.51	1347.21	10.00	1.63	N/A	N/A	N/A	7.00	0.00	1348.71
140	FHWA HEC-22 GENERIC	N/A	On Grade	1	1344.50	1347.60	1344.50	N/A	1.86	1.19	0.67	64.08	7.00	8.29	1347.85
141	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.82	1346.65	1345.82	10.00	0.99	N/A	N/A	N/A	7.00	0.00	1346.79
142	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.25	1346.63	1344.25	10.00	0.68	N/A	N/A	N/A	7.00	0.00	1346.74
143	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.18	1345.98	1344.18	N/A	4.54	1.61	2.93	35.43	7.00	12.16	1346.31
144	FHWA HEC-22 GENERIC	N/A	On Grade	1	1341.60	1346.00	1341.60	10.00	0.76	N/A	N/A	N/A	7.00	5.55	1346.30
145	NEENAH FOUNDRY	R-2586-H	On Sag	1	1342.62	1345.42	1342.62	10.00	3.89	N/A	N/A	N/A	7.00	41.15	1345.99
146	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.79	1345.59	1343.79	10.00	2.87	N/A	N/A	N/A	7.00	16.70	1346.17
147	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.64	1346.64	1343.64	10.00	2.71	N/A	N/A	N/A	7.00	14.75	1347.18
148	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.22	1346.62	1344.22	10.00	1.71	N/A	N/A	N/A	7.00	0.00	1346.83
149	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.29	1347.34	1344.29	10.00	1.37	N/A	N/A	N/A	7.00	0.00	1347.51
150	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.74	1347.14	1345.74	10.00	1.50	N/A	N/A	N/A	7.00	0.00	1347.32
151	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.27	1347.27	1344.27	10.00	1.85	N/A	N/A	N/A	7.00	0.00	1347.51
152	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.78	1347.28	1345.78	10.00	2.43	N/A	N/A	N/A	7.00	8.35	1347.70
153	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.61	1347.71	1344.61	10.00	2.93	N/A	N/A	N/A	7.00	17.81	1348.31
154	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.97	1347.27	1345.97	10.00	1.20	N/A	N/A	N/A	7.00	0.00	1347.42
155	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.07	1347.37	1345.07	10.00	0.65	N/A	N/A	N/A	7.00	0.00	1347.47
156	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.75	1347.85	1344.75	10.00	0.78	N/A	N/A	N/A	7.00	0.00	1347.96
157	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.80	1347.70	1344.80	10.00	1.63	N/A	N/A	N/A	7.00	0.00	1347.90
158	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.90	1347.30	1345.90	10.00	2.65	N/A	N/A	N/A	7.00	12.37	1347.80
159	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.38	1347.78	1345.38	10.00	2.15	N/A	N/A	N/A	7.00	3.88	1348.11
160	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.32	1347.32	1346.32	10.00	3.70	N/A	N/A	N/A	7.00	36.97	1348.28
161	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.34	1348.09	1346.34	10.00	3.78	N/A	N/A	N/A	7.00	38.20	1349.10
162	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.18	1347.78	1344.18	10.00	6.26	N/A	N/A	N/A	7.00	126.55	1350.51
163	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.95	1346.92	1343.95	10.00	5.26	N/A	N/A	N/A	7.00	85.49	1348.85
164	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.54	1347.94	1344.54	10.00	2.27	N/A	N/A	N/A	7.00	5.80	1348.31
165	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.88	1349.64	1347.88	10.00	2.20	N/A	N/A	N/A	7.00	4.69	1349.80
166	FHWA HEC-22 GENERIC	N/A	On Grade	1	1346.64	1349.61	1346.64	N/A	2.02	1.26	0.76	62.46	7.00	8.62	1349.87
167	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.75	1349.20	1348.75	10.00	2.89	N/A	N/A	N/A	7.00	17.05	1349.57
168	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.73	1349.80	1348.73	10.00	2.44	N/A	N/A	N/A	7.00	159.20	1353.08
169	FHWA HEC-22 GENERIC	N/A	On Grade	1	1348.03	1349.38	1348.03	N/A	1.77	0.77	1.01	43.25	7.00	8.11	1349.63
170	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.96	1349.19	1347.96	10.00	2.43	N/A	N/A	N/A	7.00	8.44	1349.56
171	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.55	1348.95	1347.55	10.00	10.23	N/A	N/A	N/A	7.00	346.52	1350.08
172	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.57	1348.47	1347.57	10.00	3.88	N/A	N/A	N/A	7.00	40.96	1349.53
173	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.62	1347.79	1346.62	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1347.79

Inlet Summary

Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Initial Water Elevation (ft)	Ponded Area (ft ²)	Peak Flow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
175	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.94	1346.43	1343.94	10.00	5.45	N/A	N/A	N/A	7.00	92.63	1348.50
176	FHWA HEC-22 GENERIC	N/A	On Grade	1	1343.66	1346.09	1343.66	N/A	3.97	1.95	2.02	49.22	7.00	11.51	1346.40
177	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.26	1346.56	1343.26	10.00	5.72	N/A	N/A	N/A	7.00	103.40	1348.84
178	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.32	1346.58	1344.32	10.00	3.43	N/A	N/A	N/A	7.00	29.18	1347.41
179	NEENAH FOUNDRY	R-2586-H	On Sag	1	1342.54	1345.85	1342.54	10.00	3.03	N/A	N/A	N/A	7.00	19.97	1346.50
180	NEENAH FOUNDRY	R-2586-H	On Sag	1	1342.18	1346.24	1342.18	10.00	3.34	N/A	N/A	N/A	7.00	27.05	1347.03
181	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.35	1346.88	1343.35	10.00	3.02	N/A	N/A	N/A	7.00	19.77	1347.52
182	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.44	1347.25	1344.44	10.00	5.70	N/A	N/A	N/A	7.00	102.46	1349.51
183	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.62	1346.12	1344.62	10.00	1.12	N/A	N/A	N/A	7.00	0.00	1346.27
184	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.40	1346.00	1344.40	10.00	3.71	N/A	N/A	N/A	7.00	36.23	1346.97
185	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.33	1345.98	1343.33	10.00	3.58	N/A	N/A	N/A	7.00	32.81	1346.88
186	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.60	1345.60	1344.60	10.00	1.34	N/A	N/A	N/A	7.00	0.00	1346.34
187	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.72	1346.09	1344.72	10.00	1.87	N/A	N/A	N/A	7.00	0.00	1346.77
188	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.54	1347.54	1346.54	10.00	0.99	N/A	N/A	N/A	7.00	0.00	1347.67
189	FHWA HEC-22 GENERIC	N/A	On Grade	1	1345.81	1347.31	1345.81	N/A	1.70	1.12	0.58	66.00	7.00	7.95	1347.55
190	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.26	1347.38	1346.26	10.00	4.17	N/A	N/A	N/A	7.00	49.25	1348.12
191	NEENAH FOUNDRY	R-2586-H	On Sag	1	1340.09	1344.22	1340.09	10.00	3.40	N/A	N/A	N/A	7.00	28.45	1345.03
192	NEENAH FOUNDRY	R-2586-H	On Sag	1	1339.82	1342.82	1339.82	10.00	5.56	N/A	N/A	N/A	7.00	96.93	1344.97
193	NEENAH FOUNDRY	R-2586-H	On Sag	1	1340.23	1344.45	1340.23	10.00	2.82	N/A	N/A	N/A	7.00	15.60	1345.01

Junction Results

Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation (ft)	Max HGL Depth (ft)	Max Surge Depth (ft)	Min Freeboard (ft)	Average HGL Elevation (ft)	Average HGL Depth (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1'DitchStart	0.00	0.00	1351.10	0.00	0.00	1.20	1351.10	0.00	0 00:00	0 00:00	0.00	0.00
C&Gstart	0.00	0.00	1352.00	0.00	0.00	0.69	1352.00	0.00	0 00:00	0 00:00	0.00	0.00
C1	0.03	0.00	1353.23	0.34	0.00	0.91	1352.90	0.01	0 12:04	0 00:00	0.00	0.00
C1-	3.75	3.75	1353.23	0.56	0.00	2.89	1352.80	0.13	0 12:04	0 00:00	0.00	0.00
C10	1.31	0.00	1351.12	0.79	0.00	3.60	1350.54	0.21	0 12:25	0 00:00	0.00	0.00
C10-	1.33	0.00	1351.02	0.89	0.00	3.50	1350.31	0.18	0 12:23	0 00:00	0.00	0.00
C11	1.34	0.00	1351.02	1.05	0.00	3.34	1350.26	0.29	0 12:22	0 00:00	0.00	0.00
C11-	2.02	0.00	1350.93	1.00	0.00	3.39	1350.10	0.17	0 12:20	0 00:00	0.00	0.00
C12	4.94	4.94	1350.93	1.84	0.00	2.55	1349.49	0.40	0 12:20	0 00:00	0.00	0.00
C12-	9.10	7.74	1350.91	1.89	0.00	1.56	1349.44	0.42	0 12:19	0 00:00	0.00	0.00
C13	9.63	4.91	1350.90	2.38	0.00	1.07	1349.06	0.54	0 12:19	0 00:00	0.00	0.00
C13-	5.73	0.00	1348.42	0.15	0.00	1.35	1348.33	0.06	0 12:19	0 00:00	0.00	0.00
C14	3.04	0.00	1351.14	2.09	0.00	2.41	1350.28	1.23	1 00:00	0 00:00	0.00	0.00
C14-	1.34	1.34	1351.14	2.62	0.00	0.38	1350.28	1.76	1 00:00	0 00:00	0.00	0.00
C15	1.26	0.00	1351.14	0.88	0.00	3.62	1350.68	0.42	1 00:00	0 00:00	0.00	0.00
C15-	4.30	4.30	1351.14	1.06	0.00	3.44	1350.65	0.57	1 00:00	0 00:00	0.00	0.00
C16	1.22	0.00	1351.14	1.26	0.00	3.24	1350.57	0.69	1 00:00	0 00:00	0.00	0.00
C16-	1.87	1.87	1351.14	1.45	0.00	3.05	1350.57	0.88	1 00:00	0 00:00	0.00	0.00
C17	1.89	0.00	1351.14	1.61	0.00	2.89	1350.53	1.00	1 00:00	0 00:00	0.00	0.00
C17-	1.49	1.16	1351.14	1.78	0.00	2.72	1350.53	1.17	1 00:00	0 00:00	0.00	0.00
C18	1.96	0.00	1351.14	1.16	0.00	3.34	1350.61	0.63	1 00:00	0 00:00	0.00	0.00
C18-	2.90	1.67	1351.14	1.16	0.00	3.34	1350.61	0.63	1 00:00	0 00:00	0.00	0.00
C19	1.84	0.00	1351.97	0.55	0.00	3.95	1351.52	0.10	0 12:05	0 00:00	0.00	0.00
C19-	1.96	0.30	1351.50	0.31	0.00	4.19	1351.27	0.08	0 12:04	0 00:00	0.00	0.00
C2	3.59	0.00	1353.22	2.04	0.00	1.41	1352.11	0.93	0 12:05	0 00:00	0.00	0.00
C2-	2.28	0.00	1353.15	1.88	0.00	1.57	1352.10	0.83	0 12:04	0 00:00	0.00	0.00
C20	1.62	0.00	1352.69	1.53	0.00	2.97	1351.94	0.78	0 12:07	0 00:00	0.00	0.00
C20-	1.84	0.79	1352.45	0.33	0.00	4.17	1352.20	0.08	0 12:04	0 00:00	0.00	0.00
C21	2.25	0.00	1352.70	1.79	0.00	2.71	1351.94	1.03	0 12:07	0 00:00	0.00	0.00
C21-	2.00	0.77	1352.69	1.56	0.00	2.94	1351.94	0.81	0 12:07	0 00:00	0.00	0.00
C22	3.01	3.01	1353.39	0.34	0.00	4.16	1353.12	0.07	0 12:00	0 00:00	0.00	0.00
C22-	3.42	0.00	1352.93	0.43	0.00	2.45	1352.62	0.12	0 12:44	0 00:00	0.00	0.00
C23	9.97	9.97	1352.93	1.10	0.00	1.78	1352.38	0.55	0 12:40	0 00:00	0.00	0.00
C23-	2.06	0.00	1352.72	0.77	0.00	1.23	1352.26	0.31	0 12:16	0 00:00	0.00	0.00
C24	6.06	6.06	1352.71	1.13	0.00	0.87	1351.99	0.41	0 12:14	0 00:00	0.00	0.00
C24-	3.56	0.00	1351.58	0.56	0.00	1.44	1351.30	0.28	0 12:19	0 00:00	0.00	0.00
C25	4.56	4.56	1351.18	1.50	0.00	0.00	1350.58	0.90	0 11:57	0 12:05	1.01	49.00
C25-	4.67	1.20	1351.21	2.00	0.00	0.33	1350.56	1.35	0 12:05	0 00:00	0.00	0.00
C26	3.77	2.51	1351.22	1.45	0.00	0.88	1350.59	0.82	0 12:04	0 00:00	0.00	0.00
C26-	0.98	0.00	1351.04	0.23	0.00	1.02	1350.89	0.08	0 12:05	0 00:00	0.00	0.00
C27	2.87	2.46	1348.89	0.97	0.00	0.23	1348.19	0.27	0 12:15	0 00:00	0.00	0.00
C27-	1.84	0.00	1348.09	0.88	0.00	0.32	1347.51	0.30	0 12:30	0 00:00	0.00	0.00
C28	2.09	1.54	1348.08	1.15	0.00	0.10	1347.50	0.57	0 12:30	0 00:00	0.00	0.00
C28-	1.96	0.00	1347.51	0.28	0.00	0.97	1347.36	0.13	0 12:30	0 00:00	0.00	0.00
C29	1.98	0.26	1347.28	0.68	0.00	0.57	1346.86	0.26	0 12:30	0 00:00	0.00	0.00
C29-	1.98	0.00	1346.89	0.41	0.00	0.84	1346.63	0.15	0 12:20	0 00:00	0.00	0.00
C3	4.81	3.76	1353.15	1.21	0.00	2.24	1352.15	0.21	0 12:04	0 00:00	0.00	0.00
C3-	4.50	0.00	1352.58	0.99	0.00	2.46	1351.88	0.29	0 12:07	0 00:00	0.00	0.00
C30	2.02	0.45	1346.88	0.96	0.00	0.24	1346.32	0.40	0 12:19	0 00:00	0.00	0.00
C30-	1.80	0.00	1346.29	0.36	0.00	1.64	1346.10	0.17	0 12:24	0 00:00	0.00	0.00
C31	1.96	0.91	1345.69	0.66	0.00	1.34	1345.31	0.28	0 12:04	0 00:00	0.00	0.00
C31-	1.92	0.00	1345.32	0.38	0.00	1.62	1345.12	0.18	0 12:25	0 00:00	0.00	0.00
C32	3.23	1.82	1344.20	1.23	0.00	0.77	1343.49	0.52	0 12:13	0 00:00	0.00	0.00
C32-	2.33	0.00	1344.00	0.89	0.00	1.11	1343.36	0.25	0 12:11	0 00:00	0.00	0.00
C33	4.17	1.17	1343.98	0.93	0.00	1.07	1343.27	0.22	0 12:11	0 00:00	0.00	0.00
C33-	3.96	0.00	1343.31	0.47	0.00	1.53	1343.00	0.16	0 12:13	0 00:00	0.00	0.00
C34	10.83	6.65	1342.11	1.29	0.00	0.71	1341.14	0.32	0 12:10	0 00:00	0.00	0.00
C34-	14.27	2.30	1339.92	0.23	0.00	1.77	1339.78	0.09	0 12:09	0 00:00	0.00	0.00
C35	6.83	0.00	1343.96	1.08	0.00	1.25	1343.22	0.34	0 12:10	0 00:00	0.00	0.00
C35-	6.82	0.00	1343.23	0.48	0.00	1.52	1342.94	0.19	0 12:12	0 00:00	0.00	0.00
C36	10.52	7.48	1344.00	1.28	0.00	1.05	1343.26	0.54	0 12:10	0 00:00	0.00	0.00
C36-	5.13	1.32	1343.99	1.40	0.00	0.60	1343.26	0.67	0 12:11	0 00:00	0.00	0.00
C37	7.35	6.30	1345.70	1.25	0.00	0.00	1344.83	0.38	0 11:57	0 11:58	0.47	13.00
C37-	3.11	0.00	1344.92	0.43	0.00	1.90	1344.65	0.16	0 12:10	0 00:00	0.00	0.00
C38	1.65	1.65	1345.72	1.00	0.00	0.00	1344.93	0.21	0 11:57	0 11:58	0.08	10.00
C38-	1.59	0.00	1345.72	0.93	0.00	0.27	1344.92	0.13	0 11:58	0 00:00	0.00	0.00
C39	1.34	1.34	1345.92	0.57	0.00	0.43	1345.45	0.10	0 12:00	0 00:00	0.00	0.00
C39-	1.34	0.00	1345.82	0.30	0.00	0.90	1345.41	0.09	0 12:00	0 00:00	0.00	0.00
C4	4.41	0.00	1352.55	0.96	0.00	2.49	1351.79	0.20	0 12:07	0 00:00	0.00	0.00
C4-	4.39	0.00	1351.95	0.58	0.00	2.87	1351.55	0.18	0 12:19	0 00:00	0.00	0.00
C40	0.58	0.00	1346.88	0.78	0.00	0.47	1346.33	0.23	0 12:20	0 00:00	0.00	0.00
C40-	0.31	0.00	1346.88	1.25	0.00	0.00	1346.31	0.68	0 12:19	0 12:22	0.12	47.00
C41	1.49	1.49	1351.34	0.25	0.00	0.95	1351.14	0.05	0 12:00	0 00:00	0.00	0.00
C41-	1.65	1.01	1350.80	0.40	0.00	0.80	1350.50	0.10	0 12:00	0 00:00	0.00	0.00
C42	0.82	0.00	1350.73	0.38	0.00	0.87	1350.40	0.05	0 12:02	0 00:00	0.00	0.00
C42-	2.29	0.00	1350.00	0.25	0.00	1.00	1349.81	0.06	0 12:01	0 00:00	0.00	0.00
C43	2.66	2.66	1350.17	0.67	0.00	0.00	1349.61	0.11	0 11:52	0 12:00	0.17	16.00
C43-	1.20	0.00	1349.42	0.27	0.00	0.93	1349.25	0.10	0 12:08	0 00:00	0.00	0.00
C44	2.42	2.42	1347.14	0.67	0.00	0.00	1346.56	0.09	0 11:56	0 12:00	0.07	8.00
C44-	5.59	0.00	1345.90	1.20	0.00	0.00	1344.80	0.10	0 11:48	0 12:00	0.79	25.00

Junction Results

Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
C45	0.00	0.00	1347.54	0.00	0.00	0.67	1347.54	0.00	0 00:00	0 00:00	0.00	0.00
C45-	0.00	0.00	1347.38	0.00	0.00	0.67	1347.38	0.00	0 00:00	0 00:00	0.00	0.00
C46	4.11	2.09	1346.56	1.20	0.00	0.00	1345.48	0.12	0 11:59	0 12:00	0.26	11.00
C46-	1.07	0.00	1345.10	0.26	0.00	0.94	1344.92	0.08	0 12:10	0 00:00	0.00	0.00
C47	3.29	2.25	1344.44	1.06	0.00	0.14	1343.58	0.20	0 12:05	0 00:00	0.00	0.00
C47-	2.28	0.00	1343.42	0.27	0.00	0.93	1343.23	0.08	0 12:06	0 00:00	0.00	0.00
C48	8.03	5.92	1338.96	1.20	0.00	0.00	1337.97	0.21	0 11:57	0 12:00	0.63	19.00
C48-	3.73	0.00	1336.92	0.45	0.00	1.55	1336.64	0.17	0 12:18	0 00:00	0.00	0.00
C49	0.00	0.00	1347.82	0.00	0.00	0.33	1347.82	0.00	0 00:00	0 00:00	0.00	0.00
C5	1.29	0.00	1351.95	0.46	0.00	2.99	1351.64	0.15	0 12:21	0 00:00	0.00	0.00
C5-	2.27	0.00	1352.20	1.05	0.00	2.40	1351.65	0.50	0 12:09	0 00:00	0.00	0.00
C50	0.00	0.00	1350.73	0.00	0.00	0.50	1350.73	0.00	0 00:00	0 00:00	0.00	0.00
C50-	0.00	0.00	1350.63	0.00	0.00	0.50	1350.63	0.00	0 00:00	0 00:00	0.00	0.00
C51	4.79	4.79	1351.31	1.00	0.00	0.00	1350.55	0.24	0 11:50	0 12:00	0.44	20.00
C51-	1.82	0.00	1350.65	0.45	0.00	0.75	1350.42	0.22	0 11:51	0 00:00	0.00	0.00
C52	0.00	0.00	1349.85	0.00	0.00	1.20	1349.85	0.00	0 00:00	0 00:00	0.00	0.00
C53	3.36	3.36	1348.75	0.86	0.00	0.34	1348.06	0.17	0 12:04	0 00:00	0.00	0.00
C53-	2.06	0.00	1347.90	0.26	0.00	0.94	1347.72	0.08	0 12:05	0 00:00	0.00	0.00
C54	6.60	6.60	1351.98	1.00	0.00	0.00	1351.20	0.22	0 11:50	0 12:00	0.92	30.00
C54-	2.41	0.00	1351.73	1.00	0.00	0.20	1350.88	0.15	0 11:48	0 00:00	0.00	0.00
C55	1.85	0.55	1351.26	0.45	0.00	0.75	1350.85	0.04	0 12:06	0 00:00	0.00	0.00
C55-	0.35	0.00	1351.13	0.38	0.00	0.82	1350.81	0.06	0 12:14	0 00:00	0.00	0.00
C56	1.28	1.28	1350.65	0.50	0.00	0.00	1350.28	0.13	0 11:49	0 12:00	0.13	20.00
C56-	0.42	0.00	1350.46	0.33	0.00	0.87	1350.26	0.13	0 12:09	0 00:00	0.00	0.00
C57	5.91	5.91	1352.58	1.00	0.00	0.00	1351.85	0.27	0 11:50	0 12:00	0.71	25.00
C57-	2.02	0.00	1351.65	0.22	0.00	0.98	1351.52	0.09	0 11:50	0 00:00	0.00	0.00
C58	2.01	0.00	1351.40	1.11	0.00	0.09	1350.89	0.60	0 12:16	0 00:00	0.00	0.00
C58-	1.89	0.00	1350.89	1.20	0.00	0.00	1350.86	1.17	0 03:41	0 12:16	3.75	1219.00
C59	0.04	0.00	1350.89	0.31	0.00	0.89	1350.87	0.29	0 03:41	0 00:00	0.00	0.00
C59-	0.04	0.00	1350.85	0.05	0.00	1.15	1350.85	0.05	0 03:45	0 00:00	0.00	0.00
C6	3.16	2.86	1352.21	0.81	0.00	2.64	1351.67	0.27	0 12:09	0 00:00	0.00	0.00
C6-	0.50	0.00	1352.21	0.65	0.00	2.80	1351.67	0.11	0 12:10	0 00:00	0.00	0.00
C60	0.00	0.00	1351.29	0.00	0.00	1.00	1351.29	0.00	0 00:00	0 00:00	0.00	0.00
C60-	0.00	0.00	1351.25	0.00	0.00	1.00	1351.25	0.00	0 00:00	0 00:00	0.00	0.00
C61	1.67	1.67	1351.80	0.50	0.00	0.00	1351.41	0.11	0 11:45	0 12:00	0.24	31.00
C62-	0.40	0.00	1351.46	0.63	0.00	0.57	1350.93	0.10	0 12:21	0 00:00	0.00	0.00
C63	0.32	0.00	1351.46	1.07	0.00	0.13	1350.80	0.41	0 12:21	0 00:00	0.00	0.00
C63-	0.26	0.00	1350.82	0.16	0.00	1.04	1350.73	0.07	0 12:21	0 00:00	0.00	0.00
C64	0.26	0.00	1350.70	0.23	0.00	0.97	1350.55	0.08	0 12:22	0 00:00	0.00	0.00
C64-	0.45	0.00	1350.44	0.17	0.00	1.03	1350.32	0.05	0 12:03	0 00:00	0.00	0.00
C65	0.00	0.00	1351.90	0.00	0.00	0.83	1351.90	0.00	0 00:00	0 00:00	0.00	0.00
C65-	0.00	0.00	1351.87	0.00	0.00	0.83	1351.87	0.00	0 00:00	0 00:00	0.00	0.00
C66	0.00	0.00	1352.80	0.00	0.00	1.00	1352.80	0.00	0 00:00	0 00:00	0.00	0.00
C66-	0.00	0.00	1352.27	0.00	0.00	1.00	1352.27	0.00	0 00:00	0 00:00	0.00	0.00
C67	3.51	3.10	1353.90	0.78	0.00	0.42	1353.26	0.14	0 12:07	0 00:00	0.00	0.00
C67-	1.63	0.00	1352.93	0.34	0.00	1.66	1352.74	0.15	0 12:09	0 00:00	0.00	0.00
C68	0.00	0.00	1354.35	0.00	0.00	1.00	1354.35	0.00	0 00:00	0 00:00	0.00	0.00
C68-	0.00	0.00	1354.31	0.00	0.00	1.00	1354.31	0.00	0 00:00	0 00:00	0.00	0.00
C69	1.61	1.33	1354.43	1.20	0.00	0.00	1354.03	0.80	0 11:52	0 12:00	0.28	43.00
C69-	0.12	0.00	1354.14	0.12	0.00	1.08	1354.08	0.06	0 11:53	0 00:00	0.00	0.00
C7	1.93	1.93	1352.22	0.81	0.00	2.64	1351.61	0.20	0 12:10	0 00:00	0.00	0.00
C7-	1.23	0.00	1352.21	0.85	0.00	2.60	1351.58	0.22	0 12:11	0 00:00	0.00	0.00
C70	0.13	0.00	1353.59	0.12	0.00	1.08	1353.52	0.05	0 11:56	0 00:00	0.00	0.00
C70-	0.12	0.00	1353.25	0.09	0.00	1.11	1353.20	0.04	0 12:15	0 00:00	0.00	0.00
C71	2.69	2.49	1353.85	0.50	0.00	0.70	1353.51	0.16	0 12:00	0 00:00	0.00	0.00
C72	0.00	0.00	1352.70	0.00	0.00	0.50	1352.70	0.00	0 00:00	0 00:00	0.00	0.00
C72-	0.00	0.00	1352.66	0.00	0.00	0.50	1352.66	0.00	0 00:00	0 00:00	0.00	0.00
C73	0.00	0.00	1352.65	0.00	0.00	0.50	1352.65	0.00	0 00:00	0 00:00	0.00	0.00
C74	5.71	5.71	1352.93	0.83	0.00	0.00	1352.32	0.22	0 11:42	0 12:00	1.29	57.00
C75	0.81	0.81	1350.84	0.83	0.00	0.00	1350.43	0.42	0 11:51	0 12:00	0.05	15.00
C75-	0.36	0.00	1350.52	0.15	0.00	1.05	1350.42	0.05	0 11:51	0 00:00	0.00	0.00
C76	5.81	5.81	1351.98	1.20	0.00	0.00	1351.83	1.05	0 11:49	0 12:00	0.73	27.00
C77	1.72	0.00	1351.35	0.75	0.00	0.45	1350.79	0.19	0 12:17	0 00:00	0.00	0.00
C78	1.66	0.00	1351.35	0.82	0.00	0.38	1350.67	0.14	0 12:17	0 00:00	0.00	0.00
C78-79	5.39	0.00	1351.00	4.00	0.00	0.00	1347.41	0.41	0 11:46	0 12:01	0.87	40.00
C79	37.77	4.17	1351.70	1.20	0.00	0.00	1350.65	0.15	0 12:00	0 12:01	0.38	10.00
C8	1.31	0.00	1352.21	1.53	0.00	1.92	1351.47	0.79	0 12:11	0 00:00	0.00	0.00
C8-	1.83	0.00	1352.21	1.74	0.00	2.65	1351.47	1.00	0 12:12	0 00:00	0.00	0.00
C80-	0.56	0.00	1351.65	0.50	0.00	0.70	1351.25	0.10	0 12:03	0 00:00	0.00	0.00
C81	2.45	2.44	1351.50	0.50	0.00	0.00	1351.34	0.34	0 11:30	0 12:00	0.75	110.00
C82	3.96	3.96	1350.65	0.67	0.00	0.00	1350.44	0.46	0 11:38	0 12:00	1.08	83.00
C82-	0.35	0.00	1350.43	0.13	0.00	1.07	1350.38	0.08	0 11:44	0 00:00	0.00	0.00
C83	0.35	0.00	1350.27	0.24	0.00	1.26	1350.15	0.12	0 12:20	0 00:00	0.00	0.00
C83-	0.98	0.00	1350.04	0.67	0.00	0.83	1349.44	0.07	0 11:59	0 00:00	0.00	0.00
C84	0.09	0.00	1347.56	0.03	0.00	1.47	1347.53	0.00	0 12:01	0 00:00	0.00	0.00
C85	1.03	0.00	1350.56	0.66	0.00	0.54	1350.39	0.49	0 11:50	0 00:00	0.00	0.00
C86	13.12	13.12	1341.31	1.00	0.00	0.00	1340.62	0.31	0 11:48	0 12:00	2.82	47.00
C86-	3.50	0.00	1340.31	0.32	0.00	0.88	1340.15	0.16	0 12:35	0 00:00	0.00	0.00
C9	3.45	3.45	1352.21	0.85	0.00	3.54	1351.57	0.21	0 12:11	0 00:00	0.00	0.00
C9-	1.31	0.00	1351.32	0.34	0.00	4.05	1351.12	0.14	0 12:12	0 00:00	0.00	0.00

Junction Results

Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation (ft)	Max HGL Depth (ft)	Max Surge Depth Attained (ft)	Min Freeboard (ft)	Average HGL Elevation (ft)	Average HGL Depth (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
DeadEnd	0.00	0.00	1350.77	0.00	0.00	0.33	1350.77	0.00	0 00:00	0 00:00	0.00	0.00
DitchStart	0.00	0.00	1349.00	0.00	0.00	1.20	1349.00	0.00	0 00:00	0 00:00	0.00	0.00
Inlet49Outlet	2.54	0.00	1348.90	0.82	0.00	0.68	1348.30	0.22	0 12:15	0 00:00	0.00	0.00
J	4.71	0.00	1344.25	1.50	0.00	0.00	1342.91	0.16	0 11:51	0 12:02	0.21	26.00
J10	2.10	0.00	1350.54	4.73	0.00	2.46	1346.52	0.71	0 11:59	0 00:00	0.00	0.00
J100	2.54	0.00	1347.29	0.50	0.00	0.00	1346.96	0.17	0 11:38	0 12:00	1.02	78.00
J102	0.57	0.00	1346.96	0.50	0.00	0.00	1346.66	0.20	0 11:38	0 12:00	0.13	89.00
J103	0.65	0.00	1346.78	0.50	0.00	0.00	1346.53	0.25	0 11:37	0 11:57	0.35	96.00
J104	1.98	0.00	1346.75	0.50	0.00	0.00	1346.46	0.21	0 11:42	0 12:00	0.32	41.00
J105	2.88	0.00	1345.50	0.50	0.00	0.00	1345.32	0.32	0 10:50	0 12:00	1.62	250.00
J106-107	2.51	0.00	1345.30	0.50	0.00	0.00	1345.11	0.31	0 11:11	0 11:54	1.75	163.00
J108	1.98	0.00	1346.51	2.00	0.00	0.00	1344.83	0.32	0 11:44	0 11:44	0.00	0.00
J111	1.74	0.00	1347.36	0.33	0.00	0.00	1347.33	0.30	0 07:22	0 12:02	6.08	998.00
J112	0.45	0.00	1351.63	5.63	0.00	0.37	1347.07	1.07	0 12:17	0 00:00	0.00	0.00
J113	0.45	0.00	1350.85	5.57	0.00	0.90	1346.63	1.35	0 11:59	0 00:00	0.00	0.00
J114	0.33	0.00	1350.66	6.18	0.00	0.84	1346.01	1.53	0 12:12	0 00:00	0.00	0.00
J115	0.79	0.00	1348.77	5.03	0.00	2.73	1344.99	1.25	0 12:03	0 00:00	0.00	0.00
J116	5.16	0.00	1345.10	1.50	0.00	0.00	1344.30	0.70	0 11:51	0 12:03	0.49	28.00
J117	2.53	0.00	1345.47	0.98	0.00	0.52	1345.01	0.52	0 12:03	0 00:00	0.00	0.00
J121-122	9.08	0.00	1343.50	1.50	0.00	0.00	1342.91	0.91	0 11:10	0 12:00	7.44	217.00
J123-126	1.52	0.00	1348.18	0.67	0.00	0.00	1347.76	0.25	0 11:42	0 12:00	0.23	68.00
J127	0.47	0.00	1349.44	0.19	0.00	0.48	1349.32	0.07	0 12:18	0 00:00	0.00	0.00
J128	2.19	0.00	1347.22	0.67	0.00	0.00	1346.77	0.22	0 11:43	0 12:00	0.73	63.00
J130	2.77	0.00	1346.74	0.50	0.00	0.00	1346.39	0.15	0 11:43	0 12:00	0.62	58.00
J131	1.27	0.00	1347.25	1.33	0.00	0.17	1346.31	0.39	0 12:00	0 00:00	0.00	0.00
J132	2.84	0.00	1346.34	0.50	0.00	0.00	1346.21	0.37	0 10:12	0 12:00	2.03	427.00
J133-134	1.64	0.00	1347.90	0.50	0.00	0.00	1347.48	0.08	0 11:50	0 12:00	1.10	20.00
J135	1.64	0.00	1345.93	0.50	0.00	0.00	1345.84	0.41	0 09:06	0 11:50	1.79	594.00
J136	2.60	0.00	1345.67	0.50	0.00	0.00	1345.62	0.45	0 08:18	0 11:54	3.65	908.00
J139	2.93	0.00	1343.22	2.96	0.00	5.78	1342.13	1.87	0 12:02	0 00:00	0.00	0.00
J14	1.11	0.00	1347.72	0.67	0.00	0.00	1347.29	0.24	0 11:42	0 12:05	0.59	73.00
J141	6.82	0.00	1342.87	1.50	0.00	0.00	1342.16	0.79	0 11:45	0 12:00	1.27	42.00
J142	3.69	0.00	1342.58	1.50	0.00	0.00	1342.10	1.02	0 11:44	0 12:00	0.13	43.00
J143	5.27	0.00	1342.24	1.50	0.00	0.00	1342.05	1.31	0 09:53	0 12:00	14.15	546.00
J144-146-147	3.96	0.00	1342.74	1.00	0.00	0.00	1342.24	0.50	0 11:38	0 12:00	1.47	93.00
J148	3.82	0.00	1344.02	1.00	0.00	0.00	1343.38	0.36	0 11:49	0 11:58	0.27	21.00
J149	2.74	0.00	1344.10	1.00	0.00	0.00	1343.50	0.40	0 11:41	0 12:01	0.82	76.00
J15	2.32	0.00	1347.62	0.67	0.00	0.00	1347.21	0.26	0 11:38	0 12:00	1.71	122.00
J150	4.67	0.00	1344.66	1.00	0.00	0.00	1344.00	0.34	0 11:42	0 12:00	0.64	69.00
J153	8.94	0.00	1345.64	1.00	0.00	0.00	1345.04	0.40	0 11:41	0 12:00	2.39	69.00
J16	2.95	0.00	1350.22	4.74	0.00	3.03	1346.28	0.80	0 11:59	0 00:00	0.00	0.00
J162	5.82	0.00	1346.48	0.80	0.00	0.00	1345.85	0.17	0 11:41	0 11:59	2.46	61.00
J166-167	1.63	0.00	1346.87	0.33	0.00	0.00	1346.70	0.16	0 11:19	0 12:00	0.90	152.00
J168	0.91	0.00	1346.49	0.33	0.00	0.00	1346.36	0.20	0 10:48	0 11:49	0.77	266.00
J169	1.88	0.00	1345.97	0.33	0.00	0.00	1345.96	0.32	0 04:26	0 12:00	5.83	1174.00
J17	3.80	0.00	1350.03	4.59	0.00	3.27	1346.16	0.72	0 12:00	0 00:00	0.00	0.00
J170-171	1.09	0.00	1347.83	0.33	0.00	0.00	1347.58	0.08	0 11:43	0 11:59	0.27	38.00
J172	0.50	0.00	1348.48	3.10	0.00	0.62	1346.42	1.04	0 12:05	0 00:00	0.00	0.00
J173	0.34	0.00	1348.37	3.10	0.00	0.63	1346.10	0.83	0 11:59	0 00:00	0.00	0.00
J175-176	12.80	0.00	1341.47	3.00	0.00	0.00	1339.38	0.91	0 11:56	0 11:56	0.00	0.00
J177-178	18.65	0.00	1340.25	2.00	0.00	0.00	1339.08	0.83	0 11:53	0 12:00	4.02	50.00
J179-180	21.76	0.00	1339.00	3.00	0.00	0.00	1337.17	1.17	0 11:50	0 12:00	0.93	28.00
J181	23.82	0.00	1339.61	2.50	0.00	0.00	1337.81	0.70	0 11:50	0 12:03	3.41	48.00
J18-19-20	1.63	0.00	1351.40	0.50	0.00	0.00	1351.18	0.28	0 11:30	0 12:00	0.43	141.00
J182	21.69	0.00	1341.19	2.45	0.00	0.05	1339.45	0.71	0 12:04	0 00:00	0.00	0.00
J183	19.14	0.00	1342.24	1.63	0.00	1.26	1341.20	0.59	0 12:03	0 00:00	0.00	0.00
J185-186	17.90	0.00	1343.22	2.50	0.00	0.00	1341.83	1.11	0 11:55	0 12:00	0.04	8.00
J187	15.22	0.00	1343.57	2.54	0.00	0.95	1341.93	0.90	0 12:00	0 00:00	0.00	0.00
J189-190	16.44	0.00	1344.15	2.50	0.00	0.00	1342.47	0.82	0 11:51	0 12:00	0.65	21.00
J192-193	4.14	0.00	1340.61	0.50	0.00	0.00	1340.36	0.25	0 11:37	0 11:59	1.47	103.00
J21	1.98	0.00	1348.31	0.66	0.00	0.34	1347.74	0.09	0 12:00	0 00:00	0.00	0.00
J22	4.24	0.00	1348.00	1.00	0.00	0.00	1347.14	0.14	0 11:55	0 12:00	0.17	10.00
J23-24	5.54	0.00	1347.51	1.00	0.00	0.00	1346.79	0.28	0 11:45	0 12:00	1.70	41.00
J27	8.52	0.00	1346.43	2.00	0.00	0.00	1345.24	0.81	0 11:48	0 12:00	1.32	33.00
J28	6.77	0.00	1346.37	2.00	0.00	0.00	1345.16	0.79	0 11:50	0 12:01	0.56	27.00
J29-30	7.81	0.00	1346.05	2.00	0.00	0.00	1344.83	0.78	0 11:51	0 12:00	0.59	23.00
J3	4.06	0.00	1350.75	0.50	0.00	0.00	1350.41	0.16	0 11:40	0 11:59	1.18	61.00
J37-38	6.49	0.00	1348.46	1.00	0.00	0.00	1347.84	0.38	0 11:38	0 12:00	3.42	86.00
J39	2.70	0.00	1348.38	1.00	0.00	0.00	1347.70	0.32	0 11:38	0 12:00	0.49	52.00
J3rd-Main-Poplar	18.79	0.00	1344.50	2.60	0.00	0.00	1342.73	0.83	0 12:00	0 12:02	0.00	1.00
J4	1.37	0.00	1350.15	0.50	0.00	0.00	1349.83	0.18	0 11:39	0 12:00	0.32	68.00
J40	1.77	0.00	1348.30	1.30	0.00	4.70	1347.47	0.47	0 12:15	0 00:00	0.00	0.00
J41	8.49	0.00	1345.95	2.03	0.00	6.95	1344.55	0.63	0 12:00	0 00:00	0.00	0.00
J43	1.39	0.00	1349.38	0.43	0.00	1.07	1349.06	0.11	0 12:09	0 00:00	0.00	0.00
J45	8.78	0.00	1344.94	3.08	0.00	7.81	1342.66	0.80	0 11:51	0 00:00	0.00	0.00
J46-47-48	17.55	0.00	1342.50	1.50	0.00	0.00	1342.45	1.45	0 02:26	0 12:00	51.32	1293.00
J4th-Broad	13.13	0.00	1341.18	2.81	0.00	6.82	1339.28	0.91	0 11:56	0 00:00	0.00	0.00
J4th-Main-Poplar	1.26	0.00	1344.73	1.00	0.00	0.00	1344.05	0.32	0 11:43	0 12:02	0.41	66.00
J5	0.69	0.00	1349.84	0.50	0.00	0.00	1349.52	0.18	0 11:45	0 12:00	0.04	40.00
J50	1.70	0.00	1349.38	1.43	0.00	0.07	1348.20	0.25	0 11:59	0 00:00	0.00	0.00

Junction Results

Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
J51	3.18	0.00	1349.34	1.50	0.00	0.00	1348.12	0.28	0 11:59	0 11:59	0.00	5.00
J52	2.43	0.00	1348.53	0.50	0.00	0.00	1348.15	0.12	0 11:43	0 12:08	1.10	56.00
J52-53	3.19	0.00	1348.60	1.46	0.00	0.04	1347.53	0.39	0 11:58	0 00:00	0.00	0.00
J55-56	7.72	0.00	1347.94	2.00	0.00	0.00	1346.31	0.37	0 11:57	0 12:00	0.19	7.00
J59	5.11	0.00	1346.86	1.00	0.00	0.00	1346.20	0.34	0 11:45	0 12:02	2.32	58.00
J5th-Cherry	1.38	0.00	1346.38	0.50	0.00	0.00	1346.24	0.36	0 10:13	0 12:00	1.74	397.00
J64-65	10.84	0.00	1347.80	2.92	0.00	3.15	1345.41	0.53	0 12:01	0 00:00	0.00	0.00
J6-7	3.79	0.00	1347.66	0.50	0.00	0.00	1347.45	0.29	0 11:00	0 12:00	5.77	259.00
J6th-Broad	8.00	0.00	1343.26	2.98	0.00	5.84	1342.16	1.88	0 12:02	0 00:00	0.00	0.00
J6th-Main	10.42	0.00	1347.80	2.41	0.00	3.65	1345.89	0.50	0 12:02	0 00:00	0.00	0.00
J6th-Oak	2.46	0.00	1342.37	0.83	0.00	0.67	1342.10	0.56	0 12:00	0 00:00	0.00	0.00
J70	23.31	0.00	1346.39	2.50	0.00	0.00	1344.50	0.61	0 11:51	0 12:02	3.53	27.00
J79	1.34	0.00	1348.96	0.50	0.00	0.00	1348.61	0.15	0 11:42	0 12:03	0.46	55.00
J7th-Broad	2.71	0.00	1343.50	1.62	0.00	5.00	1342.82	0.94	0 12:00	0 00:00	0.00	0.00
J7th-Main	3.06	0.00	1348.28	1.50	0.00	0.00	1347.18	0.40	0 11:55	0 11:59	0.33	14.00
J80	0.39	0.00	1348.80	0.50	0.00	0.00	1348.53	0.23	0 11:42	0 11:43	0.03	59.00
J83	1.52	0.00	1348.84	0.50	0.00	0.00	1348.60	0.26	0 11:25	0 12:01	1.17	142.00
J84	2.04	0.00	1348.75	0.50	0.00	0.00	1348.56	0.31	0 11:10	0 12:02	1.48	191.00
J85	1.76	0.00	1348.59	0.50	0.00	0.00	1348.31	0.22	0 11:43	0 12:00	0.23	34.00
J86	2.47	0.00	1348.00	0.50	0.00	0.00	1347.88	0.38	0 11:39	0 12:03	0.98	99.00
J87-88	2.30	0.00	1347.90	0.50	0.00	0.00	1347.88	0.48	0 10:10	0 12:00	2.18	390.00
J8-9	2.26	0.00	1350.51	4.41	0.00	2.84	1346.75	0.65	0 11:59	0 00:00	0.00	0.00
J89-90	3.63	0.00	1348.17	0.50	0.00	0.00	1347.99	0.32	0 11:03	0 12:00	1.79	209.00
J8th-Broad	3.91	0.00	1344.99	1.46	0.00	6.01	1344.19	0.66	0 11:52	0 00:00	0.00	0.00
J8th-Juniper	2.10	0.00	1350.25	4.72	0.00	2.50	1346.35	0.82	0 11:59	0 00:00	0.00	0.00
J8th-Poplar	1.18	0.00	1347.85	0.50	0.00	0.00	1347.85	0.50	0 00:58	0 11:43	11.59	1382.00
J8th-Walnut	0.73	0.00	1347.58	0.33	0.00	0.00	1347.48	0.23	0 10:25	0 12:00	1.09	363.00
J91	2.38	0.00	1348.28	0.50	0.00	0.00	1348.03	0.25	0 11:28	0 11:59	0.90	114.00
J96	2.20	0.00	1347.90	0.50	0.00	0.00	1347.75	0.35	0 11:10	0 12:00	1.45	176.00
J97	1.47	0.00	1347.95	0.50	0.00	0.00	1347.61	0.16	0 11:49	0 12:00	0.16	21.00
J99	3.00	0.00	1347.13	0.50	0.00	0.00	1346.84	0.21	0 11:38	0 12:01	1.04	88.00
J9th-Poplar	1.04	0.00	1348.50	0.50	0.00	0.00	1348.50	0.50	0 01:25	0 11:51	4.53	1355.00
J9th-Walnut	0.24	0.00	1350.24	0.33	0.00	0.00	1350.09	0.18	0 11:24	0 11:24	0.03	173.00
J-CONCPIT	21.31	0.00	1347.31	3.05	0.00	3.69	1344.88	0.62	0 12:01	0 00:00	0.00	0.00
StartC&G	0.32	0.32	1349.89	0.19	0.00	0.81	1349.75	0.05	0 12:01	0 00:00	0.00	0.00
StartDitch	1.32	1.32	1350.53	0.28	0.00	0.92	1350.35	0.10	0 12:00	0 00:00	0.00	0.00
STMH1	1.44	0.00	1350.45	4.29	0.00	3.01	1348.77	0.61	0 11:59	0 00:00	0.00	0.00
STMH10	9.14	0.00	1350.65	7.34	0.00	2.21	1343.86	0.55	0 11:51	0 00:00	0.00	0.00
STMH11	8.78	0.00	1343.83	2.30	0.00	8.80	1342.54	1.01	0 11:51	0 00:00	0.00	0.00
STMH12	3.65	0.00	1343.15	2.78	0.00	9.07	1342.45	2.08	0 11:50	0 00:00	0.00	0.00
STMH13	3.65	0.00	1344.40	5.08	0.00	7.32	1342.46	3.14	0 11:50	0 00:00	0.00	0.00
STMH14	5.04	0.00	1348.27	1.55	0.00	3.45	1347.04	0.32	0 11:58	0 00:00	0.00	0.00
STMH15	8.98	0.00	1347.80	2.57	0.00	3.68	1345.76	0.53	0 12:01	0 00:00	0.00	0.00
STMH16	18.47	0.00	1347.67	3.23	0.00	3.62	1345.04	0.60	0 12:01	0 00:00	0.00	0.00
STMH17	15.51	0.00	1346.84	3.53	0.00	3.92	1343.98	0.67	0 12:02	0 00:00	0.00	0.00
STMH18	0.02	0.00	1350.05	4.22	0.00	0.53	1349.69	3.86	0 12:00	0 00:00	0.00	0.00
STMH19	16.41	0.00	1346.67	3.64	0.00	3.81	1343.73	0.70	0 12:02	0 00:00	0.00	0.00
STMH2	0.00	0.00	1348.23	0.00	0.00	7.17	1348.23	0.00	0 00:00	0 00:00	0.00	0.00
STMH20	18.28	0.00	1345.95	3.40	0.00	4.75	1343.32	0.77	0 12:02	0 00:00	0.00	0.00
STMH21	18.28	0.00	1345.36	3.05	0.00	5.75	1343.03	0.72	0 12:02	0 00:00	0.00	0.00
STMH22	3.65	0.00	1345.57	4.29	0.00	5.46	1342.50	1.22	0 11:50	0 00:00	0.00	0.00
STMH23	3.70	0.00	1343.91	0.70	0.00	6.30	1343.26	0.05	0 12:10	0 00:00	0.00	0.00
STMH24	17.44	0.00	1342.97	2.29	0.00	4.26	1341.77	1.09	0 12:03	0 00:00	0.00	0.00
STMH25	21.68	0.00	1340.65	2.24	0.00	7.66	1339.07	0.66	0 12:04	0 00:00	0.00	0.00
STMH26	25.24	0.00	1338.79	2.94	0.00	8.66	1337.13	1.28	0 12:01	0 00:00	0.00	0.00
STMH27	25.23	0.00	1338.31	2.50	0.00	8.20	1336.90	1.09	0 12:01	0 00:00	0.00	0.00
STMH28	26.67	0.00	1337.45	2.42	0.00	7.68	1336.08	1.05	0 12:00	0 00:00	0.00	0.00
STMH29	0.34	0.00	1346.18	3.41	0.00	2.64	1343.73	0.96	0 10:01	0 00:00	0.00	0.00
STMH3	4.60	0.00	1347.49	2.65	0.00	6.65	1345.61	0.77	0 11:59	0 00:00	0.00	0.00
STMH30	8.29	0.00	1341.52	0.56	0.00	8.57	1341.30	0.34	0 12:02	0 00:00	0.00	0.00
STMH31	1.44	0.00	1348.20	1.13	0.00	3.28	1347.13	0.06	0 12:00	0 00:00	0.00	0.00
STMH32	1.24	0.00	1347.62	0.82	0.00	3.88	1346.92	0.12	0 11:59	0 00:00	0.00	0.00
STMH33	1.83	0.00	1345.81	0.73	0.00	5.87	1345.37	0.29	0 12:02	0 00:00	0.00	0.00
STMH34	3.10	1.36	1344.93	0.39	0.00	3.74	1344.62	0.08	0 12:01	0 00:00	0.00	0.00
STMH35	4.35	0.00	1343.47	3.17	0.00	5.53	1342.22	1.92	0 12:00	0 00:00	0.00	0.00
STMH36	14.81	0.00	1344.00	2.43	0.00	4.62	1342.32	0.75	0 12:00	0 00:00	0.00	0.00
STMH4	1.79	0.00	1347.55	1.69	0.00	6.71	1346.15	0.29	0 11:58	0 00:00	0.00	0.00
STMH5	0.06	0.00	1348.32	0.52	0.00	6.63	1347.81	0.01	0 12:00	0 00:00	0.00	0.00
STMH6	7.73	0.00	1345.98	2.02	0.00	7.18	1344.65	0.69	0 12:00	0 00:00	0.00	0.00
STMH7	1.77	0.00	1347.69	4.03	0.00	5.08	1347.29	3.63	0 11:51	0 00:00	0.00	0.00
STMH8	3.07	0.00	1348.80	1.38	0.00	4.12	1347.81	0.39	0 12:09	0 00:00	0.00	0.00
STMH9	1.33	0.00	1352.64	4.89	0.00	1.13	1348.25	0.50	0 11:59	0 00:00	0.00	0.00

Pipe Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1	Link-01	1.79	0 12:01	2.19	0.82	5.14	0.11	0.67	1.00	19.00		1.30 SURCHARGED
2	Link-02	1.03	0 11:42	2.05	0.50	1.35	1.63	1.00	1.00	60.00		0.30 SURCHARGED
3	Link-03	1.39	0 12:06	2.48	0.56	3.99	0.18	0.67	1.00	29.00		0.19 SURCHARGED
4	Link-05	1.80	0 12:00	0.85	2.12	2.30	0.48	1.00	1.00	82.00		0.24 SURCHARGED
5	Link-06	0.69	0 12:04	1.21	0.57	1.98	1.28	0.67	1.00	20.00		0.66 SURCHARGED
6	Link-07	0.97	0 12:04	1.34	0.73	2.79	0.26	0.67	1.00	83.00		0.09 SURCHARGED
7	Link-10	1.88	0 11:41	1.80	1.04	2.52	0.66	1.00	1.00	30.00		0.62 SURCHARGED
8	Link-102	0.69	0 12:02	3.84	0.18	2.85	0.27	0.30	0.25	0.00		0.34 Calculated
9	Link-105	0.80	0 11:58	0.65	1.23	4.41	0.55	0.50	1.00	5.00		1.58 SURCHARGED
10	Link-106	2.04	0 12:00	3.19	0.64	2.48	0.44	0.78	0.52	0.00		0.22 Calculated
11	Link-107	14.42	0 12:16	18.06	0.80	2.96	0.17	2.47	0.99	0.00		0.55 Calculated
12	Link-108	1.92	0 11:50	2.96	0.65	9.79	0.05	0.50	1.00	27.00		0.42 SURCHARGED
13	Link-109	1.12	0 12:00	4.29	0.26	6.93	0.03	0.38	0.77	0.00		0.17 Calculated
14	Link-11	1.64	0 12:00	2.87	0.57	4.71	0.16	0.67	1.00	2.00		0.19 SURCHARGED
15	Link-110	0.99	0 12:00	4.90	0.20	6.69	0.03	0.35	0.70	0.00		0.11 Calculated
16	Link-111	15.18	0 11:52	18.07	0.84	3.10	0.65	2.50	1.00	8.00		0.31 SURCHARGED
17	Link-112	17.44	0 11:55	17.77	0.98	3.62	0.07	2.40	0.96	0.00		0.27 Calculated
18	Link-113	0.94	0 11:53	2.13	0.44	10.79	0.01	0.33	1.00	17.00		0.38 SURCHARGED
19	Link-114	1.34	0 12:00	3.84	0.35	7.56	0.03	0.42	0.85	0.00		0.13 Calculated
20	Link-115	21.68	0 12:04	27.29	0.79	4.70	0.20	2.34	0.94	0.00		0.83 Calculated
21	Link-116	2.62	0 11:52	3.35	0.78	13.34	0.03	0.50	1.00	21.00		0.56 SURCHARGED
22	Link-117	18.40	0 11:50	45.89	0.40	3.75	0.04	2.50	1.00	76.00		0.25 SURCHARGED
23	Link-118	3.25	0 11:59	3.68	0.88	16.56	0.02	0.50	1.00	7.00		6.22 SURCHARGED
24	Link-119	2.52	0 12:00	2.49	1.01	12.83	0.05	0.50	1.00	8.00		4.40 SURCHARGED
25	Link-120	1.51	0 12:00	0.31	4.93	7.71	0.15	0.50	1.00	66.00		0.33 SURCHARGED
26	Link-121	1.84	0 12:00	0.46	3.99	9.37	0.01	0.50	1.00	15.00		1.48 SURCHARGED
27	Link-122	0.79	0 12:00	0.30	2.60	4.01	0.70	0.50	1.00	103.00		0.20 SURCHARGED
28	Link-123	2.03	0 12:00	2.73	0.74	10.31	0.06	0.50	1.00	15.00		0.76 SURCHARGED
29	Link-124	7.05	0 11:55	11.32	0.62	2.50	0.80	2.00	1.00	7.00		0.64 SURCHARGED
30	Link-125	5.14	0 12:09	6.63	0.78	3.01	1.27	1.50	1.00	12.00		0.73 SURCHARGED
31	Link-126	2.31	0 12:00	6.31	0.37	6.61	0.04	0.67	1.00	1.00		0.30 SURCHARGED
32	Link-127	1.59	0 12:00	3.68	0.43	4.84	0.14	0.59	0.89	0.00		0.33 Calculated
33	Link-129	3.06	0 11:59	5.52	0.55	8.76	0.03	0.67	1.00	14.00		1.02 SURCHARGED
34	Link-13	1.19	0 12:00	3.19	0.37	6.57	0.06	0.43	0.87	0.00		0.17 Calculated
35	Link-130	0.18	0 12:03	0.19	0.95	1.05	0.56	0.48	1.00	0.00		0.24 Calculated
36	Link-132	2.29	0 11:59	2.39	0.96	6.56	0.03	0.67	1.00	67.00		1.01 SURCHARGED
37	Link-133	1.74	0 12:00	1.28	1.36	4.98	0.33	0.67	1.00	23.00		0.98 SURCHARGED
38	Link-134	0.09	0 11:59	20.60	0.00	0.10	20.00	0.76	0.51	0.00		0.00 Calculated
39	Link-135	2.32	0 12:00	2.53	0.92	6.64	0.11	0.67	1.00	7.00		0.23 SURCHARGED
40	Link-136	3.82	0 12:00	1.69	2.26	4.87	0.03	1.00	1.00	30.00		0.45 SURCHARGED
41	Link-137	2.86	0 11:59	0.82	3.50	3.65	0.72	1.00	1.00	69.00		0.31 SURCHARGED
42	Link-138	0.91	0 13:11	2.99	0.30	1.05	0.32	0.79	0.52	0.00		0.15 Calculated
43	Link-139	1.66	0 12:00	2.86	0.58	1.66	6.85	0.82	0.55	0.00		0.38 Calculated
44	Link-140	1.38	0 12:00	0.99	1.39	7.02	0.08	0.50	1.00	23.00		0.18 SURCHARGED
45	Link-141	0.60	0 12:03	0.47	1.27	6.83	0.08	0.33	1.00	39.00		0.28 SURCHARGED
46	Link-142	2.39	0 11:59	3.32	0.72	12.17	0.00	0.50	1.00	32.00		0.38 SURCHARGED
47	Link-143	3.30	0 11:59	2.41	1.37	4.20	0.40	1.00	1.00	36.00		0.78 SURCHARGED
48	Link-144	2.16	0 12:54	2.41	0.90	2.76	0.56	1.00	1.00	69.00		0.67 SURCHARGED
49	Link-145	2.21	0 11:41	2.42	0.91	2.93	0.07	1.00	1.00	21.00		0.69 SURCHARGED
50	Link-146	2.42	0 11:45	2.47	0.98	3.11	1.07	1.00	1.00	21.00		0.60 SURCHARGED
51	Link-147	2.46	0 11:38	2.40	1.02	3.34	0.16	0.91	0.91	0.00		0.50 > CAPACITY
52	Link-148	0.69	0 11:59	0.41	1.68	3.50	0.21	0.50	1.00	103.00		0.25 SURCHARGED
53	Link-149	0.92	0 12:00	1.25	0.74	10.58	0.01	0.33	1.00	31.00		0.54 SURCHARGED
54	Link-150	0.29	0 12:43	0.27	1.10	3.37	0.66	0.33	1.00	86.00		0.90 SURCHARGED
55	Link-151	1.48	0 12:00	4.68	0.32	1.04	1.88	1.12	0.75	0.00		0.05 Calculated
56	Link-154	3.11	0 12:01	3.36	0.93	1.76	0.85	1.50	1.00	43.00		0.05 SURCHARGED
57	Link-155	3.07	0 12:01	3.35	0.92	1.74	0.74	1.50	1.00	42.00		0.09 SURCHARGED
58	Link-157	0.68	0 12:00	8.16	0.08	3.13	0.07	0.40	0.60	0.00		0.04 Calculated
59	Link-158	0.62	0 12:00	6.06	0.10	2.78	0.13	0.41	0.61	0.00		0.06 Calculated
60	Link-159	0.73	0 12:00	0.94	0.78	8.36	0.06	0.33	1.00	7.00		0.47 SURCHARGED
61	Link-16	2.91	0 11:53	3.09	0.94	14.82	0.02	0.50	1.00	34.00		2.09 SURCHARGED
62	Link-160	2.12	0 14:49	3.64	0.58	1.73	0.26	1.50	1.00	217.00		0.27 SURCHARGED
63	Link-161	3.73	0 11:51	3.69	1.01	2.13	2.62	1.48	0.99	0.00		0.36 > CAPACITY
64	Link-162	3.15	0 11:51	2.78	1.13	1.86	0.24	1.48	0.99	0.00		0.35 > CAPACITY
65	Link-163	2.49	0 12:03	3.94	0.63	1.71	1.67	1.23	0.83	0.00		0.40 Calculated
66	Link-167	2.68	0 11:59	2.86	0.94	13.64	0.02	0.50	1.00	20.00		0.31 SURCHARGED
67	Link-168	0.95	0 19:50	0.84	1.13	10.87	0.04	0.33	1.00	876.00		0.57 SURCHARGED
68	Link-169	0.35	0 12:06	0.26	1.33	2.48	0.22	0.34	0.75	0.00		0.29 > CAPACITY
69	Link-17	2.47	0 11:52	2.47	1.00	12.55	0.03	0.50	1.00	22.00		0.73 SURCHARGED
70	Link-170	2.93	0 12:00	2.53	1.16	2.26	2.40	1.03	0.69	0.00		0.29 > CAPACITY
71	Link-171	0.87	0 11:50	0.71	1.23	4.44	0.14	0.50	1.00	36.00		0.78 SURCHARGED
72	Link-172	7.93	0 12:53	9.60	0.83	2.61	2.30	2.00	1.00	50.00		0.38 SURCHARGED
73	Link-173	12.82	0 12:00	10.06	1.27	4.08	0.06	2.00	1.00	46.00		0.41 SURCHARGED
74	Link-174	1.34	0 12:02	4.48	0.30	1.03	5.99	1.03	0.69	0.00		0.21 Calculated
75	Link-175	0.00	0 00:00	1.31	0.00	0.00		0.17	0.50	0.00		0.00 Calculated
76	Link-176	2.83	0 11:53	3.56	0.79	14.39	0.02	0.50	1.00	21.00		0.52 SURCHARGED
77	Link-177	2.72	0 11:59	3.67	0.74	13.87	0.03	0.50	1.00	8.00		0.33 SURCHARGED
78	Link-178	1.95	0 12:00	3.54	0.55	10.04	0.04	0.48	0.96	0.00		0.37 Calculated
79	Link-179	2.80	0 11:54	3.81	0.73	14.27	0.02	0.50	1.00	19.00		0.52 SURCHARGED
80	Link-181	0.71	0 12:14	0.15	4.79	3.60	0.23	0.50	1.00	73.00		0.40 SURCHARGED

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
81	Link-182	1.34	0 12:00	0.49	2.72	6.83	0.18	0.50	1.00	73.00	0.35	SURCHARGED
82	Link-183	0.41	0 12:10	0.36	1.12	2.19	0.09	0.50	1.00	5.00	0.82	SURCHARGED
83	Link-184	1.47	0 12:01	0.60	2.44	7.48	0.09	0.50	1.00	21.00	0.18	SURCHARGED
84	Link-185	0.67	0 11:56	0.86	0.78	5.27	0.12	0.33	0.65	0.00	2.50	Calculated
85	Link-186	0.32	0 11:57	1.55	0.21	2.36	0.10	0.33	0.65	0.00	0.47	Calculated
86	Link-188	0.00	0 00:00	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Calculated
87	Link-190	1.83	0 12:00	1.29	1.41	9.30	0.09	0.50	1.00	38.00	1.33	SURCHARGED
88	Link-191	0.04	0 03:41	0.86	0.04	0.56	0.48	0.18	0.36	0.00	0.25	Calculated
89	Link-192	0.24	0 11:22	0.22	1.09	2.79	0.99	0.33	1.00	0.00	0.99	SURCHARGED
90	Link-193	0.23	0 11:22	0.22	1.05	2.68	2.13	0.33	1.00	0.00	0.71	SURCHARGED
91	Link-194	0.52	0 12:00	0.28	1.81	5.91	0.22	0.33	1.00	69.00	0.60	SURCHARGED
92	Link-195	2.41	0 11:51	3.52	0.68	5.30	0.09	1.00	1.00	0.00	1.57	Calculated
93	Link-196	1.17	0 12:01	1.52	0.77	13.41	0.01	0.33	1.00	0.00	1.38	SURCHARGED
94	Link-197	0.18	0 10:24	0.22	0.84	2.12	0.22	0.33	1.00	0.00	0.41	SURCHARGED
95	Link-198	0.25	0 11:48	1.44	0.18	2.92	0.03	0.33	1.00	165.00	0.10	SURCHARGED
96	Link-199	0.39	0 12:02	0.22	1.74	4.46	0.47	0.33	1.00	0.00	0.22	SURCHARGED
97	Link-20	3.02	0 12:02	18.74	0.16	2.55	0.30	0.95	0.64	0.00	0.16	Calculated
98	Link-200	0.33	0 11:48	0.22	1.51	3.79	0.42	0.33	1.00	1124.00	0.12	SURCHARGED
99	Link-201	0.49	0 11:42	1.02	0.48	5.64	0.09	0.33	1.00	54.00	0.53	SURCHARGED
100	Link-202	0.79	0 11:43	0.22	3.61	9.02	0.05	0.33	1.00	1246.00	0.05	SURCHARGED
101	Link-203	1.81	0 11:48	2.23	0.81	9.21	0.05	0.50	1.00	65.00	0.50	SURCHARGED
102	Link-204	1.70	0 11:49	0.40	4.19	8.64	0.05	0.50	1.00	72.00	0.61	SURCHARGED
103	Link-205	1.68	0 12:14	3.02	0.56	1.36	0.44	1.46	0.98	0.00	0.31	Calculated
104	Link-206	1.65	0 11:55	1.77	0.93	8.43	0.05	0.50	1.00	19.00	0.53	SURCHARGED
105	Link-207	3.12	0 11:58	2.99	1.04	1.77	2.19	1.48	0.99	0.00	0.26	> CAPACITY
106	Link-208	1.93	0 12:00	2.79	0.69	9.85	0.01	0.50	1.00	36.00	3.78	SURCHARGED
107	Link-209	1.00	0 11:43	2.81	0.36	5.10	0.02	0.50	1.00	56.00	0.90	SURCHARGED
108	Link-21	9.12	0 12:04	23.61	0.39	2.17	0.26	2.33	0.94	0.00	0.46	Calculated
109	Link-210	0.31	0 12:08	1.06	0.29	2.25	0.29	0.33	0.68	0.00	1.34	Calculated
110	Link-211	3.06	0 11:53	3.00	1.02	2.00	0.99	1.48	0.99	0.00	0.37	> CAPACITY
111	Link-212	3.11	0 12:11	2.73	1.14	2.25	0.18	1.50	1.00	12.00	0.45	SURCHARGED
112	Link-213	0.28	0 11:39	0.17	1.66	3.17	0.22	0.33	1.00	82.00	1.00	SURCHARGED
113	Link-214	0.44	0 11:38	0.32	1.38	5.42	0.09	0.33	1.00	79.00	1.88	SURCHARGED
114	Link-215	2.67	0 14:48	3.62	0.74	1.51	3.97	1.50	1.00	232.00	0.14	SURCHARGED
115	Link-217	1.31	0 11:41	1.38	0.95	3.86	1.40	0.67	1.00	68.00	0.36	SURCHARGED
116	Link-218	0.66	0 11:59	0.60	1.09	7.52	0.06	0.33	1.00	82.00	1.31	SURCHARGED
117	Link-219	0.87	0 11:50	0.95	0.92	9.94	0.03	0.33	1.00	79.00	2.16	SURCHARGED
118	Link-22	0.99	0 12:02	18.04	0.05	0.87	1.05	0.93	0.63	0.00	0.04	Calculated
119	Link-220	0.89	0 11:57	0.52	1.71	4.54	0.57	0.50	1.00	37.00	1.24	SURCHARGED
120	Link-221	0.42	0 14:16	0.30	1.41	4.80	0.20	0.33	1.00	255.00	0.94	SURCHARGED
121	Link-222	1.03	0 11:48	0.86	1.19	2.95	0.21	0.66	0.99	0.00	0.06	> CAPACITY
122	Link-224	2.30	0 12:16	3.22	0.71	11.72	0.03	0.50	1.00	44.00	0.56	SURCHARGED
123	Link-225	2.39	0 12:16	1.73	1.38	1.35	0.25	1.50	1.00	1111.00	0.01	SURCHARGED
124	Link-228	1.03	0 11:55	1.50	0.69	11.78	0.03	0.33	1.00	9.00	0.36	SURCHARGED
125	Link-23	1.26	0 12:02	46.42	0.03	1.04	0.13	0.96	0.67	0.00	0.03	Calculated
126	Link-233	13.12	0 12:00	9.04	1.45	4.18	0.08	2.00	1.00	48.00	0.50	SURCHARGED
127	Link-234	0.59	0 11:59	0.50	1.18	6.76	0.08	0.33	1.00	0.00	0.99	SURCHARGED
128	Link-235	1.04	0 12:00	0.45	2.30	11.92	0.00	0.33	1.00	0.00	0.70	SURCHARGED
129	Link-236	0.17	0 11:18	0.17	0.96	1.92	0.67	0.33	1.00	0.00	0.64	SURCHARGED
130	Link-237	0.75	0 11:49	0.94	0.80	8.64	0.02	0.33	1.00	0.00	0.86	SURCHARGED
131	Link-238	0.48	0 12:00	0.34	1.42	5.54	0.08	0.33	1.00	0.00	1.50	SURCHARGED
132	Link-239	0.61	0 11:59	0.53	1.15	6.96	0.02	0.33	1.00	0.00	2.18	SURCHARGED
133	Link-240	0.17	0 10:47	0.18	0.98	2.01	0.85	0.33	1.00	0.00	0.33	SURCHARGED
134	Link-241	0.52	0 11:43	0.58	0.90	6.02	0.09	0.33	1.00	0.00	0.47	SURCHARGED
135	Link-242	0.91	0 11:59	1.10	0.83	10.44	0.01	0.33	1.00	0.00	0.47	SURCHARGED
136	Link-243	0.31	0 12:00	0.10	2.96	3.50	0.71	0.33	1.00	0.00	0.03	SURCHARGED
137	Link-244	0.50	0 14:08	1.49	0.33	5.70	0.02	0.33	1.00	209.00	0.94	SURCHARGED
138	Link-245	0.21	0 10:04	0.12	1.73	2.65	0.28	0.33	1.00	433.00	0.46	SURCHARGED
139	Link-246	0.23	0 11:39	1.53	0.15	2.63	0.04	0.33	1.00	145.00	0.77	SURCHARGED
140	Link-247	0.34	0 11:39	0.34	1.00	3.93	0.58	0.33	1.00	433.00	0.88	SURCHARGED
141	Link-249	0.34	0 11:39	0.29	1.16	3.85	1.39	0.33	1.00	558.00	0.44	SURCHARGED
142	Link-250	1.45	0 12:00	0.69	2.11	7.38	0.06	0.50	1.00	18.00	0.32	SURCHARGED
143	Link-251	13.59	0 12:02	14.68	0.93	2.77	0.88	2.50	1.00	21.00	0.46	SURCHARGED
144	Link-252	0.56	0 11:39	0.55	1.00	2.89	1.25	0.50	1.00	41.00	0.66	SURCHARGED
145	Link-253	0.76	0 12:00	0.78	0.97	8.73	0.07	0.33	1.00	20.00	0.49	SURCHARGED
146	Link-254	0.71	0 11:45	0.71	1.01	8.19	0.07	0.33	1.00	38.00	0.69	SURCHARGED
147	Link-255	0.72	0 11:54	0.56	1.29	3.69	0.22	0.50	1.00	80.00	0.83	SURCHARGED
148	Link-256	1.98	0 12:03	2.46	0.81	10.09	0.05	0.50	1.00	14.00	0.63	SURCHARGED
149	Link-257	1.26	0 12:03	1.08	1.17	3.61	0.76	0.67	1.00	53.00	0.97	SURCHARGED
150	Link-258	0.86	0 11:44	1.11	0.78	2.47	2.47	0.67	1.00	95.00	0.38	SURCHARGED
151	Link-259	2.16	0 12:03	3.29	0.66	11.02	0.01	0.50	1.00	16.00	1.47	SURCHARGED
152	Link-260	0.37	0 12:00	0.33	1.13	1.90	0.73	0.50	1.00	77.00	0.48	SURCHARGED
153	Link-261	0.57	0 12:00	0.33	1.72	2.88	0.46	0.50	1.00	88.00	0.58	SURCHARGED
154	Link-262	0.00	0 00:00	1.51	0.00	0.00	0.00	0.17	0.50	0.00	0.00	Calculated
155	Link-263	0.30	0 12:00	0.33	0.89	1.52	0.94	0.50	1.00	89.00	0.43	SURCHARGED
156	Link-264	0.35	0 11:57	2.31	0.15	2.58	0.04	0.33	0.65	0.00	0.52	Calculated
157	Link-265	0.39	0 13:14	0.33	1.20	2.11	0.12	0.50	1.00	41.00	0.62	SURCHARGED
158	Link-266	0.43	0 13:09	0.50	0.86	2.20	1.17	0.50	1.00	88.00	0.47	SURCHARGED
159	Link-267	0.49	0 11:48	0.49	0.98	2.52	1.18	0.50	1.00	21.00	0.80	SURCHARGED
160	Link-268	2.37	0 12:01	0.42	5.62	12.06	0.00	0.50	1.00	88.00	0.30	SURCHARGED

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
161	Link-269	1.27	0 12:00	9.42	0.13	0.79	0.20	1.29	0.86	0.00	0.04	Calculated
162	Link-270	1.07	0 12:00	0.33	3.20	5.46	0.06	0.50	1.00	306.00	0.24	SURCHARGED
163	Link-271	2.61	0 11:55	2.86	0.91	13.27	0.01	0.50	1.00	26.00	0.56	SURCHARGED
164	Link-272	0.32	0 10:10	0.33	0.97	1.66	1.98	0.50	1.00	427.00	0.31	SURCHARGED
165	Link-273	0.00	0 00:00	2.87	0.00	0.00	0.00	0.25	0.50	0.00	0.00	Calculated
166	Link-274	0.85	0 12:00	0.33	2.60	9.75	0.01	0.33	1.00	24.00	1.42	SURCHARGED
167	Link-275	0.79	0 11:59	0.63	1.26	4.03	0.27	0.50	1.00	18.00	1.37	SURCHARGED
168	Link-276	1.33	0 11:50	1.56	0.85	6.83	0.10	0.50	1.00	20.00	0.31	SURCHARGED
169	Link-277	0.31	0 09:03	0.33	0.93	1.58	1.32	0.50	1.00	594.00	0.19	SURCHARGED
170	Link-278	1.83	0 11:54	3.43	0.53	9.30	0.01	0.50	1.00	23.00	0.45	SURCHARGED
171	Link-279	0.47	0 12:00	0.33	1.43	2.65	3.06	0.50	1.00	40.00	0.77	SURCHARGED
172	Link-28	4.51	0 12:01	20.10	0.22	3.63	0.34	0.96	0.66	0.00	0.17	Calculated
173	Link-280	4.35	0 11:51	1.82	2.40	2.46	0.12	1.50	1.00	1106.00	0.01	SURCHARGED
174	Link-281	0.47	0 11:56	0.38	1.22	6.33	0.03	0.26	0.79	0.00	2.20	> CAPACITY
175	Link-282	1.44	0 12:00	0.73	1.97	7.33	0.01	0.50	1.00	7.00	1.52	SURCHARGED
176	Link-283	0.77	0 12:00	0.73	1.06	3.92	0.11	0.50	1.00	7.00	0.57	SURCHARGED
177	Link-284	0.47	0 11:47	2.52	0.19	3.22	0.49	0.43	0.65	0.00	1.46	Calculated
178	Link-285	1.24	0 12:00	1.37	0.91	3.55	0.15	0.67	1.00	6.00	0.61	SURCHARGED
179	Link-286	0.95	0 12:01	0.35	2.73	10.94	0.02	0.33	1.00	124.00	0.96	SURCHARGED
180	Link-29	4.48	0 12:02	30.31	0.15	3.68	0.11	0.98	0.67	0.00	0.15	Calculated
181	Link-292	3.50	0 12:35	4.37	0.80	6.54	0.06	0.66	0.66	0.00	1.78	Calculated
182	Link-293	0.42	0 11:49	0.23	1.85	2.51	0.14	0.42	0.83	0.00	0.35	> CAPACITY
183	Link-294	0.27	0 13:11	0.28	0.96	3.11	0.33	0.33	1.00	1058.00	0.21	SURCHARGED
184	Link-295	0.45	0 11:43	3.39	0.13	2.69	0.13	0.50	1.00	53.00	0.27	SURCHARGED
185	Link-296	1.82	0 11:50	1.14	1.60	3.01	0.16	0.72	0.72	0.00	0.40	> CAPACITY
186	Link-297	0.00	0 00:00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Calculated
187	Link-298	1.07	0 12:10	0.96	1.11	6.72	0.07	0.38	0.76	0.00	1.73	> CAPACITY
188	Link-299	2.28	0 12:05	1.65	1.38	4.47	0.11	0.63	0.63	0.00	0.91	> CAPACITY
189	Link-30	18.47	0 12:01	20.15	0.92	3.76	0.25	2.50	1.00	17.00	0.55	SURCHARGED
190	Link-300	3.73	0 12:16	3.98	0.94	6.53	0.07	0.72	0.72	0.00	1.41	Calculated
191	Link-301	1.34	0 12:00	1.49	0.89	4.07	0.08	0.44	0.44	0.00	0.49	Calculated
192	Link-302	1.29	0 11:57	2.73	0.47	1.70	0.14	0.96	0.96	0.00	0.24	Calculated
193	Link-303	1.20	0 12:08	1.24	0.96	4.79	0.14	0.47	0.70	0.00	1.08	Calculated
194	Link-304	0.64	0 12:00	5.50	0.12	2.89	0.20	0.33	0.33	0.00	0.64	Calculated
195	Link-305	8.78	0 12:00	10.61	0.83	4.97	0.20	1.50	1.00	46.00	0.19	SURCHARGED
196	Link-306	3.65	0 11:59	8.77	0.42	2.06	0.86	1.50	1.00	1293.00	0.02	SURCHARGED
197	Link-307	2.93	0 12:04	4.62	0.63	14.92	0.02	0.50	1.00	12.00	0.33	SURCHARGED
198	Link-308	2.27	0 12:00	2.58	0.88	11.58	0.08	0.50	1.00	5.00	0.26	SURCHARGED
199	Link-309	1.12	0 12:06	0.50	2.22	12.80	0.03	0.33	1.00	94.00	0.26	SURCHARGED
200	Link-31	10.55	0 12:02	52.89	0.20	6.46	0.02	1.04	0.99	0.00	0.12	Calculated
201	Link-310	8.78	0 12:00	7.99	1.10	4.97	0.22	1.50	1.00	46.00	0.34	SURCHARGED
202	Link-311	7.84	0 11:51	7.96	0.98	4.44	1.11	1.50	1.00	50.00	0.61	SURCHARGED
203	Link-312	1.57	0 12:01	5.11	0.31	2.87	0.25	0.83	1.00	44.00	0.45	SURCHARGED
204	Link-313	0.33	0 12:01	5.53	0.06	0.70	0.26	0.58	0.58	0.00	0.04	Calculated
205	Link-314	1.72	0 11:52	0.97	1.77	2.83	0.24	0.88	0.88	0.00	0.44	> CAPACITY
206	Link-315	1.66	0 12:17	5.37	0.31	2.82	0.25	0.91	0.91	0.00	0.92	Calculated
207	Link-316	2.18	0 12:03	5.35	0.41	3.29	0.21	1.00	1.00	27.00	0.86	SURCHARGED
208	Link-317	1.39	0 12:06	1.05	1.32	7.35	0.06	0.47	0.93	0.00	1.76	> CAPACITY
209	Link-318	1.39	0 12:05	7.68	0.18	1.16	4.09	0.97	0.64	0.00	0.12	Calculated
210	Link-319	5.73	0 12:19	4.27	1.34	5.76	0.12	0.82	0.55	0.00	1.28	> CAPACITY
211	Link-32	12.34	0 12:02	10.27	1.20	7.64	0.12	0.57	0.96	0.00	1.62	> CAPACITY
212	Link-320	1.59	0 11:51	1.85	0.86	9.83	0.11	0.41	0.82	0.00	4.53	Calculated
213	Link-321	7.73	0 11:49	5.58	1.39	2.70	0.25	2.00	1.00	5.00	0.40	SURCHARGED
214	Link-322	5.28	0 12:00	5.46	0.97	1.68	1.29	2.00	1.00	6.00	0.30	SURCHARGED
215	Link-323	5.26	0 11:48	5.35	0.98	1.70	0.28	2.00	1.00	27.00	0.29	SURCHARGED
216	Link-324	6.60	0 11:48	5.43	1.21	2.15	1.16	2.00	1.00	23.00	0.33	SURCHARGED
217	Link-325	2.23	0 12:00	4.47	0.50	12.24	0.02	0.44	0.87	0.00	0.23	Calculated
218	Link-326	7.69	0 11:49	10.22	0.75	2.97	0.13	2.00	1.00	5.00	0.50	SURCHARGED
219	Link-327	8.09	0 11:49	10.35	0.78	3.44	1.66	2.00	1.00	5.00	0.68	SURCHARGED
220	Link-328	1.58	0 11:51	3.94	0.40	9.14	0.03	0.41	0.83	0.00	0.41	Calculated
221	Link-329	2.73	0 11:59	3.96	0.69	13.88	0.02	0.50	1.00	15.00	0.48	SURCHARGED
222	Link-33	4.19	0 12:02	15.52	0.27	2.37	0.38	1.50	1.00	2.00	0.11	SURCHARGED
223	Link-330	3.23	0 11:59	4.37	0.74	16.47	0.01	0.50	1.00	12.00	0.34	SURCHARGED
224	Link-331	7.83	0 12:05	24.39	0.32	2.71	0.21	2.44	0.98	0.00	0.61	Calculated
225	Link-333	1.43	0 11:52	1.21	1.18	4.10	0.65	0.67	1.00	35.00	0.26	SURCHARGED
226	Link-334	0.36	0 11:53	1.12	0.32	5.41	0.05	0.24	0.71	0.00	0.36	Calculated
227	Link-335	2.99	0 12:02	2.47	1.21	3.81	0.50	1.00	1.00	58.00	0.54	SURCHARGED
228	Link-336	1.76	0 11:51	2.47	0.71	3.09	1.59	0.81	0.81	0.00	0.81	Calculated
229	Link-337	0.47	0 12:45	0.41	1.16	5.68	0.20	0.33	1.00	78.00	2.66	SURCHARGED
230	Link-338	0.92	0 12:07	0.67	1.36	4.67	0.07	0.50	1.00	125.00	0.21	SURCHARGED
231	Link-339	0.54	0 11:43	0.54	0.24	2.77	0.08	0.50	1.00	72.00	0.72	SURCHARGED
232	Link-34	1.44	0 12:00	7.91	0.18	3.30	0.23	0.45	0.32	0.00	1.01	Calculated
233	Link-340	1.56	0 13:05	2.91	0.54	2.06	0.54	1.00	1.00	52.00	0.60	SURCHARGED
234	Link-341	1.72	0 12:00	1.32	1.30	8.76	0.08	0.50	1.00	15.00	0.27	SURCHARGED
235	Link-342	2.27	0 12:00	2.63	0.86	11.54	0.02	0.50	1.00	23.00	0.64	SURCHARGED
236	Link-343	1.17	0 12:08	1.93	0.61	1.49	0.18	1.00	1.00	86.00	0.37	SURCHARGED
237	Link-344	1.33	0 12:00	0.36	3.68	3.80	1.07	0.67	1.00	121.00	0.28	SURCHARGED
238	Link-345	0.80	0 12:00	2.21	0.36	5.27	0.11	0.36	0.72	0.00	0.18	Calculated
239	Link-346	2.16	0 12:08	3.94	0.55	6.18	0.12	0.67	1.00	20.00	1.21	SURCHARGED
240	Link-347	3.07	0 11:51	1.59	1.94	5.63	0.58	0.83	1.00	38.00	0.40	SURCHARGED

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
241	Link-348	0.86	0 12:03	2.15	0.40	1.75	1.20	0.83	1.00	0.00	0.73	SURCHARGED
242	Link-35	1.10	0 12:00	7.48	0.15	2.90	0.25	0.45	0.30	0.00	0.93	Calculated
243	Link-350	1.14	0 12:00	17.90	0.06	2.39	0.24	0.59	0.59	0.00	0.21	Calculated
244	Link-351	1.79	0 11:45	3.55	0.51	2.28	1.27	1.00	1.00	55.00	0.33	SURCHARGED
245	Link-352	4.60	0 11:58	3.73	1.23	5.86	0.06	1.00	1.00	220.00	0.42	SURCHARGED
246	Link-353	0.38	0 13:52	0.26	1.50	4.39	0.17	0.33	1.00	276.00	0.69	SURCHARGED
247	Link-354	0.74	0 12:00	0.50	1.48	3.78	0.09	0.50	1.00	17.00	0.08	SURCHARGED
248	Link-355	0.55	0 12:15	0.47	1.18	4.01	0.09	0.50	1.00	6.00	1.54	SURCHARGED
249	Link-356	0.00	0 00:00	0.96	0.00	0.00	0.00	0.25	0.50	0.00	0.00	Calculated
250	Link-357	0.18	0 12:00	0.18	1.00	2.04	1.62	0.33	1.00	100.00	0.39	SURCHARGED
251	Link-358	0.06	0 11:56	2.91	0.02	0.19	3.33	0.58	0.59	0.00	0.00	Calculated
252	Link-359	1.84	0 12:00	2.86	0.65	2.65	1.08	0.83	0.83	0.00	0.58	Calculated
253	Link-36	0.00	0 00:00	42.38	0.00	0.00	0.00	0.75	0.50	0.00	0.00	Calculated
254	Link-360	2.39	0 12:02	2.84	0.84	3.05	0.71	1.00	1.00	10.00	0.40	SURCHARGED
255	Link-361	1.67	0 12:29	2.87	0.58	3.24	0.87	1.00	1.00	41.00	1.01	SURCHARGED
256	Link-362	2.41	0 12:00	6.68	0.36	5.09	0.08	0.68	0.81	0.00	1.21	Calculated
257	Link-363	1.98	0 11:59	2.27	0.87	10.07	0.05	0.50	1.00	2.00	2.21	SURCHARGED
258	Link-364	2.25	0 12:00	3.30	0.68	11.51	0.03	0.50	1.00	6.00	2.17	SURCHARGED
259	Link-365	0.54	0 12:00	3.45	0.16	4.12	0.07	0.32	0.63	0.00	0.14	Calculated
260	Link-366	0.24	0 12:22	0.08	3.10	2.78	0.30	0.33	1.00	122.00	0.37	SURCHARGED
261	Link-367	0.22	0 12:03	0.09	2.47	2.75	0.24	0.31	0.96	0.00	0.76	> CAPACITY
262	Link-368	0.21	0 11:46	0.28	0.75	2.99	0.22	0.31	0.96	0.00	0.84	Calculated
263	Link-369	0.00	0 00:00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Calculated
264	Link-37	0.02	0 02:36	14.39	0.00	0.53	0.63	1.50	1.00	1287.00	0.00	SURCHARGED
265	Link-370	0.12	0 11:57	3.38	0.04	2.96	0.12	0.11	0.13	0.00	1.18	Calculated
266	Link-372	0.12	0 11:53	0.35	0.35	1.96	0.23	0.23	0.68	0.00	0.20	Calculated
267	Link-373	0.00	0 00:00	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Calculated
268	Link-374	0.40	0 11:53	0.37	1.07	2.78	0.17	0.50	1.00	17.00	0.91	SURCHARGED
269	Link-375	0.26	0 12:21	0.26	1.01	1.88	0.31	0.33	0.66	0.00	0.17	> CAPACITY
270	Link-376	0.26	0 12:22	1.41	0.18	3.56	0.02	0.17	0.29	0.00	1.45	Calculated
271	Link-377	0.00	0 00:00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Calculated
272	Link-378	1.44	0 12:00	1.03	1.40	7.34	0.11	0.50	1.00	259.00	0.90	SURCHARGED
273	Link-379	1.01	0 11:45	1.06	0.96	5.23	0.32	0.50	1.00	60.00	0.87	SURCHARGED
274	Link-38	4.34	0 12:00	4.77	0.91	2.46	0.27	1.50	1.00	1285.00	0.00	SURCHARGED
275	Link-380	0.78	0 12:00	0.67	1.16	3.97	0.84	0.50	1.00	153.00	0.89	SURCHARGED
276	Link-381	1.80	0 12:13	3.79	0.48	9.19	0.03	0.50	1.00	25.00	0.36	SURCHARGED
277	Link-382	0.75	0 12:52	0.11	6.77	8.59	0.04	0.33	1.00	970.00	0.07	SURCHARGED
278	Link-383	1.44	0 12:00	4.63	0.31	1.83	0.05	1.00	1.00	162.00	0.38	SURCHARGED
279	Link-384	2.95	0 12:08	2.02	1.46	3.76	0.09	1.00	1.00	206.00	0.47	SURCHARGED
280	Link-385	2.10	0 12:13	1.99	1.05	2.68	0.94	1.00	1.00	199.00	0.38	SURCHARGED
281	Link-386	1.17	0 11:00	1.86	0.63	1.98	1.51	1.00	1.00	169.00	0.48	SURCHARGED
282	Link-387	1.77	0 12:07	3.47	0.51	9.02	0.03	0.50	1.00	27.00	0.37	SURCHARGED
283	Link-388	1.76	0 12:08	3.91	0.45	8.94	0.03	0.50	1.00	21.00	0.36	SURCHARGED
284	Link-389	0.51	0 11:39	0.66	0.78	5.87	0.11	0.33	1.00	95.00	0.54	SURCHARGED
285	Link-39	4.21	0 12:02	57.99	0.07	3.37	0.03	0.89	0.79	0.00	0.09	Calculated
286	Link-390	0.01	0 11:42	0.48	0.03	0.36	0.74	0.47	0.94	0.00	0.00	Calculated
287	Link-391	1.34	0 12:03	0.45	2.97	6.81	0.15	0.50	1.00	52.00	0.84	SURCHARGED
288	Link-392	0.38	0 11:42	0.46	0.83	2.01	0.33	0.50	1.00	55.00	0.45	SURCHARGED
289	Link-393	0.34	0 12:44	0.37	0.93	1.75	1.12	0.50	1.00	59.00	0.12	SURCHARGED
290	Link-394	0.70	0 12:03	0.37	1.88	3.55	1.53	0.50	1.00	1355.00	0.00	SURCHARGED
291	Link-395	0.41	0 12:17	0.29	1.42	4.74	0.39	0.33	1.00	57.00	0.73	SURCHARGED
292	Link-396	0.95	0 12:02	0.49	1.95	4.83	0.19	0.50	1.00	24.00	0.82	SURCHARGED
293	Link-397	6.09	0 12:00	15.60	0.39	3.45	0.28	1.50	1.00	42.00	0.06	SURCHARGED
294	Link-398	0.80	0 12:53	0.90	0.90	2.42	5.91	0.67	1.00	64.00	0.18	SURCHARGED
295	Link-399	3.08	0 12:01	20.60	0.15	2.62	0.83	0.94	0.63	0.00	0.04	Calculated
296	Link-40	14.70	0 11:50	21.30	0.69	3.16	0.41	2.50	1.00	34.00	0.60	SURCHARGED
297	Link-402	4.71	0 12:02	12.11	0.39	2.67	0.47	1.50	1.00	26.00	0.01	SURCHARGED
298	Link-403	3.70	0 11:52	11.51	0.32	2.73	0.27	1.10	0.73	0.00	0.04	Calculated
299	Link-405	0.55	0 12:00	0.21	2.58	6.33	0.08	0.33	1.00	87.00	0.31	SURCHARGED
300	Link-406	0.97	0 12:02	0.67	1.44	4.93	0.47	0.50	1.00	142.00	0.12	SURCHARGED
301	Link-407	0.30	0 12:01	0.39	0.77	1.54	0.34	0.50	1.00	142.00	0.34	SURCHARGED
302	Link-408	1.74	0 12:00	1.15	1.51	8.87	0.01	0.50	1.00	63.00	0.30	SURCHARGED
303	Link-409	1.47	0 12:00	0.77	1.91	7.50	0.01	0.50	1.00	21.00	0.22	SURCHARGED
304	Link-41	1.09	0 12:00	24.63	0.04	1.04	0.90	0.86	0.57	0.00	0.03	Calculated
305	Link-410	0.37	0 11:36	0.32	1.16	2.15	0.65	0.50	1.00	34.00	0.67	SURCHARGED
306	Link-411	1.06	0 12:00	3.43	0.31	3.03	0.16	0.67	1.00	23.00	0.30	SURCHARGED
307	Link-412	0.57	0 12:01	0.43	1.33	2.91	1.78	0.50	1.00	16.00	0.12	SURCHARGED
308	Link-413	0.34	0 12:00	0.41	0.83	1.74	0.45	0.50	1.00	99.00	0.10	SURCHARGED
309	Link-414	0.31	0 10:56	0.62	0.50	1.56	0.07	0.50	1.00	390.00	0.09	SURCHARGED
310	Link-415	0.31	0 11:01	0.34	0.93	1.61	1.31	0.50	1.00	209.00	0.19	SURCHARGED
311	Link-418	0.25	0 11:59	0.28	0.88	1.25	1.01	0.50	1.00	114.00	0.25	SURCHARGED
312	Link-419	1.27	0 11:59	0.28	4.52	6.45	0.16	0.50	1.00	73.00	0.33	SURCHARGED
313	Link-42	1.03	0 12:00	62.51	0.02	1.05	0.11	0.82	0.54	0.00	0.04	Calculated
314	Link-420	0.83	0 12:00	2.06	0.40	4.81	0.04	0.41	0.82	0.00	0.08	Calculated
315	Link-421	1.16	0 12:00	0.86	1.35	5.91	0.28	0.50	1.00	41.00	0.26	SURCHARGED
316	Link-422	1.11	0 11:56	0.17	6.35	12.72	0.01	0.33	1.00	251.00	0.15	SURCHARGED
317	Link-423	1.92	0 12:00	0.23	8.34	9.79	0.03	0.50	1.00	208.00	0.13	SURCHARGED
318	Link-424	1.47	0 12:00	1.08	1.35	7.47	0.02	0.50	1.00	12.00	0.13	SURCHARGED
319	Link-425	0.53	0 11:43	0.56	0.96	2.76	0.77	0.50	1.00	34.00	0.39	SURCHARGED
320	Link-426	1.89	0 12:03	1.74	1.09	9.65	0.03	0.50	1.00	24.00	0.37	SURCHARGED

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
321	Link-427	3.65	0 12:03	6.41	0.57	2.06	1.72	1.50	1.00	1317.00	0.00	SURCHARGED
322	Link-428	3.65	0 12:00	8.46	0.43	2.06	1.84	1.50	1.00	55.00	0.00	SURCHARGED
323	Link-429	3.65	0 12:03	8.90	0.41	2.64	1.28	1.10	0.73	0.00	0.03	Calculated
324	Link-43	16.42	0 12:02	17.29	0.95	3.35	1.01	2.50	1.00	35.00	0.52	SURCHARGED
325	Link-431	1.82	0 12:00	0.75	2.43	9.29	0.03	0.50	1.00	30.00	0.76	SURCHARGED
326	Link-432	2.24	0 11:59	2.07	1.08	11.39	0.02	0.50	1.00	16.00	1.31	SURCHARGED
327	Link-433	0.84	0 12:00	2.35	0.36	5.53	0.07	0.36	0.73	0.00	0.43	Calculated
328	Link-434	0.54	0 11:40	0.58	0.93	2.76	0.58	0.50	1.00	61.00	0.97	SURCHARGED
329	Link-435	0.55	0 11:39	0.59	0.94	3.04	0.26	0.50	1.00	40.00	1.04	SURCHARGED
330	Link-436	0.20	0 12:00	0.32	0.62	2.53	0.24	0.28	0.85	0.00	0.28	Calculated
331	Link-437	0.60	0 11:43	0.58	1.03	3.11	1.86	0.50	1.00	40.00	0.67	SURCHARGED
332	Link-438	1.70	0 13:44	1.89	0.90	2.16	0.23	1.00	1.00	218.00	0.36	SURCHARGED
333	Link-439	0.00	0 00:00	0.66	0.00	0.00		0.33	0.50	0.00	0.00	Calculated
334	Link-44	18.28	0 12:02	15.58	1.17	3.72	0.56	2.50	1.00	30.00	0.51	SURCHARGED
335	Link-440	0.51	0 12:01	0.63	0.82	1.47	0.32	0.67	1.00	74.00	0.47	SURCHARGED
336	Link-441	0.88	0 12:00	0.66	1.33	2.52	2.34	0.67	1.00	123.00	0.18	SURCHARGED
337	Link-442	0.94	0 11:52	1.13	0.83	10.91	0.04	0.33	1.00	15.00	0.77	SURCHARGED
338	Link-443	1.11	0 12:05	1.39	0.80	12.72	0.02	0.33	1.00	60.00	1.84	SURCHARGED
339	Link-444	1.31	0 12:00	38.07	0.03	0.51	1.44	2.36	0.79	0.00	0.00	Calculated
340	Link-445	2.72	0 12:37	4.75	0.57	1.56	0.46	1.86	0.93	0.00	0.24	Calculated
341	Link-446	1.36	0 12:34	1.01	1.34	1.79	0.41	1.03	0.82	0.00	0.35	> CAPACITY
342	Link-447	1.33	0 12:30	2.74	0.48	1.93	0.26	0.84	0.67	0.00	0.56	Calculated
343	Link-448	1.31	0 12:11	1.20	1.09	3.55	0.16	0.58	0.70	0.00	0.77	> CAPACITY
344	Link-449	1.25	0 12:00	4.82	0.26	0.72	0.63	1.50	1.00	15.00	0.01	SURCHARGED
345	Link-45	18.38	0 12:02	16.58	1.11	3.75	0.84	2.50	1.00	25.00	0.46	SURCHARGED
346	Link-450	1.23	0 12:36	14.71	0.08	1.33	1.25	0.97	0.32	0.00	0.03	Calculated
347	Link-451	1.23	0 12:00	2.23	0.55	1.55	0.32	0.83	0.55	0.00	0.21	Calculated
348	Link-452	0.36	0 12:15	3.99	0.09	0.43	1.16	0.73	0.49	0.00	0.06	Calculated
349	Link-453	1.10	0 12:22	13.21	0.08	0.49	4.46	1.36	0.45	0.00	0.02	Calculated
350	Link-454	1.18	0 12:11	18.46	0.06	0.38	2.63	1.70	0.57	0.00	0.01	Calculated
351	Link-455	1.29	0 12:09	3.75	0.34	1.56	0.77	0.74	0.49	0.00	0.07	Calculated
352	Link-456	1.84	0 12:05	1.73	1.06	1.26	0.53	1.16	0.39	0.00	0.03	> CAPACITY
353	Link-457	1.82	0 12:05	11.76	0.16	3.69	0.10	0.43	0.21	0.00	0.59	Calculated
354	Link-458	1.48	0 12:07	8.38	0.18	1.04	3.03	0.93	0.47	0.00	0.04	Calculated
355	Link-459	1.34	0 12:02	8.72	0.15	0.50	1.33	1.67	0.84	0.00	0.01	Calculated
356	Link-46	14.59	0 12:16	17.82	0.82	3.00	1.19	2.47	0.99	0.00	0.50	Calculated
357	Link-460	4.39	0 12:07	5.73	0.77	5.05	0.07	0.74	0.49	0.00	0.68	Calculated
358	Link-461	4.50	0 12:04	5.05	0.89	3.33	0.21	1.09	0.73	0.00	0.39	Calculated
359	Link-462	2.28	0 12:09	2.94	0.77	1.29	0.40	1.50	1.00	27.00	0.02	SURCHARGED
360	Link-463	0.03	0 12:02	2.88	0.01	0.10	5.00	0.44	0.36	0.00	0.00	Calculated
361	Link-464	1.63	0 12:07	1.51	1.07	4.20	0.12	0.56	0.68	0.00	0.68	> CAPACITY
362	Link-465	0.00	0 00:00	4.97	0.00	0.00		0.00	0.00	0.00	0.00	Calculated
363	Link-466	0.00	0 00:00	0.74	0.00	0.00		0.00	0.00	0.00	0.00	Calculated
364	Link-467	2.02	0 11:50	1.27	1.59	4.23	0.13	0.61	0.61	0.00	0.88	> CAPACITY
365	Link-468	1.89	0 12:16	2.27	0.83	2.41	0.28	1.00	1.00	29.00	0.05	SURCHARGED
366	Link-469	0.35	0 12:21	2.46	0.14	1.58	0.14	0.40	0.60	0.00	0.26	Calculated
367	Link-47	17.44	0 11:55	55.77	0.31	4.89	0.04	1.77	0.71	0.00	0.57	Calculated
368	Link-470	2.06	0 12:04	1.75	1.18	4.53	0.10	0.56	0.56	0.00	0.91	> CAPACITY
369	Link-471	0.36	0 11:51	0.86	0.42	1.60	0.20	0.41	0.61	0.00	0.07	Calculated
370	Link-472	2.06	0 12:52	2.68	0.77	1.92	0.43	0.92	0.62	0.00	0.26	Calculated
371	Link-473	3.56	0 12:14	3.45	1.03	4.25	0.21	0.84	0.68	0.00	0.79	> CAPACITY
372	Link-474	3.66	0 11:57	7.36	0.50	2.07	0.58	1.50	1.00	49.00	0.03	SURCHARGED
373	Link-475	0.98	0 12:04	8.42	0.12	1.30	0.59	0.74	0.59	0.00	0.06	Calculated
374	Link-476	1.84	0 12:12	1.70	1.08	2.51	0.56	0.92	0.92	0.00	0.55	> CAPACITY
375	Link-477	1.96	0 12:30	5.11	0.38	2.68	0.22	0.72	0.57	0.00	0.31	Calculated
376	Link-478	1.98	0 12:30	3.03	0.65	3.93	0.17	0.54	0.44	0.00	0.90	Calculated
377	Link-479	0.10	0 12:22	2.99	0.03	0.13	7.59	1.02	0.81	0.00	0.00	Calculated
378	Link-480	1.80	0 12:19	0.52	3.45	3.26	0.18	0.66	0.66	0.00	0.55	> CAPACITY
379	Link-481	1.92	0 12:04	3.07	0.62	4.03	0.12	0.52	0.41	0.00	0.81	Calculated
380	Link-482	2.33	0 12:24	2.60	0.90	2.40	0.45	1.05	0.85	0.00	0.33	Calculated
381	Link-483	3.11	0 12:10	1.51	2.06	3.56	0.26	0.84	0.67	0.00	0.46	> CAPACITY
382	Link-484	3.27	0 12:01	10.78	0.30	1.67	0.43	1.34	0.67	0.00	0.07	Calculated
383	Link-485	6.82	0 12:10	10.91	0.62	6.02	0.12	0.78	0.39	0.00	1.07	Calculated
384	Link-486	3.96	0 12:11	5.16	0.77	4.93	0.22	0.69	0.46	0.00	0.71	Calculated
385	Link-487	9.61	0 12:10	30.40	0.32	8.74	0.09	0.76	0.38	0.00	2.66	Calculated
386	Link-49	21.68	0 12:04	26.38	0.82	4.51	0.87	2.37	0.95	0.00	0.88	Calculated
387	Link-50	25.23	0 11:50	16.31	1.55	5.15	0.06	2.50	1.00	4.00	0.53	SURCHARGED
388	Link-51	24.88	0 11:51	27.81	0.89	4.17	1.35	2.46	0.82	0.00	0.60	Calculated
389	Link-52	26.42	0 12:00	29.55	0.89	4.51	2.29	2.32	0.77	0.00	0.66	Calculated
390	Link-544	0.17	0 12:00	0.21	0.81	1.92	1.18	0.33	1.00	145.00	0.01	SURCHARGED
391	Link-545	0.00	0 00:00	0.38	0.00	0.00		0.00	0.00	0.00	0.00	Calculated
392	Link-552	0.67	0 12:00	13.56	0.05	3.30	0.58	0.29	0.14	0.00	0.57	Calculated
393	Link-56	1.91	0 12:08	1.93	0.99	2.43	0.11	1.00	1.00	52.00	0.70	SURCHARGED
394	Link-560	0.35	0 15:01	0.34	1.02	1.81	0.83	0.50	1.00	163.00	0.49	SURCHARGED
395	Link-561	2.35	0 12:00	0.35	6.64	11.96	0.02	0.50	1.00	59.00	0.12	SURCHARGED
396	Link-564	0.23	0 10:30	0.33	0.69	1.29	0.25	0.50	1.00	397.00	0.26	SURCHARGED
397	Link-565	2.11	0 12:00	0.73	2.89	10.75	0.02	0.50	1.00	31.00	0.72	SURCHARGED
398	Link-566	0.67	0 12:00	0.55	1.22	3.41	0.72	0.50	1.00	7.00	0.32	SURCHARGED
399	Link-567	0.31	0 12:44	0.32	0.96	1.60	1.90	0.50	1.00	58.00	0.18	SURCHARGED
400	Link-602	21.36	0 12:01	20.34	1.05	4.35	0.43	2.50	1.00	17.00	0.65	SURCHARGED

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
401	Link-603	3.19	0 12:35	2.52	1.27	5.85	1.00	0.83	1.00	66.00	0.42	SURCHARGED
402	Link-605	0.22	0 11:36	0.16	1.43	1.47	1.23	0.50	1.00	21.00	0.39	SURCHARGED
403	Link-606	0.71	0 12:00	0.24	2.93	3.63	0.02	0.50	1.00	35.00	0.02	SURCHARGED
404	Link-62	0.99	0 11:47	2.64	0.38	3.31	0.19	0.67	1.00	50.00	1.73	SURCHARGED
405	Link-624	0.00	0 00:00	0.12	0.00	0.00		0.17	0.50	0.00	0.00	Calculated
406	Link-626	13.66	0 11:50	20.12	0.68	3.19	0.95	2.50	1.00	27.00	0.62	SURCHARGED
407	Link-627	2.16	0 12:00	0.82	2.63	6.19	0.55	0.67	1.00	76.00	0.09	SURCHARGED
408	Link-628	9.13	0 12:05	18.03	0.51	2.71	0.84	2.50	1.00	1.00	0.59	SURCHARGED
409	Link-629	10.70	0 12:01	18.03	0.59	2.46	1.16	2.50	1.00	9.00	0.55	SURCHARGED
410	Link-630	2.70	0 12:01	19.72	0.14	2.31	0.40	0.89	0.67	0.00	0.06	Calculated
411	Link-631	1.61	0 12:01	46.69	0.03	1.57	0.11	0.83	0.61	0.00	0.05	Calculated
412	Link-637	1.77	0 11:47	4.60	0.38	2.25	1.74	1.00	1.00	104.00	0.13	SURCHARGED
413	Link-638	0.48	0 12:09	0.49	0.98	5.49	0.09	0.33	1.00	36.00	0.31	SURCHARGED
414	Link-647	16.39	0 12:38	25.25	0.65	3.34	1.10	2.50	1.00	48.00	0.46	SURCHARGED
415	Link-648	2.14	0 11:59	2.30	0.93	10.90	0.04	0.50	1.00	11.00	0.28	SURCHARGED
416	Link-652	0.29	0 11:43	0.21	1.41	3.37	0.50	0.33	1.00	1030.00	0.22	SURCHARGED
417	Link-653	0.39	0 12:01	0.89	0.44	4.49	0.03	0.33	1.00	107.00	0.22	SURCHARGED
418	Link-655	19.11	0 11:59	27.43	0.70	4.66	1.12	2.04	0.82	0.00	0.85	Calculated
419	Link-656	1.84	0 12:06	2.81	0.65	9.42	0.02	0.50	1.00	6.00	0.22	SURCHARGED
420	Link-658	3.80	0 12:00	2.00	1.90	4.84	1.11	1.00	1.00	206.00	0.44	SURCHARGED
421	Link-659	1.38	0 12:00	2.39	0.58	7.04	0.04	0.50	1.00	10.00	0.13	SURCHARGED
422	Link-67	1.62	0 12:02	3.47	0.47	1.59	1.53	0.82	0.57	0.00	0.24	Calculated
423	Link-68	2.43	0 12:00	3.09	0.79	12.40	0.02	0.50	1.00	12.00	0.28	SURCHARGED
424	Link-69	2.53	0 11:59	3.33	0.76	12.89	0.02	0.50	1.00	10.00	0.30	SURCHARGED
425	Link-79	0.37	0 11:57	7.72	0.05	2.93	0.19	0.43	0.30	0.00	1.25	Calculated
426	Link-94	1.58	0 11:55	2.08	0.76	6.15	0.19	0.67	1.00	8.00	2.39	SURCHARGED

Inlet Results

Element ID	Peak Flow	Peak Lateral Inflow	Peak Flow Intercepted	Peak Flow Bypassing Inlet	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Max Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	1.29	1.29	N/A	N/A	N/A	0.00	1354.03	0.16	0 11:50	0.03	9.00
2	1.38	1.38	0.97	0.41	70.50	7.21	1354.17	0.23	0 11:50	0.00	2.00
3	3.02	3.02	N/A	N/A	N/A	19.80	1354.91	0.64	0 11:56	0.05	7.00
4	1.12	1.12	0.84	0.28	75.10	6.50	1354.25	0.21	0 12:00	0.00	0.00
5	2.31	2.31	0.20	2.11	8.63	9.14	1354.87	0.27	0 12:00	0.00	0.00
6	7.30	3.31	N/A	N/A	N/A	176.40	1351.94	1.75	0 11:38	4.36	133.00
7	4.78	3.55	N/A	N/A	N/A	68.63	1350.82	0.83	0 11:46	1.28	58.00
8	4.13	2.01	N/A	N/A	N/A	47.84	1352.22	0.54	0 11:51	0.31	22.00
9	6.11	6.11	N/A	N/A	N/A	119.60	1353.23	2.59	0 11:40	1.82	72.00
10	3.52	3.52	N/A	N/A	N/A	31.37	1353.27	0.87	0 11:53	0.20	14.00
11	2.44	2.44	N/A	N/A	N/A	58.30	1356.31	1.35	0 11:37	0.60	69.00
12	0.00	0.00	N/A	N/A	N/A	0.00	1354.96	0.00	0 11:39	0.00	6.00
13	0.00	0.00	N/A	N/A	N/A	0.00	1354.96	0.00	0 12:01	0.00	0.00
14	0.00	0.00	N/A	N/A	N/A	0.00	1352.85	0.00	0 12:05	0.05	8.00
15	2.04	2.04	N/A	N/A	N/A	2.21	1353.30	0.29	0 11:52	0.12	15.00
16	3.74	3.74	N/A	N/A	N/A	37.10	1352.84	0.98	0 11:52	0.26	16.00
17	1.38	1.38	N/A	N/A	N/A	0.00	1355.66	0.17	0 12:00	0.00	0.00
18	2.56	2.56	N/A	N/A	N/A	10.66	1352.95	0.46	0 11:39	0.69	84.00
19	1.05	1.05	N/A	N/A	N/A	0.00	1352.92	0.14	0 11:33	1.03	139.00
20	0.92	0.92	N/A	N/A	N/A	0.00	1351.97	0.13	0 11:57	0.01	5.00
21	1.89	1.89	N/A	N/A	N/A	0.23	1354.70	0.25	0 11:59	0.00	0.00
22	2.42	2.42	N/A	N/A	N/A	8.24	1353.66	0.41	0 12:00	0.00	0.00
23	2.54	2.54	N/A	N/A	N/A	10.36	1352.44	0.46	0 11:59	0.00	0.00
24	0.54	0.54	N/A	N/A	N/A	0.00	1353.13	0.09	0 12:00	0.00	0.00
25	1.14	1.14	N/A	N/A	N/A	0.00	1353.57	0.15	0 12:00	0.00	0.00
26	0.70	0.70	N/A	N/A	N/A	4.60	1353.68	0.27	0 11:59	0.00	0.00
27	3.93	3.93	N/A	N/A	N/A	22.53	1353.90	0.70	0 11:57	0.03	5.00
28	4.99	4.99	N/A	N/A	N/A	75.78	1353.92	1.74	0 11:54	0.24	13.00
29	4.05	4.05	N/A	N/A	N/A	45.54	1354.48	1.15	0 11:51	0.36	19.00
30	0.00	0.00	N/A	N/A	N/A	0.00	1352.43	0.00	0 12:10	0.00	0.00
31	3.98	3.98	N/A	N/A	N/A	43.67	1354.81	1.11	0 11:50	0.19	14.00
32	0.97	0.97	N/A	N/A	N/A	0.00	1353.81	0.13	0 11:50	0.00	2.00
33	2.54	2.54	N/A	N/A	N/A	10.31	1352.76	0.46	0 11:50	0.40	20.00
34	2.03	2.03	N/A	N/A	N/A	2.15	1353.41	0.29	0 11:51	0.14	16.00
35	0.91	0.91	0.60	0.31	66.05	5.79	1353.32	0.20	0 11:59	0.00	0.00
36	4.38	4.10	N/A	N/A	N/A	55.42	1353.46	0.77	0 11:39	1.22	66.00
37	1.99	1.99	N/A	N/A	N/A	1.56	1352.38	0.28	0 11:57	0.01	4.00
38	4.32	4.32	N/A	N/A	N/A	53.55	1353.19	1.31	0 11:54	0.22	14.00
39	0.80	0.80	N/A	N/A	N/A	0.00	1352.20	0.12	0 12:00	0.00	0.00
40	2.03	2.03	N/A	N/A	N/A	2.06	1351.63	0.29	0 11:47	0.27	25.00
41	2.23	2.23	N/A	N/A	N/A	5.10	1352.19	0.35	0 12:00	0.00	0.00
42	0.00	0.00	N/A	N/A	N/A	0.00	1351.76	0.00	0 11:49	0.05	29.00
43	3.40	3.40	N/A	N/A	N/A	28.37	1352.02	0.81	0 11:51	0.26	19.00
44	2.25	2.25	N/A	N/A	N/A	35.87	1352.34	0.92	0 11:55	0.04	8.00
45	2.22	2.22	N/A	N/A	N/A	4.90	1351.18	0.35	0 11:55	0.11	11.00
46	1.69	1.69	N/A	N/A	N/A	0.00	1350.28	0.20	0 12:04	0.00	0.00
47	1.74	1.74	N/A	N/A	N/A	190.00	1354.79	3.72	0 11:58	0.00	1.00
48	1.62	1.62	N/A	N/A	N/A	0.00	1351.64	0.19	0 11:51	0.10	15.00
49	2.06	2.06	N/A	N/A	N/A	2.56	1351.56	0.30	0 12:00	0.00	0.00
50	5.16	5.16	N/A	N/A	N/A	81.94	1353.33	1.86	0 11:49	0.62	26.00
51	2.49	2.49	N/A	N/A	N/A	9.54	1351.92	0.44	0 11:55	0.07	10.00
52	0.58	0.00	0.40	0.18	69.10	4.46	1350.99	0.17	0 12:08	0.00	0.00
53	5.47	5.47	N/A	N/A	N/A	93.45	1351.62	1.16	0 11:50	0.58	26.00
54	4.44	4.44	N/A	N/A	N/A	57.26	1351.41	1.38	0 11:58	0.05	4.00
55	2.32	2.32	N/A	N/A	N/A	6.60	1351.25	0.38	0 12:00	0.00	0.00
56	2.89	2.89	1.59	1.29	55.17	10.06	1351.14	0.29	0 12:00	0.00	0.00
57	3.34	2.05	N/A	N/A	N/A	9.74	1351.02	0.33	0 12:02	0.00	0.00
58	0.00	0.00	0.00	0.00	0.00	0.00	1351.04	0.00	0 12:02	0.00	0.00
59	0.00	0.00	N/A	N/A	N/A	0.00	1350.40	0.00	0 11:53	0.00	0.00
60	3.32	3.32	N/A	N/A	N/A	26.48	1351.67	0.77	0 11:45	0.38	27.00
61	1.32	1.32	N/A	N/A	N/A	7.95	1350.73	0.41	0 11:52	0.16	18.00
62	1.47	1.47	0.75	0.72	50.84	0.00	1351.42	0.16	0 12:01	0.00	0.00
63	4.87	1.72	1.60	3.27	32.87	0.57	1351.55	0.26	0 12:02	0.00	0.00
64	2.27	1.55	0.99	1.28	43.59	0.00	1350.81	0.20	0 12:01	0.00	0.00
65	47.34	2.14	6.64	40.70	14.02	18.12	1351.37	0.61	0 12:01	0.00	0.00
66	3.48	2.41	N/A	N/A	N/A	14.86	1351.02	0.52	0 12:01	0.00	0.00
67	41.51	3.20	6.11	35.40	14.72	16.64	1351.28	0.58	0 12:01	0.00	0.00
68	2.68	2.68	1.10	1.58	41.01	0.00	1350.80	0.21	0 12:00	0.00	0.00
69	4.11	4.11	1.44	2.67	35.04	0.07	1350.88	0.24	0 12:00	0.00	0.00
70	2.33	2.33	N/A	N/A	N/A	6.78	1351.25	0.38	0 11:43	0.01	7.00
71	1.57	1.57	N/A	N/A	N/A	8.21	1350.42	0.41	0 12:02	0.02	0.00
72	171.29	1.43	15.32	155.95	8.94	38.92	1351.44	1.03	0 12:02	0.00	0.00
73	4.36	1.70	N/A	N/A	N/A	1000.80	1351.25	0.87	0 12:02	0.00	0.00
74	4.33	4.33	N/A	N/A	N/A	17.40	1350.93	0.60	0 11:59	0.00	0.00
75	4.05	2.50	N/A	N/A	N/A	16.61	1350.35	0.51	0 02:38	5.97	1281.00
76	3.48	2.08	N/A	N/A	N/A	14.87	1350.46	0.49	0 12:02	0.00	0.00
77	2.43	2.43	1.03	1.40	42.47	0.00	1350.55	0.20	0 12:00	0.00	0.00
78	2.65	2.65	1.09	1.56	41.13	0.00	1350.71	0.21	0 12:00	0.00	0.00
79	3.06	3.06	N/A	N/A	N/A	20.67	1352.46	0.66	0 11:44	0.21	20.00
80	0.00	0.00	N/A	N/A	N/A	0.00	1351.91	0.00	0 11:42	0.00	0.00

Inlet Results

Element ID	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Max Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
81	4.84	4.84	N/A	N/A	N/A	70.60	1353.30	1.64	0 11:39	0.60	29.00
82	4.27	4.27	N/A	N/A	N/A	52.12	1353.35	1.28	0 11:38	1.21	66.00
83	1.70	1.70	N/A	N/A	N/A	0.00	1351.26	0.20	0 11:49	0.17	23.00
84	3.99	3.99	N/A	N/A	N/A	44.02	1351.32	1.12	0 11:51	0.29	19.00
85	1.41	1.41	N/A	N/A	N/A	0.00	1350.37	0.17	0 12:00	0.00	0.00
86	2.20	2.20	N/A	N/A	N/A	4.69	1350.79	0.29	0 12:02	0.00	1.00
87	0.83	0.83	N/A	N/A	N/A	0.00	1350.75	0.12	0 12:00	0.00	0.00
88	4.64	4.64	N/A	N/A	N/A	63.74	1352.51	1.51	0 11:44	0.62	30.00
89	3.57	3.57	N/A	N/A	N/A	32.53	1351.94	0.89	0 11:50	0.17	16.00
90	1.22	1.22	N/A	N/A	N/A	0.00	1351.60	0.16	0 12:00	0.00	0.00
91	1.58	1.58	N/A	N/A	N/A	0.00	1351.79	0.19	0 11:56	0.03	7.00
92	0.99	0.99	N/A	N/A	N/A	0.00	1351.94	0.14	0 11:50	0.01	6.00
93	2.36	2.36	N/A	N/A	N/A	7.20	1352.40	0.39	0 11:40	0.44	43.00
94	2.82	2.82	N/A	N/A	N/A	15.75	1351.40	0.56	0 11:39	0.67	34.00
95	2.38	2.38	N/A	N/A	N/A	7.58	1351.47	0.40	0 11:39	0.04	14.00
96	1.37	1.37	0.71	0.65	52.24	0.00	1351.20	0.16	0 12:00	0.00	0.00
97	2.91	2.91	N/A	N/A	N/A	17.41	1351.08	0.60	0 11:39	0.15	17.00
98	0.65	0.00	0.56	0.09	85.90	4.76	1350.31	0.18	0 12:00	0.00	0.00
99	2.87	2.78	N/A	N/A	N/A	16.77	1350.13	0.36	0 11:59	0.00	3.00
100	3.66	2.75	N/A	N/A	N/A	34.84	1350.35	0.56	0 11:56	0.09	11.00
101	1.87	1.87	0.94	0.93	50.13	8.32	1350.30	0.25	0 12:14	0.00	0.00
102	0.00	0.00	N/A	N/A	N/A	0.00	1349.62	0.00	0 00:00	0.00	0.00
103	0.00	0.00	N/A	N/A	N/A	0.00	1350.26	0.00	0 11:57	0.00	0.00
104	1.40	1.40	N/A	N/A	N/A	0.00	1350.41	0.17	0 12:00	0.00	0.00
105	2.32	2.32	N/A	N/A	N/A	6.58	1350.48	0.38	0 12:00	0.00	1.00
106	3.62	2.34	N/A	N/A	N/A	33.87	1349.68	0.56	0 11:44	0.56	32.00
107	2.04	2.04	N/A	N/A	N/A	2.25	1350.17	0.29	0 11:49	0.17	19.00
108	3.52	3.52	N/A	N/A	N/A	31.47	1350.80	0.87	0 11:53	0.14	12.00
109	4.72	4.72	N/A	N/A	N/A	66.56	1353.27	1.56	0 11:19	1.72	170.00
110	2.84	2.84	N/A	N/A	N/A	16.09	1352.08	0.57	0 11:39	0.49	39.00
111	1.34	1.34	N/A	N/A	N/A	0.00	1351.89	0.17	0 11:48	1.25	62.00
112	1.24	1.24	N/A	N/A	N/A	0.00	1351.76	0.16	0 11:58	0.05	9.00
113	3.08	3.08	N/A	N/A	N/A	21.03	1351.40	0.67	0 11:43	0.75	50.00
114	1.30	0.84	0.93	0.37	71.75	6.99	1350.97	0.22	0 11:48	0.13	24.00
115	3.24	3.24	N/A	N/A	N/A	24.63	1350.77	0.74	0 11:42	0.67	48.00
116	2.86	2.86	N/A	N/A	N/A	16.52	1350.59	0.58	0 11:57	0.04	5.00
117	19.33	19.33	N/A	N/A	N/A	886.56	1367.80	17.53	0 10:23	19.02	567.00
118	1.40	1.40	N/A	N/A	N/A	0.00	1350.36	0.17	0 12:00	0.00	0.00
119	1.33	1.33	N/A	N/A	N/A	0.00	1350.31	0.17	0 11:40	0.03	13.00
120	8.94	8.94	N/A	N/A	N/A	269.78	1355.27	5.45	0 11:15	3.77	182.00
121	3.31	3.31	N/A	N/A	N/A	26.33	1349.14	0.77	0 11:56	0.04	6.00
122	3.11	3.11	N/A	N/A	N/A	21.81	1348.35	0.68	0 11:57	0.03	6.00
123	2.99	2.99	N/A	N/A	N/A	19.19	1352.19	0.63	0 11:39	0.28	24.00
124	5.93	5.93	N/A	N/A	N/A	112.18	1353.76	2.45	0 11:36	2.34	120.00
125	2.77	2.77	N/A	N/A	N/A	14.58	1351.67	0.54	0 11:38	0.84	68.00
126	3.34	3.34	N/A	N/A	N/A	27.03	1351.89	0.79	0 11:39	0.59	41.00
127	2.70	2.70	N/A	N/A	N/A	13.23	1350.97	0.51	0 11:43	0.47	40.00
128	4.43	4.43	N/A	N/A	N/A	56.88	1352.53	1.37	0 11:45	0.72	37.00
129	1.44	1.44	N/A	N/A	N/A	0.00	1351.24	0.18	0 12:04	0.00	0.00
130	2.01	2.01	N/A	N/A	N/A	1.85	1350.63	0.29	0 12:00	0.00	0.00
131	1.27	1.27	N/A	N/A	N/A	0.00	1350.52	0.16	0 12:00	0.00	0.00
132	4.50	4.50	N/A	N/A	N/A	59.25	1351.26	1.42	0 11:54	0.18	13.00
133	2.39	2.39	1.09	1.30	45.60	9.27	1350.14	0.27	0 11:51	0.03	10.00
134	2.66	1.37	N/A	N/A	N/A	12.62	1350.17	0.32	0 11:51	0.23	19.00
135	0.00	0.00	N/A	N/A	N/A	0.00	1349.91	0.00	0 00:00	0.00	0.00
136	1.85	0.00	N/A	N/A	N/A	0.00	1350.09	0.24	0 11:54	0.00	0.00
137	0.00	0.00	0.00	0.00	0.00	0.00	1351.20	0.00	0 00:00	0.00	0.00
138	7.14	7.14	N/A	N/A	N/A	167.97	1350.88	3.53	0 11:49	0.89	27.00
139	1.63	1.63	N/A	N/A	N/A	0.00	1348.71	0.20	0 11:55	0.05	9.00
140	1.86	1.86	1.19	0.67	64.08	8.29	1347.85	0.25	0 12:00	0.00	0.00
141	0.99	0.99	N/A	N/A	N/A	0.00	1346.79	0.14	0 11:56	0.02	6.00
142	0.62	0.62	N/A	N/A	N/A	0.00	1346.72	0.10	0 12:00	0.00	0.00
143	0.68	0.68	N/A	N/A	N/A	0.00	1346.74	0.11	0 12:00	0.00	0.00
144	4.54	3.87	1.61	2.93	35.43	12.16	1346.31	0.33	0 11:37	0.58	66.00
145	0.76	0.76	N/A	N/A	N/A	5.55	1346.30	0.30	0 12:00	0.00	0.00
146	3.89	1.31	N/A	N/A	N/A	41.15	1345.99	0.57	0 11:39	0.59	31.00
147	2.87	2.87	N/A	N/A	N/A	16.70	1346.17	0.58	0 11:49	0.30	23.00
148	2.77	2.77	N/A	N/A	N/A	14.75	1347.18	0.54	0 11:57	0.01	4.00
149	1.71	1.71	N/A	N/A	N/A	0.00	1346.83	0.21	0 11:49	0.16	21.00
150	1.37	1.37	N/A	N/A	N/A	0.00	1347.51	0.17	0 12:00	0.00	1.00
151	1.50	1.50	N/A	N/A	N/A	0.00	1347.32	0.18	0 11:59	0.00	0.00
152	1.85	1.85	N/A	N/A	N/A	0.00	1347.51	0.24	0 11:56	0.01	1.00
153	2.43	2.43	N/A	N/A	N/A	8.35	1347.70	0.42	0 11:56	0.00	2.00
154	2.93	2.93	N/A	N/A	N/A	17.81	1348.31	0.60	0 11:59	0.00	0.00
155	1.20	1.20	N/A	N/A	N/A	0.00	1347.42	0.15	0 11:49	0.11	15.00
156	0.65	0.65	N/A	N/A	N/A	0.00	1347.47	0.10	0 11:42	0.03	12.00
157	0.78	0.78	N/A	N/A	N/A	0.00	1347.96	0.11	0 11:43	0.02	6.00
158	1.63	1.63	N/A	N/A	N/A	0.00	1347.90	0.20	0 11:50	0.01	4.00
159	2.65	2.65	N/A	N/A	N/A	12.37	1347.80	0.50	0 11:50	0.31	18.00
160	2.15	2.15	N/A	N/A	N/A	3.88	1348.11	0.33	0 11:50	0.01	3.00

Inlet Results

Element ID	Peak Flow	Peak Lateral Inflow	Peak Flow Intercepted by Inlet	Peak Flow Bypassing Inlet	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Max Depth Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-in)	(min)
161	3.70	3.70	N/A	N/A	N/A	35.97	1348.28	0.96	0 11:52	0.22	15.00
162	3.78	3.78	N/A	N/A	N/A	38.20	1349.10	1.01	0 11:48	0.23	16.00
163	6.26	6.26	N/A	N/A	N/A	126.55	1350.51	2.73	0 11:50	0.42	19.00
164	5.26	5.26	N/A	N/A	N/A	85.49	1348.85	1.93	0 11:52	0.35	17.00
165	2.27	2.27	N/A	N/A	N/A	5.80	1348.31	0.37	0 11:50	0.34	23.00
166	2.20	2.20	N/A	N/A	N/A	4.69	1349.80	0.34	0 11:45	0.27	26.00
167	2.02	2.02	1.26	0.76	62.46	8.62	1349.87	0.26	0 11:56	0.01	6.00
168	2.89	2.13	N/A	N/A	N/A	17.05	1349.57	0.37	0 11:49	0.32	21.00
169	2.44	2.44	N/A	N/A	N/A	159.20	1353.08	3.28	0 11:51	0.45	23.00
170	1.77	1.51	0.77	1.01	43.25	8.11	1349.63	0.25	0 11:51	0.06	18.00
171	2.43	1.55	N/A	N/A	N/A	8.44	1349.56	0.37	0 11:48	0.27	22.00
172	10.23	7.73	N/A	N/A	N/A	346.52	1350.08	1.13	0 11:27	3.17	161.00
173	3.88	3.88	N/A	N/A	N/A	40.96	1349.53	1.06	0 11:39	1.00	74.00
174	0.00	0.00	N/A	N/A	N/A	0.00	1347.79	0.00	0 01:58	0.36	190.00
175	5.45	5.45	N/A	N/A	N/A	92.63	1348.50	2.07	0 11:54	0.34	15.00
176	3.97	3.97	1.95	2.02	49.22	11.51	1346.40	0.31	0 12:00	0.00	0.00
177	5.72	5.72	N/A	N/A	N/A	103.40	1348.84	2.28	0 11:51	0.35	16.00
178	3.43	3.43	N/A	N/A	N/A	29.18	1347.41	0.83	0 11:57	0.03	5.00
179	3.03	3.03	N/A	N/A	N/A	19.97	1346.50	0.65	0 11:57	0.02	5.00
180	3.34	3.34	N/A	N/A	N/A	27.05	1347.03	0.79	0 11:59	0.00	1.00
181	3.02	3.02	N/A	N/A	N/A	19.77	1347.52	0.64	0 11:56	0.06	7.00
182	5.70	5.70	N/A	N/A	N/A	102.46	1349.51	2.26	0 11:51	0.41	18.00
183	1.12	1.12	N/A	N/A	N/A	0.00	1346.27	0.15	0 12:03	0.00	0.00
184	3.71	3.71	N/A	N/A	N/A	36.23	1346.97	0.97	0 11:45	0.69	38.00
185	3.58	3.58	N/A	N/A	N/A	32.81	1346.88	0.90	0 11:50	0.14	9.00
186	1.34	1.34	N/A	N/A	N/A	0.00	1345.77	0.17	0 12:00	0.00	0.00
187	1.87	1.87	N/A	N/A	N/A	0.00	1346.34	0.25	0 11:53	0.09	13.00
188	0.99	0.99	N/A	N/A	N/A	0.00	1347.67	0.13	0 12:00	0.00	0.00
189	1.70	1.70	1.12	0.58	66.00	7.95	1347.55	0.24	0 12:00	0.00	0.00
190	4.17	2.99	N/A	N/A	N/A	49.25	1348.12	0.74	0 11:50	0.38	26.00
191	3.40	3.40	N/A	N/A	N/A	28.45	1345.03	0.81	0 11:59	0.00	0.00
192	5.56	5.56	N/A	N/A	N/A	96.93	1344.97	2.15	0 10:00	1.26	64.00
193	2.82	2.82	N/A	N/A	N/A	15.60	1345.01	0.56	0 11:54	0.13	15.00

Appendix C

Proposed System Detailed Information

Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft ²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1'DitchStart	Junction	1351.10	1352.00	1351.10	1352.00	0.00	0.00	1351.10	0.00	1.20	0 00:00	0.00	0.00
C&GStart	Junction	1351.00	1351.50	1351.00	1351.50	0.00	1.68	1351.69	0.00	0.00	0 12:01	1.47	724.00
C1	Junction	1352.89	1354.14	1352.89	1354.14	0.00	0.03	1353.18	0.00	0.96	0 00:00	0.00	0.00
C1-	Junction	1352.67	1353.92	1352.67	1353.92	0.00	3.42	1353.17	0.00	2.95	0 00:00	0.00	0.00
C10	Junction	1350.33	1351.58	1350.33	1351.58	0.00	2.25	1351.22	0.00	3.50	0 00:00	0.00	0.00
C10-	Junction	1350.13	1351.38	1350.13	1351.38	0.00	2.16	1350.82	0.00	3.70	0 00:00	0.00	0.00
C11	Junction	1349.97	1351.22	1349.97	1351.22	0.00	2.16	1350.81	0.00	3.55	0 00:00	0.00	0.00
C11-	Junction	1349.93	1351.18	1349.93	1351.18	0.00	2.16	1350.39	0.00	3.93	0 00:00	0.00	0.00
C12	Junction	1349.09	1351.09	1349.09	1351.09	0.00	5.09	1350.37	0.00	3.11	0 00:00	0.00	0.00
C12-	Junction	1349.02	1351.02	1349.02	1351.02	0.00	11.37	1350.12	0.00	2.35	0 00:00	0.00	0.00
C13	Junction	1348.52	1350.02	1348.52	1350.02	0.00	14.53	1349.94	0.00	2.03	0 00:00	0.00	0.00
C13-	Junction	1348.27	1349.77	1348.27	1349.77	0.00	13.67	1349.13	0.00	2.14	0 00:00	0.00	0.00
C14	Junction	1349.05	1352.05	1349.05	1352.05	0.00	2.98	1351.16	0.00	2.39	0 00:00	0.00	0.00
C14-	Junction	1348.52	1351.52	1348.52	1351.52	0.00	1.34	1351.16	0.00	0.36	0 00:00	0.00	0.00
C15	Junction	1350.26	1353.26	1350.26	1353.26	0.00	1.39	1351.16	0.00	3.60	0 00:00	0.00	0.00
C15-	Junction	1350.08	1353.08	1350.08	1353.08	0.00	4.19	1351.16	0.00	3.42	0 00:00	0.00	0.00
C16	Junction	1349.88	1352.88	1349.88	1352.88	0.00	1.44	1351.16	0.00	3.22	0 00:00	0.00	0.00
C16-	Junction	1349.69	1352.69	1349.69	1352.69	0.00	1.81	1351.16	0.00	3.03	0 00:00	0.00	0.00
C17	Junction	1349.53	1352.53	1349.53	1352.53	0.00	2.25	1351.16	0.00	2.87	0 00:00	0.00	0.00
C17-	Junction	1349.36	1352.36	1349.36	1352.36	0.00	1.72	1351.16	0.00	2.70	0 00:00	0.00	0.00
C18	Junction	1349.98	1352.98	1349.98	1352.98	0.00	2.40	1351.16	0.00	3.32	0 00:00	0.00	0.00
C18-	Junction	1349.98	1352.98	1349.98	1352.98	0.00	3.31	1351.16	0.00	3.32	0 00:00	0.00	0.00
C19	Junction	1351.42	1353.42	1351.42	1353.42	0.00	2.28	1352.03	0.00	3.89	0 00:00	0.00	0.00
C19-	Junction	1351.19	1353.19	1351.19	1353.19	0.00	2.27	1351.52	0.00	4.17	0 00:00	0.00	0.00
C2	Junction	1351.18	1352.68	1351.18	1352.68	0.00	3.28	1353.17	0.00	1.46	0 00:00	0.00	0.00
C2-	Junction	1351.27	1352.77	1351.27	1352.77	0.00	2.08	1353.11	0.00	1.61	0 00:00	0.00	0.00
C20	Junction	1351.16	1353.16	1351.16	1353.16	0.00	1.99	1352.79	0.00	2.87	0 00:00	0.00	0.00
C20-	Junction	1352.12	1354.12	1352.12	1354.12	0.00	2.29	1352.48	0.00	4.14	0 00:00	0.00	0.00
C21	Junction	1350.91	1352.91	1350.91	1352.91	0.00	2.63	1352.80	0.00	2.61	0 00:00	0.00	0.00
C21-	Junction	1351.13	1353.13	1351.13	1353.13	0.00	2.42	1352.79	0.00	2.84	0 00:00	0.00	0.00
C22	Junction	1353.05	1355.05	1353.05	1355.05	0.00	3.49	1353.41	0.00	4.14	0 00:00	0.00	0.00
C22-	Junction	1352.50	1354.50	1352.50	1354.50	0.00	3.70	1352.97	0.00	2.41	0 00:00	0.00	0.00
C23	Junction	1351.83	1353.08	1351.83	1353.08	0.00	10.27	1352.97	0.00	1.74	0 00:00	0.00	0.00
C23-	Junction	1351.95	1353.45	1351.95	1353.45	0.00	2.19	1352.79	0.00	1.16	0 00:00	0.00	0.00
C24	Junction	1351.58	1352.83	1351.58	1352.83	0.00	6.70	1352.78	0.00	0.80	0 00:00	0.00	0.00
C24-	Junction	1351.02	1352.27	1351.02	1352.27	0.00	3.70	1351.59	0.00	1.43	0 00:00	0.00	0.00
C25	Junction	1349.68	1351.18	1349.68	1351.18	0.00	4.42	1351.45	0.00	0.23	0 00:00	0.00	0.00
C25-	Junction	1349.21	1350.71	1349.21	1350.71	0.00	5.56	1351.44	0.00	0.10	0 00:00	0.00	0.00
C26	Junction	1349.77	1351.02	1349.77	1351.02	0.00	4.15	1351.44	0.00	0.66	0 00:00	0.00	0.00
C26-	Junction	1350.81	1352.06	1350.81	1352.06	0.00	1.52	1351.08	0.00	0.98	0 00:00	0.00	0.00
C27	Junction	1347.92	1348.92	1347.92	1348.92	0.00	2.88	1348.70	0.00	0.72	0 00:00	0.00	0.00
C27-	Junction	1347.21	1348.21	1347.21	1348.21	0.00	2.59	1348.19	0.00	0.52	0 00:00	0.00	0.00
C28	Junction	1346.93	1348.18	1346.93	1348.18	0.00	2.95	1348.18	0.00	0.00	0 12:18	0.07	17.00
C28-	Junction	1347.23	1348.48	1347.23	1348.48	0.00	2.35	1347.53	0.00	0.95	0 00:00	0.00	0.00
C29	Junction	1346.60	1347.85	1346.60	1347.85	0.00	2.39	1347.35	0.00	0.50	0 00:00	0.00	0.00
C29-	Junction	1346.48	1347.73	1346.48	1347.73	0.00	2.38	1346.82	0.00	0.91	0 00:00	0.00	0.00
C3	Junction	1351.94	1353.44	1351.94	1353.44	0.00	4.58	1353.11	0.00	2.28	0 00:00	0.00	0.00
C3-	Junction	1351.59	1353.09	1351.59	1353.09	0.00	4.29	1352.56	0.00	2.48	0 00:00	0.00	0.00
C30	Junction	1345.92	1346.92	1345.92	1346.92	0.00	2.44	1346.74	0.00	1.18	0 00:00	0.00	0.00
C30-	Junction	1345.93	1346.93	1345.93	1346.93	0.00	2.43	1346.34	0.00	1.59	0 00:00	0.00	0.00
C31	Junction	1345.03	1346.28	1345.03	1346.28	0.00	2.52	1345.79	0.00	1.24	0 00:00	0.00	0.00
C31-	Junction	1344.94	1346.19	1344.94	1346.19	0.00	2.52	1345.36	0.00	1.58	0 00:00	0.00	0.00
C32	Junction	1342.97	1344.22	1342.97	1344.22	0.00	3.44	1344.25	0.00	0.72	0 00:00	0.00	0.00
C32-	Junction	1343.11	1344.36	1343.11	1344.36	0.00	2.92	1344.10	0.00	1.01	0 00:00	0.00	0.00
C33	Junction	1343.05	1345.05	1343.05	1345.05	0.00	5.05	1344.08	0.00	0.97	0 00:00	0.00	0.00
C33-	Junction	1342.84	1344.84	1342.84	1344.84	0.00	4.75	1343.34	0.00	1.50	0 00:00	0.00	0.00
C34	Junction	1340.82	1342.82	1340.82	1342.82	0.00	11.96	1342.22	0.00	0.60	0 00:00	0.00	0.00
C34-	Junction	1339.69	1341.69	1339.69	1341.69	0.00	16.05	1339.93	0.00	1.76	0 00:00	0.00	0.00
C35	Junction	1342.88	1344.88	1342.88	1344.88	0.00	8.18	1344.07	0.00	1.14	0 00:00	0.00	0.00
C35-	Junction	1342.75	1344.75	1342.75	1344.75	0.00	8.16	1343.27	0.00	1.48	0 00:00	0.00	0.00
C36	Junction	1342.72	1344.72	1342.72	1344.72	0.00	13.36	1344.11	0.00	0.94	0 00:00	0.00	0.00
C36-	Junction	1342.59	1344.59	1342.59	1344.59	0.00	6.29	1344.10	0.00	0.49	0 00:00	0.00	0.00
C37	Junction	1344.45	1347.45	1344.45	1347.45	0.00	6.85	1345.73	0.00	1.72	0 00:00	0.00	0.00
C37-	Junction	1344.49	1345.74	1344.49	1345.74	0.00	6.32	1345.05	0.00	1.94	0 00:00	0.00	0.00
C38	Junction	1344.80	1345.80	1344.80	1345.80	0.00	1.85	1345.80	0.00	0.00	0 12:01	0.00	3.00
C38-	Junction	1344.75	1345.75	1344.75	1345.75	0.00	1.84	1345.73	0.00	0.22	0 00:00	0.00	0.00
C39	Junction	1345.40	1346.40	1345.40	1346.40	0.00	0.84	1345.80	0.00	0.60	0 00:00	0.00	0.00
C39-	Junction	1345.25	1346.25	1345.25	1346.25	0.00	0.84	1345.48	0.00	0.97	0 00:00	0.00	0.00
C4	Junction	1351.59	1353.09	1351.59	1353.09	0.00	4.20	1352.52	0.00	2.52	0 00:00	0.00	0.00
C4-	Junction	1351.37	1352.87	1351.37	1352.87	0.00	4.18	1351.88	0.00	2.94	0 00:00	0.00	0.00
C40	Junction	1346.10	1347.35	1346.10	1347.35	0.00	0.55	1346.74	0.00	0.61	0 00:00	0.00	0.00
C40-	Junction	1345.63	1348.63	1345.63	1348.63	0.00	0.15	1346.74	0.00	1.89	0 00:00	0.00	0.00
C41	Junction	1351.09	1352.09	1351.09	1352.09	0.00	1.31	1351.33	0.00	0.96	0 00:00	0.00	0.00
C41-	Junction	1350.40	1351.40	1350.40	1351.40	0.00	1.56	1350.79	0.00	0.81	0 00:00	0.00	0.00
C42	Junction	1350.35	1351.60	1350.35	1351.60	0.00	0.70	1350.70	0.00	0.90	0 00:00	0.00	0.00
C42-	Junction	1349.75	1351.00	1349.75	1351.00	0.00	2.11	1349.99	0.00	1.01	0 00:00	0.00	0.00
C43	Junction	1349.50	1350.17	1349.50	1350.17	0.00	2.66	1350.27	0.00	0.23	0 00:00	0.00	0.00
C43-	Junction	1349.15	1349.82	1349.15	1349.82	0.00	2.65	1349.51	0.00	0.84	0 00:00	0.00	0.00
C44	Junction	1345.00	1346.97	1345.00	1346.97	0.00	2.26	1345.69	0.00	1.28	0 00:00	0.00	0.00
C44-	Junction	1343.50	1345.37	1343.50	1345.37	0.00	3.57	1345.37	0.00	0.00	0 12:00	0.24	9.00

Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft ²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
C46	Junction	1345.36	1345.86	1345.36	1345.86	0.00	3.98	1346.14	0.00	0.42	0 00:00	0.00	0.00
C46-	Junction	1344.84	1345.34	1344.84	1345.34	0.00	3.37	1345.23	0.00	0.81	0 00:00	0.00	0.00
C46-47-48	Junction	1340.96	1342.50	1340.96	1342.50	0.00	31.16	1343.92	0.00	0.04	0 00:00	0.00	0.00
C47	Junction	1343.38	1344.38	1343.38	1344.38	0.00	5.26	1344.46	0.00	0.42	0 00:00	0.00	0.00
C47-	Junction	1343.15	1344.15	1343.15	1344.15	0.00	4.67	1343.50	0.00	1.15	0 00:00	0.00	0.00
C48	Junction	1337.76	1338.76	1337.76	1338.76	0.00	9.03	1338.96	0.00	0.00	0 12:00	0.96	18.00
C48-	Junction	1336.47	1337.47	1336.47	1337.47	0.00	3.74	1337.47	0.00	0.00	0 11:58	7.37	1368.00
C49	Junction	1347.82	1348.82	1347.82	1348.82	0.00	0.00	1347.82	0.00	1.00	0 00:00	0.00	0.00
C5	Junction	1351.49	1352.99	1351.49	1352.99	0.00	1.18	1351.85	0.00	3.09	0 00:00	0.00	0.00
C5-	Junction	1351.15	1352.65	1351.15	1352.65	0.00	2.18	1352.17	0.00	2.43	0 00:00	0.00	0.00
C51	Junction	1350.31	1353.31	1350.31	1353.31	0.00	4.64	1351.27	0.00	2.04	0 00:00	0.00	0.00
C51-	Junction	1350.20	1353.20	1350.20	1353.20	0.00	4.63	1350.78	0.00	2.42	0 00:00	0.00	0.00
C52	Junction	1349.85	1350.35	1349.85	1350.35	0.00	1.61	1350.13	0.00	0.97	0 00:00	0.00	0.00
C53	Junction	1347.89	1348.89	1347.89	1348.89	0.00	1.55	1348.49	0.00	0.60	0 00:00	0.00	0.00
C53-	Junction	1347.64	1348.64	1347.64	1348.64	0.00	2.64	1347.85	0.00	0.99	0 00:00	0.00	0.00
C54	Junction	1350.98	1351.98	1350.98	1351.98	0.00	14.21	1352.48	0.00	0.00	0 11:39	0.05	1.00
C54-	Junction	1350.73	1351.73	1350.73	1351.73	0.00	6.61	1352.13	0.00	0.10	0 00:00	0.00	0.00
C55	Junction	1350.81	1351.31	1350.81	1351.31	0.00	0.60	1350.98	0.00	1.03	0 00:00	0.00	0.00
C55-	Junction	1350.75	1351.25	1350.75	1351.25	0.00	0.07	1350.96	0.00	0.99	0 00:00	0.00	0.00
C57	Junction	1351.58	1354.58	1351.58	1354.58	0.00	5.91	1352.68	0.00	1.90	0 00:00	0.00	0.00
C57-	Junction	1351.43	1354.43	1351.43	1354.43	0.00	5.90	1351.79	0.00	2.64	0 00:00	0.00	0.00
C58	Junction	1350.29	1353.29	1350.29	1353.29	0.00	5.90	1351.30	0.00	1.99	0 00:00	0.00	0.00
C58-	Junction	1349.69	1352.69	1349.69	1352.69	0.00	5.86	1350.71	0.00	1.98	0 00:00	0.00	0.00
C6	Junction	1351.40	1352.90	1351.40	1352.90	0.00	3.03	1352.18	0.00	2.67	0 00:00	0.00	0.00
C6-	Junction	1351.56	1353.06	1351.56	1353.06	0.00	0.45	1352.17	0.00	2.84	0 00:00	0.00	0.00
C61	Junction	1351.30	1351.80	1351.30	1351.80	0.00	1.64	1351.99	0.00	0.31	0 00:00	0.00	0.00
C62-	Junction	1350.83	1351.33	1350.83	1351.33	0.00	1.64	1351.49	0.00	0.54	0 00:00	0.00	0.00
C63	Junction	1350.39	1350.89	1350.39	1350.89	0.00	1.39	1351.49	0.00	0.10	0 00:00	0.00	0.00
C63-	Junction	1350.66	1351.16	1350.66	1351.16	0.00	1.18	1350.97	0.00	0.89	0 00:00	0.00	0.00
C64	Junction	1350.47	1351.14	1350.47	1351.14	0.00	1.17	1350.94	0.00	0.73	0 00:00	0.00	0.00
C64-	Junction	1350.27	1350.94	1350.27	1350.94	0.00	1.17	1350.48	0.00	0.99	0 00:00	0.00	0.00
C66	Junction	1352.80	1353.80	1352.80	1353.80	0.00	0.00	1352.80	0.00	1.00	0 00:00	0.00	0.00
C66-	Junction	1352.27	1353.27	1352.27	1353.27	0.00	0.00	1352.27	0.00	1.00	0 00:00	0.00	0.00
C67	Junction	1353.12	1353.95	1353.12	1353.95	0.00	2.98	1353.81	0.00	0.51	0 00:00	0.00	0.00
C67-	Junction	1352.59	1353.42	1352.59	1353.42	0.00	1.82	1352.95	0.00	1.64	0 00:00	0.00	0.00
C68	Junction	1354.35	1355.35	1354.35	1355.35	0.00	0.00	1354.35	0.00	1.00	0 00:00	0.00	0.00
C68-	Junction	1354.31	1355.31	1354.31	1355.31	0.00	0.00	1354.31	0.00	1.00	0 00:00	0.00	0.00
C69	Junction	1353.23	1356.23	1353.23	1356.23	0.00	4.07	1354.63	0.00	1.60	0 00:00	0.00	0.00
C69-	Junction	1354.02	1354.35	1354.02	1354.35	0.00	1.13	1354.29	0.00	0.93	0 00:00	0.00	0.00
C7	Junction	1351.41	1352.91	1351.41	1352.91	0.00	1.86	1352.17	0.00	2.69	0 00:00	0.00	0.00
C7-	Junction	1351.36	1352.86	1351.36	1352.86	0.00	1.26	1352.11	0.00	2.70	0 00:00	0.00	0.00
C70	Junction	1353.47	1354.30	1353.47	1354.30	0.00	1.13	1353.88	0.00	0.79	0 00:00	0.00	0.00
C70-	Junction	1353.16	1353.99	1353.16	1353.99	0.00	1.11	1353.37	0.00	0.99	0 00:00	0.00	0.00
C71	Junction	1353.35	1353.68	1353.35	1353.68	0.00	3.36	1353.89	0.00	0.66	0 00:00	0.00	0.00
C74	Junction	1348.00	1352.93	1348.00	1352.93	0.00	5.58	1352.93	0.00	0.00	0 11:56	0.00	0.00
C75	Junction	1350.01	1350.84	1350.01	1350.84	0.00	0.81	1350.92	0.00	0.09	0 00:00	0.00	0.00
C75-	Junction	1350.37	1351.20	1350.37	1351.20	0.00	0.81	1350.58	0.00	0.99	0 00:00	0.00	0.00
C76	Junction	1350.78	1353.78	1350.78	1353.78	0.00	5.81	1353.78	0.00	0.00	0 00:00	0.00	0.00
C77	Junction	1350.60	1351.60	1350.60	1351.60	0.00	0.00	1350.60	0.00	1.00	0 00:00	0.00	0.00
C78	Junction	1350.53	1351.53	1350.53	1351.53	0.00	0.00	1350.53	0.00	1.00	0 00:00	0.00	0.00
C78-79	Junction	1347.00	1351.00	1347.00	1351.00	0.00	6.64	1348.14	0.00	2.86	0 00:00	0.00	0.00
C79	Junction	1350.50	1351.50	1350.50	1351.50	0.00	39.24	1351.28	0.00	0.42	0 00:00	0.00	0.00
C8	Junction	1350.68	1352.18	1350.68	1352.18	0.00	1.20	1352.11	0.00	2.02	0 00:00	0.00	0.00
C8-	Junction	1350.47	1351.97	1350.47	1351.97	0.00	1.50	1352.10	0.00	2.76	0 00:00	0.00	0.00
C81	Junction	1351.00	1355.00	1351.00	1355.00	0.00	2.56	1352.22	0.00	2.78	0 00:00	0.00	0.00
C81-	Junction	1351.15	1355.15	1351.15	1355.15	0.00	2.53	1352.14	0.00	3.01	0 00:00	0.00	0.00
C82	Junction	1350.30	1351.55	1350.30	1351.55	0.00	3.96	1351.20	0.00	0.35	0 00:00	0.00	0.00
C82-	Junction	1349.98	1351.23	1349.98	1351.23	0.00	3.95	1350.91	0.00	0.59	0 00:00	0.00	0.00
C83	Junction	1350.03	1351.53	1350.03	1351.53	0.00	3.91	1350.90	0.00	0.63	0 00:00	0.00	0.00
C83-	Junction	1349.37	1350.87	1349.37	1350.87	0.00	3.89	1349.66	0.00	1.21	0 00:00	0.00	0.00
C84	Junction	1347.53	1348.36	1347.53	1348.36	0.00	0.81	1347.77	0.00	0.76	0 00:00	0.00	0.00
C85	Junction	1349.90	1350.90	1349.90	1350.90	0.00	2.08	1350.64	0.00	0.46	0 00:00	0.00	0.00
C86	Junction	1340.31	1343.31	1340.31	1343.31	0.00	13.05	1342.35	0.00	0.96	0 00:00	0.00	0.00
C86-	Junction	1339.99	1342.99	1339.99	1342.99	0.00	13.02	1340.13	0.00	2.86	0 00:00	0.00	0.00
C9	Junction	1351.36	1352.19	1351.36	1352.19	0.00	3.45	1352.10	0.00	3.65	0 00:00	0.00	0.00
C9-	Junction	1350.98	1351.81	1350.98	1351.81	0.00	2.25	1351.40	0.00	3.97	0 00:00	0.00	0.00
DeadEnd	Junction	1350.77	1351.10	1350.77	1351.10	0.00	0.00	1350.77	0.00	1.00	0 00:00	0.00	0.00
Inlet49Outlet	Junction	1348.08	1349.58	1348.08	1349.58	0.00	2.09	1348.72	0.00	1.36	0 00:00	0.00	0.00
J10	Junction	1346.80	1352.40	1346.80	1352.40	0.00	14.68	1349.92	0.00	2.48	0 00:00	0.00	0.00
J100	Junction	1346.79	1347.29	1346.79	1347.29	0.00	2.93	1347.79	0.00	0.00	0 12:01	0.34	17.00
J102	Junction	1346.46	1346.96	1346.46	1346.96	0.00	2.92	1347.46	0.00	0.00	0 12:00	0.37	15.00
J103	Junction	1346.28	1346.78	1346.28	1346.78	0.00	2.48	1347.51	0.00	0.02	0 00:00	0.00	0.00
J104	Junction	1346.25	1346.75	1346.25	1346.75	0.00	5.50	1347.50	0.00	0.00	0 12:00	0.07	5.00
J105	Junction	1345.00	1345.50	1345.00	1345.50	0.00	8.39	1346.83	0.00	0.17	0 00:00	0.00	0.00
J106-107	Junction	1344.80	1345.30	1344.80	1345.30	0.00	11.20	1346.71	0.00	0.09	0 00:00	0.00	0.00
J108	Junction	1344.51	1345.01	1344.51	1345.01	0.00	14.77	1346.46	0.00	0.05	0 00:00	0.00	0.00
J111	Junction	1347.03	1347.36	1347.03	1347.36	0.00	12.57	1348.53	0.00	0.00	0 12:00	0.26	9.00
J112	Junction	1346.00	1346.33	1346.00	1346.33	0.00	11.17	1347.50	0.00	0.00	0 12:00	0.34	13.00
J113	Junction	1345.28	1345.61	1345.28	1345.61	0.00	11.93	1346.73	0.00	0.55	0 00:00	0.00	0.00
J114	Junction	1344.48	1344.81	1344.48	1344.81	0.00	30.87	1346.48	0.00	0.00	0 12:00	13.22	48.00

Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft ²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
J115	Junction	1343.74	1350.00	1343.74	1350.00	0.00	17.63	1347.35	0.00	2.65	0 00:00	0.00	0.00
J116	Junction	1343.60	1350.01	1343.60	1350.01	0.00	21.14	1347.99	0.00	2.02	0 00:00	0.00	0.00
J117	Junction	1344.49	1350.30	1344.49	1350.30	0.00	19.19	1348.54	0.00	1.76	0 00:00	0.00	0.00
J121-122	Junction	1342.00	1348.50	1342.00	1348.50	0.00	19.50	1347.63	0.00	0.87	0 00:00	0.00	0.00
J123-126	Junction	1347.51	1348.68	1347.51	1348.68	0.00	13.34	1349.01	0.00	0.00	0 12:00	1.25	16.00
J127	Junction	1349.25	1349.92	1349.25	1349.92	0.00	2.66	1349.68	0.00	0.57	0 00:00	0.00	0.00
J128	Junction	1346.55	1347.22	1346.55	1347.22	0.00	6.33	1348.05	0.00	0.00	0 12:01	0.03	2.00
J130	Junction	1346.24	1346.74	1346.24	1346.74	0.00	6.75	1347.24	0.00	0.00	0 12:00	1.29	21.00
J131	Junction	1345.92	1346.42	1345.92	1346.42	0.00	8.50	1347.76	0.00	0.16	0 00:00	0.00	0.00
J132	Junction	1345.84	1346.34	1345.84	1346.34	0.00	9.61	1347.61	0.00	0.23	0 00:00	0.00	0.00
J133-134	Junction	1347.40	1347.90	1347.40	1347.90	0.00	3.22	1348.02	0.00	0.38	0 00:00	0.00	0.00
J135	Junction	1345.43	1345.93	1345.43	1345.93	0.00	12.41	1347.41	0.00	0.02	0 00:00	0.00	0.00
J136	Junction	1345.17	1345.67	1345.17	1345.67	0.00	15.77	1347.13	0.00	0.54	0 00:00	0.00	0.00
J139	Junction	1340.26	1348.30	1340.26	1348.30	0.00	24.14	1346.67	0.00	1.63	0 00:00	0.00	0.00
J14	Junction	1347.60	1353.00	1347.60	1353.00	0.00	4.22	1351.90	0.00	1.10	0 00:00	0.00	0.00
J141	Junction	1340.63	1346.50	1340.63	1346.50	0.00	19.05	1346.50	0.00	0.00	0 12:06	0.00	1.00
J142	Junction	1340.86	1346.50	1340.86	1346.50	0.00	19.35	1346.20	0.00	0.30	0 00:00	0.00	0.00
J143	Junction	1341.13	1346.50	1341.13	1346.50	0.00	19.70	1345.80	0.00	0.70	0 00:00	0.00	0.00
J144-146-14	Junction	1341.74	1345.00	1341.74	1342.74	0.00	27.01	1345.00	0.00	0.00	0 12:00	6.37	29.00
J148	Junction	1343.15	1346.02	1343.15	1346.02	0.00	19.68	1345.99	0.00	0.03	0 00:00	0.00	0.00
J149	Junction	1343.20	1346.50	1343.20	1346.50	0.00	16.67	1346.19	0.00	0.31	0 00:00	0.00	0.00
J15	Junction	1347.50	1353.00	1347.50	1353.00	0.00	5.73	1351.68	0.00	1.32	0 00:00	0.00	0.00
J150	Junction	1343.60	1347.00	1343.60	1344.66	0.00	15.15	1346.43	0.00	0.57	0 00:00	0.00	0.00
J153	Junction	1344.50	1347.70	1344.50	1347.70	0.00	9.57	1347.17	0.00	0.53	0 00:00	0.00	0.00
J16	Junction	1345.70	1351.80	1345.70	1351.80	0.00	23.00	1348.54	0.00	3.26	0 00:00	0.00	0.00
J162	Junction	1345.95	1347.50	1345.95	1347.50	0.00	3.77	1347.50	0.00	0.00	0 11:59	0.00	1.00
J167	Junction	1342.50	1346.87	1342.50	1346.87	0.00	3.94	1346.87	0.00	0.00	0 11:53	0.06	7.00
J168	Junction	1342.00	1346.49	1342.00	1346.49	0.00	4.90	1346.49	0.00	0.00	0 12:02	0.32	13.00
J169	Junction	1341.20	1345.97	1341.20	1345.97	0.00	9.07	1345.97	0.00	0.00	0 11:53	0.01	3.00
J17	Junction	1345.50	1347.50	1345.50	1347.50	0.00	30.95	1347.50	0.00	0.00	0 12:00	9.58	51.00
J170-171	Junction	1341.40	1347.83	1341.40	1347.83	0.00	3.16	1347.04	0.00	0.79	0 00:00	0.00	0.00
J172	Junction	1340.50	1345.71	1340.50	1345.71	0.00	17.59	1345.71	0.00	0.00	0 12:02	1.30	19.00
J173	Junction	1340.30	1345.60	1340.30	1345.60	0.00	18.26	1345.60	0.00	0.00	0 12:06	3.49	26.00
J175-176	Junction	1338.50	1348.50	1338.50	1348.50	0.00	31.16	1347.05	0.00	1.45	0 00:00	0.00	0.00
J177-178	Junction	1338.28	1349.50	1338.28	1349.50	0.00	29.51	1347.30	0.00	2.20	0 00:00	0.00	0.00
J179-180	Junction	1335.95	1346.24	1335.95	1346.24	0.00	21.14	1343.18	0.00	3.06	0 00:00	0.00	0.00
J181	Junction	1336.83	1343.00	1336.83	1343.00	0.00	18.92	1343.00	0.00	0.00	0 12:00	0.09	5.00
J18-19-20	Junction	1347.10	1351.40	1347.10	1351.40	0.00	10.83	1351.36	0.00	0.04	0 00:00	0.00	0.00
J182	Junction	1337.99	1347.25	1337.99	1347.25	0.00	17.96	1344.92	0.00	2.33	0 00:00	0.00	0.00
J183	Junction	1339.25	1343.00	1339.25	1343.00	0.00	30.36	1343.00	0.00	0.00	0 12:00	14.36	84.00
J185-186	Junction	1339.37	1345.60	1339.37	1345.60	0.00	26.86	1344.17	0.00	1.43	0 00:00	0.00	0.00
J187	Junction	1339.85	1346.00	1339.85	1346.00	0.00	19.56	1345.22	0.00	0.78	0 00:00	0.00	0.00
J188	Junction	1340.71	1348.62	1340.71	1348.62	0.00	17.96	1348.11	0.00	0.51	0 00:00	0.00	0.00
J189-190	Junction	1340.83	1347.31	1340.83	1347.31	0.00	17.92	1346.94	0.00	0.37	0 00:00	0.00	0.00
J192-193	Junction	1340.11	1344.22	1340.11	1344.22	0.00	5.20	1342.85	0.00	1.37	0 00:00	0.00	0.00
J194	Junction	1343.00	1349.00	1343.00	1349.00	0.00	29.48	1345.73	0.00	3.27	0 00:00	0.00	0.00
J21	Junction	1347.65	1348.65	1347.65	1348.65	0.00	4.30	1349.65	0.00	0.00	0 11:58	0.11	3.00
J22	Junction	1347.00	1353.00	1347.00	1353.00	0.00	4.96	1351.14	0.00	1.86	0 00:00	0.00	0.00
J23-24	Junction	1346.51	1351.90	1346.51	1351.90	0.00	15.55	1349.85	0.00	2.05	0 00:00	0.00	0.00
J27	Junction	1344.43	1353.50	1344.43	1353.50	0.00	16.72	1347.59	0.00	5.91	0 00:00	0.00	0.00
J28	Junction	1344.33	1352.20	1344.33	1352.20	0.00	21.24	1347.45	0.00	4.75	0 00:00	0.00	0.00
J29-30	Junction	1344.05	1346.05	1344.05	1346.05	0.00	28.77	1346.86	0.00	0.19	0 00:00	0.00	0.00
J3	Junction	1350.25	1353.90	1350.25	1353.90	0.00	5.34	1352.58	0.00	1.32	0 00:00	0.00	0.00
J37-38	Junction	1347.46	1348.46	1347.46	1348.46	0.00	14.15	1349.46	0.00	0.00	0 12:00	1.43	14.00
J39	Junction	1347.38	1348.38	1347.38	1348.38	0.00	10.58	1349.37	0.00	0.51	0 00:00	0.00	0.00
J3rd-Main-P	Junction	1341.42	1347.50	1341.42	1347.50	0.00	18.89	1347.50	0.00	0.00	0 11:48	0.00	0.00
J4	Junction	1349.65	1353.90	1349.65	1353.90	0.00	5.98	1352.38	0.00	1.52	0 00:00	0.00	0.00
J40	Junction	1347.00	1353.00	1347.00	1353.00	0.00	10.68	1349.14	0.00	3.86	0 00:00	0.00	0.00
J41	Junction	1343.58	1351.84	1343.58	1351.84	0.00	32.07	1346.17	0.00	5.67	0 00:00	0.00	0.00
J43	Junction	1348.95	1350.45	1348.95	1350.45	0.00	3.59	1349.76	0.00	0.69	0 00:00	0.00	0.00
J45	Junction	1341.40	1343.36	1341.40	1343.36	0.00	34.04	1344.40	0.00	0.00	0 12:01	0.79	8.00
J4th-Broad	Junction	1338.40	1348.30	1338.40	1348.30	0.00	29.75	1347.68	0.00	0.62	0 00:00	0.00	0.00
J4th-Main-P	Junction	1343.73	1344.23	1343.73	1344.23	0.00	15.29	1345.73	0.00	0.00	0 12:01	3.50	27.00
J5	Junction	1349.34	1354.60	1349.34	1354.60	0.00	6.16	1352.34	0.00	2.26	0 00:00	0.00	0.00
J50	Junction	1347.95	1349.45	1347.95	1349.45	0.00	5.63	1349.95	0.00	0.00	0 12:00	0.00	0.00
J51	Junction	1347.84	1349.34	1347.84	1349.34	0.00	7.55	1349.84	0.00	0.00	0 12:00	0.02	2.00
J52	Junction	1348.03	1348.53	1348.03	1348.53	0.00	6.67	1349.03	0.00	0.00	0 12:02	1.73	28.00
J52-53	Junction	1347.14	1348.64	1347.14	1348.64	0.00	6.75	1349.07	0.00	0.07	0 00:00	0.00	0.00
J55-56	Junction	1345.94	1347.44	1345.94	1347.44	0.00	22.57	1348.44	0.00	0.00	0 12:00	1.89	31.00
J59	Junction	1345.86	1346.86	1345.86	1346.86	0.00	14.35	1347.86	0.00	0.00	0 12:00	7.61	51.00
J5th-Cherry	Junction	1345.88	1346.38	1345.88	1346.38	0.00	7.01	1347.66	0.00	0.22	0 00:00	0.00	0.00
J64-65	Junction	1344.88	1350.95	1344.88	1350.95	0.00	15.94	1347.94	0.00	3.01	0 00:00	0.00	0.00
J6-7	Junction	1348.00	1350.50	1348.00	1350.50	0.00	7.68	1350.50	0.00	0.00	0 11:56	0.00	0.00
J6th-Broad	Junction	1340.28	1347.60	1340.28	1347.60	0.00	30.82	1346.66	0.00	0.94	0 00:00	0.00	0.00
J6th-Main	Junction	1345.39	1346.89	1345.39	1346.89	0.00	19.85	1347.89	0.00	0.00	0 12:00	2.76	33.00
J6th-Oak	Junction	1341.54	1346.00	1341.54	1346.00	0.00	23.33	1345.82	0.00	0.18	0 00:00	0.00	0.00
J70	Junction	1343.89	1346.39	1343.89	1346.39	0.00	32.99	1346.39	0.00	0.00	0 11:58	11.56	66.00
J79	Junction	1348.46	1348.96	1348.46	1348.96	0.00	5.72	1349.46	0.00	0.00	0 12:00	1.48	31.00
J7th-Broad	Junction	1341.88	1348.50	1341.88	1348.50	0.00	23.61	1347.97	0.00	0.53	0 00:00	0.00	0.00
J7th-Main	Junction	1346.78	1348.28	1346.78	1348.28	0.00	13.89	1348.78	0.00	0.00	0 12:00	3.68	30.00

Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft ²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
J80	Junction	1348.30	1348.80	1348.30	1348.80	0.00	5.02	1349.80	0.00	0.00	0 12:00	0.07	6.00
J83	Junction	1348.34	1352.00	1348.34	1352.00	0.00	6.97	1350.30	0.00	1.70	0 00:00	0.00	0.00
J84	Junction	1348.25	1348.75	1348.25	1348.75	0.00	6.70	1350.21	0.00	0.04	0 00:00	0.00	0.00
J85	Junction	1348.09	1348.59	1348.09	1348.59	0.00	7.42	1350.09	0.00	0.00	0 12:00	0.59	8.00
J86	Junction	1347.40	1350.50	1347.40	1350.50	0.00	20.07	1350.05	0.00	0.45	0 00:00	0.00	0.00
J87-88	Junction	1347.40	1350.60	1347.40	1350.60	0.00	16.45	1350.58	0.00	0.02	0 00:00	0.00	0.00
J8-9	Junction	1347.60	1351.60	1347.60	1351.60	0.00	13.52	1350.48	0.00	1.12	0 00:00	0.00	0.00
J89-90	Junction	1347.67	1351.00	1347.67	1351.00	0.00	10.03	1351.00	0.00	0.00	0 12:00	0.00	0.00
J8th-Broad	Junction	1343.53	1350.00	1343.53	1350.00	0.00	21.15	1347.73	0.00	2.27	0 00:00	0.00	0.00
J8th-Juniper	Junction	1346.00	1350.50	1346.00	1350.50	0.00	19.41	1349.27	0.00	1.23	0 00:00	0.00	0.00
J8th-Poplar	Junction	1347.35	1347.85	1347.35	1347.85	0.00	18.27	1350.16	0.00	0.34	0 00:00	0.00	0.00
J8th-Walnut	Junction	1347.25	1347.58	1347.25	1347.58	0.00	4.68	1348.67	0.00	0.08	0 00:00	0.00	0.00
J91	Junction	1347.78	1351.60	1347.78	1351.60	0.00	2.79	1351.49	0.00	0.11	0 00:00	0.00	0.00
J96	Junction	1347.40	1347.90	1347.40	1347.90	0.00	7.92	1348.88	0.00	0.52	0 00:00	0.00	0.00
J97	Junction	1347.45	1347.95	1347.45	1347.95	0.00	8.69	1348.68	0.00	0.77	0 00:00	0.00	0.00
J99	Junction	1346.63	1347.13	1346.63	1347.13	0.00	8.41	1348.13	0.00	0.00	0 12:00	0.05	3.00
J9th-Poplar	Junction	1348.00	1352.00	1348.00	1352.00	0.00	4.12	1352.00	0.00	0.00	0 11:59	0.00	0.00
J9th-Walnut	Junction	1349.91	1350.24	1349.91	1350.24	0.00	1.86	1350.38	0.00	0.53	0 00:00	0.00	0.00
J-CONCPIT	Junction	1344.26	1351.00	1344.26	1351.00	0.00	24.26	1348.87	0.00	2.13	0 00:00	0.00	0.00
Jun-200	Junction	1341.17	1352.63	1341.17	1352.63	0.00	25.96	1344.16	0.00	8.47	0 00:00	0.00	0.00
StartC&G	Junction	1349.70	1350.70	1349.70	1350.70	0.00	0.33	1349.89	0.00	0.81	0 00:00	0.00	0.00
StartDitch	Junction	1350.25	1351.00	1350.25	1351.00	0.00	0.97	1350.50	0.00	0.95	0 00:00	0.00	0.00
STMH1	Junction	1347.70	1353.46	1347.70	1353.46	0.00	7.97	1350.53	0.00	2.93	0 00:00	0.00	0.00
STMH10	Junction	1342.40	1352.86	1342.40	1352.86	0.00	31.68	1345.25	0.00	7.61	0 00:00	0.00	0.00
STMH100	Junction	1338.16	1349.00	1338.16	1349.00	0.00	30.09	1340.90	0.00	8.10	0 00:00	0.00	0.00
STMH101	Junction	1337.00	1348.00	1337.00	1348.00	0.00	29.53	1339.71	0.00	8.29	0 00:00	0.00	0.00
STMH102	Junction	1335.84	1347.00	1335.84	1347.00	0.00	29.26	1338.49	0.00	8.51	0 00:00	0.00	0.00
STMH103	Junction	1334.68	1346.00	1334.68	1346.00	0.00	29.20	1337.22	0.00	8.78	0 00:00	0.00	0.00
STMH104	Junction	1333.73	1345.00	1333.73	1345.00	0.00	29.18	1335.55	0.00	9.45	0 00:00	0.00	0.00
STMH12	Junction	1340.37	1352.22	1340.37	1352.22	0.00	30.76	1343.21	0.00	9.01	0 00:00	0.00	0.00
STMH13	Junction	1339.94	1351.72	1339.94	1351.72	0.00	30.45	1342.17	0.00	9.55	0 00:00	0.00	0.00
STMH14	Junction	1346.72	1351.72	1346.72	1351.72	0.00	27.01	1349.01	0.00	2.71	0 00:00	0.00	0.00
STMH15	Junction	1345.23	1351.48	1345.23	1351.48	0.00	15.57	1347.90	0.00	3.58	0 00:00	0.00	0.00
STMH16	Junction	1344.44	1351.29	1344.44	1351.29	0.00	18.11	1348.84	0.00	2.45	0 00:00	0.00	0.00
STMH17	Junction	1343.31	1350.76	1343.31	1350.76	0.00	18.23	1350.74	0.00	0.02	0 00:00	0.00	0.00
STMH18	Junction	1345.83	1350.58	1345.83	1350.58	0.00	309.19	1350.58	0.00	0.00	0 01:55	15.43	23.00
STMH19	Junction	1343.03	1350.48	1343.03	1350.48	0.00	17.44	1349.09	0.00	1.39	0 00:00	0.00	0.00
STMH2	Junction	1347.80	1355.40	1347.80	1355.40	0.00	1.45	1355.40	0.00	0.00	0 11:59	0.00	0.00
STMH20	Junction	1342.40	1350.70	1342.40	1350.70	0.00	17.51	1349.14	0.00	1.56	0 00:00	0.00	0.00
STMH21	Junction	1342.15	1351.11	1342.15	1351.11	0.00	15.84	1351.11	0.00	0.00	0 11:48	0.00	0.00
STMH24	Junction	1339.30	1347.23	1339.30	1347.23	0.00	26.82	1343.59	0.00	3.64	0 00:00	0.00	0.00
STMH25	Junction	1337.77	1348.31	1337.77	1348.31	0.00	17.96	1344.64	0.00	3.67	0 00:00	0.00	0.00
STMH26	Junction	1335.91	1347.45	1335.91	1347.45	0.00	40.28	1342.97	0.00	4.48	0 00:00	0.00	0.00
STMH27	Junction	1335.81	1346.51	1335.81	1346.51	0.00	40.28	1342.51	0.00	4.00	0 00:00	0.00	0.00
STMH28	Junction	1335.00	1345.13	1335.00	1345.13	0.00	46.88	1345.13	0.00	0.00	0 13:19	0.00	0.00
STMH29	Junction	1339.50	1348.82	1339.50	1348.82	0.00	13.22	1345.96	0.00	2.86	0 00:00	0.00	0.00
STMH3	Junction	1345.00	1354.14	1345.00	1354.14	0.00	16.90	1347.79	0.00	6.35	0 00:00	0.00	0.00
STMH30	Junction	1340.00	1348.89	1340.00	1348.89	0.00	45.20	1346.51	0.00	3.58	0 00:00	0.00	0.00
STMH31	Junction	1347.07	1351.48	1347.07	1351.48	0.00	3.06	1347.98	0.00	3.50	0 00:00	0.00	0.00
STMH32	Junction	1346.80	1351.50	1346.80	1351.50	0.00	2.64	1348.12	0.00	3.38	0 00:00	0.00	0.00
STMH33	Junction	1345.08	1351.68	1345.08	1351.68	0.00	8.31	1348.77	0.00	2.91	0 00:00	0.00	0.00
STMH34	Junction	1344.54	1348.67	1344.54	1348.67	0.00	3.49	1348.67	0.00	0.00	0 11:58	0.00	0.00
STMH35	Junction	1340.30	1347.60	1340.30	1349.00	0.00	26.82	1346.85	0.00	0.75	0 00:00	0.00	0.00
STMH4	Junction	1345.86	1354.26	1345.86	1354.26	0.00	16.90	1349.17	0.00	5.09	0 00:00	0.00	0.00
STMH5	Junction	1347.80	1354.95	1347.80	1354.95	0.00	1.35	1349.84	0.00	5.11	0 00:00	0.00	0.00
STMH6	Junction	1343.96	1353.16	1343.96	1353.16	0.00	26.52	1346.41	0.00	6.75	0 00:00	0.00	0.00
STMH7	Junction	1343.66	1352.77	1343.66	1352.77	0.00	10.62	1348.49	0.00	4.28	0 00:00	0.00	0.00
STMH8	Junction	1347.42	1352.92	1347.42	1352.92	0.00	10.29	1349.45	0.00	3.47	0 00:00	0.00	0.00
STMH9	Junction	1347.75	1353.77	1347.75	1353.77	0.00	7.45	1349.96	0.00	3.81	0 00:00	0.00	0.00
Out-01	Outfall	1332.50					48.71	1335.50					
Out-02	Outfall	1339.67					24.85	1342.67					
Out-04	Outfall	1349.00					7.28	1349.57					
Out-07	Outfall	1347.00					13.59	1347.85					
Out-08	Outfall	0.00					13.01	0.14					
Out-09	Outfall	0.00					18.88	0.00					
Out-10	Outfall	0.00					16.05	0.25					
Out-11	Outfall	1332.50					29.17	1334.03					
Stor-02	Storage Nox	1329.00	1335.00	1329.00		340000.00	26.59	1335.66				61.70	1337.00

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	161	J182	33.00	1346.32	1345.95	1.1200	15.000	0.0100	3.05	8.89	0.34	2.62	1.13	0.90	0.00	Calculated
Pipe	160	158	132.00	1345.90	1345.40	0.3800	18.000	0.0150	4.61	5.60	0.82	2.89	1.50	1.00	5.00	SURCHARGED
Pipe	159	158	44.00	1345.90	1345.40	1.1400	12.000	0.0100	2.01	4.94	0.41	2.56	1.00	1.00	13.00	SURCHARGED
Pipe	158	157	66.00	1345.40	1345.10	0.4500	24.000	0.0150	7.07	13.22	0.54	2.99	1.96	0.99	0.00	Calculated
Pipe	155	156	152.00	1345.97	1345.40	0.3700	12.000	0.0100	0.95	2.84	0.21	1.74	1.00	1.00	9.00	SURCHARGED
Pipe	156	157	44.00	1345.40	1345.10	0.6800	15.000	0.0100	1.49	6.93	0.21	1.21	1.25	1.00	13.00	SURCHARGED
Pipe	154	152	100.00	1344.46	1344.00	0.4600	24.000	0.0150	11.12	13.30	0.84	3.71	2.00	1.00	11.00	SURCHARGED
Pipe	C42	46.00	1350.35	1349.75	1.3000	15.000	0.0250	0.59	3.84	0.15	2.68	0.29	0.24	0.00	Calculated	
Pipe	49	65.00	1348.16	1348.08	0.1200	24.000	0.0150	1.58	6.88	0.23	2.13	0.61	0.30	0.00	Calculated	
Pipe	J189-190	31.00	1340.83	1340.71	0.3900	30.000	0.0150	17.68	22.12	0.80	3.82	2.50	1.00	98.00	SURCHARGED	
Pipe	190	28.00	1346.26	1340.83	19.3900	12.000	0.0100	4.09	20.40	0.20	6.50	0.76	0.78	0.00	Calculated	
Pipe	189	12.00	1345.81	1340.83	41.5000	12.000	0.0100	1.21	29.84	0.04	2.62	0.57	0.59	0.00	Calculated	
Pipe	151	44.00	1345.74	1344.00	3.9500	12.000	0.0100	1.54	9.21	0.17	1.99	1.00	1.00	0.00	SURCHARGED	
Pipe	188	11.00	1346.54	1340.71	53.0000	12.000	0.0100	1.02	33.72	0.03	2.25	0.56	0.56	0.00	Calculated	
Pipe	J187	120.00	1339.85	1339.37	0.4000	30.000	0.0150	19.55	22.48	0.87	3.98	2.50	1.00	104.00	SURCHARGED	
Pipe	J185-186	16.00	1339.37	1339.30	0.4400	30.000	0.0150	26.82	23.51	1.14	5.46	2.50	1.00	106.00	SURCHARGED	
Pipe	187	5.00	1344.72	1339.85	97.4000	12.000	0.0100	1.95	45.71	0.04	3.63	0.65	0.65	0.00	Calculated	
Pipe	186	14.00	1344.60	1339.37	37.3600	12.000	0.0100	1.39	28.31	0.05	2.96	0.58	0.58	0.00	Calculated	
Pipe	J185-186	56.00	1337.99	1337.77	0.3900	30.000	0.0150	17.96	22.28	0.81	3.80	2.50	1.00	114.00	SURCHARGED	
Pipe	J182	27.00	1344.44	1337.99	23.8900	12.000	0.0100	5.67	22.64	0.25	8.22	0.82	0.82	0.00	Calculated	
Pipe	J179-180	10.00	1335.95	1335.91	0.4000	30.000	0.0150	21.16	22.48	0.94	4.31	2.50	1.00	140.00	SURCHARGED	
Pipe	180	15.00	1342.18	1335.95	41.5300	12.000	0.0100	3.50	29.85	0.12	4.46	1.00	1.00	4.00	SURCHARGED	
Pipe	179	36.00	1336.40	1335.95	1.2500	12.000	0.0100	3.50	5.18	0.88	4.46	1.00	1.00	377.00	SURCHARGED	
Pipe	193	68.00	1340.23	1340.11	0.1800	15.000	0.0100	2.62	3.53	0.74	2.14	1.25	1.00	13.00	SURCHARGED	
Pipe	J192-193	5.00	1340.11	1340.09	0.4000	18.000	0.0100	5.18	8.64	0.60	4.47	1.50	1.00	11.00	SURCHARGED	
Pipe	191	168.00	1340.50	1340.11	0.2300	18.000	0.0100	7.78	17.24	0.55	2.58	1.50	1.00	15.00	SURCHARGED	
Pipe	J192-193	36.00	1340.09	1335.10	13.8600	12.000	0.0100	0.45	20.52	0.71	2.99	2.50	1.00	31.00	SURCHARGED	
Pipe	J192-193	120.00	1345.94	1345.54	0.3300	30.000	0.0150	14.66	20.52	0.71	2.99	2.50	1.00	15.00	SURCHARGED	
Pipe	J55-56	230.00	1346.72	1345.94	0.3400	30.000	0.0120	18.69	25.88	0.72	3.86	2.39	0.96	0.00	Calculated	
Pipe	55	14.00	1348.20	1345.94	16.1400	12.000	0.0100	2.32	18.61	0.12	3.71	0.74	0.74	0.00	Calculated	
Pipe	56	42.00	1348.24	1345.94	5.4800	12.000	0.0100	1.59	10.84	0.15	2.84	0.67	0.67	0.00	Calculated	
Pipe	54	15.00	1346.76	1346.72	0.2700	36.000	0.0100	27.01	44.78	0.60	4.35	2.46	0.82	0.00	Calculated	
Pipe	140	22.00	1344.50	1340.30	19.0900	12.000	0.0100	1.22	20.24	0.06	1.66	1.00	1.00	33.00	SURCHARGED	
Pipe	C81	35.00	1351.00	1351.15	-0.4300	18.000	0.0250	2.53	3.58	0.71	2.42	1.08	0.74	0.00	Calculated	
Pipe	J162	13.00	1345.95	1345.90	0.3900	15.000	0.0100	3.60	5.21	0.69	2.94	1.25	1.00	14.00	SURCHARGED	
Pipe	162	100.00	1346.34	1345.95	0.3900	15.000	0.0100	3.77	5.24	0.72	3.07	1.25	1.00	5.00	SURCHARGED	
Pipe	C84	120.00	1347.53	1345.40	1.7700	12.000	0.0100	0.81	6.17	0.13	1.57	0.62	0.62	0.00	Calculated	
Pipe	153	44.00	1345.78	1344.50	2.9100	30.000	0.0100	2.21	7.90	0.28	2.82	1.00	1.00	9.00	SURCHARGED	
Pipe	154	10.00	1344.50	1344.46	0.4000	30.000	0.0150	9.08	22.48	0.40	2.89	2.50	1.00	4.00	SURCHARGED	
Pipe	J153	157.00	1345.10	1344.50	0.3800	24.000	0.0150	8.10	12.12	0.67	2.89	2.00	1.00	7.00	SURCHARGED	
Pipe	145	20.00	1341.54	1341.48	0.3000	36.000	0.0250	19.76	18.16	1.06	2.85	3.00	1.00	39.00	SURCHARGED	
Pipe	J6th-Oak	34.00	1343.80	1343.60	0.5900	12.000	0.0100	1.50	7.54	0.09	1.91	1.00	1.00	37.00	SURCHARGED	
Pipe	J6th-Oak	31.00	1343.40	1343.20	0.6500	12.000	0.0100	1.73	3.72	0.46	2.20	1.00	1.00	16.00	SURCHARGED	
Pipe	J148	3.00	1343.20	1343.15	1.6700	12.000	0.0100	4.00	5.98	0.67	5.09	1.00	1.00	45.00	SURCHARGED	
Pipe	152	100.00	1344.00	1343.60	0.4000	30.000	0.0150	13.74	22.48	0.61	3.47	2.50	1.00	46.00	SURCHARGED	
Pipe	J149	92.00	1343.60	1343.20	0.4300	30.000	0.0150	14.96	23.44	0.64	3.47	2.50	1.00	6.00	SURCHARGED	
Pipe	J149	13.00	1343.20	1343.15	0.3800	30.000	0.0150	16.71	22.05	0.76	4.23	2.50	1.00	6.00	SURCHARGED	
Pipe	J144-146-147	33.00	1341.74	1341.54	0.6100	30.000	0.0150	15.15	27.67	0.55	3.16	2.50	1.00	44.00	SURCHARGED	
Pipe	146	45.00	1342.62	1342.00	1.3600	18.000	0.0250	4.58	6.41	0.71	2.59	1.50	1.00	47.00	SURCHARGED	
Pipe	J144-146-147	8.00	1343.79	1341.74	25.6200	12.000	0.0100	3.05	23.45	0.13	3.88	1.00	1.00	34.00	SURCHARGED	
Pipe	144	134.00	1344.18	1342.62	1.1600	12.000	0.0100	2.01	5.00	0.40	2.68	1.00	1.00	15.00	SURCHARGED	
Pipe	J143	90.00	1341.13	1340.86	0.3000	36.000	0.0250	19.35	19.00	1.02	2.74	3.00	1.00	49.00	SURCHARGED	
Pipe	J142	77.00	1340.86	1340.63	0.3000	36.000	0.0250	19.05	18.96	1.01	2.70	3.00	1.00	58.00	SURCHARGED	
Pipe	J143	13.00	1344.25	1340.74	27.0000	12.000	0.0100	0.80	22.69	0.04	1.18	1.00	1.00	27.00	SURCHARGED	
Pipe	J142	21.00	1344.20	1341.08	14.8600	12.000	0.0100	0.73	17.85	0.04	0.98	1.00	1.00	32.00	SURCHARGED	
Pipe	J141	31.00	1345.82	1341.37	14.3500	12.000	0.0100	1.14	17.55	0.07	3.02	0.83	0.84	0.00	Calculated	
Pipe	163	18.00	1344.18	1339.40	26.5600	30.000	0.0100	20.50	256.96	0.08	5.22	2.50	1.00	5.00	SURCHARGED	

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Capacity Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	J121-122	J7th-Broad	27.00	1342.00	1341.88	0.4400	36.000	0.0250	17.81	23.12	0.77	2.77	3.00	1.00	60.00	SURCHARGED
Pipe	J8th-Broad	J121-122	335.00	1343.53	1342.00	0.4600	36.000	0.0250	16.97	23.44	0.72	2.99	3.00	1.00	37.00	SURCHARGED
Pipe	J116	J8th-Broad	27.00	1343.60	1343.53	0.2600	36.000	0.0250	21.15	17.66	1.20	2.99	3.00	1.00	37.00	SURCHARGED
Pipe	J117	J116	171.00	1344.49	1343.60	0.5200	36.000	0.0250	19.19	25.02	0.77	2.72	3.00	1.00	26.00	SURCHARGED
Pipe	J116	J117	15.00	1345.91	1343.60	15.4000	12.000	0.0100	2.95	18.18	0.16	3.76	1.00	1.00	29.00	SURCHARGED
Pipe	J117	J116	23.00	1347.14	1344.49	11.5200	15.000	0.0100	13.19	28.51	0.46	10.75	1.25	1.00	33.00	SURCHARGED
Pipe	C55-	J117	32.00	1350.81	1350.75	0.1900	12.000	0.0120	0.07	1.67	0.04	0.88	0.19	0.19	0.00	Calculated
Pipe	164	STMH30	26.00	1340.00	1339.40	2.3100	12.000	0.0100	12.81	0.29	44.61	19.86	1.00	1.00	1337.00	SURCHARGED
Pipe	J139	STMH30	326.00	1340.26	1340.00	0.0800	36.000	0.0250	24.12	9.79	2.46	3.63	3.00	1.00	67.00	SURCHARGED
Pipe	165	J177-178	38.00	1344.54	1344.18	0.9500	12.000	0.0100	2.95	4.51	0.57	3.93	1.00	1.00	24.00	SURCHARGED
Pipe	J177-178	STMH26	360.00	1338.28	1336.27	0.5600	36.000	0.0250	29.51	25.92	1.14	4.17	3.00	1.00	102.00	SURCHARGED
Pipe	J175-176	J4th-Broad	14.00	1338.50	1338.40	0.7100	36.000	0.0250	29.75	29.31	1.01	4.21	3.00	1.00	103.00	SURCHARGED
Pipe	STMH30	J175-176	370.00	1340.94	1338.50	0.6600	36.000	0.0250	9.65	28.17	0.34	6.92	3.00	1.00	49.00	SURCHARGED
Pipe	177	J177-178	21.00	1343.26	1338.34	23.4300	12.000	0.0100	4.94	22.42	0.22	6.29	1.00	1.00	36.00	SURCHARGED
Pipe	178	J177-178	24.00	1344.32	1338.34	24.9200	12.000	0.0100	3.21	23.12	0.14	4.12	1.00	1.00	13.00	SURCHARGED
Pipe	176	J175-176	22.00	1343.66	1338.47	23.5900	12.000	0.0100	2.16	22.43	0.10	4.11	1.00	1.00	37.00	SURCHARGED
Pipe	175	J175-176	20.00	1343.94	1338.47	27.3500	12.000	0.0100	5.18	24.16	0.21	6.59	1.00	1.00	33.00	SURCHARGED
Pipe	94	J175-176	49.00	1347.75	1347.73	0.0400	15.000	0.0100	3.17	1.70	1.87	2.58	1.25	1.00	5.00	SURCHARGED
Pipe	95	J96	73.00	1347.73	1347.40	0.4500	15.000	0.0100	5.37	5.65	1.25	4.38	1.25	1.00	5.00	SURCHARGED
Pipe	97	J97	12.00	1347.45	1347.42	0.2500	15.000	0.0100	4.38	4.20	1.04	3.97	1.04	1.00	5.00	SURCHARGED
Pipe	98	J103	41.00	1347.17	1347.45	-0.6800	12.000	0.0100	3.08	3.83	0.80	3.92	1.00	1.00	5.00	SURCHARGED
Pipe	103	J104	39.00	1347.42	1346.88	1.3800	15.000	0.0100	4.97	9.88	0.50	6.14	0.78	0.77	0.00	Calculated
Pipe	103	J104	14.00	1346.88	1346.25	4.5000	15.000	0.0100	3.22	17.81	0.18	3.16	0.96	0.77	0.00	Calculated
Pipe	137	C52	20.00	1349.86	1349.85	0.0500	15.000	0.0100	1.61	21.82	0.07	18.31	0.16	0.12	0.00	Calculated
Pipe	118	STMH33	48.00	1346.59	1345.08	3.1500	15.000	0.0100	8.31	14.89	0.56	6.77	1.25	1.00	29.00	SURCHARGED
Pipe	109	J8th-Walnut	165.00	1351.19	1349.91	0.7600	12.000	0.0100	1.86	4.08	0.46	4.85	0.50	0.50	0.00	Calculated
Pipe	J8th-Walnut	J8th-Walnut	343.00	1349.91	1347.25	0.7800	12.000	0.0100	1.86	4.08	0.46	3.46	0.74	0.74	0.00	Calculated
Pipe	110	J8th-Walnut	78.00	1348.28	1347.25	1.3200	18.000	0.0100	2.82	5.32	0.37	3.76	0.91	0.91	0.00	Calculated
Pipe	C54-	J111	30.00	1350.98	1350.73	0.8300	12.000	0.0120	14.19	10.39	1.37	16.05	1.44	0.96	0.00	SURCHARGED
Pipe	111	J111	7.00	1349.67	1347.03	37.7100	12.000	0.0100	7.90	28.44	0.28	20.14	0.92	0.93	0.00	Calculated
Pipe	J8th-Walnut	J111	28.00	1347.25	1347.03	0.7900	18.000	0.0100	4.68	12.10	0.39	4.09	1.46	0.97	0.00	Calculated
Pipe	114	J114	5.00	1346.18	1344.48	34.0000	12.000	0.0100	1.35	27.01	0.05	2.50	0.68	0.70	0.00	Calculated
Pipe	J111	J112	126.00	1347.03	1346.00	0.8200	18.000	0.0100	9.41	12.35	0.76	6.38	1.50	1.00	9.00	SURCHARGED
Pipe	57	J115	46.00	1347.49	1345.54	4.2400	18.000	0.0150	2.19	18.74	0.68	5.61	2.00	1.00	0.00	Calculated
Pipe	J114	J115	95.00	1344.48	1343.74	0.7800	24.000	0.0100	7.62	25.96	0.88	5.61	2.00	1.00	48.00	SURCHARGED
Pipe	115	J115	29.00	1348.65	1343.74	16.9300	12.000	0.0100	3.27	19.06	0.17	5.48	0.71	0.71	0.00	Calculated
Pipe	J115	J8th-Broad	27.00	1343.74	1343.53	0.7800	24.000	0.0100	14.57	25.94	0.56	4.64	2.00	1.00	58.00	SURCHARGED
Pipe	185	J185-186	28.00	1343.33	1339.37	14.1400	12.000	0.0100	6.63	17.42	0.38	8.44	2.00	1.00	17.00	SURCHARGED
Pipe	50	J50	26.00	1348.03	1347.95	0.3100	15.000	0.0100	5.63	4.66	1.21	4.59	1.25	1.00	0.00	Calculated
Pipe	J50	J51	36.00	1347.95	1347.84	0.3100	24.000	0.0250	5.09	6.50	0.78	1.61	2.00	1.00	0.00	Calculated
Pipe	51	J51	23.00	1349.20	1347.84	5.9100	12.000	0.0100	2.49	11.26	0.22	3.30	0.92	0.92	0.00	Calculated
Pipe	J51	J52-53	233.00	1347.84	1347.14	0.3000	24.000	0.0250	6.75	6.45	1.05	2.16	1.96	0.98	0.00	Calculated
Pipe	53	J52	6.00	1348.91	1348.03	14.6700	12.000	0.0100	4.87	17.74	0.25	7.58	0.92	0.93	0.00	Calculated
Pipe	J52	J52-53	6.00	1348.03	1347.14	14.8300	12.000	0.0100	2.72	17.84	0.17	3.47	1.00	1.00	28.00	SURCHARGED
Pipe	58	J6th-Main	34.00	1345.54	1345.39	0.4400	30.000	0.0150	16.61	23.61	0.70	3.38	2.50	1.00	33.00	SURCHARGED
Pipe	J52-53	J7th-Main	119.00	1348.85	1348.03	2.1000	12.000	0.0100	0.78	6.72	0.12	2.85	0.61	0.62	0.00	Calculated
Pipe	58	J7th-Main	39.00	1348.14	1346.78	0.3000	24.000	0.0250	5.56	6.47	0.86	1.78	1.96	0.98	0.00	Calculated
Pipe	J52-53	STMH14	24.00	1346.78	1346.72	0.2500	24.000	0.0250	8.33	5.88	1.42	2.65	2.00	1.00	30.00	SURCHARGED
Pipe	J7th-Main	126	42.00	1349.41	1349.22	0.4500	12.000	0.0100	2.73	3.12	0.72	5.87	0.97	0.97	2.00	SURCHARGED
Pipe	125	126	28.00	1350.18	1349.71	1.6800	12.000	0.0100	4.34	6.00	0.72	5.87	0.97	0.97	0.00	Calculated
Pipe	124	STMH35	360.00	1341.88	1340.30	0.4400	36.000	0.0250	22.07	22.98	0.96	3.12	3.00	1.00	60.00	SURCHARGED
Pipe	J7th-Broad	J123-126	450.00	1347.51	1341.88	1.2500	18.000	0.0150	6.86	10.18	0.67	4.14	1.50	1.00	16.00	SURCHARGED
Pipe	126	J123-126	29.00	1349.22	1347.51	5.9000	12.000	0.0100	6.17	11.25	0.55	7.85	1.00	1.00	2.00	SURCHARGED
Pipe	123	J123-126	15.00	1349.71	1347.51	14.6700	12.000	0.0100	7.17	17.74	0.40	9.20	0.97	0.97	0.00	Calculated
Pipe	63	STMH15	55.00	1347.39	1346.23	3.9300	18.000	0.0150	1.01	18.04	0.06	0.82	0.98	0.67	0.00	Calculated
Pipe	119	STMH15	156.00	1347.39	1346.59	0.5100	15.000	0.0100	7.38	6.01	1.23	6.11	1.25	1.00	27.00	SURCHARGED
Pipe	120	119	58.00	1348.23	1347.39	1.4500	15.000	0.0100	4.15	10.11	0.41	3.55	1.25	1.00	24.00	SURCHARGED
Pipe	60	C85	37.00	1349.74	1349.90	-0.4300	12.000	0.0120	1.98	2.54	0.78	2.74	0.87	0.87	0.00	Calculated

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft.)	Inlet Invert Elevation (ft.)	Outlet Invert Elevation (ft.)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft.)	Peak Flow Depth/Total Depth Ratio	Total Time Reported	Surcharged Condition
Pipe	138	STMH35	20.00	1344.20	1340.30	19.5000	12.000	0.0100	6.48	20.45	0.32	8.25	1.00	1.00	41.00	SURCHARGED
Pipe	J6H-Broad	J139	20.00	1340.28	1340.22	0.3000	36.000	0.0250	23.30	10.97	2.12	3.30	3.00	1.00	72.00	SURCHARGED
Pipe	J139	J139	19.00	1347.21	1340.22	36.7900	12.000	0.0150	1.63	28.01	0.06	3.40	0.59	0.59	0.00	Calculated
Pipe	62	STMH15	8.00	1347.31	1345.23	26.0000	18.000	0.0150	1.01	46.42	0.02	0.83	1.02	0.70	0.00	Calculated
Pipe	J4H-Broad	J177-178	20.32	1338.40	1338.28	0.5900	36.000	0.0250	27.01	26.65	1.01	3.82	3.00	1.00	102.00	SURCHARGED
Pipe	J166	J167	33.00	1343.00	1342.50	1.5200	12.000	0.0100	2.63	5.70	0.46	3.35	1.00	1.00	47.00	SURCHARGED
Pipe	J167	J167	3.00	1342.60	1342.50	3.3300	12.000	0.0100	1.70	54.41	0.03	3.51	0.62	0.66	0.00	Calculated
Pipe	J168	J168	77.00	1342.50	1342.00	0.6500	12.000	0.0100	2.49	3.73	0.67	3.18	1.00	1.00	55.00	SURCHARGED
Pipe	J168	J168	8.00	1342.10	1342.00	1.2500	12.000	0.0150	2.43	28.36	0.09	4.62	0.63	0.64	0.00	Calculated
Pipe	J170	J170-171	28.00	1341.50	1341.40	0.3600	12.000	0.0100	1.55	2.77	0.56	1.98	1.00	1.00	75.00	SURCHARGED
Pipe	J171	J170-171	10.00	1341.50	1341.40	1.0000	12.000	0.0100	2.29	4.63	0.97	2.92	1.00	1.00	76.00	SURCHARGED
Pipe	J168	J169	103.00	1342.00	1341.20	0.7800	12.000	0.0100	3.97	4.08	0.49	5.06	1.00	1.00	64.00	SURCHARGED
Pipe	J170-171	J169	34.00	1341.40	1341.20	0.5900	12.000	0.0100	3.16	3.55	0.89	4.02	1.00	1.00	78.00	SURCHARGED
Pipe	J169	J169	7.00	1347.25	1341.20	86.4300	12.000	0.0150	3.42	28.71	0.12	5.77	0.69	0.71	0.00	Calculated
Pipe	J169	J169	150.00	1341.20	1340.50	0.4700	24.000	0.0100	8.98	20.09	0.45	3.16	2.00	1.00	60.00	SURCHARGED
Pipe	J172	J172	6.00	1340.60	1340.50	1.6700	15.000	0.0100	9.00	10.84	0.83	7.34	1.25	1.00	90.00	SURCHARGED
Pipe	J172	J173	44.00	1340.50	1340.30	0.4500	24.000	0.0100	10.93	19.83	0.55	3.86	2.00	1.00	75.00	SURCHARGED
Pipe	J173	J173	6.00	1340.40	1340.30	1.6700	15.000	0.0100	7.60	10.84	0.70	6.20	1.25	1.00	97.00	SURCHARGED
Pipe	J173	J173	6.00	1340.40	1340.30	0.5900	24.000	0.0100	13.22	22.56	0.59	4.21	2.00	1.00	81.00	SURCHARGED
Pipe	STMH29	J4H-Broad	320.00	1339.50	1338.37	0.3300	24.000	0.0100	11.22	17.24	0.77	4.21	2.00	1.00	102.00	SURCHARGED
Pipe	J104	J104	26.00	1346.48	1346.25	0.8800	12.000	0.0100	1.44	4.36	0.33	1.83	1.00	1.00	6.00	SURCHARGED
Pipe	J3rd-Main-Poplar	J189-190	147.00	1341.42	1340.83	0.4000	30.000	0.0150	16.07	22.52	0.71	3.50	2.50	1.00	94.00	SURCHARGED
Pipe	J105	J105	216.00	1346.25	1345.00	0.5800	15.000	0.0100	4.77	6.39	0.75	4.04	1.25	1.00	5.00	SURCHARGED
Pipe	J107	J106-107	36.00	1348.40	1344.80	10.0000	12.000	0.0100	2.01	14.65	0.14	3.89	0.62	0.62	0.00	Calculated
Pipe	J106	J106-107	33.00	1347.53	1344.80	8.2700	12.000	0.0100	3.00	13.32	0.22	4.95	0.72	0.72	0.00	Calculated
Pipe	J108	J108	49.00	1344.80	1344.51	0.5900	24.000	0.0100	11.22	22.62	0.50	3.96	1.92	1.00	0.00	Calculated
Pipe	J108	J108	32.00	1348.14	1344.51	11.3400	12.000	0.0100	3.66	15.60	0.23	6.09	0.72	0.72	0.00	Calculated
Pipe	J108	J108	165.00	1344.51	1343.73	0.4700	24.000	0.0100	14.74	20.22	0.73	5.23	1.97	1.00	0.00	Calculated
Pipe	J4H-Main-Poplar	J3rd-Main-Poplar	366.00	1343.73	1341.42	0.6300	24.000	0.0100	5.11	23.36	0.22	2.26	2.00	1.00	27.00	SURCHARGED
Pipe	J100	J100	7.00	1348.21	1346.79	20.2900	12.000	0.0100	2.93	20.86	0.14	4.79	0.72	0.73	0.00	Calculated
Pipe	J100	J100	83.00	1346.79	1346.62	0.2000	12.000	0.0100	1.37	2.10	0.66	1.75	1.00	1.00	17.00	SURCHARGED
Pipe	J101	J102	79.00	1346.62	1346.46	0.2000	12.000	0.0100	2.08	2.08	1.00	2.65	1.00	1.00	15.00	SURCHARGED
Pipe	J102	J102	5.00	1348.39	1346.46	38.6000	12.000	0.0100	0.00	28.78	0.00	0.00	0.50	0.50	0.00	Calculated
Pipe	J102	J103	86.00	1346.46	1346.28	0.2100	12.000	0.0100	2.01	2.12	0.95	2.61	1.00	1.00	12.00	SURCHARGED
Pipe	J103	J103	6.00	1346.88	1346.28	10.0000	12.000	0.0100	1.75	14.65	0.12	2.49	0.84	0.84	0.00	Calculated
Pipe	J103	J103	15.00	1346.28	1346.25	0.2000	15.000	0.0100	2.31	3.76	0.62	2.95	1.24	0.99	0.00	Calculated
Pipe	J99	J99	154.00	1346.63	1345.92	0.4600	18.000	0.0100	5.74	9.27	0.62	3.25	1.50	1.00	3.00	SURCHARGED
Pipe	J97	J99	179.00	1347.45	1346.63	0.4600	15.000	0.0100	3.99	5.68	0.70	3.65	1.23	0.99	0.00	Calculated
Pipe	J99	J99	3.00	1346.64	1346.63	0.3300	12.000	0.0100	4.54	2.67	1.70	5.78	1.00	1.00	11.00	SURCHARGED
Pipe	J131	J131	9.00	1346.02	1345.92	1.1100	12.000	0.0150	2.92	3.25	0.90	3.72	1.00	1.00	23.00	SURCHARGED
Pipe	J5th-Cherry	J132	19.00	1345.92	1345.88	0.2100	24.000	0.0100	7.01	13.49	0.52	2.40	1.79	0.90	0.00	Calculated
Pipe	J132	J132	6.00	1346.76	1345.84	15.3300	12.000	0.0100	4.66	18.14	0.26	5.94	1.00	1.00	8.00	SURCHARGED
Pipe	J132	J132	197.00	1345.84	1345.43	0.2100	24.000	0.0100	9.24	13.42	0.69	3.12	1.85	0.93	0.00	Calculated
Pipe	J135	J135	6.00	1346.36	1345.43	15.5000	12.000	0.0100	0.03	18.23	0.00	0.06	1.00	1.00	2.00	SURCHARGED
Pipe	J134	J133-134	4.00	1347.47	1347.40	1.7500	12.000	0.0100	2.20	6.13	0.36	4.29	0.68	0.71	0.00	Calculated
Pipe	J133	J133-134	65.00	1348.48	1347.40	1.6600	12.000	0.0150	1.09	3.98	0.27	3.70	0.48	0.48	0.00	Calculated
Pipe	J135	J135	43.00	1347.40	1345.43	4.5800	12.000	0.0100	3.22	9.91	0.33	4.74	0.80	0.81	0.00	Calculated
Pipe	J135	J135	125.00	1345.43	1345.17	0.2100	24.000	0.0100	12.30	13.41	0.92	4.24	1.97	0.99	0.00	Calculated
Pipe	J136	J136	6.00	1346.50	1345.17	22.1700	12.000	0.0100	3.55	21.81	0.16	4.92	0.99	0.99	0.00	Calculated
Pipe	J136	J136	486.00	1345.17	1344.18	0.2000	30.000	0.0100	15.52	24.07	0.64	6.91	2.23	0.89	0.00	Calculated
Pipe	J6th-Broad	J127	18.00	1340.30	1340.28	0.1100	36.000	0.0250	28.82	11.56	2.32	3.79	3.00	1.00	73.00	SURCHARGED
Pipe	J127	J127	10.00	1349.49	1349.25	2.4000	12.000	0.0100	2.66	7.18	0.37	5.90	0.56	0.56	0.00	Calculated
Pipe	129	STMH31	6.00	1347.13	1347.07	1.0000	12.000	0.0100	1.41	4.63	0.30	3.49	0.76	0.90	0.00	Calculated
Pipe	STMH31	STMH32	27.00	1347.07	1346.80	1.0000	12.000	0.0100	1.81	4.63	0.39	2.42	0.87	0.95	0.00	Calculated
Pipe	J127	STMH32	95.00	1349.25	1346.80	2.5800	12.000	0.0100	2.64	7.44	0.36	4.68	0.71	0.71	0.00	Calculated
Pipe	STMH32	J128	33.00	1346.80	1346.55	0.7600	12.000	0.0100	1.65	4.03	0.41	2.65	1.00	1.00	7.00	SURCHARGED
Pipe	J128	J128	14.00	1346.83	1346.55	2.0000	12.000	0.0100	5.17	6.55	0.79	6.58	1.00	1.00	8.00	SURCHARGED

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft.)	Inlet Invert Elevation (ft.)	Outlet Invert Elevation (ft.)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Capacity Ratio	Peak Velocity (ft/sec)	Peak Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	66	STMH16	24.00	1347.10	1344.44	11.0800	18.000	0.0150	4.59	30.31	0.15	3.53	1.02	0.71	0.00	Calculated
Pipe	C86	C86	25.00	1340.31	1339.99	1.2800	36.000	0.0120	13.02	81.75	0.16	5.61	1.09	0.36	0.00	Calculated
Pipe	J114	J114	62.00	1345.28	1344.48	1.2900	24.000	0.0100	11.93	33.41	0.36	5.27	1.72	0.86	0.00	Calculated
Pipe	J113	J113	21.00	1349.81	1345.28	21.5700	12.000	0.0100	3.14	21.51	0.15	5.82	0.65	0.38	0.00	Calculated
Pipe	C51	C51	29.00	1350.31	1350.20	0.3800	24.000	0.0250	4.63	7.25	0.64	4.43	0.73	0.38	0.00	Calculated
Pipe	C46	C46	30.00	1345.36	1344.84	1.7300	12.000	0.0100	3.37	6.10	0.55	7.04	0.56	0.59	0.00	Calculated
Pipe	C47	C47	29.00	1343.38	1343.15	0.7900	18.000	0.0250	4.67	4.86	0.96	5.65	0.71	0.47	0.00	Calculated
Pipe	STMH16	J-CONCPIT	56.00	1344.44	1344.26	0.3200	30.000	0.0150	18.11	20.15	0.90	3.69	2.50	1.00	48.00	SURCHARGED
Pipe	C48	C48	28.00	1337.76	1336.47	4.6100	12.000	0.0250	3.74	3.98	0.94	4.76	1.00	1.00	26.00	SURCHARGED
Pipe	C43	C43	39.00	1349.50	1349.15	0.9000	12.000	0.0120	2.65	3.66	0.72	5.84	0.56	0.56	0.00	Calculated
Pipe	C41	C41	34.00	1351.09	1350.40	2.0300	12.000	0.0120	0.58	5.50	0.11	2.75	0.32	0.32	0.00	Calculated
Pipe	Jun-200	Jun-200	61.00	1341.17	1340.96	0.3400	36.000	0.0120	25.99	42.40	0.61	3.77	2.97	0.99	0.00	Calculated
Pipe	C46-47-48	C46-47-48	16.00	1347.41	1341.00	40.0600	12.000	0.0100	3.67	29.32	0.13	6.71	0.66	0.66	0.00	Calculated
Pipe	C46-47-48	C46-47-48	59.00	1348.37	1341.00	12.4900	12.000	0.0100	3.00	16.37	0.18	5.57	0.65	0.65	0.00	Calculated
Pipe	J45	J45	21.00	1342.73	1341.86	4.1400	12.000	0.0100	2.23	9.43	0.24	2.89	1.00	1.00	26.00	SURCHARGED
Pipe	STMH17	STMH17	8.00	1346.01	1343.31	33.7500	18.000	0.0150	13.92	52.89	0.26	7.88	1.02	1.00	0.00	SURCHARGED
Pipe	J45	J45	67.00	1341.40	1341.17	0.3400	36.000	0.0120	25.96	42.34	0.61	3.71	2.99	1.00	0.00	Calculated
Pipe	STMH10	J45	296.00	1342.40	1341.40	0.3400	36.000	0.0120	32.04	42.00	0.76	4.57	2.87	0.98	0.00	Calculated
Pipe	C76	C76	43.00	1350.12	1347.00	7.2600	12.000	0.0150	2.20	8.32	0.26	6.84	1.25	1.00	1383.00	SURCHARGED
Pipe	C77	C77	40.00	1350.71	1350.60	0.2800	12.000	0.0250	0.00	3.15	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	C78	C78	42.00	1350.53	1347.00	8.4000	12.000	0.0250	0.00	5.37	0.00	0.00	0.50	0.50	0.00	Calculated
Pipe	C79	C79	42.00	1350.50	1347.00	8.3300	12.000	0.0250	4.53	5.35	0.85	6.32	0.86	0.89	0.00	Calculated
Pipe	J43	J43	27.00	1349.51	1348.95	2.0700	12.000	0.0100	3.59	6.67	0.54	5.24	0.81	0.82	0.00	Calculated
Pipe	J43	STMH10	285.00	1348.95	1343.31	1.9800	15.000	0.0250	3.54	4.73	0.75	3.27	1.02	0.38	0.00	Calculated
Pipe	C13	C13	41.00	1348.52	1348.27	0.6100	36.000	0.0250	13.67	27.08	0.50	5.56	1.14	0.38	0.00	Calculated
Pipe	71	72	55.00	1346.71	1348.01	1.2700	18.000	0.0150	13.61	10.27	1.32	8.02	0.56	1.00	0.00	SURCHARGED
Pipe	29	30	67.00	1345.00	1344.15	1.2700	12.000	0.0100	5.46	16.57	0.33	9.02	0.72	0.72	0.00	Calculated
Pipe	J29-30	STMH6	36.18	1344.05	1343.96	0.2500	36.000	0.0250	26.52	17.30	1.53	4.29	2.58	0.87	0.00	SURCHARGED
Pipe	26	J27	130.00	1344.95	1344.43	0.4000	36.000	0.0250	13.80	21.94	0.63	2.39	2.89	0.97	0.00	Calculated
Pipe	J27	J28	29.00	1344.43	1344.33	0.3400	36.000	0.0250	16.76	20.37	2.46	3.05	2.89	1.00	3.00	SURCHARGED
Pipe	J28	J29-30	150.01	1344.33	1344.05	0.1900	36.000	0.0250	21.16	14.98	1.41	3.05	2.89	0.97	0.00	SURCHARGED
Pipe	J29-30	J41	16.00	1344.00	1343.58	2.6300	18.000	0.0150	7.10	14.75	0.48	4.01	1.50	1.00	14.00	SURCHARGED
Pipe	STMH6	J41	23.00	1343.96	1343.58	1.6500	36.000	0.0120	26.57	92.88	0.29	5.11	2.51	0.84	0.00	Calculated
Pipe	J41	J194	178.85	1343.58	1343.00	0.3200	36.000	0.0120	27.15	41.15	0.66	4.45	2.51	0.89	0.00	Calculated
Pipe	J41	J29-30	15.00	1344.15	1343.80	2.3300	15.000	0.0100	7.75	6.86	1.13	6.32	1.25	1.00	67.00	SURCHARGED
Pipe	28	J28	20.00	1350.33	1344.37	29.8000	12.000	0.0100	4.96	25.28	0.20	8.23	0.72	0.72	0.00	Calculated
Pipe	73	STMH17	54.00	1345.88	1343.31	4.7600	18.000	0.0150	2.45	32.94	0.07	2.25	0.89	0.59	0.00	Calculated
Pipe	27	J27	13.00	1349.10	1344.43	35.9200	12.000	0.0100	4.16	27.76	0.15	6.81	0.73	0.73	0.00	Calculated
Pipe	J6th-Main	STMH15	34.00	1345.39	1345.23	0.4700	30.000	0.0150	15.11	24.39	0.62	3.16	2.50	1.00	33.00	SURCHARGED
Pipe	61	J6th-Main	161.00	1347.55	1345.39	1.3400	12.000	0.0150	3.25	3.58	0.91	4.14	1.00	1.00	18.00	SURCHARGED
Pipe	59	J59	16.00	1349.14	1345.86	20.5000	12.000	0.0100	0.80	20.97	0.04	1.75	0.57	0.57	0.00	Calculated
Pipe	J59	STMH7	115.00	1345.86	1345.39	0.4100	24.000	0.0120	4.23	15.67	0.27	1.35	2.00	1.00	51.00	SURCHARGED
Pipe	36	STMH7	295.00	1347.07	1345.86	0.4100	24.000	0.0120	10.61	15.70	0.68	3.71	1.71	0.85	0.00	Calculated
Pipe	35	STMH9	68.00	1350.86	1349.02	2.7100	12.000	0.0100	3.80	7.62	0.50	7.97	0.82	0.84	0.00	Calculated
Pipe	34	STMH9	20.00	1347.92	1347.75	0.8500	12.000	0.0100	3.52	4.27	0.82	4.48	1.00	1.00	22.00	SURCHARGED
Pipe	35	STMH9	13.00	1349.02	1347.75	9.7700	12.000	0.0100	4.62	14.48	0.32	5.88	1.00	1.00	7.00	SURCHARGED
Pipe	69	67	45.00	1348.34	1348.00	0.7600	18.000	0.0150	1.44	7.91	0.18	3.31	0.45	0.33	0.00	Calculated
Pipe	J39	J40	67.00	1347.38	1347.00	0.5700	24.000	0.0120	10.25	18.46	0.56	3.60	2.00	1.00	0.00	Calculated
Pipe	37	J37-38	44.00	1348.90	1347.46	3.2700	12.000	0.0100	2.90	8.38	0.35	3.75	0.96	0.96	0.00	Calculated
Pipe	38	J37-38	14.00	1349.28	1347.46	13.0000	12.000	0.0100	4.44	16.70	0.27	5.87	0.92	0.92	0.00	Calculated
Pipe	J37-38	STMH8	245.00	1347.46	1347.42	0.2500	24.000	0.0120	6.96	12.25	0.56	2.19	2.00	1.00	8.00	SURCHARGED
Pipe	STMH9	J37-38	16.00	1347.75	1347.46	0.1200	24.000	0.0150	6.92	6.75	1.03	2.20	2.00	1.00	5.00	SURCHARGED
Pipe	39	J39	35.00	1350.58	1347.38	9.1400	12.000	0.0100	1.05	14.00	0.08	2.17	0.59	0.59	0.00	Calculated
Pipe	31	33	45.00	1351.13	1348.30	6.2900	12.000	0.0100	5.49	11.62	0.47	7.60	0.87	0.88	0.00	Calculated
Pipe	33	STMH8	197.00	1348.30	1347.42	0.4500	18.000	0.0120	6.51	7.61	0.86	3.69	1.50	1.00	8.00	SURCHARGED
Pipe	C74	C74	126.00	1348.00	1347.30	0.5600	15.000	0.0100	5.59	6.26	0.89	4.55	1.25	1.00	11.00	SURCHARGED
Pipe	68	66	43.00	1347.39	1347.10	0.6700	18.000	0.0150	1.09	7.48	0.15	2.85	0.48	0.35	0.00	Calculated

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	25	STMH4	35.00	1351.09	1345.86	14.9400	12.000	0.0100	1.51	17.90	0.08	3.09	0.60	0.60	0.00	Calculated
Pipe	STMH4	STMH3	174.00	1345.86	1344.84	0.5900	24.000	0.0100	16.90	20.68	0.82	2.50	2.00	1.00	12.00	SURCHARGED
Pipe	STMH3	26	20.00	1345.00	1344.95	0.2500	36.000	0.0100	13.43	43.35	0.31	5.38	2.78	0.93	0.00	Calculated
Pipe	19	J18-19-20	45.00	1347.30	1347.10	0.4400	18.000	0.0100	6.65	9.10	0.73	3.76	1.50	1.00	12.00	SURCHARGED
Pipe	20	J18-19-20	21.00	1347.20	1347.10	0.4800	12.000	0.0100	1.04	3.20	0.30	3.20	1.00	1.00	19.00	SURCHARGED
Pipe	J18-19-20	23	22.00	1347.10	1347.00	0.4500	18.000	0.0100	10.83	9.21	1.18	6.13	1.50	1.00	12.00	SURCHARGED
Pipe	18	J18-19-20	198.00	1347.90	1347.10	0.4000	12.000	0.0100	3.33	2.94	1.13	4.24	1.00	1.00	13.00	SURCHARGED
Pipe	STMH5	J21	38.00	1347.80	1347.65	0.3900	24.000	0.0100	1.36	18.48	0.15	1.74	2.00	1.00	0.00	SURCHARGED
Pipe	J21	J22	171.00	1347.65	1347.00	0.3800	24.000	0.0100	2.66	18.13	0.15	1.74	2.00	1.00	3.00	SURCHARGED
Pipe	STMH18	73	21.00	1345.83	1345.88	-0.2400	36.000	0.0150	268.67	28.21	9.53	38.23	3.00	1.00	1282.00	SURCHARGED
Pipe	J22	J23-24	130.00	1347.00	1346.51	0.3800	24.000	0.0100	5.22	18.06	0.29	1.91	2.00	1.00	6.00	SURCHARGED
Pipe	J23-24	STMH4	169.00	1346.51	1345.86	0.3800	24.000	0.0100	15.53	18.24	0.85	4.94	2.00	1.00	9.00	SURCHARGED
Pipe	22	J22	24.00	1348.32	1347.00	5.5000	12.000	0.0100	3.23	10.86	0.30	5.15	1.00	1.00	5.00	SURCHARGED
Pipe	21	J23-24	30.00	1350.55	1347.65	9.6700	12.000	0.0100	1.85	14.40	0.13	6.73	1.50	1.00	0.00	Calculated
Pipe	23	J23-24	21.00	1347.00	1346.51	2.3300	18.000	0.0100	12.48	20.86	0.60	7.06	1.50	1.00	12.00	SURCHARGED
Pipe	24	J23-24	18.00	1346.70	1346.51	1.0600	12.000	0.0100	2.51	4.76	0.53	3.20	1.00	1.00	19.00	SURCHARGED
Pipe	11	J2	50.00	1353.96	1353.91	0.1000	12.000	0.0100	1.02	1.46	0.69	2.14	0.59	0.89	0.00	Calculated
Pipe	12	J3	40.00	1353.91	1353.86	0.1300	12.000	0.0100	1.02	1.64	0.62	3.11	0.45	0.45	0.00	Calculated
Pipe	13	C71	40.00	1353.86	1353.35	1.2700	12.000	0.0100	1.02	5.23	0.19	3.39	0.43	0.44	0.00	Calculated
Pipe	74	STMH18	20.00	1346.33	1345.83	2.5000	30.000	0.0150	260.77	56.21	4.64	50.00	2.50	1.00	1286.00	SURCHARGED
Pipe	C70	J6-7	22.00	1353.47	1353.16	1.4100	12.000	0.0100	1.11	5.50	0.20	5.29	0.31	0.31	0.00	Calculated
Pipe	C69	J6-7	27.00	1353.23	1354.02	-2.9900	12.000	0.0120	1.13	6.60	0.17	2.15	0.64	0.64	0.00	Calculated
Pipe	C61	J6-7	29.00	1351.30	1350.63	1.6200	12.000	0.0250	1.64	2.36	0.69	3.16	0.64	0.64	0.00	Calculated
Pipe	C63	J6-7	35.00	1350.39	1350.66	-0.7700	12.000	0.0250	1.18	1.63	0.72	2.17	0.65	0.65	0.00	Calculated
Pipe	C64	J6-7	4.00	1350.47	1350.27	5.0000	12.000	0.0250	1.17	4.14	0.28	5.03	0.34	0.34	0.00	Calculated
Pipe	J6-7	STMH1	50.00	1348.00	1347.70	0.6000	24.000	0.0100	7.97	22.78	0.35	3.34	2.00	1.00	11.00	SURCHARGED
Pipe	7	J6-7	100.00	1349.26	1348.00	1.2600	15.000	0.0100	3.01	9.43	0.32	2.90	0.99	0.79	0.00	Calculated
Pipe	75	J4	40.00	1346.44	1346.33	0.2800	30.000	0.0150	124.47	18.64	6.68	39.31	2.50	1.00	1274.00	SURCHARGED
Pipe	6	J6-7	200.00	1348.86	1348.00	0.4300	15.000	0.0100	4.68	5.51	0.85	3.92	1.25	1.00	32.00	SURCHARGED
Pipe	8	J8-9	14.00	1347.70	1347.60	0.7100	15.000	0.0100	3.74	7.10	0.53	3.05	1.25	1.00	35.00	SURCHARGED
Pipe	9	J8-9	20.00	1347.70	1347.60	0.5000	15.000	0.0100	5.63	5.94	0.95	4.59	1.25	1.00	36.00	SURCHARGED
Pipe	STMH1	J16	6.00	1347.70	1347.60	1.6700	24.000	0.0100	8.07	37.97	0.21	3.39	2.00	1.00	23.00	SURCHARGED
Pipe	J16	J17	29.04	1345.70	1345.50	0.6900	24.000	0.0100	23.00	24.41	0.94	7.32	2.00	1.00	48.00	SURCHARGED
Pipe	J10	J8th-Juniper	151.00	1346.80	1346.00	0.5300	24.000	0.0100	14.68	21.41	0.69	4.67	2.00	1.00	31.00	SURCHARGED
Pipe	J8-9	J10	179.00	1347.60	1346.80	0.4500	24.000	0.0100	12.39	19.66	0.69	4.57	2.00	1.00	23.00	SURCHARGED
Pipe	10	J10	14.00	1346.90	1346.80	0.7100	12.000	0.0100	3.21	3.91	0.82	4.09	1.00	1.00	50.00	SURCHARGED
Pipe	16	J16	15.00	1349.79	1345.48	28.7300	15.000	0.0100	3.59	43.85	0.08	4.41	0.79	0.63	0.00	Calculated
Pipe	82	J81	39.00	1349.90	1347.16	7.0300	12.000	0.0100	5.34	12.28	0.44	6.80	1.00	1.00	4.00	SURCHARGED
Pipe	76	STMH19	7.00	1345.87	1343.03	40.5700	18.000	0.0150	4.65	57.99	0.08	3.82	1.00	1.00	4.00	SURCHARGED
Pipe	80	J80	16.00	1348.37	1348.30	0.4400	12.000	0.0100	1.16	3.06	0.38	1.48	1.00	1.00	33.00	SURCHARGED
Pipe	J79	J80	63.00	1348.70	1348.46	0.3800	12.000	0.0100	2.93	2.86	1.03	3.74	1.00	1.00	7.00	SURCHARGED
Pipe	J79	J80	40.00	1348.46	1348.30	0.4000	12.000	0.0100	2.79	2.93	0.95	3.55	1.00	1.00	31.00	SURCHARGED
Pipe	J80	J9th-Poplar	118.00	1348.30	1348.00	0.2500	18.000	0.0100	4.05	6.89	0.59	2.29	1.50	1.00	6.00	SURCHARGED
Pipe	J9th-Poplar	81	325.00	1348.00	1347.16	0.2600	18.000	0.0100	4.12	6.94	0.59	2.33	1.50	1.00	20.00	SURCHARGED
Pipe	93	J2	112.00	1349.42	1347.87	1.3800	12.000	0.0100	2.73	5.45	0.50	3.47	1.00	1.00	10.00	SURCHARGED
Pipe	1	J2	54.00	1350.67	1350.43	0.4400	12.000	0.0100	2.56	3.09	0.83	3.26	1.00	1.00	3.00	SURCHARGED
Pipe	J141	J6th-Broad	58.00	1340.63	1340.28	0.6000	36.000	0.0120	18.61	56.13	0.33	2.63	3.00	1.00	65.00	SURCHARGED
Pipe	J128	J6th-Broad	858.00	1346.55	1340.28	0.7300	18.000	0.0150	4.13	7.78	0.53	2.78	1.42	1.00	2.00	SURCHARGED
Pipe	STMH34	STMH17	130.00	1344.54	1340.28	3.2800	12.000	0.0120	2.45	6.99	0.35	3.12	1.00	1.00	30.00	SURCHARGED
Pipe	STMH17	J83	76.00	1343.31	1343.03	0.3600	30.000	0.0100	16.80	21.30	0.79	3.62	2.50	1.00	75.00	SURCHARGED
Pipe	J83	J83	32.00	1348.58	1348.34	0.7500	12.000	0.0100	1.78	4.01	0.44	2.26	1.00	1.00	16.00	SURCHARGED
Pipe	J83	J84	139.00	1347.16	1348.34	-0.8500	18.000	0.0100	5.26	12.58	0.42	2.97	1.50	1.00	11.00	SURCHARGED
Pipe	J83	J84	31.00	1348.34	1348.25	0.2900	24.000	0.0100	6.70	15.85	0.42	2.79	1.94	0.98	0.00	Calculated
Pipe	J84	J85	4.00	1348.35	1348.25	2.5000	12.000	0.0100	0.87	7.32	0.09	0.86	1.00	1.00	19.00	SURCHARGED
Pipe	J85	STMH20	56.00	1346.65	1342.55	7.3200	18.000	0.0150	2.52	24.63	0.10	2.24	0.91	0.61	0.00	Calculated
Pipe	J84	J85	84.00	1348.25	1348.09	0.1900	12.000	0.0100	6.56	12.84	0.51	3.65	1.97	0.89	0.00	Calculated
Pipe	J84	J85	29.00	1349.68	1348.30	4.7600	24.000	0.0100	1.78	10.10	0.18	2.62	0.82	0.82	0.00	Calculated

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	J86	J86	310.00	1347.40	1346.76	0.2100	30.000	0.0100	19.65	24.23	0.81	4.00	2.50	1.00	7.00	SURCHARGED
Pipe	J8th-Poplar	J86	47.00	1347.50	1347.40	0.2100	36.000	0.0100	17.65	40.00	0.44	2.92	2.60	0.88	0.00	Calculated
Pipe	J87-88	J8th-Poplar	7.00	1347.40	1347.35	0.7100	24.000	0.0100	16.49	24.86	0.66	5.25	2.00	1.00	18.00	SURCHARGED
Pipe	J89-90	J87-88	127.00	1347.67	1347.40	0.2100	24.000	0.0100	10.03	13.56	0.74	3.19	2.00	1.00	15.00	SURCHARGED
Pipe	J91	J89-90	76.00	1347.78	1347.67	0.1400	15.000	0.0100	2.68	3.19	0.84	2.19	1.25	1.00	33.00	SURCHARGED
Pipe	J92	J91	61.00	1347.87	1347.78	0.1500	15.000	0.0100	2.79	3.23	0.87	2.28	1.25	1.00	28.00	SURCHARGED
Pipe	J77	STMH20	7.00	1345.85	1342.55	47.1400	18.000	0.0150	4.21	62.51	0.07	4.23	1.01	0.93	0.00	Calculated
Pipe	J87	J87-88	11.00	1348.28	1347.40	8.0000	18.000	0.0100	4.72	38.62	0.12	2.67	1.50	1.00	13.00	SURCHARGED
Pipe	J87-88	J87-88	101.00	1348.80	1347.40	1.3900	12.000	0.0100	2.80	5.45	0.51	3.56	1.00	1.00	15.00	SURCHARGED
Pipe	J89	J89-90	20.00	1347.65	1347.61	0.2000	12.000	0.0100	3.32	3.28	0.10	4.41	1.00	1.00	42.00	SURCHARGED
Pipe	J90	J89-90	10.00	1347.89	1347.67	2.2000	12.000	0.0100	3.91	6.87	0.57	4.98	1.00	1.00	25.00	SURCHARGED
Pipe	J85	J8th-Poplar	127.00	1348.09	1347.35	0.5800	24.000	0.0100	4.18	22.45	0.19	1.95	1.00	1.00	39.00	SURCHARGED
Pipe	J86	J86	15.00	1348.35	1347.50	5.6700	12.000	0.0100	3.11	11.03	0.28	3.96	1.00	1.00	17.00	SURCHARGED
Pipe	STMH12	STMH13	212.00	1340.37	1339.94	0.2000	36.000	0.0150	30.45	26.03	1.17	4.85	2.51	0.84	0.00	SURCHARGED
Pipe	STMH19	STMH20	203.00	1343.03	1342.40	0.3100	30.000	0.0150	16.24	19.80	0.82	3.51	2.50	1.00	78.00	SURCHARGED
Pipe	2	J3	17.00	1350.43	1350.25	1.0600	12.000	0.0100	2.79	4.77	0.59	3.55	1.00	1.00	4.00	SURCHARGED
Pipe	3	J3	16.00	1351.54	1350.25	8.0600	12.000	0.0100	2.97	13.15	0.23	4.23	0.93	0.94	0.00	Calculated
Pipe	4	J4	22.00	1351.94	1349.65	10.4100	12.000	0.0100	0.96	14.94	0.06	2.01	0.58	0.59	0.00	Calculated
Pipe	J3	J4	96.00	1350.25	1349.65	0.6200	15.000	0.0100	5.10	6.64	0.77	4.15	1.25	1.00	2.00	SURCHARGED
Pipe	J4	J5	48.00	1349.65	1349.34	0.6500	18.000	0.0100	5.98	10.97	0.54	4.27	1.50	1.00	1.00	SURCHARGED
Pipe	J5	J5	36.00	1349.95	1349.34	1.6900	12.000	0.0100	0.26	6.03	0.04	0.66	1.50	1.00	3.00	SURCHARGED
Pipe	J5	J6-7	347.00	1349.34	1348.00	0.3900	18.000	0.0100	6.15	8.49	0.72	3.48	1.50	1.00	42.00	SURCHARGED
Pipe	J6-7	J6-7	30.00	1346.00	1345.70	1.0000	24.000	0.0100	19.41	29.41	0.66	6.18	2.00	1.00	7.00	SURCHARGED
Pipe	J8th-Juniper	J14	293.00	1348.70	1347.60	0.3600	18.000	0.0150	1.45	5.98	0.26	1.12	1.50	1.00	86.00	SURCHARGED
Pipe	STMH2	STMH21	125.00	1342.40	1342.15	0.2000	30.000	0.0150	15.84	15.90	1.00	3.67	2.50	1.00	19.00	SURCHARGED
Pipe	STMH20	J15	28.00	1347.60	1347.50	0.3600	18.000	0.0150	4.22	5.44	0.78	2.39	1.50	1.00	20.00	SURCHARGED
Pipe	J14	J15	354.00	1347.50	1346.00	0.4200	18.000	0.0150	5.72	5.93	0.97	3.24	1.50	1.00	29.00	SURCHARGED
Pipe	J15	J15	26.00	1347.60	1347.50	0.3800	12.000	0.0100	2.77	2.87	0.96	3.52	1.00	1.00	0.00	Calculated
Pipe	J14	J14	13.00	1347.80	1347.60	1.5400	12.000	0.0100	4.22	24.27	0.17	6.37	0.78	0.81	0.00	Calculated
Pipe	C14	C14	44.00	1349.05	1348.52	1.2000	36.000	0.0250	1.31	38.07	0.03	0.52	2.38	0.79	0.00	Calculated
Pipe	C12	C12	43.00	1349.09	1349.02	0.1600	24.000	0.0250	4.50	4.75	0.95	2.45	1.18	0.59	0.00	Calculated
Pipe	C11	C11	43.86	1349.97	1349.93	0.0900	24.000	0.0250	2.16	3.55	0.61	2.52	0.64	0.32	0.00	Calculated
Pipe	C10	C10	30.00	1350.33	1350.13	0.6700	15.000	0.0250	2.16	2.74	0.79	2.66	0.79	0.63	0.00	Calculated
Pipe	C9	C9	34.00	1351.36	1350.98	1.1200	15.000	0.0250	2.25	3.55	0.63	4.07	0.58	0.46	0.00	Calculated
Pipe	C8	C8	27.00	1350.68	1350.47	0.7800	18.000	0.0250	1.06	4.82	0.22	0.61	1.46	0.98	0.00	Calculated
Pipe	STMH21	J3rd-Main-Poplar	188.00	1342.15	1341.42	0.3900	30.000	0.0150	14.23	22.15	0.64	3.44	2.50	1.00	87.00	SURCHARGED
Pipe	C15	C15	100.00	1350.26	1350.08	0.1800	36.000	0.0250	1.36	14.71	0.09	1.40	0.99	0.33	0.00	Calculated
Pipe	C7	C7	30.00	1351.41	1351.36	0.1700	18.000	0.0250	1.26	2.23	0.56	1.66	0.75	0.50	0.00	Calculated
Pipe	C6	C6	30.00	1351.56	1351.40	0.5300	18.000	0.0250	0.25	3.99	0.06	0.36	0.69	0.46	0.00	Calculated
Pipe	C16	C16	131.00	1349.88	1349.69	0.1500	36.000	0.0250	1.27	13.21	0.10	0.56	1.38	0.46	0.00	Calculated
Pipe	C17	C17	60.00	1349.53	1349.36	0.2800	36.000	0.0250	1.43	18.46	0.08	0.45	1.72	0.57	0.00	Calculated
Pipe	C5	C5	72.00	1351.49	1351.15	0.4700	18.000	0.0250	1.18	3.75	0.31	1.48	1.18	0.39	0.00	SURCHARGED
Pipe	C18	C18	40.00	1349.98	1349.98	0.0000	36.000	0.0250	2.28	1.73	1.31	1.48	1.18	0.39	0.00	SURCHARGED
Pipe	C19	C19	23.00	1351.42	1351.19	1.0000	24.000	0.0250	2.27	11.76	0.19	4.04	0.47	0.23	0.00	Calculated
Pipe	C20	C20	189.00	1351.16	1352.12	-0.5700	24.000	0.0250	1.85	8.38	0.22	1.19	0.99	0.50	0.00	Calculated
Pipe	C21	C21	40.00	1350.91	1351.13	-0.5500	24.000	0.0250	1.66	8.72	0.19	0.58	1.77	0.89	0.00	Calculated
Pipe	J188	J187	215.00	1340.71	1339.85	0.4000	30.000	0.0150	17.96	22.48	0.80	3.66	2.50	1.00	98.00	SURCHARGED
Pipe	C4	C4	20.00	1351.59	1351.37	1.1000	18.000	0.0250	4.18	5.73	0.73	4.97	0.71	0.48	0.00	Calculated
Pipe	C3	C3	41.00	1351.94	1351.59	0.8500	18.000	0.0250	4.29	5.05	0.85	3.28	1.06	0.71	0.00	Calculated
Pipe	C2	C2	31.00	1351.18	1351.27	-0.2900	18.000	0.0250	2.08	2.94	0.71	1.18	1.50	1.00	24.00	SURCHARGED
Pipe	C1	C1	30.00	1352.89	1352.67	0.7300	15.000	0.0250	0.03	2.88	0.01	4.10	0.52	0.52	0.00	Calculated
Pipe	C67	C67	30.00	1353.12	1352.59	1.7700	12.000	0.0250	1.82	2.46	0.74	4.41	0.52	0.52	0.00	Calculated
Pipe	C57	C57	32.00	1351.58	1351.43	0.4700	24.000	0.0250	5.90	8.05	0.73	5.71	0.73	0.36	0.00	Calculated
Pipe	C58	C58	40.00	1350.29	1349.69	1.5000	24.000	0.0250	5.86	14.41	0.31	3.91	0.91	0.73	0.00	Calculated
Pipe	C82	C82	13.00	1350.30	1349.98	2.4600	15.000	0.0100	3.95	13.18	0.40	4.12	0.91	0.73	0.00	Calculated
Pipe	STMH24	J183	13.00	1339.30	1339.25	0.3600	30.000	0.0150	26.83	22.05	1.22	5.47	2.50	1.00	105.00	SURCHARGED
Pipe	C53	C53	28.00	1347.89	1347.64	0.8900	12.000	0.0250	1.18	1.75	0.68	3.95	0.40	0.41	0.00	Calculated

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft.)	Inlet Invert Elevation (ft.)	Outlet Invert Elevation (ft.)	Average Slope (%)	Diameter or Height (in.)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Capacity Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft.)	Peak Flow Depth/Total Depth Ratio	Total Time Reported Surcharged Condition (min)
Pipe	C75	C75-	19.00	1350.01	1350.37	-1.8900	12.000	0.0250	0.81	2.55	0.32	1.77	0.56	0.56	0.00 Calculated
Pipe	C23	C23-	50.00	1351.83	1351.95	-0.2400	18.000	0.0250	2.17	2.68	0.81	1.93	0.98	0.65	0.00 Calculated
Pipe	C24	C24-	53.00	1351.58	1351.02	0.1060	15.000	0.0250	3.70	3.45	1.07	4.26	0.88	0.71	0.00 SURCHARGED
Pipe	C25	C25-	72.00	1349.68	1349.21	0.6500	24.000	0.0150	4.36	15.84	0.28	1.53	1.88	0.94	0.00 Calculated
Pipe	C26	C26-	46.00	1349.77	1350.81	-2.2600	15.000	0.0250	1.52	8.42	0.61	1.94	0.76	0.61	0.00 Calculated
Pipe	C27	C27-	84.00	1347.92	1347.21	0.8500	18.000	0.0250	2.59	5.02	0.52	2.58	0.86	0.58	0.00 Calculated
Pipe	C28	C28-	36.00	1346.93	1347.23	-0.8300	15.000	0.0150	2.35	5.11	0.46	2.94	0.78	0.62	0.00 Calculated
Pipe	C29	C29-	41.00	1346.60	1346.48	0.2900	15.000	0.0150	2.38	3.03	0.79	4.66	0.54	0.43	0.00 Calculated
Pipe	C40	C40-	59.23	1346.10	1345.63	0.7900	12.000	0.0250	0.13	1.65	0.08	0.21	0.82	0.82	0.00 Calculated
Pipe	C30	C30-	35.00	1345.92	1345.93	-0.0300	24.000	0.0150	2.43	3.31	0.73	2.96	0.62	0.31	0.00 Calculated
Pipe	C31	C31-	30.00	1345.03	1344.94	0.3000	15.000	0.0150	2.52	3.07	0.82	4.41	0.59	0.47	0.00 Calculated
Pipe	C32	C32-	65.00	1342.97	1343.11	-0.2200	18.000	0.0150	2.92	4.23	0.69	2.42	1.13	0.75	0.00 Calculated
Pipe	C37	C37-	55.00	1344.45	1344.49	-0.0700	30.000	0.0150	6.32	9.59	0.66	3.84	0.91	0.37	0.00 Calculated
Pipe	C36	C36-	43.00	1342.88	1342.75	0.3100	24.000	0.0150	4.45	10.91	0.41	2.02	1.44	0.72	0.00 Calculated
Pipe	C35	C35-	65.38	1343.05	1342.84	0.3200	18.000	0.0150	4.75	5.16	0.92	5.24	0.86	0.43	0.00 Calculated
Pipe	C33	C33-	47.00	1340.82	1339.69	2.4000	24.000	0.0150	10.74	30.40	0.35	8.81	0.82	0.41	0.00 Calculated
Pipe	C34	C34-	236.00	1337.77	1336.83	0.4000	30.000	0.0150	17.95	22.43	0.80	3.66	2.50	1.00	115.00 SURCHARGED
Pipe	STMH25	J181	19.00	1335.91	1335.81	0.5300	36.000	0.0150	40.28	41.94	0.96	5.70	3.00	1.00	119.00 SURCHARGED
Pipe	STMH26	STMH27	337.00	1335.81	1335.50	0.2400	36.000	0.0150	40.29	28.34	1.42	5.70	3.00	1.00	105.00 SURCHARGED
Pipe	STMH27	STMH28	620.00	1335.00	1332.50	0.4000	36.000	0.0150	46.88	36.71	1.28	6.63	3.00	1.00	88.00 SURCHARGED
Pipe	STMH28	Out-01	174	136.00	1341.20	0.5900	12.000	0.0100	1.72	3.55	0.48	2.19	1.00	1.00	84.00 SURCHARGED
Pipe	C22	C22-	115.00	1353.05	1352.50	0.4800	24.000	0.0150	0.77	13.56	0.06	3.43	0.31	0.16	0.00 Calculated
Pipe	STMH8	J39	16.00	1347.42	1347.38	0.2500	30.000	0.0120	9.89	22.22	0.45	2.80	2.01	0.80	0.00 Calculated
Pipe	J105	J105-	90.00	1345.00	1344.80	0.2200	24.000	0.0100	6.52	13.86	0.47	2.57	1.85	0.93	0.00 Calculated
Pipe	J105	J105-	17.00	1345.04	1345.00	0.2400	15.000	0.0100	4.25	4.07	1.04	3.46	1.25	1.00	16.00 SURCHARGED
Pipe	J105	J105-	19.00	1345.88	1345.84	0.2100	24.000	0.0100	5.16	13.49	0.38	2.26	1.76	1.00	0.00 Calculated
Pipe	J5th-Cherry	J130	10.00	1346.34	1346.24	1.0000	12.000	0.0100	2.07	4.63	0.45	2.63	1.00	1.00	3.00 SURCHARGED
Pipe	STMH31	J130	147.00	1347.07	1346.24	0.5600	12.000	0.0100	2.96	3.48	0.85	3.85	0.87	0.95	0.00 Calculated
Pipe	J130	J5th-Cherry	182.00	1346.24	1345.88	0.2000	12.000	0.0100	1.93	2.06	0.94	2.45	1.00	1.00	21.00 SURCHARGED
Pipe	J-CONCPIT	J70	113.00	1344.26	1343.89	0.3300	30.000	0.0150	24.28	20.34	1.19	4.95	2.50	1.00	48.00 SURCHARGED
Pipe	J-CONCPIT	J70	350.00	1347.00	1344.26	0.7800	18.000	0.0100	6.51	12.08	0.54	3.97	1.27	0.88	0.00 Calculated
Pipe	C78-79	J97	109.00	1347.40	1347.45	-0.0500	24.000	0.0100	5.64	6.30	0.90	2.75	1.34	0.68	0.00 Calculated
Pipe	J96	J96	4.00	1347.41	1347.40	0.2500	12.000	0.0150	3.36	1.54	2.17	4.27	1.00	1.00	0.00 Calculated
Pipe	J96	J96	38.00	1344.40	1343.33	2.8200	12.000	0.0100	3.76	7.77	0.48	5.45	1.00	1.00	13.00 SURCHARGED
Pipe	DeadEnd	127	255.00	1350.77	1349.49	0.5000	12.000	0.0150	0.00	2.19	0.00	0.00	0.35	0.35	0.00 Calculated
Pipe	J70	STMH17	181.00	1343.89	1343.31	0.3200	30.000	0.0150	16.50	20.12	0.82	3.48	2.50	1.00	65.00 SURCHARGED
Pipe	J70	J70	205.00	1344.45	1343.89	0.2700	18.000	0.0100	2.71	7.14	0.38	1.53	1.50	1.00	68.00 SURCHARGED
Pipe	STMH15	J64-65	136.00	1345.23	1344.88	0.2600	30.000	0.0150	14.92	18.03	0.83	3.16	2.50	1.00	34.00 SURCHARGED
Pipe	J64-65	STMH16	171.00	1344.88	1344.44	0.2600	30.000	0.0150	14.91	18.03	0.83	3.07	2.50	1.00	47.00 SURCHARGED
Pipe	J64-65	J64-65	55.00	1347.46	1344.88	4.6900	18.000	0.0150	2.29	19.72	0.12	1.96	0.92	0.68	0.00 Calculated
Pipe	J64-65	J64-65	10.00	1347.51	1344.88	26.3000	18.000	0.0150	1.82	46.69	0.04	1.64	0.88	0.65	0.00 Calculated
Pipe	C44-	185	5.39	1343.50	1343.33	3.1500	12.000	0.0150	1.84	5.48	0.34	3.15	1.00	1.00	16.00 SURCHARGED
Pipe	J148	J144-146-147	209.00	1343.15	1341.74	0.6700	30.000	0.0150	19.39	29.20	0.66	3.95	2.50	1.00	7.00 SURCHARGED
Pipe	J143	J143	138.00	1341.48	1341.13	0.2500	36.000	0.0250	19.69	17.47	1.13	2.79	3.00	1.00	41.00 SURCHARGED
Pipe	C46-47-48	STMH12	167.00	1340.96	1340.37	0.3500	36.000	0.0150	30.76	34.36	0.90	4.41	2.89	0.97	0.00 Calculated
Pipe	J194	STMH10	163.15	1343.00	1342.40	0.3700	36.000	0.0120	28.20	43.82	0.64	4.53	2.66	0.93	0.00 Calculated
Pipe	J194	J194	124.00	1348.24	1343.00	4.2300	12.000	0.0150	2.36	6.35	0.37	3.96	0.71	0.71	0.00 Calculated
Pipe	J40	STMH7	235.00	1347.00	1343.66	1.4200	24.000	0.0120	10.62	29.22	0.36	3.38	2.00	1.00	15.00 SURCHARGED
Pipe	J40	J40	31.00	1349.70	1347.00	8.7100	12.000	0.0150	0.70	9.11	0.08	1.43	0.59	0.59	0.00 Calculated
Pipe	J181	J179-180	220.00	1336.83	1335.95	0.4000	30.000	0.0150	18.93	22.48	0.84	3.86	2.50	1.00	125.00 SURCHARGED
Pipe	J181	J181	28.00	1343.35	1337.00	22.6800	12.000	0.0150	3.11	14.70	0.21	4.70	0.79	0.79	0.00 Calculated
Pipe	J48	J48	145.00	1350.05	1348.37	1.1600	18.000	0.0150	1.55	3.32	0.47	5.00	0.42	0.42	0.00 Calculated
Pipe	J112	J112	101.00	1346.00	1345.28	0.7100	12.000	0.0100	9.07	11.53	0.79	6.00	1.47	0.98	0.00 Calculated
Pipe	J112	J112	9.00	1348.65	1346.00	29.4400	12.000	0.0150	1.80	16.76	0.11	3.58	0.61	0.61	0.00 Calculated
Pipe	J183	J183	314.00	1339.25	1337.99	0.4000	30.000	0.0150	16.26	22.52	0.72	3.90	2.50	1.00	105.00 SURCHARGED
Pipe	J183	J183	12.00	1344.62	1338.00	55.1700	12.000	0.0150	1.72	20.66	0.08	3.51	2.00	1.00	0.00 Calculated
Pipe	J17	STMH3	311.97	1345.50	1345.00	0.1600	24.000	0.0100	9.89	11.77	0.84	3.15	2.00	1.00	49.00 SURCHARGED

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Pipe	17	J17	18.00	1349.77	1345.50	23.7200	12.000	0.0150	1.32	15.04	0.09	2.67	0.60	0.60	0.00	Calculated
Pipe	C39	C39	20.00	1345.40	1345.25	0.7500	12.000	0.0120	0.84	3.34	0.25	3.97	0.31	0.31	0.00	Calculated
Pipe	C38	C38	14.00	1344.80	1344.75	0.3600	12.000	0.0150	1.84	1.85	1.00	2.39	0.96	0.99	0.00	Calculated
Pipe	STMH33	J117	146.00	1345.08	1344.49	0.4000	36.000	0.0250	7.22	22.05	0.33	1.81	3.00	1.00	19.00	SURCHARGED
Pipe	C68	C68	30.00	1354.35	1354.31	0.1300	12.000	0.0250	0.00	0.68	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	C66	C66	32.00	1352.80	1352.27	1.6600	12.000	0.0120	0.00	4.97	0.00	0.00	0.00	0.00	0.00	Calculated
Pipe	C49	C49	13.00	1347.82	1344.18	28.0000	12.000	0.0150	0.00	16.34	0.00	0.00	0.50	0.50	0.00	Calculated
Pipe	STMH13	STMH100	400.00	1339.94	1338.16	0.4400	36.000	0.0150	30.09	38.56	0.78	5.04	2.47	0.82	0.00	Calculated
Pipe	J121-122	J121-122	16.00	1344.87	1342.00	17.9400	12.000	0.0100	2.72	19.62	0.14	3.47	1.00	1.00	48.00	SURCHARGED
Pipe	STMH100	STMH101	400.00	1338.16	1337.00	0.2900	36.000	0.0150	29.53	31.13	0.95	4.58	2.71	0.91	0.00	Calculated
Pipe	STMH101	STMH102	400.00	1337.00	1335.84	0.2900	36.000	0.0150	29.26	31.13	0.94	4.56	2.68	0.94	0.00	Calculated
Pipe	STMH102	STMH103	400.00	1335.84	1334.68	0.2900	36.000	0.0150	29.20	31.13	0.94	4.53	2.59	0.96	0.00	Calculated
Pipe	STMH103	STMH104	328.00	1334.68	1333.73	0.2900	36.000	0.0150	29.18	31.11	0.94	5.32	2.17	0.73	0.00	Calculated
Pipe	Out-11	Out-11	128.00	1333.73	1332.50	0.9600	36.000	0.0150	29.17	56.67	0.51	7.21	1.67	0.56	0.00	Calculated
Pipe	J121-122	J121-122	19.00	1346.47	1342.00	23.5300	12.000	0.0100	3.32	22.47	0.15	4.23	1.00	1.00	11.00	SURCHARGED
Pipe	C83	C83	33.00	1350.03	1349.37	2.0000	18.000	0.0250	3.89	7.72	0.50	6.14	0.58	0.39	0.00	Calculated
Pipe	C44	C44	70.00	1345.00	1343.50	2.1400	12.000	0.0120	2.25	5.65	0.85	3.58	0.85	0.85	0.00	Calculated
Channel	C5	C5	265.35	1351.49	1348.86	0.9900	41.400	0.0320	1.15	284.61	0.00	0.77	0.98	0.29	0.00	Calculated
Channel	C4	C4	109.43	1351.37	1350.19	1.0800	41.400	0.0320	4.18	422.24	0.01	1.36	1.04	0.30	0.00	Calculated
Channel	C3	C3	75.87	1351.59	1351.59	0.0000	41.400	0.0320	4.20	14.76	0.28	0.48	0.94	0.28	0.00	Calculated
Channel	C2	C2	92.62	1351.27	1351.94	-0.7200	41.400	0.0320	2.33	345.84	0.01	0.48	1.50	0.44	0.00	Calculated
Channel	C1	C1	176.08	1352.67	1351.18	0.8500	41.400	0.0320	3.28	374.05	0.01	0.58	1.25	0.36	0.00	Calculated
Channel	C21	C20	65.14	1351.13	1351.16	-0.0500	54.000	0.0320	1.99	186.61	0.01	0.11	1.64	0.36	0.00	Calculated
Channel	C20	C19	66.85	1352.12	1351.42	1.0500	54.000	0.0320	2.28	889.80	0.00	0.88	0.48	0.11	0.00	Calculated
Channel	C19	C18	75.42	1351.19	1349.98	1.6000	54.000	0.0320	2.26	1101.39	0.00	0.57	0.63	0.14	0.00	Calculated
Channel	C18	C17	373.61	1349.98	1349.53	0.1200	54.000	0.0320	2.25	301.78	0.01	0.26	1.41	0.31	0.00	Calculated
Channel	C17	C16	139.29	1349.36	1349.88	-0.3700	54.000	0.0320	1.44	531.29	0.00	0.12	1.54	0.34	0.00	Calculated
Channel	C16	C15	297.44	1349.69	1350.26	-0.1900	54.000	0.0320	1.39	380.65	0.00	0.19	1.19	0.26	0.00	Calculated
Channel	C15	C14	1082.11	1350.08	1349.05	0.1000	54.000	0.0320	2.44	268.27	0.01	0.36	1.60	0.35	0.00	Calculated
Channel	C5	C6	294.68	1351.15	1351.40	-0.0800	41.400	0.0320	2.18	118.44	0.02	0.40	0.89	0.26	0.00	Calculated
Channel	C12	C13	345.21	1349.02	1348.52	0.1400	41.400	0.0320	10.41	154.75	0.07	0.94	1.25	0.37	0.00	Calculated
Channel	C11	C12	240.64	1349.93	1349.09	0.3500	52.680	0.0320	2.16	477.68	0.00	0.42	0.86	0.20	0.00	Calculated
Channel	C10	C11	21.68	1350.13	1349.97	0.7400	52.680	0.0320	2.16	694.56	0.00	0.43	0.77	0.17	0.00	Calculated
Channel	C8	C9	103.30	1350.47	1351.36	-0.8600	52.680	0.0320	2.25	750.45	0.00	0.50	1.18	0.27	0.00	Calculated
Channel	C9	C10	152.54	1350.98	1350.33	0.4300	52.680	0.0320	2.50	527.77	0.00	0.65	0.65	0.15	0.00	Calculated
Channel	C6	C7	70.28	1351.56	1351.41	0.2100	41.400	0.0320	0.45	187.85	0.00	0.15	0.68	0.20	0.00	Calculated
Channel	C7	C8	293.50	1351.36	1350.68	0.2300	41.400	0.0320	0.90	195.72	0.00	0.29	1.09	0.32	0.00	Calculated
Channel	C25	C26	488.75	1349.21	1349.77	-0.1200	27.960	0.0320	1.86	65.63	0.03	0.10	1.95	0.84	0.00	Calculated
Channel	C26	Inlet49Outlet	179.31	1350.81	1348.08	1.5200	14.400	0.0320	1.52	81.05	0.02	0.65	0.46	0.38	0.00	Calculated
Channel	Inlet49Outlet	C27	203.57	1348.08	1347.92	0.0900	14.400	0.0320	1.94	18.42	0.11	0.36	0.71	0.59	0.00	Calculated
Channel	C27	C28	188.07	1347.21	1346.93	0.1700	14.400	0.0320	2.70	26.81	0.10	0.18	1.09	0.91	0.00	Calculated
Channel	C28	C29	29.08	1347.23	1346.60	2.1700	14.400	0.0320	2.35	96.68	0.02	0.64	0.53	0.44	0.00	Calculated
Channel	C29	C30	43.20	1346.48	1345.92	1.3000	14.400	0.0320	2.38	74.79	0.03	0.55	0.58	0.48	0.00	Calculated
Channel	C40	C30	21.10	1345.63	1345.92	-1.3700	14.400	0.0320	0.11	77.01	0.00	0.34	0.97	0.81	0.00	Calculated
Channel	C30	C31	105.35	1345.93	1345.03	0.8500	24.000	0.0320	2.43	164.49	0.01	0.72	0.58	0.29	0.00	Calculated
Channel	C31	C32	254.76	1344.94	1342.97	0.7700	24.000	0.0320	2.52	156.50	0.02	0.41	1.24	0.62	0.00	Calculated
Channel	C32	C33	190.43	1343.11	1342.59	0.2700	24.000	0.0320	3.27	93.00	0.04	0.37	1.24	0.62	0.00	Calculated
Channel	C33	C34	189.32	1342.59	1343.05	-0.2700	24.000	0.0320	4.82	92.76	0.05	0.31	1.27	0.63	0.00	Calculated
Channel	C33	C35	301.16	1342.84	1339.69	1.0500	14.400	0.0320	4.73	67.18	0.07	2.58	0.37	0.30	0.00	Calculated
Channel	189	C40	141.22	1345.81	1346.10	-0.2100	14.400	0.0320	0.55	60.80	0.01	0.43	0.35	0.31	0.00	Calculated
Channel	C35	C36	344.77	1342.75	1340.82	0.5600	23.520	0.0320	8.11	165.01	0.05	0.63	0.96	0.49	0.00	Calculated
Channel	C36	C37	234.69	1344.49	1342.72	0.7500	27.960	0.0320	6.28	164.90	0.04	0.81	0.96	0.42	0.00	Calculated
Channel	C37	C38	122.59	1342.72	1342.88	-0.1300	27.960	0.0320	8.18	66.60	0.12	0.68	1.29	0.55	0.00	Calculated
Channel	C41	C42	103.85	1350.40	1349.75	0.6300	14.400	0.0320	1.54	51.97	0.03	1.15	0.32	0.26	0.00	Calculated
Channel	C41	C42	106.81	1351.09	1350.35	0.6900	14.400	0.0320	0.70	54.68	0.01	0.65	0.29	0.24	0.00	Calculated
Channel	C42	C43	42.22	1349.75	1347.41	5.5400	14.400	0.0320	2.09	154.64	0.01	2.47	0.27	0.23	0.00	Calculated
Channel	C22	C23	1014.72	1352.50	1351.83	0.0700	34.560	0.0320	3.19	161.42	0.02	0.26	0.80	0.28	0.00	Calculated
Channel	C23	C24	419.66	1351.95	1351.58	0.0900	24.000	0.0320	2.35	52.84	0.04	0.41	1.02	0.51	0.00	Calculated

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Capacity Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
Channel	C22	C21	150.05	1353.05	1350.91	1.4300	54.000	0.0320	2.63	1038.44	0.00	0.54	1.09	0.24	0.00	
Channel	4	C69	87.44	1354.04	1353.23	0.9300	24.000	0.0320	2.72	171.29	0.02	0.29	1.00	0.55	0.00	
Channel	C69-	C70	63.76	1354.02	1353.47	0.8600	14.400	0.0320	1.13	61.01	0.02	0.79	0.34	0.28	0.00	
Channel	C70-	14	66.49	1353.16	1351.17	2.9900	14.400	0.0320	1.11	113.64	0.01	1.10	0.39	0.35	0.00	
Channel	45	C42	27.16	1350.83	1350.35	1.7700	14.400	0.0320	1.84	87.33	0.00	0.00	0.17	0.15	0.00	
Channel	C53-	STMH34	86.31	1347.64	1344.54	3.5900	14.400	0.0320	1.84	124.49	0.01	0.67	0.71	0.59	0.00	
Channel	C82-	C83	7.76	1350.30	1350.03	3.4800	14.400	0.0320	3.91	122.53	0.03	0.84	0.74	0.62	0.00	
Channel	2	C67	414.13	1353.94	1353.12	0.2000	14.400	0.0320	0.00	29.23	0.00	0.00	0.34	0.29	0.00	
Channel	C67-	7	274.32	1352.59	1349.99	0.9500	24.000	0.0320	1.79	173.26	0.01	1.47	0.59	0.30	0.00	
Channel	C71	14	111.60	1353.35	1352.85	0.4500	14.400	0.0320	3.14	43.97	0.07	1.26	0.56	0.47	0.00	
Channel	5	8	330.00	1354.60	1351.65	0.8900	14.400	0.0320	1.84	61.79	0.03	0.99	0.56	0.47	0.00	
Channel	C55-	114	26.80	1350.75	1350.77	0.0000	14.400	0.0320	0.07	4.01	0.02	0.49	0.11	0.10	0.00	
Channel	114	116	131.70	1350.78	1350.01	0.5800	14.400	0.0320	0.17	49.24	0.00	50.00	0.07	0.06	0.00	
Channel	C&GStart	137	291.26	1350.00	1349.86	0.0500	8.280	0.0320	1.68	6.44	0.26	0.20	0.60	0.88	0.00	
Channel	C52	C53	125.93	1349.85	1347.89	1.5600	14.400	0.0320	1.55	81.95	0.02	0.73	0.41	0.36	0.00	
Channel	176	C46	113.84	1346.09	1345.36	0.6400	14.400	0.0320	1.64	52.60	0.03	0.51	0.52	0.45	0.00	
Channel	C46-	C47	132.96	1344.84	1343.38	1.1000	14.400	0.0320	3.33	66.83	0.05	0.49	0.72	0.61	0.00	
Channel	C47-	C48	131.03	1343.15	1337.76	4.1100	14.400	0.0320	4.65	133.23	0.03	0.57	0.77	0.64	0.00	
Channel	STMH30	J175-176	364.44	1340.94	1338.47	0.6800	14.400	0.0320	20.57	53.75	0.38	13.46	1.20	1.00	92.00	
Channel	STMH30	176	361.59	1348.89	1346.05	0.7900	14.400	0.0320	0.00	57.80	0.00	0.00	0.15	0.12	0.00	
Channel	C43-	190	162.80	1349.15	1347.38	1.0900	14.400	0.0320	2.55	68.49	0.04	1.22	0.65	0.55	0.00	
Channel	75	76	330.39	1349.84	1350.50	-0.2000	8.280	0.0320	0.00	10.98	0.00	0.00	0.23	0.34	0.00	
Channel	77	78	252.97	1350.35	1349.97	0.1500	8.280	0.0320	1.40	9.52	0.15	0.37	0.42	0.61	0.00	
Channel	68	72	297.17	1350.59	1350.41	0.0600	8.280	0.0320	2.66	6.05	31.70	26.33	0.32	1.00	0.00	
Channel	69	73	320.23	1350.64	1350.38	0.0800	8.280	0.0320	2.66	7.00	0.38	0.65	0.43	0.63	0.00	
Channel	65	67	159.12	1350.76	1350.70	0.0400	8.280	0.0320	40.12	4.77	8.41	13.86	0.34	0.95	0.00	
Channel	63	65	170.23	1351.29	1350.70	0.3500	8.280	0.0320	72.74	13.71	5.31	8.34	0.68	1.00	0.00	
Channel	64	66	149.34	1350.61	1350.50	0.0700	8.280	0.0320	1.05	6.67	0.16	0.26	0.48	0.69	0.00	
Channel	C85	64	170.81	1351.26	1350.61	0.3800	8.280	0.0320	0.79	15.15	0.05	0.33	0.34	0.49	0.00	
Channel	56	57	22.23	1349.90	1347.55	10.5700	14.400	0.0320	1.97	90.29	0.02	1.13	0.50	0.42	0.00	
Channel	58	53	116.27	1350.85	1350.69	0.1400	8.280	0.0320	1.30	9.11	0.14	0.56	0.34	0.49	0.00	
Channel	52	55	111.78	1351.04	1350.87	0.1500	8.280	0.0320	0.00	9.58	0.00	0.00	0.00	0.00	0.00	
Channel	C81-	52	56.58	1350.82	1350.46	0.6400	24.000	0.0320	1.05	141.96	0.01	0.68	1.49	0.75	0.00	
Channel	36	35	47.49	1351.15	1350.82	0.6900	14.400	0.0320	1.83	54.76	0.03	1.12	1.09	0.91	0.00	
Channel	C76	42	99.18	1352.69	1353.12	-0.4300	14.400	0.0320	0.82	43.25	0.02	0.53	0.40	0.35	0.00	
Channel	96	98	16.47	1350.78	1350.71	0.4300	14.400	0.0320	5.51	160.23	0.03	0.42	1.20	1.00	1243.00	
Channel	103	102	136.23	1351.04	1350.13	0.6700	8.280	0.0320	0.74	20.08	0.04	0.83	0.22	0.31	0.00	
Channel	101	99	84.30	1350.26	1349.62	0.7600	8.280	0.0320	0.00	21.41	0.00	0.00	0.00	0.00	0.00	
Channel	133	134	67.53	1350.05	1349.79	0.3900	8.280	0.0320	1.26	15.24	0.06	0.62	0.44	0.70	0.00	
Channel	C51-	136	142.60	1350.13	1349.77	0.2500	8.280	0.0320	0.12	12.34	0.01	0.16	0.23	0.34	0.00	
Channel	140	144	67.40	1350.20	1349.78	0.6200	8.280	0.0320	1.30	3.20	0.40	0.50	0.37	0.54	0.00	
Channel	144	146	148.03	1347.60	1345.98	1.0900	14.400	0.0320	4.40	47.34	0.09	1.28	0.72	0.62	0.00	
Channel	67	C79	140.06	1345.98	1345.42	0.4000	14.400	0.0320	0.70	68.72	0.01	0.99	0.33	0.28	0.00	
Channel	StartDitch	106	266.53	1350.70	1350.50	0.0800	14.400	0.0320	36.99	17.99	2.06	27.80	0.44	0.59	0.00	
Channel	StartC&S	170	115.61	1350.25	1348.92	1.1500	14.400	0.0320	0.94	64.94	0.01	0.93	0.41	0.36	0.00	
Channel	167	168	156.36	1349.70	1349.38	0.2000	8.280	0.0320	0.28	11.11	0.03	0.38	0.21	0.31	0.00	
Channel	169	172	31.83	1349.38	1349.19	0.6000	8.280	0.0320	0.83	18.98	0.04	0.71	0.30	0.44	0.00	
Channel	1'DitchStart	86	65.10	1349.61	1349.20	0.6300	8.280	0.0320	0.00	19.50	0.00	0.60	0.31	0.46	0.00	
Channel	72	71	69.61	1349.80	1349.20	0.8600	8.280	0.0320	0.00	22.81	0.00	0.00	0.19	0.30	0.00	
Channel	C54-	111	122.90	1349.80	1348.95	0.8900	8.280	0.0320	2.56	20.43	0.13	0.52	0.45	0.69	0.00	
Channel	C57-	119	118.09	1351.10	1350.50	0.5100	14.400	0.0320	0.00	46.82	0.00	0.00	0.15	0.13	0.00	
Channel	C58-	54	55.65	1350.41	1350.01	0.7200	8.280	0.0320	175.70	20.83	8.44	50.00	0.16	1.00	0.00	
Channel	C83-	Out-07	9.31	1350.73	1349.67	11.3900	14.400	0.0320	110.48	214.20	0.52	23.06	0.76	0.64	0.00	
Channel	C13-	Out-07	11.28	1351.43	1350.29	10.1100	24.000	0.0320	5.99	565.78	0.01	1.39	0.68	0.34	0.00	
Channel	C13-	Out-07	16.11	1349.69	1347.39	14.2800	12.000	0.0320	5.99	13.75	0.44	4.80	1.00	1.00	0.00	
Channel	C13-	Out-07	10.42	1349.37	1348.57	7.6800	14.400	0.0320	3.89	182.01	0.02	2.88	0.56	0.46	0.00	
Channel	C13-	Out-07	250.00	1348.27	1347.00	0.5100	24.000	0.0320	13.59	126.85	0.11	1.88	0.85	0.43	0.00	

Link Summary

Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)
Channel C86-	Out-08	Out-08	32.16	1339.99	0.00	4166.6400	14.400	0.0320	13.01	4240.10	0.00	49.96	0.14	0.12	0.00
Channel C75-	59	59	52.29	1350.37	1349.14	2.3500	14.400	0.0320	0.81	100.75	0.01	2.00	0.17	0.15	0.00
Channel C62-	C63	C63	33.46	1350.83	1350.39	1.3200	14.400	0.0320	1.39	75.33	0.02	0.38	0.86	0.73	0.00
Channel C63-	C64	C64	24.51	1350.66	1350.47	0.7800	14.400	0.0320	1.17	57.83	0.02	0.66	0.39	0.32	0.00
Channel C64-	86	86	48.37	1350.27	1348.35	3.9700	14.400	0.0320	1.17	130.87	0.01	0.97	0.70	0.59	0.00
Channel C34-	Out-10	Out-10	228.85	1339.69	0.00	585.4000	24.000	0.0320	16.05	4305.99	0.00	27.31	0.24	0.12	0.00
Channel C77	C78	C78	20.56	1350.60	1350.53	0.3400	8.280	0.0320	0.00	14.33	0.00	0.00	0.00	0.00	0.00
Channel C38-	C37	C37	114.32	1344.75	1344.45	0.2600	14.400	0.0320	1.42	33.65	0.04	0.10	1.08	0.91	0.00
Channel C39-	183	183	39.69	1345.25	1344.62	1.5900	14.400	0.0320	0.83	82.76	0.01	1.40	0.21	0.18	0.00
Channel 41	40	40	234.33	1344.00	1348.70	-2.4300	8.280	0.0320	0.87	38.31	0.02	0.29	0.44	0.64	0.00
Channel C24-	Out-04	Out-04	623.46	1351.02	1349.00	0.3200	24.000	0.0320	3.69	101.30	0.04	1.13	0.57	0.29	0.00
Channel 112	C55	C55	87.60	1348.65	1350.81	-2.4700	14.400	0.0320	0.52	103.15	0.01	1.04	0.19	0.16	0.00

Inlet Summary

Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft.)	Max (Rim) Elevation (ft.)	Initial Water Elevation (ft.)	Ponded Area (ft ²)	Peak Flow (cfs)	Peak Flow Intercepted (cfs)	Peak Flow Bypassing Inlet (cfs)	Peak Flow Efficiency during Peak (%)	Inlet Allowable Spread (ft.)	Max Gutter Spread during Peak (ft.)	Max Gutter Water Elev. during Peak (ft.)
1	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.67	1353.87	1350.67	10.00	2.34	N/A	N/A	N/A	7.00	6.91	1354.26
2	FWHA HEC-22 GENERIC	N/A	On Grade	1	1350.43	1353.94	1350.43	N/A	0.00	0.00	0.00	0.00	7.00	0.00	1353.94
3	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.54	1354.27	1351.54	10.00	2.65	N/A	N/A	N/A	7.00	12.45	1354.77
4	FWHA HEC-22 GENERIC	N/A	On Grade	1	1351.94	1354.04	1351.94	N/A	3.55	1.82	1.73	51.27	7.00	10.98	1354.34
5	FWHA HEC-22 GENERIC	N/A	On Grade	1	1349.95	1354.60	1349.95	N/A	2.03	0.19	1.84	9.23	7.00	10.98	1354.86
6	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.86	1350.19	1348.86	10.00	6.78	N/A	N/A	N/A	7.00	150.45	1351.81
7	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.26	1349.99	1349.26	10.00	4.77	N/A	N/A	N/A	7.00	68.16	1350.82
8	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.70	1351.68	1347.70	10.00	6.11	N/A	N/A	N/A	7.00	122.32	1352.54
9	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.70	1350.64	1347.70	10.00	6.11	N/A	N/A	N/A	7.00	119.59	1353.23
10	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.90	1352.40	1346.90	10.00	3.22	N/A	N/A	N/A	7.00	24.18	1353.13
11	FWHA HEC-22 GENERIC	N/A	On Sag	1	1353.96	1354.96	1353.96	10.00	2.45	N/A	N/A	N/A	7.00	32248.17	1462.49
12	FWHA HEC-22 GENERIC	N/A	On Sag	1	1353.91	1354.96	1353.91	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1354.96
13	FWHA HEC-22 GENERIC	N/A	On Sag	1	1353.86	1354.96	1353.86	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1354.96
14	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.17	1352.85	1351.17	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1353.35
15	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.60	1353.01	1347.60	10.00	2.19	N/A	N/A	N/A	7.00	4.53	1353.35
16	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.79	1351.86	1349.79	10.00	3.61	N/A	N/A	N/A	7.00	33.62	1352.78
17	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.77	1355.49	1349.77	10.00	1.32	N/A	N/A	N/A	7.00	0.00	1355.66
18	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.90	1352.49	1347.90	10.00	3.50	N/A	N/A	N/A	7.00	30.99	1353.35
19	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.30	1352.78	1347.30	10.00	1.04	N/A	N/A	N/A	7.00	0.00	1352.92
20	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.20	1351.84	1347.20	10.00	1.02	N/A	N/A	N/A	7.00	0.00	1351.98
21	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.55	1354.45	1350.55	10.00	1.85	N/A	N/A	N/A	7.00	0.00	1354.69
22	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.32	1353.25	1348.32	10.00	3.24	N/A	N/A	N/A	7.00	24.65	1353.99
23	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.00	1351.98	1347.00	10.00	1.64	N/A	N/A	N/A	7.00	0.00	1352.18
24	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.70	1353.04	1346.70	10.00	0.70	N/A	N/A	N/A	7.00	0.00	1353.15
25	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.09	1353.42	1351.09	10.00	1.52	N/A	N/A	N/A	7.00	0.00	1353.60
26	FWHA HEC-22 GENERIC	N/A	On Sag	1	1344.95	1353.41	1344.95	10.00	0.91	N/A	N/A	N/A	7.00	6.03	1353.76
27	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.10	1353.20	1349.10	10.00	4.17	N/A	N/A	N/A	7.00	26.85	1353.98
28	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.33	1352.18	1350.33	10.00	4.99	N/A	N/A	N/A	7.00	75.77	1353.92
29	NEENAH FOUNDRY	R-2586-H	On Sag	1	1352.73	1353.33	1352.73	10.00	5.37	N/A	N/A	N/A	7.00	89.65	1355.35
30	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.15	1352.43	1344.15	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1352.43
31	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.13	1353.70	1351.13	10.00	5.28	N/A	N/A	N/A	7.00	86.47	1355.65
32	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.68	1353.68	1349.68	10.00	1.28	N/A	N/A	N/A	7.00	0.00	1352.30
33	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.30	1352.30	1348.30	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1352.30
34	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.92	1353.12	1347.92	10.00	2.69	N/A	N/A	N/A	7.00	13.05	1353.63
35	FWHA HEC-22 GENERIC	N/A	On Sag	1	1349.02	1353.12	1349.02	10.00	4.40	N/A	N/A	N/A	7.00	0.00	1353.12
36	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.86	1352.69	1350.86	10.00	4.40	N/A	N/A	N/A	7.00	56.06	1353.33
37	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.90	1352.10	1348.90	10.00	2.91	N/A	N/A	N/A	7.00	17.53	1352.70
38	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.28	1351.88	1349.28	10.00	4.46	N/A	N/A	N/A	7.00	57.87	1353.27
39	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.58	1352.08	1350.58	10.00	1.05	N/A	N/A	N/A	7.00	0.00	1352.22
40	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.70	1351.34	1349.70	10.00	1.66	N/A	N/A	N/A	7.00	0.00	1351.54
41	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.00	1351.84	1344.00	10.00	1.67	N/A	N/A	N/A	7.00	0.00	1352.04
42	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1350.71	1351.76	1350.71	N/A	0.00	0.00	0.00	0.00	7.00	0.00	1351.76
43	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.51	1351.21	1349.51	10.00	3.61	N/A	N/A	N/A	7.00	33.57	1352.12
44	FWHA HEC-22 GENERIC	N/A	On Sag	1	1350.12	1351.42	1350.12	10.00	2.23	N/A	N/A	N/A	7.00	33.41	1352.29
45	NEENAH FOUNDRY	R-2586-H	On Sag	1	1342.73	1350.83	1342.73	10.00	2.23	N/A	N/A	N/A	7.00	5.08	1351.18
46	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.41	1350.08	1347.41	10.00	1.70	N/A	N/A	N/A	7.00	0.00	1350.28
47	NEENAH FOUNDRY	R-2560-A	On Sag	1	1348.37	1351.07	1348.37	10.00	1.49	N/A	N/A	N/A	7.00	0.00	1353.84
48	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.05	1351.45	1350.05	10.00	1.56	N/A	N/A	N/A	7.00	0.00	1351.64
49	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.16	1351.26	1348.16	10.00	1.60	N/A	N/A	N/A	7.00	0.00	1351.45
50	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.03	1351.47	1348.03	10.00	5.16	N/A	N/A	N/A	7.00	81.93	1353.33
51	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.20	1351.48	1349.20	10.00	2.49	N/A	N/A	N/A	7.00	9.54	1351.92
52	FWHA HEC-22 GENERIC	N/A	On Grade	1	1348.85	1350.82	1348.85	N/A	1.83	0.78	1.05	42.64	7.00	18.97	1352.13
53	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.91	1350.46	1348.91	10.00	6.09	N/A	N/A	N/A	7.00	57.25	1351.41
54	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.76	1350.03	1346.76	10.00	4.44	N/A	N/A	N/A	7.00	6.60	1351.25
55	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.20	1350.87	1348.20	10.00	2.32	N/A	N/A	N/A	7.00	10.06	1351.14
56	FWHA HEC-22 GENERIC	N/A	On Grade	1	1348.24	1350.85	1348.24	N/A	2.89	1.59	1.29	55.17	7.00	9.74	1351.01
57	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.49	1350.69	1347.49	10.00	3.34	N/A	N/A	N/A	7.00	0.00	1351.01
58	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1345.54	1351.04	1345.54	N/A	0.00	0.00	0.00	0.00	7.00	0.00	1351.04

Inlet Summary

Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Initial Water Elevation (ft)	Provided Area (ft ²)	Peak Flow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
59	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.14	1350.40	1349.14	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1350.40
60	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.74	1350.90	1349.74	10.00	3.32	N/A	N/A	N/A	7.00	26.47	1351.67
61	FWHA HEC-22 GENERIC	N/A	On Sag	1	1347.55	1350.32	1347.55	10.00	1.32	N/A	N/A	N/A	7.00	7.95	1350.73
62	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.31	1351.26	1347.31	N/A	1.56	0.78	0.79	49.71	7.00	0.00	1351.43
63	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.39	1351.29	1347.39	N/A	74.44	8.80	65.63	11.83	7.00	23.79	1352.02
64	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.51	1350.61	1347.51	N/A	2.28	0.99	1.29	43.53	7.00	0.00	1350.81
65	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.46	1350.76	1347.46	N/A	30.34	5.02	25.31	16.56	7.00	13.41	1351.28
66	FWHA HEC-22 GENERIC	N/A	On Sag	1	1347.10	1350.50	1347.10	10.00	3.43	N/A	N/A	N/A	7.00	14.71	1351.02
67	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1348.00	1350.70	1348.00	N/A	43.27	6.27	36.99	14.50	7.00	17.10	1351.29
68	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.39	1350.59	1347.39	N/A	2.58	1.07	1.51	41.57	7.00	0.00	1350.79
69	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1348.34	1350.64	1348.34	N/A	4.11	1.44	2.67	35.04	7.00	0.07	1350.88
70	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.45	1350.87	1344.45	10.00	2.33	N/A	N/A	N/A	7.00	6.78	1351.25
71	FWHA HEC-22 GENERIC	N/A	On Sag	1	1346.71	1350.01	1346.71	10.00	1.60	N/A	N/A	N/A	7.00	8.31	1350.43
72	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1346.01	1350.41	1346.01	N/A	192.46	16.72	175.72	8.69	7.00	42.15	1351.50
73	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1345.88	1350.38	1345.88	N/A	4.37	1.49	2.87	34.22	7.00	0.24	1350.63
74	FWHA HEC-22 GENERIC	N/A	On Sag	1	1346.33	1350.33	1346.33	10.00	4.33	N/A	N/A	N/A	7.00	17.40	1350.93
75	FWHA HEC-22 GENERIC	N/A	On Sag	1	1346.44	1349.84	1346.44	10.00	2.65	N/A	N/A	N/A	7.00	12.19	1350.29
76	FWHA HEC-22 GENERIC	N/A	On Sag	1	1345.87	1349.97	1345.87	10.00	3.48	N/A	N/A	N/A	7.00	14.87	1350.46
77	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1345.85	1350.35	1345.85	N/A	2.43	1.03	1.40	42.47	7.00	0.00	1350.55
78	NEENAH FOUNDRY	R-1792-AG	On Sag	1	1346.65	1350.50	1346.65	10.00	2.62	N/A	N/A	N/A	7.00	18.14	1352.41
79	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.70	1351.80	1348.70	10.00	2.94	N/A	N/A	N/A	7.00	0.00	1351.91
80	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.37	1351.91	1348.37	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1353.64
81	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.16	1352.00	1347.16	10.00	4.84	N/A	N/A	N/A	7.00	70.59	1353.64
82	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.90	1352.07	1349.90	10.00	4.27	N/A	N/A	N/A	7.00	52.12	1353.35
83	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.58	1351.06	1348.58	10.00	1.65	N/A	N/A	N/A	7.00	0.00	1351.26
84	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.35	1350.20	1348.35	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1350.20
85	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.19	1350.20	1348.19	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1350.20
86	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.35	1350.50	1348.35	10.00	2.20	N/A	N/A	N/A	7.00	4.68	1350.79
87	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.28	1350.63	1348.28	10.00	5.29	N/A	N/A	N/A	7.00	86.60	1352.58
88	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.80	1351.00	1348.80	10.00	3.54	N/A	N/A	N/A	7.00	31.81	1351.88
89	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.65	1351.05	1347.65	10.00	3.57	N/A	N/A	N/A	7.00	32.52	1351.94
90	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.89	1351.44	1347.89	10.00	3.84	N/A	N/A	N/A	7.00	39.74	1352.48
91	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.80	1351.60	1347.80	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1351.60
92	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.87	1351.80	1347.87	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1351.80
93	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.42	1352.01	1349.42	10.00	2.65	N/A	N/A	N/A	7.00	12.31	1352.50
94	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.75	1350.84	1347.75	10.00	2.82	N/A	N/A	N/A	7.00	15.75	1351.40
95	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.73	1351.07	1347.73	10.00	2.38	N/A	N/A	N/A	7.00	7.57	1351.47
96	NEENAH FOUNDRY	R 3067 V Type V	On Grade	1	1347.41	1351.04	1347.41	N/A	1.50	0.76	0.74	50.44	7.00	0.00	1351.21
97	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.17	1350.48	1347.17	10.00	2.91	N/A	N/A	N/A	7.00	17.41	1351.08
98	FWHA HEC-22 GENERIC	N/A	On Grade	1	1347.42	1350.13	1347.42	N/A	0.74	0.62	0.13	83.15	7.00	5.13	1350.32
99	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.64	1349.77	1346.64	10.00	2.58	N/A	N/A	N/A	7.00	11.11	1350.09
100	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.21	1349.79	1348.21	10.00	3.64	N/A	N/A	N/A	7.00	34.41	1350.35
101	FWHA HEC-22 GENERIC	N/A	On Grade	1	1346.62	1350.05	1346.62	N/A	2.39	1.09	1.30	45.62	7.00	9.27	1350.62
102	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.39	1349.62	1348.39	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1350.26
103	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.88	1350.26	1346.88	10.00	0.00	N/A	N/A	N/A	7.00	0.00	1350.26
104	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.48	1350.24	1346.48	10.00	1.44	N/A	N/A	N/A	7.00	0.00	1350.42
105	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.04	1350.10	1345.04	10.00	2.30	N/A	N/A	N/A	7.00	6.16	1350.47
106	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.53	1349.12	1347.53	10.00	3.64	N/A	N/A	N/A	7.00	34.38	1349.69
107	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.40	1349.88	1348.40	10.00	2.01	N/A	N/A	N/A	7.00	1.81	1350.17
108	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.14	1349.93	1348.14	10.00	3.67	N/A	N/A	N/A	7.00	35.33	1350.88
109	NEENAH FOUNDRY	R-2586-H	On Sag	1	1351.19	1351.71	1351.19	10.00	4.72	N/A	N/A	N/A	7.00	66.55	1353.27
110	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.28	1351.51	1348.28	10.00	2.84	N/A	N/A	N/A	7.00	16.08	1352.08
111	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.67	1351.72	1349.67	10.00	1.35	N/A	N/A	N/A	7.00	0.00	1351.89
112	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.65	1351.60	1348.65	10.00	1.29	N/A	N/A	N/A	7.00	0.00	1351.76
113	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.81	1349.81	1349.81	10.00	3.15	N/A	N/A	N/A	7.00	22.85	1351.43
114	FWHA HEC-22 GENERIC	N/A	On Grade	1	1346.18	1350.75	1346.18	N/A	0.86	0.69	0.17	80.51	7.00	5.60	1350.95
115	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.65	1350.03	1348.65	10.00	3.27	N/A	N/A	N/A	7.00	25.43	1350.78
116	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.91	1350.01	1345.91	10.00	2.77	N/A	N/A	N/A	7.00	14.60	1350.55

Inlet Summary

Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Max (Rim) Invert Elevation (ft.)	Initial Water Elevation (ft.)	Ponded Area (ft ²)	Peak Flow Intercepted (cfs)	Peak Flow Bypassing Inlet (cfs)	Peak Flow Efficiency during Peak (%)	Inlet Allowable Spread (ft.)	Max Gutter Spread during Peak (ft.)	Max Gutter Water Elev. during Peak (ft.)
117	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.14	1350.27	10.00	19.33	N/A	N/A	7.00	886.56	1367.80
118	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.59	1350.19	10.00	2.10	N/A	N/A	7.00	3.10	1350.50
119	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.39	1350.14	10.00	1.74	N/A	N/A	7.00	0.00	1350.35
120	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.23	1349.82	10.00	8.75	N/A	N/A	7.00	258.13	1355.05
121	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.47	1348.37	10.00	3.31	N/A	N/A	7.00	26.32	1349.14
122	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.87	1347.67	10.00	2.99	N/A	N/A	7.00	19.09	1348.30
123	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.71	1351.56	10.00	3.05	N/A	N/A	7.00	20.37	1352.21
124	NEENAH FOUNDRY	R-2586-H	On Sag	1	1350.18	1351.31	10.00	5.93	N/A	N/A	7.00	112.17	1353.76
125	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.41	1351.13	10.00	2.67	N/A	N/A	7.00	12.67	1351.63
126	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.22	1351.10	10.00	3.47	N/A	N/A	7.00	30.19	1351.95
127	NEENAH FOUNDRY	R-2586-H	On Sag	1	1349.49	1350.46	10.00	2.70	N/A	N/A	7.00	13.23	1350.97
128	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.83	1351.16	10.00	4.42	N/A	N/A	7.00	56.87	1352.53
129	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.13	1351.06	10.00	1.44	N/A	N/A	7.00	0.00	1351.24
130	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.34	1350.34	10.00	2.07	N/A	N/A	7.00	2.85	1350.64
131	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.02	1350.36	10.00	1.32	N/A	N/A	7.00	0.00	1350.53
132	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.76	1349.84	10.00	4.50	N/A	N/A	7.00	59.24	1351.26
133	FHWA HEC-22 GENERIC	N/A	On Grade	1	1348.48	1349.87	N/A	2.39	1.09	45.60	7.00	9.27	1350.14
134	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.47	1349.85	10.00	2.66	N/A	N/A	7.00	12.57	1350.17
135	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.36	1349.91	10.00	0.00	N/A	N/A	7.00	0.00	1349.91
136	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.50	1349.85	10.00	4.40	N/A	N/A	7.00	56.13	1350.73
137	FHWA HEC-22 GENERIC	N/A	On Grade	1	1349.86	1351.20	10.00	3.36	1.76	52.24	7.00	10.73	1351.50
138	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.20	1347.35	10.00	8.65	N/A	N/A	7.00	252.45	1352.53
139	NEENAH FOUNDRY	R-2586-H	On Sag	1	1347.21	1348.51	10.00	1.64	N/A	N/A	7.00	0.00	1348.71
140	FHWA HEC-22 GENERIC	N/A	On Grade	1	1344.50	1347.60	N/A	1.93	1.22	63.38	7.00	8.43	1347.85
141	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.82	1346.65	10.00	0.95	N/A	N/A	7.00	0.00	1346.78
142	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.20	1346.62	10.00	0.66	N/A	N/A	7.00	0.00	1346.72
143	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.25	1346.63	10.00	0.67	N/A	N/A	7.00	0.00	1346.73
144	FHWA HEC-22 GENERIC	N/A	On Grade	1	1344.18	1345.98	N/A	4.77	1.66	34.74	7.00	12.40	1346.31
145	FHWA HEC-22 GENERIC	N/A	On Sag	1	1341.48	1346.00	10.00	0.72	N/A	N/A	7.00	5.30	1346.29
146	NEENAH FOUNDRY	R-2586-H	On Sag	1	1342.62	1345.42	10.00	4.10	N/A	N/A	7.00	46.99	1346.02
147	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.79	1345.59	10.00	2.87	N/A	N/A	7.00	16.70	1346.17
148	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.20	1346.64	10.00	2.77	N/A	N/A	7.00	14.75	1347.18
149	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.40	1346.62	10.00	1.71	N/A	N/A	7.00	0.00	1346.83
150	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.50	1347.34	10.00	1.37	N/A	N/A	7.00	0.00	1347.51
151	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.74	1347.14	10.00	1.50	N/A	N/A	7.00	0.00	1347.32
152	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.00	1347.27	10.00	1.85	N/A	N/A	7.00	0.00	1347.51
153	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.78	1347.28	10.00	2.43	N/A	N/A	7.00	8.35	1347.70
154	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.46	1347.71	10.00	2.93	N/A	N/A	7.00	17.80	1348.31
155	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.97	1347.27	10.00	1.20	N/A	N/A	7.00	0.00	1347.42
156	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.40	1347.37	10.00	0.65	N/A	N/A	7.00	0.00	1347.47
157	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.10	1347.85	10.00	0.78	N/A	N/A	7.00	0.00	1347.96
158	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.40	1347.70	10.00	1.01	N/A	N/A	7.00	0.00	1347.84
159	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.90	1347.30	10.00	2.65	N/A	N/A	7.00	12.37	1347.80
160	NEENAH FOUNDRY	R-2586-H	On Sag	1	1345.90	1347.78	10.00	2.15	N/A	N/A	7.00	3.88	1348.11
161	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.32	1347.32	10.00	3.70	N/A	N/A	7.00	35.96	1348.28
162	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.34	1348.09	10.00	3.78	N/A	N/A	7.00	38.20	1349.10
163	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.18	1347.78	10.00	6.26	N/A	N/A	7.00	126.54	1350.51
164	NEENAH FOUNDRY	R-2586-H	On Sag	1	1340.00	1346.92	10.00	5.54	N/A	N/A	7.00	96.17	1349.06
165	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.54	1347.94	10.00	2.27	N/A	N/A	7.00	5.80	1348.31
166	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.00	1349.46	10.00	2.10	N/A	N/A	7.00	3.08	1349.77
167	FHWA HEC-22 GENERIC	N/A	On Grade	1	1346.64	1349.61	N/A	2.09	1.29	61.70	7.00	8.74	1349.87
168	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.75	1349.20	10.00	3.00	N/A	N/A	7.00	19.48	1349.58
169	FHWA HEC-22 GENERIC	N/A	On Sag	1	1347.25	1349.80	10.00	2.52	N/A	N/A	7.00	170.14	1353.29
170	FHWA HEC-22 GENERIC	N/A	On Grade	1	1341.50	1349.38	N/A	1.72	0.96	43.82	7.00	7.99	1349.62
171	NEENAH FOUNDRY	R-2586-H	On Sag	1	1341.50	1349.19	10.00	2.41	N/A	N/A	7.00	8.11	1349.55
172	NEENAH FOUNDRY	R-2586-H	On Sag	1	1340.60	1348.95	10.00	9.22	N/A	N/A	7.00	286.37	1350.09
173	NEENAH FOUNDRY	R-2586-H	On Sag	1	1340.40	1348.47	10.00	3.75	N/A	N/A	7.00	37.25	1349.46
174	NEENAH FOUNDRY	R-2586-H	On Sag	1	1341.20	1347.79	10.00	0.00	N/A	N/A	7.00	0.00	1347.79

Inlet Summary

Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Initial Water Elevation (ft)	Ponded Area (ft ²)	Peak Flow (cfs)	Peak Flow Intercepted (cfs)	Peak Flow by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
175	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.94	1346.43	1343.94	10.00	5.29	N/A	N/A	N/A	N/A	7.00	86.55	1348.38
176	FHWA HEC-22 GENERIC	N/A	On Grade	1	1343.66	1346.09	1343.66	N/A	3.42	1.78	1.64	1.64	51.94	7.00	10.81	1346.39
177	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.26	1346.56	1343.26	10.00	4.97	N/A	N/A	N/A	N/A	7.00	74.93	1348.27
178	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.32	1346.58	1344.32	10.00	3.21	N/A	N/A	N/A	N/A	7.00	24.08	1347.31
179	NEENAH FOUNDRY	R-2586-H	On Sag	1	1336.40	1345.85	1336.40	10.00	3.51	N/A	N/A	N/A	N/A	7.00	31.16	1346.72
180	NEENAH FOUNDRY	R-2586-H	On Sag	1	1342.18	1346.24	1342.18	10.00	3.51	N/A	N/A	N/A	N/A	7.00	31.24	1347.11
181	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.35	1346.88	1343.35	10.00	3.13	N/A	N/A	N/A	N/A	7.00	22.10	1347.57
182	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.44	1347.25	1344.44	10.00	5.70	N/A	N/A	N/A	N/A	7.00	102.45	1349.51
183	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.62	1346.12	1344.62	10.00	0.89	N/A	N/A	N/A	N/A	7.00	0.00	1346.25
184	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.40	1346.00	1344.40	10.00	3.71	N/A	N/A	N/A	N/A	7.00	36.23	1346.97
185	NEENAH FOUNDRY	R-2586-H	On Sag	1	1343.33	1345.98	1343.33	10.00	3.45	N/A	N/A	N/A	N/A	7.00	29.56	1346.82
186	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.60	1345.60	1344.60	10.00	1.39	N/A	N/A	N/A	N/A	7.00	0.00	1345.77
187	NEENAH FOUNDRY	R-2586-H	On Sag	1	1344.72	1346.09	1344.72	10.00	1.93	N/A	N/A	N/A	N/A	7.00	0.72	1346.35
188	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.54	1347.54	1346.54	10.00	1.02	N/A	N/A	N/A	N/A	7.00	0.00	1347.68
189	FHWA HEC-22 GENERIC	N/A	On Grade	1	1345.81	1347.31	1345.81	N/A	1.64	1.10	0.55	0.55	66.75	7.00	7.83	1347.55
190	NEENAH FOUNDRY	R-2586-H	On Sag	1	1346.26	1347.38	1346.26	10.00	5.50	N/A	N/A	N/A	N/A	7.00	94.72	1348.37
191	NEENAH FOUNDRY	R-2586-H	On Sag	1	1340.09	1344.22	1340.09	10.00	3.53	N/A	N/A	N/A	N/A	7.00	31.56	1345.09
192	NEENAH FOUNDRY	R-2586-H	On Sag	1	1340.50	1342.82	1340.50	10.00	5.25	N/A	N/A	N/A	N/A	7.00	85.06	1344.74
193	NEENAH FOUNDRY	R-2586-H	On Sag	1	1340.23	1344.45	1340.23	10.00	2.57	N/A	N/A	N/A	N/A	7.00	10.82	1344.91
194	NEENAH FOUNDRY	R-2586-H	On Sag	1	1348.24	1350.21	1348.24	10.00	2.37	N/A	N/A	N/A	N/A	7.00	0.00	1350.45

Junction Results

Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation (ft)	Max HGL Depth (ft)	Max Surchage Depth (ft)	Min Freeboard (ft)	Average HGL Elevation (ft)	Average HGL Depth (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1'DitchStart	0.00	0.00	1351.10	0.00	0.00	1.20	1351.10	0.00	0 00:00	0 00:00	0.00	0.00
C&GStart	1.68	0.00	1351.69	0.69	0.00	0.00	1351.58	0.58	0 11:56	0 12:01	1.47	724.00
C1	0.03	0.00	1353.18	0.29	0.00	0.96	1352.90	0.01	0 12:05	0 00:00	0.00	0.00
C1-	3.42	3.42	1353.17	0.50	0.00	2.95	1352.81	0.14	0 12:05	0 00:00	0.00	0.00
C10	2.25	0.00	1351.22	0.89	0.00	3.50	1350.57	0.24	0 12:14	0 00:00	0.00	0.00
C10-	2.16	0.00	1350.82	0.69	0.00	3.70	1350.31	0.18	0 12:15	0 00:00	0.00	0.00
C11	2.16	0.00	1350.81	0.84	0.00	3.55	1350.25	0.28	0 12:15	0 00:00	0.00	0.00
C11-	2.16	0.00	1350.39	0.46	0.00	3.93	1350.09	0.16	0 12:07	0 00:00	0.00	0.00
C12	5.09	4.82	1350.37	1.28	0.00	3.11	1349.48	0.39	0 12:06	0 00:00	0.00	0.00
C12-	11.37	7.74	1350.12	1.10	0.00	2.35	1349.40	0.38	0 12:03	0 00:00	0.00	0.00
C13	14.53	4.91	1349.94	1.42	0.00	2.03	1348.91	0.39	0 12:03	0 00:00	0.00	0.00
C13-	13.67	0.00	1349.13	0.86	0.00	2.14	1348.57	0.30	0 12:04	0 00:00	0.00	0.00
C14	2.98	0.00	1351.16	2.11	0.00	2.39	1350.36	1.31	1 00:00	0 00:00	0.00	0.00
C14-	1.34	1.34	1351.16	2.64	0.00	0.36	1350.36	1.84	1 00:00	0 00:00	0.00	0.00
C15	1.39	0.00	1351.16	0.90	0.00	3.60	1350.71	0.45	1 00:00	0 00:00	0.00	0.00
C15-	4.19	4.19	1351.16	1.08	0.00	3.42	1350.68	0.60	1 00:00	0 00:00	0.00	0.00
C16	1.44	0.00	1351.16	1.28	0.00	3.22	1350.63	0.75	1 00:00	0 00:00	0.00	0.00
C16-	1.81	1.81	1351.16	1.47	0.00	3.03	1350.63	0.94	1 00:00	0 00:00	0.00	0.00
C17	2.25	0.00	1351.16	1.63	0.00	2.87	1350.60	1.07	1 00:00	0 00:00	0.00	0.00
C17-	1.72	1.12	1351.16	1.80	0.00	2.70	1350.60	1.24	1 00:00	0 00:00	0.00	0.00
C18	2.40	0.30	1351.16	1.18	0.00	3.32	1350.66	0.68	1 00:00	0 00:00	0.00	0.00
C18-	3.31	1.62	1351.16	1.18	0.00	3.32	1350.66	0.68	1 00:00	0 00:00	0.00	0.00
C19	2.28	0.00	1352.03	0.61	0.00	3.89	1351.54	0.12	0 12:04	0 00:00	0.00	0.00
C19-	2.27	0.00	1351.52	0.33	0.00	4.17	1351.28	0.09	0 12:05	0 00:00	0.00	0.00
C2	3.28	0.00	1353.17	1.99	0.00	1.46	1352.15	0.97	0 12:04	0 00:00	0.00	0.00
C2-	2.08	0.00	1353.11	1.84	0.00	1.61	1352.15	0.88	0 12:04	0 00:00	0.00	0.00
C20	1.99	0.00	1352.79	1.63	0.00	2.87	1352.02	0.86	0 12:06	0 00:00	0.00	0.00
C20-	2.29	0.91	1352.48	0.36	0.00	4.14	1352.22	0.10	0 12:03	0 00:00	0.00	0.00
C21	2.63	0.00	1352.80	1.89	0.00	2.61	1352.02	1.11	0 12:06	0 00:00	0.00	0.00
C21-	2.42	0.89	1352.79	1.66	0.00	2.84	1352.02	0.89	0 12:06	0 00:00	0.00	0.00
C22	3.49	3.49	1353.41	0.36	0.00	4.14	1353.14	0.09	0 12:00	0 00:00	0.00	0.00
C22-	3.70	0.00	1352.97	0.47	0.00	2.41	1352.65	0.15	0 12:45	0 00:00	0.00	0.00
C23	10.27	10.27	1352.97	1.14	0.00	1.74	1352.45	0.62	0 12:41	0 00:00	0.00	0.00
C23-	2.19	0.00	1352.79	0.84	0.00	1.16	1352.31	0.36	0 12:19	0 00:00	0.00	0.00
C24	6.70	6.70	1352.78	1.20	0.00	0.80	1352.06	0.48	0 12:17	0 00:00	0.00	0.00
C24-	3.70	0.00	1351.59	0.57	0.00	1.43	1351.34	0.32	0 12:22	0 00:00	0.00	0.00
C25	4.42	4.42	1351.45	1.77	0.00	0.23	1350.68	1.00	0 12:20	0 00:00	0.00	0.00
C25-	5.56	1.20	1351.44	2.23	0.00	0.10	1350.67	1.46	0 12:23	0 00:00	0.00	0.00
C26	4.15	2.41	1351.44	1.67	0.00	0.66	1350.69	0.92	0 12:21	0 00:00	0.00	0.00
C26-	1.52	0.00	1351.08	0.27	0.00	0.98	1350.91	0.10	0 12:23	0 00:00	0.00	0.00
C27	2.88	2.36	1348.70	0.78	0.00	0.72	1348.18	0.26	0 12:10	0 00:00	0.00	0.00
C27-	2.59	0.00	1348.19	0.98	0.00	0.52	1347.55	0.34	0 12:18	0 00:00	0.00	0.00
C28	2.95	1.51	1348.18	1.25	0.00	0.00	1347.55	0.62	0 12:17	0 12:18	0.07	17.00
C28-	2.35	0.00	1347.53	0.30	0.00	0.95	1347.37	0.14	0 12:24	0 00:00	0.00	0.00
C29	2.39	0.30	1347.35	0.75	0.00	0.50	1346.90	0.30	0 12:20	0 00:00	0.00	0.00
C29-	2.38	0.00	1346.82	0.34	0.00	0.91	1346.64	0.16	0 12:20	0 00:00	0.00	0.00
C3	4.58	3.66	1353.11	1.17	0.00	2.28	1352.17	0.23	0 12:04	0 00:00	0.00	0.00
C3-	4.29	0.00	1352.56	0.97	0.00	2.48	1351.90	0.31	0 12:07	0 00:00	0.00	0.00
C30	2.44	0.52	1346.74	0.82	0.00	1.18	1346.28	0.36	0 12:30	0 00:00	0.00	0.00
C30-	2.43	0.00	1346.34	0.41	0.00	1.59	1346.13	0.20	0 12:31	0 00:00	0.00	0.00
C31	2.52	0.94	1345.79	0.76	0.00	1.24	1345.35	0.32	0 12:30	0 00:00	0.00	0.00
C31-	2.52	0.00	1345.36	0.42	0.00	1.58	1345.15	0.21	0 12:32	0 00:00	0.00	0.00
C32	3.44	1.78	1344.25	1.28	0.00	0.72	1343.53	0.56	0 12:14	0 00:00	0.00	0.00
C32-	2.92	0.00	1344.10	0.99	0.00	1.01	1343.40	0.29	0 12:11	0 00:00	0.00	0.00
C33	5.05	1.17	1344.08	1.03	0.00	0.97	1343.32	0.27	0 12:11	0 00:00	0.00	0.00
C33-	4.75	0.00	1343.34	0.50	0.00	1.50	1343.02	0.18	0 12:13	0 00:00	0.00	0.00
C34	11.96	6.82	1342.22	1.40	0.00	0.60	1341.19	0.37	0 12:11	0 00:00	0.00	0.00
C34-	16.05	2.25	1339.93	0.24	0.00	1.76	1339.79	0.10	0 12:11	0 00:00	0.00	0.00
C35	8.18	0.00	1344.07	1.19	0.00	1.14	1343.27	0.39	0 12:09	0 00:00	0.00	0.00
C35-	8.16	0.00	1343.27	0.52	0.00	1.48	1342.96	0.21	0 12:11	0 00:00	0.00	0.00
C36	13.36	7.48	1344.11	1.39	0.00	0.94	1343.31	0.59	0 12:09	0 00:00	0.00	0.00
C36-	6.29	1.32	1344.10	1.51	0.00	0.49	1343.32	0.73	0 12:11	0 00:00	0.00	0.00
C37	6.85	6.30	1345.73	1.28	0.00	1.72	1344.80	0.35	0 12:03	0 00:00	0.00	0.00
C37-	6.32	0.00	1345.05	0.56	0.00	1.94	1344.67	0.18	0 12:04	0 00:00	0.00	0.00
C38	1.85	1.85	1345.80	1.00	0.00	0.00	1344.94	0.14	0 12:00	0 12:01	0.00	3.00
C38-	1.84	0.00	1345.73	0.98	0.00	0.22	1344.89	0.14	0 12:03	0 00:00	0.00	0.00
C39	0.84	0.84	1345.80	0.40	0.00	0.60	1345.46	0.06	0 12:00	0 00:00	0.00	0.00
C39-	0.84	0.00	1345.48	0.23	0.00	0.97	1345.31	0.06	0 12:00	0 00:00	0.00	0.00
C4	4.20	0.00	1352.52	0.93	0.00	2.52	1351.81	0.22	0 12:07	0 00:00	0.00	0.00
C4-	4.18	0.00	1351.88	0.51	0.00	2.94	1351.56	0.19	0 12:07	0 00:00	0.00	0.00
C40	0.55	0.00	1346.74	0.64	0.00	0.61	1346.29	0.19	0 12:31	0 00:00	0.00	0.00
C40-	0.15	0.00	1346.74	1.11	0.00	1.89	1346.28	0.65	0 12:31	0 00:00	0.00	0.00
C41	1.31	1.31	1351.33	0.24	0.00	0.96	1351.14	0.05	0 12:00	0 00:00	0.00	0.00
C41-	1.56	0.98	1350.79	0.39	0.00	0.81	1350.51	0.11	0 12:00	0 00:00	0.00	0.00
C42	0.70	0.00	1350.70	0.35	0.00	0.90	1350.40	0.05	0 12:01	0 00:00	0.00	0.00
C42-	2.11	0.00	1349.99	0.24	0.00	1.01	1349.82	0.07	0 12:01	0 00:00	0.00	0.00
C43	2.66	2.66	1350.27	0.77	0.00	0.23	1349.61	0.11	0 12:00	0 00:00	0.00	0.00
C43-	2.65	0.00	1349.51	0.36	0.00	0.84	1349.26	0.11	0 12:00	0 00:00	0.00	0.00
C44	2.26	2.26	1345.69	0.69	0.00	1.28	1345.08	0.08	0 12:00	0 00:00	0.00	0.00
C44-	3.57	0.00	1345.37	1.87	0.00	0.00	1343.63	0.13	0 11:55	0 12:00	0.24	9.00

Junction Results

Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation Attained (ft)	Max HGL Depth Attained (ft)	Max Surge Depth Attained (ft)	Min Freeboard Attained (ft)	Average HGL Elevation Attained (ft)	Average HGL Depth Attained (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
C46	3.98	2.33	1346.14	0.78	0.00	0.42	1345.45	0.09	0 12:01	0 00:00	0.00	0.00
C46-	3.37	0.00	1345.23	0.39	0.00	0.81	1344.94	0.10	0 12:02	0 00:00	0.00	0.00
C46-47-48	31.16	0.00	1343.92	2.96	0.00	0.04	1341.66	0.70	0 12:00	0 00:00	0.00	0.00
C47	5.26	2.28	1344.46	1.08	0.00	0.42	1343.58	0.20	0 12:04	0 00:00	0.00	0.00
C47-	4.67	0.00	1343.50	0.35	0.00	1.15	1343.24	0.09	0 12:04	0 00:00	0.00	0.00
C48	9.03	5.38	1338.96	1.20	0.00	0.00	1337.99	0.23	0 11:57	0 12:00	0.96	18.00
C48-	3.74	0.00	1337.47	1.00	0.00	0.00	1337.47	1.00	0 01:12	0 11:58	7.37	1368.00
C49	0.00	0.00	1347.82	0.00	0.00	1.00	1347.82	0.00	0 00:00	0 00:00	0.00	0.00
C5	1.18	0.00	1351.85	0.36	0.00	3.09	1351.65	0.16	0 12:10	0 00:00	0.00	0.00
C5-	2.18	0.00	1352.17	1.02	0.00	2.43	1351.67	0.52	0 12:07	0 00:00	0.00	0.00
C51	4.64	4.64	1351.27	0.96	0.00	2.04	1350.53	0.22	0 12:00	0 00:00	0.00	0.00
C51-	4.63	0.00	1350.78	0.58	0.00	2.42	1350.43	0.23	0 12:03	0 00:00	0.00	0.00
C52	1.61	0.00	1350.13	0.28	0.00	0.97	1349.90	0.05	0 12:00	0 00:00	0.00	0.00
C53	1.55	0.00	1348.49	0.60	0.00	0.60	1347.97	0.08	0 12:03	0 00:00	0.00	0.00
C53-	2.64	0.00	1347.85	0.21	0.00	0.99	1347.68	0.04	0 12:03	0 00:00	0.00	0.00
C54	14.21	6.60	1352.48	1.50	0.00	0.00	1351.81	0.83	0 01:26	0 01:39	0.05	1.00
C54-	6.61	0.00	1352.13	1.40	0.00	0.10	1351.80	1.07	0 12:00	0 00:00	0.00	0.00
C55	0.60	0.60	1350.98	0.17	0.00	1.03	1350.85	0.04	0 12:00	0 00:00	0.00	0.00
C55-	0.07	0.00	1350.96	0.21	0.00	0.99	1350.81	0.06	0 12:00	0 00:00	0.00	0.00
C57	5.91	5.91	1352.68	1.10	0.00	1.90	1351.84	0.26	0 12:00	0 00:00	0.00	0.00
C57-	5.90	0.00	1351.79	0.36	0.00	2.64	1351.53	0.10	0 12:00	0 00:00	0.00	0.00
C58	5.90	0.00	1351.30	1.01	0.00	1.99	1350.48	0.19	0 12:00	0 00:00	0.00	0.00
C58-	5.86	0.00	1350.71	1.02	0.00	1.98	1349.84	0.15	0 12:00	0 00:00	0.00	0.00
C6	3.03	2.78	1352.18	0.78	0.00	2.67	1351.68	0.28	0 12:06	0 00:00	0.00	0.00
C6-	0.45	0.00	1352.17	0.61	0.00	2.84	1351.68	0.12	0 12:06	0 00:00	0.00	0.00
C61	1.64	1.64	1351.99	0.69	0.00	0.31	1351.40	0.10	0 12:00	0 00:00	0.00	0.00
C62-	1.64	0.00	1351.49	0.66	0.00	0.54	1350.92	0.09	0 12:03	0 00:00	0.00	0.00
C63	1.39	0.00	1351.49	1.10	0.00	0.10	1350.78	0.39	0 12:03	0 00:00	0.00	0.00
C63-	1.18	0.00	1350.97	0.31	0.00	0.89	1350.75	0.09	0 12:04	0 00:00	0.00	0.00
C64	1.17	0.00	1350.94	0.47	0.00	0.73	1350.55	0.08	0 12:04	0 00:00	0.00	0.00
C64-	1.17	0.00	1350.48	0.21	0.00	0.99	1350.33	0.06	0 12:04	0 00:00	0.00	0.00
C66	0.00	0.00	1352.80	0.00	0.00	1.00	1352.80	0.00	0 00:00	0 00:00	0.00	0.00
C66-	0.00	0.00	1352.27	0.00	0.00	1.00	1352.27	0.00	0 00:00	0 00:00	0.00	0.00
C67	2.98	2.98	1353.81	0.69	0.00	0.51	1353.26	0.14	0 12:04	0 00:00	0.00	0.00
C67-	1.82	0.00	1352.95	0.36	0.00	1.64	1352.75	0.16	0 12:06	0 00:00	0.00	0.00
C68	0.00	0.00	1354.35	0.00	0.00	1.00	1354.35	0.00	0 00:00	0 00:00	0.00	0.00
C68-	0.00	0.00	1354.31	0.00	0.00	1.00	1354.31	0.00	0 00:00	0 00:00	0.00	0.00
C69	4.07	1.38	1354.63	1.40	0.00	1.60	1354.06	0.83	0 12:03	0 00:00	0.00	0.00
C69-	1.13	0.00	1354.29	0.27	0.00	0.93	1354.10	0.08	0 12:03	0 00:00	0.00	0.00
C7	1.86	1.86	1352.17	0.76	0.00	2.69	1351.62	0.21	0 12:06	0 00:00	0.00	0.00
C7-	1.26	0.00	1352.11	0.75	0.00	2.70	1351.57	0.21	0 12:10	0 00:00	0.00	0.00
C70	1.13	0.00	1353.88	0.41	0.00	0.79	1353.53	0.06	0 12:04	0 00:00	0.00	0.00
C70-	1.11	0.00	1353.37	0.21	0.00	0.99	1353.21	0.05	0 12:05	0 00:00	0.00	0.00
C71	3.36	2.63	1353.89	0.54	0.00	0.66	1353.54	0.19	0 12:01	0 00:00	0.00	0.00
C74	5.58	5.58	1352.93	4.93	0.00	0.00	1348.21	0.21	0 11:56	0 11:56	0.00	0.00
C75	0.81	0.81	1350.92	0.91	0.00	0.09	1350.44	0.43	0 12:00	0 00:00	0.00	0.00
C75-	0.81	0.00	1350.58	0.21	0.00	0.99	1350.43	0.06	0 12:00	0 00:00	0.00	0.00
C76	5.81	5.81	1353.78	3.00	0.00	0.00	1352.94	2.16	0 00:55	0 00:00	0.00	0.00
C77	0.00	0.00	1350.60	0.00	0.00	1.00	1350.60	0.00	0 00:00	0 00:00	0.00	0.00
C78	0.00	0.00	1350.53	0.00	0.00	1.00	1350.53	0.00	0 00:00	0 00:00	0.00	0.00
C78-79	6.64	0.00	1348.14	1.14	0.00	2.86	1347.14	0.14	0 12:01	0 00:00	0.00	0.00
C79	39.24	2.32	1351.28	0.78	0.00	0.42	1350.61	0.11	0 12:01	0 00:00	0.00	0.00
C8	1.20	0.00	1352.11	1.43	0.00	2.02	1351.50	0.82	0 12:10	0 00:00	0.00	0.00
C8-	1.50	0.00	1352.10	1.63	0.00	2.76	1351.49	1.02	0 12:09	0 00:00	0.00	0.00
C81	2.56	2.56	1352.22	1.22	0.00	2.78	1351.32	0.32	0 12:03	0 00:00	0.00	0.00
C81-	2.53	0.00	1352.14	0.99	0.00	3.01	1351.27	0.12	0 12:04	0 00:00	0.00	0.00
C82	3.96	3.96	1351.20	0.90	0.00	0.35	1350.41	0.11	0 12:00	0 00:00	0.00	0.00
C82-	3.95	0.00	1350.91	0.93	0.00	0.59	1350.40	0.42	0 12:00	0 00:00	0.00	0.00
C83	3.91	0.00	1350.90	0.87	0.00	0.63	1350.19	0.16	0 12:00	0 00:00	0.00	0.00
C83-	3.89	0.00	1349.66	0.29	0.00	1.21	1349.45	0.08	0 12:00	0 00:00	0.00	0.00
C84	0.81	0.81	1347.77	0.24	0.00	0.76	1347.57	0.04	0 12:00	0 00:00	0.00	0.00
C85	2.08	0.00	1350.64	0.74	0.00	0.46	1350.40	0.50	0 12:04	0 00:00	0.00	0.00
C86	13.05	13.05	1342.35	2.04	0.00	0.96	1340.66	0.35	0 12:00	0 00:00	0.00	0.00
C86-	13.02	0.00	1340.13	0.14	0.00	2.86	1340.04	0.05	0 12:00	0 00:00	0.00	0.00
C9	3.45	3.45	1352.10	0.74	0.00	3.65	1351.56	0.20	0 12:08	0 00:00	0.00	0.00
C9-	2.25	0.00	1351.40	0.42	0.00	3.97	1351.13	0.15	0 12:10	0 00:00	0.00	0.00
DeadEnd	0.00	0.00	1350.77	0.00	0.00	1.00	1350.77	0.00	0 00:00	0 00:00	0.00	0.00
Inlet49Outlet	2.09	0.00	1348.72	0.64	0.00	1.36	1348.31	0.23	0 12:10	0 00:00	0.00	0.00
J10	14.68	0.00	1349.92	3.12	0.00	2.48	1347.25	0.45	0 11:59	0 00:00	0.00	0.00
J100	2.93	0.00	1347.79	1.00	0.00	0.00	1346.95	0.16	0 11:52	0 12:01	0.34	17.00
J102	2.92	0.00	1347.46	1.00	0.00	0.00	1346.65	0.19	0 11:53	0 12:00	0.37	15.00
J103	2.48	0.00	1347.51	1.23	0.00	0.02	1346.52	0.24	0 11:57	0 00:00	0.00	0.00
J104	5.50	0.00	1347.50	1.25	0.00	0.00	1346.45	0.20	0 11:57	0 12:00	0.07	5.00
J105	8.39	0.00	1346.83	1.83	0.00	0.17	1345.27	0.27	0 12:00	0 00:00	0.00	0.00
J106-107	11.20	0.00	1346.71	1.91	0.00	0.09	1345.07	0.27	0 12:00	0 00:00	0.00	0.00
J108	14.77	0.00	1346.46	1.95	0.00	0.05	1344.81	0.30	0 12:00	0 00:00	0.00	0.00
J111	12.57	0.00	1348.53	1.50	0.00	0.00	1347.28	0.25	0 11:57	0 12:00	0.26	9.00
J112	11.17	0.00	1347.50	1.50	0.00	0.00	1346.28	0.28	0 11:55	0 12:00	0.34	13.00
J113	11.93	0.00	1346.73	1.45	0.00	0.55	1345.55	0.27	0 12:00	0 00:00	0.00	0.00
J114	30.87	0.00	1346.48	2.00	0.00	0.00	1344.84	0.36	0 11:52	0 12:00	13.22	48.00

Junction Results

Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation Attained (ft)	Max HGL Depth Attained (ft)	Max Surchance Depth Attained (ft)	Min Freeboard Attained (ft)	Average HGL Elevation Attained (ft)	Average HGL Depth Attained (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
J115	17.63	0.00	1347.35	3.61	0.00	2.65	1344.40	0.66	0 11:59	0 00:00	0.00	0.00
J116	21.14	0.00	1347.99	4.39	0.00	2.02	1344.52	0.92	0 11:59	0 00:00	0.00	0.00
J117	19.19	0.00	1348.54	4.05	0.00	1.76	1345.23	0.74	0 12:03	0 00:00	0.00	0.00
J121-122	19.50	0.00	1347.63	5.63	0.00	0.87	1343.09	1.09	0 12:00	0 00:00	0.00	0.00
J123-126	13.34	0.00	1349.01	1.50	0.00	0.00	1347.76	0.25	0 11:54	0 12:00	1.25	16.00
J127	2.66	0.00	1349.68	0.43	0.00	0.57	1349.33	0.08	0 12:00	0 00:00	0.00	0.00
J128	6.33	0.00	1348.05	1.50	0.00	0.00	1346.75	0.20	0 12:00	0 12:01	0.03	2.00
J130	6.75	0.00	1347.24	1.00	0.00	0.00	1346.40	0.16	0 11:52	0 12:00	1.29	21.00
J131	8.50	0.00	1347.76	1.84	0.00	0.16	1346.20	0.28	0 12:00	0 00:00	0.00	0.00
J132	9.61	0.00	1347.61	1.77	0.00	0.23	1346.13	0.29	0 12:00	0 00:00	0.00	0.00
J133-134	3.22	0.00	1348.02	0.62	0.00	0.38	1347.48	0.08	0 12:00	0 00:00	0.00	0.00
J135	12.41	0.00	1347.41	1.98	0.00	0.02	1345.76	0.33	0 12:04	0 00:00	0.00	0.00
J136	15.77	0.00	1347.13	1.96	0.00	0.54	1345.53	0.36	0 12:04	0 00:00	0.00	0.00
J139	24.14	0.00	1346.67	6.41	0.00	1.63	1341.98	1.72	0 12:06	0 00:00	0.00	0.00
J14	4.22	0.00	1351.90	4.30	0.00	1.10	1347.87	0.27	0 11:57	0 00:00	0.00	0.00
J141	19.05	0.00	1346.50	5.87	0.00	0.00	1342.00	1.37	0 12:02	0 12:06	0.00	1.00
J142	19.35	0.00	1346.20	5.34	0.00	0.30	1341.99	1.13	0 12:03	0 00:00	0.00	0.00
J143	19.70	0.00	1345.80	4.67	0.00	0.70	1341.99	0.86	0 12:03	0 00:00	0.00	0.00
J144-146-14	27.01	0.00	1345.00	3.26	0.00	0.00	1342.33	0.59	0 11:54	0 12:00	6.37	29.00
J148	19.68	0.00	1345.99	2.84	0.00	0.03	1343.53	0.38	0 11:57	0 00:00	0.00	0.00
J149	16.67	0.00	1346.19	2.99	0.00	0.31	1343.64	0.44	0 11:57	0 00:00	0.00	0.00
J15	5.73	0.00	1351.68	4.18	0.00	1.32	1347.78	0.28	0 11:57	0 00:00	0.00	0.00
J150	15.15	0.00	1346.43	2.83	0.00	0.57	1343.97	0.37	0 11:57	0 00:00	0.00	0.00
J153	9.57	0.00	1347.17	2.67	0.00	0.53	1344.86	0.36	0 11:57	0 00:00	0.00	0.00
J16	23.00	0.00	1348.54	2.84	0.00	3.26	1346.28	0.58	0 12:00	0 00:00	0.00	0.00
J162	3.77	0.00	1347.50	1.55	0.00	0.00	1346.20	0.25	0 11:59	0 11:59	0.00	1.00
J167	3.94	0.00	1346.87	4.37	0.00	0.00	1342.85	0.35	0 11:53	0 11:53	0.06	7.00
J168	4.90	0.00	1346.49	4.49	0.00	0.00	1342.42	0.42	0 11:53	0 12:02	0.32	13.00
J169	9.07	0.00	1345.97	4.77	0.00	0.00	1341.73	0.53	0 11:53	0 11:53	0.01	3.00
J17	30.95	0.00	1347.50	2.00	0.00	0.00	1346.09	0.59	0 11:49	0 12:00	9.58	51.00
J170-171	3.16	0.00	1347.04	5.64	0.00	0.79	1341.86	0.46	0 11:53	0 00:00	0.00	0.00
J172	17.59	0.00	1345.71	5.21	0.00	0.00	1341.20	0.70	0 11:53	0 12:02	1.30	19.00
J173	18.26	0.00	1345.60	5.30	0.00	0.00	1341.02	0.72	0 11:53	0 12:06	3.49	26.00
J175-176	31.16	0.00	1347.05	8.55	0.00	1.45	1340.15	1.65	0 11:52	0 00:00	0.00	0.00
J177-178	29.51	0.00	1347.30	9.02	0.00	2.20	1339.83	1.55	0 11:52	0 00:00	0.00	0.00
J179-180	21.14	0.00	1343.18	7.23	0.00	3.06	1337.94	1.99	0 11:52	0 00:00	0.00	0.00
J181	18.92	0.00	1343.00	6.17	0.00	0.00	1338.28	1.45	0 11:49	0 12:00	0.09	5.00
J18-19-20	10.83	0.00	1351.36	4.26	0.00	0.04	1347.39	0.29	0 11:59	0 00:00	0.00	0.00
J182	17.96	0.00	1344.92	6.93	0.00	2.33	1339.34	1.35	0 11:46	0 00:00	0.00	0.00
J183	30.36	0.00	1343.00	3.75	0.00	0.00	1340.35	1.10	0 11:47	0 12:00	14.36	84.00
J185-186	26.86	0.00	1344.17	4.80	0.00	1.43	1340.70	1.33	0 12:00	0 00:00	0.00	0.00
J187	19.56	0.00	1345.22	5.37	0.00	0.78	1341.03	1.18	0 11:47	0 00:00	0.00	0.00
J188	17.96	0.00	1348.11	7.40	0.00	0.51	1341.82	1.11	0 11:48	0 00:00	0.00	0.00
J189-190	17.92	0.00	1346.94	6.11	0.00	0.37	1342.03	1.20	0 11:48	0 00:00	0.00	0.00
J192-193	5.20	0.00	1342.85	2.74	0.00	1.37	1340.35	0.24	0 11:59	0 00:00	0.00	0.00
J194	29.48	0.00	1345.73	2.73	0.00	3.27	1343.60	0.60	0 12:00	0 00:00	0.00	0.00
J21	4.30	0.00	1349.65	2.00	0.00	0.00	1347.75	0.10	0 11:58	0 11:58	0.11	3.00
J22	4.96	0.00	1351.14	4.14	0.00	1.86	1347.16	0.16	0 11:58	0 00:00	0.00	0.00
J23-24	15.55	0.00	1349.85	3.34	0.00	2.05	1346.81	0.30	0 11:58	0 00:00	0.00	0.00
J27	16.72	0.00	1347.59	3.16	0.00	5.91	1345.29	0.86	0 11:59	0 00:00	0.00	0.00
J28	21.24	0.00	1347.45	3.12	0.00	4.75	1345.22	0.89	0 11:59	0 00:00	0.00	0.00
J29-30	28.77	0.00	1346.86	2.81	0.00	0.19	1344.85	0.80	0 12:00	0 00:00	0.00	0.00
J3	5.34	0.00	1352.58	2.33	0.00	1.32	1350.40	0.15	0 11:59	0 00:00	0.00	0.00
J37-38	14.15	0.00	1349.46	2.00	0.00	0.00	1347.83	0.37	0 11:55	0 12:00	1.43	14.00
J39	10.58	0.00	1349.37	1.99	0.00	0.51	1347.70	0.32	0 11:59	0 00:00	0.00	0.00
J3rd-Main-Pt	18.89	0.00	1347.50	6.08	0.00	0.00	1342.49	1.07	0 11:48	0 11:48	0.00	0.00
J4	5.98	0.00	1352.38	2.73	0.00	1.52	1349.81	0.16	0 11:59	0 00:00	0.00	0.00
J40	10.68	0.00	1349.14	2.14	0.00	3.86	1347.41	0.41	0 11:55	0 00:00	0.00	0.00
J41	32.07	0.00	1346.17	2.59	0.00	5.67	1344.18	0.60	0 12:00	0 00:00	0.00	0.00
J43	3.59	0.00	1349.76	0.81	0.00	0.69	1349.09	0.14	0 12:00	0 00:00	0.00	0.00
J45	34.04	0.00	1344.40	3.00	0.00	0.00	1342.11	0.71	0 11:59	0 12:01	0.79	8.00
J4th-Broad	29.75	0.00	1347.68	9.28	0.00	0.62	1340.03	1.63	0 11:52	0 00:00	0.00	0.00
J4th-Main-Pt	15.29	0.00	1345.73	2.00	0.00	0.00	1344.09	0.36	0 11:50	0 12:01	3.50	27.00
J5	6.16	0.00	1352.34	3.00	0.00	2.26	1349.51	0.17	0 11:59	0 00:00	0.00	0.00
J50	5.63	0.00	1349.95	2.00	0.00	0.00	1348.23	0.28	0 11:59	0 12:00	0.00	0.00
J51	7.55	0.00	1349.84	2.00	0.00	0.00	1348.15	0.31	0 11:59	0 12:00	0.02	2.00
J52	6.67	0.00	1349.03	1.00	0.00	0.00	1348.17	0.14	0 11:50	0 12:02	1.73	28.00
J52-53	6.75	0.00	1349.07	1.93	0.00	0.07	1347.59	0.45	0 11:59	0 00:00	0.00	0.00
J55-56	22.57	0.00	1348.44	2.50	0.00	0.00	1346.61	0.67	0 11:51	0 12:00	1.89	31.00
J59	14.35	0.00	1347.86	2.00	0.00	0.00	1346.32	0.46	0 11:48	0 12:00	7.61	51.00
J5th-Cherry	7.01	0.00	1347.66	1.78	0.00	0.22	1346.18	0.30	0 12:00	0 00:00	0.00	0.00
J64-65	15.94	0.00	1347.94	3.06	0.00	3.01	1345.71	0.83	0 12:00	0 00:00	0.00	0.00
J6-7	7.68	0.00	1350.50	2.50	0.00	0.00	1348.36	0.36	0 11:56	0 11:56	0.00	0.00
J6th-Broad	30.82	0.00	1346.66	6.38	0.00	0.94	1342.01	1.73	0 12:04	0 00:00	0.00	0.00
J6th-Main	19.85	0.00	1347.89	2.50	0.00	0.00	1346.19	0.80	0 11:49	0 12:00	2.76	33.00
J6th-Oak	23.33	0.00	1345.82	4.28	0.00	0.18	1342.16	0.62	0 11:54	0 00:00	0.00	0.00
J70	32.99	0.00	1346.39	2.50	0.00	0.00	1344.73	0.84	0 11:49	0 11:58	11.56	66.00
J79	5.72	0.00	1349.46	1.00	0.00	0.00	1348.67	0.21	0 11:49	0 12:00	1.48	31.00
J7th-Broad	23.61	0.00	1347.97	6.09	0.00	0.53	1342.96	1.08	0 11:51	0 00:00	0.00	0.00
J7th-Main	13.89	0.00	1348.78	2.00	0.00	0.00	1347.30	0.52	0 11:51	0 12:00	3.68	30.00

Junction Results

Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
J80	5.02	0.00	1349.80	1.50	0.00	0.00	1348.65	0.35	0 11:57	0 12:00	0.07	6.00
J83	6.97	0.00	1350.30	1.96	0.00	1.70	1348.64	0.30	0 11:59	0 00:00	0.00	0.00
J84	6.70	0.00	1350.21	1.96	0.00	0.04	1348.55	0.30	0 11:57	0 00:00	0.00	0.00
J85	7.42	0.00	1350.09	2.00	0.00	0.00	1348.33	0.24	0 11:57	0 12:00	0.59	8.00
J86	20.07	0.00	1350.05	2.65	0.00	0.45	1347.83	0.43	0 11:57	0 00:00	0.00	0.00
J87-88	16.45	0.00	1350.58	3.18	0.00	0.02	1347.97	0.57	0 11:59	0 00:00	0.00	0.00
J8-9	13.52	0.00	1350.48	2.88	0.00	1.12	1348.03	0.43	0 11:56	0 00:00	0.00	0.00
J89-90	10.03	0.00	1351.00	3.33	0.00	0.00	1348.01	0.34	0 12:00	0 12:00	0.00	0.00
J8th-Broad	21.15	0.00	1347.73	4.20	0.00	2.27	1344.41	0.88	0 11:59	0 00:00	0.00	0.00
J8th-Juniper	19.41	0.00	1349.27	3.27	0.00	1.23	1346.53	0.53	0 12:00	0 00:00	0.00	0.00
J8th-Poplar	18.27	0.00	1350.16	2.81	0.00	0.34	1347.95	0.60	0 11:57	0 00:00	0.00	0.00
J8th-Walnut	4.68	0.00	1348.67	1.42	0.00	0.08	1347.44	0.19	0 12:00	0 00:00	0.00	0.00
J91	2.79	0.00	1351.49	3.71	0.00	0.11	1348.05	0.27	0 12:00	0 00:00	0.00	0.00
J96	7.92	0.00	1348.88	1.48	0.00	0.52	1347.71	0.31	0 12:00	0 00:00	0.00	0.00
J97	8.69	0.00	1348.68	1.23	0.00	0.77	1347.61	0.16	0 12:00	0 00:00	0.00	0.00
J99	8.41	0.00	1348.13	1.50	0.00	0.00	1346.81	0.18	0 11:59	0 12:00	0.05	3.00
J9th-Poplar	4.12	0.00	1352.00	4.00	0.00	0.00	1348.65	0.65	0 11:57	0 11:59	0.00	0.00
J9th-Walnut	1.86	0.00	1350.38	0.47	0.00	0.53	1350.05	0.14	0 12:10	0 00:00	0.00	0.00
J-CONCPIT	24.26	0.00	1348.87	4.61	0.00	2.13	1345.12	0.86	0 11:49	0 00:00	0.00	0.00
Jun-200	25.96	0.00	1344.16	2.99	0.00	8.47	1341.88	0.71	0 12:00	0 00:00	0.00	0.00
StartC&G	0.33	0.33	1349.89	0.19	0.00	0.81	1349.75	0.05	0 12:01	0 00:00	0.00	0.00
StartDitch	0.97	0.97	1350.50	0.25	0.00	0.95	1350.34	0.09	0 12:00	0 00:00	0.00	0.00
STMH1	7.97	0.00	1350.53	2.83	0.00	2.93	1348.11	0.41	0 11:56	0 00:00	0.00	0.00
STMH10	31.68	0.00	1345.25	2.85	0.00	7.61	1342.99	0.59	0 12:00	0 00:00	0.00	0.00
STMH100	30.09	0.00	1340.90	2.74	0.00	8.10	1338.87	0.71	0 12:08	0 00:00	0.00	0.00
STMH101	29.53	0.00	1339.71	2.71	0.00	8.29	1337.71	0.71	0 12:09	0 00:00	0.00	0.00
STMH102	29.26	0.00	1338.49	2.65	0.00	8.51	1336.54	0.70	0 12:09	0 00:00	0.00	0.00
STMH103	29.20	0.00	1337.22	2.54	0.00	8.78	1335.41	0.73	0 12:10	0 00:00	0.00	0.00
STMH104	29.18	0.00	1335.55	1.82	0.00	9.45	1334.27	0.54	0 12:11	0 00:00	0.00	0.00
STMH12	30.76	0.00	1343.21	2.84	0.00	9.01	1341.18	0.81	0 12:01	0 00:00	0.00	0.00
STMH13	30.45	0.00	1342.17	2.23	0.00	9.55	1340.55	0.61	0 12:03	0 00:00	0.00	0.00
STMH14	27.01	0.00	1349.01	2.29	0.00	2.71	1347.25	0.53	0 12:00	0 00:00	0.00	0.00
STMH15	15.57	0.00	1347.90	2.67	0.00	3.58	1346.05	0.82	0 12:00	0 00:00	0.00	0.00
STMH16	18.11	0.00	1348.84	4.40	0.00	2.45	1345.33	0.89	0 11:49	0 00:00	0.00	0.00
STMH17	18.23	0.00	1350.74	7.43	0.00	0.02	1344.24	0.93	0 11:48	0 00:00	0.00	0.00
STMH18	309.19	0.00	1350.58	4.75	0.00	0.00	1349.79	3.96	0 00:41	0 01:55	15.43	23.00
STMH19	17.44	0.00	1349.09	6.06	0.00	1.39	1343.95	0.92	0 11:48	0 00:00	0.00	0.00
STMH2	1.45	0.00	1355.40	7.60	0.00	0.00	1348.39	0.59	0 11:59	0 11:59	0.00	0.00
STMH20	17.51	0.00	1349.14	6.74	0.00	1.56	1343.48	1.08	0 11:48	0 00:00	0.00	0.00
STMH21	15.84	0.00	1351.11	8.96	0.00	0.00	1343.11	0.96	0 11:48	0 11:48	0.00	0.00
STMH24	26.82	0.00	1343.59	4.29	0.00	3.64	1340.55	1.25	0 11:58	0 00:00	0.00	0.00
STMH25	17.96	0.00	1344.64	6.87	0.00	3.67	1339.07	1.30	0 11:46	0 00:00	0.00	0.00
STMH26	40.28	0.00	1342.97	7.06	0.00	4.48	1337.88	1.97	0 11:52	0 00:00	0.00	0.00
STMH27	40.28	0.00	1342.51	6.70	0.00	4.00	1337.64	1.83	0 11:52	0 00:00	0.00	0.00
STMH28	46.88	0.00	1345.13	10.13	0.00	0.00	1336.50	1.50	0 11:49	0 13:19	0.00	0.00
STMH29	13.22	0.00	1345.96	6.46	0.00	2.86	1340.37	0.87	0 11:59	0 00:00	0.00	0.00
STMH3	16.90	0.00	1347.79	2.79	0.00	6.35	1345.73	0.73	0 11:59	0 00:00	0.00	0.00
STMH30	45.20	0.00	1346.51	6.51	0.00	3.58	1341.74	1.74	0 12:06	0 00:00	0.00	0.00
STMH31	3.06	0.00	1347.98	0.91	0.00	3.50	1347.13	0.06	0 12:01	0 00:00	0.00	0.00
STMH32	2.64	0.00	1348.12	1.32	0.00	3.38	1346.93	0.13	0 12:00	0 00:00	0.00	0.00
STMH33	8.31	0.00	1348.77	3.69	0.00	2.91	1345.56	0.48	0 12:03	0 00:00	0.00	0.00
STMH34	3.49	1.40	1348.67	4.13	0.00	0.00	1344.69	0.15	0 11:58	0 11:58	0.00	0.00
STMH35	26.82	0.00	1346.85	6.55	0.00	0.75	1342.05	1.75	0 12:04	0 00:00	0.00	0.00
STMH4	16.90	0.00	1349.17	3.31	0.00	5.09	1346.20	0.34	0 11:57	0 00:00	0.00	0.00
STMH5	1.35	0.00	1349.84	2.04	0.00	5.11	1347.83	0.03	0 11:58	0 00:00	0.00	0.00
STMH6	26.52	0.00	1346.41	2.45	0.00	6.75	1344.48	0.52	0 12:00	0 00:00	0.00	0.00
STMH7	10.62	0.00	1348.49	4.83	0.00	4.28	1347.32	3.66	0 12:00	0 00:00	0.00	0.00
STMH8	10.29	0.00	1349.45	2.03	0.00	3.47	1347.79	0.37	0 12:00	0 00:00	0.00	0.00
STMH9	7.45	0.00	1349.96	2.21	0.00	3.81	1348.04	0.29	0 11:58	0 00:00	0.00	0.00

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	Link-01	3.05	0 12:00	8.89	0.34	2.62	0.21	1.13	0.90	0.00	0.64	Calculated
2	Link-02	4.61	0 11:54	5.60	0.82	2.89	0.76	1.50	1.00	5.00	0.65	SURCHARGED
3	Link-03	2.01	0 11:56	4.94	0.41	2.56	0.29	1.00	1.00	13.00	0.44	SURCHARGED
4	Link-05	7.07	0 11:55	13.22	0.54	2.99	0.37	1.96	0.99	0.00	0.69	Calculated
5	Link-06	0.95	0 11:56	2.84	0.34	1.74	1.46	1.00	1.00	9.00	0.84	SURCHARGED
6	Link-07	1.49	0 11:56	6.93	0.21	1.21	0.61	1.25	1.00	13.00	0.22	SURCHARGED
7	Link-10	11.12	0 11:57	13.30	0.84	3.71	0.45	2.00	1.00	11.00	0.72	SURCHARGED
8	Link-102	0.59	0 12:01	3.84	0.15	2.68	0.29	0.29	0.24	0.00	0.33	Calculated
9	Link-106	1.58	0 12:00	6.88	0.23	2.13	0.51	0.61	0.30	0.00	0.19	Calculated
10	Link-107	17.68	0 12:12	22.12	0.80	3.82	0.14	2.50	1.00	98.00	0.58	SURCHARGED
11	Link-108	4.09	0 12:03	20.40	0.20	6.50	0.07	0.76	0.78	0.00	0.20	Calculated
12	Link-109	1.21	0 11:48	29.84	0.04	2.62	0.08	0.57	0.59	0.00	0.06	Calculated
13	Link-111	1.54	0 11:58	9.21	0.17	1.99	0.37	1.00	1.00	0.00	0.19	SURCHARGED
14	Link-110	1.02	0 12:00	33.72	0.03	2.25	0.08	0.56	0.56	0.00	0.04	Calculated
15	Link-111	19.55	0 11:58	22.48	0.87	3.98	0.50	2.50	1.00	104.00	0.50	SURCHARGED
16	Link-112	26.82	0 11:58	23.51	1.14	5.46	0.05	2.50	1.00	106.00	0.46	SURCHARGED
17	Link-113	1.95	0 12:00	45.71	0.04	3.63	0.02	0.65	0.65	0.00	0.08	Calculated
18	Link-114	1.39	0 12:00	28.31	0.05	2.96	0.08	0.58	0.58	0.00	0.05	Calculated
19	Link-115	17.96	0 11:48	22.28	0.81	3.80	0.25	2.50	1.00	114.00	0.58	SURCHARGED
20	Link-116	5.67	0 12:00	22.64	0.25	8.22	0.05	0.82	0.82	0.00	0.23	Calculated
21	Link-117	21.16	0 11:49	22.48	0.94	4.31	0.04	2.50	1.00	140.00	0.20	SURCHARGED
22	Link-118	3.50	0 12:00	29.85	0.12	4.46	0.06	1.00	1.00	4.00	0.10	SURCHARGED
23	Link-119	3.50	0 12:00	5.18	0.68	4.46	0.13	1.00	1.00	377.00	0.01	SURCHARGED
24	Link-120	2.62	0 11:59	3.53	0.74	2.14	0.53	1.25	1.00	13.00	0.39	SURCHARGED
25	Link-121	5.18	0 12:04	8.64	0.60	4.47	0.02	1.50	1.00	11.00	1.47	SURCHARGED
26	Link-122	3.60	0 12:04	6.58	0.55	2.58	1.09	1.50	1.00	10.00	0.69	SURCHARGED
27	Link-123	7.78	0 11:57	17.24	0.45	50.00	0.01	1.00	1.00	15.00	0.29	SURCHARGED
28	Link-124	14.66	0 12:22	20.52	0.71	2.99	0.67	2.50	1.00	31.00	0.57	SURCHARGED
29	Link-125	18.69	0 12:00	25.88	0.72	3.86	0.99	2.39	0.96	0.00	0.72	Calculated
30	Link-126	2.32	0 12:00	18.61	0.12	3.71	0.06	0.74	0.74	0.00	0.14	Calculated
31	Link-127	1.59	0 12:00	10.84	0.15	2.84	0.25	0.67	0.67	0.00	0.16	Calculated
32	Link-129	27.01	0 12:00	44.78	0.60	4.35	0.06	2.46	0.82	0.00	0.56	Calculated
33	Link-13	1.22	0 11:59	20.24	0.06	1.66	0.22	1.00	1.00	33.00	0.03	SURCHARGED
34	Link-130	2.53	0 12:00	3.58	0.71	2.42	0.24	1.08	0.74	0.00	0.20	Calculated
35	Link-132	3.60	0 11:53	5.21	0.69	2.94	0.07	1.25	1.00	14.00	0.62	SURCHARGED
36	Link-133	3.77	0 12:00	5.24	0.72	3.07	0.54	1.25	1.00	5.00	0.50	SURCHARGED
37	Link-134	0.81	0 12:00	6.17	0.13	1.57	1.27	0.62	0.62	0.00	0.16	Calculated
38	Link-135	2.21	0 12:01	7.90	0.28	2.82	0.26	1.00	1.00	9.00	0.31	SURCHARGED
39	Link-136	9.08	0 11:57	22.48	0.40	2.49	0.07	2.50	1.00	4.00	0.56	SURCHARGED
40	Link-137	8.10	0 11:55	12.12	0.67	2.89	0.91	2.00	1.00	7.00	0.61	SURCHARGED
41	Link-138	20.13	0 12:03	19.00	1.06	2.85	0.12	3.00	1.00	39.00	0.28	SURCHARGED
42	Link-139	19.76	0 11:59	18.16	1.09	2.92	3.89	3.00	1.00	37.00	0.37	SURCHARGED
43	Link-140	1.50	0 11:59	7.54	0.20	1.91	0.30	1.00	1.00	16.00	0.17	SURCHARGED
44	Link-141	1.73	0 12:00	3.72	0.46	2.20	0.23	1.00	1.00	45.00	0.12	SURCHARGED
45	Link-142	4.00	0 11:55	5.98	0.67	5.09	0.01	1.00	1.00	46.00	0.18	SURCHARGED
46	Link-143	13.74	0 11:58	22.48	0.61	3.47	0.48	2.50	1.00	4.00	0.71	SURCHARGED
47	Link-144	14.96	0 12:00	23.44	0.64	3.47	0.44	2.50	1.00	6.00	0.64	SURCHARGED
48	Link-145	16.71	0 12:00	22.05	0.76	4.23	0.05	2.50	1.00	7.00	0.70	SURCHARGED
49	Link-147	15.15	0 11:53	27.67	0.55	3.16	0.17	2.50	1.00	44.00	0.69	SURCHARGED
50	Link-148	4.58	0 12:00	6.41	0.71	2.59	0.29	1.50	1.00	47.00	0.71	SURCHARGED
51	Link-149	3.05	0 12:00	23.45	0.13	3.88	0.03	1.00	1.00	34.00	0.28	SURCHARGED
52	Link-150	2.01	0 12:00	5.00	0.40	2.68	0.83	1.00	1.00	15.00	0.81	SURCHARGED
53	Link-154	19.35	0 12:04	19.00	1.02	2.74	0.55	3.00	1.00	49.00	0.09	SURCHARGED
54	Link-155	19.05	0 12:05	18.96	1.01	2.70	0.48	3.00	1.00	58.00	0.04	SURCHARGED
55	Link-157	0.80	0 11:54	22.69	0.04	1.18	0.18	1.00	1.00	27.00	0.04	SURCHARGED
56	Link-158	0.73	0 11:55	17.85	0.04	0.98	0.36	1.00	1.00	32.00	0.07	SURCHARGED
57	Link-159	1.14	0 11:59	17.55	0.07	3.02	0.17	0.83	0.84	0.00	1.32	Calculated
58	Link-16	20.50	0 12:01	256.96	0.08	5.22	0.06	2.50	1.00	5.00	0.16	SURCHARGED
59	Link-160	17.81	0 11:51	23.12	0.77	2.77	0.16	3.00	1.00	60.00	0.41	SURCHARGED
60	Link-161	16.97	0 11:51	23.44	0.72	2.99	1.87	3.00	1.00	37.00	0.44	SURCHARGED
61	Link-162	21.15	0 11:56	17.66	1.20	2.99	0.15	3.00	1.00	37.00	0.36	SURCHARGED
62	Link-163	19.19	0 11:55	25.02	0.77	2.72	1.05	3.00	1.00	26.00	0.42	SURCHARGED
63	Link-167	2.95	0 12:00	18.18	0.16	3.76	0.07	1.00	1.00	29.00	0.09	SURCHARGED
64	Link-168	13.19	0 12:16	28.51	0.46	10.75	0.04	1.25	1.00	33.00	1.36	SURCHARGED
65	Link-169	0.07	0 11:59	1.67	0.04	0.88	0.61	0.19	0.19	0.00	0.25	Calculated
66	Link-17	12.81	0 01:31	0.29	44.61	19.86	0.02	1.00	1.00	1337.00	0.00	SURCHARGED
67	Link-170	24.12	0 11:53	9.79	2.46	3.63	1.50	3.00	1.00	67.00	0.16	SURCHARGED
68	Link-171	2.55	0 11:59	4.51	0.57	3.93	0.16	1.00	1.00	24.00	0.97	SURCHARGED
69	Link-172	29.51	0 12:11	25.92	1.14	4.17	1.44	3.00	1.00	102.00	0.49	SURCHARGED
70	Link-173	29.75	0 12:09	29.31	1.01	4.21	0.06	3.00	1.00	103.00	0.36	SURCHARGED
71	Link-174	9.65	0 12:07	28.17	0.34	6.92	0.89	3.00	1.00	49.00	0.20	SURCHARGED
72	Link-176	4.94	0 12:00	22.42	0.22	6.29	0.06	1.00	1.00	36.00	0.13	SURCHARGED
73	Link-177	3.21	0 12:00	23.12	0.14	4.12	0.10	1.00	1.00	13.00	0.09	SURCHARGED
74	Link-178	2.16	0 11:52	22.43	0.10	4.11	0.09	1.00	1.00	37.00	0.07	SURCHARGED
75	Link-179	5.18	0 11:59	24.16	0.21	6.59	0.05	1.00	1.00	33.00	0.15	SURCHARGED
76	Link-181	3.17	0 11:59	1.70	1.87	2.58	0.32	1.25	1.00	5.00	0.45	SURCHARGED
77	Link-182	5.37	0 11:59	5.65	0.95	4.38	0.28	1.25	1.00	5.00	0.44	SURCHARGED
78	Link-183	4.38	0 12:00	4.20	1.04	3.97	0.05	1.04	0.84	0.00	0.88	> CAPACITY
79	Link-184	3.08	0 12:00	3.83	0.80	3.92	0.17	1.00	1.00	5.00	0.15	SURCHARGED
80	Link-185	4.97	0 12:00	9.88	0.50	6.14	0.11	0.78	0.63	0.00	2.55	Calculated

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
81	Link-186	3.22	0 12:00	17.81	0.18	3.16	0.07	0.96	0.77	0.00	0.55	Calculated
82	Link-188	1.61	0 12:00	21.82	0.07	18.31	0.02	0.16	0.12	0.00	1.30	Calculated
83	Link-190	8.31	0 11:52	14.89	0.56	6.77	0.12	1.25	1.00	29.00	1.24	SURCHARGED
84	Link-192	1.86	0 12:09	4.08	0.46	4.85	0.57	0.50	0.50	0.00	1.39	Calculated
85	Link-193	1.86	0 12:09	4.08	0.46	3.46	1.65	0.74	0.74	0.00	1.17	Calculated
86	Link-194	2.82	0 12:00	5.32	0.53	3.76	0.35	0.91	0.91	0.00	0.87	Calculated
87	Link-195	14.19	0 01:39	10.39	1.37	16.05	0.03	1.44	0.96	0.00	0.06	> CAPACITY
88	Link-196	7.90	0 12:00	28.44	0.28	20.14	0.01	0.92	0.93	0.00	1.89	Calculated
89	Link-197	4.68	0 12:00	12.10	0.39	4.09	0.11	1.46	0.97	0.00	0.88	Calculated
90	Link-198	1.35	0 11:58	27.01	0.05	2.50	0.03	0.68	0.70	0.00	0.22	Calculated
91	Link-199	9.41	0 11:57	12.35	0.76	6.38	0.33	1.50	1.00	9.00	1.29	SURCHARGED
92	Link-200	2.94	0 12:01	18.74	0.16	2.11	0.36	1.10	0.73	0.00	0.08	Calculated
93	Link-200	17.62	0 12:00	25.96	0.68	5.61	0.28	2.00	1.00	48.00	0.66	SURCHARGED
94	Link-201	3.27	0 12:00	19.06	0.17	5.48	0.09	0.71	0.71	0.00	0.32	Calculated
95	Link-202	14.57	0 12:03	25.94	0.56	4.64	0.10	2.00	1.00	58.00	0.25	SURCHARGED
96	Link-203	6.63	0 11:59	17.42	0.38	8.44	0.06	1.00	1.00	18.00	0.22	SURCHARGED
97	Link-204	5.63	0 11:59	4.66	1.21	4.59	0.09	1.25	1.00	17.00	0.55	SURCHARGED
98	Link-205	5.06	0 12:00	6.50	0.78	1.61	0.37	2.00	1.00	0.00	0.31	SURCHARGED
99	Link-206	2.49	0 12:00	11.26	0.22	3.30	0.12	0.92	0.92	0.00	0.43	Calculated
100	Link-207	6.75	0 12:01	6.45	1.05	2.16	1.80	1.96	0.98	0.00	0.26	> CAPACITY
101	Link-208	4.87	0 12:04	17.74	0.27	7.58	0.01	0.92	0.93	0.00	4.01	Calculated
102	Link-209	2.72	0 11:50	17.84	0.15	3.47	0.03	1.00	1.00	28.00	0.75	SURCHARGED
103	Link-210	16.61	0 12:01	23.61	0.70	3.38	0.17	2.50	1.00	33.00	0.47	SURCHARGED
104	Link-210	0.78	0 11:56	6.72	0.12	2.85	0.23	0.61	0.62	0.00	1.43	Calculated
105	Link-211	5.56	0 12:01	6.47	0.86	1.78	1.11	1.96	0.98	0.00	0.33	Calculated
106	Link-212	8.33	0 12:00	5.88	1.42	2.65	0.15	2.00	1.00	30.00	0.27	SURCHARGED
107	Link-213	2.73	0 12:00	3.12	0.88	3.48	0.20	1.00	1.00	2.00	1.17	SURCHARGED
108	Link-214	4.34	0 12:04	6.00	0.72	5.87	0.08	0.97	0.97	0.00	2.31	Calculated
109	Link-215	22.07	0 11:52	22.98	0.96	3.12	1.92	3.00	1.00	60.00	0.22	SURCHARGED
110	Link-217	6.86	0 11:54	10.18	0.67	4.14	1.81	1.50	1.00	16.00	0.26	SURCHARGED
111	Link-218	6.17	0 12:00	11.25	0.55	7.85	0.06	1.00	1.00	2.00	1.19	SURCHARGED
112	Link-219	7.17	0 12:00	17.74	0.40	9.20	0.03	0.97	0.97	0.00	1.98	Calculated
113	Link-220	1.01	0 12:01	18.04	0.06	0.82	1.12	0.98	0.67	0.00	0.03	Calculated
114	Link-220	7.38	0 11:52	6.01	1.23	6.11	0.43	1.25	1.00	27.00	1.49	SURCHARGED
115	Link-221	4.15	0 11:52	10.11	0.41	3.55	0.27	1.25	1.00	24.00	0.90	SURCHARGED
116	Link-222	1.98	0 11:55	2.54	0.78	2.74	0.23	0.87	0.87	0.00	0.07	Calculated
117	Link-224	6.48	0 11:56	20.45	0.32	8.25	0.04	1.00	1.00	41.00	0.15	SURCHARGED
118	Link-225	23.30	0 11:53	10.97	2.12	3.30	0.10	3.00	1.00	72.00	0.16	SURCHARGED
119	Link-228	1.63	0 12:00	28.01	0.06	3.40	0.09	0.59	0.59	0.00	0.05	Calculated
120	Link-23	1.01	0 11:49	46.42	0.02	0.83	0.16	1.02	0.70	0.00	0.02	Calculated
121	Link-233	27.01	0 12:22	26.65	1.01	3.82	0.09	3.00	1.00	102.00	0.44	SURCHARGED
122	Link-234	2.63	0 12:00	5.70	0.46	3.35	0.16	1.00	1.00	47.00	0.93	SURCHARGED
123	Link-235	1.70	0 12:01	54.41	0.03	3.51	0.01	0.62	0.66	0.00	1.48	Calculated
124	Link-236	2.49	0 11:59	3.73	0.67	3.18	0.40	1.00	1.00	55.00	0.93	SURCHARGED
125	Link-237	2.43	0 12:01	28.36	0.09	4.62	0.03	0.63	0.64	0.00	1.19	Calculated
126	Link-238	1.55	0 11:53	2.77	0.56	1.98	0.24	1.00	1.00	75.00	0.53	SURCHARGED
127	Link-239	2.29	0 12:00	4.63	0.49	2.92	0.06	1.00	1.00	76.00	0.80	SURCHARGED
128	Link-240	3.97	0 11:55	4.08	0.97	5.06	0.34	1.00	1.00	64.00	0.95	SURCHARGED
129	Link-241	3.16	0 12:00	3.55	0.89	4.02	0.14	1.00	1.00	78.00	0.59	SURCHARGED
130	Link-242	3.42	0 12:02	28.71	0.12	5.77	0.02	0.69	0.71	0.00	0.88	Calculated
131	Link-243	8.98	0 12:01	20.09	0.45	3.16	0.79	2.00	1.00	60.00	0.61	SURCHARGED
132	Link-244	9.00	0 12:06	10.84	0.83	7.34	0.01	1.25	1.00	90.00	0.68	SURCHARGED
133	Link-245	10.93	0 11:56	19.83	0.55	3.86	0.19	2.00	1.00	75.00	0.88	SURCHARGED
134	Link-246	7.60	0 12:03	10.84	0.70	6.20	0.02	1.25	1.00	97.00	0.41	SURCHARGED
135	Link-247	13.22	0 11:56	22.56	0.59	4.21	0.54	2.00	1.00	81.00	0.95	SURCHARGED
136	Link-249	13.22	0 11:56	17.24	0.77	4.21	1.27	2.00	1.00	102.00	0.14	SURCHARGED
137	Link-250	1.44	0 12:00	4.36	0.33	1.83	0.24	1.00	1.00	6.00	0.38	SURCHARGED
138	Link-251	16.07	0 11:47	22.52	0.71	3.50	0.70	2.50	1.00	94.00	0.57	SURCHARGED
139	Link-252	4.77	0 11:57	6.39	0.75	4.04	0.89	1.25	1.00	5.00	0.95	SURCHARGED
140	Link-253	2.01	0 12:00	14.65	0.14	3.89	0.15	0.62	0.62	0.00	0.48	Calculated
141	Link-254	3.00	0 12:02	13.32	0.22	4.95	0.11	0.72	0.72	0.00	0.79	Calculated
142	Link-255	11.22	0 12:01	22.62	0.50	3.96	0.21	1.92	0.96	0.00	0.98	Calculated
143	Link-256	3.66	0 12:00	15.60	0.23	6.09	0.09	0.72	0.72	0.00	0.76	Calculated
144	Link-257	14.74	0 12:00	20.22	0.73	5.23	0.53	1.97	0.99	0.00	1.13	Calculated
145	Link-258	5.11	0 12:19	23.36	0.22	2.26	2.70	2.00	1.00	27.00	0.26	SURCHARGED
146	Link-259	2.93	0 12:02	20.86	0.14	4.79	0.02	0.72	0.73	0.00	1.55	Calculated
147	Link-260	1.37	0 11:52	2.10	0.66	1.75	0.79	1.00	1.00	17.00	0.50	SURCHARGED
148	Link-261	2.08	0 12:00	2.08	1.00	2.65	0.50	1.00	1.00	15.00	0.67	SURCHARGED
149	Link-262	0.00	0 00:00	28.78	0.00	0.00		0.50	0.50	0.00	0.00	Calculated
150	Link-263	2.01	0 11:52	2.12	0.95	2.61	0.55	1.00	1.00	12.00	0.55	SURCHARGED
151	Link-264	1.75	0 12:00	14.65	0.12	2.49	0.04	0.84	0.84	0.00	0.59	Calculated
152	Link-265	2.31	0 11:52	3.76	0.62	2.95	0.08	1.24	0.99	0.00	0.71	Calculated
153	Link-266	5.74	0 12:03	9.27	0.62	3.25	0.79	1.50	1.00	3.00	0.71	SURCHARGED
154	Link-267	3.99	0 12:00	5.68	0.70	3.65	0.82	1.23	0.99	0.00	0.98	Calculated
155	Link-268	4.54	0 11:57	2.67	1.70	5.78	0.01	1.00	1.00	11.00	0.39	SURCHARGED
156	Link-269	2.92	0 11:59	3.25	0.90	3.72	0.04	1.00	1.00	23.00	0.17	SURCHARGED
157	Link-270	7.01	0 11:59	13.49	0.52	2.40	0.13	1.79	0.90	0.00	0.46	Calculated
158	Link-271	4.66	0 12:00	18.14	0.26	5.94	0.02	1.00	1.00	8.00	0.91	SURCHARGED
159	Link-272	9.24	0 12:00	13.42	0.69	3.12	1.05	1.85	0.93	0.00	0.71	Calculated
160	Link-273	0.03	0 12:08	18.23	0.00	0.06	1.67	1.00	1.00	2.00	0.00	SURCHARGED

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
161	Link-274	2.20	0 12:01	6.13	0.36	4.29	0.02	0.68	0.71	0.00	1.38	Calculated
162	Link-275	1.09	0 12:00	3.98	0.27	3.70	0.29	0.48	0.48	0.00	1.42	Calculated
163	Link-276	3.22	0 12:01	9.91	0.33	4.74	0.15	0.80	0.81	0.00	0.51	Calculated
164	Link-277	12.30	0 12:00	13.41	0.92	4.24	0.49	1.97	0.99	0.00	0.66	Calculated
165	Link-278	3.55	0 12:02	21.81	0.16	4.92	0.02	0.99	0.99	0.00	0.67	Calculated
166	Link-279	15.52	0 12:00	24.07	0.64	6.91	1.17	2.23	0.89	0.00	1.38	Calculated
167	Link-28	4.86	0 12:00	20.10	0.24	3.88	0.31	0.96	0.67	0.00	0.12	Calculated
168	Link-280	26.82	0 11:52	11.56	2.32	3.79	0.08	3.00	1.00	73.00	0.14	SURCHARGED
169	Link-281	2.66	0 12:00	7.18	0.37	5.90	0.03	0.56	0.56	0.00	2.04	Calculated
170	Link-282	1.41	0 12:00	4.63	0.30	3.49	0.03	0.76	0.90	0.00	1.55	Calculated
171	Link-283	1.81	0 12:03	4.63	0.39	2.42	0.19	0.87	0.95	0.00	0.52	Calculated
172	Link-284	2.64	0 12:00	7.44	0.36	4.68	0.34	0.71	0.71	0.00	1.50	Calculated
173	Link-285	1.65	0 11:57	4.03	0.41	2.65	0.21	1.00	1.00	7.00	0.74	SURCHARGED
174	Link-286	5.17	0 12:00	6.55	0.79	6.58	0.04	1.00	1.00	8.00	1.06	SURCHARGED
175	Link-29	4.59	0 12:01	30.31	0.15	3.53	0.11	1.02	0.71	0.00	0.11	Calculated
176	Link-292	13.02	0 12:00	81.75	0.16	5.61	0.07	1.09	0.36	0.00	2.17	Calculated
177	Link-294	11.93	0 12:00	33.41	0.36	5.27	0.20	1.72	0.86	0.00	1.49	Calculated
178	Link-295	3.14	0 12:00	21.51	0.15	5.82	0.06	0.65	0.65	0.00	0.91	Calculated
179	Link-296	4.63	0 12:00	7.25	0.64	4.43	0.11	0.73	0.38	0.00	0.37	Calculated
180	Link-298	3.37	0 12:01	6.10	0.55	7.04	0.07	0.56	0.59	0.00	1.55	Calculated
181	Link-299	4.67	0 12:04	4.86	0.96	5.65	0.09	0.71	0.47	0.00	0.89	Calculated
182	Link-30	18.11	0 11:59	20.15	0.90	3.69	0.25	2.50	1.00	48.00	0.54	SURCHARGED
183	Link-300	3.74	0 11:58	3.98	0.94	4.76	0.10	1.00	1.00	26.00	0.15	SURCHARGED
184	Link-303	2.65	0 12:00	3.66	0.72	5.84	0.11	0.56	0.56	0.00	1.02	Calculated
185	Link-304	0.58	0 12:00	5.50	0.11	2.75	0.21	0.32	0.32	0.00	0.65	Calculated
186	Link-305	25.99	0 12:09	42.40	0.61	3.77	0.27	2.97	0.99	0.00	0.70	Calculated
187	Link-307	3.67	0 12:00	29.32	0.13	6.71	0.04	0.66	0.66	0.00	0.23	Calculated
188	Link-308	3.00	0 12:00	16.37	0.18	5.57	0.18	0.65	0.65	0.00	0.17	Calculated
189	Link-309	2.23	0 12:00	9.43	0.24	2.89	0.12	1.00	1.00	26.00	1.74	SURCHARGED
190	Link-31	13.92	0 12:02	52.89	0.26	7.88	0.02	1.02	1.00	0.00	0.10	SURCHARGED
191	Link-310	25.96	0 12:07	42.34	0.61	3.71	0.30	2.99	1.00	0.00	0.70	Calculated
192	Link-311	32.04	0 12:01	42.00	0.76	4.57	1.08	2.87	0.98	0.00	0.79	Calculated
193	Link-312	2.20	0 12:00	8.32	0.26	4.64	0.15	0.68	0.68	0.00	1.13	Calculated
194	Link-313	5.44	0 00:54	2.68	2.03	9.95	0.02	1.25	1.00	1383.00	0.00	SURCHARGED
195	Link-314	0.00	0 00:00	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Calculated
196	Link-315	0.00	0 00:00	5.37	0.00	0.00	0.00	0.50	0.50	0.00	0.00	Calculated
197	Link-316	4.53	0 12:02	5.35	0.85	6.32	0.11	0.86	0.89	0.00	1.41	Calculated
198	Link-317	3.59	0 12:00	6.67	0.54	5.24	0.09	0.81	0.82	0.00	1.39	Calculated
199	Link-318	3.54	0 12:00	4.73	0.75	3.27	1.45	1.02	0.82	0.00	0.91	Calculated
200	Link-319	13.67	0 12:03	27.08	0.50	5.56	0.12	1.14	0.38	0.00	0.65	Calculated
201	Link-32	13.61	0 12:02	10.27	1.32	8.02	0.11	0.56	1.00	0.00	1.60	SURCHARGED
202	Link-320	5.46	0 12:00	16.57	0.33	9.02	0.12	0.72	0.72	0.00	0.29	Calculated
203	Link-321	26.52	0 11:59	17.30	1.53	4.29	0.14	2.58	0.87	0.00	0.66	> CAPACITY
204	Link-322	13.80	0 11:54	21.94	0.63	2.39	0.91	2.89	0.97	0.00	0.39	Calculated
205	Link-323	16.76	0 11:58	20.37	0.82	2.46	0.20	3.00	1.00	3.00	0.32	SURCHARGED
206	Link-324	21.16	0 11:59	14.98	1.41	3.05	0.82	2.89	0.97	0.00	0.36	> CAPACITY
207	Link-325	7.10	0 12:00	14.75	0.48	4.01	0.07	1.50	1.00	14.00	0.08	SURCHARGED
208	Link-326	26.57	0 11:59	92.88	0.29	5.11	0.08	2.41	0.84	0.00	0.97	Calculated
209	Link-327	27.15	0 11:59	41.15	0.66	4.45	0.67	2.51	0.89	0.00	0.83	Calculated
210	Link-328	7.75	0 12:00	6.86	1.13	6.32	0.04	1.25	1.00	67.00	0.05	SURCHARGED
211	Link-329	4.96	0 12:00	25.28	0.20	8.23	0.04	0.72	0.72	0.00	0.24	Calculated
212	Link-33	2.45	0 12:00	32.94	0.07	2.25	0.40	0.89	0.59	0.00	0.04	Calculated
213	Link-330	4.16	0 12:00	27.76	0.15	6.81	0.03	0.73	0.73	0.00	0.17	Calculated
214	Link-331	15.11	0 11:48	24.39	0.62	3.16	0.18	2.50	1.00	33.00	0.55	SURCHARGED
215	Link-333	3.25	0 12:00	3.58	0.91	4.14	0.65	1.00	1.00	18.00	0.14	SURCHARGED
216	Link-334	0.80	0 12:00	20.97	0.04	1.75	0.15	0.57	0.57	0.00	0.19	Calculated
217	Link-335	4.23	0 11:48	15.67	0.27	1.35	1.42	2.00	1.00	51.00	0.27	SURCHARGED
218	Link-336	10.61	0 12:00	15.70	0.68	3.71	1.33	1.71	0.85	0.00	0.78	Calculated
219	Link-337	3.80	0 12:01	7.62	0.50	7.97	0.14	0.82	0.84	0.00	2.97	Calculated
220	Link-338	3.52	0 11:58	4.27	0.82	4.48	0.07	1.00	1.00	22.00	0.36	SURCHARGED
221	Link-339	4.62	0 12:01	14.48	0.32	5.88	0.04	1.00	1.00	7.00	0.91	SURCHARGED
222	Link-34	1.44	0 12:00	7.91	0.18	3.31	0.23	0.45	0.33	0.00	1.02	Calculated
223	Link-340	10.25	0 11:55	18.46	0.56	3.60	0.31	2.00	1.00	0.00	0.72	Calculated
224	Link-341	2.90	0 12:00	8.38	0.35	3.75	0.20	0.96	0.96	0.00	0.33	Calculated
225	Link-342	4.44	0 12:00	16.70	0.27	5.87	0.04	0.92	0.92	0.00	0.67	Calculated
226	Link-343	6.86	0 11:55	12.25	0.56	2.19	0.12	2.00	1.00	8.00	0.47	SURCHARGED
227	Link-344	6.92	0 12:00	6.75	1.03	2.20	1.86	2.00	1.00	5.00	0.29	SURCHARGED
228	Link-345	1.05	0 12:00	14.00	0.08	2.17	0.27	0.59	0.59	0.00	0.19	Calculated
229	Link-346	5.49	0 12:00	11.62	0.47	7.60	0.10	0.87	0.88	0.00	1.70	Calculated
230	Link-347	6.51	0 12:00	7.61	0.86	3.69	0.89	1.50	1.00	8.00	0.42	SURCHARGED
231	Link-348	5.59	0 12:00	6.26	0.89	4.55	0.46	1.25	1.00	11.00	1.07	SURCHARGED
232	Link-35	1.09	0 12:00	7.48	0.15	2.85	0.25	0.48	0.35	0.00	0.94	Calculated
233	Link-350	1.51	0 12:00	17.90	0.08	3.09	0.19	0.60	0.60	0.00	0.32	Calculated
234	Link-351	16.90	0 12:00	20.68	0.82	5.38	0.54	2.00	1.00	12.00	0.33	SURCHARGED
235	Link-352	13.43	0 11:53	43.35	0.31	2.50	0.13	2.78	0.93	0.00	0.47	Calculated
236	Link-353	6.65	0 12:00	9.10	0.73	3.76	0.20	1.50	1.00	12.00	0.74	SURCHARGED
237	Link-354	1.04	0 11:59	3.20	0.33	1.33	0.26	1.00	1.00	19.00	0.14	SURCHARGED
238	Link-355	10.83	0 12:00	9.21	1.18	6.13	0.06	1.50	1.00	12.00	1.25	SURCHARGED
239	Link-357	3.33	0 12:00	2.94	1.13	4.24	0.78	1.00	1.00	13.00	0.54	SURCHARGED
240	Link-358	1.36	0 11:58	18.48	0.07	0.48	1.32	1.93	1.00	0.00	0.00	SURCHARGED

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
241	Link-359	2.66	0 12:03	18.13	0.15	1.74	1.64	2.00	1.00	3.00	0.54	SURCHARGED
242	Link-36	268.67	0 00:41	28.21	9.53	38.23	0.01	3.00	1.00	1282.00	0.00	SURCHARGED
243	Link-360	5.22	0 12:04	18.06	0.29	1.91	1.13	2.00	1.00	6.00	0.43	SURCHARGED
244	Link-361	15.53	0 12:01	18.24	0.85	4.94	0.57	2.00	1.00	9.00	1.01	SURCHARGED
245	Link-362	3.23	0 12:00	10.86	0.30	5.15	0.08	1.00	1.00	5.00	1.55	SURCHARGED
246	Link-363	1.85	0 12:00	14.40	0.13	6.73	0.07	0.62	0.62	0.00	2.18	Calculated
247	Link-364	12.48	0 12:00	20.86	0.60	7.06	0.05	1.50	1.00	12.00	1.25	SURCHARGED
248	Link-365	2.51	0 11:56	4.76	0.53	3.20	0.09	1.00	1.00	19.00	0.11	SURCHARGED
249	Link-366	1.02	0 12:08	1.46	0.69	2.14	0.39	0.59	0.59	0.00	0.50	Calculated
250	Link-367	1.02	0 12:10	1.64	0.62	3.11	0.21	0.45	0.45	0.00	0.89	Calculated
251	Link-368	1.02	0 12:10	5.23	0.19	3.39	0.20	0.43	0.44	0.00	0.64	Calculated
252	Link-37	260.77	0 01:57	56.21	4.64	50.00	0.01	2.50	1.00	1286.00	0.01	SURCHARGED
253	Link-370	1.11	0 12:04	5.50	0.20	5.29	0.07	0.31	0.31	0.00	1.31	Calculated
254	Link-372	1.13	0 12:03	6.60	0.17	2.15	0.21	0.64	0.64	0.00	0.04	Calculated
255	Link-374	1.64	0 12:00	2.36	0.69	3.16	0.15	0.64	0.64	0.00	0.88	Calculated
256	Link-375	1.18	0 12:03	1.63	0.72	2.17	0.27	0.65	0.65	0.00	0.13	Calculated
257	Link-376	1.17	0 12:04	4.14	0.28	5.03	0.01	0.34	0.34	0.00	1.41	Calculated
258	Link-378	7.97	0 12:22	22.78	0.35	3.34	0.25	2.00	1.00	11.00	0.96	SURCHARGED
259	Link-379	3.01	0 12:18	9.43	0.32	2.90	0.57	0.99	0.79	0.00	0.69	Calculated
260	Link-38	124.47	0 01:03	18.64	6.68	39.31	0.02	2.50	1.00	1274.00	0.01	SURCHARGED
261	Link-380	4.68	0 12:29	5.51	0.85	3.92	0.85	1.25	1.00	32.00	0.81	SURCHARGED
262	Link-381	3.74	0 12:03	7.10	0.53	3.05	0.08	1.25	1.00	35.00	0.33	SURCHARGED
263	Link-382	5.63	0 11:59	5.94	0.95	4.59	0.07	1.25	1.00	36.00	0.38	SURCHARGED
264	Link-383	8.07	0 12:22	37.97	0.21	3.39	0.03	2.00	1.00	23.00	0.77	SURCHARGED
265	Link-384	23.00	0 12:00	24.41	0.94	7.32	0.07	2.00	1.00	48.00	0.75	SURCHARGED
266	Link-385	14.68	0 11:56	21.41	0.69	4.67	0.54	2.00	1.00	31.00	1.02	SURCHARGED
267	Link-386	12.39	0 11:56	19.66	0.63	4.57	0.65	2.00	1.00	23.00	1.06	SURCHARGED
268	Link-387	3.21	0 12:00	3.91	0.82	4.09	0.06	1.00	1.00	50.00	0.20	SURCHARGED
269	Link-388	3.59	0 12:00	43.85	0.08	4.41	0.06	0.79	0.63	0.00	0.30	Calculated
270	Link-389	5.34	0 12:00	12.28	0.44	6.80	0.10	1.00	1.00	4.00	0.11	SURCHARGED
271	Link-39	4.65	0 11:58	57.99	0.08	3.82	0.03	1.00	1.00	0.00	0.08	SURCHARGED
272	Link-390	1.16	0 12:01	3.06	0.38	1.48	0.18	1.00	1.00	33.00	0.00	SURCHARGED
273	Link-391	2.93	0 12:00	2.86	1.03	3.74	0.28	1.00	1.00	7.00	0.75	SURCHARGED
274	Link-392	2.79	0 12:01	2.93	0.95	3.55	0.19	1.00	1.00	31.00	0.26	SURCHARGED
275	Link-393	4.05	0 12:00	6.89	0.59	2.29	0.86	1.50	1.00	6.00	0.06	SURCHARGED
276	Link-394	4.12	0 12:00	6.94	0.59	2.33	2.32	1.50	1.00	20.00	0.01	SURCHARGED
277	Link-395	2.73	0 12:00	5.45	0.50	3.47	0.54	1.00	1.00	10.00	0.88	SURCHARGED
278	Link-396	2.56	0 11:59	3.09	0.83	3.26	0.28	1.00	1.00	3.00	1.12	SURCHARGED
279	Link-397	18.61	0 12:05	56.13	0.33	2.63	0.37	3.00	1.00	65.00	0.02	SURCHARGED
280	Link-398	4.13	0 11:58	7.78	0.53	2.78	5.14	1.42	1.00	2.00	0.07	SURCHARGED
281	Link-399	2.45	0 11:59	6.99	0.35	3.12	0.69	1.00	1.00	30.00	0.03	SURCHARGED
282	Link-40	16.80	0 11:48	21.30	0.79	3.62	0.36	2.50	1.00	75.00	0.59	SURCHARGED
283	Link-405	1.78	0 11:59	4.01	0.44	2.26	0.24	1.00	1.00	16.00	0.26	SURCHARGED
284	Link-406	5.26	0 11:59	12.58	0.42	2.97	0.78	1.50	1.00	11.00	0.08	SURCHARGED
285	Link-407	6.70	0 11:59	15.85	0.42	2.79	0.19	1.94	0.98	0.00	0.68	Calculated
286	Link-408	0.67	0 11:56	7.32	0.09	0.86	0.08	1.00	1.00	19.00	0.00	SURCHARGED
287	Link-409	0.91	0 11:56	4.88	0.19	1.16	0.06	1.00	1.00	22.00	0.00	SURCHARGED
288	Link-41	2.52	0 11:58	24.63	0.10	2.24	0.42	0.91	0.61	0.00	0.08	Calculated
289	Link-410	6.56	0 12:00	12.84	0.51	3.65	0.38	1.97	0.99	0.00	0.89	Calculated
290	Link-411	1.78	0 12:00	10.10	0.18	2.62	0.18	0.82	0.82	0.00	0.46	Calculated
291	Link-412	19.65	0 11:57	24.23	0.81	4.00	1.29	2.50	1.00	7.00	0.60	SURCHARGED
292	Link-413	17.65	0 11:57	40.00	0.44	2.92	0.27	2.60	0.88	0.00	0.66	Calculated
293	Link-414	16.49	0 12:00	24.86	0.66	5.25	0.02	2.00	1.00	18.00	0.23	SURCHARGED
294	Link-415	10.03	0 12:00	13.56	0.74	3.19	0.66	2.00	1.00	15.00	0.24	SURCHARGED
295	Link-418	2.68	0 12:00	3.19	0.84	2.19	0.58	1.25	1.00	33.00	0.29	SURCHARGED
296	Link-419	2.79	0 12:00	3.23	0.87	2.28	0.45	1.25	1.00	28.00	0.47	SURCHARGED
297	Link-42	4.21	0 11:48	62.51	0.07	4.23	0.03	1.01	0.93	0.00	0.06	Calculated
298	Link-420	4.72	0 12:01	38.62	0.12	2.67	0.07	1.50	1.00	13.00	0.27	SURCHARGED
299	Link-421	2.80	0 11:57	5.45	0.51	3.56	0.47	1.00	1.00	15.00	0.20	SURCHARGED
300	Link-422	0.33	0 12:02	3.28	0.10	0.41	0.16	1.00	1.00	42.00	0.00	SURCHARGED
301	Link-423	3.62	0 12:00	4.32	0.84	2.05	0.16	1.50	1.00	25.00	0.22	SURCHARGED
302	Link-424	3.91	0 12:00	6.87	0.57	4.98	0.03	1.00	1.00	39.00	0.68	SURCHARGED
303	Link-425	4.18	0 12:04	22.45	0.19	1.95	1.09	2.00	1.00	8.00	0.33	SURCHARGED
304	Link-426	3.11	0 12:01	11.03	0.28	3.96	0.06	1.00	1.00	17.00	0.74	SURCHARGED
305	Link-427	30.45	0 11:59	26.03	1.17	4.85	0.73	2.51	0.84	0.00	0.65	> CAPACITY
306	Link-43	16.24	0 11:48	19.80	0.82	3.51	0.96	2.50	1.00	78.00	0.52	SURCHARGED
307	Link-431	2.79	0 11:59	4.77	0.59	3.55	0.08	1.00	1.00	4.00	0.91	SURCHARGED
308	Link-432	2.97	0 12:00	13.15	0.23	4.23	0.06	0.93	0.94	0.00	1.42	Calculated
309	Link-433	0.96	0 11:59	14.94	0.06	2.01	0.18	0.58	0.59	0.00	0.61	Calculated
310	Link-434	5.10	0 12:00	6.64	0.77	4.15	0.39	1.25	1.00	2.00	1.15	SURCHARGED
311	Link-435	5.98	0 12:00	10.97	0.54	4.27	0.19	1.50	1.00	1.00	1.06	SURCHARGED
312	Link-436	0.26	0 11:59	6.03	0.04	0.66	0.91	1.00	1.00	1.00	0.21	SURCHARGED
313	Link-437	6.15	0 12:00	8.49	0.72	3.48	1.66	1.50	1.00	3.00	0.50	SURCHARGED
314	Link-438	19.41	0 12:00	29.41	0.66	6.18	0.08	2.00	1.00	42.00	0.93	SURCHARGED
315	Link-439	1.45	0 11:58	5.58	0.26	1.12	4.36	1.50	1.00	7.00	0.00	SURCHARGED
316	Link-44	15.84	0 11:48	15.90	1.00	3.67	0.57	2.50	1.00	86.00	0.54	SURCHARGED
317	Link-440	4.22	0 12:04	5.44	0.78	2.39	0.20	1.50	1.00	19.00	0.55	SURCHARGED
318	Link-441	5.72	0 12:02	5.93	0.97	3.24	1.82	1.50	1.00	20.00	0.34	SURCHARGED
319	Link-442	2.77	0 11:56	2.87	0.96	3.52	0.12	1.00	1.00	29.00	0.37	SURCHARGED
320	Link-443	4.22	0 12:04	24.27	0.17	6.37	0.03	0.78	0.81	0.00	1.71	Calculated

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
321	Link-444	1.31	0 12:00	38.07	0.03	0.52	1.41	2.38	0.79	0.00	0.00	Calculated
322	Link-445	4.50	0 12:08	4.75	0.95	2.45	0.29	1.18	0.59	0.00	0.27	Calculated
323	Link-446	2.16	0 12:15	3.55	0.61	2.52	0.29	0.64	0.32	0.00	0.37	Calculated
324	Link-447	2.16	0 12:14	2.74	0.79	2.66	0.19	0.79	0.63	0.00	0.61	Calculated
325	Link-448	2.25	0 12:08	3.55	0.63	4.07	0.14	0.58	0.46	0.00	0.76	Calculated
326	Link-449	1.06	0 12:17	4.82	0.22	0.61	0.74	1.46	0.98	0.00	0.01	Calculated
327	Link-45	14.23	0 11:49	22.15	0.64	3.44	0.91	2.50	1.00	87.00	0.62	SURCHARGED
328	Link-450	1.36	0 12:37	14.71	0.09	1.40	1.19	0.99	0.33	0.00	0.04	Calculated
329	Link-451	1.26	0 12:01	2.23	0.56	1.66	0.30	0.75	0.50	0.00	0.25	Calculated
330	Link-452	0.25	0 12:00	3.99	0.06	0.36	1.39	0.69	0.46	0.00	0.07	Calculated
331	Link-453	1.27	0 12:18	13.21	0.10	0.56	3.90	1.38	0.46	0.00	0.02	Calculated
332	Link-454	1.43	0 12:11	18.46	0.08	0.45	2.22	1.72	0.57	0.00	0.01	Calculated
333	Link-455	1.18	0 12:07	3.75	0.31	1.50	0.80	0.69	0.46	0.00	0.08	Calculated
334	Link-456	2.28	0 12:05	1.73	1.31	1.48	0.45	1.18	0.39	0.00	0.04	> CAPACITY
335	Link-457	2.27	0 12:04	11.76	0.19	4.04	0.09	0.47	0.23	0.00	0.69	Calculated
336	Link-458	1.85	0 12:07	8.38	0.22	1.19	2.65	0.99	0.50	0.00	0.04	Calculated
337	Link-459	1.66	0 12:02	8.72	0.19	0.58	1.15	1.77	0.89	0.00	0.01	Calculated
338	Link-46	17.96	0 11:54	22.48	0.80	3.66	0.98	2.50	1.00	98.00	0.64	SURCHARGED
339	Link-460	4.18	0 12:07	5.73	0.73	4.97	0.07	0.71	0.48	0.00	0.71	Calculated
340	Link-461	4.29	0 12:03	5.05	0.85	3.28	0.21	1.06	0.71	0.00	0.41	Calculated
341	Link-462	2.08	0 12:08	2.94	0.71	1.18	0.44	1.50	1.00	24.00	0.02	SURCHARGED
342	Link-463	0.03	0 12:03	2.88	0.01	0.10	5.00	0.39	0.32	0.00	0.00	Calculated
343	Link-464	1.82	0 12:04	2.46	0.74	4.41	0.11	0.52	0.52	0.00	0.67	Calculated
344	Link-467	5.90	0 12:00	8.05	0.73	5.71	0.09	0.73	0.36	0.00	0.78	Calculated
345	Link-468	5.86	0 12:00	14.41	0.41	3.91	0.17	1.00	0.51	0.00	0.99	Calculated
346	Link-469	3.95	0 12:00	13.18	0.30	4.12	0.05	0.91	0.73	0.00	0.29	Calculated
347	Link-47	26.83	0 11:58	22.05	1.22	5.47	0.04	2.50	1.00	105.00	0.56	SURCHARGED
348	Link-470	1.18	0 12:03	1.75	0.68	3.95	0.12	0.40	0.41	0.00	0.64	Calculated
349	Link-471	0.81	0 12:00	2.55	0.32	1.77	0.18	0.56	0.56	0.00	0.07	Calculated
350	Link-472	2.17	0 13:02	2.68	0.81	1.93	0.43	0.98	0.65	0.00	0.28	Calculated
351	Link-473	3.70	0 12:17	3.45	1.07	4.26	0.21	0.88	0.71	0.00	0.80	> CAPACITY
352	Link-474	4.36	0 12:00	15.84	0.28	1.53	0.78	1.88	0.94	0.00	0.02	Calculated
353	Link-475	1.52	0 12:22	8.42	0.18	1.94	0.40	0.76	0.61	0.00	0.09	Calculated
354	Link-476	2.59	0 12:12	5.02	0.52	2.58	0.54	0.86	0.58	0.00	0.50	Calculated
355	Link-477	2.35	0 12:21	5.11	0.46	2.94	0.20	0.78	0.62	0.00	0.34	Calculated
356	Link-478	2.38	0 12:20	3.03	0.79	4.66	0.15	0.54	0.43	0.00	0.96	Calculated
357	Link-479	0.13	0 12:01	1.65	0.08	0.21	4.70	0.82	0.82	0.00	0.01	Calculated
358	Link-480	2.43	0 12:30	3.31	0.73	2.96	0.20	0.62	0.31	0.00	0.52	Calculated
359	Link-481	2.52	0 12:30	3.07	0.82	4.41	0.11	0.59	0.47	0.00	0.84	Calculated
360	Link-482	2.92	0 12:27	4.23	0.69	2.42	0.45	1.13	0.75	0.00	0.33	Calculated
361	Link-483	6.32	0 12:03	9.59	0.66	3.84	0.24	0.91	0.37	0.00	0.43	Calculated
362	Link-484	4.45	0 12:03	10.78	0.41	2.02	0.35	1.44	0.72	0.00	0.08	Calculated
363	Link-485	8.16	0 12:09	10.91	0.75	6.37	0.11	0.86	0.43	0.00	1.12	Calculated
364	Link-486	4.75	0 12:11	5.16	0.92	5.24	0.21	0.76	0.51	0.00	0.75	Calculated
365	Link-487	10.74	0 12:11	30.40	0.35	8.81	0.09	0.82	0.41	0.00	2.67	Calculated
366	Link-49	17.95	0 11:48	22.43	0.80	3.66	1.07	2.50	1.00	115.00	0.62	SURCHARGED
367	Link-50	40.28	0 12:18	41.94	0.96	5.70	0.06	3.00	1.00	119.00	0.45	SURCHARGED
368	Link-51	40.29	0 12:18	28.34	1.42	5.70	0.99	3.00	1.00	105.00	0.56	SURCHARGED
369	Link-52	46.88	0 12:01	36.71	1.28	6.63	1.56	3.00	1.00	88.00	0.72	SURCHARGED
370	Link-544	1.72	0 12:06	3.55	0.48	2.19	1.04	1.00	1.00	84.00	0.00	SURCHARGED
371	Link-552	0.77	0 12:00	13.56	0.06	3.43	0.56	0.31	0.16	0.00	0.55	Calculated
372	Link-56	9.89	0 11:55	22.22	0.45	2.80	0.10	2.01	0.80	0.00	0.72	Calculated
373	Link-560	6.52	0 12:04	13.86	0.47	2.57	0.58	1.85	0.93	0.00	0.74	Calculated
374	Link-561	4.25	0 12:01	4.07	1.04	3.46	0.08	1.25	1.00	16.00	0.21	SURCHARGED
375	Link-564	5.16	0 11:59	13.49	0.38	2.26	0.14	1.76	0.89	0.00	0.54	Calculated
376	Link-565	2.07	0 12:00	4.63	0.45	2.63	0.06	1.00	1.00	3.00	0.77	SURCHARGED
377	Link-566	2.96	0 12:01	3.48	0.85	3.85	0.64	0.87	0.95	0.00	0.33	Calculated
378	Link-567	1.93	0 12:00	2.06	0.94	2.45	1.24	1.00	1.00	21.00	0.30	SURCHARGED
379	Link-602	24.28	0 12:00	20.34	1.19	4.95	0.38	2.50	1.00	48.00	0.59	SURCHARGED
380	Link-603	6.51	0 12:01	12.08	0.54	3.97	1.47	1.27	0.88	0.00	0.14	Calculated
381	Link-605	5.64	0 12:00	6.30	0.90	2.75	0.66	1.34	0.68	0.00	0.39	Calculated
382	Link-606	3.36	0 12:00	1.54	2.17	4.27	0.02	1.00	1.00	13.00	0.04	SURCHARGED
383	Link-62	3.76	0 11:59	7.77	0.48	5.45	0.12	1.00	1.00	9.00	2.21	SURCHARGED
384	Link-624	0.00	0 00:00	2.19	0.00	0.00	0.00	0.35	0.35	0.00	0.00	Calculated
385	Link-626	16.50	0 11:48	20.12	0.82	3.48	0.87	2.50	1.00	65.00	0.58	SURCHARGED
386	Link-627	2.71	0 12:00	7.14	0.38	1.53	2.23	1.50	1.00	68.00	0.04	SURCHARGED
387	Link-628	14.92	0 11:48	18.03	0.83	3.16	0.72	2.50	1.00	34.00	0.54	SURCHARGED
388	Link-629	14.91	0 11:49	18.03	0.83	3.07	0.93	2.50	1.00	47.00	0.52	SURCHARGED
389	Link-630	2.29	0 12:00	19.72	0.12	1.96	0.47	0.92	0.68	0.00	0.04	Calculated
390	Link-631	1.82	0 12:00	46.69	0.04	1.64	0.10	0.88	0.65	0.00	0.03	Calculated
391	Link-636	1.84	0 11:57	5.48	0.34	3.15	0.03	1.00	1.00	16.00	1.29	SURCHARGED
392	Link-637	19.39	0 12:00	29.20	0.66	3.95	0.88	2.50	1.00	7.00	0.70	SURCHARGED
393	Link-639	19.69	0 12:04	17.47	1.13	2.79	0.82	3.00	1.00	41.00	0.21	SURCHARGED
394	Link-650	30.76	0 11:59	34.36	0.90	4.41	0.63	2.89	0.97	0.00	0.61	Calculated
395	Link-653	28.20	0 12:00	43.82	0.64	4.53	0.60	2.66	0.93	0.00	0.87	Calculated
396	Link-654	2.36	0 12:00	6.35	0.37	3.96	0.52	0.71	0.71	0.00	0.14	Calculated
397	Link-655	10.62	0 12:00	29.22	0.36	3.38	1.16	2.00	1.00	15.00	0.06	SURCHARGED
398	Link-656	0.70	0 12:00	9.11	0.08	1.43	0.36	0.59	0.59	0.00	0.13	Calculated
399	Link-658	18.93	0 11:48	22.48	0.84	3.86	0.95	2.50	1.00	125.00	0.32	SURCHARGED
400	Link-659	3.11	0 12:00	14.70	0.21	4.70	0.10	0.79	0.79	0.00	0.21	Calculated

Pipe Results

SN Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
401 Link-660	1.55	0 12:00	3.32	0.47	5.00	0.48	0.42	0.42	0.00	1.44	Calculated
402 Link-662	9.07	0 12:09	11.53	0.79	6.00	0.28	1.47	0.98	0.00	1.42	Calculated
403 Link-663	1.80	0 12:00	16.76	0.11	3.58	0.04	0.61	0.61	0.00	0.34	Calculated
404 Link-664	16.26	0 11:48	22.52	0.72	3.90	1.34	2.50	1.00	105.00	0.60	SURCHARGED
405 Link-665	1.72	0 12:00	20.66	0.08	3.51	0.06	0.60	0.60	0.00	0.07	Calculated
406 Link-666	9.89	0 12:40	11.77	0.84	3.15	1.65	2.00	1.00	49.00	0.51	SURCHARGED
407 Link-667	1.32	0 12:00	15.04	0.09	2.67	0.11	0.60	0.60	0.00	0.09	Calculated
408 Link-668	0.84	0 12:00	3.34	0.25	3.97	0.08	0.31	0.31	0.00	0.83	Calculated
409 Link-669	1.84	0 12:00	1.85	1.00	2.39	0.10	0.96	0.99	0.00	0.54	Calculated
410 Link-67	7.22	0 11:54	22.05	0.33	1.81	1.34	3.00	1.00	19.00	0.24	SURCHARGED
411 Link-672	0.00	0 00:00	0.68	0.00	0.00		0.00	0.00	0.00	0.00	Calculated
412 Link-673	0.00	0 00:00	4.97	0.00	0.00		0.00	0.00	0.00	0.00	Calculated
413 Link-677	0.00	0 00:00	16.34	0.00	0.00		0.50	0.50	0.00	0.00	Calculated
414 Link-679	30.09	0 12:01	38.56	0.78	5.04	1.32	2.47	0.82	0.00	0.77	Calculated
415 Link-68	2.72	0 11:58	19.62	0.14	3.47	0.08	1.00	1.00	48.00	0.08	SURCHARGED
416 Link-680	29.53	0 12:04	31.13	0.95	4.58	1.46	2.71	0.91	0.00	0.67	Calculated
417 Link-681	29.26	0 12:08	31.13	0.94	4.56	1.46	2.68	0.89	0.00	0.68	Calculated
418 Link-682	29.20	0 12:09	31.13	0.94	4.53	1.47	2.59	0.86	0.00	0.65	Calculated
419 Link-683	29.18	0 12:10	31.11	0.94	5.32	1.03	2.17	0.73	0.00	0.81	Calculated
420 Link-684	29.17	0 12:11	56.67	0.51	7.21	0.30	1.67	0.56	0.00	1.20	Calculated
421 Link-69	3.32	0 12:00	22.47	0.15	4.23	0.07	1.00	1.00	11.00	0.11	SURCHARGED
422 Link-79	3.89	0 12:00	7.72	0.50	6.14	0.09	0.58	0.39	0.00	1.29	Calculated
423 Link-94	2.25	0 12:00	5.65	0.40	3.58	0.33	0.85	0.85	0.00	1.59	Calculated

Inlet Results

Element ID	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Max Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	2.34	2.34	N/A	N/A	N/A	6.91	1354.26	0.39	0 11:59	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	1353.94	0.00	0 11:59	0.00	0.00
3	2.65	2.65	N/A	N/A	N/A	12.45	1354.77	0.50	0 12:00	0.00	0.00
4	3.55	1.24	1.82	1.73	51.27	10.98	1354.34	0.30	0 11:59	0.00	0.00
5	2.03	2.03	0.19	1.84	9.23	8.64	1354.86	0.26	0 11:59	0.00	0.00
6	6.78	3.01	N/A	N/A	N/A	150.45	1351.81	1.62	0 11:56	1.08	31.00
7	4.77	3.42	N/A	N/A	N/A	68.16	1350.82	0.83	0 11:56	1.22	22.00
8	6.17	4.33	N/A	N/A	N/A	122.32	1352.54	0.86	0 11:54	0.00	0.00
9	6.11	6.11	N/A	N/A	N/A	119.59	1353.23	2.59	0 11:54	0.02	3.00
10	3.22	3.22	N/A	N/A	N/A	24.18	1353.13	0.73	0 11:52	0.01	0.00
11	2.45	2.45	N/A	N/A	N/A	32248.17	1462.49	107.53	0 12:09	0.00	0.00
12	0.00	0.00	N/A	N/A	N/A	0.00	1354.96	0.00	0 12:09	0.00	0.00
13	0.00	0.00	N/A	N/A	N/A	0.00	1354.96	0.00	0 12:09	0.00	0.00
14	0.00	0.00	N/A	N/A	N/A	0.00	1352.85	0.00	0 12:02	0.00	0.00
15	2.19	2.19	N/A	N/A	N/A	4.53	1353.35	0.34	0 11:56	0.00	0.00
16	3.61	3.61	N/A	N/A	N/A	33.62	1352.78	0.92	0 12:00	0.00	0.00
17	1.32	1.32	N/A	N/A	N/A	0.00	1355.66	0.17	0 12:00	0.00	0.00
18	3.50	3.50	N/A	N/A	N/A	30.99	1353.35	0.86	0 11:55	0.01	2.00
19	1.04	1.04	N/A	N/A	N/A	0.00	1352.92	0.14	0 11:59	0.00	0.00
20	1.02	1.02	N/A	N/A	N/A	0.00	1351.98	0.14	0 11:59	0.00	0.00
21	1.85	1.85	N/A	N/A	N/A	0.00	1354.69	0.24	0 12:00	0.00	0.00
22	3.24	3.24	N/A	N/A	N/A	24.65	1353.99	0.74	0 11:58	0.00	0.00
23	1.64	1.64	N/A	N/A	N/A	0.00	1352.18	0.20	0 11:59	0.00	0.00
24	0.70	0.70	N/A	N/A	N/A	0.00	1353.15	0.11	0 11:56	0.00	0.00
25	1.52	1.52	N/A	N/A	N/A	0.00	1353.60	0.18	0 12:00	0.00	0.00
26	0.91	0.91	N/A	N/A	N/A	6.03	1353.76	0.35	0 11:59	0.00	0.00
27	4.17	4.17	N/A	N/A	N/A	26.85	1353.98	0.78	0 12:00	0.00	0.00
28	4.99	4.99	N/A	N/A	N/A	75.77	1353.92	1.74	0 12:00	0.00	0.00
29	5.37	5.37	N/A	N/A	N/A	89.65	1355.35	2.02	0 12:00	0.00	0.00
30	0.00	0.00	N/A	N/A	N/A	0.00	1352.43	0.00	0 11:48	0.06	2.00
31	5.28	5.28	N/A	N/A	N/A	86.47	1355.65	1.95	0 12:00	0.00	0.00
32	1.28	1.28	N/A	N/A	N/A	0.00	1353.84	0.16	0 11:59	0.00	0.00
33	0.00	0.00	N/A	N/A	N/A	0.00	1352.30	0.00	0 11:58	0.00	0.00
34	2.69	2.69	N/A	N/A	N/A	13.05	1353.63	0.51	0 11:53	0.01	1.00
35	0.00	0.00	N/A	N/A	N/A	0.00	1353.12	0.00	0 12:01	0.00	0.00
36	4.40	4.28	N/A	N/A	N/A	56.06	1353.33	0.64	0 12:01	0.00	0.00
37	2.91	2.91	N/A	N/A	N/A	17.53	1352.70	0.60	0 12:00	0.00	0.00
38	4.46	4.46	N/A	N/A	N/A	57.87	1353.27	1.39	0 12:00	0.00	0.00
39	1.05	1.05	N/A	N/A	N/A	0.00	1352.22	0.14	0 12:00	0.00	0.00
40	1.66	1.66	N/A	N/A	N/A	0.00	1351.54	0.20	0 12:00	0.00	0.00
41	1.67	1.67	N/A	N/A	N/A	0.00	1352.04	0.20	0 11:58	0.02	0.00
42	0.00	0.00	0.00	0.00	0.00	0.00	1351.76	0.00	0 03:18	5.09	1242.00
43	3.61	3.61	N/A	N/A	N/A	33.57	1352.12	0.91	0 12:00	0.00	0.00
44	2.22	2.22	N/A	N/A	N/A	33.41	1352.29	0.87	0 12:00	0.00	0.00
45	2.23	2.23	N/A	N/A	N/A	5.08	1351.18	0.35	0 11:59	0.00	0.00
46	1.70	1.70	N/A	N/A	N/A	0.00	1350.28	0.20	0 12:00	0.00	0.00
47	1.49	1.49	N/A	N/A	N/A	136.23	1353.84	2.77	0 12:00	0.00	0.00
48	1.56	1.56	N/A	N/A	N/A	0.00	1351.64	0.19	0 12:00	0.00	0.00
49	1.60	1.60	N/A	N/A	N/A	0.00	1351.45	0.19	0 12:00	0.00	0.00
50	5.16	5.16	N/A	N/A	N/A	81.93	1353.33	1.86	0 11:56	0.01	1.00
51	2.49	2.49	N/A	N/A	N/A	9.54	1351.92	0.44	0 12:00	0.00	0.00
52	1.83	0.00	0.78	1.05	42.64	8.24	1351.07	0.25	0 11:56	0.00	0.00
53	6.09	5.47	N/A	N/A	N/A	118.97	1352.13	1.67	0 12:04	0.00	0.00
54	4.44	4.44	N/A	N/A	N/A	57.25	1351.41	1.38	0 12:00	0.00	0.00
55	2.32	2.32	N/A	N/A	N/A	6.60	1351.25	0.38	0 12:00	0.00	0.00
56	2.89	2.89	1.59	1.29	55.17	10.06	1351.14	0.29	0 12:00	0.00	0.00
57	3.34	2.05	N/A	N/A	N/A	9.74	1351.01	0.32	0 12:00	0.00	0.00
58	0.00	0.00	0.00	0.00	0.00	0.00	1351.04	0.00	0 12:01	0.00	0.00
59	0.00	0.00	N/A	N/A	N/A	0.00	1350.40	0.00	0 12:00	0.00	0.00
60	3.32	3.32	N/A	N/A	N/A	26.47	1351.67	0.77	0 11:54	0.12	10.00
61	1.32	1.32	N/A	N/A	N/A	7.95	1350.73	0.41	0 12:00	0.00	0.00
62	1.56	1.56	0.78	0.79	49.71	0.00	1351.43	0.17	0 12:00	0.00	0.00
63	74.44	1.80	8.80	65.63	11.83	23.79	1352.02	0.73	0 12:01	0.00	0.00
64	2.28	1.49	0.99	1.29	43.53	0.00	1350.81	0.20	0 12:00	0.00	0.00
65	30.34	2.05	5.02	25.31	16.56	13.41	1351.28	0.52	0 12:00	0.00	0.00
66	3.43	2.38	N/A	N/A	N/A	14.71	1351.02	0.52	0 12:00	0.00	0.00
67	43.27	3.24	6.27	36.99	14.50	17.10	1351.29	0.59	0 12:00	0.00	0.00
68	2.58	2.58	1.07	1.51	41.57	0.00	1350.79	0.20	0 11:59	0.00	0.00
69	4.11	4.11	1.44	2.67	35.04	0.07	1350.88	0.24	0 11:59	0.00	0.00
70	2.33	2.33	N/A	N/A	N/A	6.78	1351.25	0.38	0 11:49	0.03	3.00
71	1.60	1.60	N/A	N/A	N/A	8.31	1350.43	0.42	0 11:54	0.07	0.00
72	192.46	1.46	16.72	175.72	8.69	42.15	1351.50	1.09	0 11:54	0.00	0.00
73	4.37	1.70	1.49	2.87	34.22	0.24	1350.63	0.25	0 00:43	4.22	16.00
74	4.33	4.33	N/A	N/A	N/A	17.40	1350.93	0.60	0 00:43	6.14	13.00
75	2.65	2.65	N/A	N/A	N/A	12.19	1350.29	0.45	0 00:42	16.42	1255.00
76	3.48	2.08	N/A	N/A	N/A	14.87	1350.46	0.49	0 11:58	0.00	0.00
77	2.43	2.43	1.03	1.40	42.47	0.00	1350.55	0.20	0 11:58	0.00	0.00
78	2.62	2.62	N/A	N/A	N/A	496.97	1359.71	9.21	0 11:58	0.00	0.00
79	2.94	2.94	N/A	N/A	N/A	18.14	1352.41	0.61	0 12:00	0.00	0.00
80	0.00	0.00	N/A	N/A	N/A	0.00	1351.91	0.00	0 11:57	0.00	0.00

Inlet Results

Element ID	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Max Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
81	4.84	4.84	N/A	N/A	N/A	70.59	1353.64	1.64	0 11:47	0.05	5.00
82	4.27	4.27	N/A	N/A	N/A	52.12	1353.35	1.28	0 11:57	0.00	1.00
83	1.65	1.65	N/A	N/A	N/A	0.00	1351.26	0.20	0 11:56	0.01	2.00
84	0.00	0.00	N/A	N/A	N/A	0.00	1350.20	0.00	0 11:56	0.00	3.00
85	0.00	0.00	N/A	N/A	N/A	0.00	1350.20	0.00	0 11:55	0.00	2.00
86	2.20	2.20	N/A	N/A	N/A	4.68	1350.79	0.29	0 11:56	0.00	0.00
87	5.29	5.29	N/A	N/A	N/A	86.60	1352.58	1.95	0 11:57	0.05	4.00
88	3.54	3.54	N/A	N/A	N/A	31.81	1351.88	0.88	0 11:54	0.06	6.00
89	3.57	3.57	N/A	N/A	N/A	32.52	1351.94	0.89	0 11:53	0.00	1.00
90	3.84	3.84	N/A	N/A	N/A	39.74	1352.48	1.04	0 11:52	0.00	0.00
91	0.00	0.00	N/A	N/A	N/A	0.00	1351.60	0.00	0 12:00	0.00	0.00
92	0.00	0.00	N/A	N/A	N/A	0.00	1351.80	0.00	0 11:53	0.00	0.00
93	2.65	2.65	N/A	N/A	N/A	12.31	1352.50	0.49	0 11:56	0.00	2.00
94	2.82	2.82	N/A	N/A	N/A	15.75	1351.40	0.56	0 11:58	0.00	0.00
95	2.38	2.38	N/A	N/A	N/A	7.57	1351.47	0.40	0 11:58	0.00	0.00
96	1.50	1.50	0.76	0.74	50.44	0.00	1351.21	0.17	0 12:00	0.00	0.00
97	2.91	2.91	N/A	N/A	N/A	17.41	1351.08	0.60	0 11:56	0.00	2.00
98	0.74	0.00	0.62	0.13	83.15	5.13	1350.32	0.19	0 12:00	0.00	0.00
99	2.58	2.46	N/A	N/A	N/A	11.11	1350.09	0.32	0 11:57	0.03	2.00
100	3.64	2.38	N/A	N/A	N/A	34.41	1350.35	0.56	0 12:02	0.00	0.00
101	2.39	2.39	1.09	1.30	45.62	9.27	1350.32	0.27	0 11:52	0.00	0.00
102	0.00	0.00	N/A	N/A	N/A	0.00	1349.62	0.00	0 00:00	0.00	0.00
103	0.00	0.00	N/A	N/A	N/A	0.00	1350.26	0.00	0 12:00	0.00	0.00
104	1.44	1.44	N/A	N/A	N/A	0.00	1350.42	0.18	0 12:00	0.00	0.00
105	2.30	2.30	N/A	N/A	N/A	6.16	1350.47	0.37	0 12:00	0.00	0.00
106	3.64	2.70	N/A	N/A	N/A	34.38	1349.69	0.57	0 12:01	0.00	0.00
107	2.01	2.01	N/A	N/A	N/A	1.81	1350.17	0.29	0 12:00	0.00	0.00
108	3.67	3.67	N/A	N/A	N/A	35.33	1350.88	0.95	0 12:00	0.00	0.00
109	4.72	4.72	N/A	N/A	N/A	66.55	1353.27	1.56	0 11:50	0.41	20.00
110	2.84	2.84	N/A	N/A	N/A	16.08	1352.08	0.57	0 12:00	0.00	0.00
111	1.35	1.35	N/A	N/A	N/A	0.00	1351.89	0.17	0 01:39	0.53	1.00
112	1.29	1.29	N/A	N/A	N/A	0.00	1351.76	0.16	0 12:00	0.00	0.00
113	3.15	3.15	N/A	N/A	N/A	22.65	1351.43	0.70	0 12:00	0.00	0.00
114	0.86	0.79	0.69	0.17	80.51	5.60	1350.95	0.20	0 11:56	0.00	0.00
115	3.27	3.27	N/A	N/A	N/A	25.43	1350.78	0.75	0 12:00	0.00	0.00
116	2.77	2.77	N/A	N/A	N/A	14.60	1350.55	0.54	0 12:00	0.00	0.00
117	19.33	19.33	N/A	N/A	N/A	886.56	1367.80	17.53	0 11:54	1.53	21.00
118	2.10	2.10	N/A	N/A	N/A	3.10	1350.50	0.31	0 11:52	0.01	4.00
119	1.74	1.74	N/A	N/A	N/A	0.00	1350.35	0.21	0 11:51	0.01	6.00
120	8.75	8.75	N/A	N/A	N/A	258.13	1355.05	5.23	0 11:52	1.94	22.00
121	3.31	3.31	N/A	N/A	N/A	26.32	1349.14	0.77	0 11:59	0.00	0.00
122	2.99	2.99	N/A	N/A	N/A	19.09	1348.30	0.63	0 11:51	0.06	6.00
123	3.05	3.05	N/A	N/A	N/A	20.37	1352.21	0.65	0 12:00	0.00	0.00
124	5.93	5.93	N/A	N/A	N/A	112.17	1353.76	2.45	0 11:56	0.12	8.00
125	2.67	2.67	N/A	N/A	N/A	12.67	1351.63	0.50	0 11:58	0.00	0.00
126	3.47	3.47	N/A	N/A	N/A	30.19	1351.95	0.85	0 12:00	0.00	0.00
127	2.70	2.70	N/A	N/A	N/A	13.23	1350.97	0.51	0 12:00	0.00	0.00
128	4.42	4.42	N/A	N/A	N/A	56.87	1352.53	1.37	0 12:00	0.00	0.00
129	1.44	1.44	N/A	N/A	N/A	0.00	1351.24	0.18	0 12:01	0.00	0.00
130	2.07	2.07	N/A	N/A	N/A	2.65	1350.64	0.30	0 12:00	0.00	0.00
131	1.32	1.32	N/A	N/A	N/A	0.00	1350.53	0.17	0 11:59	0.01	0.00
132	4.50	4.50	N/A	N/A	N/A	59.24	1351.26	1.42	0 12:00	0.00	0.00
133	2.39	2.39	1.09	1.30	45.60	9.27	1350.14	0.27	0 12:00	0.00	0.00
134	2.66	1.37	N/A	N/A	N/A	12.57	1350.17	0.32	0 12:01	0.00	0.00
135	0.00	0.00	N/A	N/A	N/A	0.00	1349.91	0.00	0 12:04	0.00	0.00
136	4.40	0.00	N/A	N/A	N/A	56.13	1350.73	0.88	0 12:04	0.00	0.00
137	3.36	3.36	1.76	1.61	52.24	10.73	1351.50	0.30	0 12:00	0.00	0.00
138	8.65	8.65	N/A	N/A	N/A	252.45	1352.53	5.18	0 11:56	0.40	12.00
139	1.64	1.64	N/A	N/A	N/A	0.00	1348.71	0.20	0 12:00	0.00	0.00
140	1.93	1.93	1.22	0.71	63.38	8.43	1347.85	0.25	0 11:54	0.00	0.00
141	0.95	0.95	N/A	N/A	N/A	0.00	1346.78	0.13	0 12:04	0.00	0.00
142	0.66	0.66	N/A	N/A	N/A	0.00	1346.72	0.10	0 11:54	0.00	0.00
143	0.67	0.67	N/A	N/A	N/A	0.00	1346.73	0.10	0 12:02	0.00	0.00
144	4.77	4.06	1.66	3.11	34.74	12.40	1346.31	0.33	0 11:54	0.00	0.00
145	0.72	0.72	N/A	N/A	N/A	5.30	1346.29	0.29	0 11:54	0.00	0.00
146	4.10	1.35	N/A	N/A	N/A	46.99	1346.02	0.60	0 11:53	0.02	10.00
147	2.87	2.87	N/A	N/A	N/A	16.70	1346.17	0.58	0 12:00	0.00	0.00
148	2.77	2.77	N/A	N/A	N/A	14.75	1347.18	0.54	0 11:54	0.04	2.00
149	1.71	1.71	N/A	N/A	N/A	0.00	1346.83	0.21	0 11:53	0.01	3.00
150	1.37	1.37	N/A	N/A	N/A	0.00	1347.51	0.17	0 11:55	0.01	2.00
151	1.50	1.50	N/A	N/A	N/A	0.00	1347.32	0.18	0 11:58	0.00	0.00
152	1.85	1.85	N/A	N/A	N/A	0.00	1347.51	0.24	0 11:57	0.00	0.00
153	2.43	2.43	N/A	N/A	N/A	8.35	1347.70	0.42	0 11:57	0.02	4.00
154	2.93	2.93	N/A	N/A	N/A	17.80	1348.31	0.60	0 11:58	0.00	0.00
155	1.20	1.20	N/A	N/A	N/A	0.00	1347.42	0.15	0 11:56	0.07	7.00
156	0.65	0.65	N/A	N/A	N/A	0.00	1347.47	0.10	0 11:56	0.00	4.00
157	0.78	0.78	N/A	N/A	N/A	0.00	1347.96	0.11	0 11:58	0.00	0.00
158	1.01	1.01	N/A	N/A	N/A	0.00	1347.84	0.14	0 11:58	0.00	0.00
159	2.65	2.65	N/A	N/A	N/A	12.37	1347.80	0.50	0 11:56	0.24	8.00
160	2.15	2.15	N/A	N/A	N/A	3.88	1348.11	0.33	0 11:59	0.00	0.00

Inlet Results

Element ID	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Max Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
161	3.70	3.70	N/A	N/A	N/A	35.96	1348.28	0.96	0 11:53	0.86	15.00
162	3.78	3.78	N/A	N/A	N/A	38.20	1349.10	1.01	0 12:00	0.00	0.00
163	6.26	6.26	N/A	N/A	N/A	126.54	1350.51	2.73	0 12:06	0.00	0.00
164	5.54	5.54	N/A	N/A	N/A	96.17	1349.06	2.14	0 01:39	0.07	14.00
165	2.27	2.27	N/A	N/A	N/A	5.80	1348.31	0.37	0 11:59	0.00	1.00
166	2.10	2.10	N/A	N/A	N/A	3.08	1349.77	0.31	0 11:53	0.00	1.00
167	2.09	2.09	1.29	0.80	61.70	8.74	1349.87	0.26	0 11:53	0.00	0.00
168	3.00	2.21	N/A	N/A	N/A	19.48	1349.58	0.38	0 12:01	0.00	0.00
169	2.52	2.52	N/A	N/A	N/A	170.14	1353.29	3.49	0 12:02	0.00	0.00
170	1.72	1.45	0.75	0.96	43.82	7.99	1349.62	0.24	0 11:53	0.00	0.00
171	2.41	1.58	N/A	N/A	N/A	8.11	1349.55	0.36	0 11:53	0.00	0.00
172	9.22	7.89	N/A	N/A	N/A	286.37	1350.09	1.14	0 11:52	0.04	2.00
173	3.75	3.75	N/A	N/A	N/A	37.25	1349.46	0.99	0 11:59	0.03	1.00
174	0.00	0.00	N/A	N/A	N/A	0.00	1347.79	0.00	0 11:52	0.04	9.00
175	5.29	5.29	N/A	N/A	N/A	86.55	1348.38	1.95	0 11:59	0.11	8.00
176	3.42	3.42	1.78	1.64	51.94	10.81	1346.39	0.30	0 12:01	0.34	10.00
177	4.97	4.97	N/A	N/A	N/A	74.93	1348.27	1.71	0 12:01	0.00	0.00
178	3.21	3.21	N/A	N/A	N/A	24.08	1347.31	0.73	0 12:01	0.00	0.00
179	3.51	3.51	N/A	N/A	N/A	31.16	1346.72	0.87	0 11:59	0.00	0.00
180	3.51	3.51	N/A	N/A	N/A	31.24	1347.11	0.87	0 11:59	0.00	0.00
181	3.13	3.13	N/A	N/A	N/A	22.10	1347.57	0.69	0 12:00	0.00	0.00
182	5.70	5.70	N/A	N/A	N/A	102.45	1349.51	2.26	0 12:00	0.00	0.00
183	0.89	0.89	N/A	N/A	N/A	0.00	1346.25	0.13	0 12:00	0.00	0.00
184	3.71	3.71	N/A	N/A	N/A	36.23	1346.97	0.97	0 11:55	0.01	4.00
185	3.45	3.45	N/A	N/A	N/A	29.56	1346.82	0.84	0 11:56	0.01	3.00
186	1.39	1.39	N/A	N/A	N/A	0.00	1345.77	0.17	0 12:00	0.00	0.00
187	1.93	1.93	N/A	N/A	N/A	0.72	1346.35	0.26	0 12:00	0.00	0.00
188	1.02	1.02	N/A	N/A	N/A	0.00	1347.68	0.14	0 12:00	0.00	0.00
189	1.64	1.64	1.10	0.55	66.75	7.83	1347.55	0.24	0 11:48	0.00	0.00
190	5.50	2.99	N/A	N/A	N/A	94.72	1348.37	0.99	0 12:02	0.00	0.00
191	3.53	3.53	N/A	N/A	N/A	31.56	1345.09	0.87	0 11:59	0.00	0.00
192	5.25	5.25	N/A	N/A	N/A	85.06	1344.74	1.92	0 11:56	0.27	8.00
193	2.57	2.57	N/A	N/A	N/A	10.82	1344.91	0.46	0 11:59	0.00	0.00
194	2.37	2.37	N/A	N/A	N/A	0.00	1350.45	0.24	0 12:00	0.00	0.00

