Appendix L1 Hydraulic Network Analysis for Fire and Domestic Water Service

Appendices

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Hydraulic Network Analysis for Fire & Domestic Water Service

Solana Torrance

S/W Corner of Hawthorne Boulevard & Via Valmonte
Torrance, California 90505

Dated: April 18, 2017

Revised: August 29, 2018; October 1, 2018

Prepared For:

ReyLenn Properties LLC

Prepared By:

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ATTESTATION

This report has been prepared by, and under the direction of, the undersigned, a duly Registered Civil Engineer in the State of California. Except as noted, the undersigned attests to the technical information contained herein, and has judged to be acceptable the qualifications of any technical specialists providing engineering data for this report, upon which findings, conclusions, and recommendations are based.

_____ _____

James H. Kawamura, P.E. *Date: October 1, 2018*
Exp. 3/31/20

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Solana Torrance
Hydraulic Network Analysis for
Fire & Domestic Water Service
April 7, 2017

I. Executive Summary

This Hydraulic Network Analysis was prepared to determine the fire and domestic water service needed for a proposed 248 unit multifamily residential development, known as *Solana Torrance*. The proposed *Project* is to be developed on approximately 5.76 acres of a 24.68 acre property along the west side of Hawthorne Boulevard, between Via Valmonte and north of Rolling Hills Road.

This analysis was commissioned by **ReyLenn Properties, LLC**, Solana Beach, California, the developer of the proposed *Project*, and prepared by **KHR Associates**, Newport Beach, California, the *Project* Civil Engineer. The findings, conclusions, and recommendations presented herein are solely those of **KHR Associates**, and do not necessarily reflect the opinions of **ReyLenn Properties, LLC**, the City of Torrance, or any other interested parties.

Summary of Findings & Conclusions

Based on the Hydraulic Network Analysis for the proposed *Project*, the following findings and conclusions were made:

1) The *Project* site is undeveloped and is not currently serviced by a source of potable water.
2) Water service for the proposed *Project* will be provided by the City of Torrance Municipal Water Department (TMWD).
3) The *Project* site is located in TMWD's high pressure zone. The system pressure is provided by the pumping system at TMWD's main 28 million gallon reservoir.
4) Public fire hydrants are currently located on various streets surrounding the *Project* site, including one on the north side Via Valmonte opposite the *Project* site, and one on the west side of Hawthorne Boulevard, just south of Via Valmonte.
5) Fire flow tests, conducted by the Torrance Water Department at the above two public hydrants, indicated that the flow rate at the Hawthorne Boulevard fire hydrant delivered 7,248 gallons per minute (gpm) at 145 pounds per square inch (psi) static pressure, while producing a residual pressure of 110 psi at the Via Valmonte fire hydrant.

   Conversely, fire flow tests, indicated that the flow rate at the Via Valmonte fire hydrant delivered 12,740 gpm at 152 psi static pressure, with a residual pressure of

140 psi at the Hawthorne Boulevard fire hydrant.

The fire hydrant flow test result forms are included in the appendix.

6) Based on the City of Torrance 2015 Urban Water Management Plan per capita water consumption rate of 122 (GPCD), the total domestic water usage by the proposed *Project* is projected to be 88,084 gallons per day (gpd).

7) In addition to on-site fire hydrants and stand pipes, a new public fire hydrant will be required south of the main entrance driveway to the *Project* site located on Hawthorne Boulevard.

8) Assuming the addition of a new fire hydrant on Hawthorne Boulevard, the analysis presented herein indicates adequate water pressure and flow to meet a sustained 1,500 gpm at both public hydrants (FH's J-34 and J35– see appendix for exhibit) flowing simultaneously (3,000 gpm, total), along with domestic water at Maximum Daily Demand (MDD) being delivered at 244.68 gpm and fire sprinklers flowing at 300 gpm.

   An additional calculation was run to show that there is adequate water pressure and flow to meet a sustained 1,500 gpm at both public hydrants (FH's J-34 and J-35 – see appendix for exhibit) flowing simultaneously (3,000 gpm, total), along with domestic water at Peak Hour Demand (PHD) being delivered at 367.02 gpm and fire sprinklers flowing at 300 gpm.

9) The hydraulic grade line calculations show that more than adequate head is available to deliver fire water to the highest building.

10) Water distribution calculations show that the Maximum Day Demand of 4,445 gpm for water flowing simultaneously to fire hydrants, domestic water use, and sprinkler system is met under all scenarios.

    An additional calculation was run at the most critical scenario to show that the Peak Hour Demand of 4,567 gpm for water flowing simultaneously to fire hydrants, domestic water use, and sprinkler system is met under all scenarios.

Recommendations

Based on the above findings and conclusions, the following recommendations are made:

1) Domestic and fire water service can be provided for the proposed *Project* without adversely impacting the City's existing water system.

2) The proposed *Project* shall be designed to provide appropriately-sized new domestic and fire water services, and on-site water systems to meet projected demands under daily domestic use and during a major fire event.

3) A new off-site fire hydrant shall be installed on Hawthorne Boulevard at the location indicated in this analysis.

4) All relevant sections of Division 7, Chapter 6 (Water) of the City of Torrance Municipal Code shall be followed.

II. Introduction

ReyLenn Properties, LLC, Solana Beach, California, is proposing to develop a multifamily residential condominium project on a vacant property in the City of Torrance, California. The proposed *Project* site contains 24.68 acres, of which 5.76 acres of disturbed land from a former quarry operation will be developed into a multifamily residential condominium community. The balance of the site will be preserved as natural open space.

Project Location

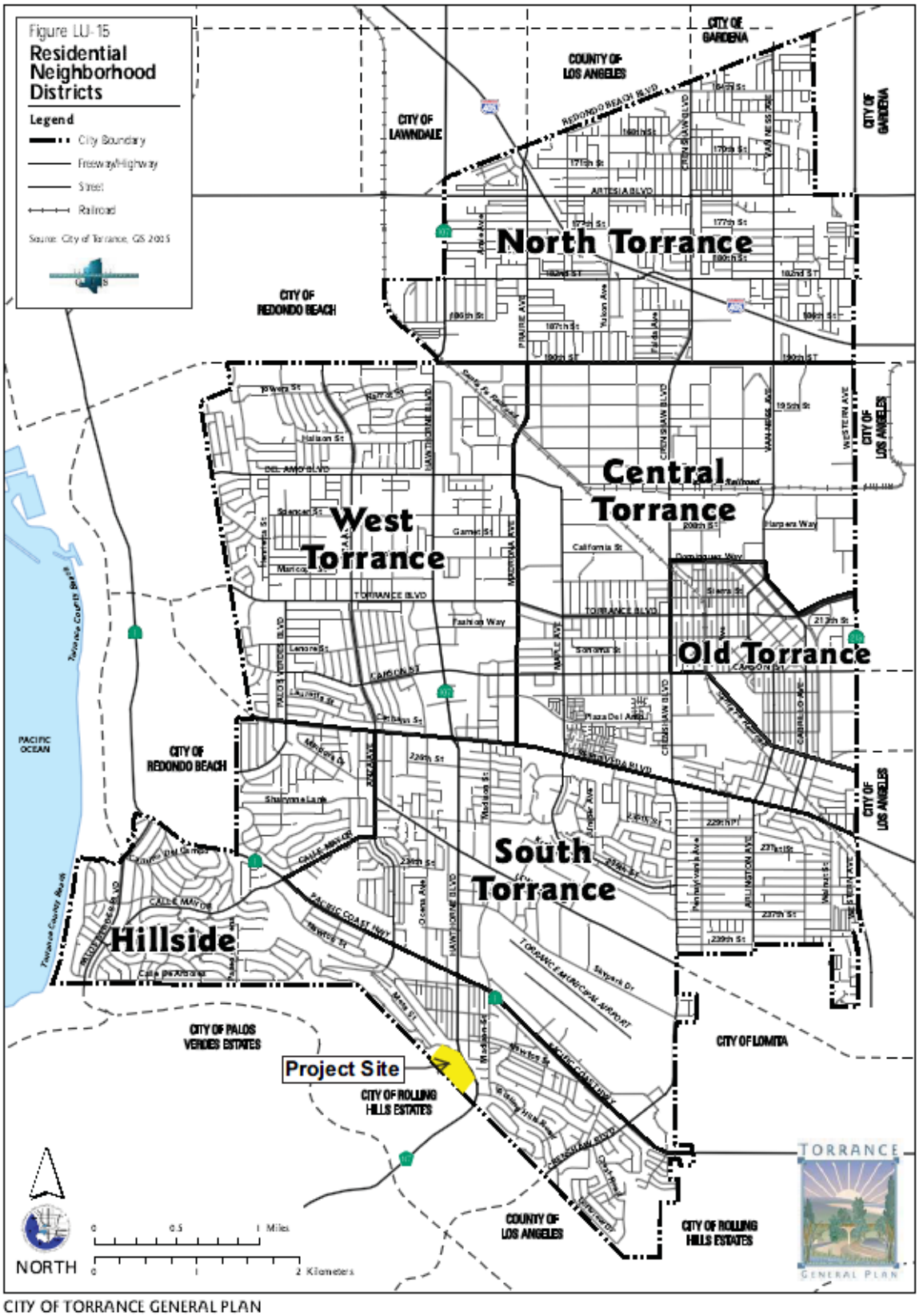
As illustrated in Figure 1, the proposed *Project* site is located in the southern-most part of the City of Torrance, in the Hillside Neighborhood District. Figure 2 illustrates the limits of the proposed development within the *Project* boundary, while the Development Site Plan is depicted in Figure 3.

Project Description

The proposed multifamily residential condominium community will consist of 248 dwelling units, 546 parking spaces including surface parking and a subterranean parking structure, a 5,000 square-foot community room/fitness center, and 96,385 square feet of landscaped areas. The unit mix includes 135 one-bedroom and 113 two-bedroom units. Common amenities include a swimming pool, community room, and landscaping around the site.

Access to and from the *Project* site is proposed to be provided via one driveway entrance on Hawthorne Boulevard (right-in/right-out only) and one "exit-only" driveway with raised traffic movement barriers on Via Valmonte (right-out only).

In addition to the proposed Solana project, a new mixed-use project is proposed at the northwest corner of Via Valmonte and Hawthorne Boulevard. The project is anticipated to have 15 condominiums and 1000 square feet of commercial space.



CITY OF TORRANCE GENERAL PLAN

Figure 1 – Project Site Location

Figure 2 – Project Boundary & Development Limits

Figure 3 – Development Site Plan

Water System

A key component of the infrastructure needed to support the proposed *Project* is the provision of potable water for domestic use (i.e., consumption by residents and irrigation purposes), and for fire protection. As illustrated in Figure 4, water services for the proposed *Project* site will be provided by the Torrance Municipal Water Department (TMWD).

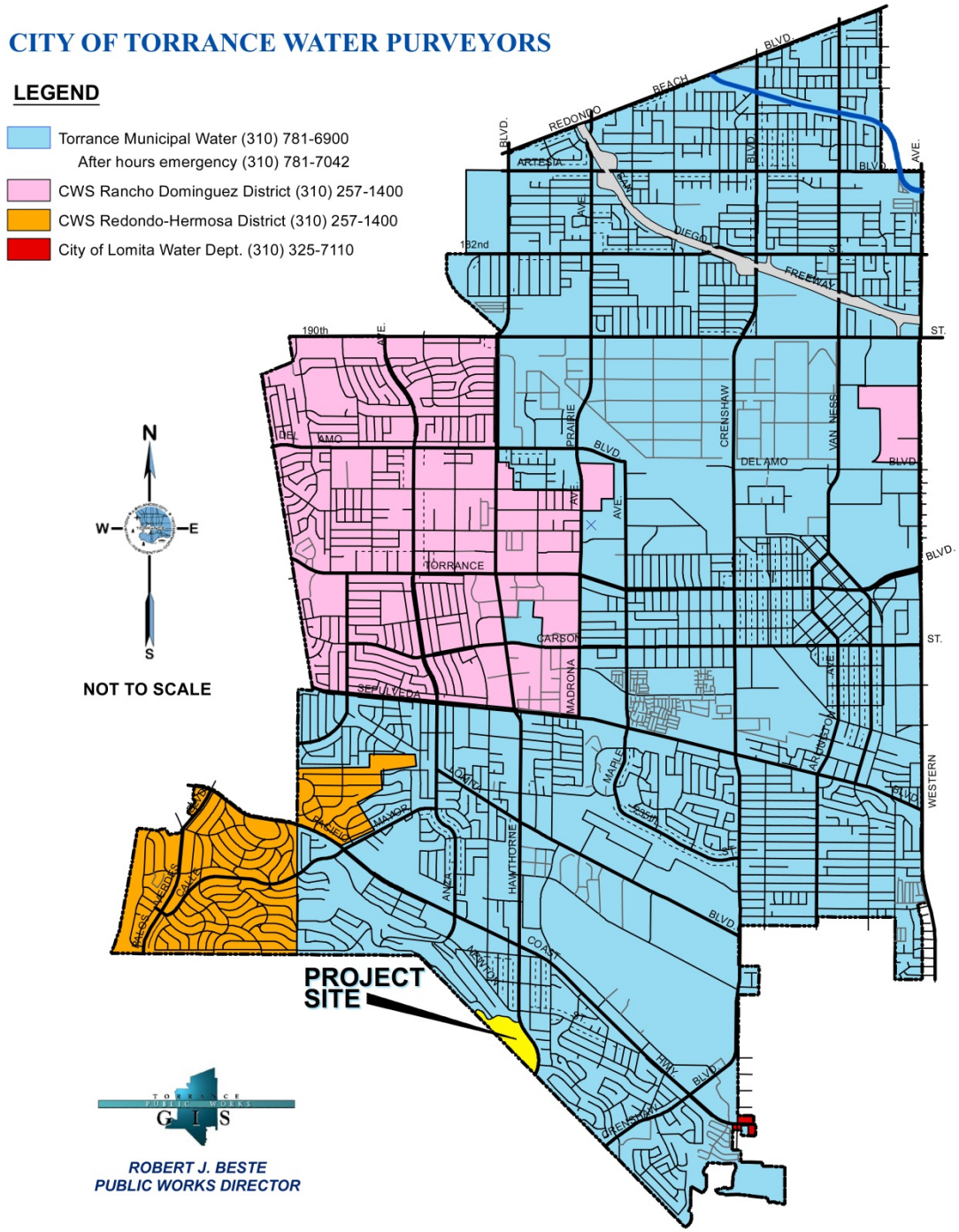


Figure 4 – City of Torrance Water Purveyors

Figure 5 illustrates TMWD's Water Pressures in the City. The water pressure is indicated as being 50 to 55 psi near the *Project* site. However, the City has indicated that the proposed *Project* is located within a high pressures zone, fed by the Walteria Reservoir pump station.

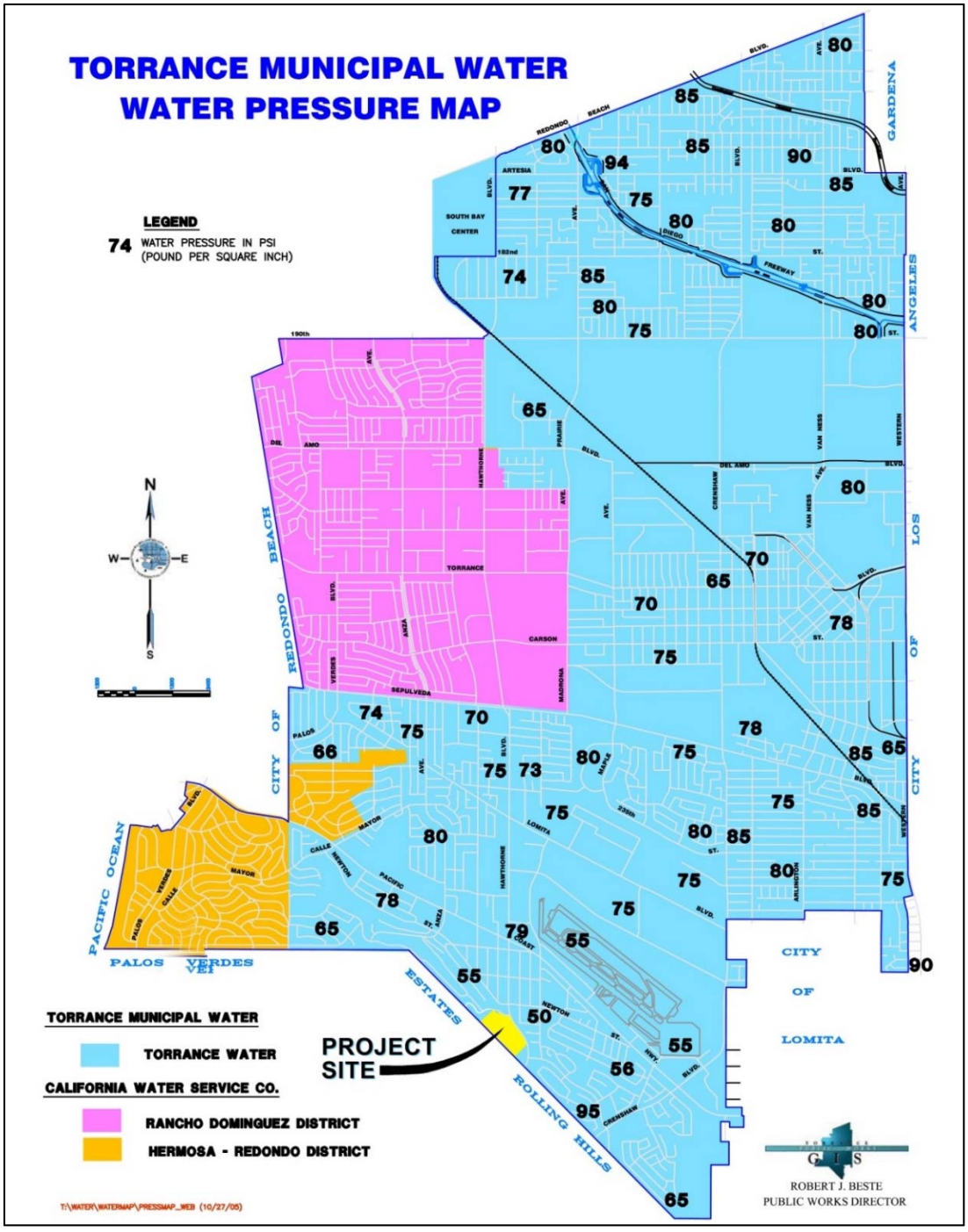


Figure 5 – Water Pressures

Figure 6 and Figure 7 illustrates that the project is located within a high pressures zone.

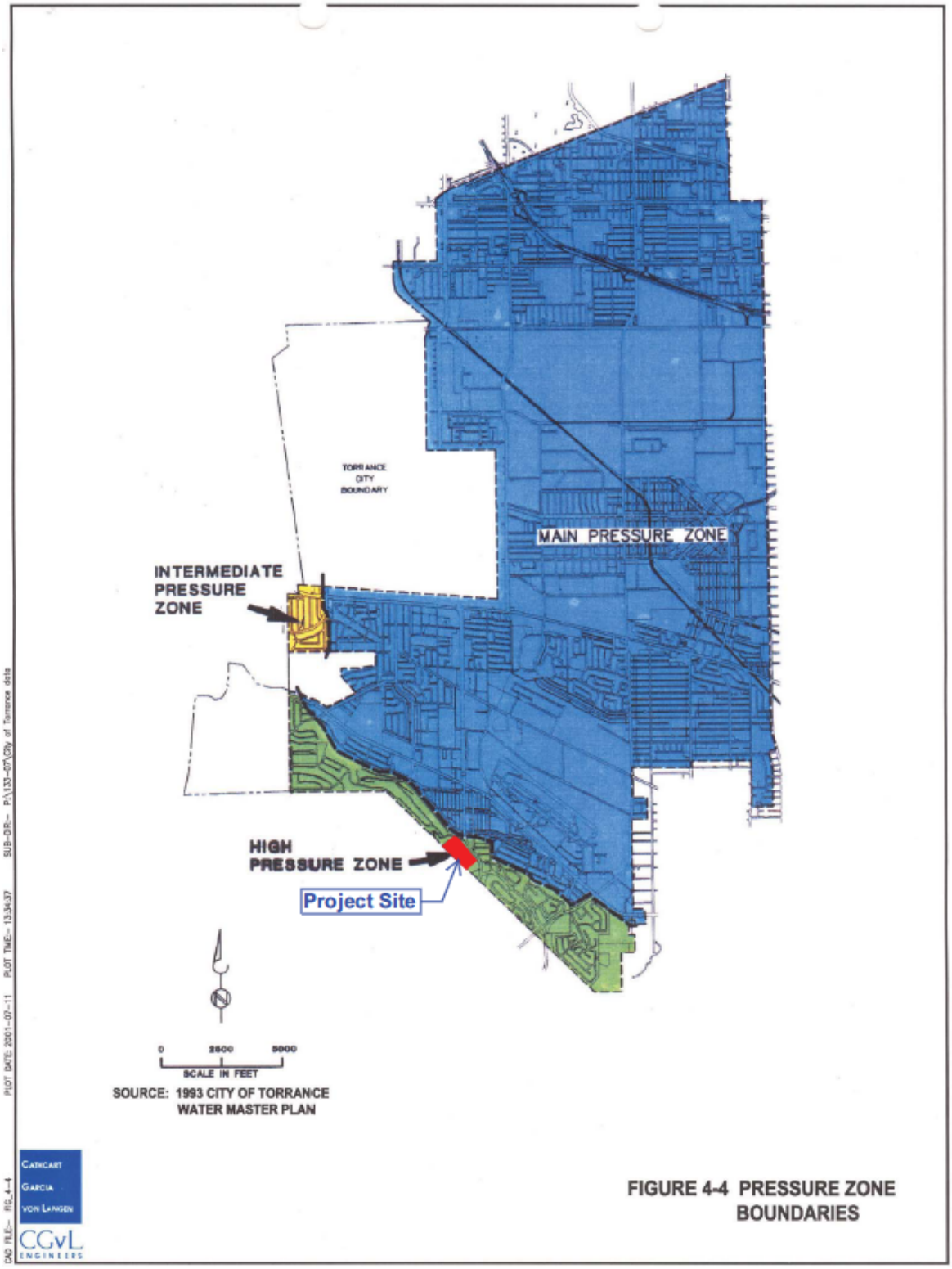


Figure 6 – Water Pressure Zones

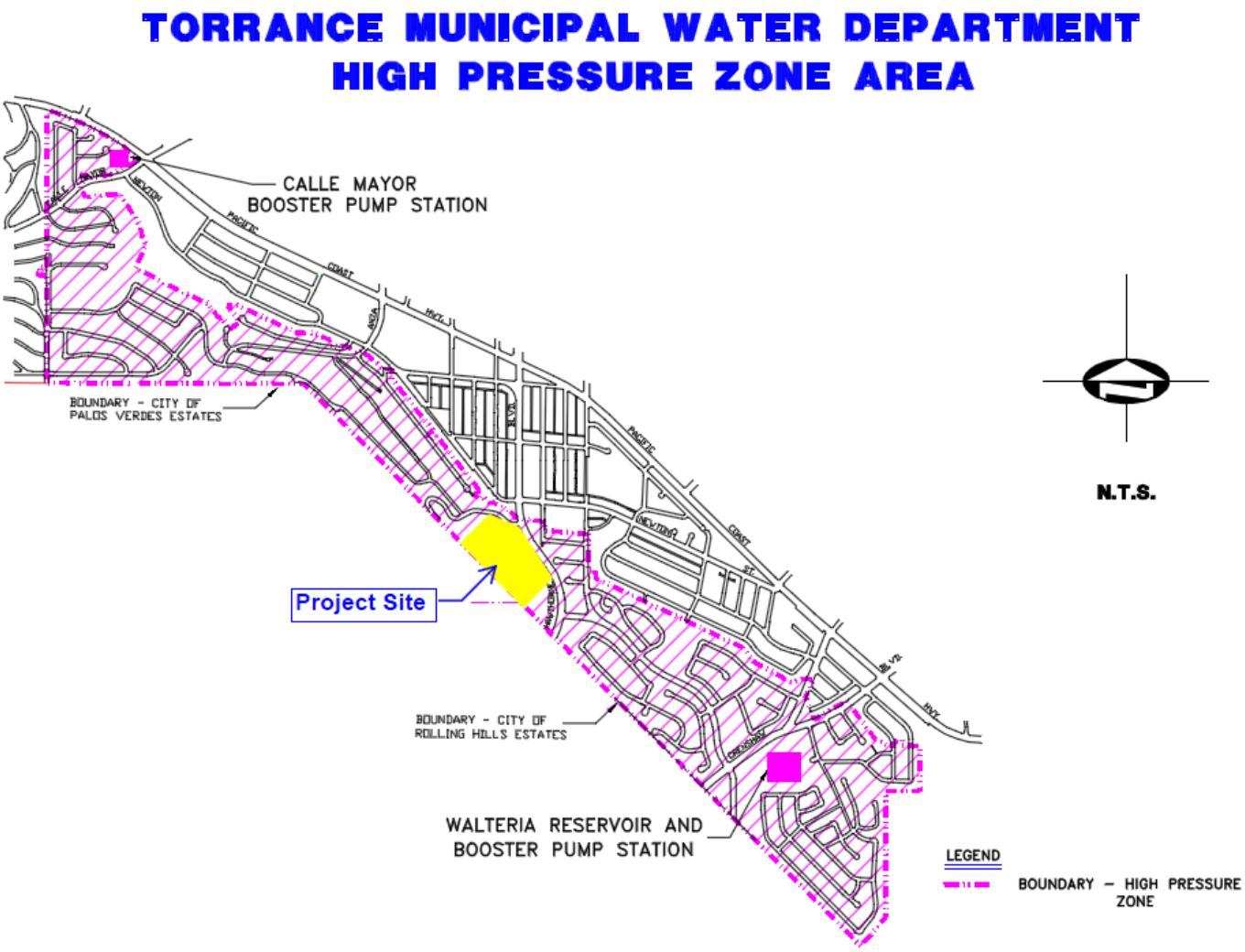


Figure 7 – Water High Pressure Zone

Existing water mains adjacent to the *Project* site include a 10-inch water main in Hawthorne Boulevard and a 12-inch water main in Via Valmonte.

III. Water Demand Assumptions

Water usage by the proposed *Project* can be determined on the basis of two main sources of demand – domestic use and fire demand. Domestic water use is a daily demand on the City's water resources, while fire demand occurs only in the event of a fire at or adjacent to the *Project* site.

Daily water usage for multifamily residential use can be calculated by applying average water demand rates established by water districts and/or local agencies. Although water demands vary with the size of multifamily residential units (e.g., a one-bedroom unit will use less water than a two-bedroom unit, etc.), the total average daily demand for all three residential buildings was calculated to be 61.17 gpm based on the following statistical data and assumptions:

1) The City of Torrance 2015 Urban Water Management Plan was used to determine the 2015 per capita water consumption rate of 122 (GPCD).
2) In what is referred to as the *Keating Memo*, the United States Department of Housing and Urban Development (HUD) often cites an occupancy policy of 2 persons per bedroom, in calculating various national statistics. Although HUD also indicates that this policy is subject to varying factors such as regional housing demand, sizes of units, and rental rates should be considered.
3) Assuming a conservative rate of 2 persons per bedroom, the resident population of the proposed Project is calculated as follows:

Building A		
1 Bedroom: 53 units	x 2 persons/unit	= 106 people
2 Bedrooms: 35 units	x 4 persons/unit	= 140 people
	Total	246 people
Building B		
1 Bedroom: 57 units	x 2 persons/unit	= 114 people
2 Bedrooms: 43 units	x 4 persons/unit	= 172 people
	Total	286 people
Building C		
1 Bedroom: 25 units	x 2 persons/unit	= 50 people
2 Bedrooms: 35 units	x 4 persons/unit	= 140 people
	Total	190 people
Grand Total	248 units	722 people

4) Building's A, B and C are primarily residential and Building D is a parking structure that includes a pool/spa area on the upper level. Building D has no residential units and the water demand was considered to be negligible since a conservative estimate was used for the residential units. The daily water consumption rate (Average Daily Demand – ADD) for building's A, B, and C was calculated as shown below:

	(1) No. of People	(2) Water Flow (GPCD)	(3) Building gpd = (1) X (2)	(4) ADD Building gpm = $\frac{(3)}{(24hrs\ x60\text{min})}$
Building A	246 people	122	30,012	20.84
Building B	286 people	122	34,892	24.23
Building C	190 people	122	23,180	16.10
Total			88,084	61.17

A. The peaking factors of 2.25 for MDD and 3.38 for PHD provided in the California Code of Regulations (§64554 New and Existing Source Capacity) were referenced for the peaking factors used in this report. The factors were increased to conduct a very conservative study.

The breakdown for Average Daily Demand (ADD), Maximum Daily Demand (MDD), and Peak Hour Demand (PHD) for building's A, B and C is provided below:

MDD = 4.0 x ADD
PHD = 6.0 x ADD

	ADD (gpm)	MDD (gpm)	PHD (gpm)
Building A	20.84	83.36	125.04
Building B	24.23	96.92	145.38
Building C	16.10	64.40	96.60
Total	61.17	244.68	367.02

B. Fire Sprinkler Demand (per Building Floor Area Demand NFPA 13) = 300.00 gpm

C. Fire Hydrant Demand 1,500.00 gpm (minimum) = 1,500.00 gpm

Total Water Demand:

MDD (3) + 4 x Fire Sprinkler (4) + Fire Hydrant (2)
= 244.68 + (4 x 300) + (2 x 1,500) = ***4,445 gpm***

The projected total water demand during a fire is typically taken to be the combined demand of the maximum day demand, fire sprinkler demand, and fire hydrant demand. The site has 3 residential buildings that will produce a total of 244.68 gpm at MDD, the 3 residential buildings and the garage will have fire sprinklers which will require 300 gpm each for a total of 1200 gpm, and there will be two active hydrants with a demand of 1500 gpm each for a total of 3000 gpm. This adds up to 4,445 gpm, as shown in the equation above,

and is used to design the system to ensure that the necessary fire flow is available at all fire hydrant combinations (see appendix for analysis).

PHD (3) + 4 x Fire Sprinkler (4) + Fire Hydrant (2)
= 367.02 + (4 x 300) + (2 x 1,500) = ***4,567gpm***

The total water demand using peak hour demand, fire sprinkler demand, and fire hydrant demand is shown above. To conduct a very conservative study, this equation was used on two scenarios to show that the system could handle a fire during peak hour demand (see appendix for scenario 2A and 2U).

Fire flow demand: (2) 1,500 gpm fire hydrant at 20 psi (minimum allowable per 50% reduction for sprinkler system per UFC Appendix III for Type V - n hr. construction), Maximum building area and type per Site Plan.

For pipe friction loss calculations, pipeline friction factors (adjusted to include minor pipeline losses):

Pipe Material – Poly Vinyl Chloride (PVC)	Friction Factor = 150
Pipe Material – Asbestos Concrete (ACP)	Friction Factor = 140
Pipe Material – Ductile Iron (DIP)	Friction Factor = 130

IV. Fire Flow Assumptions

The results of the City of Torrance Water Department fire flow tests conducted on July 27, 2016, at two existing fire hydrants in close proximity to the *Project* site are as follows (see appendix for flow test result forms):

24619 Hawthorne Boulevard – Water Main 10" ACP
Flow at FH # 110-2-07 and Residual at FH # 110-5-01
Results – 145 psi Static Pressure
110 psi Residual Pressure
Flow rate 7,248 gpm

24635 Via Valmonte – Water Main 12" DIP
Flow at FH # 110-5-01 and Residual at FH # 110-2-07
Results – 152 psi Static Pressure
140 psi Residual Pressure
Flow rate 12,740 gpm

The locations of the two fire hydrants tested, as well as the existing water pipeline network in proximity to the *Project* site, are depicted in Figure 6. Each hydrant was tested for flow and residual pressure (i.e., once for flow at hydrant 01 and residual pressure at hydrant 07, and once for flow at hydrant 07 and residual pressure at hydrant 01).

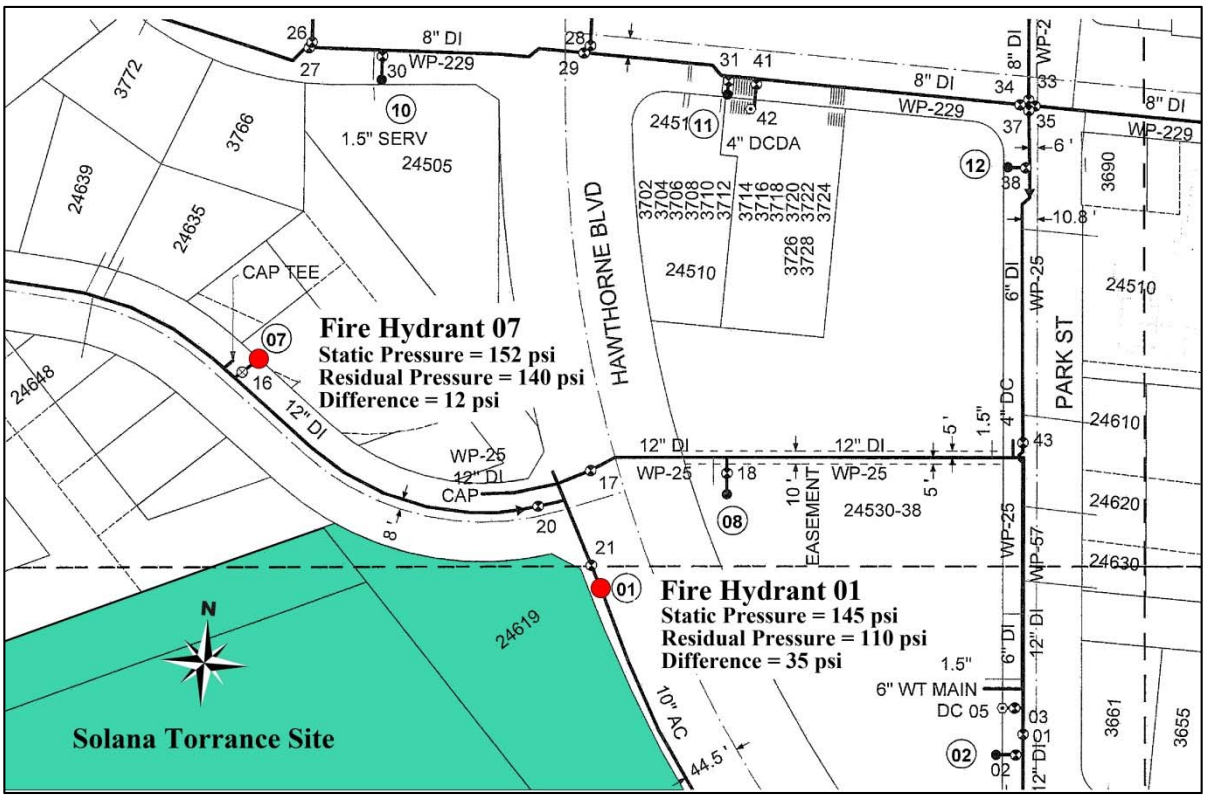


Figure 6 – Fire Flow Test Fire Hydrant Locations

V. HGL at Fixed Grade Node

In order to determine whether or not the hydraulic grade line (HGL) in the water pipeline system would be sufficient to deliver fire water to the highest building elevations, the following calculations were made using Bentley WaterCAD V8i (Select 4), a water distribution modeling and management program by Haestad Methods, Watertown, Connecticut.

Head losses: @ 244.68 gpm
8" Water Meter: 5.4 psi
8" Reduced pressure assembly: 12.50 psi
10" Reduced pressure assembly: 6.00 psi

Total Pressure loss = 5.4 + 12.5 + 6.00 = 23.90 psi

Available Head Pressure = Residual Pressure – Pressure loss
= 110 – 23.90 = 86.10 psi

Node Elevations:
Water lateral connections at 1' below top of meter.
Fire hydrant connections at 2.5' above finished surface.

Calculated Head with Hawthorne Blvd. @ Residual Pressure 110.0 psi:

Elevation of Measured Fire Hydrant # 110-5-01		177.74 ft.
Available Head Pressure	86.10 x 2.308	198.72 ft.
Available HGL at Fixed Grade Node		**376.46 ft.**

Calculated Head Required to Deliver Water to Highest Point of Building:

Maximum Building Height (per Architect)	90.00 ft.
Elevation at Ground Plane (per Grading Plan)	192.00 ft.
Total Head Required	**282.00 ft.**

The conclusion is that the HGL provides more than adequate head to deliver fire water to the roof of the highest building of the *Project*.

VI. Project Site Water Distribution

The following calculated fire flow rates in gallons per minute (gpm) at existing and new on-site fire hydrants under varying scenarios are shown to meet the required demand of 4,445 gpm for fire, domestic at MDD, and sprinkler system flowing simultaneously:

Scenario 1A - Flow Simultaneously: FH's J-4 & J-7; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-4, J-7, J-15, J-18, J-20, J-23, J-45, J-47, J-52.

Scenario 1B - Flow Simultaneously: FH's J-4 & J-12; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-4, J-12, J-15, J-18, J-20, J-23, J-45, J-47, J-52.

Scenario 1C - Flow Simultaneously: FH's J-4 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-4, J-15, J-18, J-19, J-20, J-23, J-45, J-47, J-52.

Scenario 1D - Flow Simultaneously: FH's J-4 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-4, J-15, J-18, J-20, J-23, J-24, J-45, J-47, J-52.

Scenario 1E - Flow Simultaneously: FH's J-4 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-4, J-15, J-18, J-20, J-23, J-34, J-45, J-47, J-52.

Scenario 1F - Flow Simultaneously: FH's J-4 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-4, J-15, J-18, J-20, J-23, J-35, J-45, J-47, J-52.

Scenario 1G - Flow Simultaneously: FH's J-7 & J-12; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-7, J-12, J-15, J-18, J-20, J-23, J-45, J-47, J-52.

Scenario 1H - Flow Simultaneously: FH's J-7 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-7, J-15, J-18, J-19, J-20, J-23, J-45, J-47, J-52.

Scenario 1I - Flow Simultaneously: FH's J-7 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-7, J-15, J-18, J-20, J-23, J-24, J-45, J-47, J-52.

Scenario 1J - Flow Simultaneously: FH's J-7 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-7, J-15, J-18, J-20, J-23, J-34, J-45, J-47, J-52.

Scenario 1K - Flow Simultaneously: FH's J-7 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-7, J-15, J-18, J-20, J-23, J-35, J-45, J-47, J-52.

Scenario 1L - Flow Simultaneously: FH's J-12 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-12, J-15, J-18, J-19, J-20, J-23, J-45, J-47, J-52.

Scenario 1M - Flow Simultaneously: FH's J-12 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-12, J-15, J-18, J-20, J-23, J-24, J-45, J-47, J-52.

Scenario 1N - Flow Simultaneously: FH's J-12 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-12, J-15, J-18, J-20, J-23, J-34, J-45, J-47, J-52.

Scenario 1O - Flow Simultaneously: FH's J-12 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-12, J-15, J-18, J-20, J-23, J-35, J-45, J-47, J-52.

Scenario 1P - Flow Simultaneously: FH's J-19 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-15, J-18, J-19, J-20, J-23, J-24, J-45, J-47, J-52.

Scenario 1Q - Flow Simultaneously: FH's J-19 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-15, J-18, J-19, J-20, J-23, J-34, J-45, J-47, J-52.

Scenario 1R - Flow Simultaneously: FH's J-19 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-15, J-18, J-19, J-20, J-23, J-35, J-45, J-47, J-52.

Scenario 1S - Flow Simultaneously: FH's J-24 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-15, J-18, J-20, J-23, J-24, J-34, J-45, J-47, J-52.

Scenario 1T - Flow Simultaneously: FH's J-24 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-15, J-18, J-20, J-23, J-24, J-35, J-45, J-47, J-52.

Scenario 1U - Flow Simultaneously: FH's J-34 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,445 gpm total fire flows at junction J-15, J-18, J-20, J-23, J-34, J-35, J-45, J-47, J-52.

The following calculated fire flow rates in gallons per minute (gpm) at existing and new on-site fire hydrants under varying scenarios are shown to meet the required demand of 4,567 gpm for fire, domestic at PHD, and sprinkler system flowing simultaneously:

Scenario 2A - Flow Simultaneously: FH's J-4 & J-7; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water @ PHD: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,567 gpm total fire flows at junction J-15, J-18, J-20, J-23, J-34, J-35, J-45, J-47, J-52.

Scenario 2U - Flow Simultaneously: FH's J-34 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water @ PHD: J-45, J-47, & J-52:

Adjustment for minor head losses.
4,567 gpm total fire flows at junction J-15, J-18, J-20, J-23, J-34, J-35, J-45, J-47, J-52.

VII. Findings, Conclusions, & Recommendations

Based on the Hydraulic Network Analysis for the proposed *Project*, the following findings, conclusions, and recommendations are made:

Findings & Conclusions

1) The *Project* site is undeveloped and is not currently serviced by a source of potable water.
2) Water service for the proposed *Project* will be provided by the City of Torrance Municipal Water Department (TMWD).
3) The *Project* site is located in TMWD's high pressure zone. The system pressure is provided by the pumping system at TMWD's main 28 million gallon reservoir.
4) Public fire hydrants are currently located on various streets surrounding the *Project* site, including one on the north side Via Valmonte opposite the *Project* site, and one on the west side of Hawthorne Boulevard, just south of Via Valmonte.
5) Fire flow tests, conducted by the Torrance Water Department at the above two public hydrants, indicated that the flow rate at the Hawthorne Boulevard fire hydrant delivered 7,248 gallons per minute (gpm) at 145 pounds per square inch (psi) static pressure, while producing a residual pressure of 110 psi at the Via Valmonte fire hydrant.

   Conversely, fire flow tests, indicated that the flow rate at the Via Valmonte fire hydrant delivered 12,740 gpm at 152 psi static pressure, with a residual pressure of 140 psi at the Hawthorne Boulevard fire hydrant.

   The fire hydrant flow test result forms are included in the appendix.
6) Based on the City of Torrance 2015 Urban Water Management Plan per capita water consumption rate of 122 (GPCD), the total domestic water usage by the proposed *Project* is projected to be 88,084 gallons per day (gpd).
7) In addition to on-site fire hydrants and stand pipes, a new public fire hydrant will be required south of the main entrance driveway to the *Project* site located on Hawthorne Boulevard.
8) Assuming the addition of a new fire hydrant on Hawthorne Boulevard, the analysis presented herein indicates adequate water pressure and flow to meet a sustained 1,500 gpm at both public hydrants (FH's J-34 and J35– see appendix for exhibit) flowing simultaneously (3,000 gpm, total), along with domestic water at Maximum Daily Demand (MDD) being delivered at 244.68 gpm and fire sprinklers flowing at 300 gpm.

   An additional calculation was run to show that there is adequate water pressure and flow to meet a sustained 1,500 gpm at both public hydrants (FH's J-34 and J-35 – see appendix for exhibit) flowing simultaneously (3,000 gpm, total), along with domestic

water at Peak Hour Demand (PHD) being delivered at 367.02 gpm and fire sprinklers flowing at 300 gpm.

9) The hydraulic grade line calculations show that more than adequate head is available to deliver fire water to the highest building.

10) Water distribution calculations show that the Maximum Day Demand of 4,445 gpm for water flowing simultaneously to fire hydrants, domestic water use, and sprinkler system is met under all scenarios.

    An additional calculation was run at the most critical scenario to show that the Peak Hour Demand of 4,567 gpm for water flowing simultaneously to fire hydrants, domestic water use, and sprinkler system is met under all scenarios.

Recommendations

Based on the above findings and conclusions, the following recommendations are made:

1) Domestic and fire water service can be provided for the proposed *Project* without adversely impacting the City's existing water system.
2) The proposed *Project* shall be designed to provide appropriately-sized new domestic and fire water services, and on-site water systems to meet projected demands under daily domestic use and during a major fire event.
3) A new off-site fire hydrant shall be installed on Hawthorne Boulevard at the location indicated in this analysis.
4) All relevant sections of Division 7, Chapter 6 (Water) of the City of Torrance Municipal Code shall be followed.

VIII. Appendix Section

Supporting water calculations are provided on the following pages.

City of Torrance Water Department

Date	Distribution
6/27/2016	KHR Associates
	20411 Birch St #310
	Newport Beach, CA 92660
	jpierce@khrdesign.com

Fire Hydrant Flow Test

Req'd by CDD (Department) MR (Initials)

Job Description or Work Order

FIRE HYDRANT TO BE TESTED

Number 110-5-01 Atlas Sheet(s) 110

Location 24619 Hawthorne Blvd

Size (In) 6 (Barrel) X 4 (Outlet) X 2 1/2 (Outlet) X (Outlet) Size Main (In) 12

Test Date 6/23/2016 Time 1015am Weather: clear

Static Hydrant # 110-2-07 Hose Bib used for pressure readings: Location: 24635 Via Valmont

Length (Ft) and size (In) of main to hyd under test 360 - 12"

Static Pressure (PSIG) 145 (A) Residual Pressure (PSIG) 110 (B)

Pitot gauge (PSIG) 73 (C) Diameter Outlet (In) 4 (D)

Test conducted by Brito

COMPUTATION

Flow during test 3,645 (E) gpm, read directly from flow meter used, or derived from tables, applying (C) & (D)

Pressure drop to 20 psig 145 (A) -20 125 (F) $(F)^{0.54}$ = 13.5622 (G)

Pressure drop test = 145 (A) - 110 (B) = 35 (H) $(H)^{0.54}$ 6.820194 (I)

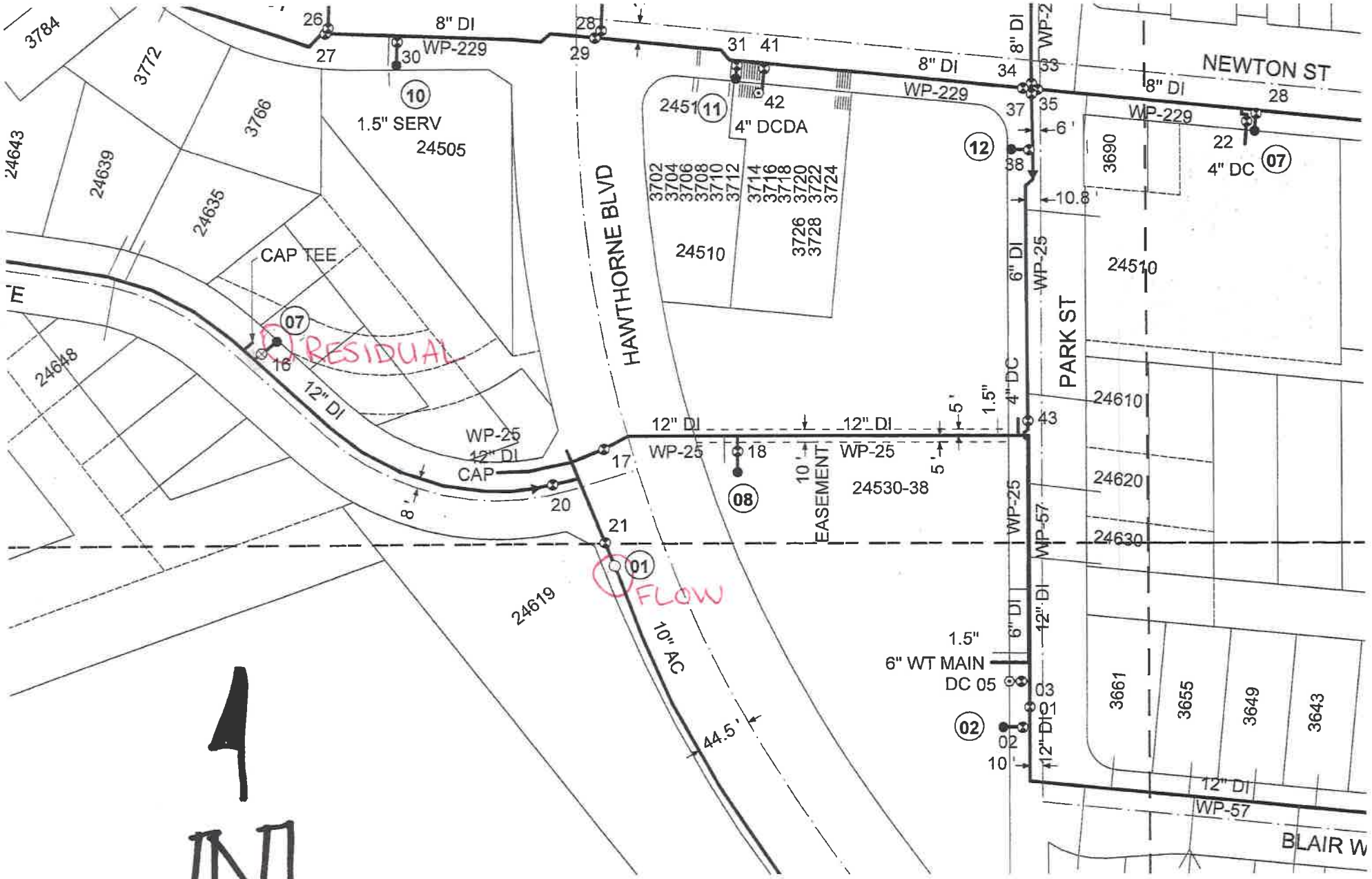
Flow at 20 psig = 3,645 (E) X 13.5622 (G) ÷ 6.8202 (I) = 7,248.23 GPM

REMARKS

Computed by: Andy Darlak Date 6/27/2016

Checked by: Date

TEST #1


3784
3772
3766
24643
24639
24635
24648
24619
24505
24510
24610
24620
24630
24530-38
3690
3661
3655
3649
3643
3702
3704
3706
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29
30
31
41
42
33
34
35
37
38
43
22
10
11
12
07
08
01
02
8" DI
WP-229
1.5" SERV
4" DCDA
4" DC
6" DI
12" DI
WP-25
WP-57
WP-2
CAP TEE
CAP
RESIDUAL
FLOW
10" AC
1.5"
6" WT MAIN
DC 05
HAWTHORNE BLVD
PARK ST
NEWTON ST
BLAIR W
EASEMENT
10'
5'
6'
10.8'
44.5'
8'
N

#10

City of Torrance Water Department

Date	Distribution
6/27/2016	KHR Associates
	20411 Birch St #310
	Newport Beach, CA 92660 jpierce@khrdesign.com

Fire Hydrant Flow Test

Req'd by CDD (Department) MR (Initials)

Job Description or Work Order

FIRE HYDRANT TO BE TESTED

Number 110-2-07 Atlas Sheet(s) 110

Location 24635 Via Valmonte

Size (In) 6 Barrel X 4 Outlet X 2 1/2 Outlet X ____ Outlet Size Main (In) 12

Test Date 6/23/2016 Time 1015am Weather: clear

Static Hydrant # 110-5-01 Hose Bib used for pressure readings: Location: 24619 Hawthorne

Length (Ft) and size (In) of main to hyd under test 360 - 12"

Static Pressure (PSIG) 152 (A) Residual Pressure (PSIG) 140 (B)

Pitot gauge (PSIG) 66 (C) Diameter Outlet (In) 4 (D)

Test conducted by Brito

COMPUTATION

Flow during test 3,490 (E) gpm, read directly from flow meter used, or derived from tables, applying (C) & (D)

Pressure drop to 20 psig 152 (A) -20 132 (F) $(F)^{0.54}$ = 13.9672 (G)

Pressure drop test = 152 (A) - 140 (B) = 12 (H) $(H)^{0.54}$ 3.826114 (I)

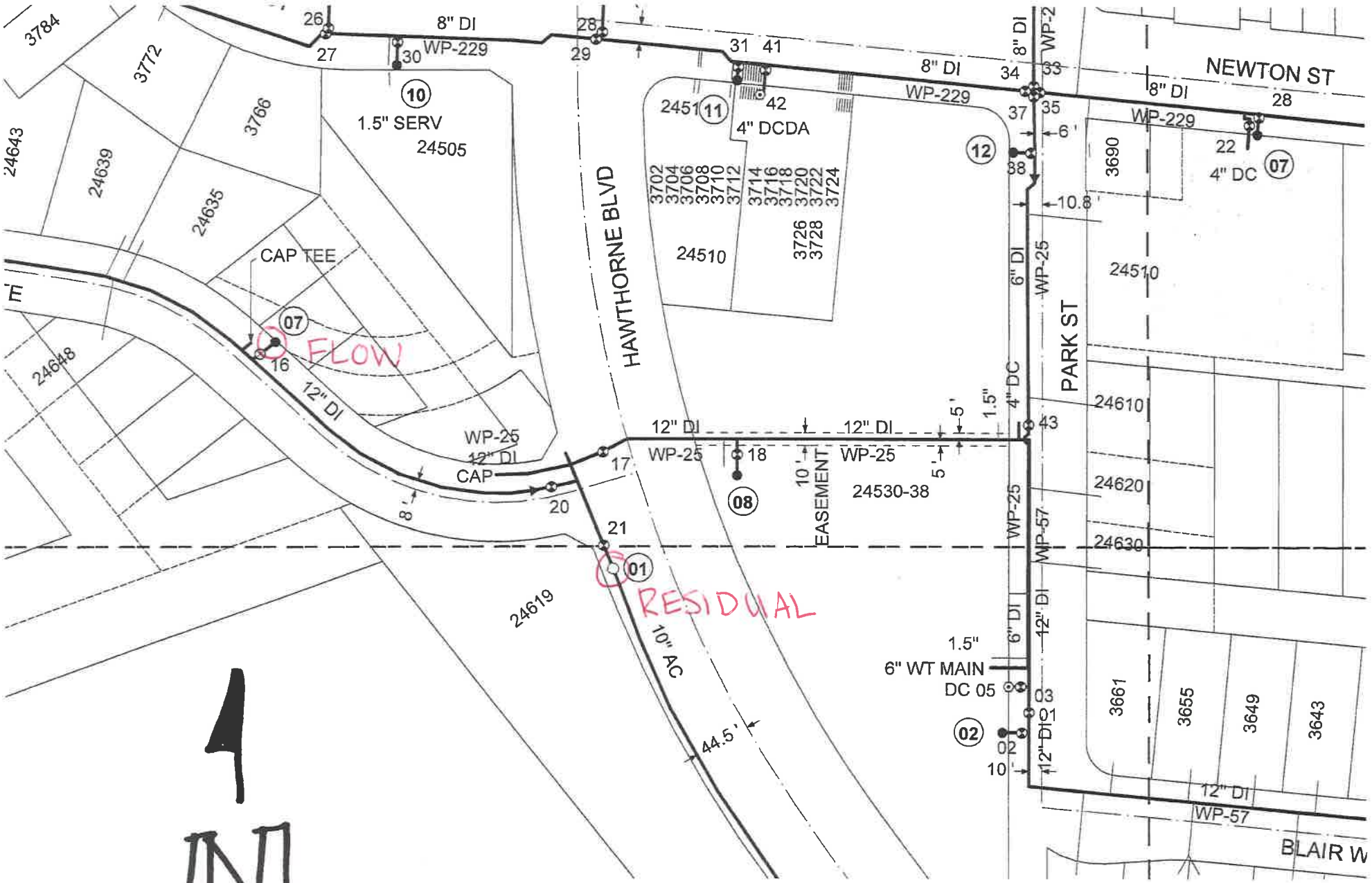
Flow at 20 psig = 3,490 (E) X 13.9672 (G) ÷ 3.8261 (I) = 12,740.24 GPM

REMARKS

Computed by: Andy Darlak Date 6/27/2016

Checked by: Date

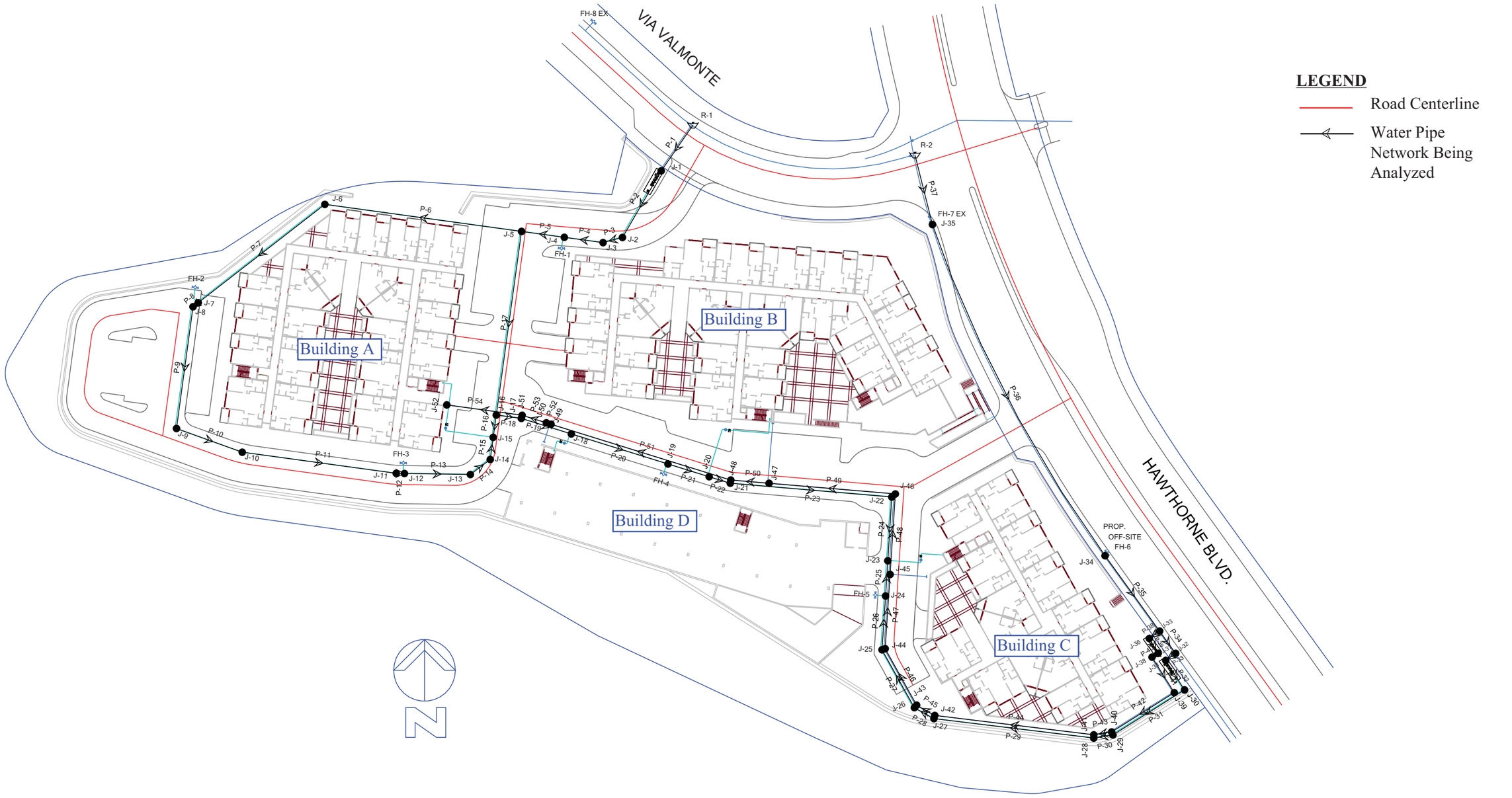
TEST #2


NEWTON ST
HAWTHORNE BLVD
PARK ST
BLAIR W
8" DI
WP-229
WP-25
WP-57
WP-2
4" DCDA
1.5" SERV
24505
24510
24530-38
24610
24620
24630
24643
24639
24635
24619
24648
3784
3772
3766
3690
3661
3655
3649
3643
CAP TEE
CAP
FLOW
RESIDUAL
12" DI
6" DI
4" DC
1.5"
6" WT MAIN
DC 05
10" AC
44.5'
10'
EASEMENT
5'
8'
6'
10.8'

N

#110

Scenario: Base



LEGEND

- Road Centerline
- Water Pipe Network Being Analyzed

Scenario: 1A - Flow Simultaneously: FH's J-4 & J-7; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Note:
+ Flow (gpm) delivered from Source R1
- Flow (gpm) delivered from Source R2

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.191	5.580	3,253	9.23
P-2	J-1	J-2	61	12.0	PVC	150.0	0.222	9.380	3,253	9.23
P-3	J-2	J-3	16	12.0	PVC	150.0	0.034	0.200	3,253	9.23
P-4	J-3	J-4	31	12.0	PVC	150.0	0.022	0.100	3,253	9.23
P-5	J-4	J-5	34	12.0	PVC	150.0	0.009	0.350	1,753	4.97
P-6	J-5	J-6	156	10.0	PVC	150.0	0.008	1.280	1,058	4.32
P-7	J-6	J-7	126	10.0	PVC	150.0	0.006	0.200	1,058	4.32
P-8	J-7	J-8	5	8.0	PVC	150.0	0.011	0.350	-442	2.82
P-9	J-8	J-9	97	8.0	PVC	150.0	0.003	0.200	-442	2.82
P-10	J-9	J-10	55	8.0	PVC	150.0	0.005	0.800	-442	2.82
P-11	J-10	J-11	122	8.0	PVC	150.0	0.003	0.050	-442	2.82
P-12	J-11	J-12	6	8.0	PVC	150.0	0.004	0.050	-442	2.82
P-13	J-12	J-13	52	8.0	PVC	150.0	0.004	0.350	-442	2.82
P-14	J-13	J-14	20	8.0	PVC	150.0	0.004	0.200	-442	2.82
P-15	J-14	J-15	18	8.0	PVC	150.0	0.004	0.200	-442	2.82
P-16	J-15	J-16	18	8.0	PVC	150.0	0.015	0.350	-742	4.73
P-17	J-16	J-5	146	12.0	PVC	150.0	0.002	1.280	-694	1.97
P-18	J-16	J-17	20	12.0	PVC	150.0	0.000	0.050	-47	0.13
P-19	J-17	J-18	41	12.0	PVC	150.0	0.000	0.350	-47	0.13
P-20	J-18	J-19	80	12.0	PVC	150.0	0.000	0.350	-347	0.98
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	-347	0.98
P-22	J-20	J-21	17	8.0	PVC	150.0	0.007	0.050	-647	4.13
P-23	J-21	J-22	128	8.0	PVC	150.0	0.008	0.800	-647	4.13
P-24	J-22	J-23	50	8.0	PVC	150.0	0.008	0.350	-647	4.13
P-25	J-23	J-24	28	8.0	PVC	150.0	0.020	0.350	-947	6.05
P-26	J-24	J-25	42	8.0	PVC	150.0	0.014	0.100	-947	6.05
P-27	J-25	J-26	52	8.0	PVC	150.0	0.014	0.100	-947	6.05
P-28	J-26	J-27	18	8.0	PVC	150.0	0.016	0.100	-947	6.05
P-29	J-27	J-28	127	8.0	PVC	150.0	0.013	0.050	-947	6.05
P-30	J-28	J-29	15	8.0	PVC	150.0	0.016	0.100	-947	6.05
P-31	J-29	J-30	67	8.0	PVC	150.0	0.019	0.800	-947	6.05
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.211	9.380	-947	6.05
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.348	5.580	-947	6.05
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.019	1.280	-947	3.87
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.014	1.280	-1,192	4.87
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.009	1.280	-1,192	4.87
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.062	8.280	-1,192	4.87
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1A - Flow Simultaneously: FH's J-4 & J-7; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.10	Fixed	179.51	78
J-2	188.21	0	354.65	Fixed	166.44	72
J-3	188.19	0	354.11	Fixed	165.92	72
J-4	188.78	1,500	353.45	Fixed	164.67	71
J-5	191.76	0	353.13	Fixed	161.37	70
J-6	195.04	0	351.94	Fixed	156.90	68
J-7	200.51	1,500	351.22	Fixed	150.71	65
J-8	200.42	0	351.27	Fixed	150.85	65
J-9	199.39	0	351.60	Fixed	152.21	66
J-10	198.17	0	351.87	Fixed	153.70	66
J-11	192.82	0	352.25	Fixed	159.43	69
J-12	191.85	0	352.27	Fixed	160.42	69
J-13	189.36	0	352.48	Fixed	163.12	71
J-14	189.22	0	352.56	Fixed	163.34	71
J-15	189.25	300	352.64	Fixed	163.39	71
J-16	189.05	0	352.91	Fixed	163.86	71
J-17	189.07	0	352.91	Fixed	163.84	71
J-18	189.16	300	352.91	Fixed	163.75	71
J-19	187.87	0	352.93	Fixed	165.06	71
J-20	187.34	300	352.95	Fixed	165.61	72
J-21	187.20	0	353.07	Fixed	165.87	72
J-22	187.35	0	354.08	Fixed	166.73	72
J-23	188.06	300	354.49	Fixed	166.43	72
J-24	188.10	0	355.04	Fixed	166.94	72
J-25	188.26	0	355.63	Fixed	167.37	72
J-26	189.00	0	356.35	Fixed	167.35	72
J-27	189.00	0	356.63	Fixed	167.63	73
J-28	189.35	0	358.27	Fixed	168.92	73
J-29	189.35	0	358.52	Fixed	169.17	73
J-30	186.50	0	359.81	Fixed	173.31	75
J-31	186.50	0	365.59	Fixed	179.09	77
J-32	186.50	0	368.91	Fixed	182.41	79
J-33	186.50	0	369.32	Fixed	182.82	79
J-34	185.26	0	370.33	Fixed	185.07	80
J-35	177.24	0	372.99	Fixed	195.75	85
J-36	186.50	0	369.11	Fixed	182.61	79
J-37	186.50	0	368.20	Fixed	181.70	79
J-38	189.70	0	368.08	Fixed	178.38	77
J-39	189.70	0	367.84	Fixed	178.14	77
J-40	189.35	0	367.50	Fixed	178.15	77
J-41	189.35	0	367.43	Fixed	178.08	77
J-42	189.00	0	366.90	Fixed	177.90	77
J-43	189.00	0	366.82	Fixed	177.82	77
J-44	188.20	0	366.59	Fixed	178.39	77
J-45	187.89	64	366.33	Fixed	178.44	77
J-46	187.35	0	366.10	Fixed	178.75	77
J-47	187.28	97	365.81	Fixed	178.53	77
J-48	187.15	0	365.77	Fixed	178.62	77
J-49	189.40	0	365.69	Fixed	176.29	76
J-50	189.40	0	365.67	Fixed	176.27	76
J-51	189.05	0	365.58	Fixed	176.53	76
J-52	190.00	83	365.33	Fixed	175.33	76

Scenario: 1B - Flow Simultaneously: FH's J-4 & J-12; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.191	5.580	3,247	9.21
P-2	J-1	J-2	61	12.0	PVC	150.0	0.221	9.380	3,247	9.21
P-3	J-2	J-3	16	12.0	PVC	150.0	0.034	0.200	3,247	9.21
P-4	J-3	J-4	31	12.0	PVC	150.0	0.022	0.100	3,247	9.21
P-5	J-4	J-5	34	12.0	PVC	150.0	0.009	0.350	1,747	4.96
P-6	J-5	J-6	156	10.0	PVC	150.0	0.003	1.280	609	2.49
P-7	J-6	J-7	126	10.0	PVC	150.0	0.002	0.200	609	2.49
P-8	J-7	J-8	5	8.0	PVC	150.0	0.022	0.350	609	3.89
P-9	J-8	J-9	97	8.0	PVC	150.0	0.006	0.200	609	3.89
P-10	J-9	J-10	55	8.0	PVC	150.0	0.009	0.800	609	3.89
P-11	J-10	J-11	122	8.0	PVC	150.0	0.006	0.050	609	3.89
P-12	J-11	J-12	6	8.0	PVC	150.0	0.007	0.050	609	3.89
P-13	J-12	J-13	52	8.0	PVC	150.0	0.015	0.350	-891	5.69
P-14	J-13	J-14	20	8.0	PVC	150.0	0.016	0.200	-891	5.69
P-15	J-14	J-15	18	8.0	PVC	150.0	0.017	0.200	-891	5.69
P-16	J-15	J-16	18	8.0	PVC	150.0	0.037	0.350	-1,191	7.60
P-17	J-16	J-5	146	12.0	PVC	150.0	0.004	1.280	-1,138	3.23
P-18	J-16	J-17	20	12.0	PVC	150.0	0.000	0.050	-53	0.15
P-19	J-17	J-18	41	12.0	PVC	150.0	0.000	0.350	-53	0.15
P-20	J-18	J-19	80	12.0	PVC	150.0	0.000	0.350	-353	1.00
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	-353	1.00
P-22	J-20	J-21	17	8.0	PVC	150.0	0.007	0.050	-653	4.17
P-23	J-21	J-22	128	8.0	PVC	150.0	0.008	0.800	-653	4.17
P-24	J-22	J-23	50	8.0	PVC	150.0	0.008	0.350	-653	4.17
P-25	J-23	J-24	28	8.0	PVC	150.0	0.020	0.350	-953	6.08
P-26	J-24	J-25	42	8.0	PVC	150.0	0.014	0.100	-953	6.08
P-27	J-25	J-26	52	8.0	PVC	150.0	0.014	0.100	-953	6.08
P-28	J-26	J-27	18	8.0	PVC	150.0	0.016	0.100	-953	6.08
P-29	J-27	J-28	127	8.0	PVC	150.0	0.013	0.050	-953	6.08
P-30	J-28	J-29	15	8.0	PVC	150.0	0.017	0.100	-953	6.08
P-31	J-29	J-30	67	8.0	PVC	150.0	0.020	0.800	-953	6.08
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.213	9.380	-953	6.08
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.352	5.580	-953	6.08
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.019	1.280	-953	3.89
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.014	1.280	-1,197	4.89
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.009	1.280	-1,197	4.89
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.062	8.280	-1,197	4.89
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1B - Flow Simultaneously: FH's J-4 & J-12; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.13	Fixed	179.54	78
J-2	188.21	0	354.73	Fixed	166.52	72
J-3	188.19	0	354.19	Fixed	166.00	72
J-4	188.78	1,500	353.53	Fixed	164.75	71
J-5	191.76	0	353.21	Fixed	161.45	70
J-6	195.04	0	352.79	Fixed	157.75	68
J-7	200.51	0	352.53	Fixed	152.02	66
J-8	200.42	0	352.42	Fixed	152.00	66
J-9	199.39	0	351.84	Fixed	152.45	66
J-10	198.17	0	351.34	Fixed	153.17	66
J-11	192.82	0	350.65	Fixed	157.83	68
J-12	191.85	1,500	350.60	Fixed	158.75	69
J-13	189.36	0	351.36	Fixed	162.00	70
J-14	189.22	0	351.68	Fixed	162.46	70
J-15	189.25	300	351.98	Fixed	162.73	70
J-16	189.05	0	352.64	Fixed	163.59	71
J-17	189.07	0	352.64	Fixed	163.57	71
J-18	189.16	300	352.64	Fixed	163.48	71
J-19	187.87	0	352.67	Fixed	164.80	71
J-20	187.34	300	352.69	Fixed	165.35	72
J-21	187.20	0	352.81	Fixed	165.61	72
J-22	187.35	0	353.84	Fixed	166.49	72
J-23	188.06	300	354.25	Fixed	166.19	72
J-24	188.10	0	354.81	Fixed	166.71	72
J-25	188.26	0	355.41	Fixed	167.15	72
J-26	189.00	0	356.13	Fixed	167.13	72
J-27	189.00	0	356.42	Fixed	167.42	72
J-28	189.35	0	358.07	Fixed	168.72	73
J-29	189.35	0	358.32	Fixed	168.97	73
J-30	186.50	0	359.64	Fixed	173.14	75
J-31	186.50	0	365.48	Fixed	178.98	77
J-32	186.50	0	368.84	Fixed	182.34	79
J-33	186.50	0	369.25	Fixed	182.75	79
J-34	185.26	0	370.27	Fixed	185.01	80
J-35	177.24	0	372.96	Fixed	195.72	85
J-36	186.50	0	369.04	Fixed	182.54	79
J-37	186.50	0	368.13	Fixed	181.63	79
J-38	189.70	0	368.01	Fixed	178.31	77
J-39	189.70	0	367.78	Fixed	178.08	77
J-40	189.35	0	367.44	Fixed	178.09	77
J-41	189.35	0	367.37	Fixed	178.02	77
J-42	189.00	0	366.83	Fixed	177.83	77
J-43	189.00	0	366.75	Fixed	177.75	77
J-44	188.20	0	366.52	Fixed	178.32	77
J-45	187.89	64	366.27	Fixed	178.38	77
J-46	187.35	0	366.03	Fixed	178.68	77
J-47	187.28	97	365.74	Fixed	178.46	77
J-48	187.15	0	365.71	Fixed	178.56	77
J-49	189.40	0	365.62	Fixed	176.22	76
J-50	189.40	0	365.60	Fixed	176.20	76
J-51	189.05	0	365.52	Fixed	176.47	76
J-52	190.00	83	365.27	Fixed	175.27	76

Scenario: 1C - Flow Simultaneously: FH's J-4 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.189	5.580	3,232	9.17
P-2	J-1	J-2	61	12.0	PVC	150.0	0.219	9.380	3,232	9.17
P-3	J-2	J-3	16	12.0	PVC	150.0	0.034	0.200	3,232	9.17
P-4	J-3	J-4	31	12.0	PVC	150.0	0.021	0.100	3,232	9.17
P-5	J-4	J-5	34	12.0	PVC	150.0	0.009	0.350	1,732	4.91
P-6	J-5	J-6	156	10.0	PVC	150.0	0.001	1.280	302	1.23
P-7	J-6	J-7	126	10.0	PVC	150.0	0.001	0.200	302	1.23
P-8	J-7	J-8	5	8.0	PVC	150.0	0.005	0.350	302	1.93
P-9	J-8	J-9	97	8.0	PVC	150.0	0.002	0.200	302	1.93
P-10	J-9	J-10	55	8.0	PVC	150.0	0.002	0.800	302	1.93
P-11	J-10	J-11	122	8.0	PVC	150.0	0.002	0.050	302	1.93
P-12	J-11	J-12	6	8.0	PVC	150.0	0.002	0.050	302	1.93
P-13	J-12	J-13	52	8.0	PVC	150.0	0.002	0.350	302	1.93
P-14	J-13	J-14	20	8.0	PVC	150.0	0.002	0.200	302	1.93
P-15	J-14	J-15	18	8.0	PVC	150.0	0.002	0.200	302	1.93
P-16	J-15	J-16	18	8.0	PVC	150.0	0.000	0.350	2	0.01
P-17	J-16	J-5	146	12.0	PVC	150.0	0.006	1.280	-1,430	4.06
P-18	J-16	J-17	20	12.0	PVC	150.0	0.004	0.050	1,432	4.06
P-19	J-17	J-18	41	12.0	PVC	150.0	0.006	0.350	1,432	4.06
P-20	J-18	J-19	80	12.0	PVC	150.0	0.003	0.350	1,132	3.21
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	-368	1.04
P-22	J-20	J-21	17	8.0	PVC	150.0	0.007	0.050	-668	4.26
P-23	J-21	J-22	128	8.0	PVC	150.0	0.008	0.800	-668	4.26
P-24	J-22	J-23	50	8.0	PVC	150.0	0.009	0.350	-668	4.26
P-25	J-23	J-24	28	8.0	PVC	150.0	0.021	0.350	-968	6.18
P-26	J-24	J-25	42	8.0	PVC	150.0	0.015	0.100	-968	6.18
P-27	J-25	J-26	52	8.0	PVC	150.0	0.014	0.100	-968	6.18
P-28	J-26	J-27	18	8.0	PVC	150.0	0.017	0.100	-968	6.18
P-29	J-27	J-28	127	8.0	PVC	150.0	0.013	0.050	-968	6.18
P-30	J-28	J-29	15	8.0	PVC	150.0	0.017	0.100	-968	6.18
P-31	J-29	J-30	67	8.0	PVC	150.0	0.020	0.800	-968	6.18
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.220	9.380	-968	6.18
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.363	5.580	-968	6.18
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.019	1.280	-968	3.95
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.014	1.280	-1,212	4.95
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.009	1.280	-1,212	4.95
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.064	8.280	-1,212	4.95
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1C - Flow Simultaneously: FH's J-4 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.20	Fixed	179.61	78
J-2	188.21	0	354.92	Fixed	166.71	72
J-3	188.19	0	354.39	Fixed	166.20	72
J-4	188.78	1,500	353.74	Fixed	164.96	71
J-5	191.76	0	353.42	Fixed	161.66	70
J-6	195.04	0	353.31	Fixed	158.27	68
J-7	200.51	0	353.24	Fixed	152.73	66
J-8	200.42	0	353.22	Fixed	152.80	66
J-9	199.39	0	353.06	Fixed	153.67	66
J-10	198.17	0	352.93	Fixed	154.76	67
J-11	192.82	0	352.74	Fixed	159.92	69
J-12	191.85	0	352.72	Fixed	160.87	70
J-13	189.36	0	352.63	Fixed	163.27	71
J-14	189.22	0	352.58	Fixed	163.36	71
J-15	189.25	300	352.55	Fixed	163.30	71
J-16	189.05	0	352.55	Fixed	163.50	71
J-17	189.07	0	352.46	Fixed	163.39	71
J-18	189.16	300	352.21	Fixed	163.05	71
J-19	187.87	1,500	351.96	Fixed	164.09	71
J-20	187.34	300	351.98	Fixed	164.64	71
J-21	187.20	0	352.11	Fixed	164.91	71
J-22	187.35	0	353.18	Fixed	165.83	72
J-23	188.06	300	353.61	Fixed	165.55	72
J-24	188.10	0	354.19	Fixed	166.09	72
J-25	188.26	0	354.80	Fixed	166.54	72
J-26	189.00	0	355.55	Fixed	166.55	72
J-27	189.00	0	355.84	Fixed	166.84	72
J-28	189.35	0	357.54	Fixed	168.19	73
J-29	189.35	0	357.80	Fixed	168.45	73
J-30	186.50	0	359.16	Fixed	172.66	75
J-31	186.50	0	365.19	Fixed	178.69	77
J-32	186.50	0	368.66	Fixed	182.16	79
J-33	186.50	0	369.07	Fixed	182.57	79
J-34	185.26	0	370.12	Fixed	184.86	80
J-35	177.24	0	372.87	Fixed	195.63	85
J-36	186.50	0	368.87	Fixed	182.37	79
J-37	186.50	0	367.96	Fixed	181.46	79
J-38	189.70	0	367.84	Fixed	178.14	77
J-39	189.70	0	367.60	Fixed	177.90	77
J-40	189.35	0	367.26	Fixed	177.91	77
J-41	189.35	0	367.19	Fixed	177.84	77
J-42	189.00	0	366.65	Fixed	177.65	77
J-43	189.00	0	366.57	Fixed	177.57	77
J-44	188.20	0	366.35	Fixed	178.15	77
J-45	187.89	64	366.09	Fixed	178.20	77
J-46	187.35	0	365.86	Fixed	178.51	77
J-47	187.28	97	365.57	Fixed	178.29	77
J-48	187.15	0	365.53	Fixed	178.38	77
J-49	189.40	0	365.45	Fixed	176.05	76
J-50	189.40	0	365.43	Fixed	176.03	76
J-51	189.05	0	365.34	Fixed	176.29	76
J-52	190.00	83	365.09	Fixed	175.09	76

Scenario: 1D - Flow Simultaneously: FH's J-4 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.180	5.580	3,155	8.95
P-2	J-1	J-2	61	12.0	PVC	150.0	0.209	9.380	3,155	8.95
P-3	J-2	J-3	16	12.0	PVC	150.0	0.032	0.200	3,155	8.95
P-4	J-3	J-4	31	12.0	PVC	150.0	0.020	0.100	3,155	8.95
P-5	J-4	J-5	34	12.0	PVC	150.0	0.008	0.350	1,655	4.70
P-6	J-5	J-6	156	10.0	PVC	150.0	0.001	1.280	288	1.18
P-7	J-6	J-7	126	10.0	PVC	150.0	0.001	0.200	288	1.18
P-8	J-7	J-8	5	8.0	PVC	150.0	0.005	0.350	288	1.84
P-9	J-8	J-9	97	8.0	PVC	150.0	0.002	0.200	288	1.84
P-10	J-9	J-10	55	8.0	PVC	150.0	0.002	0.800	288	1.84
P-11	J-10	J-11	122	8.0	PVC	150.0	0.001	0.050	288	1.84
P-12	J-11	J-12	6	8.0	PVC	150.0	0.002	0.050	288	1.84
P-13	J-12	J-13	52	8.0	PVC	150.0	0.002	0.350	288	1.84
P-14	J-13	J-14	20	8.0	PVC	150.0	0.002	0.200	288	1.84
P-15	J-14	J-15	18	8.0	PVC	150.0	0.002	0.200	288	1.84
P-16	J-15	J-16	18	8.0	PVC	150.0	0.000	0.350	-12	0.08
P-17	J-16	J-5	146	12.0	PVC	150.0	0.006	1.280	-1,367	3.88
P-18	J-16	J-17	20	12.0	PVC	150.0	0.004	0.050	1,355	3.85
P-19	J-17	J-18	41	12.0	PVC	150.0	0.005	0.350	1,355	3.85
P-20	J-18	J-19	80	12.0	PVC	150.0	0.003	0.350	1,055	2.99
P-21	J-19	J-20	34	12.0	PVC	150.0	0.004	0.350	1,055	2.99
P-22	J-20	J-21	17	8.0	PVC	150.0	0.009	0.050	755	4.82
P-23	J-21	J-22	128	8.0	PVC	150.0	0.011	0.800	755	4.82
P-24	J-22	J-23	50	8.0	PVC	150.0	0.011	0.350	755	4.82
P-25	J-23	J-24	28	8.0	PVC	150.0	0.005	0.350	455	2.91
P-26	J-24	J-25	42	8.0	PVC	150.0	0.017	0.100	-1,045	6.67
P-27	J-25	J-26	52	8.0	PVC	150.0	0.017	0.100	-1,045	6.67
P-28	J-26	J-27	18	8.0	PVC	150.0	0.019	0.100	-1,045	6.67
P-29	J-27	J-28	127	8.0	PVC	150.0	0.015	0.050	-1,045	6.67
P-30	J-28	J-29	15	8.0	PVC	150.0	0.020	0.100	-1,045	6.67
P-31	J-29	J-30	67	8.0	PVC	150.0	0.023	0.800	-1,045	6.67
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.256	9.380	-1,045	6.67
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.423	5.580	-1,045	6.67
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.023	1.280	-1,045	4.27
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.016	1.280	-1,289	5.27
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.010	1.280	-1,289	5.27
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.072	8.280	-1,289	5.27
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1D - Flow Simultaneously: FH's J-4 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.59	Fixed	180.00	78
J-2	188.21	0	355.93	Fixed	167.72	73
J-3	188.19	0	355.42	Fixed	167.23	72
J-4	188.78	1,500	354.79	Fixed	166.01	72
J-5	191.76	0	354.51	Fixed	162.75	70
J-6	195.04	0	354.41	Fixed	159.37	69
J-7	200.51	0	354.34	Fixed	153.83	67
J-8	200.42	0	354.32	Fixed	153.90	67
J-9	199.39	0	354.17	Fixed	154.78	67
J-10	198.17	0	354.05	Fixed	155.88	67
J-11	192.82	0	353.88	Fixed	161.06	70
J-12	191.85	0	353.87	Fixed	162.02	70
J-13	189.36	0	353.77	Fixed	164.41	71
J-14	189.22	0	353.74	Fixed	164.52	71
J-15	189.25	300	353.70	Fixed	164.45	71
J-16	189.05	0	353.70	Fixed	164.65	71
J-17	189.07	0	353.62	Fixed	164.55	71
J-18	189.16	300	353.40	Fixed	164.24	71
J-19	187.87	0	353.18	Fixed	165.31	72
J-20	187.34	300	353.06	Fixed	165.72	72
J-21	187.20	0	352.90	Fixed	165.70	72
J-22	187.35	0	351.54	Fixed	164.19	71
J-23	188.06	300	351.00	Fixed	162.94	70
J-24	188.10	1,500	350.86	Fixed	162.76	70
J-25	188.26	0	351.58	Fixed	163.32	71
J-26	189.00	0	352.44	Fixed	163.44	71
J-27	189.00	0	352.77	Fixed	163.77	71
J-28	189.35	0	354.73	Fixed	165.38	72
J-29	189.35	0	355.04	Fixed	165.69	72
J-30	186.50	0	356.60	Fixed	170.10	74
J-31	186.50	0	363.62	Fixed	177.12	77
J-32	186.50	0	367.66	Fixed	181.16	78
J-33	186.50	0	368.14	Fixed	181.64	79
J-34	185.26	0	369.32	Fixed	184.06	80
J-35	177.24	0	372.41	Fixed	195.17	84
J-36	186.50	0	367.94	Fixed	181.44	78
J-37	186.50	0	367.02	Fixed	180.52	78
J-38	189.70	0	366.90	Fixed	177.20	77
J-39	189.70	0	366.67	Fixed	176.97	77
J-40	189.35	0	366.33	Fixed	176.98	77
J-41	189.35	0	366.26	Fixed	176.91	77
J-42	189.00	0	365.72	Fixed	176.72	76
J-43	189.00	0	365.64	Fixed	176.64	76
J-44	188.20	0	365.42	Fixed	177.22	77
J-45	187.89	64	365.16	Fixed	177.27	77
J-46	187.35	0	364.93	Fixed	177.58	77
J-47	187.28	97	364.64	Fixed	177.36	77
J-48	187.15	0	364.60	Fixed	177.45	77
J-49	189.40	0	364.52	Fixed	175.12	76
J-50	189.40	0	364.50	Fixed	175.10	76
J-51	189.05	0	364.41	Fixed	175.36	76
J-52	190.00	83	364.16	Fixed	174.16	75

Scenario: 1E - Flow Simultaneously: FH's J-4 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.120	5.580	2,569	7.29
P-2	J-1	J-2	61	12.0	PVC	150.0	0.139	9.380	2,569	7.29
P-3	J-2	J-3	16	12.0	PVC	150.0	0.022	0.200	2,569	7.29
P-4	J-3	J-4	31	12.0	PVC	150.0	0.014	0.100	2,569	7.29
P-5	J-4	J-5	34	12.0	PVC	150.0	0.004	0.350	1,069	3.03
P-6	J-5	J-6	156	10.0	PVC	150.0	0.000	1.280	187	0.76
P-7	J-6	J-7	126	10.0	PVC	150.0	0.000	0.200	187	0.76
P-8	J-7	J-8	5	8.0	PVC	150.0	0.002	0.350	187	1.19
P-9	J-8	J-9	97	8.0	PVC	150.0	0.001	0.200	187	1.19
P-10	J-9	J-10	55	8.0	PVC	150.0	0.001	0.800	187	1.19
P-11	J-10	J-11	122	8.0	PVC	150.0	0.001	0.050	187	1.19
P-12	J-11	J-12	6	8.0	PVC	150.0	0.001	0.050	187	1.19
P-13	J-12	J-13	52	8.0	PVC	150.0	0.001	0.350	187	1.19
P-14	J-13	J-14	20	8.0	PVC	150.0	0.001	0.200	187	1.19
P-15	J-14	J-15	18	8.0	PVC	150.0	0.001	0.200	187	1.19
P-16	J-15	J-16	18	8.0	PVC	150.0	0.000	0.350	-113	0.72
P-17	J-16	J-5	146	12.0	PVC	150.0	0.002	1.280	-882	2.50
P-18	J-16	J-17	20	12.0	PVC	150.0	0.001	0.050	769	2.18
P-19	J-17	J-18	41	12.0	PVC	150.0	0.002	0.350	769	2.18
P-20	J-18	J-19	80	12.0	PVC	150.0	0.001	0.350	469	1.33
P-21	J-19	J-20	34	12.0	PVC	150.0	0.001	0.350	469	1.33
P-22	J-20	J-21	17	8.0	PVC	150.0	0.001	0.050	169	1.08
P-23	J-21	J-22	128	8.0	PVC	150.0	0.001	0.800	169	1.08
P-24	J-22	J-23	50	8.0	PVC	150.0	0.001	0.350	169	1.08
P-25	J-23	J-24	28	8.0	PVC	150.0	0.000	0.350	-131	0.84
P-26	J-24	J-25	42	8.0	PVC	150.0	0.000	0.100	-131	0.84
P-27	J-25	J-26	52	8.0	PVC	150.0	0.000	0.100	-131	0.84
P-28	J-26	J-27	18	8.0	PVC	150.0	0.000	0.100	-131	0.84
P-29	J-27	J-28	127	8.0	PVC	150.0	0.000	0.050	-131	0.84
P-30	J-28	J-29	15	8.0	PVC	150.0	0.000	0.100	-131	0.84
P-31	J-29	J-30	67	8.0	PVC	150.0	0.000	0.800	-131	0.84
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.004	9.380	-131	0.84
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.007	5.580	-131	0.84
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.000	1.280	-131	0.54
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.002	1.280	-376	1.53
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.021	1.280	-1,876	7.66
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.151	8.280	-1,876	7.66
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1E - Flow Simultaneously: FH's J-4 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	371.22	Fixed	182.63	79
J-2	188.21	0	362.81	Fixed	174.60	76
J-3	188.19	0	362.47	Fixed	174.28	75
J-4	188.78	1,500	362.04	Fixed	173.26	75
J-5	191.76	0	361.92	Fixed	170.16	74
J-6	195.04	0	361.88	Fixed	166.84	72
J-7	200.51	0	361.85	Fixed	161.34	70
J-8	200.42	0	361.84	Fixed	161.42	70
J-9	199.39	0	361.77	Fixed	162.38	70
J-10	198.17	0	361.72	Fixed	163.55	71
J-11	192.82	0	361.64	Fixed	168.82	73
J-12	191.85	0	361.64	Fixed	169.79	73
J-13	189.36	0	361.60	Fixed	172.24	75
J-14	189.22	0	361.58	Fixed	172.36	75
J-15	189.25	300	361.56	Fixed	172.31	75
J-16	189.05	0	361.57	Fixed	172.52	75
J-17	189.07	0	361.54	Fixed	172.47	75
J-18	189.16	300	361.47	Fixed	172.31	75
J-19	187.87	0	361.42	Fixed	173.55	75
J-20	187.34	300	361.39	Fixed	174.05	75
J-21	187.20	0	361.38	Fixed	174.18	75
J-22	187.35	0	361.30	Fixed	173.95	75
J-23	188.06	300	361.27	Fixed	173.21	75
J-24	188.10	0	361.28	Fixed	173.18	75
J-25	188.26	0	361.30	Fixed	173.04	75
J-26	189.00	0	361.32	Fixed	172.32	75
J-27	189.00	0	361.32	Fixed	172.32	75
J-28	189.35	0	361.37	Fixed	172.02	74
J-29	189.35	0	361.37	Fixed	172.02	74
J-30	186.50	0	361.40	Fixed	174.90	76
J-31	186.50	0	361.52	Fixed	175.02	76
J-32	186.50	0	361.58	Fixed	175.08	76
J-33	186.50	0	361.59	Fixed	175.09	76
J-34	185.26	1,500	361.70	Fixed	176.44	76
J-35	177.24	0	367.94	Fixed	190.70	83
J-36	186.50	0	361.38	Fixed	174.88	76
J-37	186.50	0	360.47	Fixed	173.97	75
J-38	189.70	0	360.35	Fixed	170.65	74
J-39	189.70	0	360.12	Fixed	170.42	74
J-40	189.35	0	359.78	Fixed	170.43	74
J-41	189.35	0	359.70	Fixed	170.35	74
J-42	189.00	0	359.17	Fixed	170.17	74
J-43	189.00	0	359.09	Fixed	170.09	74
J-44	188.20	0	358.86	Fixed	170.66	74
J-45	187.89	64	358.61	Fixed	170.72	74
J-46	187.35	0	358.37	Fixed	171.02	74
J-47	187.28	97	358.08	Fixed	170.80	74
J-48	187.15	0	358.05	Fixed	170.90	74
J-49	189.40	0	357.96	Fixed	168.56	73
J-50	189.40	0	357.94	Fixed	168.54	73
J-51	189.05	0	357.85	Fixed	168.80	73
J-52	190.00	83	357.60	Fixed	167.60	73

Scenario: 1F - Flow Simultaneously: FH's J-4 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.103	5.580	2,385	6.77
P-2	J-1	J-2	61	12.0	PVC	150.0	0.120	9.380	2,385	6.77
P-3	J-2	J-3	16	12.0	PVC	150.0	0.019	0.200	2,385	6.77
P-4	J-3	J-4	31	12.0	PVC	150.0	0.012	0.100	2,385	6.77
P-5	J-4	J-5	34	12.0	PVC	150.0	0.003	0.350	885	2.51
P-6	J-5	J-6	156	10.0	PVC	150.0	0.000	1.280	156	0.64
P-7	J-6	J-7	126	10.0	PVC	150.0	0.000	0.200	156	0.64
P-8	J-7	J-8	5	8.0	PVC	150.0	0.002	0.350	156	1.00
P-9	J-8	J-9	97	8.0	PVC	150.0	0.000	0.200	156	1.00
P-10	J-9	J-10	55	8.0	PVC	150.0	0.001	0.800	156	1.00
P-11	J-10	J-11	122	8.0	PVC	150.0	0.000	0.050	156	1.00
P-12	J-11	J-12	6	8.0	PVC	150.0	0.001	0.050	156	1.00
P-13	J-12	J-13	52	8.0	PVC	150.0	0.001	0.350	156	1.00
P-14	J-13	J-14	20	8.0	PVC	150.0	0.001	0.200	156	1.00
P-15	J-14	J-15	18	8.0	PVC	150.0	0.001	0.200	156	1.00
P-16	J-15	J-16	18	8.0	PVC	150.0	0.001	0.350	-144	0.92
P-17	J-16	J-5	146	12.0	PVC	150.0	0.002	1.280	-729	2.07
P-18	J-16	J-17	20	12.0	PVC	150.0	0.001	0.050	585	1.66
P-19	J-17	J-18	41	12.0	PVC	150.0	0.001	0.350	585	1.66
P-20	J-18	J-19	80	12.0	PVC	150.0	0.000	0.350	285	0.81
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	285	0.81
P-22	J-20	J-21	17	8.0	PVC	150.0	0.000	0.050	-15	0.09
P-23	J-21	J-22	128	8.0	PVC	150.0	0.000	0.800	-15	0.09
P-24	J-22	J-23	50	8.0	PVC	150.0	0.000	0.350	-15	0.09
P-25	J-23	J-24	28	8.0	PVC	150.0	0.002	0.350	-315	2.01
P-26	J-24	J-25	42	8.0	PVC	150.0	0.002	0.100	-315	2.01
P-27	J-25	J-26	52	8.0	PVC	150.0	0.002	0.100	-315	2.01
P-28	J-26	J-27	18	8.0	PVC	150.0	0.002	0.100	-315	2.01
P-29	J-27	J-28	127	8.0	PVC	150.0	0.002	0.050	-315	2.01
P-30	J-28	J-29	15	8.0	PVC	150.0	0.002	0.100	-315	2.01
P-31	J-29	J-30	67	8.0	PVC	150.0	0.002	0.800	-315	2.01
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.024	9.380	-315	2.01
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.039	5.580	-315	2.01
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.002	1.280	-315	1.28
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.003	1.280	-559	2.28
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.002	1.280	-559	2.28
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.182	8.280	-2,059	8.41
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1F - Flow Simultaneously: FH's J-4 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	371.94	Fixed	183.35	79
J-2	188.21	0	364.68	Fixed	176.47	76
J-3	188.19	0	364.38	Fixed	176.19	76
J-4	188.78	1,500	364.01	Fixed	175.23	76
J-5	191.76	0	363.93	Fixed	172.17	74
J-6	195.04	0	363.89	Fixed	168.85	73
J-7	200.51	0	363.87	Fixed	163.36	71
J-8	200.42	0	363.87	Fixed	163.45	71
J-9	199.39	0	363.82	Fixed	164.43	71
J-10	198.17	0	363.78	Fixed	165.61	72
J-11	192.82	0	363.73	Fixed	170.91	74
J-12	191.85	0	363.72	Fixed	171.87	74
J-13	189.36	0	363.69	Fixed	174.33	75
J-14	189.22	0	363.68	Fixed	174.46	75
J-15	189.25	300	363.67	Fixed	174.42	75
J-16	189.05	0	363.68	Fixed	174.63	76
J-17	189.07	0	363.67	Fixed	174.60	76
J-18	189.16	300	363.62	Fixed	174.46	75
J-19	187.87	0	363.60	Fixed	175.73	76
J-20	187.34	300	363.59	Fixed	176.25	76
J-21	187.20	0	363.59	Fixed	176.39	76
J-22	187.35	0	363.59	Fixed	176.24	76
J-23	188.06	300	363.59	Fixed	175.53	76
J-24	188.10	0	363.66	Fixed	175.56	76
J-25	188.26	0	363.74	Fixed	175.48	76
J-26	189.00	0	363.83	Fixed	174.83	76
J-27	189.00	0	363.87	Fixed	174.87	76
J-28	189.35	0	364.08	Fixed	174.73	76
J-29	189.35	0	364.11	Fixed	174.76	76
J-30	186.50	0	364.27	Fixed	177.77	77
J-31	186.50	0	364.91	Fixed	178.41	77
J-32	186.50	0	365.28	Fixed	178.78	77
J-33	186.50	0	365.33	Fixed	178.83	77
J-34	185.26	0	365.57	Fixed	180.31	78
J-35	177.24	1,500	366.21	Fixed	188.97	82
J-36	186.50	0	365.12	Fixed	178.62	77
J-37	186.50	0	364.21	Fixed	177.71	77
J-38	189.70	0	364.09	Fixed	174.39	75
J-39	189.70	0	363.86	Fixed	174.16	75
J-40	189.35	0	363.52	Fixed	174.17	75
J-41	189.35	0	363.44	Fixed	174.09	75
J-42	189.00	0	362.91	Fixed	173.91	75
J-43	189.00	0	362.83	Fixed	173.83	75
J-44	188.20	0	362.60	Fixed	174.40	75
J-45	187.89	64	362.35	Fixed	174.46	75
J-46	187.35	0	362.11	Fixed	174.76	76
J-47	187.28	97	361.82	Fixed	174.54	76
J-48	187.15	0	361.79	Fixed	174.64	76
J-49	189.40	0	361.70	Fixed	172.30	75
J-50	189.40	0	361.68	Fixed	172.28	75
J-51	189.05	0	361.59	Fixed	172.54	75
J-52	190.00	83	361.34	Fixed	171.34	74

Scenario: 1G - Flow Simultaneously: FH's J-7 & J-12; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.189	5.580	3,229	9.16
P-2	J-1	J-2	61	12.0	PVC	150.0	0.219	9.380	3,229	9.16
P-3	J-2	J-3	16	12.0	PVC	150.0	0.034	0.200	3,229	9.16
P-4	J-3	J-4	31	12.0	PVC	150.0	0.021	0.100	3,229	9.16
P-5	J-4	J-5	34	12.0	PVC	150.0	0.030	0.350	3,229	9.16
P-6	J-5	J-6	156	10.0	PVC	150.0	0.019	1.280	1,705	6.97
P-7	J-6	J-7	126	10.0	PVC	150.0	0.014	0.200	1,705	6.97
P-8	J-7	J-8	5	8.0	PVC	150.0	0.003	0.350	205	1.31
P-9	J-8	J-9	97	8.0	PVC	150.0	0.001	0.200	205	1.31
P-10	J-9	J-10	55	8.0	PVC	150.0	0.001	0.800	205	1.31
P-11	J-10	J-11	122	8.0	PVC	150.0	0.001	0.050	205	1.31
P-12	J-11	J-12	6	8.0	PVC	150.0	0.001	0.050	205	1.31
P-13	J-12	J-13	52	8.0	PVC	150.0	0.030	0.350	-1,295	8.27
P-14	J-13	J-14	20	8.0	PVC	150.0	0.033	0.200	-1,295	8.27
P-15	J-14	J-15	18	8.0	PVC	150.0	0.035	0.200	-1,295	8.27
P-16	J-15	J-16	18	8.0	PVC	150.0	0.065	0.350	-1,595	10.18
P-17	J-16	J-5	146	12.0	PVC	150.0	0.007	1.280	-1,524	4.32
P-18	J-16	J-17	20	12.0	PVC	150.0	0.000	0.050	-71	0.20
P-19	J-17	J-18	41	12.0	PVC	150.0	0.000	0.350	-71	0.20
P-20	J-18	J-19	80	12.0	PVC	150.0	0.000	0.350	-371	1.05
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	-371	1.05
P-22	J-20	J-21	17	8.0	PVC	150.0	0.008	0.050	-671	4.28
P-23	J-21	J-22	128	8.0	PVC	150.0	0.008	0.800	-671	4.28
P-24	J-22	J-23	50	8.0	PVC	150.0	0.009	0.350	-671	4.28
P-25	J-23	J-24	28	8.0	PVC	150.0	0.021	0.350	-971	6.20
P-26	J-24	J-25	42	8.0	PVC	150.0	0.015	0.100	-971	6.20
P-27	J-25	J-26	52	8.0	PVC	150.0	0.014	0.100	-971	6.20
P-28	J-26	J-27	18	8.0	PVC	150.0	0.017	0.100	-971	6.20
P-29	J-27	J-28	127	8.0	PVC	150.0	0.014	0.050	-971	6.20
P-30	J-28	J-29	15	8.0	PVC	150.0	0.017	0.100	-971	6.20
P-31	J-29	J-30	67	8.0	PVC	150.0	0.020	0.800	-971	6.20
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.221	9.380	-971	6.20
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.366	5.580	-971	6.20
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.020	1.280	-971	3.97
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.014	1.280	-1,216	4.97
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.009	1.280	-1,216	4.97
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.064	8.280	-1,216	4.97
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1G - Flow Simultaneously: FH's J-7 & J-12; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.22	Fixed	179.63	78
J-2	188.21	0	354.97	Fixed	166.76	72
J-3	188.19	0	354.44	Fixed	166.25	72
J-4	188.78	0	353.79	Fixed	165.01	71
J-5	191.76	0	352.75	Fixed	160.99	70
J-6	195.04	0	349.80	Fixed	154.76	67
J-7	200.51	1,500	348.05	Fixed	147.54	64
J-8	200.42	0	348.04	Fixed	147.62	64
J-9	199.39	0	347.96	Fixed	148.57	64
J-10	198.17	0	347.90	Fixed	149.73	65
J-11	192.82	0	347.81	Fixed	154.99	67
J-12	191.85	1,500	347.80	Fixed	155.95	67
J-13	189.36	0	349.34	Fixed	159.98	69
J-14	189.22	0	350.00	Fixed	160.78	70
J-15	189.25	300	350.61	Fixed	161.36	70
J-16	189.05	0	351.76	Fixed	162.71	70
J-17	189.07	0	351.76	Fixed	162.69	70
J-18	189.16	300	351.76	Fixed	162.60	70
J-19	187.87	0	351.79	Fixed	163.92	71
J-20	187.34	300	351.81	Fixed	164.47	71
J-21	187.20	0	351.94	Fixed	164.74	71
J-22	187.35	0	353.02	Fixed	165.67	72
J-23	188.06	300	353.46	Fixed	165.40	72
J-24	188.10	0	354.04	Fixed	165.94	72
J-25	188.26	0	354.66	Fixed	166.40	72
J-26	189.00	0	355.41	Fixed	166.41	72
J-27	189.00	0	355.71	Fixed	166.71	72
J-28	189.35	0	357.42	Fixed	168.07	73
J-29	189.35	0	357.68	Fixed	168.33	73
J-30	186.50	0	359.04	Fixed	172.54	75
J-31	186.50	0	365.12	Fixed	178.62	77
J-32	186.50	0	368.61	Fixed	182.11	79
J-33	186.50	0	369.03	Fixed	182.53	79
J-34	185.26	0	370.09	Fixed	184.83	80
J-35	177.24	0	372.85	Fixed	195.61	85
J-36	186.50	0	368.83	Fixed	182.33	79
J-37	186.50	0	367.91	Fixed	181.41	78
J-38	189.70	0	367.79	Fixed	178.09	77
J-39	189.70	0	367.56	Fixed	177.86	77
J-40	189.35	0	367.22	Fixed	177.87	77
J-41	189.35	0	367.15	Fixed	177.80	77
J-42	189.00	0	366.61	Fixed	177.61	77
J-43	189.00	0	366.53	Fixed	177.53	77
J-44	188.20	0	366.31	Fixed	178.11	77
J-45	187.89	64	366.05	Fixed	178.16	77
J-46	187.35	0	365.82	Fixed	178.47	77
J-47	187.28	97	365.53	Fixed	178.25	77
J-48	187.15	0	365.49	Fixed	178.34	77
J-49	189.40	0	365.41	Fixed	176.01	76
J-50	189.40	0	365.39	Fixed	175.99	76
J-51	189.05	0	365.30	Fixed	176.25	76
J-52	190.00	83	365.05	Fixed	175.05	76

Scenario: 1H - Flow Simultaneously: FH's J-7 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.186	5.580	3,209	9.10
P-2	J-1	J-2	61	12.0	PVC	150.0	0.216	9.380	3,209	9.10
P-3	J-2	J-3	16	12.0	PVC	150.0	0.033	0.200	3,209	9.10
P-4	J-3	J-4	31	12.0	PVC	150.0	0.021	0.100	3,209	9.10
P-5	J-4	J-5	34	12.0	PVC	150.0	0.030	0.350	3,209	9.10
P-6	J-5	J-6	156	10.0	PVC	150.0	0.010	1.280	1,212	4.95
P-7	J-6	J-7	126	10.0	PVC	150.0	0.007	0.200	1,212	4.95
P-8	J-7	J-8	5	8.0	PVC	150.0	0.005	0.350	-288	1.84
P-9	J-8	J-9	97	8.0	PVC	150.0	0.002	0.200	-288	1.84
P-10	J-9	J-10	55	8.0	PVC	150.0	0.002	0.800	-288	1.84
P-11	J-10	J-11	122	8.0	PVC	150.0	0.001	0.050	-288	1.84
P-12	J-11	J-12	6	8.0	PVC	150.0	0.002	0.050	-288	1.84
P-13	J-12	J-13	52	8.0	PVC	150.0	0.002	0.350	-288	1.84
P-14	J-13	J-14	20	8.0	PVC	150.0	0.002	0.200	-288	1.84
P-15	J-14	J-15	18	8.0	PVC	150.0	0.002	0.200	-288	1.84
P-16	J-15	J-16	18	8.0	PVC	150.0	0.010	0.350	-588	3.75
P-17	J-16	J-5	146	12.0	PVC	150.0	0.011	1.280	-1,997	5.66
P-18	J-16	J-17	20	12.0	PVC	150.0	0.004	0.050	1,409	4.00
P-19	J-17	J-18	41	12.0	PVC	150.0	0.006	0.350	1,409	4.00
P-20	J-18	J-19	80	12.0	PVC	150.0	0.003	0.350	1,109	3.14
P-21	J-19	J-20	34	12.0	PVC	150.0	0.001	0.350	-391	1.11
P-22	J-20	J-21	17	8.0	PVC	150.0	0.008	0.050	-691	4.41
P-23	J-21	J-22	128	8.0	PVC	150.0	0.009	0.800	-691	4.41
P-24	J-22	J-23	50	8.0	PVC	150.0	0.009	0.350	-691	4.41
P-25	J-23	J-24	28	8.0	PVC	150.0	0.022	0.350	-991	6.33
P-26	J-24	J-25	42	8.0	PVC	150.0	0.015	0.100	-991	6.33
P-27	J-25	J-26	52	8.0	PVC	150.0	0.015	0.100	-991	6.33
P-28	J-26	J-27	18	8.0	PVC	150.0	0.017	0.100	-991	6.33
P-29	J-27	J-28	127	8.0	PVC	150.0	0.014	0.050	-991	6.33
P-30	J-28	J-29	15	8.0	PVC	150.0	0.018	0.100	-991	6.33
P-31	J-29	J-30	67	8.0	PVC	150.0	0.021	0.800	-991	6.33
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.231	9.380	-991	6.33
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.381	5.580	-991	6.33
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.020	1.280	-991	4.05
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.015	1.280	-1,236	5.05
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.010	1.280	-1,236	5.05
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.066	8.280	-1,236	5.05
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1H - Flow Simultaneously: FH's J-7 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.32	Fixed	179.73	78
J-2	188.21	0	355.24	Fixed	167.03	72
J-3	188.19	0	354.71	Fixed	166.52	72
J-4	188.78	0	354.07	Fixed	165.29	72
J-5	191.76	0	353.04	Fixed	161.28	70
J-6	195.04	0	351.50	Fixed	156.46	68
J-7	200.51	1,500	350.58	Fixed	150.07	65
J-8	200.42	0	350.60	Fixed	150.18	65
J-9	199.39	0	350.75	Fixed	151.36	65
J-10	198.17	0	350.87	Fixed	152.70	66
J-11	192.82	0	351.04	Fixed	158.22	68
J-12	191.85	0	351.05	Fixed	159.20	69
J-13	189.36	0	351.14	Fixed	161.78	70
J-14	189.22	0	351.18	Fixed	161.96	70
J-15	189.25	300	351.22	Fixed	161.97	70
J-16	189.05	0	351.39	Fixed	162.34	70
J-17	189.07	0	351.30	Fixed	162.23	70
J-18	189.16	300	351.06	Fixed	161.90	70
J-19	187.87	1,500	350.82	Fixed	162.95	71
J-20	187.34	300	350.84	Fixed	163.50	71
J-21	187.20	0	350.98	Fixed	163.78	71
J-22	187.35	0	352.12	Fixed	164.77	71
J-23	188.06	300	352.58	Fixed	164.52	71
J-24	188.10	0	353.18	Fixed	165.08	71
J-25	188.26	0	353.83	Fixed	165.57	72
J-26	189.00	0	354.61	Fixed	165.61	72
J-27	189.00	0	354.92	Fixed	165.92	72
J-28	189.35	0	356.70	Fixed	167.35	72
J-29	189.35	0	356.97	Fixed	167.62	73
J-30	186.50	0	358.39	Fixed	171.89	74
J-31	186.50	0	364.71	Fixed	178.21	77
J-32	186.50	0	368.35	Fixed	181.85	79
J-33	186.50	0	368.79	Fixed	182.29	79
J-34	185.26	0	369.88	Fixed	184.62	80
J-35	177.24	0	372.73	Fixed	195.49	85
J-36	186.50	0	368.59	Fixed	182.09	79
J-37	186.50	0	367.67	Fixed	181.17	78
J-38	189.70	0	367.55	Fixed	177.85	77
J-39	189.70	0	367.32	Fixed	177.62	77
J-40	189.35	0	366.98	Fixed	177.63	77
J-41	189.35	0	366.91	Fixed	177.56	77
J-42	189.00	0	366.37	Fixed	177.37	77
J-43	189.00	0	366.29	Fixed	177.29	77
J-44	188.20	0	366.07	Fixed	177.87	77
J-45	187.89	64	365.81	Fixed	177.92	77
J-46	187.35	0	365.57	Fixed	178.22	77
J-47	187.28	97	365.29	Fixed	178.01	77
J-48	187.15	0	365.25	Fixed	178.10	77
J-49	189.40	0	365.17	Fixed	175.77	76
J-50	189.40	0	365.15	Fixed	175.75	76
J-51	189.05	0	365.06	Fixed	176.01	76
J-52	190.00	83	364.81	Fixed	174.81	76

Scenario: 1I - Flow Simultaneously: FH's J-7 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.178	5.580	3,133	8.89
P-2	J-1	J-2	61	12.0	PVC	150.0	0.206	9.380	3,133	8.89
P-3	J-2	J-3	16	12.0	PVC	150.0	0.032	0.200	3,133	8.89
P-4	J-3	J-4	31	12.0	PVC	150.0	0.020	0.100	3,133	8.89
P-5	J-4	J-5	34	12.0	PVC	150.0	0.029	0.350	3,133	8.89
P-6	J-5	J-6	156	10.0	PVC	150.0	0.010	1.280	1,200	4.90
P-7	J-6	J-7	126	10.0	PVC	150.0	0.007	0.200	1,200	4.90
P-8	J-7	J-8	5	8.0	PVC	150.0	0.005	0.350	-300	1.91
P-9	J-8	J-9	97	8.0	PVC	150.0	0.002	0.200	-300	1.91
P-10	J-9	J-10	55	8.0	PVC	150.0	0.002	0.800	-300	1.91
P-11	J-10	J-11	122	8.0	PVC	150.0	0.002	0.050	-300	1.91
P-12	J-11	J-12	6	8.0	PVC	150.0	0.002	0.050	-300	1.91
P-13	J-12	J-13	52	8.0	PVC	150.0	0.002	0.350	-300	1.91
P-14	J-13	J-14	20	8.0	PVC	150.0	0.002	0.200	-300	1.91
P-15	J-14	J-15	18	8.0	PVC	150.0	0.002	0.200	-300	1.91
P-16	J-15	J-16	18	8.0	PVC	150.0	0.010	0.350	-600	3.83
P-17	J-16	J-5	146	12.0	PVC	150.0	0.011	1.280	-1,933	5.48
P-18	J-16	J-17	20	12.0	PVC	150.0	0.004	0.050	1,333	3.78
P-19	J-17	J-18	41	12.0	PVC	150.0	0.005	0.350	1,333	3.78
P-20	J-18	J-19	80	12.0	PVC	150.0	0.003	0.350	1,033	2.93
P-21	J-19	J-20	34	12.0	PVC	150.0	0.003	0.350	1,033	2.93
P-22	J-20	J-21	17	8.0	PVC	150.0	0.009	0.050	733	4.68
P-23	J-21	J-22	128	8.0	PVC	150.0	0.010	0.800	733	4.68
P-24	J-22	J-23	50	8.0	PVC	150.0	0.010	0.350	733	4.68
P-25	J-23	J-24	28	8.0	PVC	150.0	0.004	0.350	433	2.77
P-26	J-24	J-25	42	8.0	PVC	150.0	0.017	0.100	-1,067	6.81
P-27	J-25	J-26	52	8.0	PVC	150.0	0.017	0.100	-1,067	6.81
P-28	J-26	J-27	18	8.0	PVC	150.0	0.020	0.100	-1,067	6.81
P-29	J-27	J-28	127	8.0	PVC	150.0	0.016	0.050	-1,067	6.81
P-30	J-28	J-29	15	8.0	PVC	150.0	0.021	0.100	-1,067	6.81
P-31	J-29	J-30	67	8.0	PVC	150.0	0.024	0.800	-1,067	6.81
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.267	9.380	-1,067	6.81
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.441	5.580	-1,067	6.81
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.024	1.280	-1,067	4.36
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.017	1.280	-1,311	5.36
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.011	1.280	-1,311	5.36
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.074	8.280	-1,311	5.36
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1I - Flow Simultaneously: FH's J-7 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.70	Fixed	180.11	78
J-2	188.21	0	356.21	Fixed	168.00	73
J-3	188.19	0	355.71	Fixed	167.52	72
J-4	188.78	0	355.09	Fixed	166.31	72
J-5	191.76	0	354.12	Fixed	162.36	70
J-6	195.04	0	352.60	Fixed	157.56	68
J-7	200.51	1,500	351.69	Fixed	151.18	65
J-8	200.42	0	351.72	Fixed	151.30	65
J-9	199.39	0	351.88	Fixed	152.49	66
J-10	198.17	0	352.01	Fixed	153.84	67
J-11	192.82	0	352.19	Fixed	159.37	69
J-12	191.85	0	352.20	Fixed	160.35	69
J-13	189.36	0	352.30	Fixed	162.94	70
J-14	189.22	0	352.34	Fixed	163.12	71
J-15	189.25	300	352.38	Fixed	163.13	71
J-16	189.05	0	352.56	Fixed	163.51	71
J-17	189.07	0	352.48	Fixed	163.41	71
J-18	189.16	300	352.27	Fixed	163.11	71
J-19	187.87	0	352.06	Fixed	164.19	71
J-20	187.34	300	351.94	Fixed	164.60	71
J-21	187.20	0	351.78	Fixed	164.58	71
J-22	187.35	0	350.51	Fixed	163.16	71
J-23	188.06	300	349.99	Fixed	161.93	70
J-24	188.10	1,500	349.87	Fixed	161.77	70
J-25	188.26	0	350.61	Fixed	162.35	70
J-26	189.00	0	351.50	Fixed	162.50	70
J-27	189.00	0	351.85	Fixed	162.85	70
J-28	189.35	0	353.89	Fixed	164.54	71
J-29	189.35	0	354.20	Fixed	164.85	71
J-30	186.50	0	355.83	Fixed	169.33	73
J-31	186.50	0	363.15	Fixed	176.65	76
J-32	186.50	0	367.36	Fixed	180.86	78
J-33	186.50	0	367.87	Fixed	181.37	78
J-34	185.26	0	369.09	Fixed	183.83	80
J-35	177.24	0	372.27	Fixed	195.03	84
J-36	186.50	0	367.66	Fixed	181.16	78
J-37	186.50	0	366.75	Fixed	180.25	78
J-38	189.70	0	366.63	Fixed	176.93	77
J-39	189.70	0	366.39	Fixed	176.69	76
J-40	189.35	0	366.05	Fixed	176.70	76
J-41	189.35	0	365.98	Fixed	176.63	76
J-42	189.00	0	365.45	Fixed	176.45	76
J-43	189.00	0	365.36	Fixed	176.36	76
J-44	188.20	0	365.14	Fixed	176.94	77
J-45	187.89	64	364.88	Fixed	176.99	77
J-46	187.35	0	364.65	Fixed	177.30	77
J-47	187.28	97	364.36	Fixed	177.08	77
J-48	187.15	0	364.32	Fixed	177.17	77
J-49	189.40	0	364.24	Fixed	174.84	76
J-50	189.40	0	364.22	Fixed	174.82	76
J-51	189.05	0	364.13	Fixed	175.08	76
J-52	190.00	83	363.88	Fixed	173.88	75

Scenario: 1J - Flow Simultaneously: FH's J-7 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.117	5.580	2,538	7.20
P-2	J-1	J-2	61	12.0	PVC	150.0	0.135	9.380	2,538	7.20
P-3	J-2	J-3	16	12.0	PVC	150.0	0.021	0.200	2,538	7.20
P-4	J-3	J-4	31	12.0	PVC	150.0	0.014	0.100	2,538	7.20
P-5	J-4	J-5	34	12.0	PVC	150.0	0.019	0.350	2,538	7.20
P-6	J-5	J-6	156	10.0	PVC	150.0	0.009	1.280	1,123	4.59
P-7	J-6	J-7	126	10.0	PVC	150.0	0.006	0.200	1,123	4.59
P-8	J-7	J-8	5	8.0	PVC	150.0	0.008	0.350	-377	2.40
P-9	J-8	J-9	97	8.0	PVC	150.0	0.002	0.200	-377	2.40
P-10	J-9	J-10	55	8.0	PVC	150.0	0.004	0.800	-377	2.40
P-11	J-10	J-11	122	8.0	PVC	150.0	0.002	0.050	-377	2.40
P-12	J-11	J-12	6	8.0	PVC	150.0	0.003	0.050	-377	2.40
P-13	J-12	J-13	52	8.0	PVC	150.0	0.003	0.350	-377	2.40
P-14	J-13	J-14	20	8.0	PVC	150.0	0.003	0.200	-377	2.40
P-15	J-14	J-15	18	8.0	PVC	150.0	0.003	0.200	-377	2.40
P-16	J-15	J-16	18	8.0	PVC	150.0	0.013	0.350	-677	4.32
P-17	J-16	J-5	146	12.0	PVC	150.0	0.006	1.280	-1,415	4.01
P-18	J-16	J-17	20	12.0	PVC	150.0	0.001	0.050	738	2.09
P-19	J-17	J-18	41	12.0	PVC	150.0	0.002	0.350	738	2.09
P-20	J-18	J-19	80	12.0	PVC	150.0	0.001	0.350	438	1.24
P-21	J-19	J-20	34	12.0	PVC	150.0	0.001	0.350	438	1.24
P-22	J-20	J-21	17	8.0	PVC	150.0	0.000	0.050	138	0.88
P-23	J-21	J-22	128	8.0	PVC	150.0	0.000	0.800	138	0.88
P-24	J-22	J-23	50	8.0	PVC	150.0	0.000	0.350	138	0.88
P-25	J-23	J-24	28	8.0	PVC	150.0	0.001	0.350	-162	1.03
P-26	J-24	J-25	42	8.0	PVC	150.0	0.001	0.100	-162	1.03
P-27	J-25	J-26	52	8.0	PVC	150.0	0.001	0.100	-162	1.03
P-28	J-26	J-27	18	8.0	PVC	150.0	0.001	0.100	-162	1.03
P-29	J-27	J-28	127	8.0	PVC	150.0	0.000	0.050	-162	1.03
P-30	J-28	J-29	15	8.0	PVC	150.0	0.001	0.100	-162	1.03
P-31	J-29	J-30	67	8.0	PVC	150.0	0.001	0.800	-162	1.03
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.006	9.380	-162	1.03
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.010	5.580	-162	1.03
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.001	1.280	-162	0.66
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.002	1.280	-406	1.66
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.022	1.280	-1,906	7.79
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.156	8.280	-1,906	7.79
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1J - Flow Simultaneously: FH's J-7 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	371.35	Fixed	182.76	79
J-2	188.21	0	363.13	Fixed	174.92	76
J-3	188.19	0	362.80	Fixed	174.61	76
J-4	188.78	0	362.38	Fixed	173.60	75
J-5	191.76	0	361.73	Fixed	169.97	74
J-6	195.04	0	360.40	Fixed	165.36	72
J-7	200.51	1,500	359.59	Fixed	159.08	69
J-8	200.42	0	359.63	Fixed	159.21	69
J-9	199.39	0	359.87	Fixed	160.48	69
J-10	198.17	0	360.07	Fixed	161.90	70
J-11	192.82	0	360.36	Fixed	167.54	72
J-12	191.85	0	360.38	Fixed	168.53	73
J-13	189.36	0	360.53	Fixed	171.17	74
J-14	189.22	0	360.59	Fixed	171.37	74
J-15	189.25	300	360.65	Fixed	171.40	74
J-16	189.05	0	360.87	Fixed	171.82	74
J-17	189.07	0	360.84	Fixed	171.77	74
J-18	189.16	300	360.77	Fixed	171.61	74
J-19	187.87	0	360.73	Fixed	172.86	75
J-20	187.34	300	360.71	Fixed	173.37	75
J-21	187.20	0	360.70	Fixed	173.50	75
J-22	187.35	0	360.65	Fixed	173.30	75
J-23	188.06	300	360.63	Fixed	172.57	75
J-24	188.10	0	360.64	Fixed	172.54	75
J-25	188.26	0	360.67	Fixed	172.41	75
J-26	189.00	0	360.69	Fixed	171.69	74
J-27	189.00	0	360.70	Fixed	171.70	74
J-28	189.35	0	360.76	Fixed	171.41	74
J-29	189.35	0	360.77	Fixed	171.42	74
J-30	186.50	0	360.82	Fixed	174.32	75
J-31	186.50	0	360.99	Fixed	174.49	75
J-32	186.50	0	361.09	Fixed	174.59	76
J-33	186.50	0	361.10	Fixed	174.60	76
J-34	185.26	1,500	361.23	Fixed	175.97	76
J-35	177.24	0	367.67	Fixed	190.43	82
J-36	186.50	0	360.89	Fixed	174.39	75
J-37	186.50	0	359.98	Fixed	173.48	75
J-38	189.70	0	359.86	Fixed	170.16	74
J-39	189.70	0	359.63	Fixed	169.93	74
J-40	189.35	0	359.29	Fixed	169.94	74
J-41	189.35	0	359.22	Fixed	169.87	73
J-42	189.00	0	358.68	Fixed	169.68	73
J-43	189.00	0	358.60	Fixed	169.60	73
J-44	188.20	0	358.38	Fixed	170.18	74
J-45	187.89	64	358.12	Fixed	170.23	74
J-46	187.35	0	357.88	Fixed	170.53	74
J-47	187.28	97	357.59	Fixed	170.31	74
J-48	187.15	0	357.56	Fixed	170.41	74
J-49	189.40	0	357.47	Fixed	168.07	73
J-50	189.40	0	357.45	Fixed	168.05	73
J-51	189.05	0	357.37	Fixed	168.32	73
J-52	190.00	83	357.12	Fixed	167.12	72

Scenario: 1K - Flow Simultaneously: FH's J-7 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.101	5.580	2,359	6.69
P-2	J-1	J-2	61	12.0	PVC	150.0	0.117	9.380	2,359	6.69
P-3	J-2	J-3	16	12.0	PVC	150.0	0.018	0.200	2,359	6.69
P-4	J-3	J-4	31	12.0	PVC	150.0	0.012	0.100	2,359	6.69
P-5	J-4	J-5	34	12.0	PVC	150.0	0.017	0.350	2,359	6.69
P-6	J-5	J-6	156	10.0	PVC	150.0	0.008	1.280	1,105	4.51
P-7	J-6	J-7	126	10.0	PVC	150.0	0.006	0.200	1,105	4.51
P-8	J-7	J-8	5	8.0	PVC	150.0	0.009	0.350	-395	2.52
P-9	J-8	J-9	97	8.0	PVC	150.0	0.003	0.200	-395	2.52
P-10	J-9	J-10	55	8.0	PVC	150.0	0.004	0.800	-395	2.52
P-11	J-10	J-11	122	8.0	PVC	150.0	0.003	0.050	-395	2.52
P-12	J-11	J-12	6	8.0	PVC	150.0	0.003	0.050	-395	2.52
P-13	J-12	J-13	52	8.0	PVC	150.0	0.003	0.350	-395	2.52
P-14	J-13	J-14	20	8.0	PVC	150.0	0.004	0.200	-395	2.52
P-15	J-14	J-15	18	8.0	PVC	150.0	0.004	0.200	-395	2.52
P-16	J-15	J-16	18	8.0	PVC	150.0	0.013	0.350	-695	4.44
P-17	J-16	J-5	146	12.0	PVC	150.0	0.005	1.280	-1,254	3.56
P-18	J-16	J-17	20	12.0	PVC	150.0	0.001	0.050	559	1.59
P-19	J-17	J-18	41	12.0	PVC	150.0	0.001	0.350	559	1.59
P-20	J-18	J-19	80	12.0	PVC	150.0	0.000	0.350	259	0.74
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	259	0.74
P-22	J-20	J-21	17	8.0	PVC	150.0	0.000	0.050	-41	0.26
P-23	J-21	J-22	128	8.0	PVC	150.0	0.000	0.800	-41	0.26
P-24	J-22	J-23	50	8.0	PVC	150.0	0.000	0.350	-41	0.26
P-25	J-23	J-24	28	8.0	PVC	150.0	0.003	0.350	-341	2.18
P-26	J-24	J-25	42	8.0	PVC	150.0	0.002	0.100	-341	2.18
P-27	J-25	J-26	52	8.0	PVC	150.0	0.002	0.100	-341	2.18
P-28	J-26	J-27	18	8.0	PVC	150.0	0.002	0.100	-341	2.18
P-29	J-27	J-28	127	8.0	PVC	150.0	0.002	0.050	-341	2.18
P-30	J-28	J-29	15	8.0	PVC	150.0	0.002	0.100	-341	2.18
P-31	J-29	J-30	67	8.0	PVC	150.0	0.003	0.800	-341	2.18
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.028	9.380	-341	2.18
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.045	5.580	-341	2.18
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.003	1.280	-341	1.39
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.004	1.280	-585	2.39
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.002	1.280	-585	2.39
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.187	8.280	-2,085	8.52
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1K - Flow Simultaneously: FH's J-7 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	372.04	Fixed	183.45	79
J-2	188.21	0	364.94	Fixed	176.73	76
J-3	188.19	0	364.65	Fixed	176.46	76
J-4	188.78	0	364.28	Fixed	175.50	76
J-5	191.76	0	363.72	Fixed	171.96	74
J-6	195.04	0	362.42	Fixed	167.38	72
J-7	200.51	1,500	361.64	Fixed	161.13	70
J-8	200.42	0	361.69	Fixed	161.27	70
J-9	199.39	0	361.95	Fixed	162.56	70
J-10	198.17	0	362.17	Fixed	164.00	71
J-11	192.82	0	362.48	Fixed	169.66	73
J-12	191.85	0	362.50	Fixed	170.65	74
J-13	189.36	0	362.67	Fixed	173.31	75
J-14	189.22	0	362.74	Fixed	173.52	75
J-15	189.25	300	362.80	Fixed	173.55	75
J-16	189.05	0	363.03	Fixed	173.98	75
J-17	189.07	0	363.02	Fixed	173.95	75
J-18	189.16	300	362.98	Fixed	173.82	75
J-19	187.87	0	362.96	Fixed	175.09	76
J-20	187.34	300	362.95	Fixed	175.61	76
J-21	187.20	0	362.95	Fixed	175.75	76
J-22	187.35	0	362.96	Fixed	175.61	76
J-23	188.06	300	362.96	Fixed	174.90	76
J-24	188.10	0	363.04	Fixed	174.94	76
J-25	188.26	0	363.13	Fixed	174.87	76
J-26	189.00	0	363.24	Fixed	174.24	75
J-27	189.00	0	363.28	Fixed	174.28	75
J-28	189.35	0	363.52	Fixed	174.17	75
J-29	189.35	0	363.56	Fixed	174.21	75
J-30	186.50	0	363.74	Fixed	177.24	77
J-31	186.50	0	364.50	Fixed	178.00	77
J-32	186.50	0	364.93	Fixed	178.43	77
J-33	186.50	0	364.99	Fixed	178.49	77
J-34	185.26	0	365.25	Fixed	179.99	78
J-35	177.24	1,500	365.95	Fixed	188.71	82
J-36	186.50	0	364.78	Fixed	178.28	77
J-37	186.50	0	363.87	Fixed	177.37	77
J-38	189.70	0	363.75	Fixed	174.05	75
J-39	189.70	0	363.52	Fixed	173.82	75
J-40	189.35	0	363.18	Fixed	173.83	75
J-41	189.35	0	363.10	Fixed	173.75	75
J-42	189.00	0	362.57	Fixed	173.57	75
J-43	189.00	0	362.49	Fixed	173.49	75
J-44	188.20	0	362.26	Fixed	174.06	75
J-45	187.89	64	362.01	Fixed	174.12	75
J-46	187.35	0	361.77	Fixed	174.42	75
J-47	187.28	97	361.48	Fixed	174.20	75
J-48	187.15	0	361.45	Fixed	174.30	75
J-49	189.40	0	361.36	Fixed	171.96	74
J-50	189.40	0	361.34	Fixed	171.94	74
J-51	189.05	0	361.25	Fixed	172.20	75
J-52	190.00	83	361.00	Fixed	171.00	74

Scenario: 1L - Flow Simultaneously: FH's J-12 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.185	5.580	3,196	9.07
P-2	J-1	J-2	61	12.0	PVC	150.0	0.214	9.380	3,196	9.07
P-3	J-2	J-3	16	12.0	PVC	150.0	0.033	0.200	3,196	9.07
P-4	J-3	J-4	31	12.0	PVC	150.0	0.021	0.100	3,196	9.07
P-5	J-4	J-5	34	12.0	PVC	150.0	0.030	0.350	3,196	9.07
P-6	J-5	J-6	156	10.0	PVC	150.0	0.004	1.280	756	3.09
P-7	J-6	J-7	126	10.0	PVC	150.0	0.003	0.200	756	3.09
P-8	J-7	J-8	5	8.0	PVC	150.0	0.033	0.350	756	4.83
P-9	J-8	J-9	97	8.0	PVC	150.0	0.009	0.200	756	4.83
P-10	J-9	J-10	55	8.0	PVC	150.0	0.014	0.800	756	4.83
P-11	J-10	J-11	122	8.0	PVC	150.0	0.009	0.050	756	4.83
P-12	J-11	J-12	6	8.0	PVC	150.0	0.011	0.050	756	4.83
P-13	J-12	J-13	52	8.0	PVC	150.0	0.010	0.350	-744	4.75
P-14	J-13	J-14	20	8.0	PVC	150.0	0.012	0.200	-744	4.75
P-15	J-14	J-15	18	8.0	PVC	150.0	0.012	0.200	-744	4.75
P-16	J-15	J-16	18	8.0	PVC	150.0	0.029	0.350	-1,044	6.66
P-17	J-16	J-5	146	12.0	PVC	150.0	0.017	1.280	-2,440	6.92
P-18	J-16	J-17	20	12.0	PVC	150.0	0.004	0.050	1,396	3.96
P-19	J-17	J-18	41	12.0	PVC	150.0	0.006	0.350	1,396	3.96
P-20	J-18	J-19	80	12.0	PVC	150.0	0.003	0.350	1,096	3.11
P-21	J-19	J-20	34	12.0	PVC	150.0	0.001	0.350	-404	1.14
P-22	J-20	J-21	17	8.0	PVC	150.0	0.008	0.050	-704	4.49
P-23	J-21	J-22	128	8.0	PVC	150.0	0.009	0.800	-704	4.49
P-24	J-22	J-23	50	8.0	PVC	150.0	0.009	0.350	-704	4.49
P-25	J-23	J-24	28	8.0	PVC	150.0	0.022	0.350	-1,004	6.41
P-26	J-24	J-25	42	8.0	PVC	150.0	0.016	0.100	-1,004	6.41
P-27	J-25	J-26	52	8.0	PVC	150.0	0.015	0.100	-1,004	6.41
P-28	J-26	J-27	18	8.0	PVC	150.0	0.018	0.100	-1,004	6.41
P-29	J-27	J-28	127	8.0	PVC	150.0	0.014	0.050	-1,004	6.41
P-30	J-28	J-29	15	8.0	PVC	150.0	0.018	0.100	-1,004	6.41
P-31	J-29	J-30	67	8.0	PVC	150.0	0.022	0.800	-1,004	6.41
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.236	9.380	-1,004	6.41
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.391	5.580	-1,004	6.41
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.021	1.280	-1,004	4.10
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.015	1.280	-1,248	5.10
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.010	1.280	-1,248	5.10
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.067	8.280	-1,248	5.10
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1L - Flow Simultaneously: FH's J-12 & J-19; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.38	Fixed	179.79	78
J-2	188.21	0	355.39	Fixed	167.18	72
J-3	188.19	0	354.87	Fixed	166.68	72
J-4	188.78	0	354.23	Fixed	165.45	72
J-5	191.76	0	353.22	Fixed	161.46	70
J-6	195.04	0	352.59	Fixed	157.55	68
J-7	200.51	0	352.20	Fixed	151.69	66
J-8	200.42	0	352.03	Fixed	151.61	66
J-9	199.39	0	351.15	Fixed	151.76	66
J-10	198.17	0	350.40	Fixed	152.23	66
J-11	192.82	0	349.36	Fixed	156.54	68
J-12	191.85	1,500	349.29	Fixed	157.44	68
J-13	189.36	0	349.83	Fixed	160.47	69
J-14	189.22	0	350.06	Fixed	160.84	70
J-15	189.25	300	350.27	Fixed	161.02	70
J-16	189.05	0	350.79	Fixed	161.74	70
J-17	189.07	0	350.70	Fixed	161.63	70
J-18	189.16	300	350.47	Fixed	161.31	70
J-19	187.87	1,500	350.23	Fixed	162.36	70
J-20	187.34	300	350.25	Fixed	162.91	70
J-21	187.20	0	350.39	Fixed	163.19	71
J-22	187.35	0	351.58	Fixed	164.23	71
J-23	188.06	300	352.05	Fixed	163.99	71
J-24	188.10	0	352.67	Fixed	164.57	71
J-25	188.26	0	353.33	Fixed	165.07	71
J-26	189.00	0	354.13	Fixed	165.13	71
J-27	189.00	0	354.44	Fixed	165.44	72
J-28	189.35	0	356.26	Fixed	166.91	72
J-29	189.35	0	356.54	Fixed	167.19	72
J-30	186.50	0	357.99	Fixed	171.49	74
J-31	186.50	0	364.47	Fixed	177.97	77
J-32	186.50	0	368.20	Fixed	181.70	79
J-33	186.50	0	368.65	Fixed	182.15	79
J-34	185.26	0	369.76	Fixed	184.50	80
J-35	177.24	0	372.66	Fixed	195.42	85
J-36	186.50	0	368.44	Fixed	181.94	79
J-37	186.50	0	367.53	Fixed	181.03	78
J-38	189.70	0	367.41	Fixed	177.71	77
J-39	189.70	0	367.17	Fixed	177.47	77
J-40	189.35	0	366.83	Fixed	177.48	77
J-41	189.35	0	366.76	Fixed	177.41	77
J-42	189.00	0	366.23	Fixed	177.23	77
J-43	189.00	0	366.15	Fixed	177.15	77
J-44	188.20	0	365.92	Fixed	177.72	77
J-45	187.89	64	365.66	Fixed	177.77	77
J-46	187.35	0	365.43	Fixed	178.08	77
J-47	187.28	97	365.14	Fixed	177.86	77
J-48	187.15	0	365.11	Fixed	177.96	77
J-49	189.40	0	365.02	Fixed	175.62	76
J-50	189.40	0	365.00	Fixed	175.60	76
J-51	189.05	0	364.91	Fixed	175.86	76
J-52	190.00	83	364.66	Fixed	174.66	76

Scenario: 1M - Flow Simultaneously: FH's J-12 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.176	5.580	3,122	8.86
P-2	J-1	J-2	61	12.0	PVC	150.0	0.204	9.380	3,122	8.86
P-3	J-2	J-3	16	12.0	PVC	150.0	0.031	0.200	3,122	8.86
P-4	J-3	J-4	31	12.0	PVC	150.0	0.020	0.100	3,122	8.86
P-5	J-4	J-5	34	12.0	PVC	150.0	0.029	0.350	3,122	8.86
P-6	J-5	J-6	156	10.0	PVC	150.0	0.004	1.280	747	3.05
P-7	J-6	J-7	126	10.0	PVC	150.0	0.003	0.200	747	3.05
P-8	J-7	J-8	5	8.0	PVC	150.0	0.032	0.350	747	4.77
P-9	J-8	J-9	97	8.0	PVC	150.0	0.009	0.200	747	4.77
P-10	J-9	J-10	55	8.0	PVC	150.0	0.013	0.800	747	4.77
P-11	J-10	J-11	122	8.0	PVC	150.0	0.008	0.050	747	4.77
P-12	J-11	J-12	6	8.0	PVC	150.0	0.011	0.050	747	4.77
P-13	J-12	J-13	52	8.0	PVC	150.0	0.011	0.350	-753	4.81
P-14	J-13	J-14	20	8.0	PVC	150.0	0.012	0.200	-753	4.81
P-15	J-14	J-15	18	8.0	PVC	150.0	0.012	0.200	-753	4.81
P-16	J-15	J-16	18	8.0	PVC	150.0	0.029	0.350	-1,053	6.72
P-17	J-16	J-5	146	12.0	PVC	150.0	0.016	1.280	-2,375	6.74
P-18	J-16	J-17	20	12.0	PVC	150.0	0.004	0.050	1,322	3.75
P-19	J-17	J-18	41	12.0	PVC	150.0	0.005	0.350	1,322	3.75
P-20	J-18	J-19	80	12.0	PVC	150.0	0.003	0.350	1,022	2.90
P-21	J-19	J-20	34	12.0	PVC	150.0	0.003	0.350	1,022	2.90
P-22	J-20	J-21	17	8.0	PVC	150.0	0.009	0.050	722	4.61
P-23	J-21	J-22	128	8.0	PVC	150.0	0.010	0.800	722	4.61
P-24	J-22	J-23	50	8.0	PVC	150.0	0.010	0.350	722	4.61
P-25	J-23	J-24	28	8.0	PVC	150.0	0.004	0.350	422	2.69
P-26	J-24	J-25	42	8.0	PVC	150.0	0.018	0.100	-1,078	6.88
P-27	J-25	J-26	52	8.0	PVC	150.0	0.018	0.100	-1,078	6.88
P-28	J-26	J-27	18	8.0	PVC	150.0	0.020	0.100	-1,078	6.88
P-29	J-27	J-28	127	8.0	PVC	150.0	0.016	0.050	-1,078	6.88
P-30	J-28	J-29	15	8.0	PVC	150.0	0.021	0.100	-1,078	6.88
P-31	J-29	J-30	67	8.0	PVC	150.0	0.025	0.800	-1,078	6.88
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.272	9.380	-1,078	6.88
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.450	5.580	-1,078	6.88
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.024	1.280	-1,078	4.40
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.017	1.280	-1,323	5.40
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.011	1.280	-1,323	5.40
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.076	8.280	-1,323	5.40
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1M - Flow Simultaneously: FH's J-12 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.75	Fixed	180.16	78
J-2	188.21	0	356.36	Fixed	168.15	73
J-3	188.19	0	355.86	Fixed	167.67	73
J-4	188.78	0	355.25	Fixed	166.47	72
J-5	191.76	0	354.28	Fixed	162.52	70
J-6	195.04	0	353.66	Fixed	158.62	69
J-7	200.51	0	353.28	Fixed	152.77	66
J-8	200.42	0	353.12	Fixed	152.70	66
J-9	199.39	0	352.26	Fixed	152.87	66
J-10	198.17	0	351.53	Fixed	153.36	66
J-11	192.82	0	350.51	Fixed	157.69	68
J-12	191.85	1,500	350.44	Fixed	158.59	69
J-13	189.36	0	351.00	Fixed	161.64	70
J-14	189.22	0	351.23	Fixed	162.01	70
J-15	189.25	300	351.45	Fixed	162.20	70
J-16	189.05	0	351.97	Fixed	162.92	70
J-17	189.07	0	351.89	Fixed	162.82	70
J-18	189.16	300	351.68	Fixed	162.52	70
J-19	187.87	0	351.47	Fixed	163.60	71
J-20	187.34	300	351.36	Fixed	164.02	71
J-21	187.20	0	351.21	Fixed	164.01	71
J-22	187.35	0	349.97	Fixed	162.62	70
J-23	188.06	300	349.47	Fixed	161.41	70
J-24	188.10	1,500	349.35	Fixed	161.25	70
J-25	188.26	0	350.10	Fixed	161.84	70
J-26	189.00	0	351.02	Fixed	162.02	70
J-27	189.00	0	351.38	Fixed	162.38	70
J-28	189.35	0	353.45	Fixed	164.10	71
J-29	189.35	0	353.77	Fixed	164.42	71
J-30	186.50	0	355.43	Fixed	168.93	73
J-31	186.50	0	362.90	Fixed	176.40	76
J-32	186.50	0	367.20	Fixed	180.70	78
J-33	186.50	0	367.72	Fixed	181.22	78
J-34	185.26	0	368.96	Fixed	183.70	79
J-35	177.24	0	372.20	Fixed	194.96	84
J-36	186.50	0	367.51	Fixed	181.01	78
J-37	186.50	0	366.60	Fixed	180.10	78
J-38	189.70	0	366.48	Fixed	176.78	76
J-39	189.70	0	366.25	Fixed	176.55	76
J-40	189.35	0	365.91	Fixed	176.56	76
J-41	189.35	0	365.84	Fixed	176.49	76
J-42	189.00	0	365.30	Fixed	176.30	76
J-43	189.00	0	365.22	Fixed	176.22	76
J-44	188.20	0	365.00	Fixed	176.80	76
J-45	187.89	64	364.74	Fixed	176.85	77
J-46	187.35	0	364.50	Fixed	177.15	77
J-47	187.28	97	364.21	Fixed	176.93	77
J-48	187.15	0	364.18	Fixed	177.03	77
J-49	189.40	0	364.09	Fixed	174.69	76
J-50	189.40	0	364.07	Fixed	174.67	76
J-51	189.05	0	363.99	Fixed	174.94	76
J-52	190.00	83	363.74	Fixed	173.74	75

Scenario: 1N - Flow Simultaneously: FH's J-12 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.116	5.580	2,522	7.16
P-2	J-1	J-2	61	12.0	PVC	150.0	0.134	9.380	2,522	7.16
P-3	J-2	J-3	16	12.0	PVC	150.0	0.021	0.200	2,522	7.16
P-4	J-3	J-4	31	12.0	PVC	150.0	0.013	0.100	2,522	7.16
P-5	J-4	J-5	34	12.0	PVC	150.0	0.019	0.350	2,522	7.16
P-6	J-5	J-6	156	10.0	PVC	150.0	0.003	1.280	678	2.77
P-7	J-6	J-7	126	10.0	PVC	150.0	0.002	0.200	678	2.77
P-8	J-7	J-8	5	8.0	PVC	150.0	0.027	0.350	678	4.33
P-9	J-8	J-9	97	8.0	PVC	150.0	0.007	0.200	678	4.33
P-10	J-9	J-10	55	8.0	PVC	150.0	0.011	0.800	678	4.33
P-11	J-10	J-11	122	8.0	PVC	150.0	0.007	0.050	678	4.33
P-12	J-11	J-12	6	8.0	PVC	150.0	0.009	0.050	678	4.33
P-13	J-12	J-13	52	8.0	PVC	150.0	0.013	0.350	-822	5.25
P-14	J-13	J-14	20	8.0	PVC	150.0	0.014	0.200	-822	5.25
P-15	J-14	J-15	18	8.0	PVC	150.0	0.015	0.200	-822	5.25
P-16	J-15	J-16	18	8.0	PVC	150.0	0.033	0.350	-1,122	7.16
P-17	J-16	J-5	146	12.0	PVC	150.0	0.010	1.280	-1,844	5.23
P-18	J-16	J-17	20	12.0	PVC	150.0	0.001	0.050	722	2.05
P-19	J-17	J-18	41	12.0	PVC	150.0	0.002	0.350	722	2.05
P-20	J-18	J-19	80	12.0	PVC	150.0	0.000	0.350	422	1.20
P-21	J-19	J-20	34	12.0	PVC	150.0	0.001	0.350	422	1.20
P-22	J-20	J-21	17	8.0	PVC	150.0	0.000	0.050	122	0.78
P-23	J-21	J-22	128	8.0	PVC	150.0	0.000	0.800	122	0.78
P-24	J-22	J-23	50	8.0	PVC	150.0	0.000	0.350	122	0.78
P-25	J-23	J-24	28	8.0	PVC	150.0	0.001	0.350	-178	1.13
P-26	J-24	J-25	42	8.0	PVC	150.0	0.001	0.100	-178	1.13
P-27	J-25	J-26	52	8.0	PVC	150.0	0.001	0.100	-178	1.13
P-28	J-26	J-27	18	8.0	PVC	150.0	0.001	0.100	-178	1.13
P-29	J-27	J-28	127	8.0	PVC	150.0	0.001	0.050	-178	1.13
P-30	J-28	J-29	15	8.0	PVC	150.0	0.001	0.100	-178	1.13
P-31	J-29	J-30	67	8.0	PVC	150.0	0.001	0.800	-178	1.13
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.008	9.380	-178	1.13
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.012	5.580	-178	1.13
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.001	1.280	-178	0.73
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.002	1.280	-422	1.73
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.022	1.280	-1,922	7.85
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.159	8.280	-1,922	7.85
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1N - Flow Simultaneously: FH's J-12 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	371.41	Fixed	182.82	79
J-2	188.21	0	363.30	Fixed	175.09	76
J-3	188.19	0	362.97	Fixed	174.78	76
J-4	188.78	0	362.56	Fixed	173.78	75
J-5	191.76	0	361.91	Fixed	170.15	74
J-6	195.04	0	361.40	Fixed	166.36	72
J-7	200.51	0	361.09	Fixed	160.58	69
J-8	200.42	0	360.95	Fixed	160.53	69
J-9	199.39	0	360.23	Fixed	160.84	70
J-10	198.17	0	359.62	Fixed	161.45	70
J-11	192.82	0	358.77	Fixed	165.95	72
J-12	191.85	1,500	358.71	Fixed	166.86	72
J-13	189.36	0	359.37	Fixed	170.01	74
J-14	189.22	0	359.65	Fixed	170.43	74
J-15	189.25	300	359.90	Fixed	170.65	74
J-16	189.05	0	360.49	Fixed	171.44	74
J-17	189.07	0	360.46	Fixed	171.39	74
J-18	189.16	300	360.40	Fixed	171.24	74
J-19	187.87	0	360.36	Fixed	172.49	75
J-20	187.34	300	360.34	Fixed	173.00	75
J-21	187.20	0	360.33	Fixed	173.13	75
J-22	187.35	0	360.29	Fixed	172.94	75
J-23	188.06	300	360.27	Fixed	172.21	75
J-24	188.10	0	360.29	Fixed	172.19	74
J-25	188.26	0	360.32	Fixed	172.06	74
J-26	189.00	0	360.35	Fixed	171.35	74
J-27	189.00	0	360.36	Fixed	171.36	74
J-28	189.35	0	360.44	Fixed	171.09	74
J-29	189.35	0	360.45	Fixed	171.10	74
J-30	186.50	0	360.50	Fixed	174.00	75
J-31	186.50	0	360.71	Fixed	174.21	75
J-32	186.50	0	360.83	Fixed	174.33	75
J-33	186.50	0	360.84	Fixed	174.34	75
J-34	185.26	1,500	360.98	Fixed	175.72	76
J-35	177.24	0	367.52	Fixed	190.28	82
J-36	186.50	0	360.63	Fixed	174.13	75
J-37	186.50	0	359.72	Fixed	173.22	75
J-38	189.70	0	359.60	Fixed	169.90	74
J-39	189.70	0	359.37	Fixed	169.67	73
J-40	189.35	0	359.03	Fixed	169.68	73
J-41	189.35	0	358.96	Fixed	169.61	73
J-42	189.00	0	358.42	Fixed	169.42	73
J-43	189.00	0	358.34	Fixed	169.34	73
J-44	188.20	0	358.12	Fixed	169.92	74
J-45	187.89	64	357.86	Fixed	169.97	74
J-46	187.35	0	357.62	Fixed	170.27	74
J-47	187.28	97	357.33	Fixed	170.05	74
J-48	187.15	0	357.30	Fixed	170.15	74
J-49	189.40	0	357.21	Fixed	167.81	73
J-50	189.40	0	357.19	Fixed	167.79	73
J-51	189.05	0	357.11	Fixed	168.06	73
J-52	190.00	83	356.86	Fixed	166.86	72

Scenario: 1O - Flow Simultaneously: FH's J-12 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.100	5.580	2,345	6.65
P-2	J-1	J-2	61	12.0	PVC	150.0	0.116	9.380	2,345	6.65
P-3	J-2	J-3	16	12.0	PVC	150.0	0.018	0.200	2,345	6.65
P-4	J-3	J-4	31	12.0	PVC	150.0	0.012	0.100	2,345	6.65
P-5	J-4	J-5	34	12.0	PVC	150.0	0.017	0.350	2,345	6.65
P-6	J-5	J-6	156	10.0	PVC	150.0	0.003	1.280	660	2.70
P-7	J-6	J-7	126	10.0	PVC	150.0	0.002	0.200	660	2.70
P-8	J-7	J-8	5	8.0	PVC	150.0	0.025	0.350	660	4.21
P-9	J-8	J-9	97	8.0	PVC	150.0	0.007	0.200	660	4.21
P-10	J-9	J-10	55	8.0	PVC	150.0	0.011	0.800	660	4.21
P-11	J-10	J-11	122	8.0	PVC	150.0	0.007	0.050	660	4.21
P-12	J-11	J-12	6	8.0	PVC	150.0	0.009	0.050	660	4.21
P-13	J-12	J-13	52	8.0	PVC	150.0	0.013	0.350	-840	5.36
P-14	J-13	J-14	20	8.0	PVC	150.0	0.015	0.200	-840	5.36
P-15	J-14	J-15	18	8.0	PVC	150.0	0.015	0.200	-840	5.36
P-16	J-15	J-16	18	8.0	PVC	150.0	0.034	0.350	-1,140	7.27
P-17	J-16	J-5	146	12.0	PVC	150.0	0.008	1.280	-1,685	4.78
P-18	J-16	J-17	20	12.0	PVC	150.0	0.001	0.050	545	1.55
P-19	J-17	J-18	41	12.0	PVC	150.0	0.001	0.350	545	1.55
P-20	J-18	J-19	80	12.0	PVC	150.0	0.000	0.350	245	0.70
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	245	0.70
P-22	J-20	J-21	17	8.0	PVC	150.0	0.000	0.050	-55	0.35
P-23	J-21	J-22	128	8.0	PVC	150.0	0.000	0.800	-55	0.35
P-24	J-22	J-23	50	8.0	PVC	150.0	0.000	0.350	-55	0.35
P-25	J-23	J-24	28	8.0	PVC	150.0	0.003	0.350	-355	2.27
P-26	J-24	J-25	42	8.0	PVC	150.0	0.002	0.100	-355	2.27
P-27	J-25	J-26	52	8.0	PVC	150.0	0.002	0.100	-355	2.27
P-28	J-26	J-27	18	8.0	PVC	150.0	0.003	0.100	-355	2.27
P-29	J-27	J-28	127	8.0	PVC	150.0	0.002	0.050	-355	2.27
P-30	J-28	J-29	15	8.0	PVC	150.0	0.003	0.100	-355	2.27
P-31	J-29	J-30	67	8.0	PVC	150.0	0.003	0.800	-355	2.27
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.030	9.380	-355	2.27
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.049	5.580	-355	2.27
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.003	1.280	-355	1.45
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.004	1.280	-600	2.45
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.002	1.280	-600	2.45
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.189	8.280	-2,100	8.58
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1O - Flow Simultaneously: FH's J-12 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	372.09	Fixed	183.50	79
J-2	188.21	0	365.07	Fixed	176.86	77
J-3	188.19	0	364.79	Fixed	176.60	76
J-4	188.78	0	364.43	Fixed	175.65	76
J-5	191.76	0	363.87	Fixed	172.11	74
J-6	195.04	0	363.38	Fixed	168.34	73
J-7	200.51	0	363.08	Fixed	162.57	70
J-8	200.42	0	362.95	Fixed	162.53	70
J-9	199.39	0	362.27	Fixed	162.88	70
J-10	198.17	0	361.69	Fixed	163.52	71
J-11	192.82	0	360.88	Fixed	168.06	73
J-12	191.85	1,500	360.83	Fixed	168.98	73
J-13	189.36	0	361.51	Fixed	172.15	74
J-14	189.22	0	361.80	Fixed	172.58	75
J-15	189.25	300	362.06	Fixed	172.81	75
J-16	189.05	0	362.67	Fixed	173.62	75
J-17	189.07	0	362.65	Fixed	173.58	75
J-18	189.16	300	362.61	Fixed	173.45	75
J-19	187.87	0	362.60	Fixed	174.73	76
J-20	187.34	300	362.59	Fixed	175.25	76
J-21	187.20	0	362.59	Fixed	175.39	76
J-22	187.35	0	362.60	Fixed	175.25	76
J-23	188.06	300	362.61	Fixed	174.55	76
J-24	188.10	0	362.69	Fixed	174.59	76
J-25	188.26	0	362.79	Fixed	174.53	76
J-26	189.00	0	362.90	Fixed	173.90	75
J-27	189.00	0	362.95	Fixed	173.95	75
J-28	189.35	0	363.21	Fixed	173.86	75
J-29	189.35	0	363.25	Fixed	173.90	75
J-30	186.50	0	363.45	Fixed	176.95	77
J-31	186.50	0	364.27	Fixed	177.77	77
J-32	186.50	0	364.74	Fixed	178.24	77
J-33	186.50	0	364.80	Fixed	178.30	77
J-34	185.26	0	365.07	Fixed	179.81	78
J-35	177.24	1,500	365.81	Fixed	188.57	82
J-36	186.50	0	364.60	Fixed	178.10	77
J-37	186.50	0	363.68	Fixed	177.18	77
J-38	189.70	0	363.56	Fixed	173.86	75
J-39	189.70	0	363.33	Fixed	173.63	75
J-40	189.35	0	362.99	Fixed	173.64	75
J-41	189.35	0	362.92	Fixed	173.57	75
J-42	189.00	0	362.38	Fixed	173.38	75
J-43	189.00	0	362.30	Fixed	173.30	75
J-44	188.20	0	362.08	Fixed	173.88	75
J-45	187.89	64	361.82	Fixed	173.93	75
J-46	187.35	0	361.58	Fixed	174.23	75
J-47	187.28	97	361.30	Fixed	174.02	75
J-48	187.15	0	361.26	Fixed	174.11	75
J-49	189.40	0	361.17	Fixed	171.77	74
J-50	189.40	0	361.15	Fixed	171.75	74
J-51	189.05	0	361.07	Fixed	172.02	74
J-52	190.00	83	360.82	Fixed	170.82	74

Scenario: 1P - Flow Simultaneously: FH's J-19 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.173	5.580	3,090	8.77
P-2	J-1	J-2	61	12.0	PVC	150.0	0.200	9.380	3,090	8.77
P-3	J-2	J-3	16	12.0	PVC	150.0	0.031	0.200	3,090	8.77
P-4	J-3	J-4	31	12.0	PVC	150.0	0.020	0.100	3,090	8.77
P-5	J-4	J-5	34	12.0	PVC	150.0	0.028	0.350	3,090	8.77
P-6	J-5	J-6	156	10.0	PVC	150.0	0.002	1.280	539	2.20
P-7	J-6	J-7	126	10.0	PVC	150.0	0.002	0.200	539	2.20
P-8	J-7	J-8	5	8.0	PVC	150.0	0.017	0.350	539	3.44
P-9	J-8	J-9	97	8.0	PVC	150.0	0.005	0.200	539	3.44
P-10	J-9	J-10	55	8.0	PVC	150.0	0.007	0.800	539	3.44
P-11	J-10	J-11	122	8.0	PVC	150.0	0.005	0.050	539	3.44
P-12	J-11	J-12	6	8.0	PVC	150.0	0.006	0.050	539	3.44
P-13	J-12	J-13	52	8.0	PVC	150.0	0.006	0.350	539	3.44
P-14	J-13	J-14	20	8.0	PVC	150.0	0.006	0.200	539	3.44
P-15	J-14	J-15	18	8.0	PVC	150.0	0.007	0.200	539	3.44
P-16	J-15	J-16	18	8.0	PVC	150.0	0.002	0.350	239	1.53
P-17	J-16	J-5	146	12.0	PVC	150.0	0.018	1.280	-2,550	7.24
P-18	J-16	J-17	20	12.0	PVC	150.0	0.015	0.050	2,790	7.91
P-19	J-17	J-18	41	12.0	PVC	150.0	0.021	0.350	2,790	7.91
P-20	J-18	J-19	80	12.0	PVC	150.0	0.014	0.350	2,490	7.06
P-21	J-19	J-20	34	12.0	PVC	150.0	0.003	0.350	990	2.81
P-22	J-20	J-21	17	8.0	PVC	150.0	0.008	0.050	690	4.40
P-23	J-21	J-22	128	8.0	PVC	150.0	0.009	0.800	690	4.40
P-24	J-22	J-23	50	8.0	PVC	150.0	0.009	0.350	690	4.40
P-25	J-23	J-24	28	8.0	PVC	150.0	0.004	0.350	390	2.49
P-26	J-24	J-25	42	8.0	PVC	150.0	0.019	0.100	-1,110	7.09
P-27	J-25	J-26	52	8.0	PVC	150.0	0.019	0.100	-1,110	7.09
P-28	J-26	J-27	18	8.0	PVC	150.0	0.021	0.100	-1,110	7.09
P-29	J-27	J-28	127	8.0	PVC	150.0	0.017	0.050	-1,110	7.09
P-30	J-28	J-29	15	8.0	PVC	150.0	0.022	0.100	-1,110	7.09
P-31	J-29	J-30	67	8.0	PVC	150.0	0.026	0.800	-1,110	7.09
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.289	9.380	-1,110	7.09
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.478	5.580	-1,110	7.09
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.025	1.280	-1,110	4.54
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.018	1.280	-1,355	5.53
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.011	1.280	-1,355	5.53
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.079	8.280	-1,355	5.53
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1P - Flow Simultaneously: FH's J-19 & J-24; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	368.91	Fixed	180.32	78
J-2	188.21	0	356.77	Fixed	168.56	73
J-3	188.19	0	356.28	Fixed	168.09	73
J-4	188.78	0	355.68	Fixed	166.90	72
J-5	191.76	0	354.73	Fixed	162.97	71
J-6	195.04	0	354.40	Fixed	159.36	69
J-7	200.51	0	354.19	Fixed	153.68	66
J-8	200.42	0	354.10	Fixed	153.68	66
J-9	199.39	0	353.63	Fixed	154.24	67
J-10	198.17	0	353.24	Fixed	155.07	67
J-11	192.82	0	352.69	Fixed	159.87	69
J-12	191.85	0	352.65	Fixed	160.80	70
J-13	189.36	0	352.35	Fixed	162.99	71
J-14	189.22	0	352.23	Fixed	163.01	71
J-15	189.25	300	352.11	Fixed	162.86	70
J-16	189.05	0	352.08	Fixed	163.03	71
J-17	189.07	0	351.77	Fixed	162.70	70
J-18	189.16	300	350.90	Fixed	161.74	70
J-19	187.87	1,500	349.79	Fixed	161.92	70
J-20	187.34	300	349.68	Fixed	162.34	70
J-21	187.20	0	349.54	Fixed	162.34	70
J-22	187.35	0	348.40	Fixed	161.05	70
J-23	188.06	300	347.94	Fixed	159.88	69
J-24	188.10	1,500	347.84	Fixed	159.74	69
J-25	188.26	0	348.64	Fixed	160.38	69
J-26	189.00	0	349.61	Fixed	160.61	69
J-27	189.00	0	349.98	Fixed	160.98	70
J-28	189.35	0	352.18	Fixed	162.83	70
J-29	189.35	0	352.52	Fixed	163.17	71
J-30	186.50	0	354.27	Fixed	167.77	73
J-31	186.50	0	362.19	Fixed	175.69	76
J-32	186.50	0	366.76	Fixed	180.26	78
J-33	186.50	0	367.30	Fixed	180.80	78
J-34	185.26	0	368.60	Fixed	183.34	79
J-35	177.24	0	371.99	Fixed	194.75	84
J-36	186.50	0	367.10	Fixed	180.60	78
J-37	186.50	0	366.18	Fixed	179.68	78
J-38	189.70	0	366.07	Fixed	176.37	76
J-39	189.70	0	365.83	Fixed	176.13	76
J-40	189.35	0	365.49	Fixed	176.14	76
J-41	189.35	0	365.42	Fixed	176.07	76
J-42	189.00	0	364.88	Fixed	175.88	76
J-43	189.00	0	364.80	Fixed	175.80	76
J-44	188.20	0	364.58	Fixed	176.38	76
J-45	187.89	64	364.32	Fixed	176.43	76
J-46	187.35	0	364.09	Fixed	176.74	76
J-47	187.28	97	363.80	Fixed	176.52	76
J-48	187.15	0	363.76	Fixed	176.61	76
J-49	189.40	0	363.68	Fixed	174.28	75
J-50	189.40	0	363.66	Fixed	174.26	75
J-51	189.05	0	363.57	Fixed	174.52	76
J-52	190.00	83	363.32	Fixed	173.32	75

Scenario: 1Q - Flow Simultaneously: FH's J-19 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.112	5.580	2,478	7.03
P-2	J-1	J-2	61	12.0	PVC	150.0	0.129	9.380	2,478	7.03
P-3	J-2	J-3	16	12.0	PVC	150.0	0.020	0.200	2,478	7.03
P-4	J-3	J-4	31	12.0	PVC	150.0	0.013	0.100	2,478	7.03
P-5	J-4	J-5	34	12.0	PVC	150.0	0.018	0.350	2,478	7.03
P-6	J-5	J-6	156	10.0	PVC	150.0	0.001	1.280	433	1.77
P-7	J-6	J-7	126	10.0	PVC	150.0	0.001	0.200	433	1.77
P-8	J-7	J-8	5	8.0	PVC	150.0	0.011	0.350	433	2.76
P-9	J-8	J-9	97	8.0	PVC	150.0	0.003	0.200	433	2.76
P-10	J-9	J-10	55	8.0	PVC	150.0	0.005	0.800	433	2.76
P-11	J-10	J-11	122	8.0	PVC	150.0	0.003	0.050	433	2.76
P-12	J-11	J-12	6	8.0	PVC	150.0	0.004	0.050	433	2.76
P-13	J-12	J-13	52	8.0	PVC	150.0	0.004	0.350	433	2.76
P-14	J-13	J-14	20	8.0	PVC	150.0	0.004	0.200	433	2.76
P-15	J-14	J-15	18	8.0	PVC	150.0	0.004	0.200	433	2.76
P-16	J-15	J-16	18	8.0	PVC	150.0	0.001	0.350	133	0.85
P-17	J-16	J-5	146	12.0	PVC	150.0	0.012	1.280	-2,046	5.80
P-18	J-16	J-17	20	12.0	PVC	150.0	0.010	0.050	2,178	6.18
P-19	J-17	J-18	41	12.0	PVC	150.0	0.013	0.350	2,178	6.18
P-20	J-18	J-19	80	12.0	PVC	150.0	0.008	0.350	1,878	5.33
P-21	J-19	J-20	34	12.0	PVC	150.0	0.001	0.350	378	1.07
P-22	J-20	J-21	17	8.0	PVC	150.0	0.000	0.050	78	0.50
P-23	J-21	J-22	128	8.0	PVC	150.0	0.000	0.800	78	0.50
P-24	J-22	J-23	50	8.0	PVC	150.0	0.000	0.350	78	0.50
P-25	J-23	J-24	28	8.0	PVC	150.0	0.001	0.350	-222	1.41
P-26	J-24	J-25	42	8.0	PVC	150.0	0.001	0.100	-222	1.41
P-27	J-25	J-26	52	8.0	PVC	150.0	0.001	0.100	-222	1.41
P-28	J-26	J-27	18	8.0	PVC	150.0	0.001	0.100	-222	1.41
P-29	J-27	J-28	127	8.0	PVC	150.0	0.001	0.050	-222	1.41
P-30	J-28	J-29	15	8.0	PVC	150.0	0.001	0.100	-222	1.41
P-31	J-29	J-30	67	8.0	PVC	150.0	0.001	0.800	-222	1.41
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.012	9.380	-222	1.41
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.019	5.580	-222	1.41
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.001	1.280	-222	0.91
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.002	1.280	-466	1.91
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.023	1.280	-1,966	8.03
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.166	8.280	-1,966	8.03
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1Q - Flow Simultaneously: FH's J-19 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	371.58	Fixed	182.99	79
J-2	188.21	0	363.75	Fixed	175.54	76
J-3	188.19	0	363.43	Fixed	175.24	76
J-4	188.78	0	363.04	Fixed	174.26	75
J-5	191.76	0	362.41	Fixed	170.65	74
J-6	195.04	0	362.19	Fixed	167.15	72
J-7	200.51	0	362.06	Fixed	161.55	70
J-8	200.42	0	362.00	Fixed	161.58	70
J-9	199.39	0	361.69	Fixed	162.30	70
J-10	198.17	0	361.43	Fixed	163.26	71
J-11	192.82	0	361.06	Fixed	168.24	73
J-12	191.85	0	361.04	Fixed	169.19	73
J-13	189.36	0	360.84	Fixed	171.48	74
J-14	189.22	0	360.76	Fixed	171.54	74
J-15	189.25	300	360.68	Fixed	171.43	74
J-16	189.05	0	360.68	Fixed	171.63	74
J-17	189.07	0	360.48	Fixed	171.41	74
J-18	189.16	300	359.94	Fixed	170.78	74
J-19	187.87	1,500	359.28	Fixed	171.41	74
J-20	187.34	300	359.27	Fixed	171.93	74
J-21	187.20	0	359.26	Fixed	172.06	74
J-22	187.35	0	359.25	Fixed	171.90	74
J-23	188.06	300	359.24	Fixed	171.18	74
J-24	188.10	0	359.27	Fixed	171.17	74
J-25	188.26	0	359.31	Fixed	171.05	74
J-26	189.00	0	359.36	Fixed	170.36	74
J-27	189.00	0	359.38	Fixed	170.38	74
J-28	189.35	0	359.49	Fixed	170.14	74
J-29	189.35	0	359.51	Fixed	170.16	74
J-30	186.50	0	359.59	Fixed	173.09	75
J-31	186.50	0	359.91	Fixed	173.41	75
J-32	186.50	0	360.09	Fixed	173.59	75
J-33	186.50	0	360.12	Fixed	173.62	75
J-34	185.26	1,500	360.29	Fixed	175.03	76
J-35	177.24	0	367.11	Fixed	189.87	82
J-36	186.50	0	359.91	Fixed	173.41	75
J-37	186.50	0	359.00	Fixed	172.50	75
J-38	189.70	0	358.88	Fixed	169.18	73
J-39	189.70	0	358.64	Fixed	168.94	73
J-40	189.35	0	358.30	Fixed	168.95	73
J-41	189.35	0	358.23	Fixed	168.88	73
J-42	189.00	0	357.70	Fixed	168.70	73
J-43	189.00	0	357.62	Fixed	168.62	73
J-44	188.20	0	357.39	Fixed	169.19	73
J-45	187.89	64	357.13	Fixed	169.24	73
J-46	187.35	0	356.90	Fixed	169.55	73
J-47	187.28	97	356.61	Fixed	169.33	73
J-48	187.15	0	356.57	Fixed	169.42	73
J-49	189.40	0	356.49	Fixed	167.09	72
J-50	189.40	0	356.47	Fixed	167.07	72
J-51	189.05	0	356.38	Fixed	167.33	72
J-52	190.00	83	356.13	Fixed	166.13	72

Scenario: 1R - Flow Simultaneously: FH's J-19 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.097	5.580	2,307	6.54
P-2	J-1	J-2	61	12.0	PVC	150.0	0.112	9.380	2,307	6.54
P-3	J-2	J-3	16	12.0	PVC	150.0	0.018	0.200	2,307	6.54
P-4	J-3	J-4	31	12.0	PVC	150.0	0.011	0.100	2,307	6.54
P-5	J-4	J-5	34	12.0	PVC	150.0	0.016	0.350	2,307	6.54
P-6	J-5	J-6	156	10.0	PVC	150.0	0.001	1.280	403	1.64
P-7	J-6	J-7	126	10.0	PVC	150.0	0.001	0.200	403	1.64
P-8	J-7	J-8	5	8.0	PVC	150.0	0.010	0.350	403	2.57
P-9	J-8	J-9	97	8.0	PVC	150.0	0.003	0.200	403	2.57
P-10	J-9	J-10	55	8.0	PVC	150.0	0.004	0.800	403	2.57
P-11	J-10	J-11	122	8.0	PVC	150.0	0.003	0.050	403	2.57
P-12	J-11	J-12	6	8.0	PVC	150.0	0.003	0.050	403	2.57
P-13	J-12	J-13	52	8.0	PVC	150.0	0.003	0.350	403	2.57
P-14	J-13	J-14	20	8.0	PVC	150.0	0.004	0.200	403	2.57
P-15	J-14	J-15	18	8.0	PVC	150.0	0.004	0.200	403	2.57
P-16	J-15	J-16	18	8.0	PVC	150.0	0.000	0.350	103	0.65
P-17	J-16	J-5	146	12.0	PVC	150.0	0.010	1.280	-1,904	5.40
P-18	J-16	J-17	20	12.0	PVC	150.0	0.008	0.050	2,007	5.69
P-19	J-17	J-18	41	12.0	PVC	150.0	0.011	0.350	2,007	5.69
P-20	J-18	J-19	80	12.0	PVC	150.0	0.007	0.350	1,707	4.84
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	207	0.59
P-22	J-20	J-21	17	8.0	PVC	150.0	0.000	0.050	-93	0.59
P-23	J-21	J-22	128	8.0	PVC	150.0	0.000	0.800	-93	0.59
P-24	J-22	J-23	50	8.0	PVC	150.0	0.000	0.350	-93	0.59
P-25	J-23	J-24	28	8.0	PVC	150.0	0.004	0.350	-393	2.51
P-26	J-24	J-25	42	8.0	PVC	150.0	0.003	0.100	-393	2.51
P-27	J-25	J-26	52	8.0	PVC	150.0	0.003	0.100	-393	2.51
P-28	J-26	J-27	18	8.0	PVC	150.0	0.003	0.100	-393	2.51
P-29	J-27	J-28	127	8.0	PVC	150.0	0.003	0.050	-393	2.51
P-30	J-28	J-29	15	8.0	PVC	150.0	0.003	0.100	-393	2.51
P-31	J-29	J-30	67	8.0	PVC	150.0	0.004	0.800	-393	2.51
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.037	9.380	-393	2.51
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.060	5.580	-393	2.51
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.003	1.280	-393	1.61
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.004	1.280	-638	2.61
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.003	1.280	-638	2.61
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.196	8.280	-2,138	8.73
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1R - Flow Simultaneously: FH's J-19 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	372.23	Fixed	183.64	79
J-2	188.21	0	365.44	Fixed	177.23	77
J-3	188.19	0	365.16	Fixed	176.97	77
J-4	188.78	0	364.81	Fixed	176.03	76
J-5	191.76	0	364.27	Fixed	172.51	75
J-6	195.04	0	364.08	Fixed	169.04	73
J-7	200.51	0	363.96	Fixed	163.45	71
J-8	200.42	0	363.91	Fixed	163.49	71
J-9	199.39	0	363.64	Fixed	164.25	71
J-10	198.17	0	363.41	Fixed	165.24	71
J-11	192.82	0	363.09	Fixed	170.27	74
J-12	191.85	0	363.07	Fixed	171.22	74
J-13	189.36	0	362.90	Fixed	173.54	75
J-14	189.22	0	362.83	Fixed	173.61	75
J-15	189.25	300	362.76	Fixed	173.51	75
J-16	189.05	0	362.75	Fixed	173.70	75
J-17	189.07	0	362.59	Fixed	173.52	75
J-18	189.16	300	362.12	Fixed	172.96	75
J-19	187.87	1,500	361.58	Fixed	173.71	75
J-20	187.34	300	361.57	Fixed	174.23	75
J-21	187.20	0	361.58	Fixed	174.38	75
J-22	187.35	0	361.60	Fixed	174.25	75
J-23	188.06	300	361.61	Fixed	173.55	75
J-24	188.10	0	361.72	Fixed	173.62	75
J-25	188.26	0	361.83	Fixed	173.57	75
J-26	189.00	0	361.97	Fixed	172.97	75
J-27	189.00	0	362.02	Fixed	173.02	75
J-28	189.35	0	362.34	Fixed	172.99	75
J-29	189.35	0	362.39	Fixed	173.04	75
J-30	186.50	0	362.64	Fixed	176.14	76
J-31	186.50	0	363.64	Fixed	177.14	77
J-32	186.50	0	364.22	Fixed	177.72	77
J-33	186.50	0	364.29	Fixed	177.79	77
J-34	185.26	0	364.60	Fixed	179.34	78
J-35	177.24	1,500	365.42	Fixed	188.18	81
J-36	186.50	0	364.08	Fixed	177.58	77
J-37	186.50	0	363.17	Fixed	176.67	76
J-38	189.70	0	363.05	Fixed	173.35	75
J-39	189.70	0	362.82	Fixed	173.12	75
J-40	189.35	0	362.48	Fixed	173.13	75
J-41	189.35	0	362.41	Fixed	173.06	75
J-42	189.00	0	361.87	Fixed	172.87	75
J-43	189.00	0	361.79	Fixed	172.79	75
J-44	188.20	0	361.56	Fixed	173.36	75
J-45	187.89	64	361.31	Fixed	173.42	75
J-46	187.35	0	361.07	Fixed	173.72	75
J-47	187.28	97	360.78	Fixed	173.50	75
J-48	187.15	0	360.75	Fixed	173.60	75
J-49	189.40	0	360.66	Fixed	171.26	74
J-50	189.40	0	360.64	Fixed	171.24	74
J-51	189.05	0	360.56	Fixed	171.51	74
J-52	190.00	83	360.31	Fixed	170.31	74

Scenario: 1S - Flow Simultaneously: FH's J-24 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.096	5.580	2,294	6.51
P-2	J-1	J-2	61	12.0	PVC	150.0	0.111	9.380	2,294	6.51
P-3	J-2	J-3	16	12.0	PVC	150.0	0.017	0.200	2,294	6.51
P-4	J-3	J-4	31	12.0	PVC	150.0	0.011	0.100	2,294	6.51
P-5	J-4	J-5	34	12.0	PVC	150.0	0.016	0.350	2,294	6.51
P-6	J-5	J-6	156	10.0	PVC	150.0	0.001	1.280	400	1.64
P-7	J-6	J-7	126	10.0	PVC	150.0	0.001	0.200	400	1.64
P-8	J-7	J-8	5	8.0	PVC	150.0	0.009	0.350	400	2.56
P-9	J-8	J-9	97	8.0	PVC	150.0	0.003	0.200	400	2.56
P-10	J-9	J-10	55	8.0	PVC	150.0	0.004	0.800	400	2.56
P-11	J-10	J-11	122	8.0	PVC	150.0	0.003	0.050	400	2.56
P-12	J-11	J-12	6	8.0	PVC	150.0	0.003	0.050	400	2.56
P-13	J-12	J-13	52	8.0	PVC	150.0	0.003	0.350	400	2.56
P-14	J-13	J-14	20	8.0	PVC	150.0	0.004	0.200	400	2.56
P-15	J-14	J-15	18	8.0	PVC	150.0	0.004	0.200	400	2.56
P-16	J-15	J-16	18	8.0	PVC	150.0	0.000	0.350	100	0.64
P-17	J-16	J-5	146	12.0	PVC	150.0	0.010	1.280	-1,894	5.37
P-18	J-16	J-17	20	12.0	PVC	150.0	0.008	0.050	1,994	5.66
P-19	J-17	J-18	41	12.0	PVC	150.0	0.011	0.350	1,994	5.66
P-20	J-18	J-19	80	12.0	PVC	150.0	0.007	0.350	1,694	4.81
P-21	J-19	J-20	34	12.0	PVC	150.0	0.009	0.350	1,694	4.81
P-22	J-20	J-21	17	8.0	PVC	150.0	0.029	0.050	1,394	8.90
P-23	J-21	J-22	128	8.0	PVC	150.0	0.034	0.800	1,394	8.90
P-24	J-22	J-23	50	8.0	PVC	150.0	0.035	0.350	1,394	8.90
P-25	J-23	J-24	28	8.0	PVC	150.0	0.026	0.350	1,094	6.99
P-26	J-24	J-25	42	8.0	PVC	150.0	0.003	0.100	-406	2.59
P-27	J-25	J-26	52	8.0	PVC	150.0	0.003	0.100	-406	2.59
P-28	J-26	J-27	18	8.0	PVC	150.0	0.003	0.100	-406	2.59
P-29	J-27	J-28	127	8.0	PVC	150.0	0.003	0.050	-406	2.59
P-30	J-28	J-29	15	8.0	PVC	150.0	0.003	0.100	-406	2.59
P-31	J-29	J-30	67	8.0	PVC	150.0	0.004	0.800	-406	2.59
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.039	9.380	-406	2.59
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.064	5.580	-406	2.59
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.004	1.280	-406	1.66
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.004	1.280	-650	2.66
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.027	1.280	-2,150	8.78
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.198	8.280	-2,150	8.78
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1S - Flow Simultaneously: FH's J-24 & J-34; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	372.27	Fixed	183.68	79
J-2	188.21	0	365.55	Fixed	177.34	77
J-3	188.19	0	365.28	Fixed	177.09	77
J-4	188.78	0	364.94	Fixed	176.16	76
J-5	191.76	0	364.40	Fixed	172.64	75
J-6	195.04	0	364.21	Fixed	169.17	73
J-7	200.51	0	364.09	Fixed	163.58	71
J-8	200.42	0	364.04	Fixed	163.62	71
J-9	199.39	0	363.77	Fixed	164.38	71
J-10	198.17	0	363.55	Fixed	165.38	72
J-11	192.82	0	363.23	Fixed	170.41	74
J-12	191.85	0	363.21	Fixed	171.36	74
J-13	189.36	0	363.04	Fixed	173.68	75
J-14	189.22	0	362.97	Fixed	173.75	75
J-15	189.25	300	362.90	Fixed	173.65	75
J-16	189.05	0	362.90	Fixed	173.85	75
J-17	189.07	0	362.74	Fixed	173.67	75
J-18	189.16	300	362.27	Fixed	173.11	75
J-19	187.87	0	361.74	Fixed	173.87	75
J-20	187.34	300	361.44	Fixed	174.10	75
J-21	187.20	0	360.92	Fixed	173.72	75
J-22	187.35	0	356.63	Fixed	169.28	73
J-23	188.06	300	354.90	Fixed	166.84	72
J-24	188.10	1,500	354.17	Fixed	166.07	72
J-25	188.26	0	354.29	Fixed	166.03	72
J-26	189.00	0	354.44	Fixed	165.44	72
J-27	189.00	0	354.50	Fixed	165.50	72
J-28	189.35	0	354.84	Fixed	165.49	72
J-29	189.35	0	354.89	Fixed	165.54	72
J-30	186.50	0	355.15	Fixed	168.65	73
J-31	186.50	0	356.22	Fixed	169.72	73
J-32	186.50	0	356.83	Fixed	170.33	74
J-33	186.50	0	356.91	Fixed	170.41	74
J-34	185.26	1,500	357.22	Fixed	171.96	74
J-35	177.24	0	365.29	Fixed	188.05	81
J-36	186.50	0	356.70	Fixed	170.20	74
J-37	186.50	0	355.79	Fixed	169.29	73
J-38	189.70	0	355.67	Fixed	165.97	72
J-39	189.70	0	355.43	Fixed	165.73	72
J-40	189.35	0	355.09	Fixed	165.74	72
J-41	189.35	0	355.02	Fixed	165.67	72
J-42	189.00	0	354.49	Fixed	165.49	72
J-43	189.00	0	354.41	Fixed	165.41	72
J-44	188.20	0	354.18	Fixed	165.98	72
J-45	187.89	64	353.92	Fixed	166.03	72
J-46	187.35	0	353.69	Fixed	166.34	72
J-47	187.28	97	353.40	Fixed	166.12	72
J-48	187.15	0	353.36	Fixed	166.21	72
J-49	189.40	0	353.28	Fixed	163.88	71
J-50	189.40	0	353.26	Fixed	163.86	71
J-51	189.05	0	353.17	Fixed	164.12	71
J-52	190.00	83	352.92	Fixed	162.92	70

Scenario: 1T - Flow Simultaneously: FH's J-24 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.085	5.580	2,156	6.12
P-2	J-1	J-2	61	12.0	PVC	150.0	0.098	9.380	2,156	6.12
P-3	J-2	J-3	16	12.0	PVC	150.0	0.015	0.200	2,156	6.12
P-4	J-3	J-4	31	12.0	PVC	150.0	0.010	0.100	2,156	6.12
P-5	J-4	J-5	34	12.0	PVC	150.0	0.014	0.350	2,156	6.12
P-6	J-5	J-6	156	10.0	PVC	150.0	0.001	1.280	376	1.54
P-7	J-6	J-7	126	10.0	PVC	150.0	0.001	0.200	376	1.54
P-8	J-7	J-8	5	8.0	PVC	150.0	0.008	0.350	376	2.40
P-9	J-8	J-9	97	8.0	PVC	150.0	0.002	0.200	376	2.40
P-10	J-9	J-10	55	8.0	PVC	150.0	0.004	0.800	376	2.40
P-11	J-10	J-11	122	8.0	PVC	150.0	0.002	0.050	376	2.40
P-12	J-11	J-12	6	8.0	PVC	150.0	0.003	0.050	376	2.40
P-13	J-12	J-13	52	8.0	PVC	150.0	0.003	0.350	376	2.40
P-14	J-13	J-14	20	8.0	PVC	150.0	0.003	0.200	376	2.40
P-15	J-14	J-15	18	8.0	PVC	150.0	0.003	0.200	376	2.40
P-16	J-15	J-16	18	8.0	PVC	150.0	0.000	0.350	76	0.49
P-17	J-16	J-5	146	12.0	PVC	150.0	0.009	1.280	-1,780	5.05
P-18	J-16	J-17	20	12.0	PVC	150.0	0.007	0.050	1,856	5.26
P-19	J-17	J-18	41	12.0	PVC	150.0	0.010	0.350	1,856	5.26
P-20	J-18	J-19	80	12.0	PVC	150.0	0.006	0.350	1,556	4.41
P-21	J-19	J-20	34	12.0	PVC	150.0	0.008	0.350	1,556	4.41
P-22	J-20	J-21	17	8.0	PVC	150.0	0.024	0.050	1,256	8.02
P-23	J-21	J-22	128	8.0	PVC	150.0	0.028	0.800	1,256	8.02
P-24	J-22	J-23	50	8.0	PVC	150.0	0.028	0.350	1,256	8.02
P-25	J-23	J-24	28	8.0	PVC	150.0	0.020	0.350	956	6.10
P-26	J-24	J-25	42	8.0	PVC	150.0	0.005	0.100	-544	3.47
P-27	J-25	J-26	52	8.0	PVC	150.0	0.005	0.100	-544	3.47
P-28	J-26	J-27	18	8.0	PVC	150.0	0.006	0.100	-544	3.47
P-29	J-27	J-28	127	8.0	PVC	150.0	0.005	0.050	-544	3.47
P-30	J-28	J-29	15	8.0	PVC	150.0	0.006	0.100	-544	3.47
P-31	J-29	J-30	67	8.0	PVC	150.0	0.007	0.800	-544	3.47
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.070	9.380	-544	3.47
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.115	5.580	-544	3.47
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.006	1.280	-544	2.22
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.006	1.280	-789	3.22
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.004	1.280	-789	3.22
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.224	8.280	-2,289	9.35
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1T - Flow Simultaneously: FH's J-24 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	372.76	Fixed	184.17	80
J-2	188.21	0	366.83	Fixed	178.62	77
J-3	188.19	0	366.58	Fixed	178.39	77
J-4	188.78	0	366.28	Fixed	177.50	77
J-5	191.76	0	365.80	Fixed	174.04	75
J-6	195.04	0	365.63	Fixed	170.59	74
J-7	200.51	0	365.53	Fixed	165.02	71
J-8	200.42	0	365.48	Fixed	165.06	71
J-9	199.39	0	365.24	Fixed	165.85	72
J-10	198.17	0	365.05	Fixed	166.88	72
J-11	192.82	0	364.76	Fixed	171.94	74
J-12	191.85	0	364.74	Fixed	172.89	75
J-13	189.36	0	364.59	Fixed	175.23	76
J-14	189.22	0	364.53	Fixed	175.31	76
J-15	189.25	300	364.47	Fixed	175.22	76
J-16	189.05	0	364.47	Fixed	175.42	76
J-17	189.07	0	364.32	Fixed	175.25	76
J-18	189.16	300	363.92	Fixed	174.76	76
J-19	187.87	0	363.46	Fixed	175.59	76
J-20	187.34	300	363.21	Fixed	175.87	76
J-21	187.20	0	362.79	Fixed	175.59	76
J-22	187.35	0	359.26	Fixed	171.91	74
J-23	188.06	300	357.84	Fixed	169.78	73
J-24	188.10	1,500	357.28	Fixed	169.18	73
J-25	188.26	0	357.49	Fixed	169.23	73
J-26	189.00	0	357.75	Fixed	168.75	73
J-27	189.00	0	357.85	Fixed	168.85	73
J-28	189.35	0	358.43	Fixed	169.08	73
J-29	189.35	0	358.52	Fixed	169.17	73
J-30	186.50	0	358.97	Fixed	172.47	75
J-31	186.50	0	360.89	Fixed	174.39	75
J-32	186.50	0	362.00	Fixed	175.50	76
J-33	186.50	0	362.13	Fixed	175.63	76
J-34	185.26	0	362.59	Fixed	177.33	77
J-35	177.24	1,500	363.82	Fixed	186.58	81
J-36	186.50	0	361.92	Fixed	175.42	76
J-37	186.50	0	361.01	Fixed	174.51	76
J-38	189.70	0	360.89	Fixed	171.19	74
J-39	189.70	0	360.66	Fixed	170.96	74
J-40	189.35	0	360.32	Fixed	170.97	74
J-41	189.35	0	360.25	Fixed	170.90	74
J-42	189.00	0	359.71	Fixed	170.71	74
J-43	189.00	0	359.63	Fixed	170.63	74
J-44	188.20	0	359.41	Fixed	171.21	74
J-45	187.89	64	359.15	Fixed	171.26	74
J-46	187.35	0	358.91	Fixed	171.56	74
J-47	187.28	97	358.62	Fixed	171.34	74
J-48	187.15	0	358.59	Fixed	171.44	74
J-49	189.40	0	358.50	Fixed	169.10	73
J-50	189.40	0	358.48	Fixed	169.08	73
J-51	189.05	0	358.40	Fixed	169.35	73
J-52	190.00	83	358.15	Fixed	168.15	73

Scenario: 1U - Flow Simultaneously: FH's J-34 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.060	5.580	1,819	5.16
P-2	J-1	J-2	61	12.0	PVC	150.0	0.070	9.380	1,819	5.16
P-3	J-2	J-3	16	12.0	PVC	150.0	0.011	0.200	1,819	5.16
P-4	J-3	J-4	31	12.0	PVC	150.0	0.007	0.100	1,819	5.16
P-5	J-4	J-5	34	12.0	PVC	150.0	0.010	0.350	1,819	5.16
P-6	J-5	J-6	156	10.0	PVC	150.0	0.001	1.280	317	1.30
P-7	J-6	J-7	126	10.0	PVC	150.0	0.001	0.200	317	1.30
P-8	J-7	J-8	5	8.0	PVC	150.0	0.006	0.350	317	2.02
P-9	J-8	J-9	97	8.0	PVC	150.0	0.002	0.200	317	2.02
P-10	J-9	J-10	55	8.0	PVC	150.0	0.003	0.800	317	2.02
P-11	J-10	J-11	122	8.0	PVC	150.0	0.002	0.050	317	2.02
P-12	J-11	J-12	6	8.0	PVC	150.0	0.002	0.050	317	2.02
P-13	J-12	J-13	52	8.0	PVC	150.0	0.002	0.350	317	2.02
P-14	J-13	J-14	20	8.0	PVC	150.0	0.002	0.200	317	2.02
P-15	J-14	J-15	18	8.0	PVC	150.0	0.002	0.200	317	2.02
P-16	J-15	J-16	18	8.0	PVC	150.0	0.000	0.350	17	0.11
P-17	J-16	J-5	146	12.0	PVC	150.0	0.007	1.280	-1,502	4.26
P-18	J-16	J-17	20	12.0	PVC	150.0	0.005	0.050	1,519	4.31
P-19	J-17	J-18	41	12.0	PVC	150.0	0.007	0.350	1,519	4.31
P-20	J-18	J-19	80	12.0	PVC	150.0	0.004	0.350	1,219	3.46
P-21	J-19	J-20	34	12.0	PVC	150.0	0.005	0.350	1,219	3.46
P-22	J-20	J-21	17	8.0	PVC	150.0	0.014	0.050	919	5.87
P-23	J-21	J-22	128	8.0	PVC	150.0	0.015	0.800	919	5.87
P-24	J-22	J-23	50	8.0	PVC	150.0	0.016	0.350	919	5.87
P-25	J-23	J-24	28	8.0	PVC	150.0	0.009	0.350	619	3.95
P-26	J-24	J-25	42	8.0	PVC	150.0	0.006	0.100	619	3.95
P-27	J-25	J-26	52	8.0	PVC	150.0	0.006	0.100	619	3.95
P-28	J-26	J-27	18	8.0	PVC	150.0	0.007	0.100	619	3.95
P-29	J-27	J-28	127	8.0	PVC	150.0	0.006	0.050	619	3.95
P-30	J-28	J-29	15	8.0	PVC	150.0	0.007	0.100	619	3.95
P-31	J-29	J-30	67	8.0	PVC	150.0	0.009	0.800	619	3.95
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.091	9.380	619	3.95
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.149	5.580	619	3.95
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.008	1.280	619	2.53
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.002	1.280	375	1.53
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.008	1.280	-1,125	4.60
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.295	8.280	-2,625	10.72
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.021	1.280	245	2.78
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.067	7.000	245	2.78
P-40	J-37	J-38	6	6.0	PVC	150.0	0.021	0.800	245	2.78
P-41	J-38	J-39	33	6.0	PVC	150.0	0.007	0.800	245	2.78
P-42	J-39	J-40	58	6.0	PVC	150.0	0.006	0.800	245	2.78
P-43	J-40	J-41	14	6.0	PVC	150.0	0.005	0.100	245	2.78
P-44	J-41	J-42	126	6.0	PVC	150.0	0.004	0.050	245	2.78
P-45	J-42	J-43	16	6.0	PVC	150.0	0.005	0.100	245	2.78
P-46	J-43	J-44	51	6.0	PVC	150.0	0.004	0.100	245	2.78
P-47	J-44	J-45	59	6.0	PVC	150.0	0.004	0.100	245	2.78
P-48	J-45	J-46	63	6.0	PVC	150.0	0.004	1.280	180	2.05
P-49	J-46	J-47	100	6.0	PVC	150.0	0.003	0.800	180	2.05
P-50	J-47	J-48	30	6.0	PVC	150.0	0.001	1.280	83	0.95
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	83	0.95
P-52	J-49	J-50	4	6.0	PVC	150.0	0.005	1.280	83	0.95
P-53	J-50	J-51	20	4.0	PVC	150.0	0.004	0.070	83	2.13
P-54	J-51	J-52	60	4.0	PVC	150.0	0.004	0.050	83	2.13

Scenario: 1U - Flow Simultaneously: FH's J-34 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	373.82	Fixed	185.23	80
J-2	188.21	0	369.58	Fixed	181.37	78
J-3	188.19	0	369.40	Fixed	181.21	78
J-4	188.78	0	369.18	Fixed	180.40	78
J-5	191.76	0	368.84	Fixed	177.08	77
J-6	195.04	0	368.72	Fixed	173.68	75
J-7	200.51	0	368.64	Fixed	168.13	73
J-8	200.42	0	368.61	Fixed	168.19	73
J-9	199.39	0	368.43	Fixed	169.04	73
J-10	198.17	0	368.29	Fixed	170.12	74
J-11	192.82	0	368.08	Fixed	175.26	76
J-12	191.85	0	368.07	Fixed	176.22	76
J-13	189.36	0	367.96	Fixed	178.60	77
J-14	189.22	0	367.92	Fixed	178.70	77
J-15	189.25	300	367.87	Fixed	178.62	77
J-16	189.05	0	367.87	Fixed	178.82	77
J-17	189.07	0	367.78	Fixed	178.71	77
J-18	189.16	300	367.50	Fixed	178.34	77
J-19	187.87	0	367.21	Fixed	179.34	78
J-20	187.34	300	367.05	Fixed	179.71	78
J-21	187.20	0	366.82	Fixed	179.62	78
J-22	187.35	0	364.86	Fixed	177.51	77
J-23	188.06	300	364.07	Fixed	176.01	76
J-24	188.10	0	363.82	Fixed	175.72	76
J-25	188.26	0	363.56	Fixed	175.30	76
J-26	189.00	0	363.23	Fixed	174.23	75
J-27	189.00	0	363.10	Fixed	174.10	75
J-28	189.35	0	362.36	Fixed	173.01	75
J-29	189.35	0	362.25	Fixed	172.90	75
J-30	186.50	0	361.67	Fixed	175.17	76
J-31	186.50	0	359.19	Fixed	172.69	75
J-32	186.50	0	357.76	Fixed	171.26	74
J-33	186.50	0	357.59	Fixed	171.09	74
J-34	185.26	1,500	357.48	Fixed	172.22	75
J-35	177.24	1,500	359.87	Fixed	182.63	79
J-36	186.50	0	357.38	Fixed	170.88	74
J-37	186.50	0	356.47	Fixed	169.97	74
J-38	189.70	0	356.35	Fixed	166.65	72
J-39	189.70	0	356.11	Fixed	166.41	72
J-40	189.35	0	355.77	Fixed	166.42	72
J-41	189.35	0	355.70	Fixed	166.35	72
J-42	189.00	0	355.17	Fixed	166.17	72
J-43	189.00	0	355.09	Fixed	166.09	72
J-44	188.20	0	354.86	Fixed	166.66	72
J-45	187.89	64	354.60	Fixed	166.71	72
J-46	187.35	0	354.37	Fixed	167.02	72
J-47	187.28	97	354.08	Fixed	166.80	72
J-48	187.15	0	354.04	Fixed	166.89	72
J-49	189.40	0	353.96	Fixed	164.56	71
J-50	189.40	0	353.94	Fixed	164.54	71
J-51	189.05	0	353.85	Fixed	164.80	71
J-52	190.00	83	353.60	Fixed	163.60	71

Scenario: 2A - Flow Simultaneously: FH's J-4 & J-7; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water @ PHD: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.194	5.580	3,277	9.30
P-2	J-1	J-2	61	12.0	PVC	150.0	0.225	9.380	3,277	9.30
P-3	J-2	J-3	16	12.0	PVC	150.0	0.034	0.200	3,277	9.30
P-4	J-3	J-4	31	12.0	PVC	150.0	0.022	0.100	3,277	9.30
P-5	J-4	J-5	34	12.0	PVC	150.0	0.010	0.350	1,777	5.04
P-6	J-5	J-6	156	10.0	PVC	150.0	0.008	1.280	1,060	4.33
P-7	J-6	J-7	126	10.0	PVC	150.0	0.006	0.200	1,060	4.33
P-8	J-7	J-8	5	8.0	PVC	150.0	0.011	0.350	-440	2.81
P-9	J-8	J-9	97	8.0	PVC	150.0	0.003	0.200	-440	2.81
P-10	J-9	J-10	55	8.0	PVC	150.0	0.005	0.800	-440	2.81
P-11	J-10	J-11	122	8.0	PVC	150.0	0.003	0.050	-440	2.81
P-12	J-11	J-12	6	8.0	PVC	150.0	0.004	0.050	-440	2.81
P-13	J-12	J-13	52	8.0	PVC	150.0	0.004	0.350	-440	2.81
P-14	J-13	J-14	20	8.0	PVC	150.0	0.004	0.200	-440	2.81
P-15	J-14	J-15	18	8.0	PVC	150.0	0.004	0.200	-440	2.81
P-16	J-15	J-16	18	8.0	PVC	150.0	0.015	0.350	-740	4.72
P-17	J-16	J-5	146	12.0	PVC	150.0	0.002	1.280	-717	2.03
P-18	J-16	J-17	20	12.0	PVC	150.0	0.000	0.050	-23	0.07
P-19	J-17	J-18	41	12.0	PVC	150.0	0.000	0.350	-23	0.07
P-20	J-18	J-19	80	12.0	PVC	150.0	0.000	0.350	-323	0.92
P-21	J-19	J-20	34	12.0	PVC	150.0	0.000	0.350	-323	0.92
P-22	J-20	J-21	17	8.0	PVC	150.0	0.007	0.050	-623	3.98
P-23	J-21	J-22	128	8.0	PVC	150.0	0.007	0.800	-623	3.98
P-24	J-22	J-23	50	8.0	PVC	150.0	0.008	0.350	-623	3.98
P-25	J-23	J-24	28	8.0	PVC	150.0	0.019	0.350	-923	5.89
P-26	J-24	J-25	42	8.0	PVC	150.0	0.013	0.100	-923	5.89
P-27	J-25	J-26	52	8.0	PVC	150.0	0.013	0.100	-923	5.89
P-28	J-26	J-27	18	8.0	PVC	150.0	0.015	0.100	-923	5.89
P-29	J-27	J-28	127	8.0	PVC	150.0	0.012	0.050	-923	5.89
P-30	J-28	J-29	15	8.0	PVC	150.0	0.016	0.100	-923	5.89
P-31	J-29	J-30	67	8.0	PVC	150.0	0.019	0.800	-923	5.89
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.200	9.380	-923	5.89
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.331	5.580	-923	5.89
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.018	1.280	-923	3.77
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.016	1.280	-1,290	5.27
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.010	1.280	-1,290	5.27
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.072	8.280	-1,290	5.27
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.046	1.280	367	4.16
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.151	7.000	367	4.16
P-40	J-37	J-38	6	6.0	PVC	150.0	0.047	0.800	367	4.16
P-41	J-38	J-39	33	6.0	PVC	150.0	0.015	0.800	367	4.16
P-42	J-39	J-40	58	6.0	PVC	150.0	0.013	0.800	367	4.16
P-43	J-40	J-41	14	6.0	PVC	150.0	0.011	0.100	367	4.16
P-44	J-41	J-42	126	6.0	PVC	150.0	0.009	0.050	367	4.16
P-45	J-42	J-43	16	6.0	PVC	150.0	0.011	0.100	367	4.16
P-46	J-43	J-44	51	6.0	PVC	150.0	0.009	0.100	367	4.16
P-47	J-44	J-45	59	6.0	PVC	150.0	0.009	0.100	367	4.16
P-48	J-45	J-46	63	6.0	PVC	150.0	0.008	1.280	270	3.07
P-49	J-46	J-47	100	6.0	PVC	150.0	0.006	0.800	270	3.07
P-50	J-47	J-48	30	6.0	PVC	150.0	0.003	1.280	125	1.42
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	125	1.42
P-52	J-49	J-50	4	6.0	PVC	150.0	0.012	1.280	125	1.42
P-53	J-50	J-51	20	4.0	PVC	150.0	0.009	0.070	125	3.19
P-54	J-51	J-52	60	4.0	PVC	150.0	0.009	0.050	125	3.19

Scenario: 2A - Flow Simultaneously: FH's J-4 & J-7; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water @ PHD: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	367.98	Fixed	179.39	78
J-2	188.21	0	354.33	Fixed	166.12	72
J-3	188.19	0	353.79	Fixed	165.60	72
J-4	188.78	1,500	353.11	Fixed	164.33	71
J-5	191.76	0	352.78	Fixed	161.02	70
J-6	195.04	0	351.59	Fixed	156.55	68
J-7	200.51	1,500	350.87	Fixed	150.36	65
J-8	200.42	0	350.93	Fixed	150.51	65
J-9	199.39	0	351.25	Fixed	151.86	66
J-10	198.17	0	351.51	Fixed	153.34	66
J-11	192.82	0	351.89	Fixed	159.07	69
J-12	191.85	0	351.92	Fixed	160.07	69
J-13	189.36	0	352.12	Fixed	162.76	70
J-14	189.22	0	352.21	Fixed	162.99	71
J-15	189.25	300	352.29	Fixed	163.04	71
J-16	189.05	0	352.55	Fixed	163.50	71
J-17	189.07	0	352.55	Fixed	163.48	71
J-18	189.16	300	352.55	Fixed	163.39	71
J-19	187.87	0	352.57	Fixed	164.70	71
J-20	187.34	300	352.59	Fixed	165.25	71
J-21	187.20	0	352.70	Fixed	165.50	72
J-22	187.35	0	353.64	Fixed	166.29	72
J-23	188.06	300	354.02	Fixed	165.96	72
J-24	188.10	0	354.54	Fixed	166.44	72
J-25	188.26	0	355.11	Fixed	166.85	72
J-26	189.00	0	355.80	Fixed	166.80	72
J-27	189.00	0	356.06	Fixed	167.06	72
J-28	189.35	0	357.62	Fixed	168.27	73
J-29	189.35	0	357.86	Fixed	168.51	73
J-30	186.50	0	359.10	Fixed	172.60	75
J-31	186.50	0	364.59	Fixed	178.09	77
J-32	186.50	0	367.75	Fixed	181.25	78
J-33	186.50	0	368.13	Fixed	181.63	79
J-34	185.26	0	369.31	Fixed	184.05	80
J-35	177.24	0	372.40	Fixed	195.16	84
J-36	186.50	0	367.67	Fixed	181.17	78
J-37	186.50	0	365.63	Fixed	179.13	78
J-38	189.70	0	365.36	Fixed	175.66	76
J-39	189.70	0	364.85	Fixed	175.15	76
J-40	189.35	0	364.12	Fixed	174.77	76
J-41	189.35	0	363.97	Fixed	174.62	76
J-42	189.00	0	362.83	Fixed	173.83	75
J-43	189.00	0	362.66	Fixed	173.66	75
J-44	188.20	0	362.18	Fixed	173.98	75
J-45	187.89	97	361.63	Fixed	173.74	75
J-46	187.35	0	361.12	Fixed	173.77	75
J-47	187.28	145	360.50	Fixed	173.22	75
J-48	187.15	0	360.43	Fixed	173.28	75
J-49	189.40	0	360.25	Fixed	170.85	74
J-50	189.40	0	360.20	Fixed	170.80	74
J-51	189.05	0	360.02	Fixed	170.97	74
J-52	190.00	125	359.49	Fixed	169.49	73

Scenario: 2U - Flow Simultaneously: FH's J-34 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water @ PHD: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Pipe Table

Label	Start Node	Stop Node	Length (Scaled) (ft)	Diameter (in)	Material	Hazen-Williams C	Headloss Gradient (ft/ft)	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)
P-1	R-1	J-1	44	12.0	Ductile Iron	130.0	0.063	5.580	1,858	5.27
P-2	J-1	J-2	61	12.0	PVC	150.0	0.073	9.380	1,858	5.27
P-3	J-2	J-3	16	12.0	PVC	150.0	0.012	0.200	1,858	5.27
P-4	J-3	J-4	31	12.0	PVC	150.0	0.008	0.100	1,858	5.27
P-5	J-4	J-5	34	12.0	PVC	150.0	0.011	0.350	1,858	5.27
P-6	J-5	J-6	156	10.0	PVC	150.0	0.001	1.280	324	1.32
P-7	J-6	J-7	126	10.0	PVC	150.0	0.001	0.200	324	1.32
P-8	J-7	J-8	5	8.0	PVC	150.0	0.006	0.350	324	2.07
P-9	J-8	J-9	97	8.0	PVC	150.0	0.002	0.200	324	2.07
P-10	J-9	J-10	55	8.0	PVC	150.0	0.003	0.800	324	2.07
P-11	J-10	J-11	122	8.0	PVC	150.0	0.002	0.050	324	2.07
P-12	J-11	J-12	6	8.0	PVC	150.0	0.002	0.050	324	2.07
P-13	J-12	J-13	52	8.0	PVC	150.0	0.002	0.350	324	2.07
P-14	J-13	J-14	20	8.0	PVC	150.0	0.002	0.200	324	2.07
P-15	J-14	J-15	18	8.0	PVC	150.0	0.002	0.200	324	2.07
P-16	J-15	J-16	18	8.0	PVC	150.0	0.000	0.350	24	0.15
P-17	J-16	J-5	146	12.0	PVC	150.0	0.007	1.280	-1,534	4.35
P-18	J-16	J-17	20	12.0	PVC	150.0	0.005	0.050	1,558	4.42
P-19	J-17	J-18	41	12.0	PVC	150.0	0.007	0.350	1,558	4.42
P-20	J-18	J-19	80	12.0	PVC	150.0	0.004	0.350	1,258	3.57
P-21	J-19	J-20	34	12.0	PVC	150.0	0.005	0.350	1,258	3.57
P-22	J-20	J-21	17	8.0	PVC	150.0	0.015	0.050	958	6.11
P-23	J-21	J-22	128	8.0	PVC	150.0	0.017	0.800	958	6.11
P-24	J-22	J-23	50	8.0	PVC	150.0	0.017	0.350	958	6.11
P-25	J-23	J-24	28	8.0	PVC	150.0	0.010	0.350	658	4.20
P-26	J-24	J-25	42	8.0	PVC	150.0	0.007	0.100	658	4.20
P-27	J-25	J-26	52	8.0	PVC	150.0	0.007	0.100	658	4.20
P-28	J-26	J-27	18	8.0	PVC	150.0	0.008	0.100	658	4.20
P-29	J-27	J-28	127	8.0	PVC	150.0	0.007	0.050	658	4.20
P-30	J-28	J-29	15	8.0	PVC	150.0	0.008	0.100	658	4.20
P-31	J-29	J-30	67	8.0	PVC	150.0	0.010	0.800	658	4.20
P-32	J-30	J-31	27	8.0	Ductile Iron	130.0	0.102	9.380	658	4.20
P-33	J-31	J-32	10	8.0	Ductile Iron	130.0	0.168	5.580	658	4.20
P-34	J-32	J-33	22	10.0	Asbestos Cement	140.0	0.009	1.280	658	2.69
P-35	J-33	J-34	73	10.0	Asbestos Cement	140.0	0.001	1.280	291	1.19
P-36	J-34	J-35	295	10.0	Asbestos Cement	140.0	0.009	1.280	-1,209	4.94
P-37	J-35	R-2	56	10.0	Asbestos Cement	140.0	0.313	8.280	-2,709	11.07
P-38	J-33	J-36	10	6.0	Ductile Iron	130.0	0.046	1.280	367	4.16
P-39	J-36	J-37	14	6.0	Ductile Iron	130.0	0.151	7.000	367	4.16
P-40	J-37	J-38	6	6.0	PVC	150.0	0.047	0.800	367	4.16
P-41	J-38	J-39	33	6.0	PVC	150.0	0.015	0.800	367	4.16
P-42	J-39	J-40	58	6.0	PVC	150.0	0.013	0.800	367	4.16
P-43	J-40	J-41	14	6.0	PVC	150.0	0.011	0.100	367	4.16
P-44	J-41	J-42	126	6.0	PVC	150.0	0.009	0.050	367	4.16
P-45	J-42	J-43	16	6.0	PVC	150.0	0.011	0.100	367	4.16
P-46	J-43	J-44	51	6.0	PVC	150.0	0.009	0.100	367	4.16
P-47	J-44	J-45	59	6.0	PVC	150.0	0.009	0.100	367	4.16
P-48	J-45	J-46	63	6.0	PVC	150.0	0.008	1.280	270	3.07
P-49	J-46	J-47	100	6.0	PVC	150.0	0.006	0.800	270	3.07
P-50	J-47	J-48	30	6.0	PVC	150.0	0.003	1.280	125	1.42
P-51	J-48	J-49	148	6.0	PVC	150.0	0.001	0.050	125	1.42
P-52	J-49	J-50	4	6.0	PVC	150.0	0.012	1.280	125	1.42
P-53	J-50	J-51	20	4.0	PVC	150.0	0.009	0.070	125	3.19
P-54	J-51	J-52	60	4.0	PVC	150.0	0.009	0.050	125	3.19

Scenario: 2U - Flow Simultaneously: FH's J-34 & J-35; Fire Sprinkler J-15, J-18, J-20, & J-23; Domestic Water @ PHD: J-45, J-47, & J-52
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pattern (Constituent)	Pressure Head (ft)	Pressure (psi)
J-1	188.59	0	373.70	Fixed	185.11	80
J-2	188.21	0	369.29	Fixed	181.08	78
J-3	188.19	0	369.10	Fixed	180.91	78
J-4	188.78	0	368.87	Fixed	180.09	78
J-5	191.76	0	368.51	Fixed	176.75	76
J-6	195.04	0	368.39	Fixed	173.35	75
J-7	200.51	0	368.31	Fixed	167.80	73
J-8	200.42	0	368.28	Fixed	167.86	73
J-9	199.39	0	368.10	Fixed	168.71	73
J-10	198.17	0	367.95	Fixed	169.78	73
J-11	192.82	0	367.73	Fixed	174.91	76
J-12	191.85	0	367.72	Fixed	175.87	76
J-13	189.36	0	367.60	Fixed	178.24	77
J-14	189.22	0	367.56	Fixed	178.34	77
J-15	189.25	300	367.51	Fixed	178.26	77
J-16	189.05	0	367.51	Fixed	178.46	77
J-17	189.07	0	367.41	Fixed	178.34	77
J-18	189.16	300	367.12	Fixed	177.96	77
J-19	187.87	0	366.81	Fixed	178.94	77
J-20	187.34	300	366.64	Fixed	179.30	78
J-21	187.20	0	366.39	Fixed	179.19	78
J-22	187.35	0	364.28	Fixed	176.93	77
J-23	188.06	300	363.42	Fixed	175.36	76
J-24	188.10	0	363.15	Fixed	175.05	76
J-25	188.26	0	362.85	Fixed	174.59	76
J-26	189.00	0	362.48	Fixed	173.48	75
J-27	189.00	0	362.34	Fixed	173.34	75
J-28	189.35	0	361.51	Fixed	172.16	74
J-29	189.35	0	361.38	Fixed	172.03	74
J-30	186.50	0	360.74	Fixed	174.24	75
J-31	186.50	0	357.94	Fixed	171.44	74
J-32	186.50	0	356.33	Fixed	169.83	73
J-33	186.50	0	356.13	Fixed	169.63	73
J-34	185.26	1,500	356.06	Fixed	170.80	74
J-35	177.24	1,500	358.80	Fixed	181.56	79
J-36	186.50	0	355.67	Fixed	169.17	73
J-37	186.50	0	353.63	Fixed	167.13	72
J-38	189.70	0	353.36	Fixed	163.66	71
J-39	189.70	0	352.85	Fixed	163.15	71
J-40	189.35	0	352.12	Fixed	162.77	70
J-41	189.35	0	351.97	Fixed	162.62	70
J-42	189.00	0	350.83	Fixed	161.83	70
J-43	189.00	0	350.66	Fixed	161.66	70
J-44	188.20	0	350.18	Fixed	161.98	70
J-45	187.89	97	349.63	Fixed	161.74	70
J-46	187.35	0	349.13	Fixed	161.78	70
J-47	187.28	145	348.51	Fixed	161.23	70
J-48	187.15	0	348.43	Fixed	161.28	70
J-49	189.40	0	348.25	Fixed	158.85	69
J-50	189.40	0	348.20	Fixed	158.80	69
J-51	189.05	0	348.02	Fixed	158.97	69
J-52	190.00	125	347.49	Fixed	157.49	68