

**Hyden – Leslie County Water District**

**P.O. Box 906**

**Hyden, Kentucky 41749**

**RECEIVED**

DEC 27 2013

PUBLIC SERVICE  
COMMISSION

Response In the Matter of:

APPLICATION OF HYDEN – LESLIE COUNTY	)	
WATER DISTRICT FOR AUTHORITY TO ISSUE	)	
SECURITIES AND ISSUANCE OF A	)	CASE NO.
CERTIFICATE OF PUBLIC CONVENIENCE AND	)	2013-00388
NECESSITY TO CONSTRUCT AN	)	
IMPROVEMENTS PROJECT PURSUANT TO	)	
KRS 278.020 AND 278.300	)	

IN RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR  
INFORMATION TO HYDEN – LESLIE COUNTY WATER DISTRICT

RECEIVED

DEC 27 2013

LETTER OF TRANSMITTAL  
PUBLIC SERVICE COMMISSION

**HYDEN - LESLIE CO WATER DISTRICT**

P.O. BOX 906  
HYDEN, KY 41749  
(606) 672-2791  
Fax (606) 672-7510  
E-MAIL : [hlwater@tds.net](mailto:hlwater@tds.net)

DATE	12/27/2013
ATTENTION	<b>Jeff Derouen, Executive Director</b>
RE:	Public Service Commission
	Case # 2013-00388

TO Kentucky Public Service Commission  
P.O. Box 615  
Frankfort, KY 40602

FROM Leihman Howard Jr.

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

Shop drawings     Prints     Plans     Samples     Specifications

Copy of letter     Change Order     Easements

COPIES	DATE	NO.	DESCRIPTION
1			Original response to First request for information
10			Copies of Response to first request for information

THESE ARE TRANSMITTED as checked below:

- For approval     Approved as submitted     Resubmit \_\_\_\_\_ copies for approval
- For your use     Approved as noted     Submit \_\_\_\_\_ copies for distribution
- As requested     Returned for corrections     Return \_\_\_\_\_ corrected prints
- For review and comment     \_\_\_\_\_
- FOR BIDS DUE     PRINTS RETURNED AFTER LOAN TO US

REMARKS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Copy to: SME, Rubin & Hays

SIGNED: Leihman Howard, JR.

If enclosures are not as noted, kindly notify us at once.

Hyden – Leslie County Water District

P.O. Box 906

Hyden, Kentucky 41749

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DEC 27 2013

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COMMISSION

Response In the Matter of:

APPLICATION OF HYDEN – LESLIE COUNTY	)	
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NECESSITY TO CONSTRUCT AN	)	
IMPROVEMENTS PROJECT PURSUANT TO	)	
KRS 278.020 AND 278.300	)	

IN RESPONSE TO COMMISSION STAFF’S FIRST REQUEST FOR INFORMATION TO  
HYDEN – LESLIE COUNTY WATER DISTRICT

- 1.) Refer to Hyden – Leslie ‘ s Application Exhibit B. State the date on which the bids that appear on the bid tabulations expire. **June 9, 2013. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

2.) Explain why Hyden – Leslie requested bids for the proposed projects prior to issuance of the Kentucky Division of Water's ("DOW") approval of sanitary design features of the proposed project. **The District intended to submit plans and specifications to ("DOW") concurrently with the advertisement for bids but the District still had some roads being considered due to lack of signers on those particular roads and service areas. Therefore, the District wanted to make sure that all included roads were included in the DOW submittal.**

**Respondent: Augustus Roberts, Chairman, Hyden – Leslie County Water District.**

3.) State when Hyden – Leslie submitted the plans and specifications for the proposed projects to the DOW. **June 18, 2013. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

4.) Identify by Diameter size and material type, all sections of water line that Hyden – Leslie proposes to construct if its application for Certificate of Public Convenience and Necessity is granted. **Please find attached the proposed quantities. Exhibit 1. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

5.) Refer to Hyden – Leslie Application, Exhibits B and C. The bid tabulation sheet for Contract No. 15 totals 270,200 linear feet of two-, three-, and four –inch water lines. In its letter of September 25, 2013 in which it approved the proposed projects, DOW described the project as involving 262,000 feet two-, three-, and four-inch water main.

a.) Explain the difference between the two totals. **The total quantities of Contract No.15 totals 270,200 linear feet of total water lines. We cannot explain why the quantities differ. No additional roads or lines have been added that have not been approved by DOW. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

b.) If the difference in the totals is the result of an addition of facilities after the submission of the proposed project to DOW, state whether DOW has approved the additional facilities and provide documentary evidence of such approval. **All facilities of the proposed project have been approved by DOW. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

6.) Refer to “Specification and Contract Documents for Hyden – Leslie County Water District, Hyden, Kentucky, Contract 15, Phase II – A, Waterline Extensions.” The project description set forth in Section 1 (“Advertisement for Bids”) makes no reference to two-inch water mains. Explain why the description does not refer to two-inch water mains when the project description in the DOW letter of September 25, 2013, refers to 35,000 feet of two inch water mains. **The description is a brief synopsis of the project and does not intend to depict the project in its entirety. Total quantities are included in the bid form only. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

7.) State whether Hyden – Leslie has re – advertised or intends to re – advertise for bids for the proposed facilities. If so, provide the date on which the request for bids was re-advertised or is expected to be re-advertised , the date of the opening of the new bids or expected date of opening new bids, and a copy of the bid tabulation sheet showing all of the submitted bids and stamped, signed and dated by a registered professional engineer in Kentucky. **The District does not intend to re- advertise the bids. Respondent: Augustus Roberts, Chairman, Hyden – Leslie County Water District.**

8.) Provide the hydraulic calculations that have been used in support of the design of Contract 15. State all assumptions used in making these calculations. Provide all node and junction schematics and corresponding maps. Tabulate the summary of the results of hydraulic simulations of both peak flow and the flushing flow for each water line to show the corresponding velocity in feet per second, flow rate in gallons per minute, and pressure pounds per square inch. **Please find enclosed the entire design calculation package as submitted to the DOW and approved by the DOW. Please see attached exhibit 2. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

9.) 807 KAR 5:066, Section 10(2)(a), limits the length of non – circulation two inch pipe to 250 feet, but permits longer lengths in rural areas upon Commission approval if Hydraulic studies indicate that the line can provide service within the requirements of 807 KAR 5:066, Section 5(1) and can provide service adequate flow to serve peak requirements of customers. Provide for each proposed non – circulating two – inch water line that exceeds 250 feet in length the hydraulic calculations and studies that support the compliance with the pressure requirements of 807 KAR 5:066, Section 5(1) at the peak customer flow requirements. **Please see attached exhibit 3.**

**Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

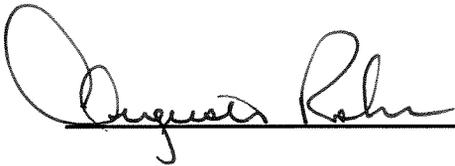
**10.)** 807 KAR 5:066, Section 10(2)(a), limits the length of non – circulating one and half-inch pipe to 200 feet, but permits longer lengths in rural areas upon Commission approval if hydraulic studies indicate that the line can provide service within the requirements of 807 KAR 5:066, Section 5(1) and can provide adequate flow to serve peak requirements of customers. Provide for each proposed non – circulating one and one-half inch water line that exceeds 200 feet in length the hydraulic calculations and studies that support the compliance with the pressure requirements of 807 KAR 5:066, Section 5(1) at the peak customer flow requirements. **Project contains NO 1 ½ “ pipe. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

**11.)** 807 KAR 5:066, Section 10(2)(a), limits the length of non-circulating one-inch pipe to 100 feet, but permits for longer lengths in rural areas upon Commission approval if Hydraulic studies indicate that the line can provide service within the requirements of 807 KAR 5:066, Section 5(1) and can provide adequate flow to serve peak requirements of customers. Provide for each proposed non-circulating one-inch water line exceeds 100 feet in length the hydraulic calculations and studies that support compliance with the pressure requirements of 807 KAR 5:066, Section 5(1) at the peak customer flow requirements. **Please see attached exhibit 4. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

- 12.) State the expected dates of the commencement of construction of the proposed facilities and of completion of construction. **We plan to begin Construction on January 6, 2014 and complete construction by November 1, 2014.**  
**Respondent: Augustus Roberts, Chairman, Hyden – Leslie County Water District.**
- 13.) Describe any preparatory or other construction that Hyden – Leslie has performed related to proposed facilities. **The District has advertised for bids, prepared application for funding and accepted water meter purchases for the proposed facilities. Respondent: Augustus Roberts, Chairman, Hyden – Leslie County Water District.**
- 14.) Refer to Hyden – Leslie’s Application, Exhibit B. The bid tabulation sheet indicates that 207 meter assemblies (the sum of lines 34 and 35) will be installed. At paragraph 12(a) of its Application, Hyden – Leslie states that “the project will provide water service to approximately 300 households.” Explain how, given the number meter assemblies that are set forth in the contract specifications, the project will provide service to households. **At the time of bidding, the Hyden – Leslie County Water District had 207 signers. There are approximately 400 households to be served within this project area. Therefore, we anticipate by the time the project is complete, there will be approximately 300 water meter connections installed by this contract. Respondent: Augustus Roberts, Chairman, Hyden – Leslie County Water District.**

**15.)** Explain the basis for the size of the proposed water storage tanks proposed. Provide all related hydraulic calculations and assumptions. **The Hell for Certain Tank includes service to approximately 157 new households. The anticipated usage of the tank will be 157 households X 150 gpd/Household = 23,550 gallons per day. Therefore, due to its rural location it has been designed to provide approximately 2 days of storage instead of the required 24 hour storage. This tank would also provide emergency water storage to SR 257 area due to its loop lines. The Grassy water storage tank includes service to approximately 114 new households. The anticipated usage of the tank will be 114 households X 150 gpd/household = 17,100 gallons per day. Therefore, due to its rural location it has been designed to provide approximately 2 days of storage instead of the required 24 hour storage. The tank also provides emergency water storage to the Buckhorn Lake camp ground and SR 257 area due to looped lines. Respondent: Michael K. Maggard, Sisler – Maggard Engineering.**

**This document and or responses has been prepared by or supervised by:**



---

**Augustus Roberts, Chairman**

**Hyden – Leslie County Water District**

---

**DATE**

STATE OF KENTUCKY

COUNTY OF LESLIE

I, \_\_\_\_\_, a **NOTARY PUBLIC** in and for the County and State aforesaid do hereby certify that Augustus Roberts personally appeared before me and acknowledged that they are the persons described in and who executed the foregoing response to the Public Service Commission First Request for information to the Hyden –Leslie County Water District and that he duly acknowledged the same before me to be their free and voluntary act and deed.

**IN WITNESS WHEREOF**, I have hereunto set my hand and official seal, this the \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
**NOTARY PUBLIC, KENTUCKY**

My Commission Expires: \_\_\_\_\_

**HYDEN - LESLIE COUNTY WATER DISTRICT**

**PSC RESPONSE TO CASE NO. 2013-00388**

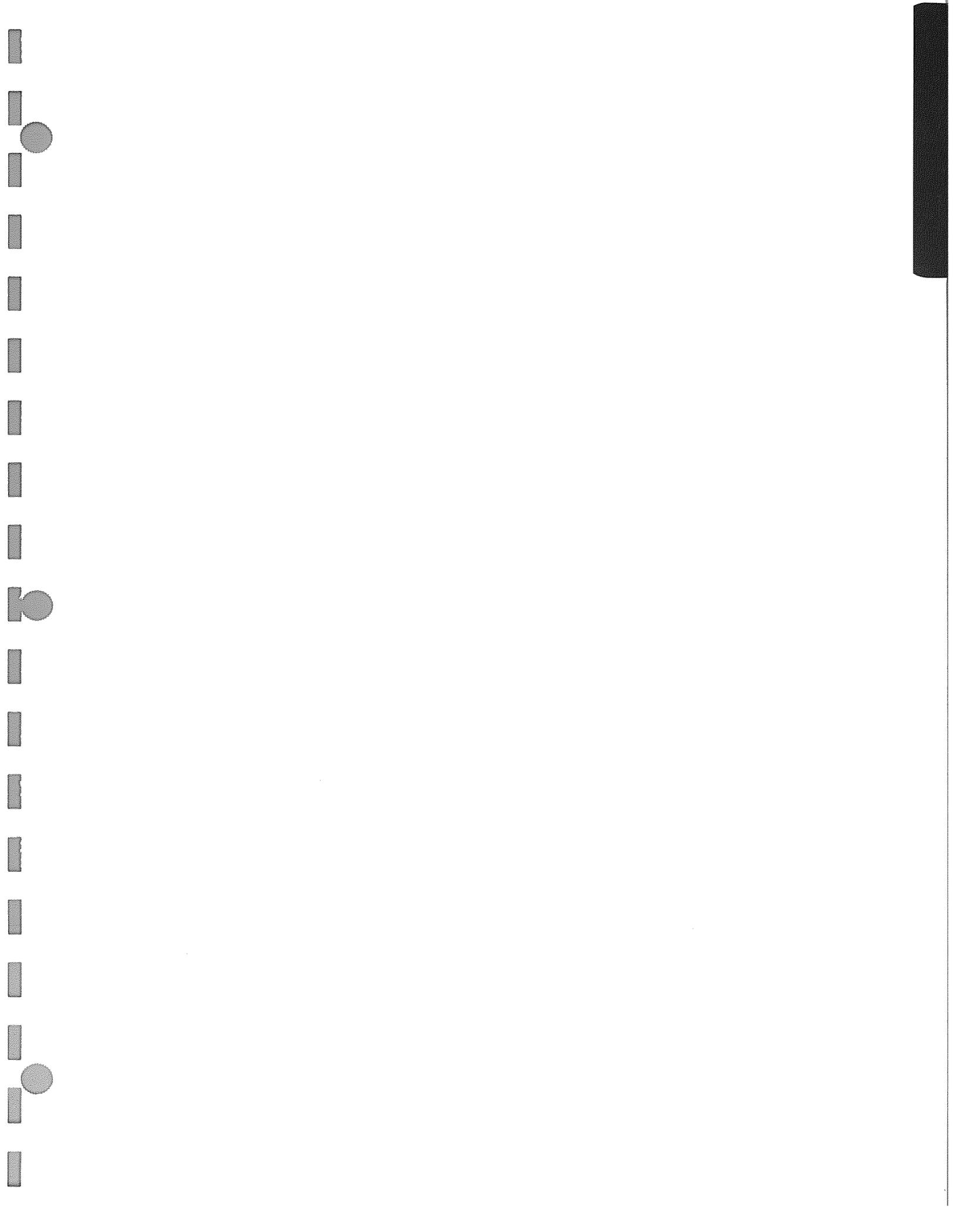
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**Exhibit No. 1 – Response to question No. 4 – Project Cost Estimate**

**Exhibit No. 2 – Response to question No. 8 – Design calculations**

**Exhibit No. 3 – Response to question No. 9 – 2” Pipe Design calculations**

**Exhibit No. 4 – Response to question No. 11 – 1” Pipe Design calculations**



**BID TABULATION**  
**CONTRACT NO. 15 - Phase II-A - WATER LINE EXTENSIONS**  
**HYDEN - LESLIE COUNTY WATER DISTRICT**

**BID OPENING 12:00 P.M. APRIL 25, 2013**

ITEM NO.	ITEM DESCRIPTION	ENGINEERS ESTIMATE				PACK'S, Inc. Morehead, KY		Akins Excavating Company, Inc. Corbin, Ky.		G&W Construction Co., Inc. Morehead, KY	
		UNIT QUANTITY	UNIT	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	4" W.L. C-900	86,000	LF	\$8.50	\$731,000.00	\$8.75	\$752,500.00	\$8.75	\$752,500.00	\$10.90	\$937,400.00
2	4" W.L. CL. 250 PVC	76,000	LF	\$8.00	\$608,000.00	\$7.10	\$539,600.00	\$7.75	\$589,000.00	\$8.90	\$676,400.00
3	3" W.L. CL. 250	46,000	LF	\$7.00	\$322,000.00	\$6.00	\$276,000.00	\$7.00	\$322,000.00	\$7.13	\$327,980.00
4	3" W.L. CL. 200	25,000	LF	\$6.50	\$162,500.00	\$5.80	\$145,000.00	\$6.80	\$170,000.00	\$6.93	\$173,250.00
5	2" W.L. CL. 250 PVC	34,000	LF	\$6.50	\$221,000.00	\$5.40	\$183,600.00	\$6.35	\$215,900.00	\$6.54	\$222,360.00
6	2" W.L. CL. 200 PVC	3,200	LF	\$6.25	\$20,000.00	\$5.25	\$16,800.00	\$6.25	\$20,000.00	\$6.44	\$20,608.00
7	1" W.L. CL. 250 Poly Serv.	5,000	LF	\$6.00	\$30,000.00	\$5.15	\$25,750.00	\$5.50	\$27,500.00	\$5.36	\$26,800.00
8	3/4" W.L. CL. 200 Poly Serv.	7,500	LF	\$8.00	\$60,000.00	\$4.09	\$30,675.00	\$5.25	\$39,375.00	\$4.27	\$32,025.00
9	4" Gate Valve	37	EA	\$550.00	\$20,350.00	\$650.00	\$24,050.00	\$740.00	\$27,380.00	\$770.26	\$28,499.62
10	3" Gate Valve	15	EA	\$500.00	\$7,500.00	\$572.00	\$8,580.00	\$690.00	\$10,350.00	\$715.30	\$10,729.50
11	2" Gate Valve	18	EA	\$4,500.00	\$81,000.00	\$525.00	\$9,450.00	\$545.00	\$9,810.00	\$567.18	\$10,209.24
12	Leak Detection Assembly	12	EA	\$850.00	\$10,200.00	\$1,100.00	\$13,200.00	\$1,050.00	\$12,600.00	\$1,631.83	\$19,581.96
13	Blowoff Valve Assembly	70	EA	\$800.00	\$56,000.00	\$1,100.00	\$77,000.00	\$1,145.00	\$80,150.00	\$1,208.58	\$84,600.60
14	Air Release Valves	20	EA	\$750.00	\$15,000.00	\$675.00	\$13,500.00	\$460.00	\$9,200.00	\$666.72	\$13,334.40
15	Pavement Replacement (HD)(C.R.)	2,500	SY	\$75.00	\$187,500.00	\$45.00	\$112,500.00	\$18.00	\$45,000.00	\$25.00	\$62,500.00
16	Pavement Replacement (LD)(D.W.)	2,500	SY	\$50.00	\$125,000.00	\$40.00	\$100,000.00	\$10.00	\$25,000.00	\$20.00	\$50,000.00
17	Gravel Surface Replacement	8,000	SY	\$15.00	\$120,000.00	\$5.00	\$40,000.00	\$6.00	\$48,000.00	\$5.00	\$40,000.00
18	Concrete Surface Replacement	100	SY	\$50.00	\$5,000.00	\$58.00	\$5,800.00	\$28.00	\$2,800.00	\$60.00	\$6,000.00
19	Concrete Encasement	500	LF	\$40.00	\$20,000.00	\$20.00	\$10,000.00	\$52.00	\$26,000.00	\$20.00	\$10,000.00
20	Large Stream Crossing	800	LF	\$100.00	\$80,000.00	\$67.00	\$53,600.00	\$40.00	\$32,000.00	\$47.59	\$38,072.00
21	Tie new 2" to ex. 3"	1	EA	\$950.00	\$950.00	\$1,500.00	\$1,500.00	\$700.00	\$700.00	\$1,500.00	\$1,500.00
22	Tie new 3" to ex. 3"	1	EA	\$800.00	\$800.00	\$1,500.00	\$1,500.00	\$670.00	\$670.00	\$1,500.00	\$1,500.00
23	Tie new 4" to ex. 4"	2	EA	\$800.00	\$1,600.00	\$2,000.00	\$4,000.00	\$680.00	\$1,360.00	\$1,500.00	\$3,000.00
24	Tie new 2" to ex. 2" w/ wet tap	2	EA	\$900.00	\$1,800.00	\$1,500.00	\$3,000.00	\$1,345.00	\$2,690.00	\$2,242.31	\$4,484.62
25	Tie new 2" to ex. 3" w/ wet tap	1	EA	\$1,500.00	\$1,500.00	\$2,000.00	\$2,000.00	\$1,465.00	\$1,465.00	\$2,034.52	\$2,034.52
26	Tie new 2" to ex. 4" w/ wet tap	2	EA	\$1,000.00	\$2,000.00	\$1,500.00	\$3,000.00	\$1,445.00	\$2,890.00	\$2,034.52	\$4,069.04
27	Tie new 2" to ex. 6" w/ wet tap	3	EA	\$1,050.00	\$3,150.00	\$2,000.00	\$6,000.00	\$1,400.00	\$4,200.00	\$2,415.44	\$7,246.32
28	Tie new 2" to ex. 8" w/ wet tap	1	EA	\$1,200.00	\$1,200.00	\$2,500.00	\$2,500.00	\$1,400.00	\$1,400.00	\$2,800.00	\$2,800.00
29	Tie new 3" to ex. 3" w/ wet tap	3	EA	\$1,000.00	\$3,000.00	\$1,500.00	\$4,500.00	\$2,450.00	\$7,350.00	\$2,034.52	\$6,103.56
30	Tie new 3" to ex. 4" w/ wet tap	1	EA	\$1,100.00	\$1,100.00	\$2,000.00	\$2,000.00	\$2,285.00	\$2,285.00	\$2,034.52	\$2,034.52
31	Tie new 3" to ex. 6" w/ wet tap	3	EA	\$2,500.00	\$7,500.00	\$2,340.00	\$7,020.00	\$2,290.00	\$6,870.00	\$2,346.68	\$7,040.04
32	Tie new 4" to ex. 4" w/ wet tap	4	EA	\$1,500.00	\$6,000.00	\$2,067.00	\$8,268.00	\$2,325.00	\$9,300.00	\$2,067.82	\$8,271.28
33	Tie new 4" to ex. 6" w/ wet tap	1	EA	\$1,600.00	\$1,600.00	\$2,340.00	\$2,340.00	\$2,250.00	\$2,250.00	\$2,396.68	\$2,396.68
34	5/8"x3/4" Meter Assembly	48	EA	\$800.00	\$38,400.00	\$552.00	\$26,496.00	\$475.00	\$22,800.00	\$540.67	\$25,952.16
35	5/8"x3/4" Meter Assembly (W/ PRV)	159	EA	\$900.00	\$143,100.00	\$656.00	\$104,304.00	\$600.00	\$95,400.00	\$685.12	\$108,934.08
36	Bore and Jack w/ 4" WL. & 8" Steel Casing	360	LF	\$100.00	\$36,000.00	\$78.00	\$28,080.00	\$115.00	\$41,400.00	\$100.00	\$36,000.00
37	Bore and Jack w/ 3" WL. & 6" Steel Casing	80	LF	\$100.00	\$8,000.00	\$70.00	\$5,600.00	\$110.00	\$8,800.00	\$100.00	\$8,000.00
38	Bore and Jack w/ 2" WL. & 4" Steel Casing	180	LF	\$100.00	\$18,000.00	\$65.00	\$11,700.00	\$105.00	\$18,900.00	\$100.00	\$18,000.00
39	Flush Hydrant	1	EA	\$2,500.00	\$2,500.00	\$2,700.00	\$2,700.00	\$1,200.00	\$1,200.00	\$2,784.09	\$2,784.09
40	Pump Station (Hell For Certain)	1	EA	\$60,000.00	\$60,000.00	\$49,000.00	\$49,000.00	\$83,000.00	\$83,000.00	\$70,000.00	\$70,000.00
41	Pump Station (Grassy)	1	EA	\$60,000.00	\$60,000.00	\$54,020.00	\$54,020.00	\$83,000.00	\$83,000.00	\$70,000.00	\$70,000.00
42	Pump Station (S.R. 1780)	1	EA	\$60,000.00	\$60,000.00	\$54,000.00	\$54,000.00	\$83,000.00	\$83,000.00	\$70,000.00	\$70,000.00
43	Fiberglass Markers	150	EA	\$3.50	\$525.00	\$40.00	\$6,000.00	\$50.00	\$7,500.00	\$75.00	\$11,250.00
44	Monitoring Telemetry w/ antenna at Pump Station	3	EA	\$10,000.00	\$30,000.00	\$25,600.00	\$76,800.00	\$38,000.00	\$114,000.00	\$25,000.00	\$75,000.00
45	Horizontal Directional Drilling 4" HDPE (DR11) (DIPS)	180	LF	\$20.00	\$3,600.00	\$69.00	\$12,420.00	\$70.00	\$12,600.00	\$96.49	\$17,368.20
<b>TOTAL AMOUNT BID (ITEMS 1-45)</b>					<b>\$3,374,375.00</b>		<b>\$2,916,353.00</b>		<b>\$3,079,595.00</b>		<b>\$3,356,119.43</b>

High lighted number was extended incorrectly  
Therefore column total was incorrect

Un-corrected bid total was \$2,913,753.00

Certification: Sister-Maggard Engineering, PLLC

We hereby certify that the above bid tabulations accurately represents bids received, except for noted corrections, and the bids were promptly opened and read aloud.

JOSEPH F. SISLER, P.E., P.L.S.

DATE

**PHASE II A – WATER SYSTEM  
IMPROVEMENTS PROJECT**

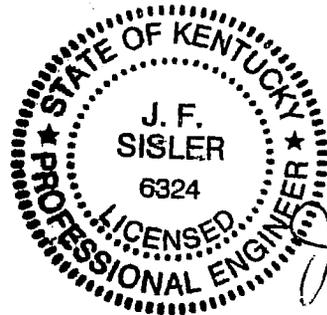
**HYDRAULIC ANALYSIS**

**OF**

**CONTRACT NO. 15 – WATER LINE EXTENSIONS  
CONTRACT NO. 16 – WATER TANKS**

*FOR*

*HYDEN – LESLIE COUNTY WATER  
DISTRICT  
HYDEN, KENTUCKY*



6/14/13

*J. F. Sisler*

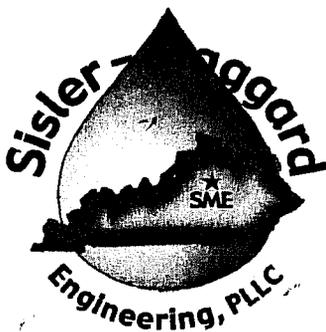
**June 6, 2013**

**Sisler - Maggard Engineering, PLLC**

**220 East Reynolds Road, Suite A3**

**Lexington, KY 40517**

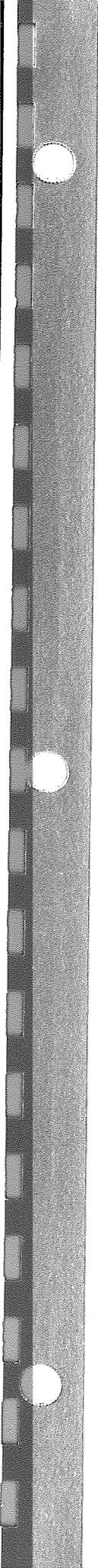
**Office (859) 271-2978 Fax: (859) 271-5670**





# **INDEX**

- 1) BEECHBOTTOM**
- 2) CAT HOLLOW**
- 3) COON CREEK**
- 4) COPPER LANE**
- 5) DANIEL BRANCH**
- 6) EMERALD BRANCH**
- 7) GRASSY**
- 8) HAZLENUT**
- 9) HELL FOR CERTAIN**
- 10) HENDRIX BRANCH**
- 11) LONG BRANCH**
- 12) LEVI LEWIS BRANCH**
- 13) MOUNTIAN SIDE DRIVE**
- 14) MULBERRY/BANJO DRIVE**
- 15) PAY LAKE DRIVE**
- 16) PETERS BRANCH**
- 17) PUNCHEON CAMP**
- 18) S.R. 1780**
- 19) S.R. 1850**
- 20) SAM'S BRANCH**
- 21) SIMMS BRANCH**
- 22) TAYLOR MORGAN ROAD**
- 23) WARBRANCH**
- 24) YEADDIS & COOTS HOLLOW**
- 25) JOHN H. LEWIS**
- 26) WATER TANKS EPS SCENARIO**



## Detailed Report for Pressure Junction: J-136

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### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,217,453.70 ft	Elevation	1,000.00 ft
Y	239,481.60 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,357.41	154.63	357.41	0.00

---

## Detailed Report for Pressure Pipe: P-477

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	5,388.00 ft
From Node	J-136	To Node	J-370

Elevations			
From Elevation	1,000.00 ft	To Elevation	1,241.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary								
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)
0.00	Open	5.00	0.23	1,357.41	1,356.92	0.49	0.00	0.49
								0.09

## Detailed Report for Pressure Junction: J-370

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Geometric Summary			
X	14,220,427.00 ft	Elevation	1,241.00 ft
Y	243,975.30 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,356.92	50.15	115.92	5.00

## Detailed Report for Pressure Junction: J-370

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

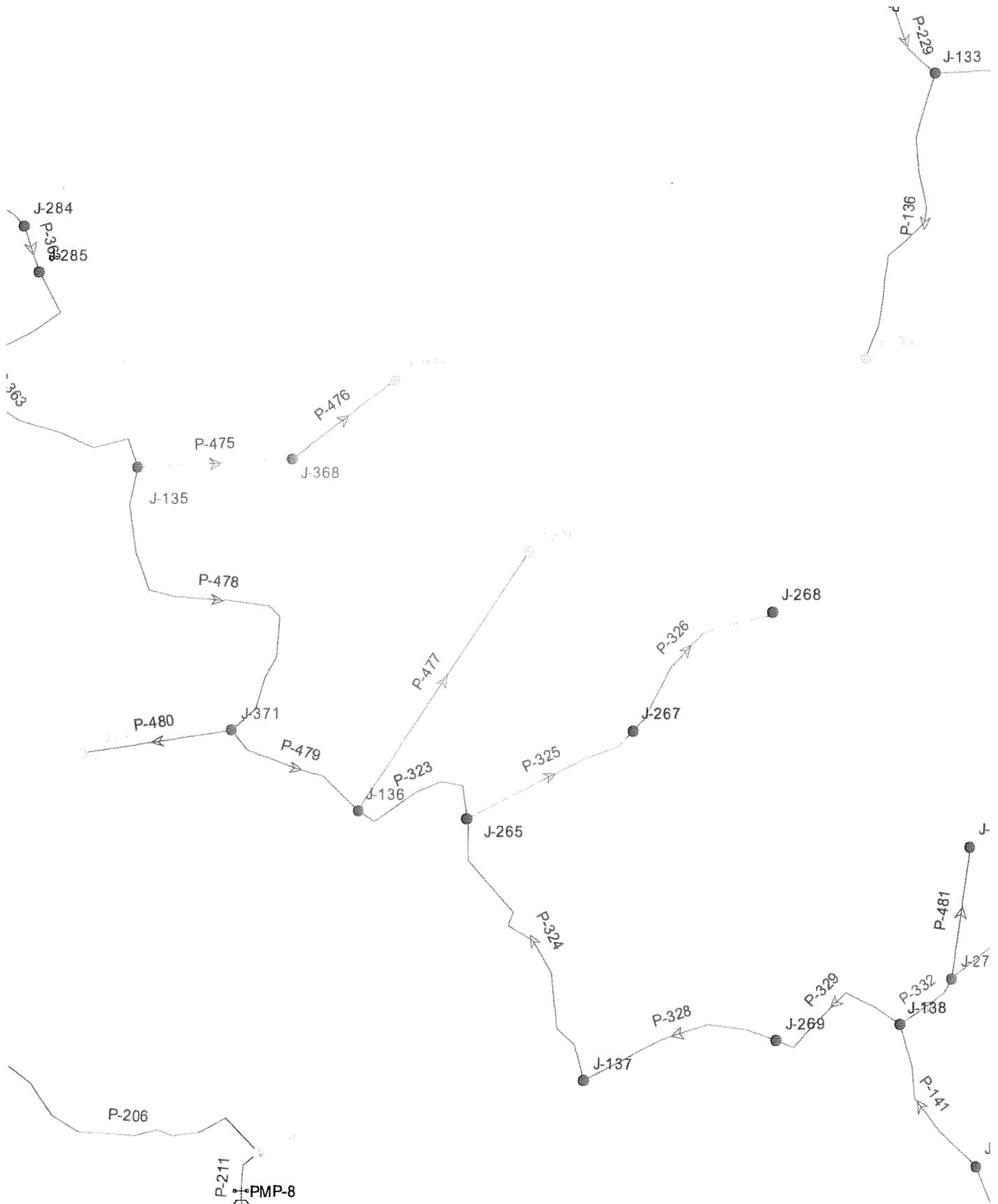
Geometric Summary			
X	14,220,427.00 ft	Elevation	1,241.00 ft
Y	243,975.30 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,356.92	50.15	115.92	5.00

# Scenario: peak hour demand



Title: PHASE IIA - AML Waterline extensions

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06/13/13 10:07:02 AM

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Project Engineer: Mike Maggard

WaterCAD v6.5 [6.5120n]

Page 1 of 1

## Detailed Report for Pressure Pipe: P-477

---

### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	5,388.00 ft
From Node	J-136	To Node	J-370

---

### Elevations

From Elevation	1,000.00 ft	To Elevation	1,241.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

Initial Status	Open
----------------	------

---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)
0.00	Open	55.00	1,341.37	1,299.68	41.69	0.00	41.69	7.74

## Detailed Report for Pressure Junction: J-370

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
--------	-----------	--------

---

**Geometric Summary**

X	14,220,427.00 ft	Elevation	1,241.00 ft
Y	243,975.30 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

---

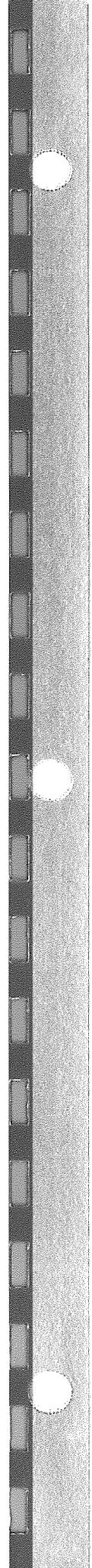
**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,299.68	25.39	58.68	55.00



## Detailed Report for Pressure Junction: J-380

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,153,614.89 ft	Elevation	1,312.00 ft
Y	212,766.01 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,649.01	145.81	337.01	0.00

---

## Detailed Report for Pressure Pipe: P-490

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,617.00 ft
From Node	J-380	To Node	J-381

---

### Elevations

From Elevation	1,312.00 ft	To Elevation	1,360.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

Initial Status	Open
----------------	------

---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)
0.00	Open	5.00	1,649.01	1,648.77	0.24	0.00	0.24	0.09

## Detailed Report for Pressure Junction: J-381

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

X	14,156,227.95 ft	Elevation	1,360.00 ft
Y	212,910.47 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,648.77	124.94	288.77	0.00

## Detailed Report for Pressure Pipe: P-491

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,461.00 ft
From Node	J-381	To Node	J-382

---

### Elevations

From Elevation	1,360.00 ft	To Elevation	1,460.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

Initial Status	Open
----------------	------

---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)
0.00	Open	5.00	1,648.77	1,648.55	0.22	0.00	0.22	0.09

## Detailed Report for Pressure Junction: J-382

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

X	14,158,205.31 ft	Elevation	1,460.00 ft
Y	211,445.10 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,648.55	81.57	188.55	5.00

## Detailed Report for Pressure Junction: J-382

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

X	14,158,205.31 ft	Elevation	1,460.00 ft
Y	211,445.10 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,648.55	81.57	188.55	5.00

## Detailed Report for Pressure Pipe: P-491

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,461.00 ft
From Node	J-381	To Node	J-382

---

### Elevations

---

From Elevation	1,360.00 ft	To Elevation	1,460.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss Gradient	
(hr)	Status (gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/1000ft	
0.00	Open	55.00	2.50	1,618.84	1,599.80	19.04	0.00	19.04	7.74

---

## Detailed Report for Pressure Junction: J-382

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

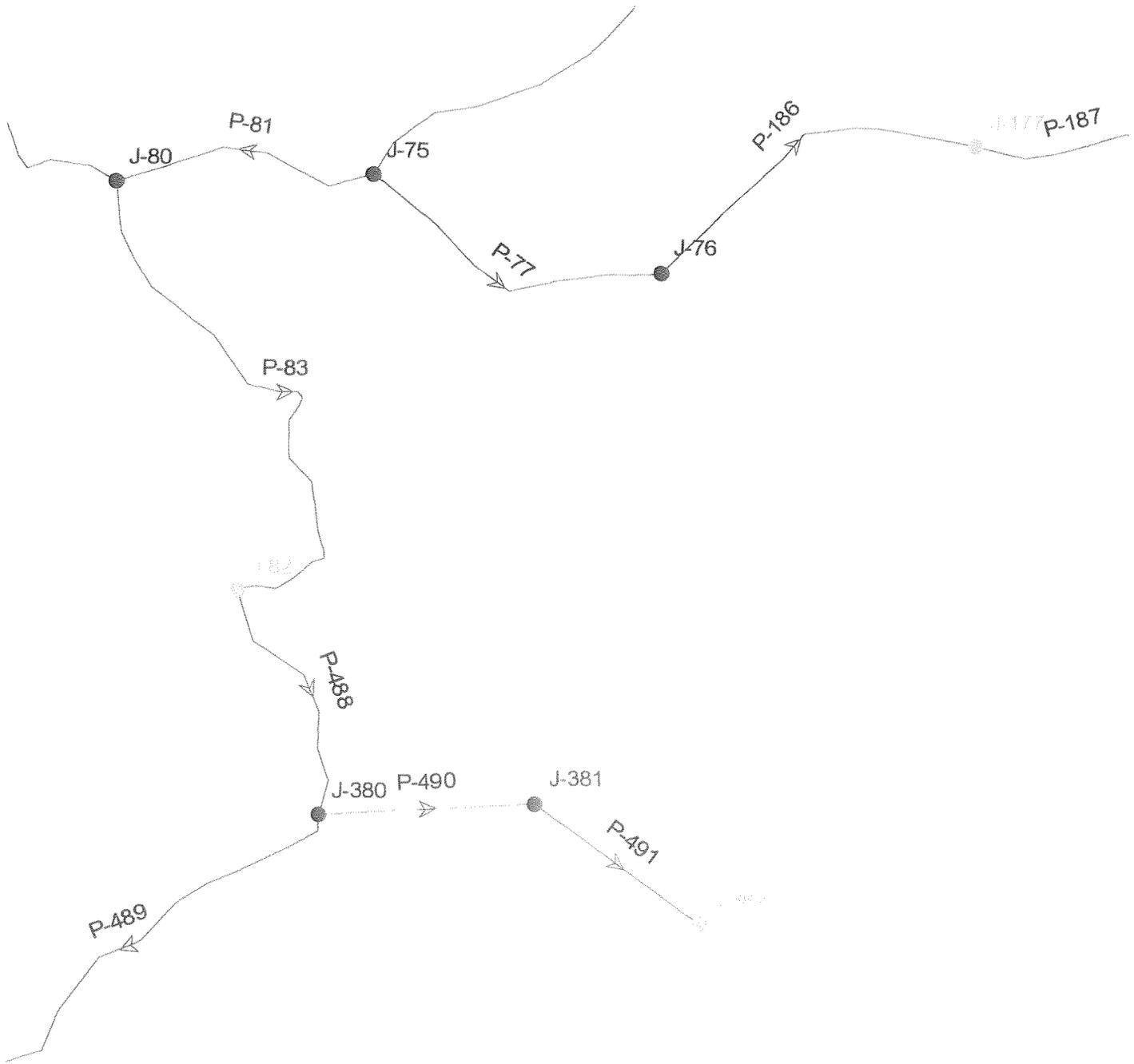
Geometric Summary			
X	14,158,205.31 ft	Elevation	1,460.00 ft
Y	211,445.10 ft	Zone	Zone-1

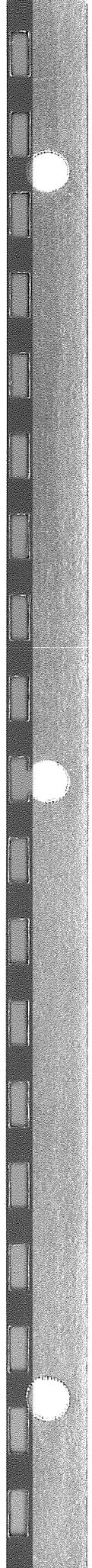
Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,599.80	60.49	139.80	55.00

# Scenario: peak hour demand





## Detailed Report for Pressure Junction: J-142

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,204,747.02 ft	Elevation	1,200.00 ft
Y	232,163.48 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	7.50	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Pressure Hydraulic Grade (ft)	Pressure (psi)	Demand Head (Calculated) (ft)	Demand (gpm)
0.00	1,270.03	30.30	70.03	7.50

---

## Detailed Report for Pressure Pipe: P-473

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,958.00 ft
From Node	J-142	To Node	J-366

---

### Elevations

---

From Elevation	1,200.00 ft	To Elevation	1,050.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss	
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Pipe Gradient Headloss (ft/1000ft)	
0.00	Open	5.00	0.23	1,262.85	1,262.67	0.18	0.00	0.18	0.09

---

## Detailed Report for Pressure Pipe: P-473

---

### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,958.00 ft
From Node	J-142	To Node	J-366

---

### Elevations

From Elevation	1,200.00 ft	To Elevation	1,050.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

Initial Status	Open
----------------	------

---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Head	Headloss	Gradient
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	ft/1000ft
0.00	Open	55.00	2.50	1,238.23	1,223.08	15.15	0.00	15.15	7.74

## Detailed Report for Pressure Junction: J-366

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,203,067.66 ft	Elevation	1,050.00 ft
Y	231,157.05 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

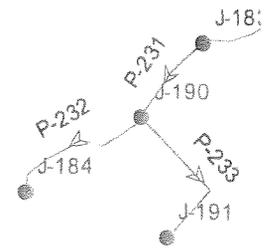
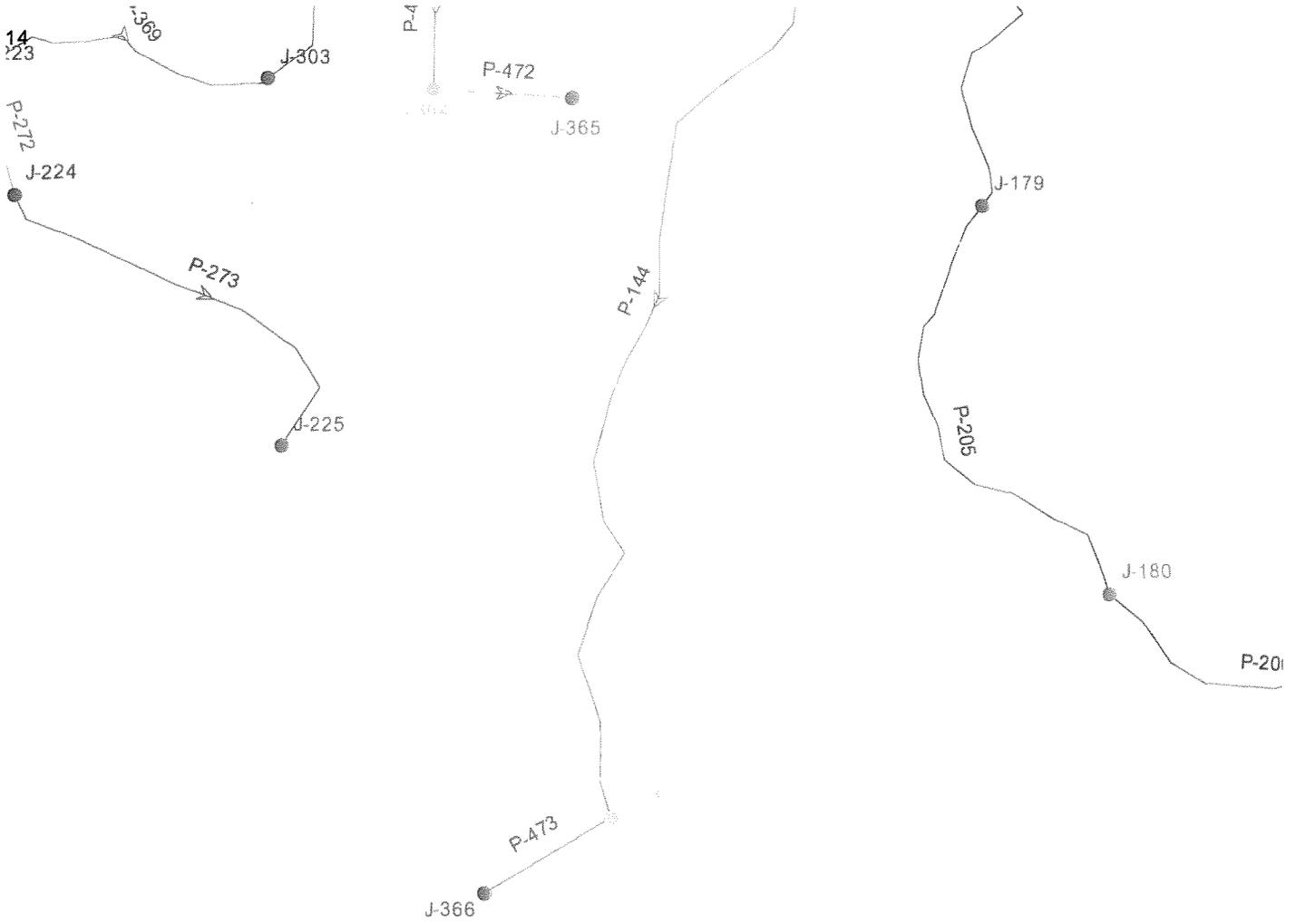
### Calculated Results Summary

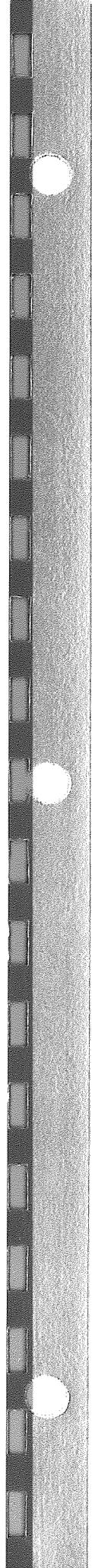
---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (Calculated) (gpm)
0.00	1,223.08	74.89	173.08	55.00

---

**Scenario: 2.5flush**





## Detailed Report for Pressure Junction: J-304

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,202,441.63 ft	Elevation	1,550.00 ft
Y	244,191.59 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,645.39	41.27	95.39	0.00

---

## Detailed Report for Pressure Pipe: P-471

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,221.00 ft
From Node	J-304	To Node	J-364

Elevations			
From Elevation	1,550.00 ft	To Elevation	1,490.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Open	10.00	0.45	1,645.39	1,644.66	0.73	0.00	0.73	0.33

## Detailed Report for Pressure Junction: J-364

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,202,405.60 ft	Elevation	1,490.00 ft
Y	241,970.75 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,644.66	66.91	154.66	0.00

## Detailed Report for Pressure Pipe: P-472

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,835.00 ft
From Node	J-364	To Node	J-365

Elevations			
From Elevation	1,490.00 ft	To Elevation	1,390.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss	Headloss
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	(ft)	(ft/1000ft)
0.00 Open	10.00	0.45	1,644.66	1,644.05	0.60	0.00	0.60	0.33	

## Detailed Report for Pressure Junction: J-365

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

**Global Adjustments Summary**

---

<None>	Roughness	<None>
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---



---

**Geometric Summary**

---

X	14,204,237.31 ft	Elevation	1,390.00 ft
Y	241,860.40 ft	Zone	Zone-1

---



---

**Demand Summary**

---

Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

---



---

**User Data**

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

**Calculated Results Summary**

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,644.05	109.92	254.05	10.00

---

## Detailed Report for Pressure Pipe: P-472

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,835.00 ft
From Node	J-364	To Node	J-365

Elevations			
From Elevation	1,490.00 ft	To Elevation	1,390.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Gradient (ft/1000ft)
0.00	Open	55.00	2.50	1,618.53	1,604.34	14.20	0.00	14.20	7.74

## Detailed Report for Pressure Junction: J-365

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

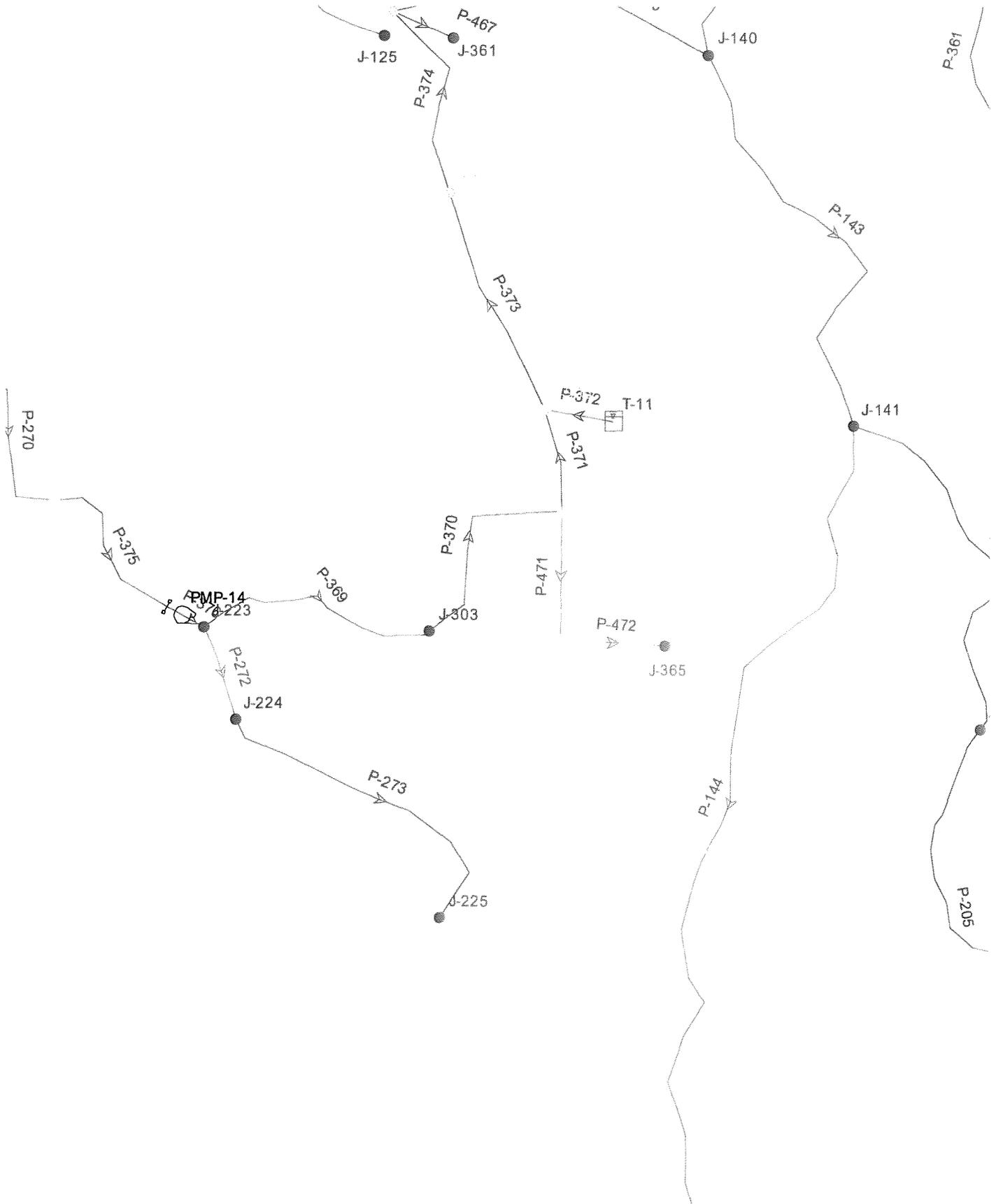
Geometric Summary			
X	14,204,237.31 ft	Elevation	1,390.00 ft
Y	241,860.40 ft	Zone	Zone-1

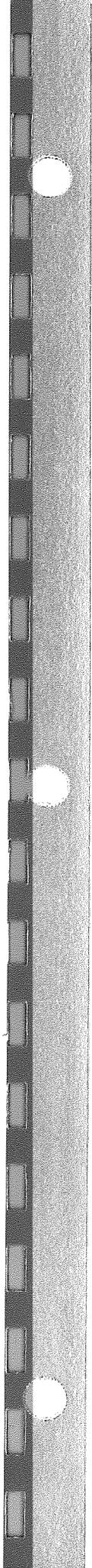
Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,604.34	92.73	214.34	55.00

# Scenario: 2.5flush





## Detailed Report for Pressure Junction: J-81

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,144,202.91 ft	Elevation	1,010.00 ft
Y	222,783.42 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	10.80	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,647.22	275.69	637.22	10.80

---

## Detailed Report for Pressure Pipe: P-466

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

2"

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,054.00 ft
From Node	J-81	To Node	J-360

Elevations			
From Elevation	1,010.00 ft	To Elevation	1,131.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (\$/1000ft)	Gradient
0.00	Open	10.00	1,647.22	1,642.34	4.87	0.00	4.87	2.37	

## Detailed Report for Pressure Junction: J-360

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
--------	-----------	--------

---

**Geometric Summary**

X	14,144,164.78 ft	Elevation	1,131.00 ft
Y	220,729.33 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

---

**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (Calculated) (gpm)
0.00	1,642.34	221.23	511.34	10.00

## Detailed Report for Pressure Junction: J-81

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,144,202.91 ft	Elevation	1,010.00 ft
Y	222,783.42 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	3.96	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Pressure Hydraulic Grade (psi) (ft)	Pressure Head (Calculated) (ft)	Demand Head (Calculated) (gpm)
0.00	1,644.55	274.54	634.55
			3.96

---

## Detailed Report for Pressure Pipe: P-466

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,054.00 ft
From Node	J-81	To Node	J-360

---

### Elevations

---

From Elevation	1,010.00 ft	To Elevation	1,131.00 ft
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---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	25.00	2.55	1,644.55	1,617.95	26.59	0.00	26.59	12.95

---

## Detailed Report for Pressure Junction: J-360

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,144,164.78 ft	Elevation	1,131.00 ft
Y	220,729.33 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

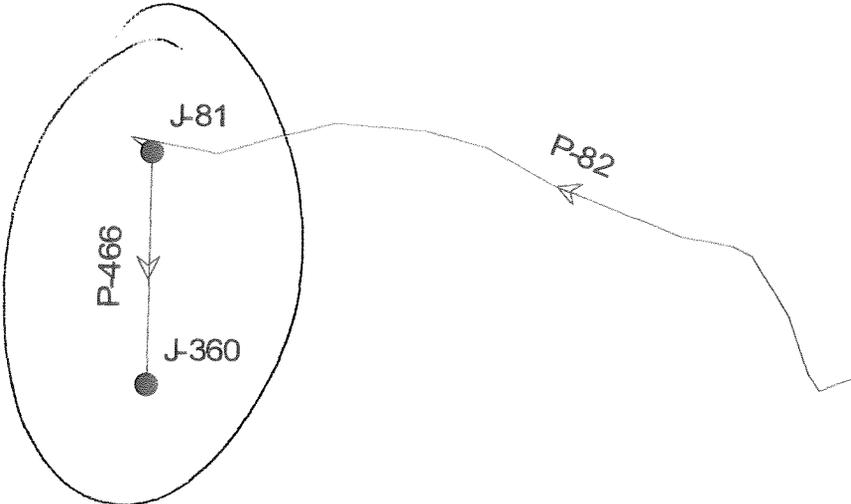
### Calculated Results Summary

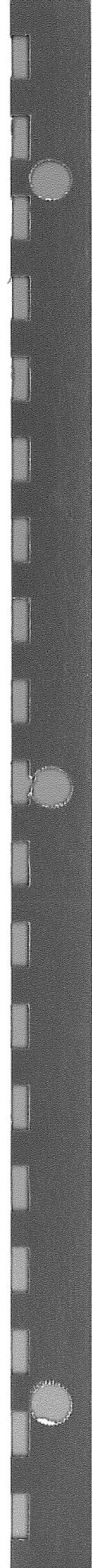
---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand Head (Calculated) (gpm)
0.00	1,617.95	210.68	486.95	25.00

---

Scenario: peak hour demand





## Detailed Report for Pressure Junction: J-273

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### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,227,747.07 ft	Elevation	1,300.00 ft
Y	236,607.69 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,662.66	156.91	362.66	0.00

---

## Detailed Report for Pressure Pipe: P-481

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	Ductile Iron	Hazen- Williams C	130.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,292.00 ft
From Node	J-273	To Node	J-373

Elevations			
From Elevation	1,300.00 ft	To Elevation	1,239.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Headloss Gradient (\$/1000ft)
0.00	Open	5.00	1,662.66	1,660.70	1.96	0.00	1.96	0.86	

## Detailed Report for Pressure Junction: J-373

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

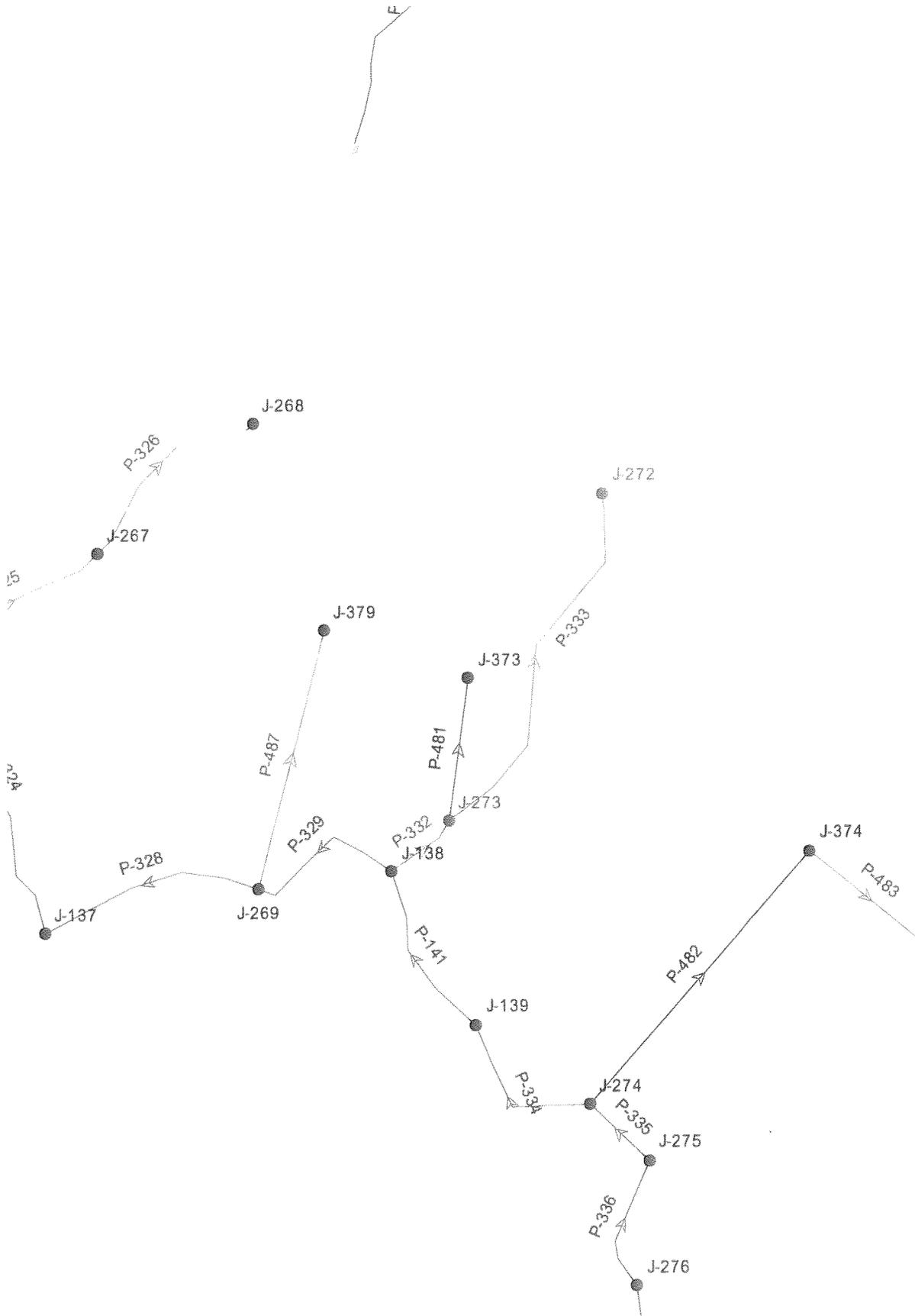
Geometric Summary			
X	14,228,062.79 ft	Elevation	1,239.00 ft
Y	238,877.41 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,660.70	182.45	421.70	5.00

# Scenario: peak hour demand



## Detailed Report for Pressure Pipe: P-481

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	Ductile Iron	Hazen- Williams C	130.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,292.00 ft
From Node	J-273	To Node	J-373

Elevations			
From Elevation	1,300.00 ft	To Elevation	1,239.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/100ft)	
0.00	Open	25.00	2.55	1,731.72	1,693.04	38.68	0.00	38.68	16.88

## Detailed Report for Pressure Junction: J-373

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,228,062.79 ft	Elevation	1,239.00 ft
Y	238,877.41 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,693.04	196.44	454.04	25.00

---



## Detailed Report for Pressure Pipe: P-437

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,721.00 ft
From Node	J-290	To Node	PMP-20

---

### Elevations

From Elevation	835.00 ft	To Elevation	960.00 ft
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---

### Initial Status

Initial Status	Open
----------------	------

---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	101.23	2.58	1,113.18	1,103.03	10.15	0.00	10.15	5.90

## Detailed Report for Pump: PMP-20

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,190,955.04 ft	Upstream Pipe	P-437
Y	286,815.15 ft	Downstream Pipe	P-438
Elevation	960.00 ft		

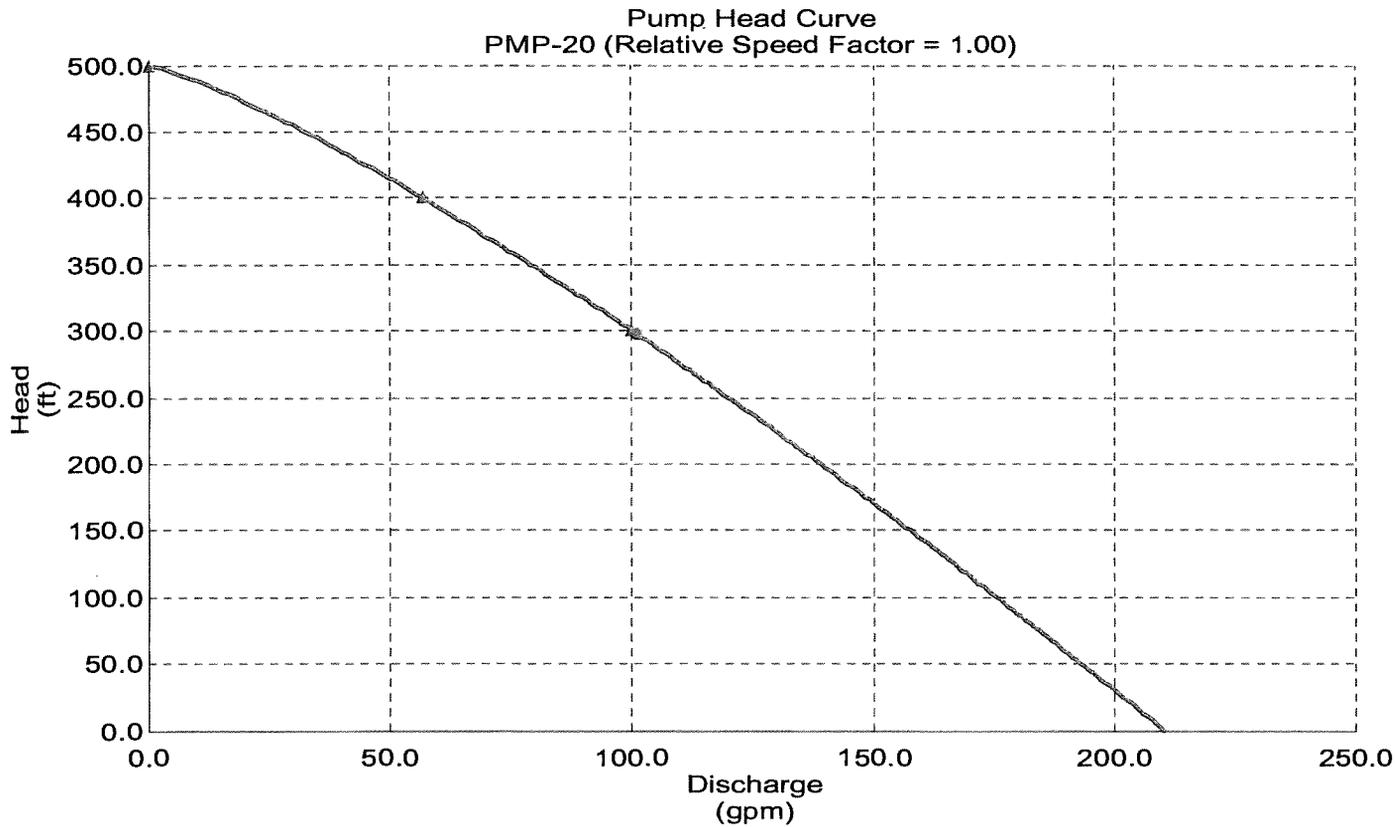
Pump Definition Summary	
Pump Definition	grassy pump station

Initial Status			
Initial Pump Status	On	Initial Relative Speed Facto	1.00

User Data			
Date Installed		Date Retired	
Inspection Date		Rated Power	0.0 Hp
Condition		Manufacturer	
Model		SCADA ID	
Serial Number		Existing	false
Metered	false		

Calculated Results Summary							
Time Control (hr)	Status	Intake Pump Grade (ft)	Discharge Pump Grade (ft)	Discharge (gpm)	Pump Head (ft)	Relative Speed	Calculated Water Power (Hp)
0.00	On	,103.03	1,399.99	101.23	96.96	1.00	7.59

# Detailed Report for Pump: PMP-20



## Detailed Report for Pressure Pipe: P-438

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,761.00 ft
From Node	PMP-20	To Node	J-324

Elevations			
From Elevation	960.00 ft	To Elevation	1,190.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	101.23	2.58	1,399.99	1,377.80	22.18	0.00	22.18	5.90

## Detailed Report for Pressure Junction: J-324

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
--------	-----------	--------

---

**Geometric Summary**

X	14,194,130.75 ft	Elevation	1,190.00 ft
Y	288,830.07 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,377.80	81.25	187.80	0.00

## Detailed Report for Pressure Pipe: P-422

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
<None>	Roughness	<None>

Pipe Characteristics			
Material	Ductile Iron	Hazen- Williams C	130.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,489.00 ft
From Node	J-324	To Node	J-325

Elevations			
From Elevation	1,190.00 ft	To Elevation	1,220.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Gradient (\$ft/1000ft)
0.00	Open	101.23	2.58	1,377.80	1,358.67	19.13	0.00	19.13	7.69

## Detailed Report for Pressure Junction: J-325

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

---

<None>	Roughness	<None>
--------	-----------	--------

---

**Geometric Summary**

---

X	14,193,724.79 ft	Elevation	1,220.00 ft
Y	291,286.15 ft	Zone	Zone-1

---

**Demand Summary**

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

**User Data**

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,358.67	60.00	138.67	0.00

---

## Detailed Report for Pressure Pipe: P-423

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,470.00 ft
From Node	J-325	To Node	grassy wt

Elevations			
From Elevation	1,220.00 ft	To Elevation	1,320.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (\$/1000ft)	Headloss (ft)
0.00	Open	101.23	2.58	1,358.67	1,350.00	8.67	0.00	8.67	5.90

## Detailed Report for Tank: grassy wt

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
--------	-----------	--------

---

**Geometric Summary**

X	14,192,263.32 ft	Elevation	1,320.00 ft
Y	291,123.76 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

**Operating Range Summary**

Maximum Elevation	1,360.00 ft	Maximum Level	1,360.00 ft
Initial HGL	1,350.00 ft	Initial Level	1,350.00 ft
Minimum Elevation	1,320.00 ft	Minimum Level	1,320.00 ft
Base Elevation	0.00 ft		

---

**Storage**

Section Type	Constant Area	Circular Tank Shape?	true
Diameter	14.59 ft	Average Area	167.2 ft <sup>2</sup>
Inactive Volume	0.00 gal	Total Active Volume	50,025.59 gal

---

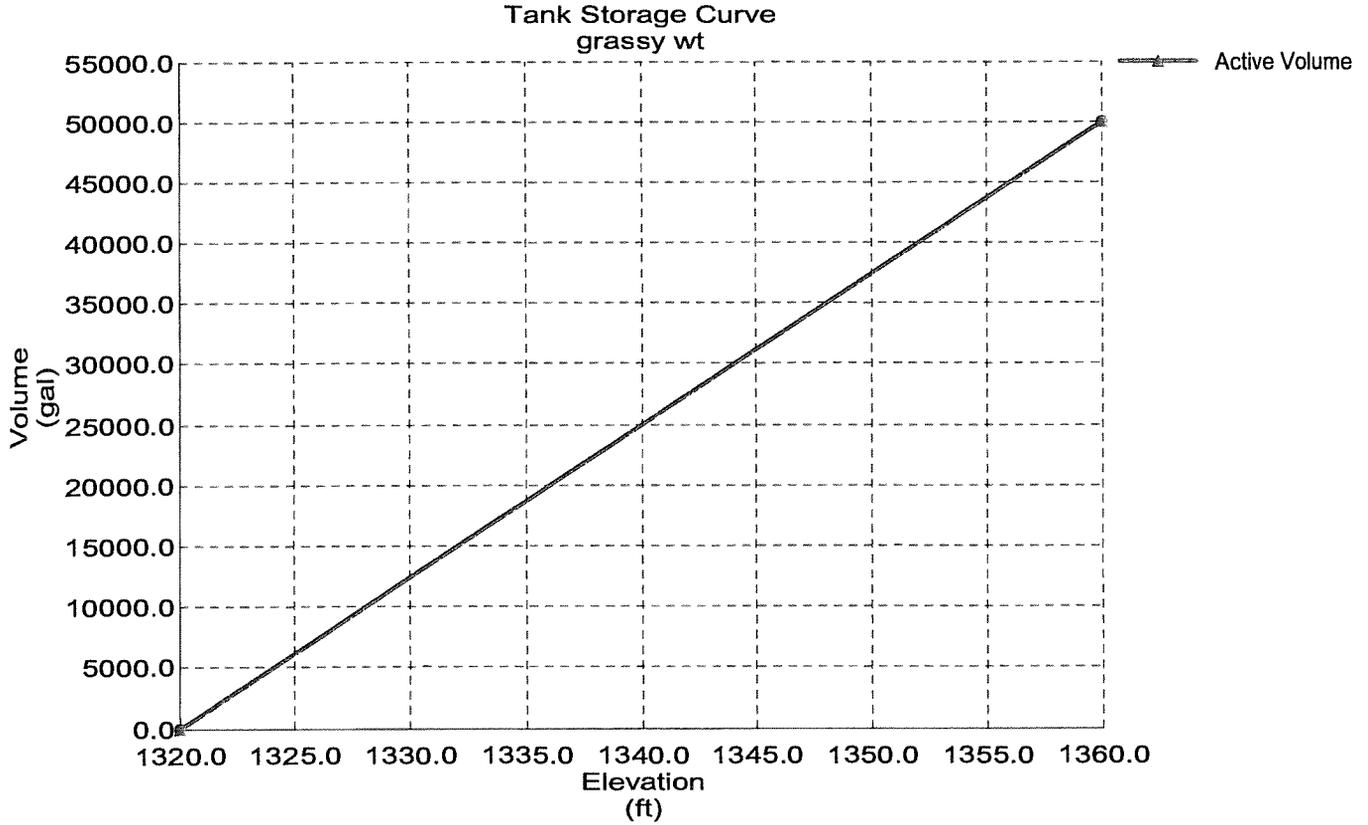
**User Data**

Date Installed		Date Retired	
Inspection Date		Condition	
Lining		SCADA ID	
Clearwell Storage	false	Elevated Tank	false
Existing	false	Metered	false

## Detailed Report for Tank: grassy wt

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Calculated Level (ft)	Pressure (psi)	Calculated Percent Full (%)	Calculated Volume (gal)	Inflow (gpm)	Outflow (gpm)	Current Status
0.00	1,350.00	1,350.00	584.08	75.0	17,519.19	01.23	101.23	Filling



## Detailed Report for Pressure Pipe: P-424

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	Ductile Iron	Hazen- Williams C	130.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,396.00 ft
From Node	J-325	To Node	J-326

---

### Elevations

---

From Elevation	1,220.00 ft	To Elevation	1,079.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Pipe Headloss (ft)	Headloss Gradient (\$ft/1000ft)
0.00	Open	50.00	1,352.58	1,347.60	4.99	0.00	4.99	2.08

---

## Detailed Report for Pressure Junction: J-326

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,193,785.68 ft	Elevation	1,079.00 ft
Y	293,681.34 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (Calculated) (gpm)
0.00	1,347.60	116.21	268.60	0.00

---

## Detailed Report for Pressure Junction: J-327

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,194,577.32 ft	Elevation	1,050.00 ft
Y	295,000.72 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,344.39	127.37	294.39	0.00

---

## Detailed Report for Pressure Pipe: P-426

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

**Global Adjustments Summary**

---

<None>	Roughness	<None>
--------	-----------	--------

---



---

**Pipe Characteristics**

---

Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,463.00 ft
From Node	J-327	To Node	J-328

---



---

**Elevations**

---

From Elevation	1,050.00 ft	To Elevation	1,023.00 ft
----------------	-------------	--------------	-------------

---



---

**Initial Status**

---

Initial Status	Open
----------------	------

---



---

**User Data**

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---



---

**Calculated Results Summary**

---

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (ft/1000ft)
0.00	Open	50.00	1,344.39	1,338.86	5.53	0.00	5.53	1.60

---

## Detailed Report for Pressure Junction: J-328

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

---

<None>	Roughness	<None>
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---

**Geometric Summary**

---

X	14,192,019.74 ft	Elevation	1,023.00 ft
Y	297,335.02 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

**User Data**

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,338.86	136.66	315.86	0.00

---

## Detailed Report for Pressure Pipe: P-427

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,583.00 ft
From Node	J-328	To Node	J-329

Elevations			
From Elevation	1,023.00 ft	To Elevation	1,050.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss	Headloss
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	Gradient (ft/1000ft)
0.00 Open	5.00	0.13	1,338.86	1,338.78	0.08	0.00	0.08	0.02	

## Detailed Report for Pressure Junction: J-329

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,195,531.33 ft	Elevation	1,050.00 ft
Y	298,045.46 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,338.78	124.94	288.78	5.00

## Detailed Report for Pressure Pipe: P-428

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	5,959.00 ft
From Node	J-328	To Node	J-330

Elevations			
From Elevation	1,023.00 ft	To Elevation	980.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Gradient (\$ft/1000ft)
0.00	Open	45.00	1,338.86	1,331.03	7.83	0.00	7.83	1.31	

## Detailed Report for Pressure Junction: J-330

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
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**Geometric Summary**

X	14,193,603.00 ft	Elevation	980.00 ft
Y	303,079.41 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,331.03	151.87	351.03	0.00

## Detailed Report for Pressure Pipe: P-429

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	6,328.00 ft
From Node	J-330	To Node	J-331

Elevations			
From Elevation	980.00 ft	To Elevation	975.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Open	45.00	1,331.03	1,322.71	8.32	0.00	8.32	1.31	

## Detailed Report for Pressure Junction: J-331

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Geometric Summary			
X	14,188,325.46 ft	Elevation	975.00 ft
Y	306,570.71 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,322.71	150.44	347.71	25.00

## Detailed Report for Pressure Pipe: P-430

Note:  
The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	Ductile Iron	Hazen- Williams C	130.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,549.00 ft
From Node	J-331	To Node	J-332

Elevations			
From Elevation	975.00 ft	To Elevation	0.00 ft

Initial Status	
Initial Status	Closed

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss	Headloss
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	ft/1000ft
0.00	Closed	0.00	0.00	1,322.71	1,261.86	0.00	0.00	0.00	0.00

## Detailed Report for Pressure Junction: J-332

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,185,930.28 ft	Elevation	0.00 ft
Y	305,697.88 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,261.86	545.95	261.86	0.00

## Detailed Report for Pressure Pipe: P-432

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	4,060.00 ft
From Node	J-331	To Node	J-333

Elevations			
From Elevation	975.00 ft	To Elevation	985.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Pipe Gradient (\$/1000ft)
0.00	Open	20.00	0.51	1,322.71	1,321.53	1.19	0.00	1.19	0.29

## Detailed Report for Pressure Junction: J-333

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
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**Geometric Summary**

X	14,189,408.88 ft	Elevation	985.00 ft
Y	310,483.19 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,321.53	145.60	336.53	0.00

## Detailed Report for Pressure Pipe: P-433

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	6,486.00 ft
From Node	J-333	To Node	J-334

Elevations			
From Elevation	985.00 ft	To Elevation	975.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (ft/1000ft)	Headloss (ft)
0.00	Open	20.00	0.51	1,321.53	1,319.63	1.90	0.00	1.90	0.29

## Detailed Report for Pressure Junction: J-334

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

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<None>	Roughness	<None>
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### Geometric Summary

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X	14,194,245.57 ft	Elevation	975.00 ft
Y	314,804.49 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,319.63	149.10	344.63	0.00

---

## Detailed Report for Pressure Pipe: P-434

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,458.00 ft
From Node	J-334	To Node	J-335

Elevations			
From Elevation	975.00 ft	To Elevation	990.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Open	5.00	0.23	1,319.63	1,319.40	0.22	0.00	0.22	0.09

## Detailed Report for Pressure Junction: J-335

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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**Global Adjustments Summary**

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<None>	Roughness	<None>
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**Geometric Summary**

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X	14,196,188.17 ft	Elevation	990.00 ft
Y	313,297.98 ft	Zone	Zone-1

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**Demand Summary**

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Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

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**User Data**

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SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



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**Calculated Results Summary**

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Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,319.40	142.52	329.40	5.00

---

## Detailed Report for Pressure Pipe: P-435

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,703.00 ft
From Node	J-334	To Node	J-336

Elevations			
From Elevation	975.00 ft	To Elevation	1,150.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Headloss Gradient (\$/1000ft)
0.00	Open	15.00	0.38	1,319.63	1,318.99	0.64	0.00	0.64	0.17

## Detailed Report for Pressure Junction: J-336

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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**Global Adjustments Summary**

<None>	Roughness	<None>
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**Geometric Summary**

X	14,196,505.33 ft	Elevation	1,150.00 ft
Y	317,738.21 ft	Zone	Zone-1

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**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

---

**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,318.99	73.11	168.99	10.00

## Detailed Report for Pressure Pipe: P-436

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,739.00 ft
From Node	J-336	To Node	J-337

Elevations			
From Elevation	1,150.00 ft	To Elevation	1,160.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (ft/1000ft)	Headloss (ft)
0.00	Open	5.00	0.51	1,318.99	1,317.85	1.14	0.00	1.14	0.66

## Detailed Report for Pressure Junction: J-337

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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Global Adjustments Summary			
	<None>	Roughness	<None>

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Geometric Summary			
X	14,197,694.68 ft	Elevation	1,160.00 ft
Y	316,469.58 ft	Zone	Zone-1

---



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Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---



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User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,317.85	68.29	157.85	5.00

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## Detailed Report for Pressure Pipe: P-426

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### Scenario Summary

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Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

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<None>	Roughness	<None>
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### Pipe Characteristics

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Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,463.00 ft
From Node	J-327	To Node	J-328

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### Elevations

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From Elevation	1,050.00 ft	To Elevation	1,023.00 ft
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### Initial Status

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Initial Status	Open
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### User Data

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Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss	
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Pipe Gradient (ft/1000ft)	
0.00	Open	100.01	2.55	1,321.01	1,301.04	19.97	0.00	19.97	5.77

---

## Detailed Report for Pressure Junction: J-328

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,192,019.74 ft	Elevation	1,023.00 ft
Y	297,335.02 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,301.04	120.30	278.04	100.00

## Detailed Report for Pressure Pipe: P-427

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,583.00 ft
From Node	J-328	To Node	J-329

Elevations			
From Elevation	1,023.00 ft	To Elevation	1,050.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (ft/1000ft)	Headloss (ft)
0.00	Open	100.00	2.55	1,296.15	1,275.49	20.66	0.00	20.66	5.77

## Detailed Report for Pressure Junction: J-329

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,195,531.33 ft	Elevation	1,050.00 ft
Y	298,045.46 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Pressure Hydraulic Grade (psi) (ft)	Pressure Head (Calculated) (ft)	Demand Head (Calculated) (gpm)
0.00	1,275.49	97.56	225.49 100.00

---

## Detailed Report for Pressure Junction: J-329

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,195,531.33 ft	Elevation	1,050.00 ft
Y	298,045.46 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Pressure Hydraulic Grade (psi) (ft)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,275.49	97.56	225.49
			100.00

---

## Detailed Report for Pressure Pipe: P-433

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	6,486.00 ft
From Node	J-333	To Node	J-334

---

### Elevations

---

From Elevation	985.00 ft	To Elevation	975.00 ft
----------------	-----------	--------------	-----------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss	
(hr)	Status (gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Pipe Headloss (ft)	Gradient (\$ft/1000ft)	
0.00	Open	105.00	2.68	1,182.74	1,141.81	40.94	0.00	40.94	6.31

---

## Detailed Report for Pressure Junction: J-334

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,194,245.57 ft	Elevation	975.00 ft
Y	314,804.49 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,141.81	72.17	166.81	100.00

## Detailed Report for Pressure Pipe: P-434

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,458.00 ft
From Node	J-334	To Node	J-335

---

### Elevations

---

From Elevation	975.00 ft	To Elevation	990.00 ft
----------------	-----------	--------------	-----------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss	
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	Gradient (\$ft/1000ft)
0.00	Open	55.00	2.50	1,263.84	1,244.82	19.02	0.00	19.02	7.74

---

## Detailed Report for Pressure Junction: J-335

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,196,188.17 ft	Elevation	990.00 ft
Y	313,297.98 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (Calculated) (gpm)
0.00	1,244.82	110.25	254.82	55.00

---

## Detailed Report for Pressure Pipe: P-436

2"

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,739.00 ft
From Node	J-336	To Node	J-337

Elevations			
From Elevation	1,150.00 ft	To Elevation	1,160.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Gradient (ft/1000ft)
0.00	Open	30.00	3.06	1,294.85	1,263.29	31.56	0.00	31.56	18.15

## Detailed Report for Pressure Junction: J-337

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,197,694.68 ft	Elevation	1,160.00 ft
Y	316,469.58 ft	Zone	Zone-1

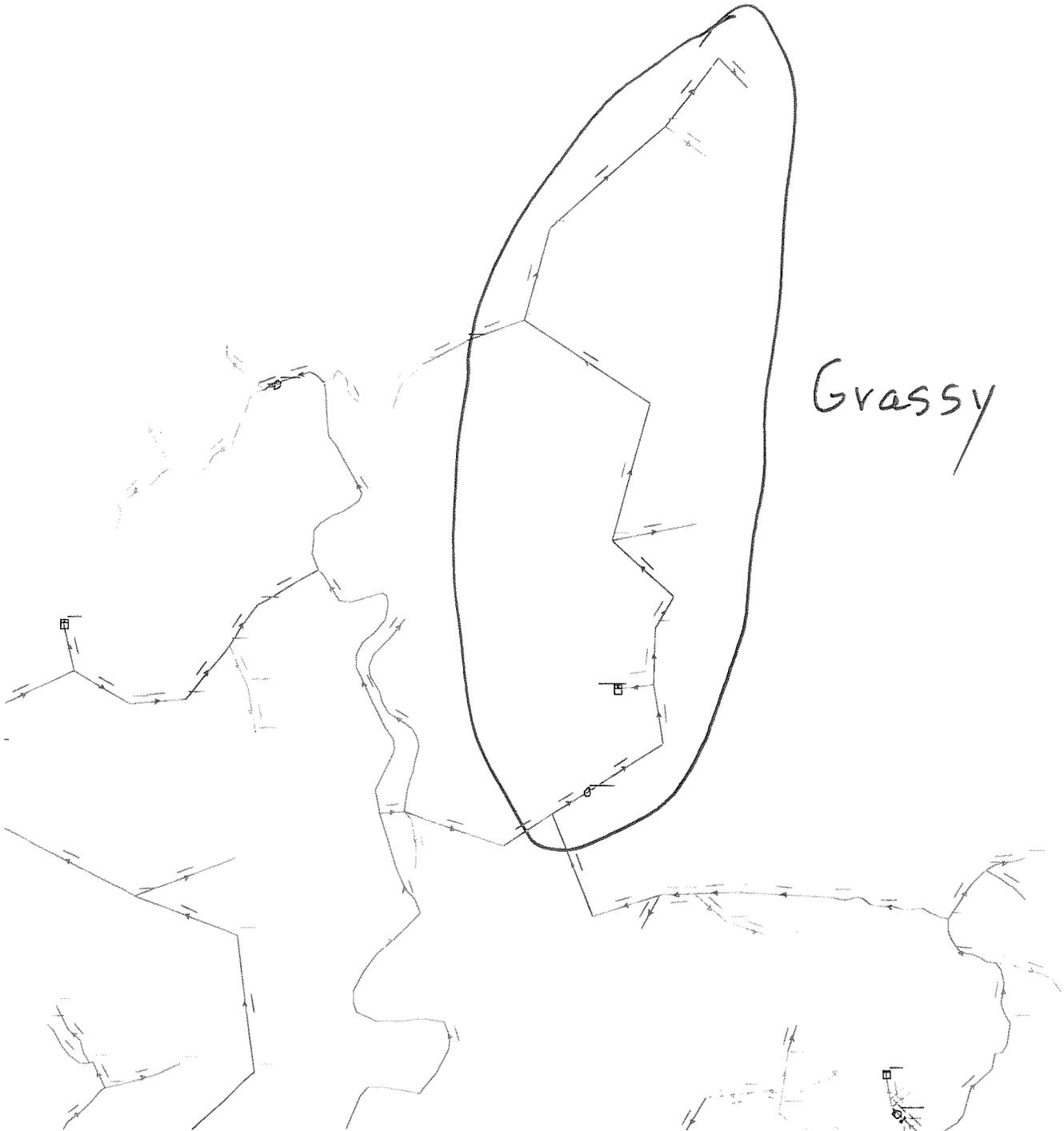
Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	30.00	Fixed

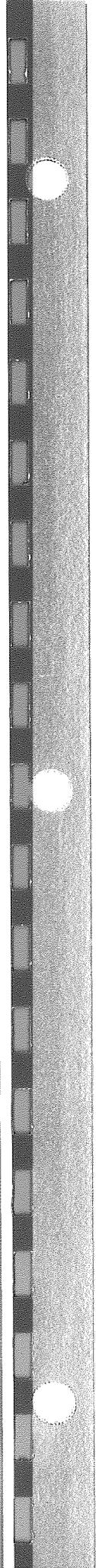
User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,263.29	44.69	103.29	30.00



**Scenario: peak hour demand**





## Detailed Report for Pressure Junction: J-175

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,223,836.80 ft	Elevation	1,600.00 ft
Y	219,383.70 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	3.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,698.79	42.74	98.79	3.00

---

## Detailed Report for Pressure Junction: J-175

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,223,836.80 ft	Elevation	1,600.00 ft
Y	219,383.70 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	3.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,698.79	42.74	98.79	3.00

---

## Detailed Report for Pressure Pipe: P-484

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,351.00 ft
From Node	J-175	To Node	J-376

Elevations			
From Elevation	1,600.00 ft	To Elevation	1,551.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss	Headloss
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	(ft)	\$/1000ft
0.00 Open	0.00	0.00	1,698.79	1,698.79	0.00	0.00	0.00	0.00	0.00

## Detailed Report for Pressure Junction: J-376

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Geometric Summary			
X	14,222,645.38 ft	Elevation	1,551.00 ft
Y	217,356.88 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,698.79	63.94	147.79	0.00

## Detailed Report for Pressure Pipe: P-485

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,724.00 ft
From Node	J-376	To Node	J-377

Elevations			
From Elevation	1,551.00 ft	To Elevation	1,560.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	0.00	1,698.79	1,698.79	0.00	0.00	0.00	0.00	0.00

## Detailed Report for Pressure Junction: J-377

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,221,012.29 ft	Elevation	1,560.00 ft
Y	216,805.16 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,698.79	60.05	138.79	0.00

---

## Detailed Report for Pressure Pipe: P-486

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,933.00 ft
From Node	J-376	To Node	J-378

Elevations			
From Elevation	1,551.00 ft	To Elevation	1,570.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary								
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)
0.00	Open	0.00	1,698.79	1,698.79	0.00	0.00	0.00	0.00

## Detailed Report for Pressure Junction: J-378

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,222,424.70 ft	Elevation	1,570.00 ft
Y	215,436.89 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

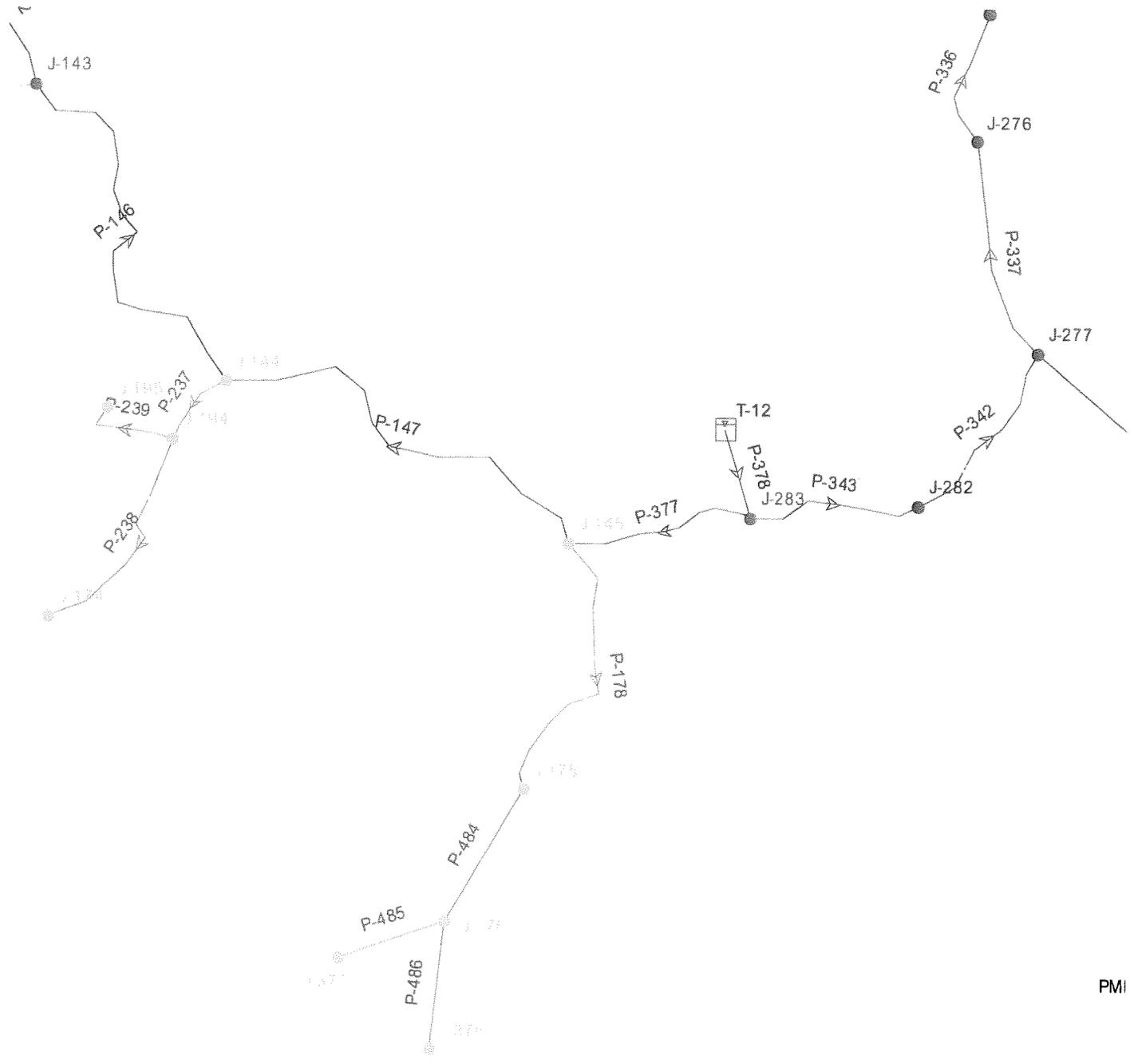


---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,698.79	55.72	128.79	0.00

---

Scenario: peak hour demand



PMI

## Detailed Report for Pressure Junction: J-378

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,222,424.70 ft	Elevation	1,570.00 ft
Y	215,436.89 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,661.44	39.56	91.44	55.00

---

## Detailed Report for Pressure Pipe: P-486

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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### Pipe Characteristics

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Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,933.00 ft
From Node	J-376	To Node	J-378

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### Elevations

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From Elevation	1,551.00 ft	To Elevation	1,570.00 ft
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### Initial Status

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Initial Status	Open
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---

### User Data

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Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Pipe Gradient
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/1000ft
0.00 Open	55.00	2.50	1,676.39	1,661.44	14.96	0.00	14.96	7.74

---

## Detailed Report for Pressure Pipe: P-485

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### Scenario Summary

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Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,724.00 ft
From Node	J-376	To Node	J-377

---

### Elevations

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From Elevation	1,551.00 ft	To Elevation	1,560.00 ft
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### Initial Status

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Initial Status	Open
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---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Pipe Gradient	Headloss
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	\$/1000ft
0.00	Open	55.00	2.50	1,664.67	1,651.33	13.34	0.00	13.34	7.74

---

## Detailed Report for Pressure Junction: J-377

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



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Global Adjustments Summary		
	<None>	Roughness
		<None>

---



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Geometric Summary			
X	14,221,012.29 ft	Elevation	1,560.00 ft
Y	216,805.16 ft	Zone	Zone-1

---



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Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,651.33	39.52	91.33	55.00

---



## Detailed Report for Pressure Junction: J-9

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,169,355.31 ft	Elevation	1,160.00 ft
Y	268,281.21 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,590.26	186.15	430.26	0.00

## Detailed Report for Pressure Pipe: P-439

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	10,397.00 ft
From Node	J-9	To Node	J-338

Elevations			
From Elevation	1,160.00 ft	To Elevation	965.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	133.67	3.41	1,590.26	1,487.66	102.60	0.00	102.60	9.87

## Detailed Report for Pressure Junction: J-338

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,177,118.95 ft	Elevation	965.00 ft
Y	275,196.70 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,487.66	226.13	522.66	0.00

## Detailed Report for Pressure Pipe: P-440

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	Ductile Iron	Hazen-Williams C	130.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	5,675.00 ft
From Node	J-338	To Node	J-339

Elevations			
From Elevation	965.00 ft	To Elevation	958.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	133.67	3.41	1,487.66	1,414.66	73.00	0.00	73.00	12.86

## Detailed Report for Pressure Junction: J-339

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,176,405.34 ft	Elevation	958.00 ft
Y	280,826.29 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,414.66	197.57	456.66	0.00

## Detailed Report for Pressure Pipe: P-441

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	4,594.00 ft
From Node	J-339	To Node	J-340

Elevations			
From Elevation	958.00 ft	To Elevation	958.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	133.67	3.41	1,414.66	1,369.32	45.34	0.00	45.34	9.87

## Detailed Report for Pressure Junction: J-340

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,172,123.68 ft	Elevation	958.00 ft
Y	282,491.37 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,369.32	177.96	411.32	0.00

## Detailed Report for Pressure Pipe: P-442

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	4,515.00 ft
From Node	J-340	To Node	J-341

Elevations			
From Elevation	958.00 ft	To Elevation	1,050.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	5.00	0.13	1,358.92	1,358.82	0.10	0.00	0.10	0.02

## Detailed Report for Pressure Junction: J-341

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,176,365.69 ft	Elevation	1,050.00 ft
Y	284,037.53 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,358.82	133.61	308.82	5.00

## Detailed Report for Pressure Pipe: P-443

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### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>                      Roughness                      <None>

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### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	6,313.00 ft
From Node	J-340	To Node	J-342

---

### Elevations

From Elevation	958.00 ft	To Elevation	1,200.00 ft
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### Initial Status

Initial Status	Open
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### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	131.90	3.37	1,358.92	1,298.14	60.79	0.00	60.79	9.63

## Detailed Report for Pressure Junction: J-342

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

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Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



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Global Adjustments Summary		
	<None>	Roughness
		<None>

---



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Geometric Summary			
X	14,166,533.74 ft	Elevation	1,200.00 ft
Y	285,425.10 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,298.14	42.46	98.14	0.00

---

## Detailed Report for Pressure Junction: J-342

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,166,533.74 ft	Elevation	1,200.00 ft
Y	285,425.10 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,298.14	42.46	98.14	0.00

## Detailed Report for Pressure Pipe: P-457

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,385.00 ft
From Node	J-342	To Node	PMP-21

Elevations			
From Elevation	1,200.00 ft	To Elevation	1,065.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	131.90	3.37	1,298.14	1,265.54	32.59	0.00	32.59	9.63

## Detailed Report for Pump: PMP-21

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,165,740.84 ft	Upstream Pipe	P-457
Y	288,715.63 ft	Downstream Pipe	P-458
Elevation	1,065.00 ft		

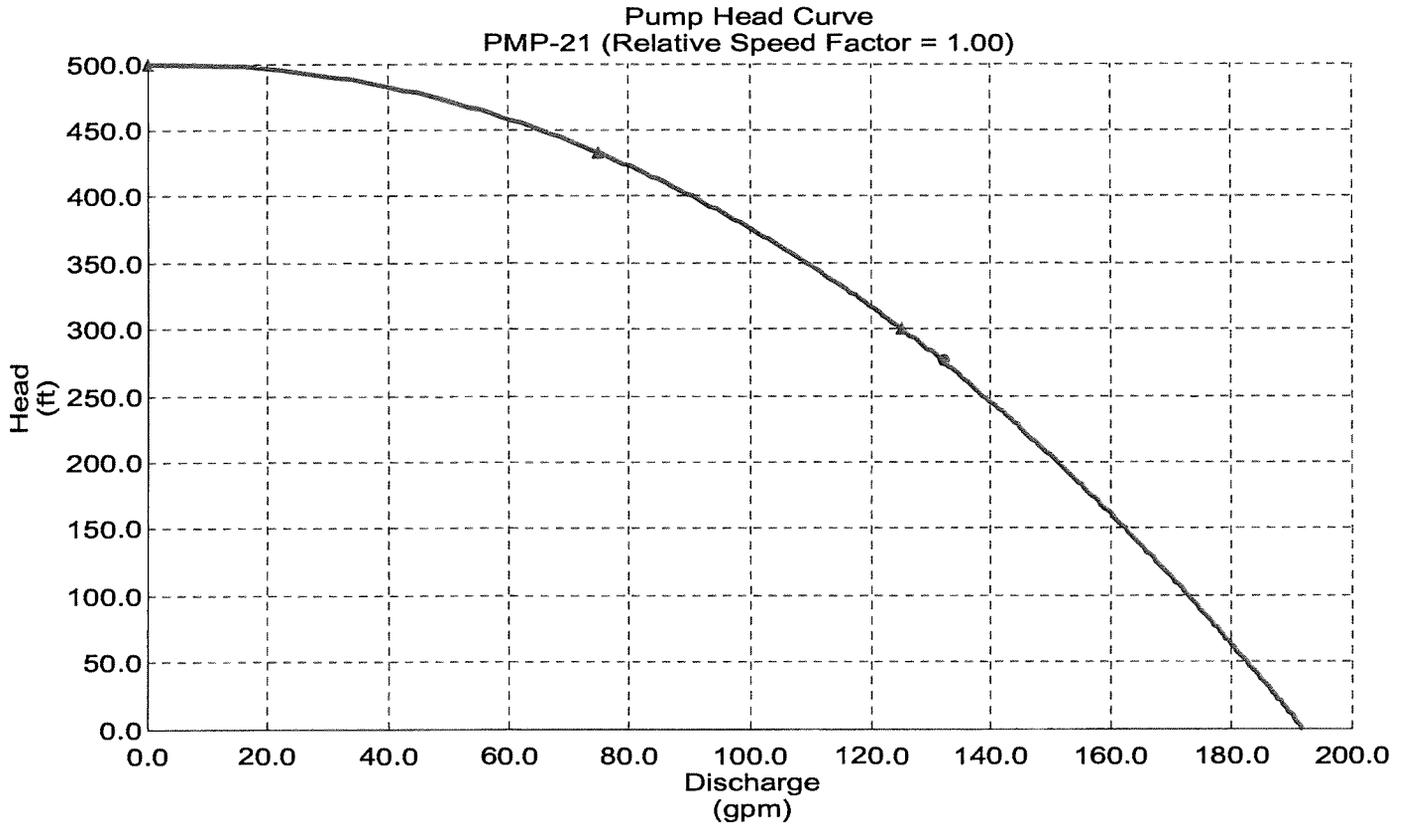
Pump Definition Summary	
Pump Definition	hell for certain pump

Initial Status			
Initial Pump Status	On	Initial Relative Speed Facto	1.00

User Data			
Date Installed		Date Retired	
Inspection Date		Rated Power	0.0 Hp
Condition		Manufacturer	
Model		SCADA ID	
Serial Number		Existing	false
Metered	false		

Calculated Results Summary							
Time Control (hr)	Intake Pump Status	Discharge Pump Grade (ft)	Discharge Pump Grade (ft)	Discharge (gpm)	Pump Head (ft)	Relative Speed	Calculated Water Power (Hp)
0.00	On	,265.54	1,541.16	131.90	75.61	1.00	9.18

# Detailed Report for Pump: PMP-21



## Detailed Report for Pressure Pipe: P-458

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,231.00 ft
From Node	PMP-21	To Node	J-343

Elevations			
From Elevation	1,065.00 ft	To Elevation	1,065.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Open	131.90	3.37	1,541.16	1,529.31	11.85	0.00	11.85	9.63

## Detailed Report for Pressure Junction: J-343

Note:  
 The input data may have been modified since the last calculation was performed.  
 The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,165,423.69 ft	Elevation	1,065.00 ft
Y	289,904.98 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,529.31	200.88	464.31	0.00

## Detailed Report for Pressure Pipe: P-445

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	4,611.00 ft
From Node	J-343	To Node	J-344

Elevations			
From Elevation	1,065.00 ft	To Elevation	1,360.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	131.90	3.37	1,529.31	1,484.91	44.40	0.00	44.40	9.63

## Detailed Report for Pressure Junction: J-344

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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Global Adjustments Summary			
	<None>	Roughness	<None>

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Geometric Summary			
X	14,169,586.41 ft	Elevation	1,360.00 ft
Y	291,887.23 ft	Zone	Zone-1

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Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

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User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



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Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,484.91	54.04	124.91	0.00

---

## Detailed Report for Pressure Pipe: P-456

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,991.00 ft
From Node	J-344	To Node	T-15

Elevations			
From Elevation	1,360.00 ft	To Elevation	1,458.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge Status	Velocity (gpm)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	-49.25	1.26	1,484.91	1,488.00	3.09	0.00	3.09	1.55

## Detailed Report for Tank: T-15

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,169,150.31 ft	Elevation	1,458.00 ft
Y	293,829.83 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

Operating Range Summary			
Maximum Elevation	1,498.00 ft	Maximum Level	1,498.00 ft
Initial HGL	1,488.00 ft	Initial Level	1,488.00 ft
Minimum Elevation	1,458.00 ft	Minimum Level	1,458.00 ft
Base Elevation	0.00 ft		

Storage			
Section Type	Constant Area	Circular Tank Shape?	true
Diameter	14.59 ft	Average Area	167.2 ft <sup>2</sup>
Inactive Volume	0.00 gal	Total Active Volume	50,025.59 gal

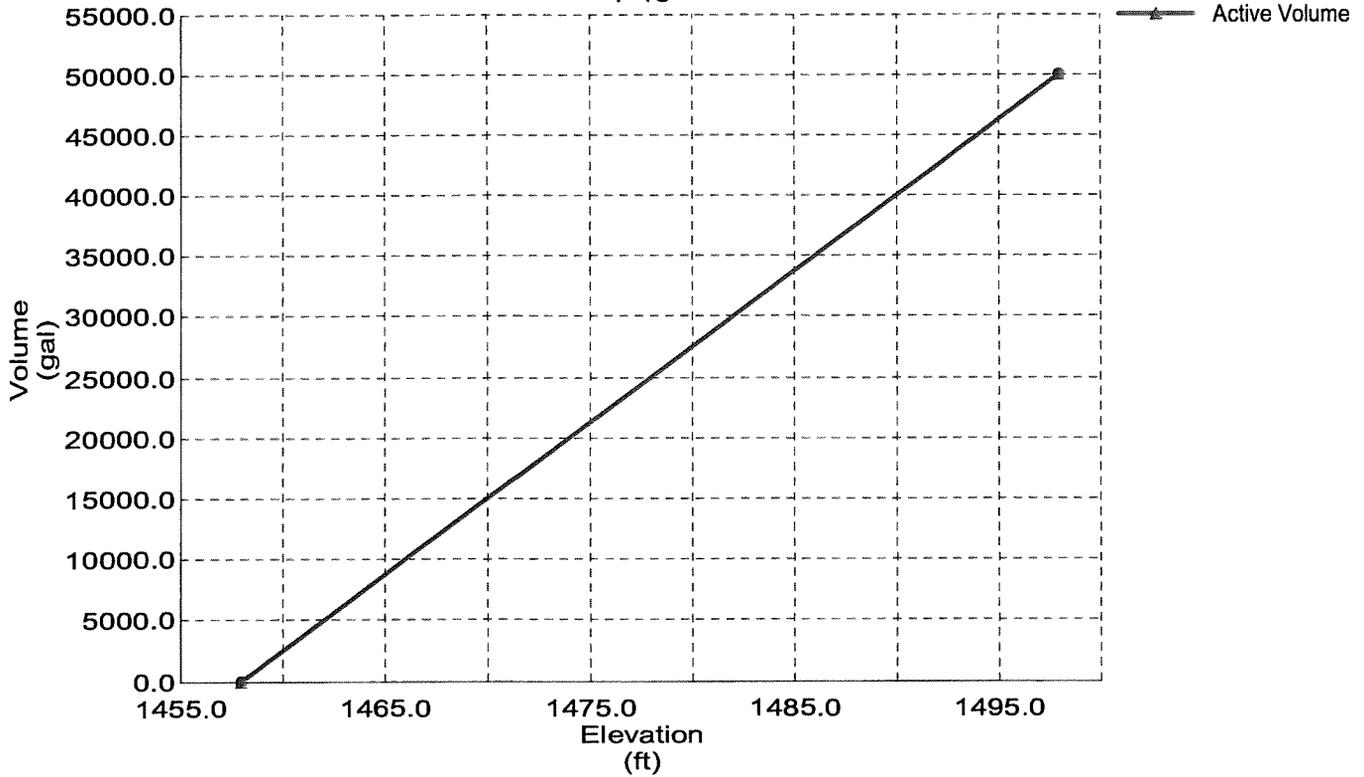
User Data			
Date Installed		Date Retired	
Inspection Date		Condition	
Lining		SCADA ID	
Clearwell Storage	false	Elevated Tank	false
Existing	false	Metered	false

## Detailed Report for Tank: T-15

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Calculated Level (ft)	Pressure (psi)	Calculated Percent Full (%)	Calculated Volume (gal)	Inflow (gpm)	Outflow (gpm)	Current Status
0.00	1,488.00	1,488.00	643.79	75.0	17,519.19	-49.25	49.25	Draining

**Tank Storage Curve  
T-15**



## Detailed Report for Pressure Pipe: P-446

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### Scenario Summary

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Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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### Global Adjustments Summary

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<None>	Roughness	<None>
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### Pipe Characteristics

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Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,652.00 ft
From Node	J-344	To Node	J-345

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### Elevations

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From Elevation	1,360.00 ft	To Elevation	1,260.00 ft
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### Initial Status

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Initial Status	Open
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### User Data

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Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

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Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss	
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Pipe Gradient (\$ft/1000ft)	
0.00	Open	40.00	1.02	1,497.54	1,494.74	2.80	0.00	2.80	1.06

---

## Detailed Report for Pressure Junction: J-345

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,171,846.17 ft	Elevation	1,260.00 ft
Y	290,499.65 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,494.74	101.56	234.74	0.00

## Detailed Report for Pressure Pipe: P-447

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### Scenario Summary

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Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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### Global Adjustments Summary

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<None>	Roughness	<None>
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### Pipe Characteristics

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Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,344.00 ft
From Node	J-345	To Node	J-346

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### Elevations

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From Elevation	1,260.00 ft	To Elevation	1,000.00 ft
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### Initial Status

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Initial Status	Open
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### User Data

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Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

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### Calculated Results Summary

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Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	40.00	1.02	1,494.74	1,492.26	2.48	0.00	2.48	1.06

---

## Detailed Report for Pressure Junction: J-346

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,174,185.22 ft	Elevation	1,000.00 ft
Y	290,658.23 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,492.26	212.98	492.26	0.00

## Detailed Report for Pressure Pipe: P-448

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,873.00 ft
From Node	J-346	To Node	J-347

Elevations			
From Elevation	1,000.00 ft	To Elevation	898.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Calculated Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	40.00	1.02	1,492.26	1,489.23	3.04	0.00	3.04	1.06

## Detailed Report for Pressure Junction: J-347

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,176,008.89 ft	Elevation	898.00 ft
Y	292,878.35 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,489.23	255.80	591.23	0.00

## Detailed Report for Pressure Pipe: P-451

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,897.00 ft
From Node	J-347	To Node	J-349

Elevations			
From Elevation	898.00 ft	To Elevation	950.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	10.00	0.45	1,489.23	1,488.60	0.62	0.00	0.62	0.33

## Detailed Report for Pressure Junction: J-349

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,176,841.43 ft	Elevation	950.00 ft
Y	291,173.62 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,488.60	233.03	538.60	0.00

## Detailed Report for Pressure Pipe: P-452

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,047.00 ft
From Node	J-349	To Node	J-350

Elevations			
From Elevation	950.00 ft	To Elevation	1,030.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (\$ft/1000ft)	Gradient
0.00	Open	10.00	0.45	1,488.60	1,487.93	0.67	0.00	0.67	0.33

## Detailed Report for Pressure Junction: J-350

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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Global Adjustments Summary			
	<None>	Roughness	<None>

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Geometric Summary			
X	14,177,158.59 ft	Elevation	1,030.00 ft
Y	289,151.73 ft	Zone	Zone-1

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Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

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User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

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Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,487.93	198.12	457.93	10.00

---

## Detailed Report for Pressure Pipe: P-449

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,134.00 ft
From Node	J-347	To Node	J-348

Elevations			
From Elevation	898.00 ft	To Elevation	850.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	30.00	0.77	1,489.23	1,487.90	1.32	0.00	1.32	0.62

## Detailed Report for Pressure Junction: J-348

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

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**Scenario Summary**

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
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**Geometric Summary**

X	14,177,237.88 ft	Elevation	850.00 ft
Y	294,622.73 ft	Zone	Zone-1

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**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	30.00	Fixed

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**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,487.90	275.99	637.90	30.00

## Detailed Report for Pressure Pipe: P-450

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,858.00 ft
From Node	J-348	To Node	J-33

Elevations			
From Elevation	850.00 ft	To Elevation	810.00 ft

Initial Status	
Initial Status	Closed

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Calculated Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Closed	0.00	1,487.90	1,127.05	0.00	0.00	0.00	0.00	0.00

## Detailed Report for Pressure Junction: J-33

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



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Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,179,719.70 ft	Elevation	810.00 ft
Y	296,040.05 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,127.05	137.17	317.05	0.00

---

## Detailed Report for Pressure Pipe: P-453

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### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
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---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	4,506.00 ft
From Node	J-343	To Node	J-351

---

### Elevations

From Elevation	1,065.00 ft	To Elevation	1,100.00 ft
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### Initial Status

Initial Status	Open
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---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)
0.00	Open	25.00	1,523.97	1,521.97	1.99	0.00	1.99	0.44

## Detailed Report for Pressure Junction: J-351

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,161,221.32 ft	Elevation	1,100.00 ft
Y	291,530.42 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,521.97	182.57	421.97	0.00

---

## Detailed Report for Pressure Pipe: P-454

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,586.00 ft
From Node	J-351	To Node	J-352

Elevations			
From Elevation	1,100.00 ft	To Elevation	1,150.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge Status	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	25.00	1,521.97	1,520.39	1.59	0.00	1.59	0.44	

## Detailed Report for Pressure Junction: J-352

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,159,159.78 ft	Elevation	1,150.00 ft
Y	294,464.15 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,520.39	160.25	370.39	0.00

## Detailed Report for Pressure Pipe: P-455

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,133.00 ft
From Node	J-352	To Node	J-353

Elevations			
From Elevation	1,150.00 ft	To Elevation	1,160.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	25.00	0.64	1,520.39	1,519.00	1.39	0.00	1.39	0.44

## Detailed Report for Pressure Junction: J-353

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,156,027.83 ft	Elevation	1,160.00 ft
Y	294,384.86 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,519.00	155.32	359.00	25.00

## Detailed Report for Pressure Pipe: P-455

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### Scenario Summary

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Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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### Global Adjustments Summary

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<None>	Roughness	<None>
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### Pipe Characteristics

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Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,133.00 ft
From Node	J-352	To Node	J-353

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### Elevations

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From Elevation	1,150.00 ft	To Elevation	1,160.00 ft
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### Initial Status

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Initial Status	Open
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### User Data

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Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---



---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss Gradient	
(hr)	Status (gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/1000ft	
0.00	Open	100.00	2.55	1,447.72	1,429.66	18.06	0.00	18.06	5.77

---

## Detailed Report for Pressure Junction: J-353

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### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

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<None>	Roughness	<None>
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### Geometric Summary

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X	14,156,027.83 ft	Elevation	1,160.00 ft
Y	294,384.86 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,429.66	116.67	269.66	100.00

---

## Detailed Report for Pressure Junction: J-353

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,156,027.83 ft	Elevation	1,160.00 ft
Y	294,384.86 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,429.66	116.67	269.66	100.00

## Detailed Report for Pressure Pipe: P-449

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,134.00 ft
From Node	J-347	To Node	J-348

Elevations			
From Elevation	898.00 ft	To Elevation	850.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss	Gradient
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/1000ft
0.00	Open	100.00	2.55	1,444.13	1,431.82	12.30	0.00	12.30	5.77

## Detailed Report for Pressure Junction: J-348

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
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**Geometric Summary**

X	14,177,237.88 ft	Elevation	850.00 ft
Y	294,622.73 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

---

**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,431.82	251.73	581.82	100.00

## Detailed Report for Pressure Pipe: P-452

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,047.00 ft
From Node	J-349	To Node	J-350

Elevations			
From Elevation	950.00 ft	To Elevation	1,030.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary								
Time Control	Discharge Status	Velocity (gpm) (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)
0.00	Open	75.00 3.40	1,439.49	1,411.36	28.13	0.00	28.13	13.74

## Detailed Report for Pressure Junction: J-350

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,177,158.59 ft	Elevation	1,030.00 ft
Y	289,151.73 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	75.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

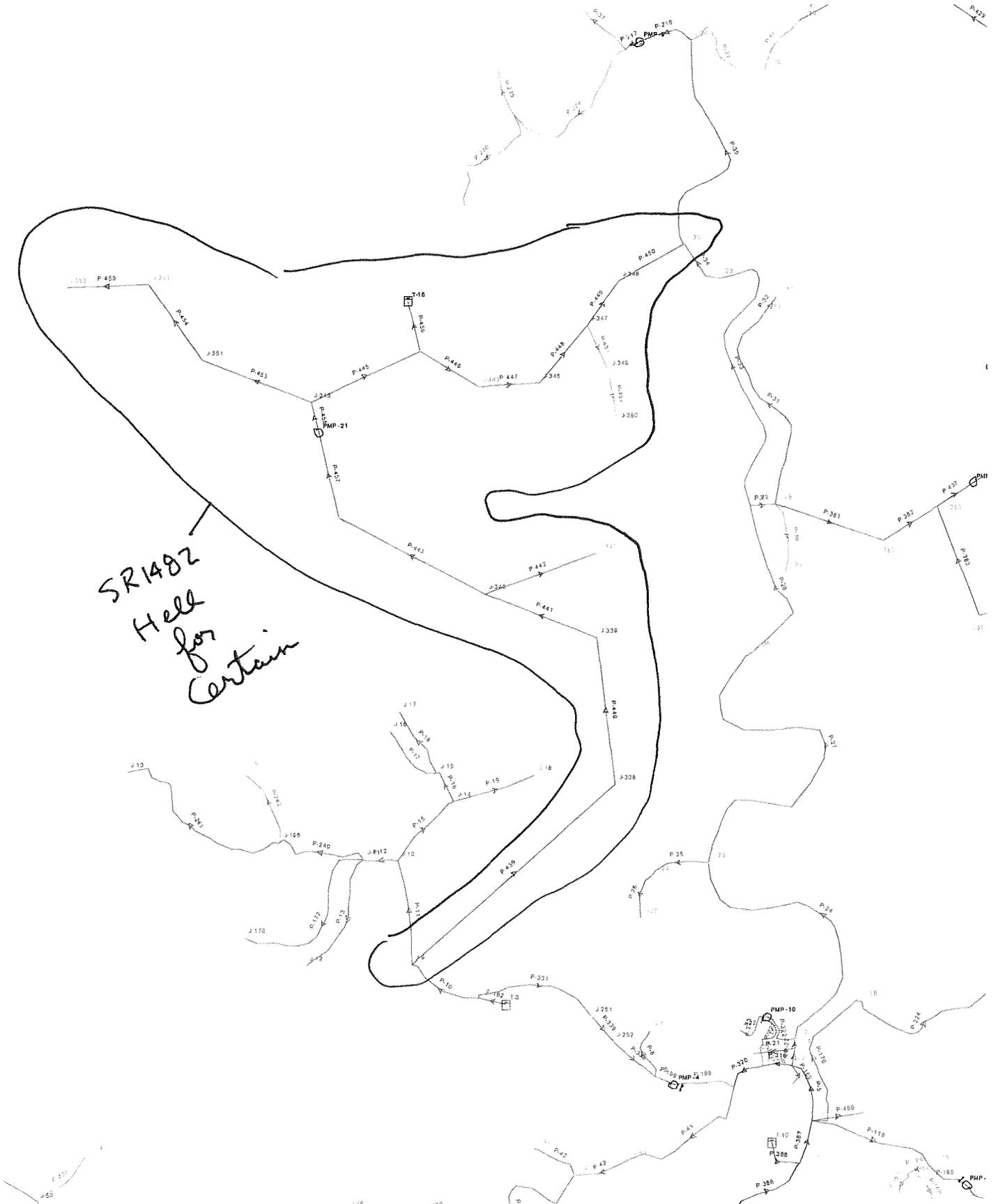


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Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,411.36	165.00	381.36	75.00

---

# Scenario: peak hour demand





## Detailed Report for Pressure Junction: J-371

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### Scenario Summary

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Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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### Geometric Summary

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X	14,215,284.97 ft	Elevation	993.00 ft
Y	240,885.67 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,374.99	165.27	381.99	0.00

---

## Detailed Report for Pressure Pipe: P-480

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

2"

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,612.00 ft
From Node	J-371	To Node	J-372

Elevations			
From Elevation	993.00 ft	To Elevation	1,265.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss	Headloss
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Pipe Headloss (ft)	Gradient	(\$ft/1000ft)
0.00 Open	5.00	0.51	1,374.99	1,373.27	1.72	0.00	1.72	0.66	

## Detailed Report for Pressure Junction: J-372

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

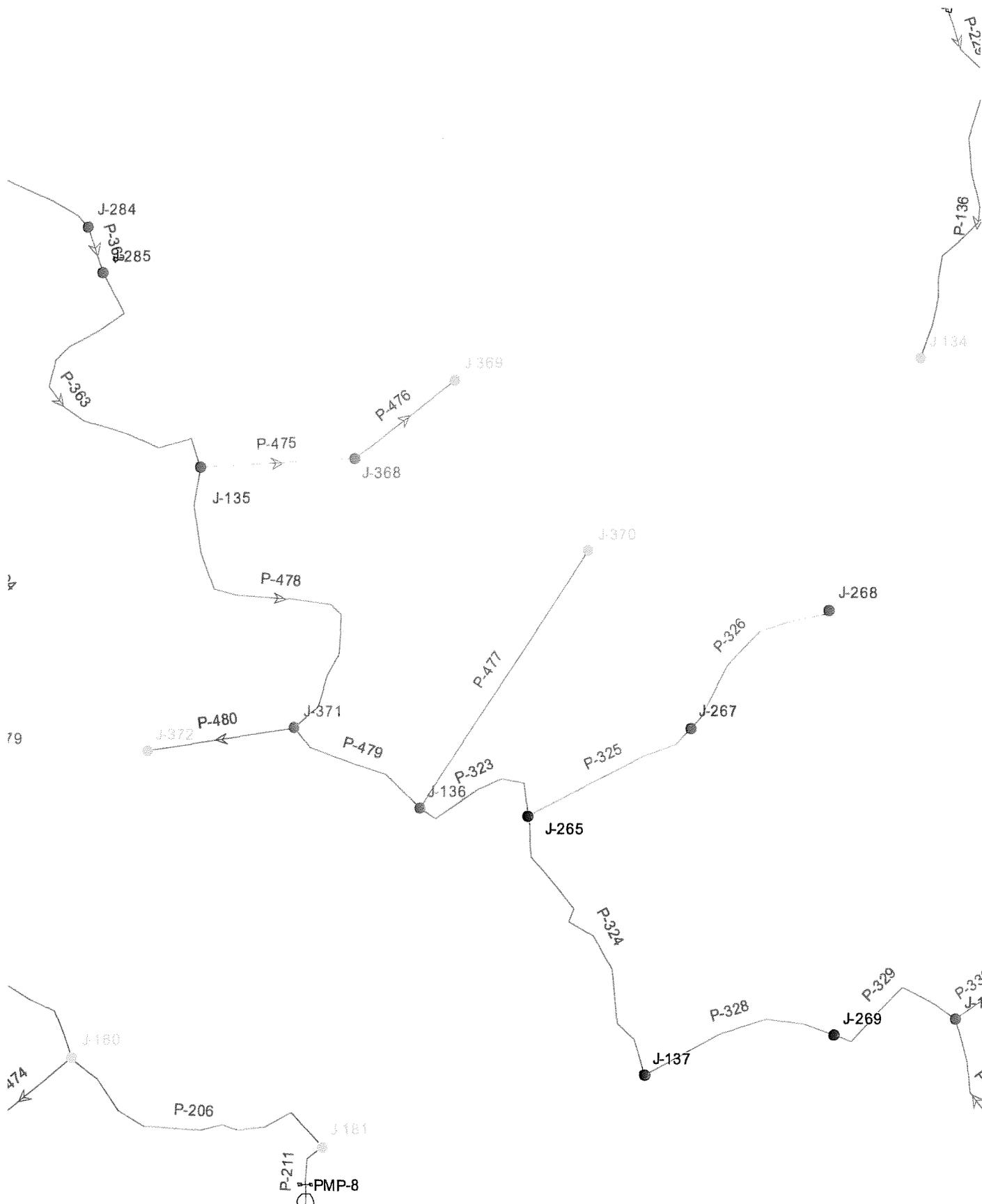
Geometric Summary			
X	14,212,702.92 ft	Elevation	1,265.00 ft
Y	240,488.43 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,373.27	46.84	108.27	5.00

# Scenario: 2.5flush



Title: PHASE IIA - AML Waterline extensions

u:\07080\hydraulics\hyd21213.wcd

06/13/13 10:00:19 AM

Sister-Maggard Engineering PLLC

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Project Engineer: Mike Maggard

WaterCAD v6.5 [6.5120n]

Page 1 of 1

## Detailed Report for Pressure Junction: J-372

---

### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>                      Roughness                      <None>

---

### Geometric Summary

X	14,212,702.92 ft	Elevation	1,265.00 ft
Y	240,488.43 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,331.81	28.91	66.81	25.00

## Detailed Report for Pressure Pipe: P-480

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,612.00 ft
From Node	J-371	To Node	J-372

---

### Elevations

---

From Elevation	993.00 ft	To Elevation	1,265.00 ft
----------------	-----------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

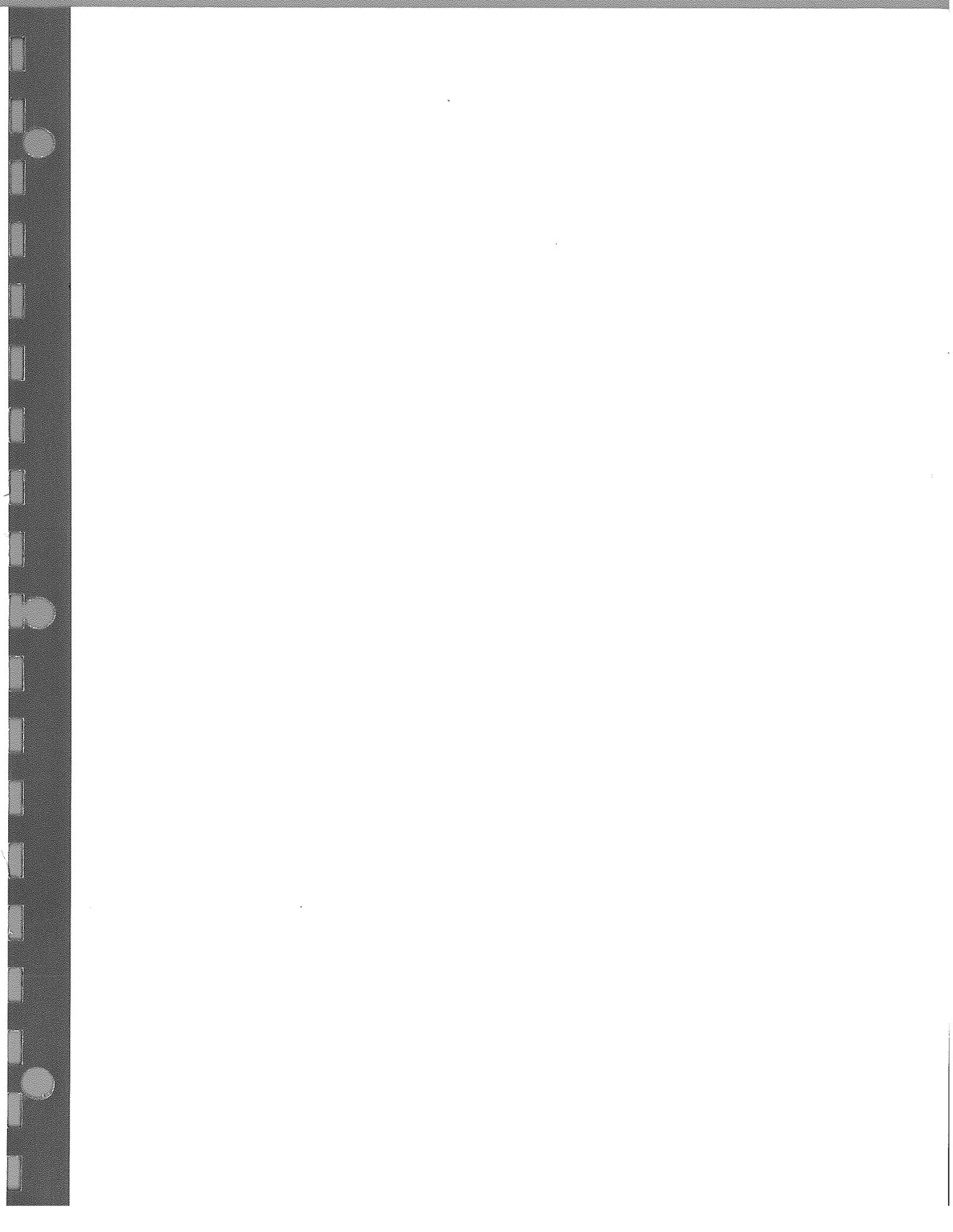
---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	\$/1000ft
0.00 Open	25.00	2.55	1,365.63	1,331.81	33.82	0.00	33.82	12.95

---



## Detailed Report for Pressure Junction: J-269

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

X	14,224,714.98 ft	Elevation	1,050.00 ft
Y	235,534.48 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,663.76	265.54	613.76	0.00

## Detailed Report for Pressure Junction: J-379

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

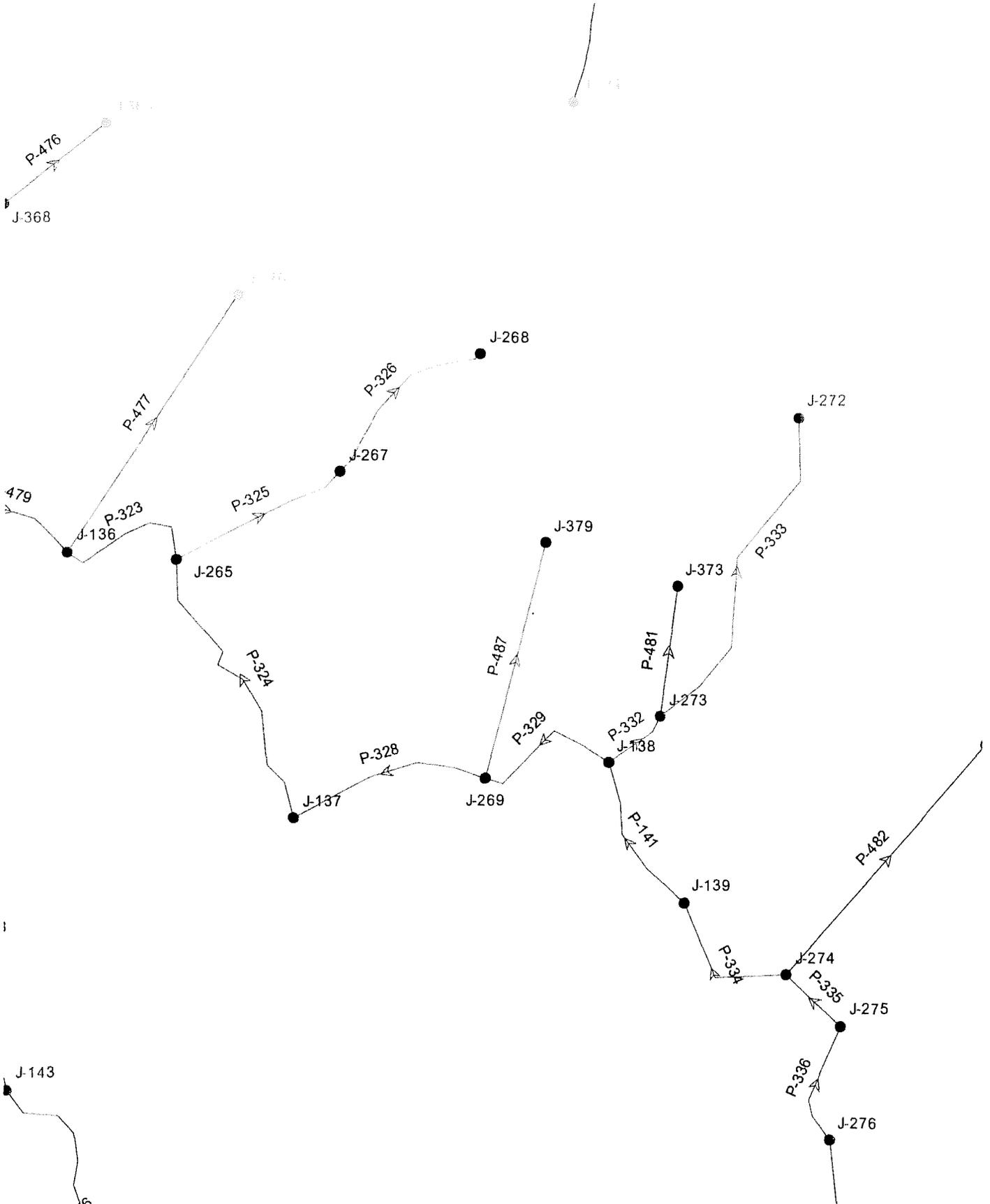
Geometric Summary			
X	14,225,772.25 ft	Elevation	1,200.00 ft
Y	239,635.31 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,663.37	200.48	463.37	5.00

# Scenario: peak hour demand



## Detailed Report for Pressure Pipe: P-487

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	4,235.00 ft
From Node	J-269	To Node	J-379

Elevations			
From Elevation	1,050.00 ft	To Elevation	1,200.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss	Gradient
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	ft/1000ft
0.00	Open	55.00	2.50	1,715.03	1,682.27	32.77	0.00	32.77	7.74

## Detailed Report for Pressure Junction: J-379

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,225,772.25 ft	Elevation	1,200.00 ft
Y	239,635.31 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,682.27	208.65	482.27	55.00

## Detailed Report for Pressure Junction: J-135

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,213,656.19 ft	Elevation	980.00 ft
Y	245,463.54 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

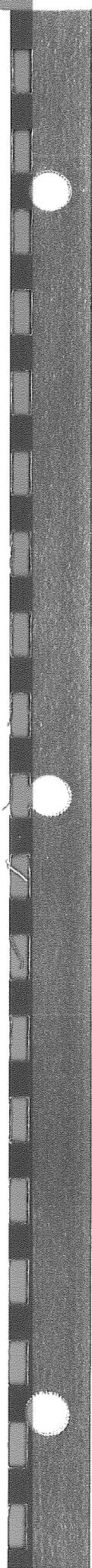
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---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,375.01	170.90	395.01	0.00

---



## Detailed Report for Pressure Junction: J-135

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### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,213,656.19 ft	Elevation	980.00 ft
Y	245,463.54 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,359.74	164.29	379.74	0.00

---

## Detailed Report for Pressure Pipe: P-475

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### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,691.00 ft
From Node	J-135	To Node	J-368

---

### Elevations

---

From Elevation	980.00 ft	To Elevation	1,100.00 ft
----------------	-----------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss Gradient
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	\$/1000ft
0.00 Open	5.00	0.23	1,359.74	1,359.49	0.25	0.00	0.25	0.09

---

## Detailed Report for Pressure Junction: J-368

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Geometric Summary			
X	14,216,344.27 ft	Elevation	1,100.00 ft
Y	245,586.32 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,359.49	112.27	259.49	0.00

## Detailed Report for Pressure Pipe: P-476

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,247.00 ft
From Node	J-368	To Node	J-369

Elevations			
From Elevation	1,100.00 ft	To Elevation	1,280.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	5.00	0.23	1,359.49	1,359.28	0.20	0.00	0.20	0.09

## Detailed Report for Pressure Junction: J-369

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

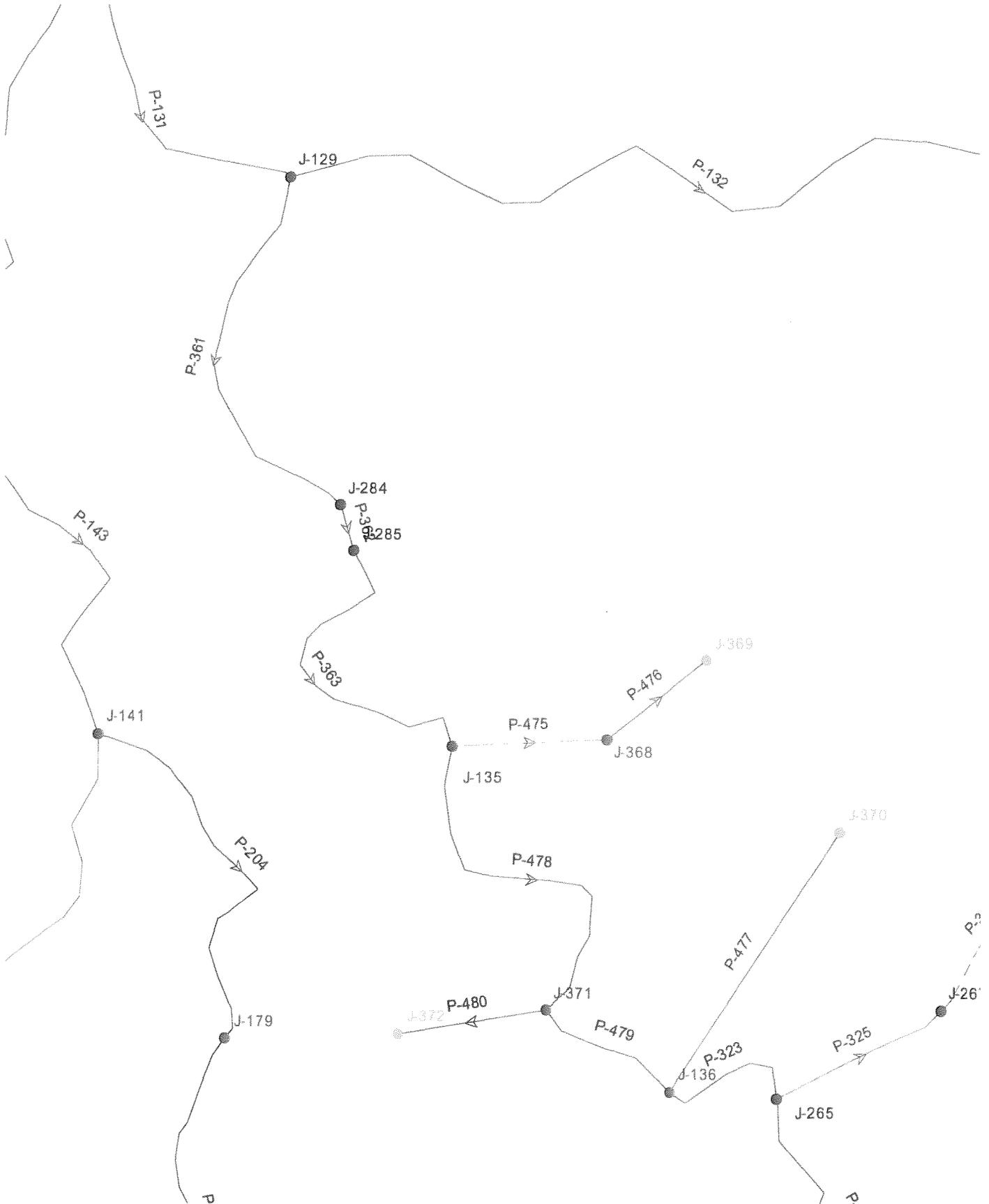
Geometric Summary			
X	14,218,109.78 ft	Elevation	1,280.00 ft
Y	246,976.65 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,359.28	34.30	79.28	5.00

# Scenario: peak hour demand



## Detailed Report for Pressure Pipe: P-475

---

### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
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---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,691.00 ft
From Node	J-135	To Node	J-368

---

### Elevations

From Elevation	980.00 ft	To Elevation	1,100.00 ft
----------------	-----------	--------------	-------------

---

### Initial Status

Initial Status	Open
----------------	------

---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)
0.00	Open	55.00	1,351.78	1,330.95	20.82	0.00	20.82	7.74

## Detailed Report for Pressure Junction: J-368

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,216,344.27 ft	Elevation	1,100.00 ft
Y	245,586.32 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

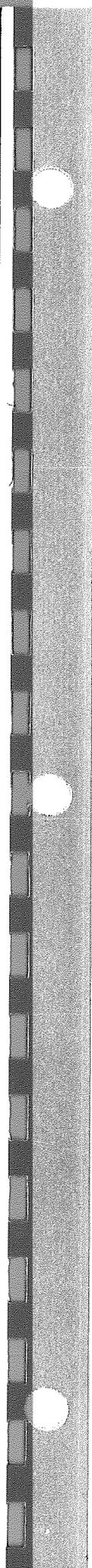
---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,330.95	99.92	230.95	0.00

---



## Detailed Report for Pressure Junction: J-59

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,182,257.10 ft	Elevation	959.00 ft
Y	247,843.46 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,475.70	223.55	516.70	0.00

---

## Detailed Report for Pressure Pipe: P-461

2''

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,168.00 ft
From Node	J-59	To Node	J-356

Elevations			
From Elevation	959.00 ft	To Elevation	1,320.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Calculated Pipe Headloss (ft)	Pressure Headloss (\$/1000ft)	Gradient
0.00	Open	5.00	0.51	1,475.70	1,473.62	2.08	0.00	2.08	0.66

## Detailed Report for Pressure Junction: J-356

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,185,425.05 ft	Elevation	1,320.00 ft
Y	247,881.08 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,473.62	66.46	153.62	5.00

## Detailed Report for Pressure Pipe: P-461

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,168.00 ft
From Node	J-59	To Node	J-356

Elevations			
From Elevation	959.00 ft	To Elevation	1,320.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Headloss (ft)	Calculated Headloss (ft)	Pressure Headloss (ft)	Minor Pipe Gradient	Headloss (ft/1000ft)
0.00	Open	5.00	0.51	1,472.35	1,470.27	2.08	0.00	2.08	0.66

## Detailed Report for Pressure Junction: J-356

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

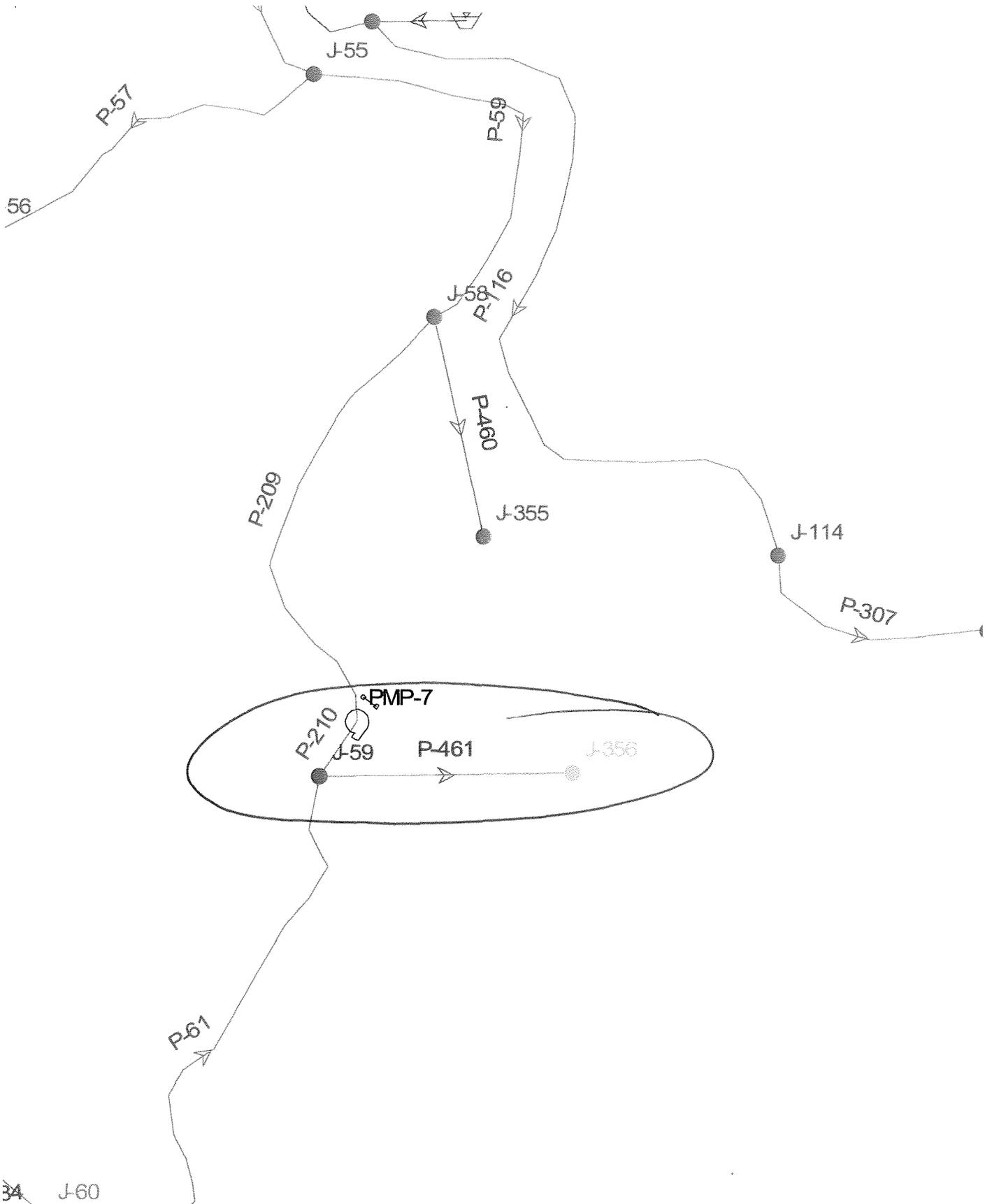
Geometric Summary			
X	14,185,425.05 ft	Elevation	1,320.00 ft
Y	247,881.08 ft	Zone	Zone-1

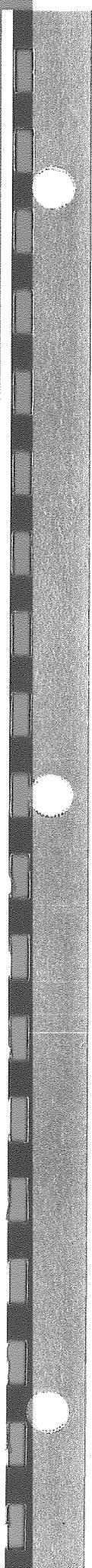
Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,470.27	65.01	150.27	5.00

Scenario: peak hour demand





## Detailed Report for Pressure Junction: J-256

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### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
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### Geometric Summary

X	14,199,527.06 ft	Elevation	1,500.00 ft
Y	252,924.43 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	20.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,620.89	52.30	120.89	20.00

## Detailed Report for Pressure Pipe: P-467

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### Scenario Summary

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Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Pipe Characteristics

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Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,139.00 ft
From Node	J-256	To Node	J-361

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### Elevations

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From Elevation	1,500.00 ft	To Elevation	1,220.00 ft
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### Initial Status

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Initial Status	Open
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---

### User Data

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Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge Status	Velocity (gpm)	Upstream Structure Hydraulic Grade (ft/s)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	5.00	0.51	1,620.89	1,620.14	0.75	0.00	0.75	0.66

---

## Detailed Report for Pressure Junction: J-361

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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Global Adjustments Summary			
	<None>	Roughness	<None>

---



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Geometric Summary			
X	14,200,573.89 ft	Elevation	1,220.00 ft
Y	252,475.48 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



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Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,620.14	173.12	400.14	5.00

---

## Detailed Report for Pressure Pipe: P-468

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,893.00 ft
From Node	J-256	To Node	J-362

Elevations			
From Elevation	1,500.00 ft	To Elevation	1,150.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	10.00	0.26	1,620.89	1,620.65	0.23	0.00	0.23	0.08

## Detailed Report for Pressure Junction: J-362

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

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**Scenario Summary**

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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**Global Adjustments Summary**

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<None>	Roughness	<None>
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**Geometric Summary**

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X	14,202,339.39 ft	Elevation	1,150.00 ft
Y	253,600.99 ft	Zone	Zone-1

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**Demand Summary**

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Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

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---

**User Data**

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SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



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**Calculated Results Summary**

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,620.65	203.63	470.65	10.00

---

## Detailed Report for Pressure Junction: J-255

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,200,736.05 ft	Elevation	1,500.00 ft
Y	256,415.91 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,620.76	52.25	120.76	0.00

## Detailed Report for Pressure Pipe: P-470

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,059.00 ft
From Node	J-255	To Node	J-363

Elevations			
From Elevation	1,500.00 ft	To Elevation	1,200.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)
0.00	Open	5.00	1,620.76	1,620.66	0.10	0.00	0.10	0.09

## Detailed Report for Pressure Junction: J-363

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Geometric Summary			
X	14,200,287.00 ft	Elevation	1,200.00 ft
Y	257,374.75 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,620.66	182.00	420.66	5.00

## Detailed Report for Pressure Junction: J-363

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,200,287.00 ft	Elevation	1,200.00 ft
Y	257,374.75 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,559.03	155.34	359.03	55.00

## Detailed Report for Pressure Pipe: P-470

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### Scenario Summary

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Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

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<None>	Roughness	<None>
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### Pipe Characteristics

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Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,059.00 ft
From Node	J-255	To Node	J-363

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### Elevations

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From Elevation	1,500.00 ft	To Elevation	1,200.00 ft
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### Initial Status

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Initial Status	Open
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---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss	Pipe Gradient
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	(ft/1000ft)	(ft)
0.00 Open	55.00	2.50	1,567.23	1,559.03	8.19	0.00	8.19	7.74	

---

## Detailed Report for Pressure Pipe: P-467

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,139.00 ft
From Node	J-256	To Node	J-361

Elevations			
From Elevation	1,500.00 ft	To Elevation	1,220.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss	Headloss
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/1000ft
0.00	Open	25.00	2.55	1,606.27	1,591.53	14.75	0.00	14.75	12.95

## Detailed Report for Pressure Junction: J-361

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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Global Adjustments Summary			
	<None>	Roughness	<None>

---



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Geometric Summary			
X	14,200,573.89 ft	Elevation	1,220.00 ft
Y	252,475.48 ft	Zone	Zone-1

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Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

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User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,591.53	160.74	371.53	25.00

---

## Detailed Report for Pressure Pipe: P-468

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,893.00 ft
From Node	J-256	To Node	J-362

Elevations			
From Elevation	1,500.00 ft	To Elevation	1,150.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structural Hydraulic Grade (ft)	Downstream Structural Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	100.00	2.55	1,527.68	1,510.99	16.68	0.00	16.68	5.77

## Detailed Report for Pressure Junction: J-362

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

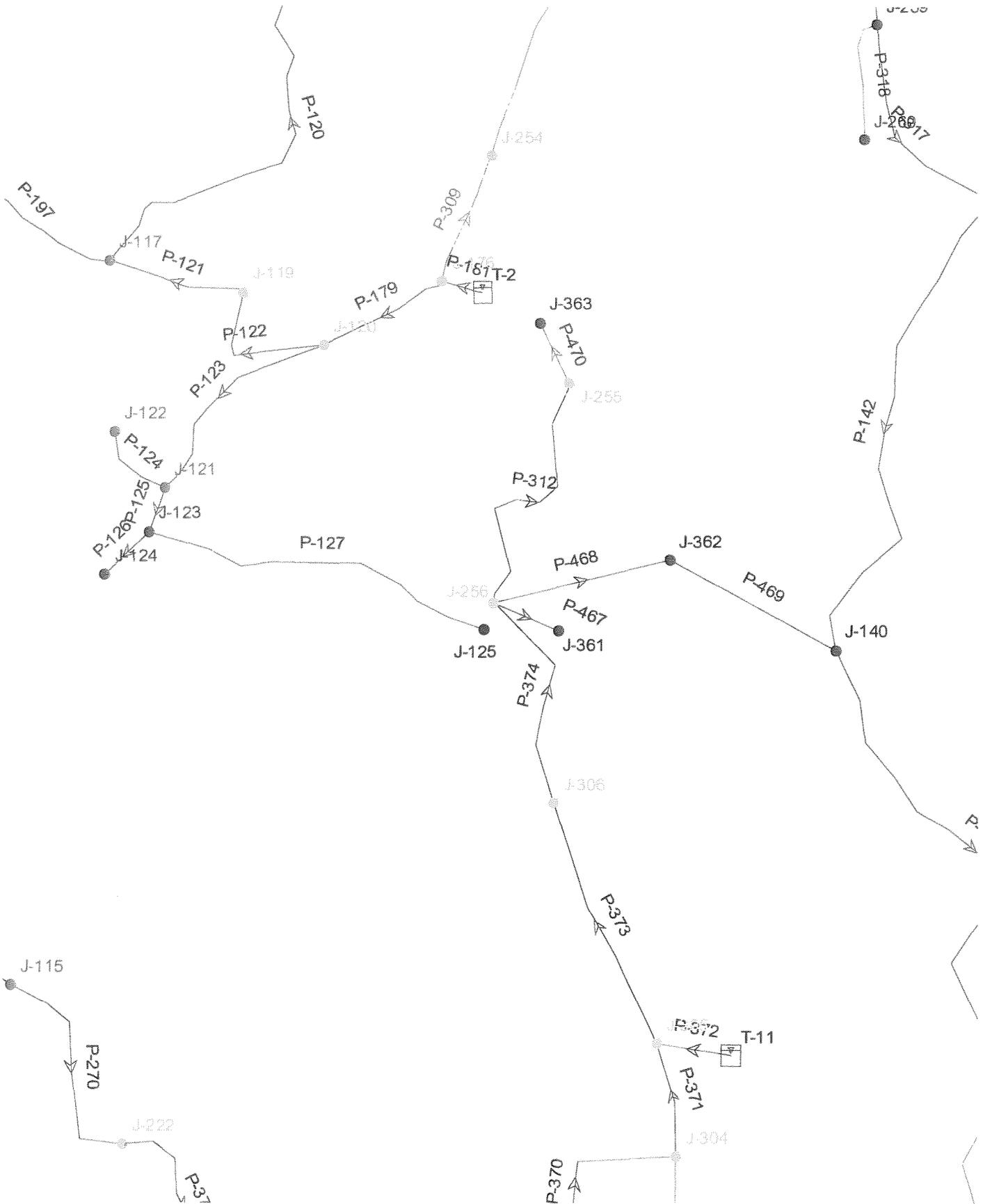
Geometric Summary			
X	14,202,339.39 ft	Elevation	1,150.00 ft
Y	253,600.99 ft	Zone	Zone-1

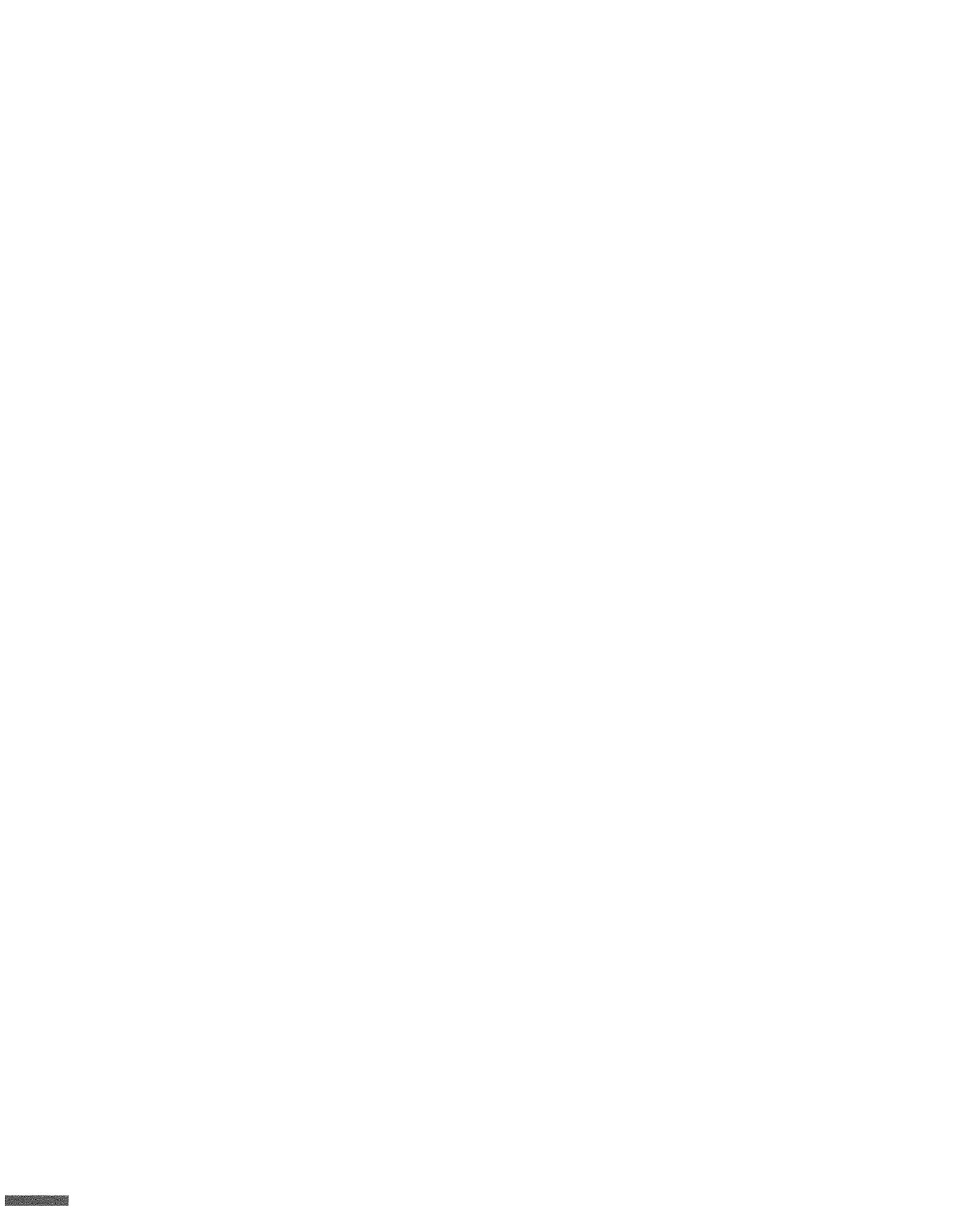
Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,510.99	156.19	360.99	100.00

Scenario: 2.5flush





## Detailed Report for Pressure Junction: J-358

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### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
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### Geometric Summary

X	14,160,219.81 ft	Elevation	1,369.00 ft
Y	230,218.90 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,651.78	122.35	282.78	0.00

## Detailed Report for Pressure Pipe: P-465

2"

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### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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### Global Adjustments Summary

<None>	Roughness	<None>
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### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,987.00 ft
From Node	J-358	To Node	J-359

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### Elevations

From Elevation	1,369.00 ft	To Elevation	1,469.00 ft
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### Initial Status

Initial Status	Open
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### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)
0.00	Open	5.00	1,651.78	1,650.48	1.31	0.00	1.31	0.66

## Detailed Report for Pressure Junction: J-359

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,158,233.62 ft	Elevation	1,469.00 ft
Y	230,163.73 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,650.48	78.52	181.48	5.00

---

## Detailed Report for Pressure Junction: J-359

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Geometric Summary			
X	14,158,233.62 ft	Elevation	1,469.00 ft
Y	230,163.73 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,625.67	67.78	156.67	25.00

## Detailed Report for Pressure Pipe: P-465

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,987.00 ft
From Node	J-358	To Node	J-359

---

### Elevations

---

From Elevation	1,369.00 ft	To Elevation	1,469.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

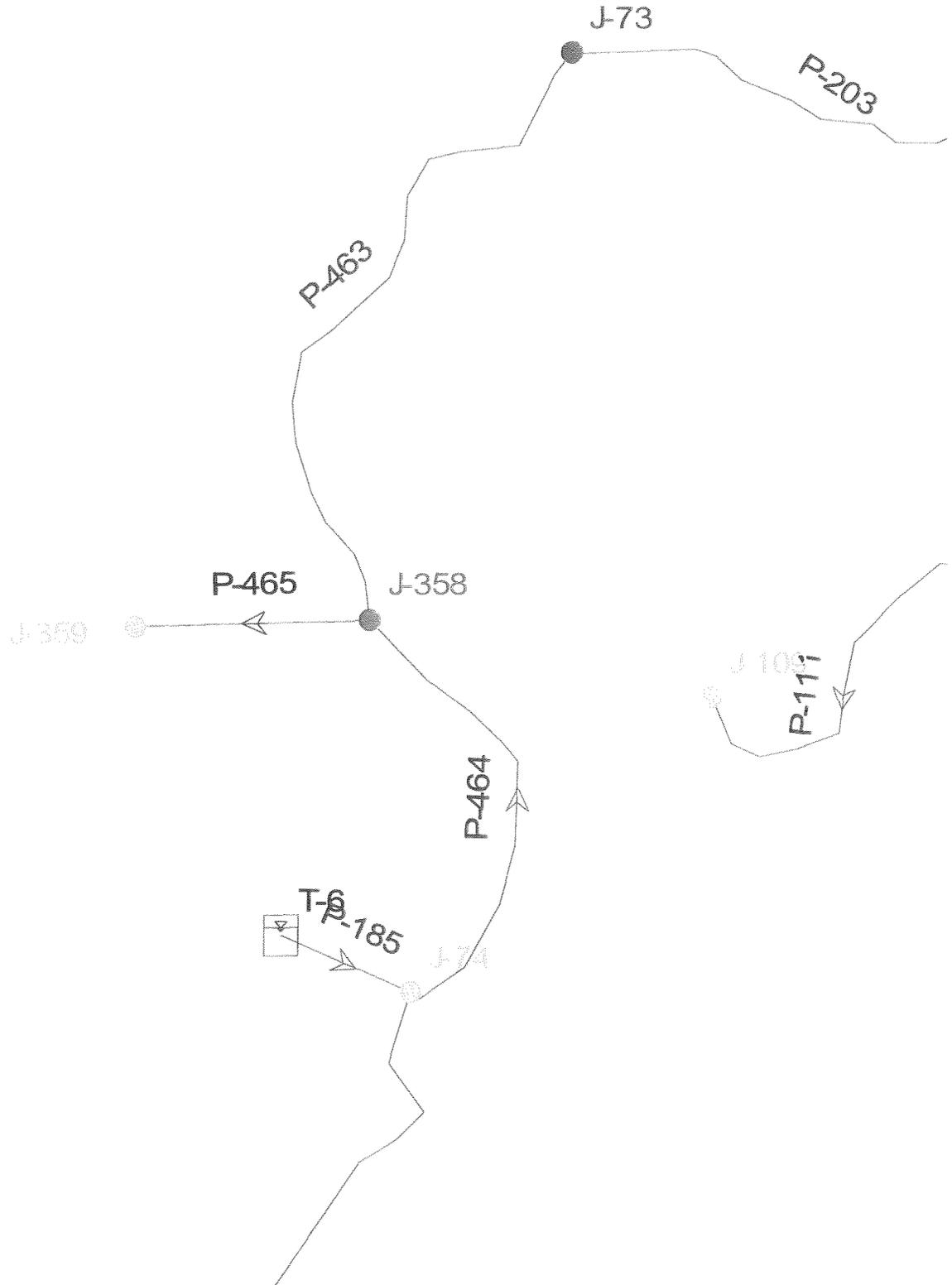
### Calculated Results Summary

---

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient \$/1000ft	
0.00	Open	25.00	2.55	1,651.39	1,625.67	25.73	0.00	25.73	12.95

---

Scenario: peak hour demand



## Detailed Report for Pressure Junction: J-59

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,182,257.10 ft	Elevation	959.00 ft
Y	247,843.46 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,475.70	223.55	516.70	0.00

---

## Detailed Report for Pressure Pipe: P-461

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Dally
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,168.00 ft
From Node	J-59	To Node	J-356

Elevations			
From Elevation	959.00 ft	To Elevation	1,320.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Open	5.00	0.51	1,475.70	1,473.62	2.08	0.00	2.08	0.66

## Detailed Report for Pressure Junction: J-356

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,185,425.05 ft	Elevation	1,320.00 ft
Y	247,881.08 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,473.62	66.46	153.62	5.00

## Detailed Report for Pressure Pipe: P-461

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,168.00 ft
From Node	J-59	To Node	J-356

Elevations			
From Elevation	959.00 ft	To Elevation	1,320.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Headloss Gradient (\$ft/1000ft)
0.00	Open	5.00	0.51	1,472.35	1,470.27	2.08	0.00	2.08	0.66

## Detailed Report for Pressure Junction: J-356

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

**Global Adjustments Summary**

---

<None>	Roughness	<None>
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---

**Geometric Summary**

---

X	14,185,425.05 ft	Elevation	1,320.00 ft
Y	247,881.08 ft	Zone	Zone-1

---



---

**Demand Summary**

---

Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---



---

**User Data**

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



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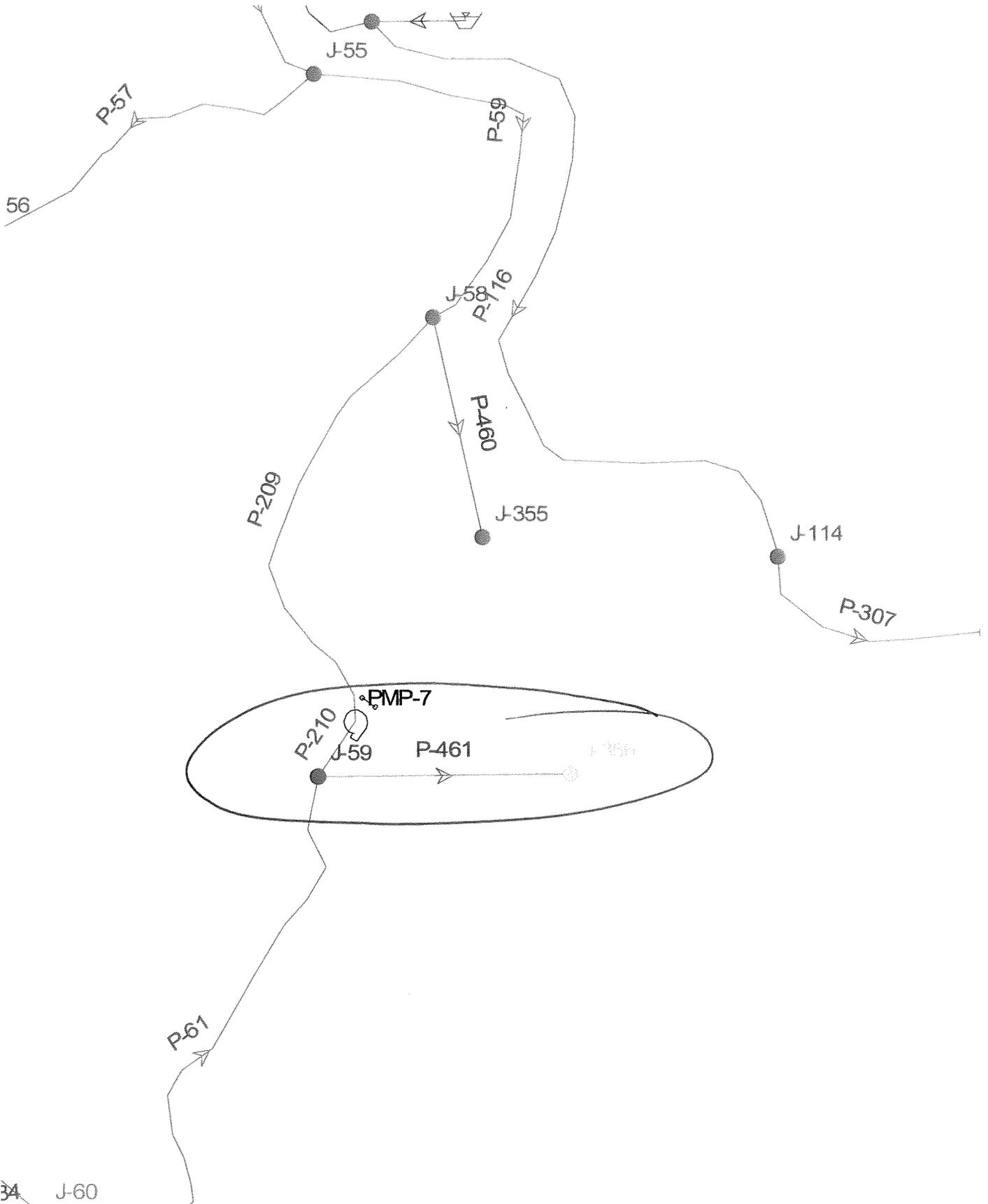
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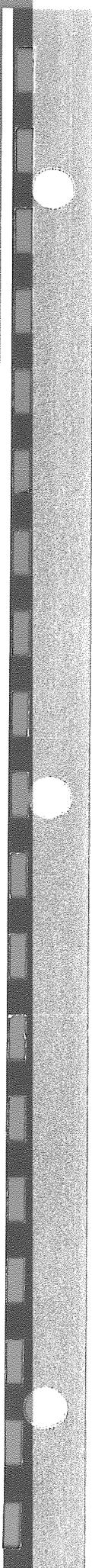
---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,470.27	65.01	150.27	5.00

---

Scenario: peak hour demand





## Detailed Report for Pressure Junction: J-180

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### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,211,398.26 ft	Elevation	1,160.00 ft
Y	235,173.43 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,267.18	46.37	107.18	0.00

---

## Detailed Report for Pressure Pipe: P-474

Note:  
 The input data may have been modified since the last calculation was performed.  
 The calculated results may be outdated.

2

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,177.00 ft
From Node	J-180	To Node	J-367

Elevations			
From Elevation	1,160.00 ft	To Elevation	1,140.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge Status	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	5.00	1,267.18	1,265.75	1.43	0.00	1.43	0.66	

## Detailed Report for Pressure Junction: J-367

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,209,720.71 ft	Elevation	1,140.00 ft
Y	233,785.82 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,265.75	54.41	125.75	5.00

## Detailed Report for Pressure Junction: J-367

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### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

X	14,209,720.71 ft	Elevation	1,140.00 ft
Y	233,785.82 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

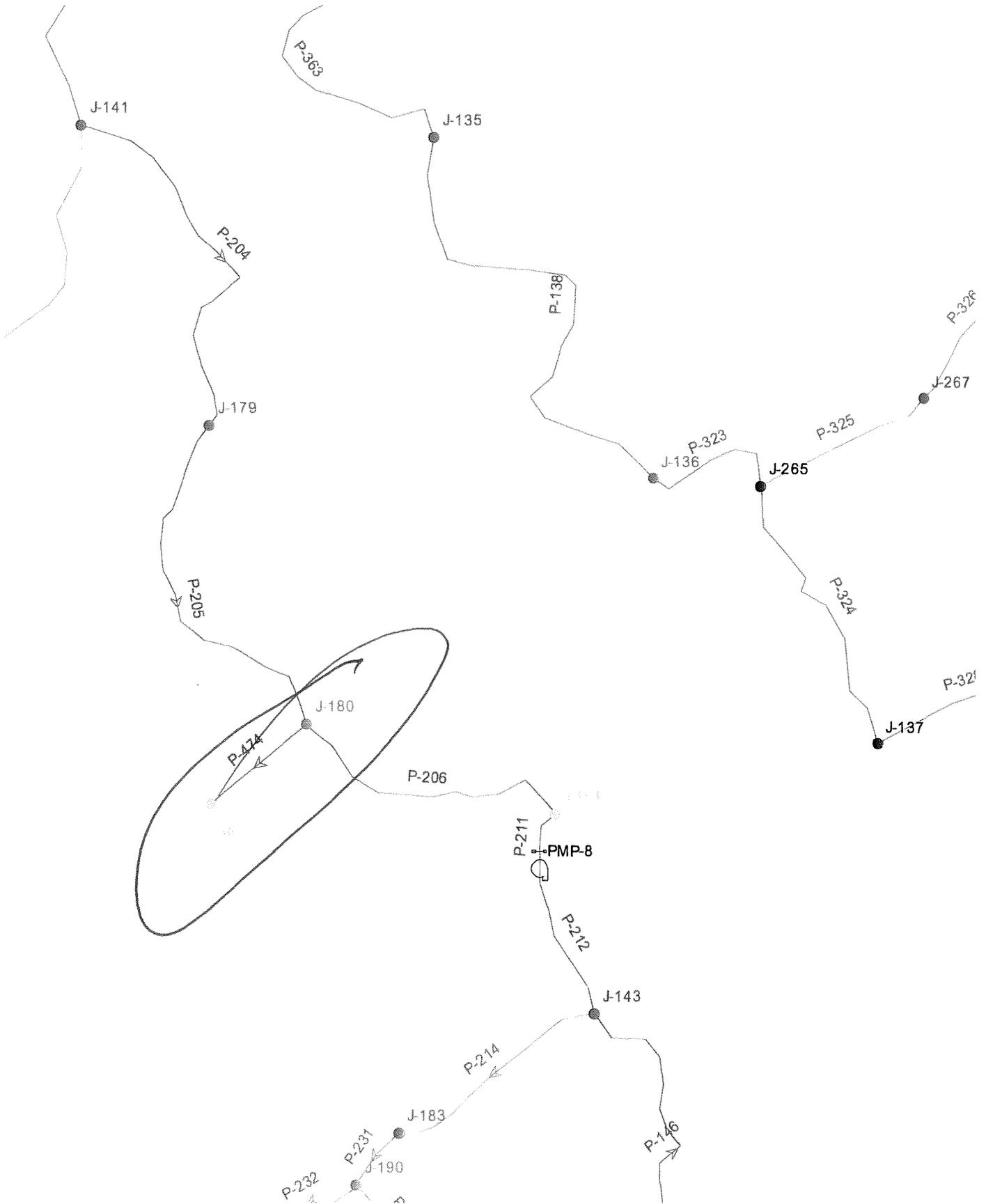
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

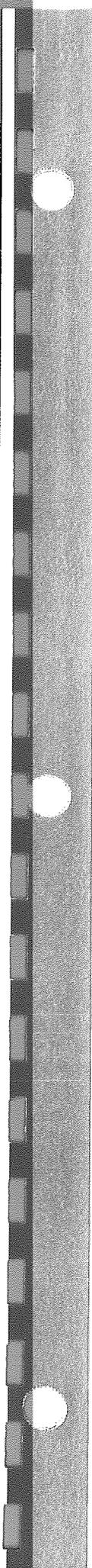
---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,341.88	87.35	201.88	25.00

Scenario: 2.5flush





## Detailed Report for Pressure Junction: J-48

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,162,834.63 ft	Elevation	1,040.00 ft
Y	255,384.31 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,576.16	231.97	536.16	0.00

## Detailed Report for Pressure Pipe: P-462

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,714.00 ft
From Node	J-48	To Node	J-357

Elevations			
From Elevation	1,040.00 ft	To Elevation	1,100.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	10.00	0.45	1,576.16	1,575.60	0.56	0.00	0.56	0.33

## Detailed Report for Pressure Junction: J-357

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
--------	-----------	--------

---

**Geometric Summary**

X	14,162,140.77 ft	Elevation	1,100.00 ft
Y	256,951.15 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

---

**User Data**

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,575.60	205.77	475.60	10.00

## Detailed Report for Pressure Pipe: P-462

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,714.00 ft
From Node	J-48	To Node	J-357

---

### Elevations

---

From Elevation	1,040.00 ft	To Elevation	1,100.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Headloss
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	\$/1000ft
0.00 Open	55.00	2.50	1,555.47	1,542.21	13.26	0.00	13.26	7.74

---

## Detailed Report for Pressure Junction: J-357

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

**Scenario Summary**

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

**Global Adjustments Summary**

<None>	Roughness	<None>
--------	-----------	--------

---

**Geometric Summary**

X	14,162,140.77 ft	Elevation	1,100.00 ft
Y	256,951.15 ft	Zone	Zone-1

---

**Demand Summary**

Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

---

**User Data**

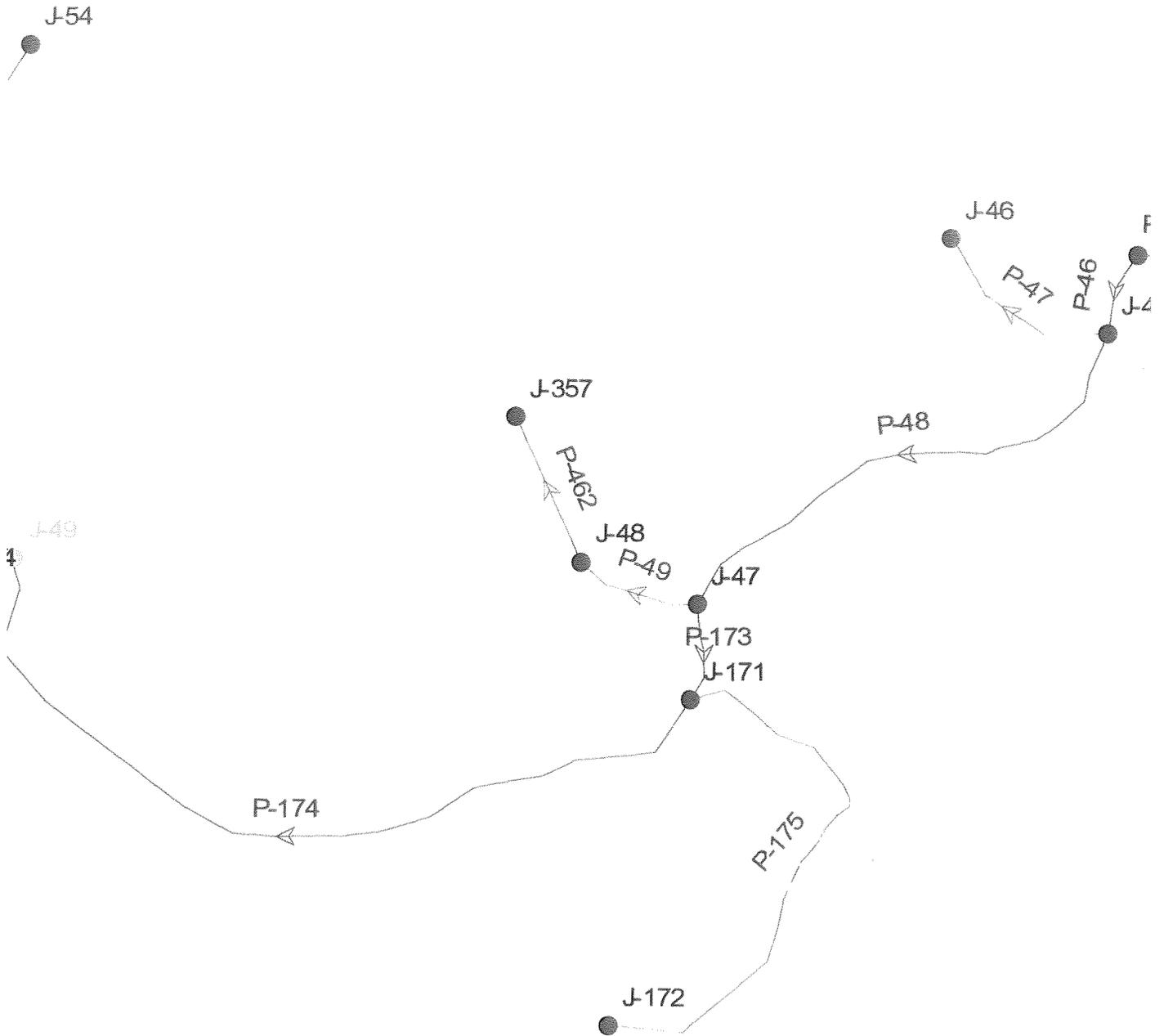
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

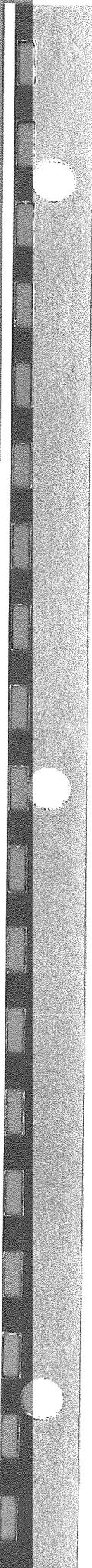
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**Calculated Results Summary**

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,542.21	191.32	442.21	55.00

Scenario: 2.5flush





## Detailed Report for Pressure Junction: J-186

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,164,746.45 ft	Elevation	1,335.00 ft
Y	177,451.39 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	15.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,921.12	253.59	586.12	15.00

## Detailed Report for Pressure Pipe: P-498

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	7,515.00 ft
From Node	J-186	To Node	J-388

Elevations			
From Elevation	1,335.00 ft	To Elevation	1,620.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Pipe Gradient	Headloss
(hr)	Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/ft/1000ft
0.00	Open	25.00	0.64	1,921.12	1,917.79	3.32	0.00	3.32	0.44

## Detailed Report for Pressure Junction: J-388

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,161,277.29 ft	Elevation	1,620.00 ft
Y	170,785.59 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,917.79	128.84	297.79	0.00

---

## Detailed Report for Pressure Pipe: P-501

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	6,097.00 ft
From Node	J-388	To Node	J-391

Elevations			
From Elevation	1,620.00 ft	To Elevation	1,684.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient	Headloss (\$/1000ft)
0.00	Open	10.00	0.26	1,917.79	1,917.30	0.49	0.00	0.49	0.08

## Detailed Report for Pressure Junction: J-391

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,155,415.82 ft	Elevation	1,684.00 ft
Y	169,108.36 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,917.30	100.94	233.30	10.00

---

## Detailed Report for Pressure Pipe: P-499

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,999.00 ft
From Node	J-388	To Node	J-389

Elevations			
From Elevation	1,620.00 ft	To Elevation	1,666.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (ft/1000ft)	
0.00	Open	15.00	0.38	1,917.79	1,917.28	0.52	0.00	0.52	0.17

## Detailed Report for Pressure Junction: J-389

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,162,283.62 ft	Elevation	1,666.00 ft
Y	167,960.78 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,917.28	108.72	251.28	10.00

## Detailed Report for Pressure Pipe: P-500

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,385.00 ft
From Node	J-389	To Node	J-390

Elevations			
From Elevation	1,666.00 ft	To Elevation	1,686.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (\$/1000ft)	Gradient
0.00	Open	5.00	0.51	1,917.28	1,915.71	1.57	0.00	1.57	0.66

## Detailed Report for Pressure Junction: J-390

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Geometric Summary			
X	14,163,784.30 ft	Elevation	1,686.00 ft
Y	166,107.00 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (Calculated) (gpm)
0.00	1,915.71	99.38	229.71	5.00

## Detailed Report for Pressure Junction: J-388

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,161,277.29 ft	Elevation	1,620.00 ft
Y	170,785.59 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,690.60	30.55	70.60	0.00

---

## Detailed Report for Pressure Pipe: P-498

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	7,515.00 ft
From Node	J-186	To Node	J-388

Elevations			
From Elevation	1,335.00 ft	To Elevation	1,620.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Open	100.00	2.55	1,733.93	1,690.60	43.33	0.00	43.33	5.77

## Detailed Report for Pressure Junction: J-390

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,163,784.30 ft	Elevation	1,686.00 ft
Y	166,107.00 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Head (Calculated) (ft)	Demand (gpm)
0.00	1,909.08	96.52	223.08	25.00

---

## Detailed Report for Pressure Pipe: P-500

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,385.00 ft
From Node	J-389	To Node	J-390

---

### Elevations

---

From Elevation	1,666.00 ft	To Elevation	1,686.00 ft
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---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge Status	Velocity (gpm)	Upstream Structure Hydraulic Grade (ft/s)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient Headloss (\$ft/1000ft)	
0.00	Open	25.00	2.55	1,939.96	1,909.08	30.88	0.00	30.88	12.95

---

## Detailed Report for Pump: middlefork bps

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,164,366.92 ft	Upstream Pipe	P-502
Y	178,553.80 ft	Downstream Pipe	P-503
Elevation	1,335.00 ft		

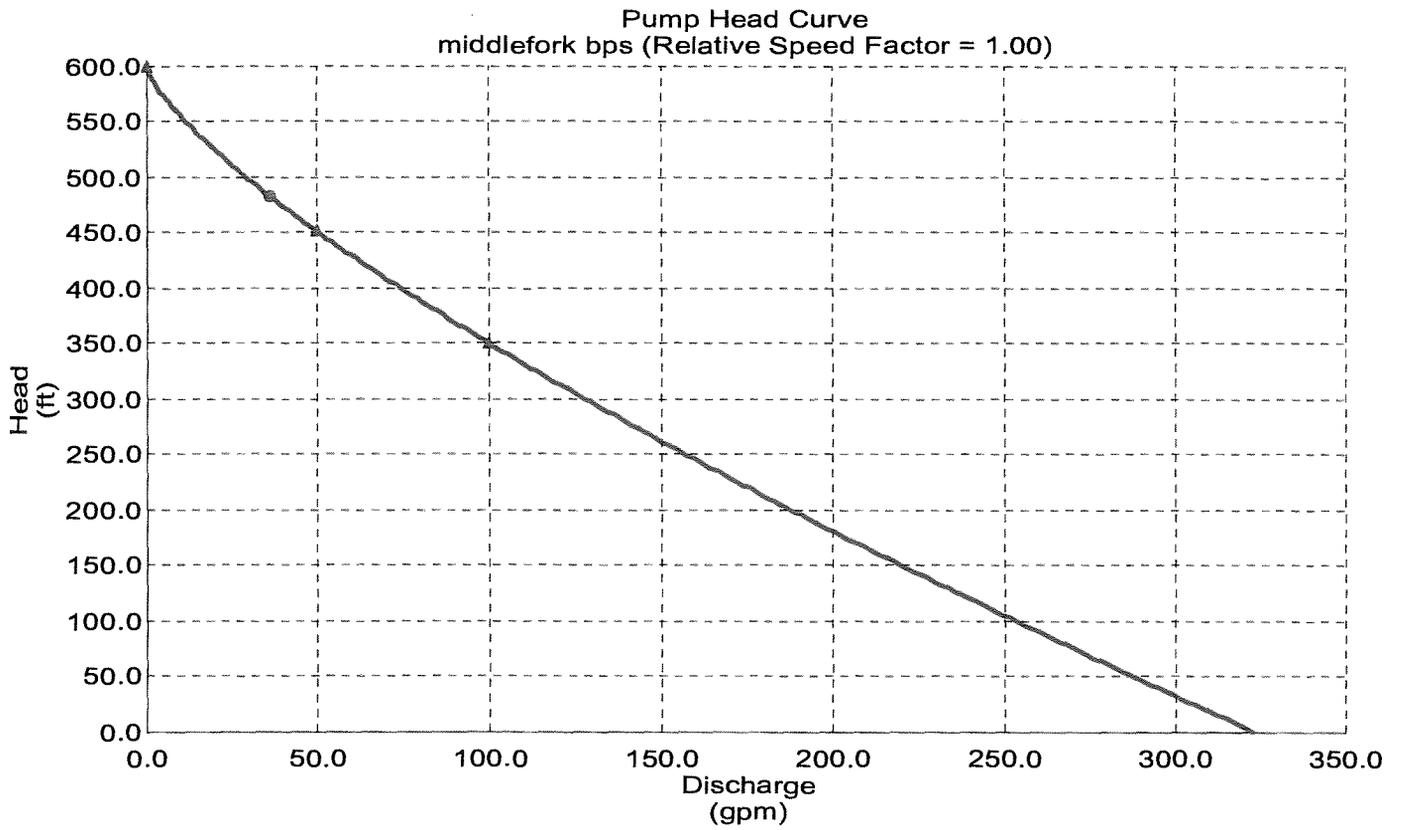
Pump Definition Summary	
Pump Definition	middlefork pump station

Initial Status			
Initial Pump Status	On	Initial Relative Speed Facto	1.00

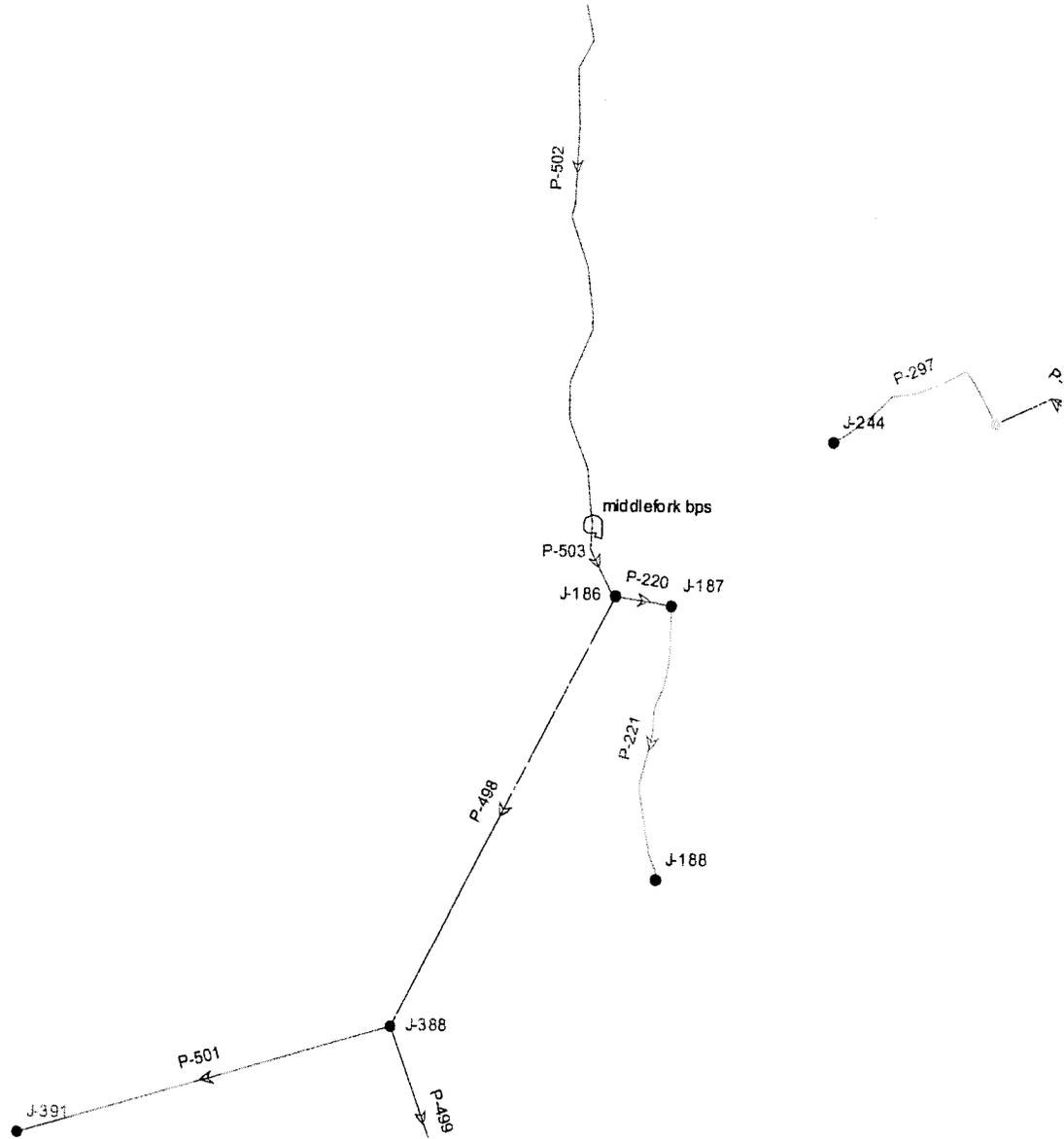
User Data			
Date Installed		Date Retired	
Inspection Date		Rated Power	0.0 Hp
Condition		Manufacturer	
Model		SCADA ID	
Serial Number		Existing	false
Metered	false		

Calculated Results Summary							
Time Control (hr)	Status	Intake Pump Grade (ft)	Discharge Pump Grade (ft)	Discharge (gpm)	Pump Head (ft)	Relative Speed	Calculated Water Power (Hp)
0.00	On	,464.14	1,946.10	36.60	181.96	1.00	4.45

# Detailed Report for Pump: middlefork bps



# Scenario: 2.5flush





## Detailed Report for Pressure Junction: J-392

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### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
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---

### Geometric Summary

X	14,156,915.39 ft	Elevation	1,300.00 ft
Y	193,965.53 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,444.29	62.43	144.29	10.00

## Detailed Report for Pressure Pipe: P-504

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	7,097.00 ft
From Node	J-90	To Node	J-392

---

### Elevations

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From Elevation	1,196.00 ft	To Elevation	1,300.00 ft
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---

### Initial Status

---

Initial Status	Oper
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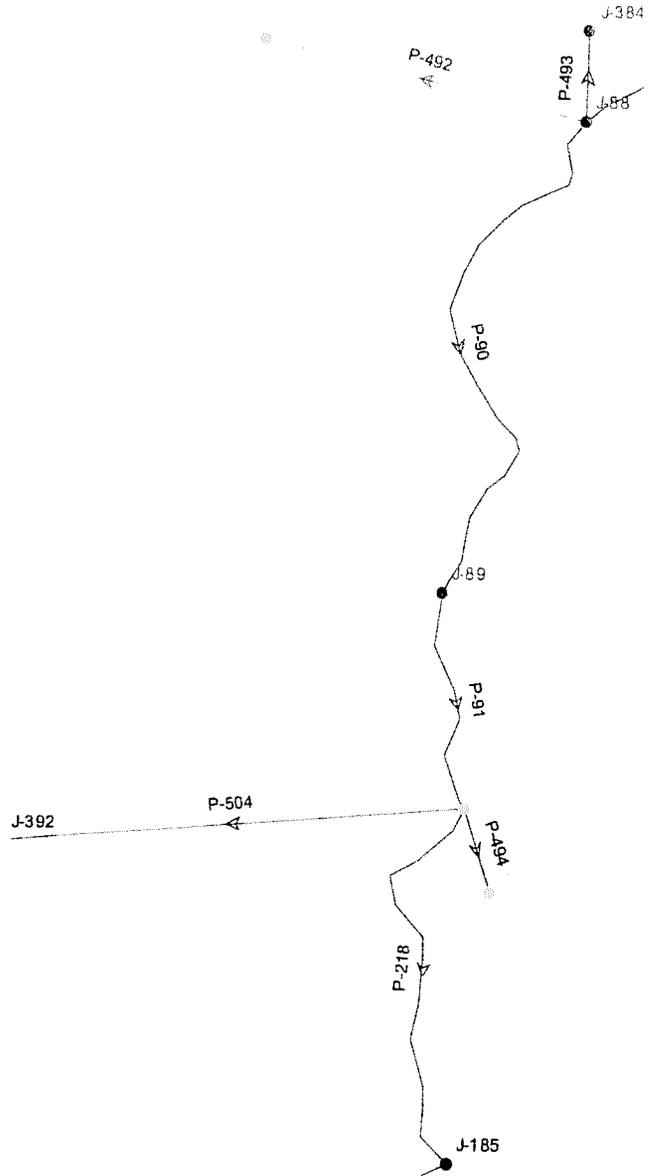
---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

# Scenario: peak hour demand



## Detailed Report for Pressure Junction: J-90

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### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

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X	14,163,988.34 ft	Elevation	1,196.00 ft
Y	194,547.28 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	15.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Pressure Hydraulic Grade (ft)	Pressure (psi)	Demand Head (Calculated) (ft)	Demand (gpm)
0.00	1,444.87	107.67	248.87	15.00

## Detailed Report for Pressure Junction: J-392

---

### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
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---

### Geometric Summary

X	14,156,915.39 ft	Elevation	1,300.00 ft
Y	193,965.53 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

---

### User Data

SCADA ID	false	Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,360.75	26.28	60.75
			100.00



## Detailed Report for Pressure Junction: J-88

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,165,731.34 ft	Elevation	1,136.00 ft
Y	204,831.07 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (Calculated) (gpm)
0.00	1,423.00	124.17	287.00	0.00

## Detailed Report for Pressure Pipe: P-492

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	5,056.00 ft
From Node	J-88	To Node	J-383
Elevations			
From Elevation	1,136.00 ft	To Elevation	1,200.00 ft
Initial Status			
Initial Status	Open		
User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft

## Detailed Report for Pressure Junction: J-383

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---



---

### Geometric Summary

---

X	14,160,818.26 ft	Elevation	1,200.00 ft
Y	206,025.01 ft	Zone	Zone-1

---



---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---



---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

### Calculated Results Summary

## Detailed Report for Pressure Pipe: P-492

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	5,056.00 ft
From Node	J-88	To Node	J-383

---

### Elevations

---

From Elevation	1,136.00 ft	To Elevation	1,200.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

## Detailed Report for Pressure Junction: J-383

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,160,818.26 ft	Elevation	1,200.00 ft
Y	206,025.01 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary			
Time	Calculated	Pressure	Pressure Demand

---

## Detailed Report for Pressure Pipe: P-493

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,354.00 ft
From Node	J-88	To Node	J-384

---

### Elevations

From Elevation	1,136.00 ft	To Elevation	1,145.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

Initial Status	Open
----------------	------

---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

## Detailed Report for Pressure Junction: J-384

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,165,779.32 ft	Elevation	1,145.00 ft
Y	206,183.91 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

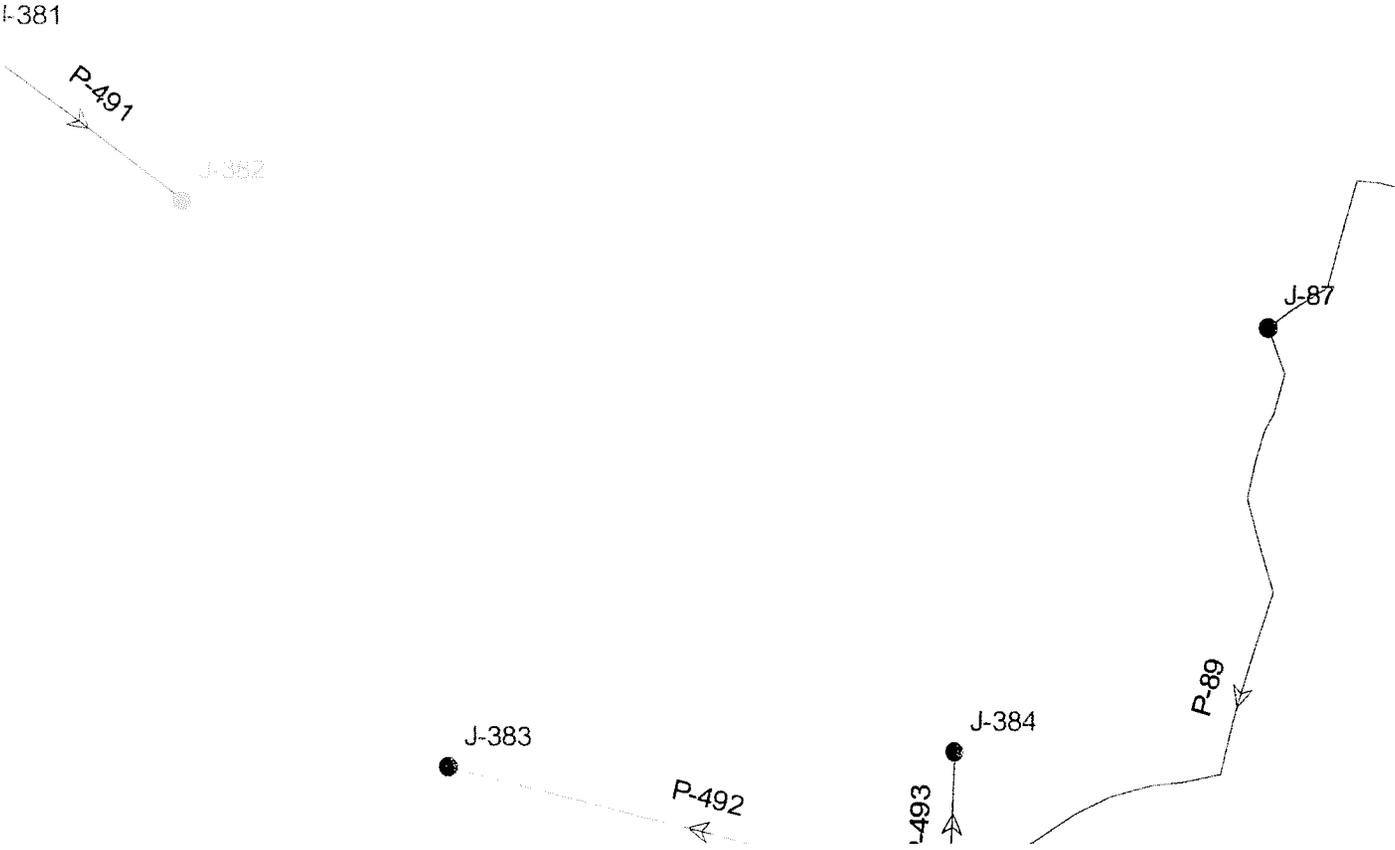
---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,417.59	117.94	272.59	5.00

Scenario: peak hour demand



## Detailed Report for Pressure Pipe: P-493

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,354.00 ft
From Node	J-88	To Node	J-384

---

### Elevations

---

From Elevation	1,136.00 ft	To Elevation	1,145.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

## Detailed Report for Pressure Junction: J-384

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,165,779.32 ft	Elevation	1,145.00 ft
Y	206,183.91 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---



---

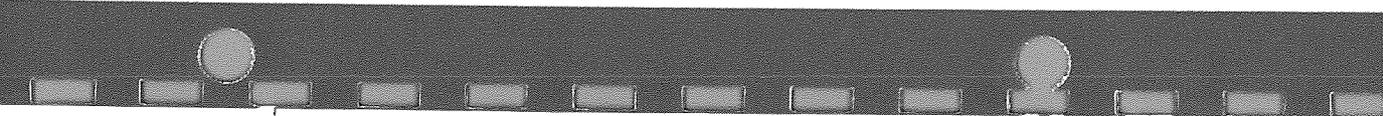
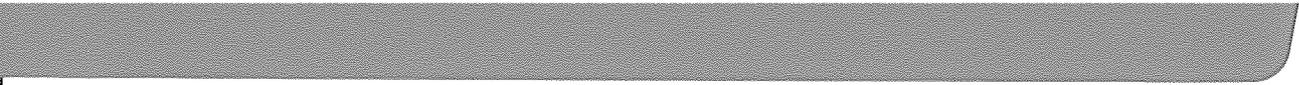
User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary	
Time Calculated	Pressure Pressure Demand



## Detailed Report for Pressure Junction: J-103

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Geometric Summary			
X	14,181,146.03 ft	Elevation	1,226.00 ft
Y	188,956.70 ft	Zone	Zone-1
Demand Summary			
Type	Base Flow (gpm)	Pattern	
Demand	0.00	Fixed	
User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false
Calculated Results Summary			

## Detailed Report for Pressure Pipe: P-495

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,466.00 ft
From Node	J-103	To Node	J-386
Elevations			
From Elevation	1,226.00 ft	To Elevation	1,300.00 ft
Initial Status			
Initial Status	Open		
User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft

## Detailed Report for Pressure Junction: J-386

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Geometric Summary			
X	14,183,610.89 ft	Elevation	1,300.00 ft
Y	189,040.88 ft	Zone	Zone-1
Demand Summary			
Type	Base Flow (gpm)	Pattern	
Demand	0.00	Fixed	
User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary			
Time	Calculated Pressure	Pressure Demand	

## Detailed Report for Pressure Pipe: P-496

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Pipe Characteristics			
Material	Ductile Iron	Hazen- Williams C	130.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,348.00 ft
From Node	J-386	To Node	J-387
Elevations			
From Elevation	1,300.00 ft	To Elevation	1,400.00 ft
Initial Status			
Initial Status	Open		
User Data			
Date Installed		Date Retired	
Installation Date		Nominal Diameter	2.0 in

## Detailed Report for Pressure Junction: J-387

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,185,305.77 ft	Elevation	1,400.00 ft
Y	190,665.14 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

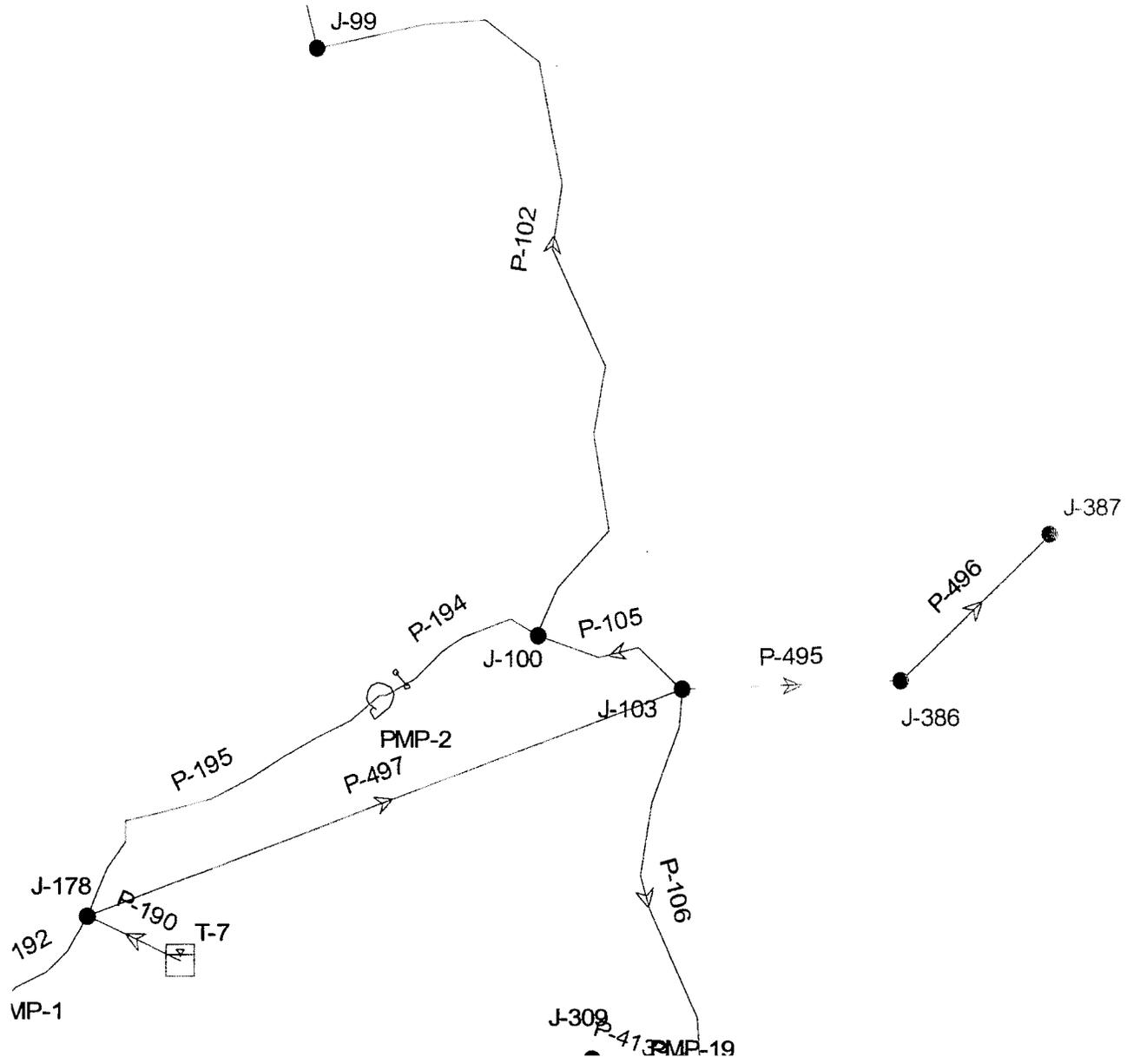
---

### Calculated Results Summary

---

Time Calculated Pressure Pressure Demand

# Scenario: peak hour demand



## Detailed Report for Pressure Pipe: P-496

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	Ductile Iron	Hazen- Willams C	130.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,348.00 ft
From Node	J-386	To Node	J-387

---

### Elevations

---

From Elevation	1,300.00 ft	To Elevation	1,400.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

## Detailed Report for Pressure Junction: J-387

**Note:**

The input data may have been modified since the last calculation was performed.  
 The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,185,305.77 ft	Elevation	1,400.00 ft
Y	190,665.14 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

## Detailed Report for Pressure Pipe: P-495

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,466.00 ft
From Node	J-103	To Node	J-386

---

### Elevations

---

From Elevation	1,226.00 ft	To Elevation	1,300.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

## Detailed Report for Pressure Junction: J-386

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,183,610.89 ft	Elevation	1,300.00 ft
Y	189,040.88 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
--------------	---------------------------------------	-------------------	---------------------------------------	-----------------

0.00	1,604.36	131.68	304.36	55.00
------	----------	--------	--------	-------



## Detailed Report for Pressure Pipe: P-460

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,846.00 ft
From Node	J-58	To Node	J-355

---

### Elevations

---

From Elevation	870.00 ft	To Elevation	860.00 ft
----------------	-----------	--------------	-----------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

## Detailed Report for Pressure Junction: J-355

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary		
	<None>	Roughness
		<None>

---



---

Geometric Summary			
X	14,184,309.26 ft	Elevation	860.00 ft
Y	250,861.25 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---



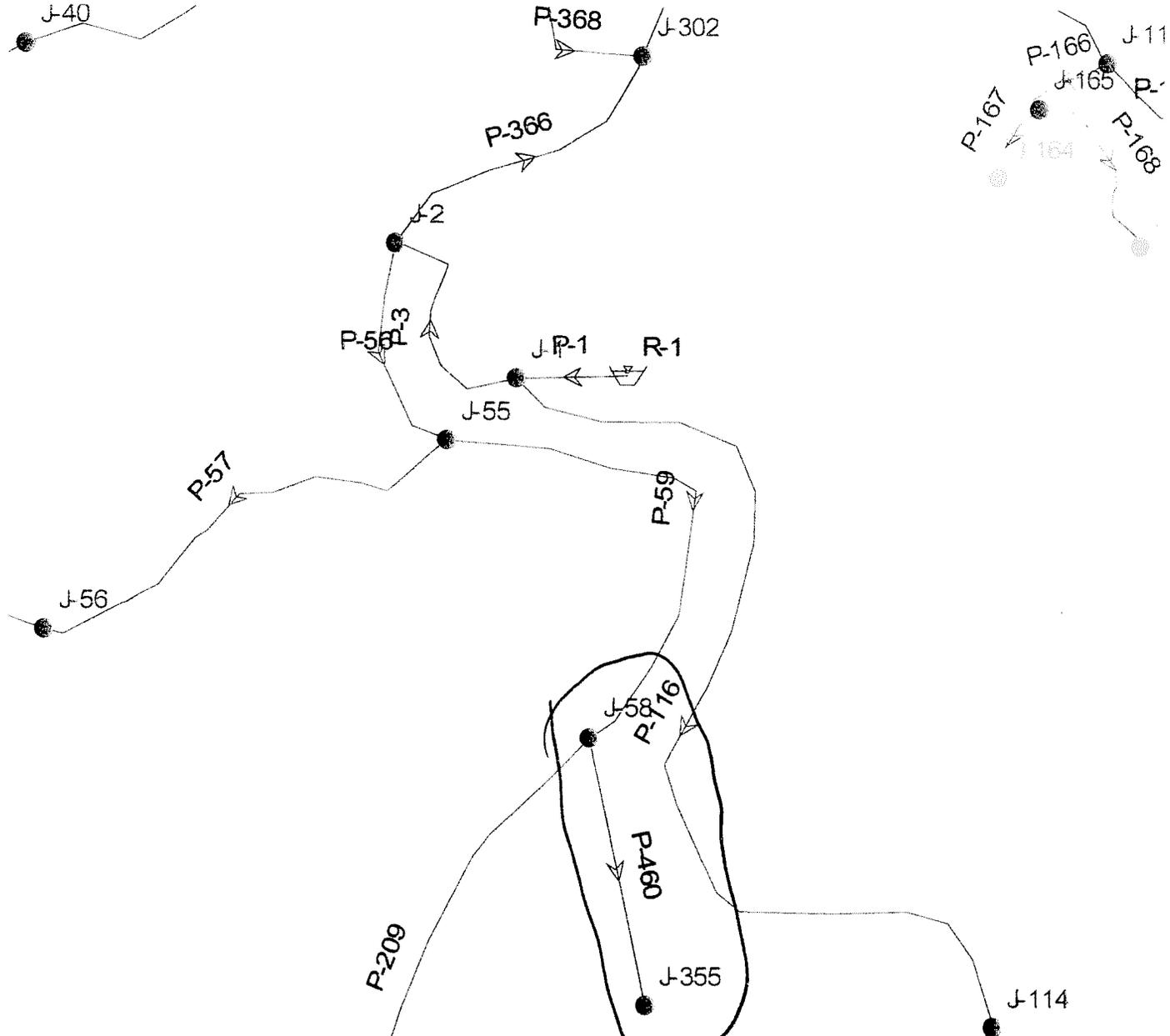
---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

# Scenario: peak hour demand



## Detailed Report for Pressure Junction: J-58

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,183,705.07 ft	Elevation	870.00 ft
Y	253,642.69 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	5.13	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (psi)	Pressure Head (Calculated) (ft)	Demand Head (Calculated) (ft)	Demand (gpm)
0.00	1,232.58	156.87	362.58	5.13

## Detailed Report for Pressure Junction: J-355

**Note:**

The input data may have been modified since the last calculation was performed.  
 The calculated results may be outdated.

Scenario Summary			
Scenario	2.5flush		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Base-Average Daily		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Geometric Summary			
X	14,184,309.26 ft	Elevation	860.00 ft
Y	250,861.25 ft	Zone	Zone-1
Demand Summary			
Type	Base Flow (gpm)	Pattern	
Demand	5.00	Fixed	
User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false
Calculated Results Summary			
Time	Calculated Pressure	Pressure	Demand



## Detailed Report for Pressure Pipe: P-494

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,301.00 ft
From Node	J-90	To Node	J-385

---

### Elevations

---

From Elevation	1,196.00 ft	To Elevation	1,225.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed	Date Retired		
Inspection Date	Nominal Diameter	0.0 ft	
Condition	Exterior Coating		
Lining	Pipe Class		
Existing	Metered	false	

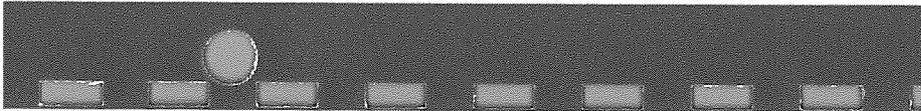
## Detailed Report for Pressure Junction: J-385

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	2.5flush		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Base-Average Daily		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Geometric Summary			
X	14,164,402.23 ft	Elevation	1,225.00 ft
Y	193,313.39 ft	Zone	Zone-1
Demand Summary			
Type	Base Flow (gpm)	Pattern	
Demand	25.00	Fixed	
User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false
Calculated Results Summary			

YEADDIS & COOTS  
HOLLOW



## Detailed Report for Pressure Junction: J-274

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,229,976.23 ft	Elevation	1,111.00 ft
Y	232,126.47 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

**Calculated Results Summary**

## Detailed Report for Pressure Pipe: P-482

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	5,322.00 ft
From Node	J-274	To Node	J-374
Elevations			
From Elevation	1,111.00 ft	To Elevation	1,233.00 ft
Initial Status			
Initial Status	Open		
User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft

## Detailed Report for Pressure Junction: J-374

**Note:**

The input data may have been modified since the last calculation was performed.  
 The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Geometric Summary			
X	14,233,469.64 ft	Elevation	1,233.00 ft
Y	236,140.88 ft	Zone	Zone-1
Demand Summary			
Type	Base Flow (gpm)	Pattern	
Demand	15.00	Fixed	
User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false
Calculated Results Summary			

## Detailed Report for Pressure Pipe: P-483

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,337.00 ft
From Node	J-374	To Node	J-375
Elevations			
From Elevation	1,233.00 ft	To Elevation	1,490.00 ft
Initial Status			
Initial Status	Open		
User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft

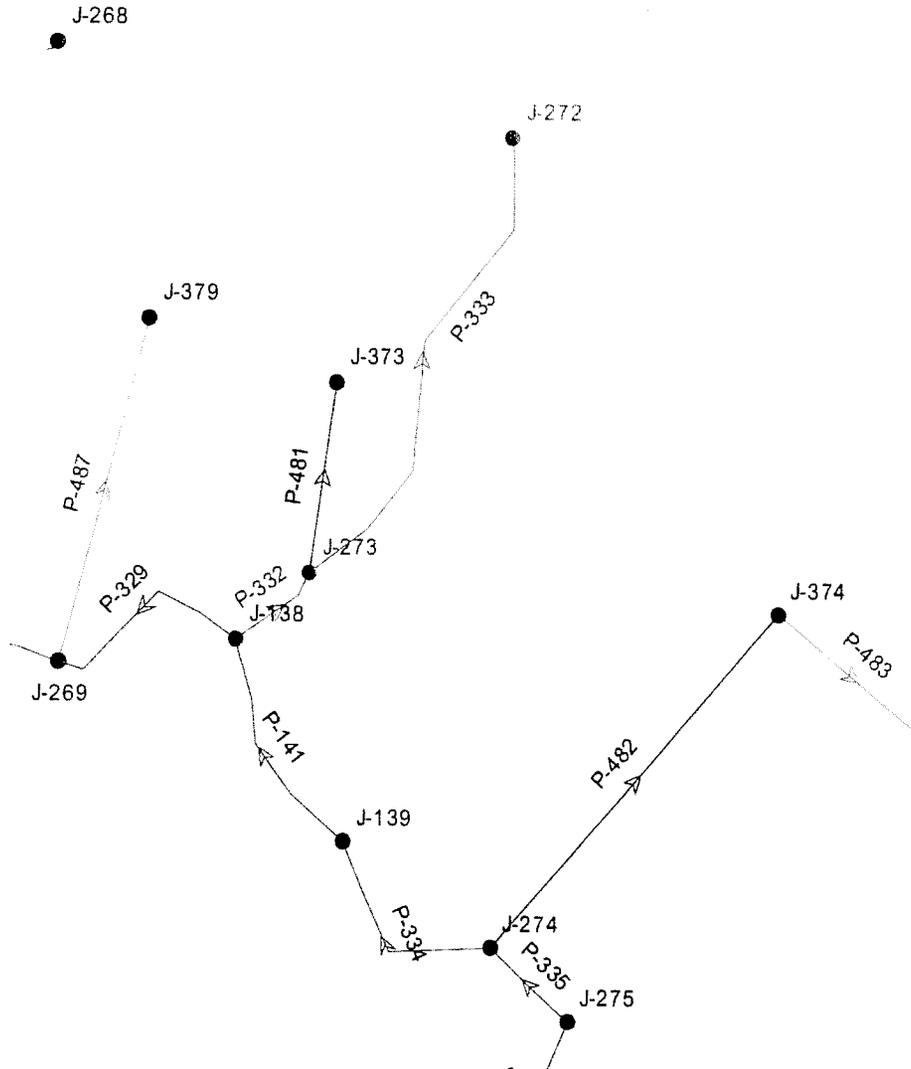
## Detailed Report for Pressure Junction: J-375

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Geometric Summary			
X	14,235,279.28 ft	Elevation	1,490.00 ft
Y	234,662.27 ft	Zone	Zone-1
Demand Summary			
Type	Base Flow (gpm)	Pattern	
Demand	10.00	Fixed	
User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false
Calculated Results Summary			

# Scenario: peak hour demand



## Detailed Report for Pressure Pipe: P-482

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	4.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	5,322.00 ft
From Node	J-274	To Node	J-374

---

### Elevations

---

From Elevation	1,111.00 ft	To Elevation	1,233.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

## Detailed Report for Pressure Junction: J-374

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,233,469.64 ft	Elevation	1,233.00 ft
Y	236,140.88 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	100.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1627.39	170.63	394.39	100.00

## Detailed Report for Pressure Pipe: P-483

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	3.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,337.00 ft
From Node	J-374	To Node	J-375

---

### Elevations

---

From Elevation	1,233.00 ft	To Elevation	1,490.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

## Detailed Report for Pressure Junction: J-375

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,235,279.28 ft	Elevation	1,490.00 ft
Y	234,662.27 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	55.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1644.04	67.04	154.04	55.00

JOHN H. LEWIS

## Detailed Report for Pressure Junction: J-3

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,184,729.50 ft	Elevation	856.00 ft
Y	262,345.16 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
--------------	------------------------------------	-------------------	-----------------------	-----------------

---

0.00	1.231	31.162	38.275	31.000
------	-------	--------	--------	--------

## Detailed Report for Pressure Pipe: P-459

**Note:**

The input data may have been modified since the last calculation was performed.  
 The calculated results may be outdated.

Scenario Summary			
Scenario	peak hour demand		
Active Topology Alternative	Base-Active Topology		
Physical Alternative	Base-Physical		
Demand Alternative	Demand-peak hour demand		
Initial Settings Alternative	Base-Initial Settings		
Operational Alternative	Base-Operational		
Age Alternative	Base-Age Alternative		
Constituent Alternative	Base-Constituent		
Trace Alternative	Base-Trace Alternative		
Fire Flow Alternative	Base-Fire Flow		
Capital Cost Alternative	Base-Capital Cost		
Energy Cost Alternative	Base-Energy Cost		
User Data Alternative	Base-User Data		
Global Adjustments Summary			
	<None>	Roughness	<None>
Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,073.00 ft
From Node	J-3	To Node	J-354
Elevations			
From Elevation	856.00 ft	To Elevation	1,114.00 ft
Initial Status			
Initial Status	Open		
User Data			
Date Installed		Date Retired	

## Detailed Report for Pressure Junction: J-354

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,186,780.96 ft	Elevation	1,114.00 ft
Y	262,640.68 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	5.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

## Detailed Report for Pressure Junction: J-354

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,186,780.96 ft	Elevation	1,114.00 ft
Y	262,640.68 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	30.00	Fixed

---

### User Data

---

SCADA ID	Existing	false
Hydrant Location	false	Sampling Point
		false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1403.03	24.58	70.03	30.00

## Detailed Report for Pressure Pipe: P-459

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,073.00 ft
From Node	J-3	To Node	J-354

---

### Elevations

---

From Elevation	856.00 ft	To Elevation	1,114.00 ft
----------------	-----------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

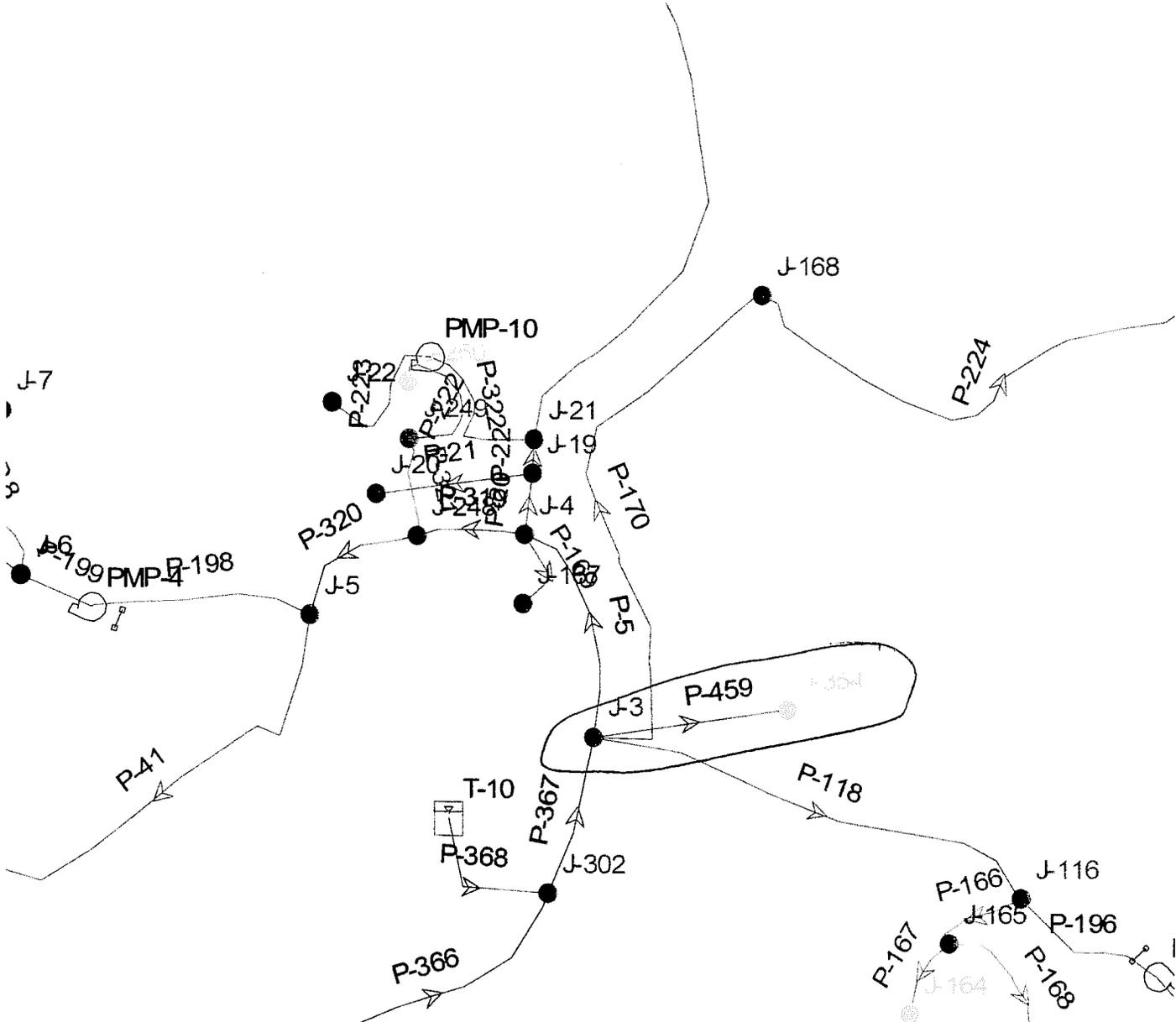
---

### User Data

---

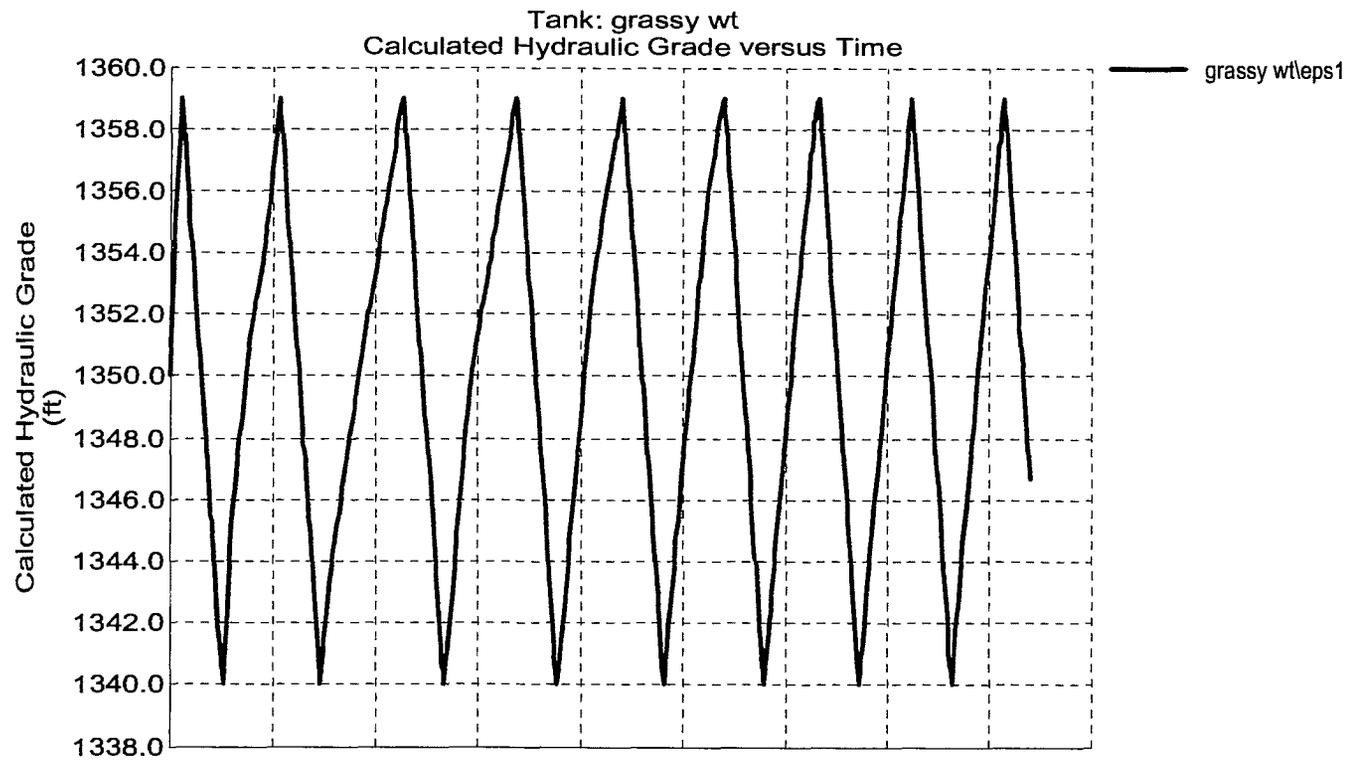
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false

Scenario: 2.5flush

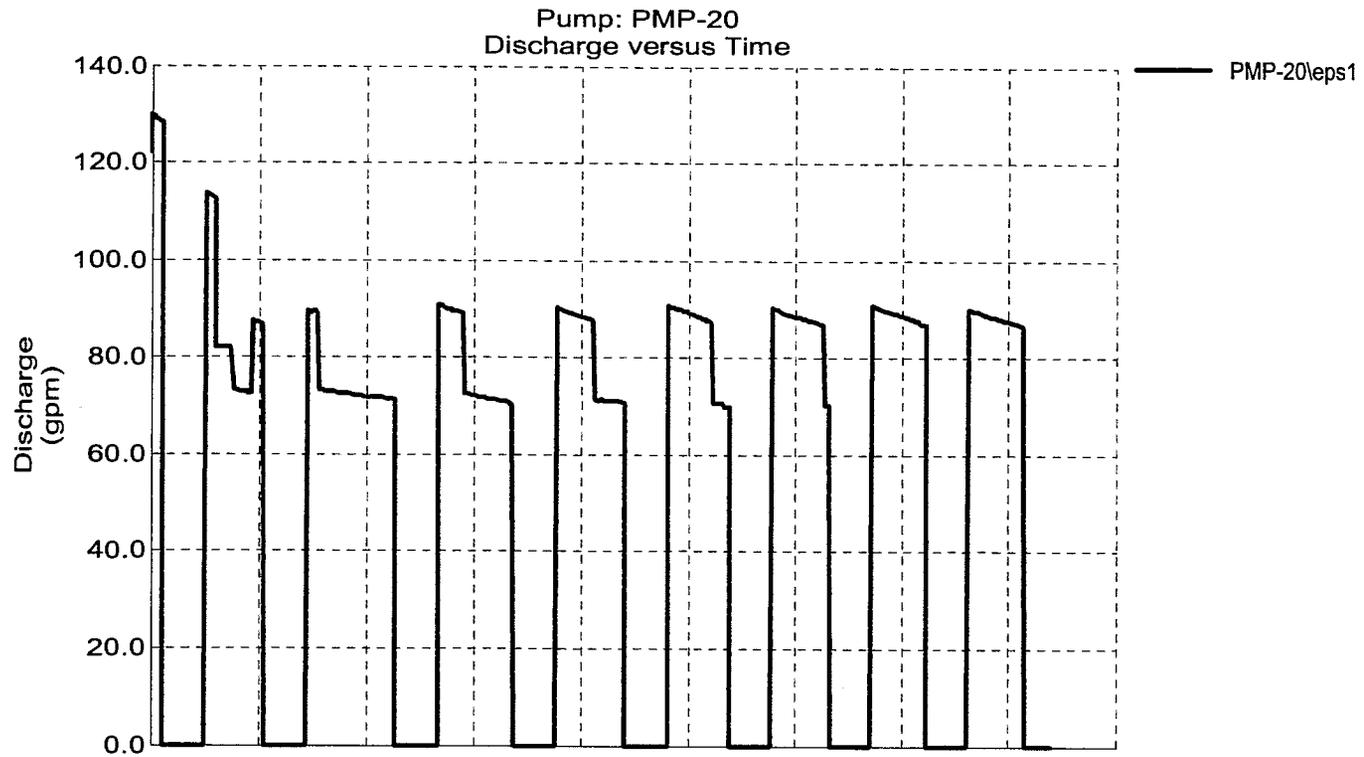


**WATER TANKS EPS  
SCENARIO**

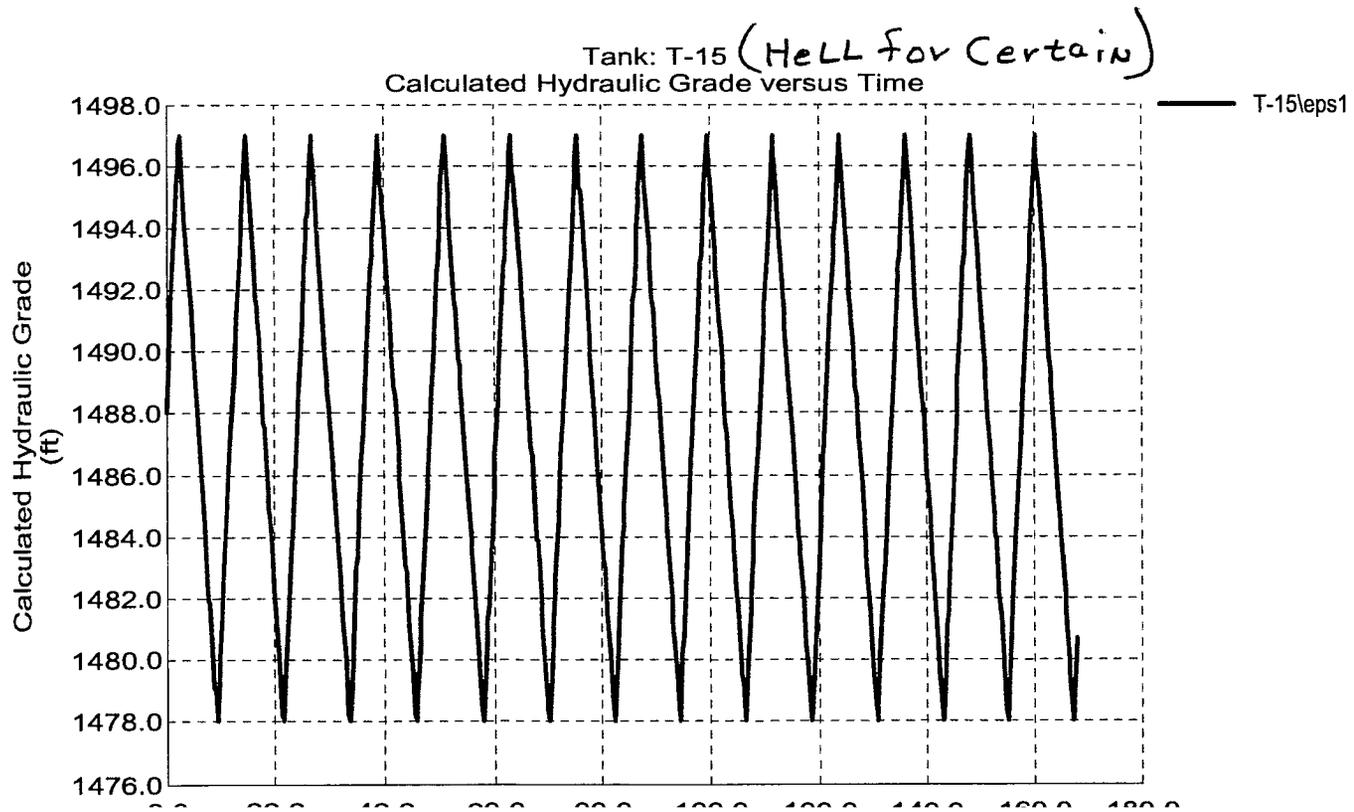
# Graph



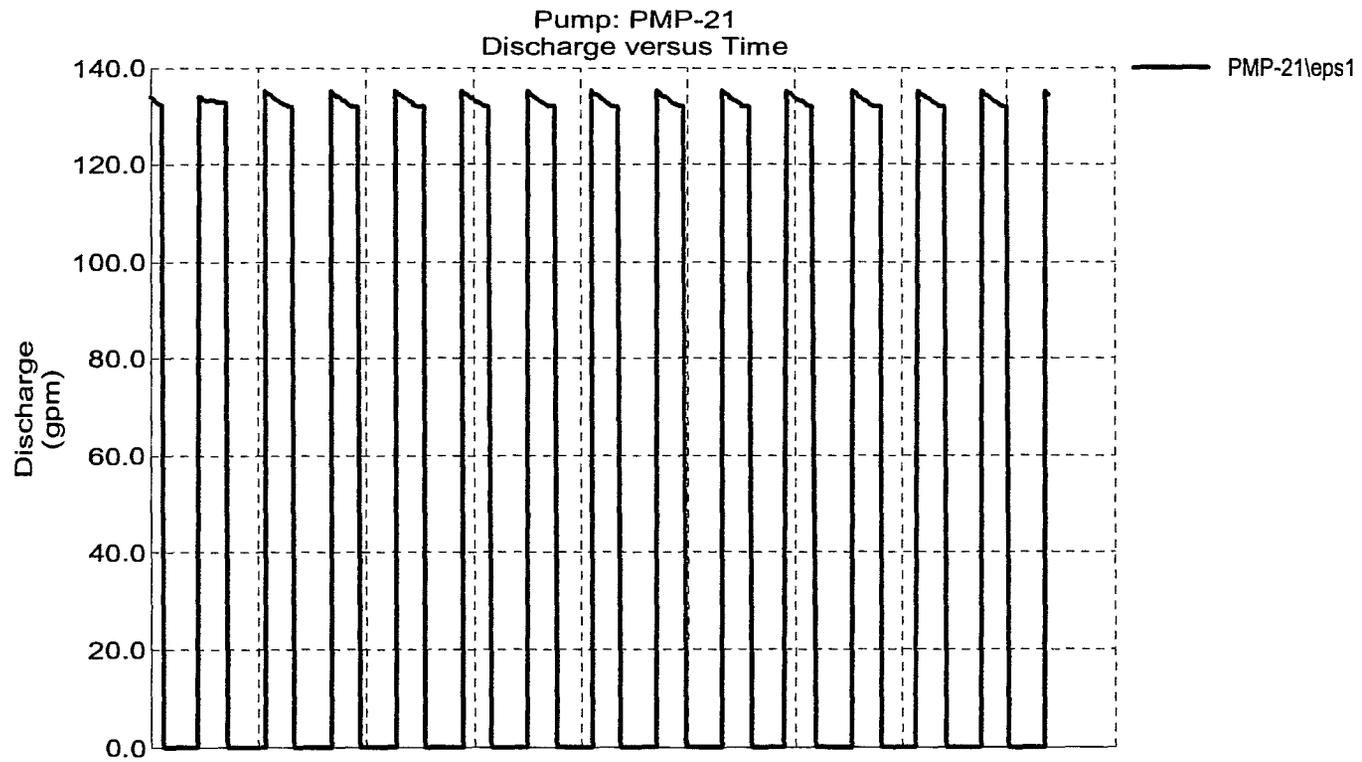
# Graph



# Graph



# Graph



**HYDEN – LESLIE COUNTY  
WATER DISTRICT**

**ADDITIONAL HYDRAULIC INFORMATION**

**AS REQUESTED BY  
MARK RASCHE, P.E. DOW**

**PREPARED BY SISLER – MAGGARD  
ENGINEERING**

**8/26/13**

**SUNKIST  
2" WATERLINE**

## Detailed Report for Pressure Junction: J-327

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,194,577.32 ft	Elevation	1,050.00 ft
Y	295,000.72 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,345.24	127.74	295.24	0.00

## Detailed Report for Pressure Pipe: P-505

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	600.00 ft
From Node	J-327	To Node	J-393

Elevations			
From Elevation	1,050.00 ft	To Elevation	1,142.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge Status	Velocity (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (ft/1000ft)
0.00	Open	2.00	0.20	1,345.24	1,345.17	0.07	0.00	0.07	0.12

## Detailed Report for Pressure Junction: J-393

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,195,932.14 ft	Elevation	1,142.00 ft
Y	294,073.49 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	2.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,345.17	87.90	203.17	2.00

## Detailed Report for Pressure Pipe: P-505

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	600.00 ft
From Node	J-327	To Node	J-393

Elevations			
From Elevation	1,050.00 ft	To Elevation	1,142.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss	
(hr)	Status (gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/1000ft	
0.00	Open	25.00	2.55	1,334.77	1,327.00	7.77	0.00	7.77	12.95

## Detailed Report for Pressure Junction: J-393

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,195,932.14 ft	Elevation	1,142.00 ft
Y	294,073.49 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

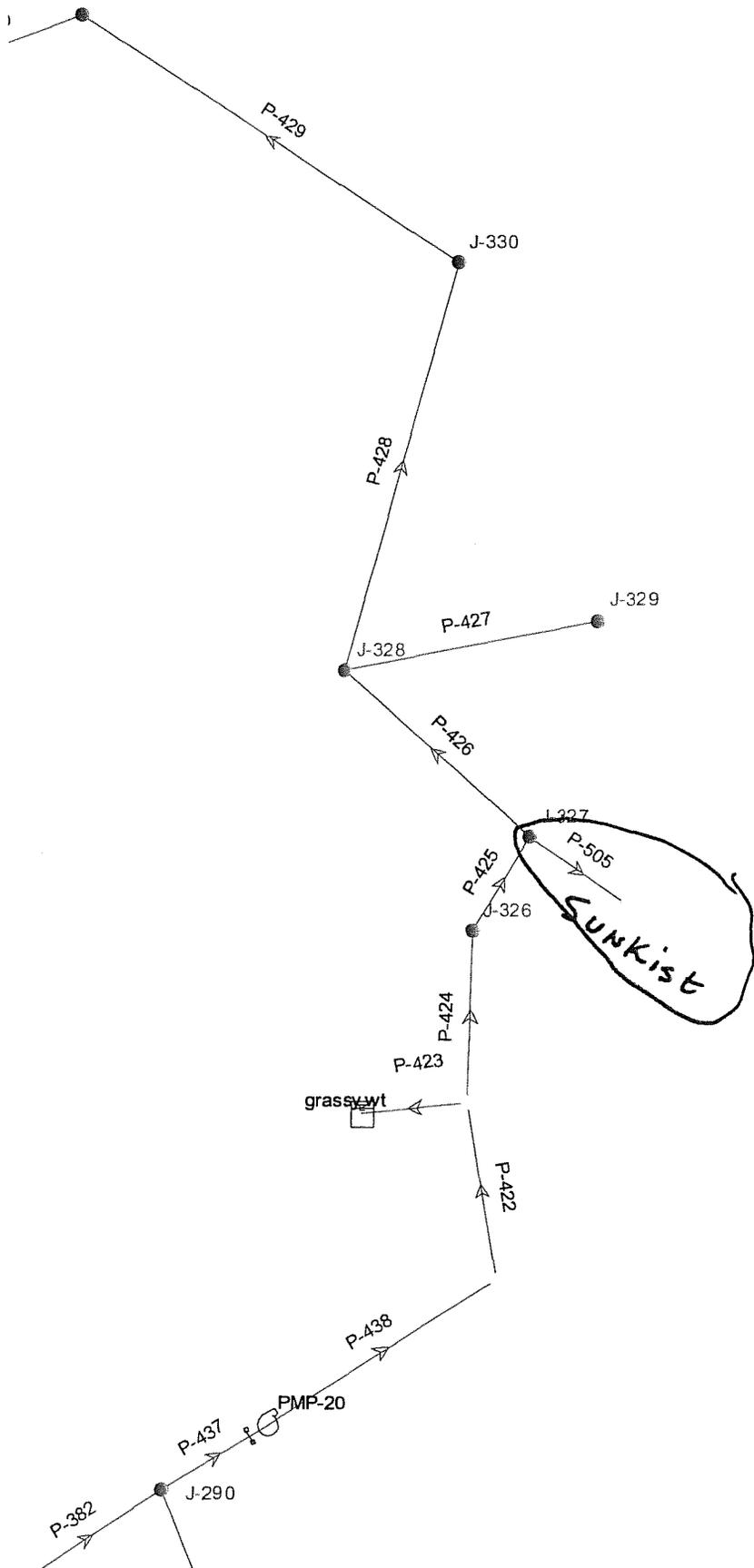
### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand Head (Calculated) (gpm)
0.00	1,327.00	80.04	185.00	25.00

---

Scenario: 2.5flush



**APOLLO  
2" WATERLINE**

## Detailed Report for Pressure Junction: J-328

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### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,192,019.74 ft	Elevation	1,023.00 ft
Y	297,335.02 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,338.44	136.48	315.44	0.00

---

## Detailed Report for Pressure Pipe: P-506

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	450.00 ft
From Node	J-328	To Node	J-394

Elevations			
From Elevation	1,023.00 ft	To Elevation	1,079.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Open	2.00	0.20	1,338.44	1,338.39	0.05	0.00	0.05	0.12

## Detailed Report for Pressure Junction: J-394

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,191,329.24 ft	Elevation	1,079.00 ft
Y	296,479.02 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	2.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,338.39	112.22	259.39	2.00

## Detailed Report for Pressure Pipe: P-506

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	450.00 ft
From Node	J-328	To Node	J-394

Elevations			
From Elevation	1,023.00 ft	To Elevation	1,079.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	25.00	2.55	1,322.02	1,316.20	5.83	0.00	5.83	12.95

## Detailed Report for Pressure Junction: J-394

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

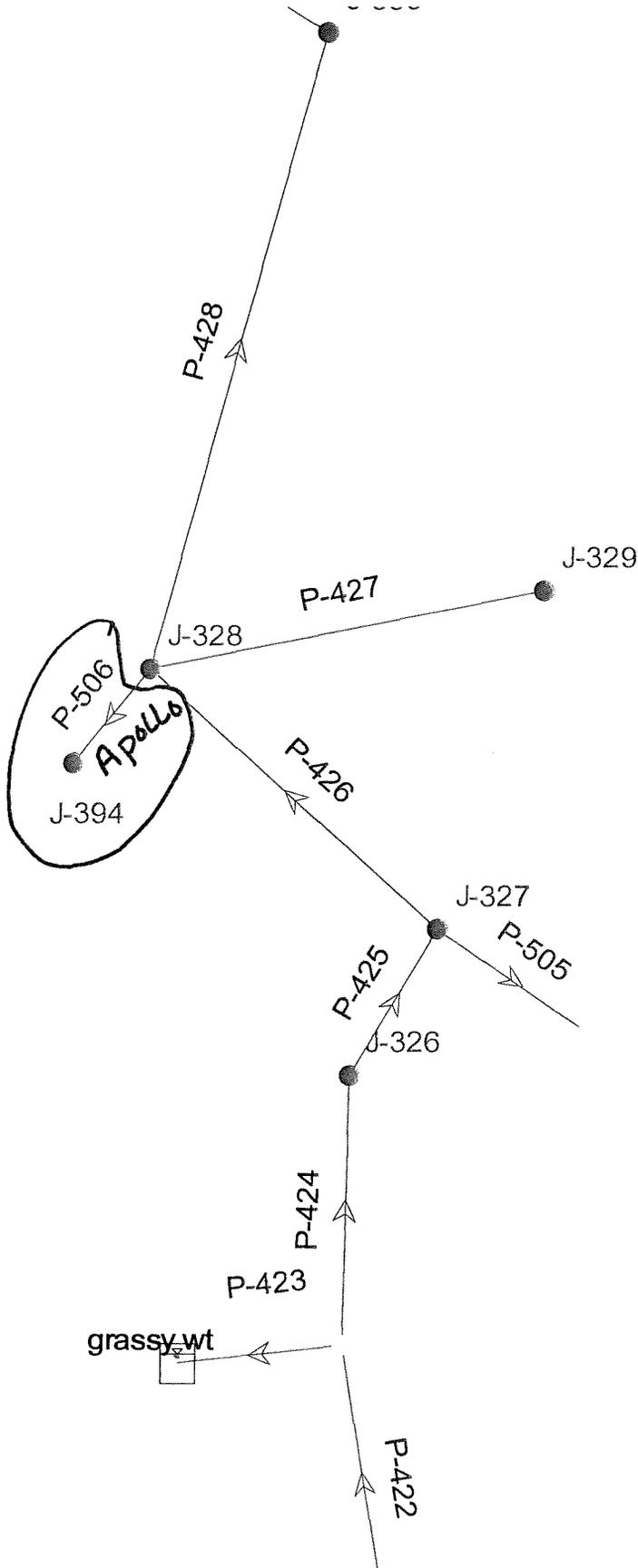
Geometric Summary			
X	14,191,329.24 ft	Elevation	1,079.00 ft
Y	296,479.02 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,316.20	102.62	237.20	25.00

Scenario: 2.5flush



**VONN LANE  
2" WATERLINE**

## Detailed Report for Pressure Junction: J-330

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### Scenario Summary

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Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,193,603.00 ft	Elevation	980.00 ft
Y	303,079.41 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,326.64	149.98	346.64	0.00

---

## Detailed Report for Pressure Pipe: P-507

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,600.00 ft
From Node	J-330	To Node	J-395

Elevations			
From Elevation	980.00 ft	To Elevation	1,050.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Pipe Gradient (ft/1000ft)	
0.00	Open	4.00	0.41	1,326.64	1,325.95	0.70	0.00	0.70	0.43

## Detailed Report for Pressure Junction: J-395

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,197,239.45 ft	Elevation	1,050.00 ft
Y	303,888.07 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	4.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,325.95	119.39	275.95	4.00

## Detailed Report for Pressure Pipe: P-507

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### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,600.00 ft
From Node	J-330	To Node	J-395

---

### Elevations

---

From Elevation	980.00 ft	To Elevation	1,050.00 ft
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---

### Initial Status

---

Initial Status	Open
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---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Pipe Gradient \$/1000ft	
0.00	Open	25.00	2.55	1,300.23	1,279.51	20.72	0.00	20.72	12.95

---

## Detailed Report for Pressure Junction: J-395

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,197,239.45 ft	Elevation	1,050.00 ft
Y	303,888.07 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

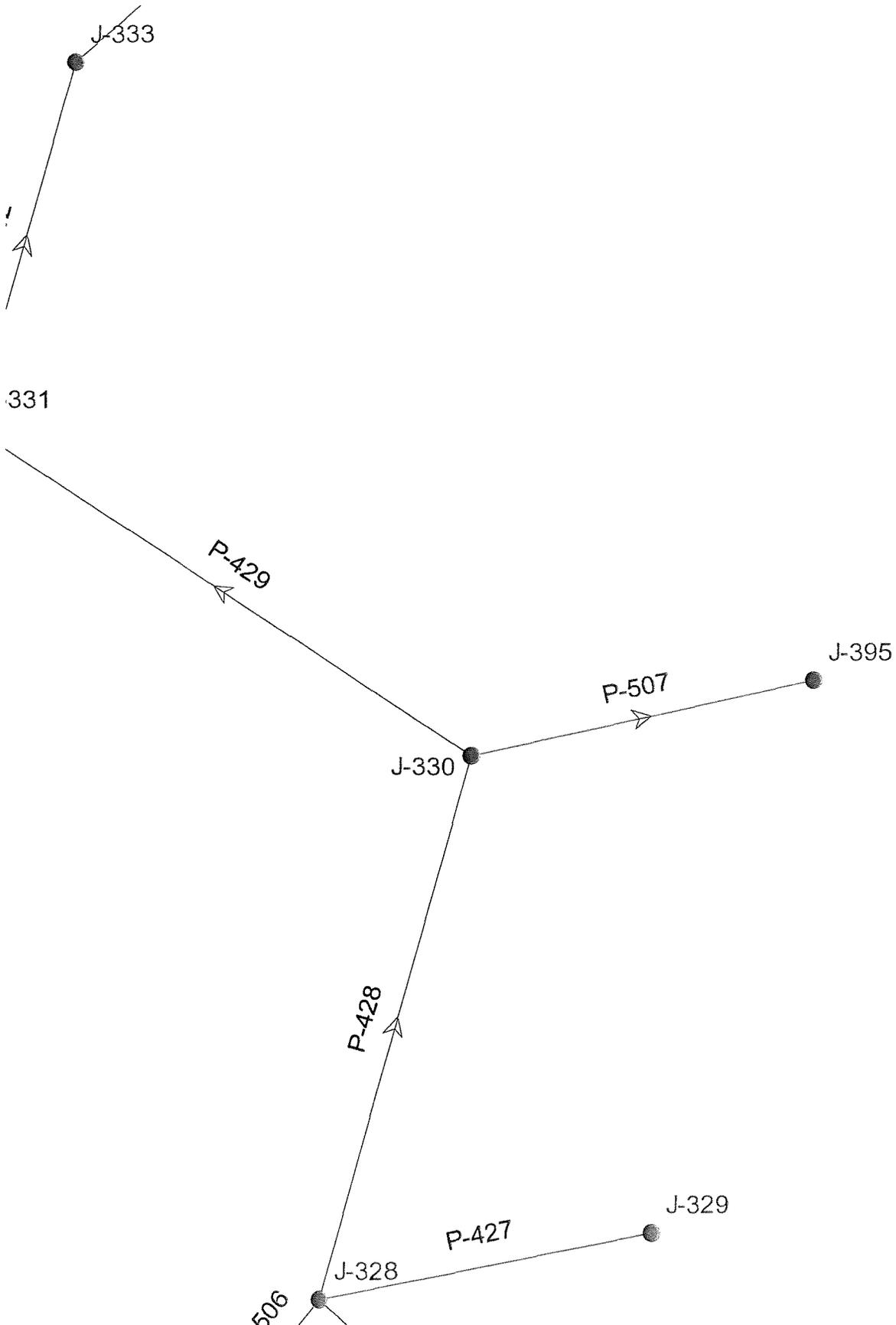
---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,279.51	99.30	229.51	25.00

---

Scenario: 2.5flush



**CHOCTAW  
2" WATERLINE**

**IMPALA  
2" WATERLINE**

## Detailed Report for Pressure Junction: J-333

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,189,408.88 ft	Elevation	985.00 ft
Y	310,483.19 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,304.61	138.28	319.61	0.00

## Detailed Report for Pressure Pipe: P-508

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,100.00 ft
From Node	J-333	To Node	J-396

Elevations			
From Elevation	985.00 ft	To Elevation	1,131.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (ft/1000ft)	
0.00	Open	4.00	0.41	1,304.61	1,304.13	0.48	0.00	0.48	0.43

## Detailed Report for Pressure Junction: J-396

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

Global Adjustments Summary			
	<None>	Roughness	<None>

---

Geometric Summary			
X	14,191,366.25 ft	Elevation	1,131.00 ft
Y	308,194.73 ft	Zone	Zone-1

---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	4.00	Fixed

---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,304.13	74.91	173.13	4.00

---

## Detailed Report for Pressure Pipe: P-509

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	Ductile Iron	Hazen- Williams C	130.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,500.00 ft
From Node	J-333	To Node	J-397

Elevations			
From Elevation	985.00 ft	To Elevation	1,160.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Gradient (ft/1000ft)
0.00	Open	4.00	0.41	1,304.61	1,303.76	0.85	0.00	0.85	0.57

## Detailed Report for Pressure Junction: J-397

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary		
	<None>	Roughness
		<None>

---



---

Geometric Summary			
X	14,192,383.97 ft	Elevation	1,160.00 ft
Y	309,952.62 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	4.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,303.76	62.20	143.76	4.00

---

## Detailed Report for Pressure Pipe: P-509

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### Scenario Summary

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Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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### Pipe Characteristics

---

Material	Ductile Iron	Hazen- Williams C	130.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,500.00 ft
From Node	J-333	To Node	J-397

---

### Elevations

---

From Elevation	985.00 ft	To Elevation	1,160.00 ft
----------------	-----------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient \$/1000ft	
0.00	Open	25.00	2.55	1,278.91	1,253.59	25.31	0.00	25.31	16.88

---

## Detailed Report for Pressure Junction: J-397

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,192,383.97 ft	Elevation	1,160.00 ft
Y	309,952.62 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,253.59	40.49	93.59	25.00

---

## Detailed Report for Pressure Pipe: P-508

---

### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,100.00 ft
From Node	J-333	To Node	J-396

---

### Elevations

From Elevation	985.00 ft	To Elevation	1,131.00 ft
----------------	-----------	--------------	-------------

---

### Initial Status

Initial Status	Open
----------------	------

---

### User Data

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	25.00	2.55	1,278.91	1,264.67	14.24	0.00	14.24	12.95

## Detailed Report for Pressure Junction: J-396

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,191,366.25 ft	Elevation	1,131.00 ft
Y	308,194.73 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

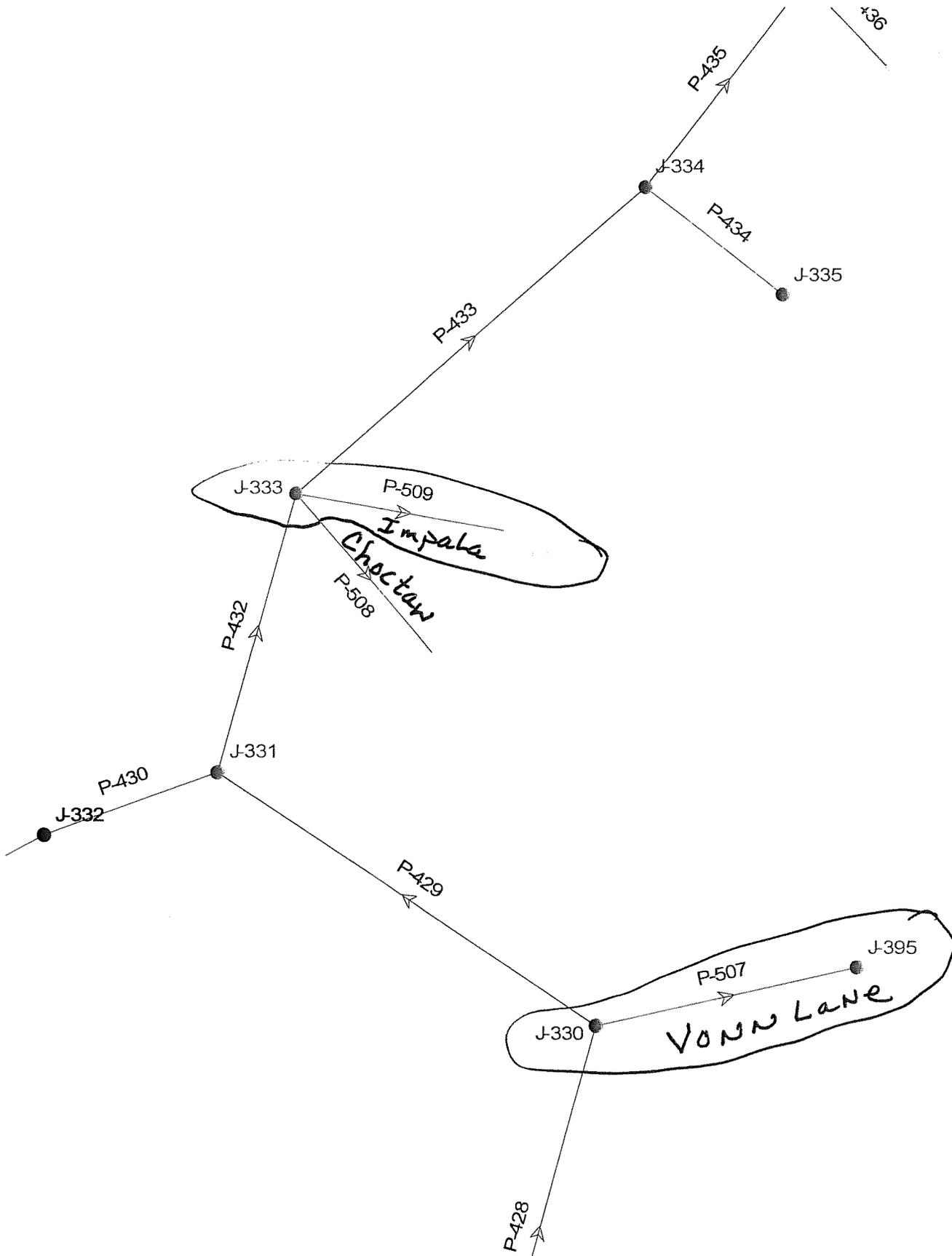
### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,264.67	57.83	133.67	25.00

---

Scenario: 2.5flush



**TOULOUSE ROAD  
2" WATERLINE**

## Detailed Report for Pressure Junction: J-398

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

---

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---



---

Global Adjustments Summary			
	<None>	Roughness	<None>

---



---

Geometric Summary			
X	14,196,991.50 ft	Elevation	1,240.00 ft
Y	319,389.73 ft	Zone	Zone-1

---



---

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---



---

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---



---

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,291.29	22.19	51.29	25.00

---

## Detailed Report for Pressure Pipe: P-510

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,500.00 ft
From Node	J-336	To Node	J-398

Elevations			
From Elevation	1,150.00 ft	To Elevation	1,240.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Pipe Gradient (\$ft/1000ft)
0.00	Open	25.00	2.55	1,310.71	1,291.29	19.42	0.00	19.42	12.95

## Detailed Report for Pressure Junction: J-336

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,196,505.33 ft	Elevation	1,150.00 ft
Y	317,738.21 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	1.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,310.71	69.53	160.71	1.00

## Detailed Report for Pressure Junction: J-336

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

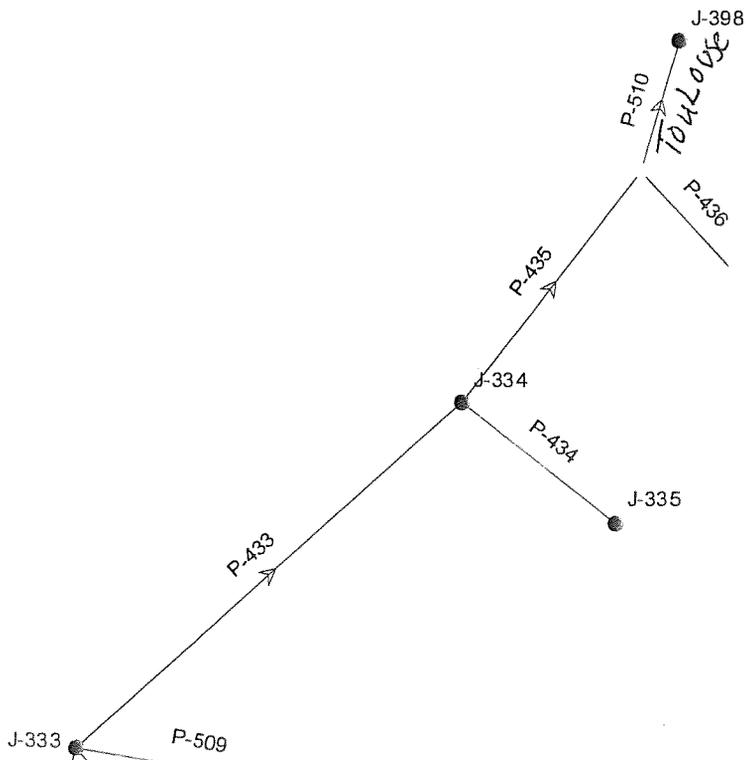
Geometric Summary			
X	14,196,505.33 ft	Elevation	1,150.00 ft
Y	317,738.21 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	1.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,310.71	69.53	160.71	1.00

# Scenario: 2.5flush



**JOHN BLOOD HOLLOW  
2" WATERLINE**

## Detailed Report for Pressure Pipe: P-510

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,500.00 ft
From Node	J-336	To Node	J-398

---

### Elevations

---

From Elevation	1,150.00 ft	To Elevation	1,240.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction	Calculated Minor	Pressure Headloss	Pipe Gradient	Headloss
(hr)	Status	(gpm)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft)	Headloss (ft/1000ft)	Headloss (ft)
0.00	Open	4.00	0.41	1,314.61	1,313.95	0.65	0.00	0.65	0.43

---

## Detailed Report for Pressure Junction: J-398

---

### Scenario Summary

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

	<None>	Roughness	<None>
--	--------	-----------	--------

---

### Geometric Summary

X	14,196,991.50 ft	Elevation	1,240.00 ft
Y	319,389.73 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	4.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,313.95	32.00	73.95	4.00

## Detailed Report for Pressure Junction: J-398

---

### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

X	14,196,991.50 ft	Elevation	1,240.00 ft
Y	319,389.73 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,279.59	17.13	39.59	25.00

## Detailed Report for Pressure Junction: J-398

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,196,991.50 ft	Elevation	1,240.00 ft
Y	319,389.73 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,279.59	17.13	39.59	25.00

## Detailed Report for Pressure Pipe: P-510

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,500.00 ft
From Node	J-336	To Node	J-398

---

### Elevations

---

From Elevation	1,150.00 ft	To Elevation	1,240.00 ft
----------------	-------------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge Status	Velocity (gpm)	Upstream Structure Hydraulic Grade (ft/s)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)	
0.00	Open	25.00	2.55	1,299.01	1,279.59	19.42	0.00	19.42	12.95

---

## Detailed Report for Pressure Junction: J-331

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,188,325.46 ft	Elevation	975.00 ft
Y	306,570.71 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,323.49	150.77	348.49	25.00

---

## Detailed Report for Pressure Pipe: P-511

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,000.00 ft
From Node	J-331	To Node	J-399

---

### Elevations

---

From Elevation	975.00 ft	To Elevation	1,166.00 ft
----------------	-----------	--------------	-------------

---

### Initial Status

---

Initial Status	Open
----------------	------

---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/1000ft
0.00 Open	8.00	0.82	1,323.49	1,321.92	1.57	0.00	1.57	1.57

---

## Detailed Report for Pressure Junction: J-399

---

### Scenario Summary

---

Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

---

X	14,189,785.99 ft	Elevation	1,166.00 ft
Y	307,114.09 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	4.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,321.92	67.46	155.92	4.00

---

## Detailed Report for Pressure Pipe: P-512

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	781.00 ft
From Node	J-399	To Node	J-400

Elevations			
From Elevation	1,166.00 ft	To Elevation	1,201.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Calculated Pressure Headloss	Headloss	Gradient
(hr)	Status (gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	(ft)	\$/1000ft
0.00	Open	4.00	0.41	1,321.92	1,321.58	0.34	0.00	0.34	0.43

## Detailed Report for Pressure Junction: J-400

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,189,919.22 ft	Elevation	1,201.00 ft
Y	306,344.32 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	4.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,321.58	52.17	120.58	4.00

## Detailed Report for Pressure Junction: J-400

---

### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

<None>	Roughness	<None>
--------	-----------	--------

---

### Geometric Summary

X	14,189,919.22 ft	Elevation	1,201.00 ft
Y	306,344.32 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

---

### User Data

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,254.15	23.00	53.15	25.00

## Detailed Report for Pressure Pipe: P-512

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Pipe Characteristics

---

Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	781.00 ft
From Node	J-399	To Node	J-400

---

### Elevations

---

From Elevation	1,166.00 ft	To Elevation	1,201.00 ft
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---

### Initial Status

---

Initial Status	Open
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---

### User Data

---

Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

---

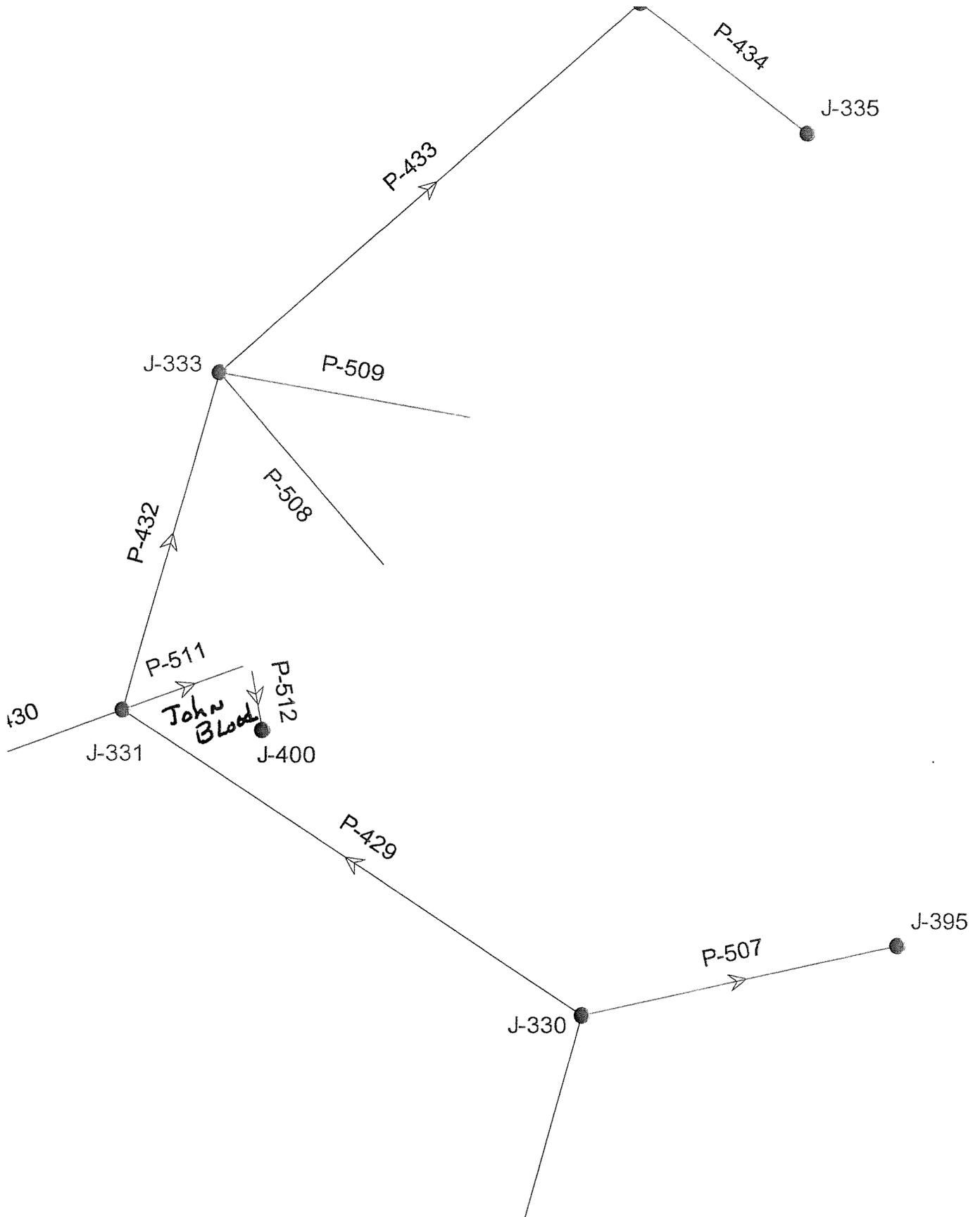
### Calculated Results Summary

---

Time Control	Discharge	Velocity	Upstream Structure	Downstream Structure	Calculated Friction Headloss	Calculated Minor Headloss	Pressure Headloss	Headloss Gradient
(hr) Status	(gpm)	(ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	(ft)	(ft)	(ft)	\$/1000ft)
0.00 Open	25.00	2.55	1,264.26	1,254.15	10.11	0.00	10.11	12.95

---

Scenario: 2.5flush



**TAYLOR MORGAN ROAD  
2" WATERLINE**

## Detailed Report for Pressure Junction: J-58

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,183,705.07 ft	Elevation	870.00 ft
Y	253,642.69 ft	Zone	Zone-1

---

### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	5.13	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,231.72	156.50	361.72	5.13

---

## Detailed Report for Pressure Pipe: P-460

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	2,846.00 ft
From Node	J-58	To Node	J-355

Elevations			
From Elevation	870.00 ft	To Elevation	860.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (\$/1000ft)	Headloss (ft)
0.00	Open	25.00	2.55	1,231.72	1,194.88	36.85	0.00	36.85	12.95

## Detailed Report for Pressure Junction: J-355

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

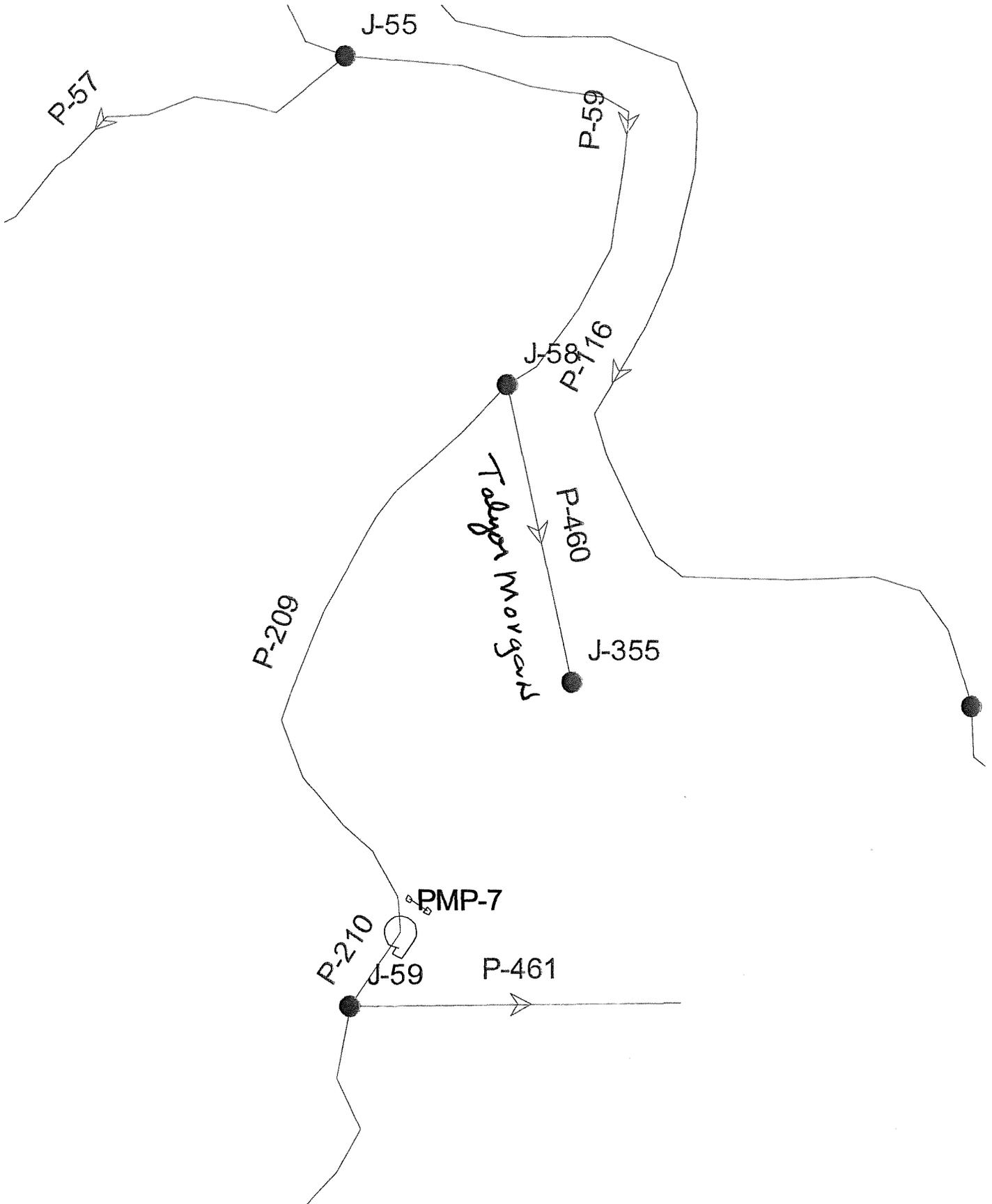
Geometric Summary			
X	14,184,309.26 ft	Elevation	860.00 ft
Y	250,861.25 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,194.88	144.89	334.88	25.00

Scenario: 2.5flush



**MOUNTAIN SIDE DRIVE  
2" WATERLINE**

## Detailed Report for Pressure Junction: J-59

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,182,257.10 ft	Elevation	959.00 ft
Y	247,843.46 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,475.93	223.65	516.93	0.00

## Detailed Report for Pressure Pipe: P-461

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	3,168.00 ft
From Node	J-59	To Node	J-356

Elevations			
From Elevation	959.00 ft	To Elevation	1,320.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$/1000ft)	
0.00	Open	25.00	2.55	1,475.93	1,434.92	41.02	0.00	41.02	12.95

## Detailed Report for Pressure Junction: J-356

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

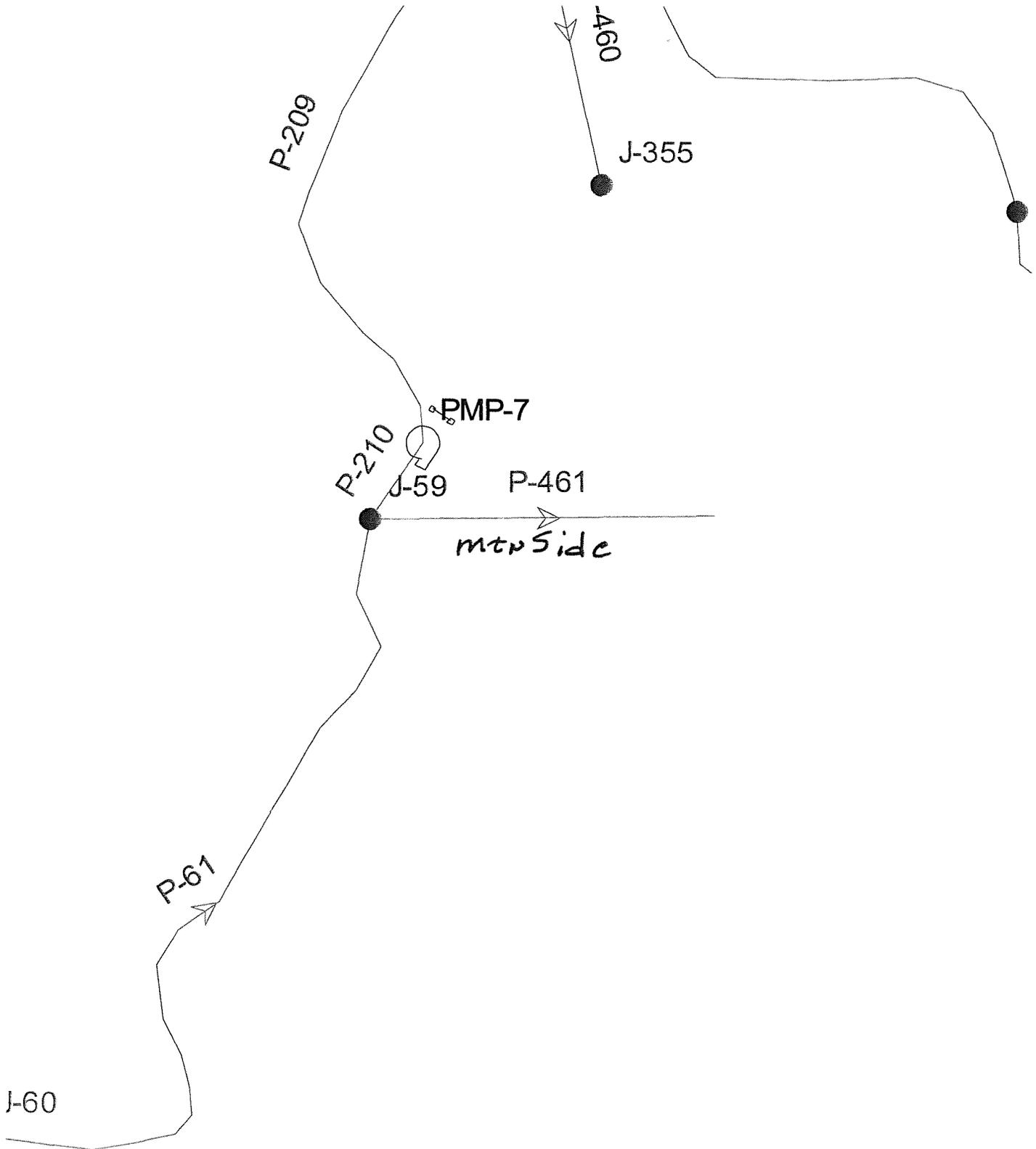
Geometric Summary			
X	14,185,425.05 ft	Elevation	1,320.00 ft
Y	247,881.08 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,434.92	49.72	114.92	25.00

Scenario: 2.5flush



**MULBERRY**

**2" WATERLINE**

## Detailed Report for Pressure Junction: J-256

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### Scenario Summary

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Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,199,527.06 ft	Elevation	1,500.00 ft
Y	252,924.43 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	20.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,596.17	41.61	96.17	20.00

---

## Detailed Report for Pressure Pipe: P-467

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,139.00 ft
From Node	J-256	To Node	J-361

Elevations			
From Elevation	1,500.00 ft	To Elevation	1,220.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	25.00	2.55	1,596.17	1,581.42	14.75	0.00	14.75	12.95

## Detailed Report for Pressure Junction: J-361

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

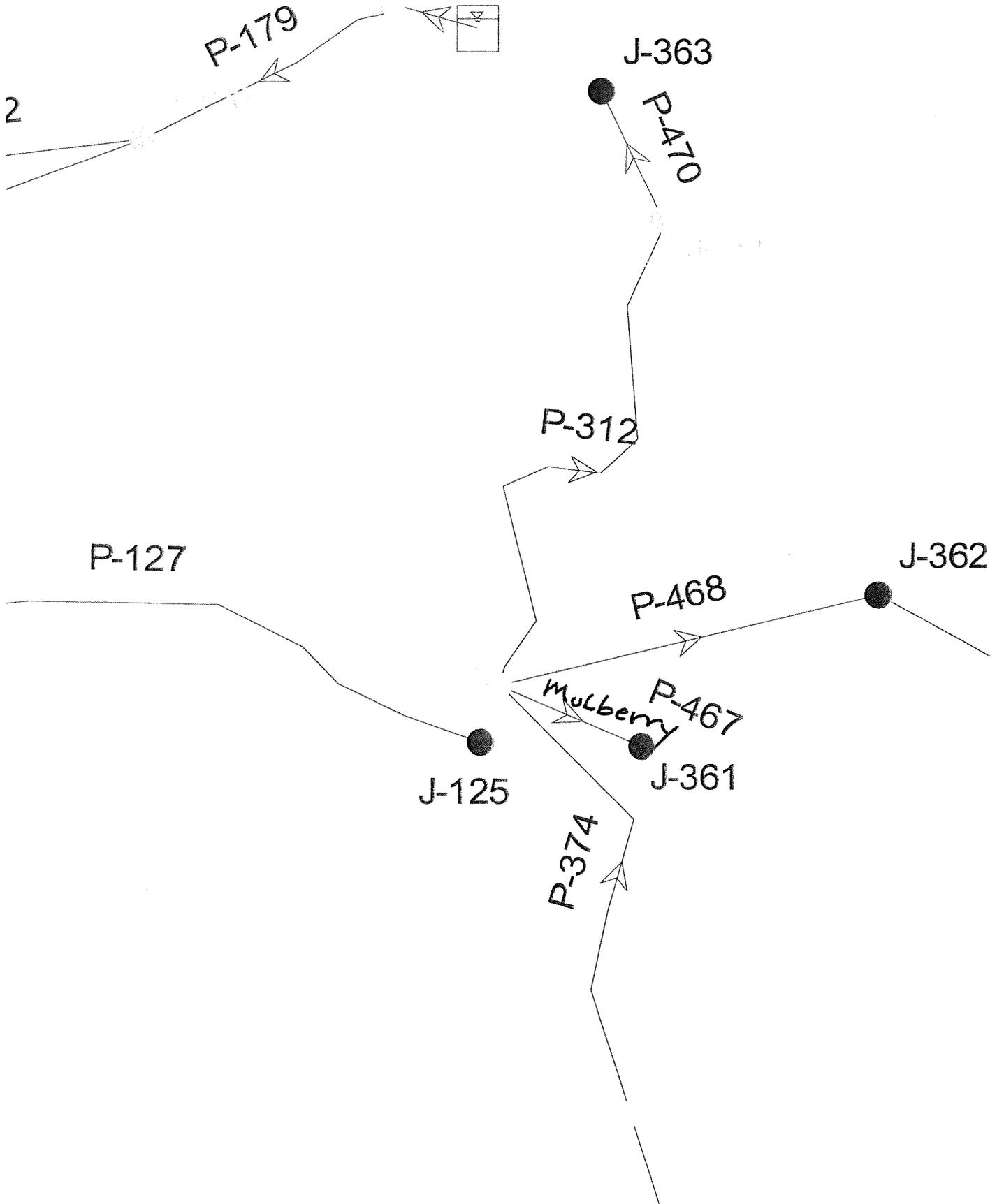
Geometric Summary			
X	14,200,573.89 ft	Elevation	1,220.00 ft
Y	252,475.48 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,581.42	156.37	361.42	25.00

Scenario: 2.5flush



**DRY FORK**

**2" WATERLINE**

## Detailed Report for Pressure Junction: J-187

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### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,165,634.93 ft	Elevation	1,360.00 ft
Y	177,313.18 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,990.97	272.99	630.97	0.00

---

## Detailed Report for Pressure Pipe: P-513

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,000.00 ft
From Node	J-187	To Node	J-401

Elevations			
From Elevation	1,360.00 ft	To Elevation	1,360.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary								
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (ft/1000ft)
0.00	Open	4.00	0.41	1,990.97	1,990.53	0.43	0.00	0.43

## Detailed Report for Pressure Junction: J-401

---

### Scenario Summary

---

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

---

### Global Adjustments Summary

---

<None>	Roughness	<None>
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---

### Geometric Summary

---

X	14,167,461.72 ft	Elevation	1,360.00 ft
Y	177,012.76 ft	Zone	Zone-1

---

### Demand Summary

---

Type	Base Flow (gpm)	Pattern
Demand	4.00	Fixed

---

### User Data

---

SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

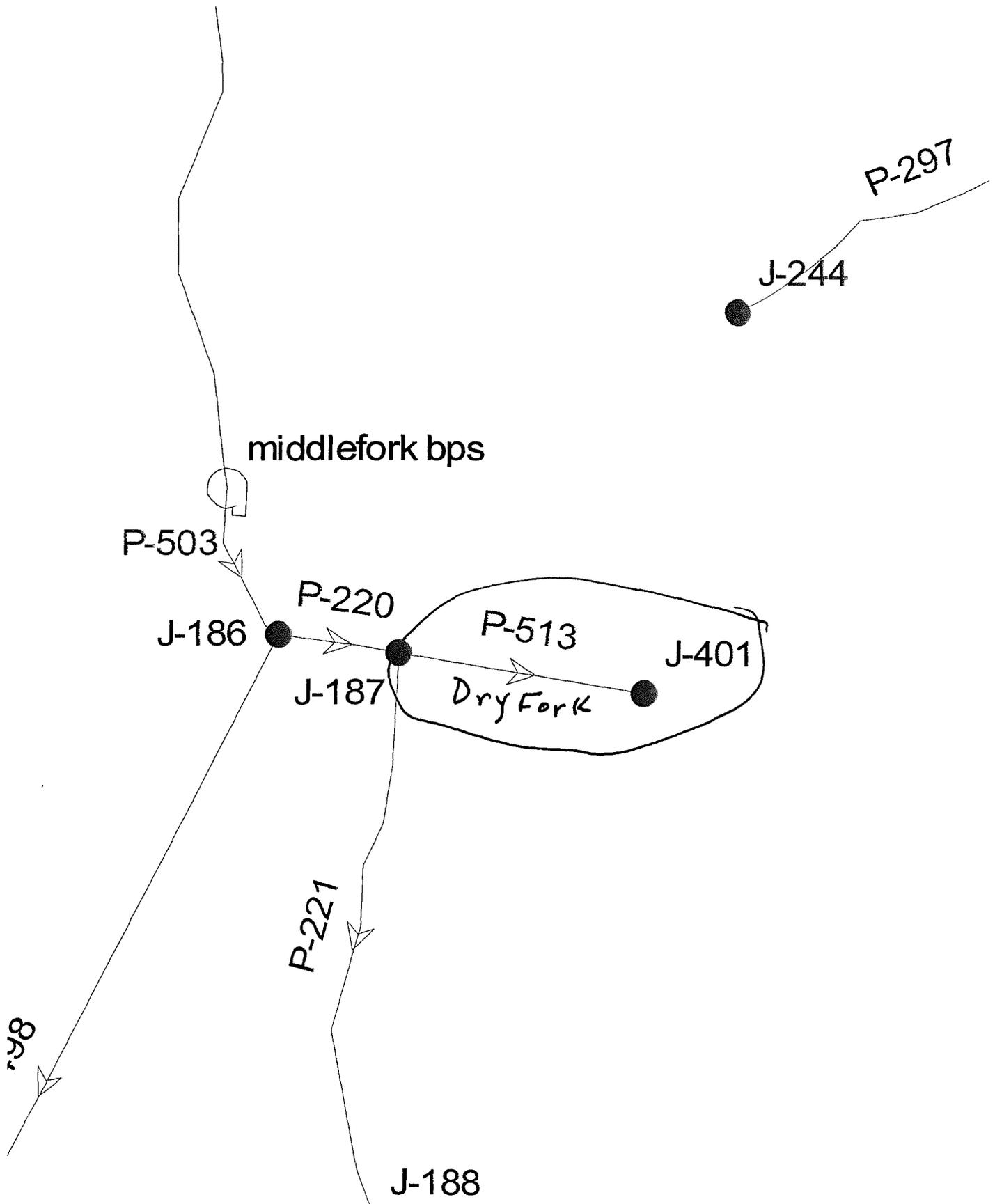
### Calculated Results Summary

---

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,990.53	272.80	630.53	4.00

---

Scenario: 2.5flush



**STONE ROAD  
2" WATERLINE**

**DEERFIELD ROA  
2" WATERLINE**

## Detailed Report for Pressure Junction: J-388

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
<None>	Roughness	<None>

Geometric Summary			
X	14,161,277.29 ft	Elevation	1,620.00 ft
Y	170,785.59 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	0.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,871.36	108.75	251.36	0.00

## Detailed Report for Pressure Pipe: P-515

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	800.00 ft
From Node	J-388	To Node	J-403

Elevations			
From Elevation	1,620.00 ft	To Elevation	1,673.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Pipe Gradient (\$ft/1000ft)	Headloss
0.00	Open	2.00	0.20	1,871.36	1,871.26	0.10	0.00	0.10	0.12

## Detailed Report for Pressure Junction: J-403

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,160,923.11 ft	Elevation	1,673.00 ft
Y	168,805.75 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	2.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,871.26	85.78	198.26	2.00

## Detailed Report for Pressure Junction: J-389

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,162,283.62 ft	Elevation	1,666.00 ft
Y	167,960.78 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	10.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,870.56	88.50	204.56	10.00

## Detailed Report for Pressure Pipe: P-514

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,400.00 ft
From Node	J-389	To Node	J-402

Elevations			
From Elevation	1,666.00 ft	To Elevation	1,769.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss (ft)	Headloss Gradient (\$ft/1000ft)
0.00	Open	4.00	0.41	1,870.56	1,869.95	0.61	0.00	0.61	0.43

## Detailed Report for Pressure Junction: J-402

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	peak hour demand
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Demand-peak hour demand
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,160,479.01 ft	Elevation	1,769.00 ft
Y	166,677.78 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	4.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	1,869.95	43.68	100.95	4.00

## Detailed Report for Pressure Pipe: P-515

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Pipe Characteristics			
Material	PVC	Hazen- Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	800.00 ft
From Node	J-388	To Node	J-403

Elevations			
From Elevation	1,620.00 ft	To Elevation	1,673.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control (hr)	Discharge Status (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	25.00	2.55	1,894.55	1,884.20	10.36	0.00	10.36	12.95

## Detailed Report for Pressure Junction: J-403

**Note:**

The input data may have been modified since the last calculation was performed.  
The calculated results may be outdated.

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary			
	<None>	Roughness	<None>

Geometric Summary			
X	14,160,923.11 ft	Elevation	1,673.00 ft
Y	168,805.75 ft	Zone	Zone-1

Demand Summary		
Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

User Data			
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

Calculated Results Summary				
Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,884.20	91.37	211.20	25.00

## Detailed Report for Pressure Pipe: P-514

Scenario Summary	
Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

Global Adjustments Summary		
	<None>	Roughness
		<None>

Pipe Characteristics			
Material	PVC	Hazen-Williams C	150.0
Diameter	2.0 in	Minor Loss Coefficient	0.00
Check Valve?	false	Length	1,400.00 ft
From Node	J-389	To Node	J-402

Elevations			
From Elevation	1,666.00 ft	To Elevation	1,769.00 ft

Initial Status	
Initial Status	Open

User Data			
Date Installed		Date Retired	
Inspection Date		Nominal Diameter	0.0 ft
Condition		Exterior Coating	
Lining		Pipe Class	
Existing	false	Metered	false
Skeletonized	false		

Calculated Results Summary									
Time Control	Discharge Status	Velocity (gpm)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Calculated Friction Headloss (ft)	Calculated Minor Headloss (ft)	Pressure Headloss (ft)	Headloss Gradient (\$ft/1000ft)	
0.00	Open	25.00	2.55	1,892.69	1,874.57	18.13	0.00	18.13	12.95

## Detailed Report for Pressure Junction: J-402

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### Scenario Summary

Scenario	2.5flush
Active Topology Alternative	Base-Active Topology
Physical Alternative	Base-Physical
Demand Alternative	Base-Average Daily
Initial Settings Alternative	Base-Initial Settings
Operational Alternative	Base-Operational
Age Alternative	Base-Age Alternative
Constituent Alternative	Base-Constituent
Trace Alternative	Base-Trace Alternative
Fire Flow Alternative	Base-Fire Flow
Capital Cost Alternative	Base-Capital Cost
Energy Cost Alternative	Base-Energy Cost
User Data Alternative	Base-User Data

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### Global Adjustments Summary

<None>	Roughness	<None>
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### Geometric Summary

X	14,160,479.01 ft	Elevation	1,769.00 ft
Y	166,677.78 ft	Zone	Zone-1

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### Demand Summary

Type	Base Flow (gpm)	Pattern
Demand	25.00	Fixed

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### User Data

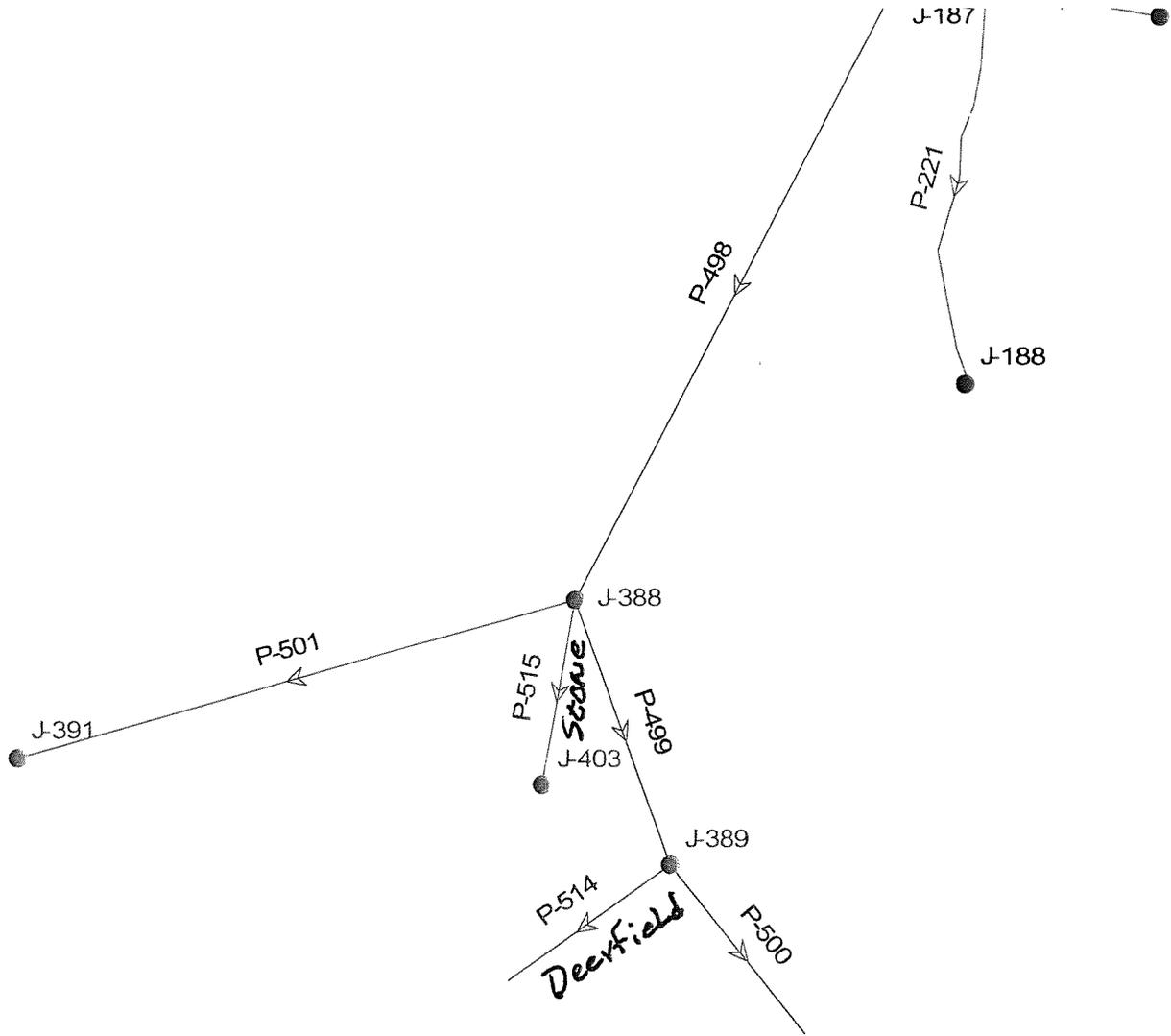
SCADA ID		Existing	false
Hydrant Location	false	Sampling Point	false

---

### Calculated Results Summary

Time (hr)	Calculated Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (Calculated) (ft)	Demand (gpm)
0.00	1,874.57	45.67	105.57	25.00

# Scenario: 2.5flush



## 1" Design Calculations

Plan Sheet #10

Statue Lane

Length of 1" line = 350' ground at EOL = 1010'

Usage = 150 gpd/customer / 1440

Use = 0.10 gpm  $\hat{=}$  1 gpm

$$H_f = \frac{10.44 \times 350' \times (1)^{1.85}}{(130)^{1.85} \times (1)^{4.8655}}$$

$$H_f = 0.44'$$

$$HGL = 1400' - 1010'$$

$$= 390' / 2.31$$

$$\hat{=} 168 \text{ psi}$$

Plan Sheet #24

Quicksilver Drive

Length of 1" line = 250' ground at EOL = 1031'

Usage = 150 gpd/customer / 1440

Use = 0.10 gpm  $\hat{=}$  1 gpm

$$H_f = \frac{10.44 \times 250' \times (1)^{1.85}}{(130)^{1.85} \times (1)^{4.8655}}$$

$$H_f = 0.32$$

$$HGL = 1300' - 1031'$$

$$= 269' / 2.31$$

$$\hat{=} 116 \text{ psi}$$

## 1" Design Calculations

Plan Sheet # 24

Begley Drive

Length of 1" line = 250' ground at EOL = 1131'

Usage = 300 gpd / 1440

Use = 0.20 gpm  $\approx$  2 gpm

$$H_f = \frac{10.44 \times 250 \times (2)^{1.85}}{(130)^{1.85} \times (4.8655)}$$

$$= 1.15'$$

$$HGL = 1300' - 1.15'$$

$$= 167.85' / 2.31$$

$$\approx 72 \text{ psi}$$

Plan Sheet # 33

Dew Drop Lane

Length of 1" line = 420' ground at EOL = 1053'

Usage = 150 gpd / 1440

Use = 0.10 gpm  $\approx$  1 gpm

$$H_f = \frac{10.44 \times 420 \times (1)^{1.85}}{(130)^{1.85} \times (1)^{4.8655}}$$

$$H_f = 0.5385'$$

$$HGL = 1300 - (1053 + 0.5385)$$

$$= 246' / 2.31$$

$$\approx 106 \text{ psi}$$

1" Design Calculations

3 of 4

07080

Plan Sheet

Fog Lake Drive #1

length of 1" line = 575' ground at EOL = 1485'

Charge = 150gpd / 1440

Use = 0.10gpm  $\approx$  1gpm

$$H_f = \frac{(136)^{1.85} \times (1)^{4.8655}}{10.44 \times 575 \times (1)^{1.85}}$$

= 0.7372'

HGL = 1600 - (1485 + 0.7372)

= 114.26' / 2.31

= 49psi

Fog Lake Drive #2

length of 1" line = 670' ground at EOL = 1421'

Charge = 150gpd / 1440

Use = 0.10gpm  $\approx$  1gpm

$$H_f = \frac{(136)^{1.85} \times (1)^{4.8655}}{10.44 \times 670 \times (1)^{1.85}}$$

= 0.8596'

HGL = 1600 - (1421 + 0.8596)

= 178.14' / 2.31

= 77psi

## 1" Design Calculations

Plan Sheet

Saffron Drive

Length of 1" line = 400' ground at EOL = 1330'

Usage = 150 gpd / 1440

Use = 0.10 gpm  $\approx$  1 gpm

$$HF = \frac{10.44 \times 400 \times (1)^{1.85}}{(1330)^{1.85} \times (1)^{4.8655}}$$

$$= 0.5128$$

$$HGL = 1560 - (1330 + 0.5128)$$

$$= 229 / 2.31$$

$$= 99 \text{ psi}$$

1.00

0.00