



WATERMAIN DISTRIBUTION ANALYSIS

**EDGEWOOD SUBDIVISION
& FOREST VIEW SUBDIVISION
MT. BRYDGES, ONTARIO**

LDS PROJECT NO. 1614-00135 / 1614-00142

JULY 15, 2024

Submitted to:

MUNICIPALITY OF STRATHROY - CARADOC

C/O WESTDELL DEVELOPMENT CORP. AND SIFTON PROPERTIES LIMITED.

Edgewood Subdivision and Forest View Subdivision
Watermain Distribution Report
Water Demand Summary
LD-00135 & LD-00142



July 15, 2024

Municipality of Strathroy-Caradoc Design Criteria	
Average day demands	250 L/cap/day
Fire underwriters survey (2020) (single family)	6,000 L/min.
Fire underwriters survey (2020) (Block 100)	7,000 L/min.
Fire underwriters survey (2020) (Block 99)	9,000 L/min.
Fire underwriters survey (2020) (Block 101)	10,000 L/min.
Maximum day peaking factor	3.5
Maximum hour peaking factor	7.8
Minimum maximum hour pressure	40 psi.
Minimum maximum day + fire pressure	20 psi.
Maximum hour velocity	1.5 m/s
Maximum maximum day + fire velocity	3.0 m/s
<u>Hazen-Williams C factor for watermains:</u>	
100-150mm diameter	100.0
200-250mm diameter	110.0
300-450mm diameter	120.0
600mm and larger	130.0

Water sources (reservoirs) for this analysis have been obtained from the Mount Brydges Water Distribution System Model, prepared by BM Ross, dated August 18, 2014. We located our primary water source (reservoir) at Junction J-270 and J-265 (from the report) under averaged day demands from Appendix B (page 2 of 9). Under full build out, the secondary water source is located at J-440 (from the report) where the looping can be completed. The water source reservoir elevations have been converted from the pressures obtained from the BM Ross report during the average day demands.

Reservoir 1 (Church Street)

Average day demand pressure = 406 kPa = 41.27m + 247.4 (ground elevation) = HGL of 288.7m

Reservoir 3 (Parkouse Road)

Average day demand pressure = 421 kPa = 43.m + 245.35 (ground elevation) = HGL of 288.35m

Reservoir 2 (Juliana Street)

Average day demand pressure = 401 kPa = 41.0m + 247 (ground elevation) = HGL of 288.0m

Edgewood Subd. - Phase 1 (Lots 1 to 114)

Base Demand (114 lots x 2.4 persons/S.F. lot)	274 persons	=	47.5	L/min.
Peak Hour Demand		=	370.5	L/min.
Max Day + Single Family Fire		=	6,166.3	L/min.

Edgewood Subd. - Phase 2 (Lots 1a to 54a)

Base Demand (54 lots x 2.4 persons/S.F. lot)	130 persons	=	22.5	L/min.
Peak Hour Demand		=	175.5	L/min.
Max Day + Single Family Fire		=	6,078.8	L/min.

Edgewood Subd. - Phase 1 & 2

Base Demand (168 lots x 2.4 persons/S.F. lot)	403 persons	=	70.0	L/min.
Peak Hour Demand		=	546.0	L/min.
Max Day + Single Family Fire		=	6,245.0	L/min.

Forest View Subd. - North & South

Base Demand (96 lots x 2.4 persons/S.F. lot)	231 persons	=	40.1	L/min.
Base Demand (99 units x 2.4 persons/M.D. unit)	238 persons	=	41.3	L/min.
Base Demand (37 units x 1.8 persons/H.D. unit)	67 persons	=	11.6	L/min.
Peak Hour Demand		=	725.8	L/min.
Max Day + Single Family Fire		=	6,325.7	L/min.
Max Day + Med. Density Fire (Block 100)		=	7,325.7	L/min.
Max Day + Med. Density Fire (Block 99)		=	9,325.7	L/min.
Max Day + High Density Fire (Block 101)		=	10,325.7	L/min.

Full Development - Edgewood & Forest View

Base Demand	939 persons	=	163.1	L/min.
Peak Hour Demand		=	1,271.8	L/min.
Max Day + Single Family Fire		=	6,570.7	L/min.
Max Day + Med. Density Fire (Block 100)		=	7,570.7	L/min.
Max Day + Med. Density Fire (Block 99)		=	9,570.7	L/min.
Max Day + High Density Fire (Block 101)		=	10,570.7	L/min.

Edgewood Subd. & Forest View (South Part)

Base Demand (168 lots x 2.4 persons/S.F. lot)	403 persons	=	70.0	L/min.
Base Demand (30 lots x 2.4 persons/S.F. lot)	72 persons	=	12.5	L/min.
Base Demand (99 units x 2.4 persons/M.D. unit)	238 persons	=	41.3	L/min.
Base Demand (37 units x 1.8 persons/H.D. unit)	67 persons	=	11.6	L/min.
Peak Hour Demand		=	1,056.5	L/min.
Max Day + Single Family Fire		=	6,474.1	L/min.
Max Day + Med. Density Fire (Block 100)		=	7,474.1	L/min.
Max Day + Med. Density Fire (Block 99)		=	9,474.1	L/min.
Max Day + High Density Fire (Block 101)		=	10,474.1	L/min.

Fire Flow Demands for Medium Density Block 99

$F=220CvA$
 $A=624 \times 2=1248$
 $C=1.0$
 $F=220 \times 1.0 \times \sqrt{1248}=7,772 \text{ L/min.}$
 Less non-combustible occupancy rating (-25%)
 $=7,772 - 25\% = 5,829 \text{ L/min.}$
 Plus side exposure $(20\%+20\%+10\%+10\%) = 60\%$
 $=5,829 + 60\% = 9,326.3 \text{ L/min.}$
 Therefore fire flow demand = 9,000 L/min.

Fire Flow Demands for Medium Density Block 100

$F=220CvA$
 $A=458 \times 2=916$
 $C=1.0$
 $F=220 \times 1.0 \times \sqrt{916}=6,658.4 \text{ L/min.}$
 Less non-combustible occupancy rating (-25%)
 $=6,658.4 - 25\% = 4,993.8 \text{ L/min.}$
 Plus side exposure $(20\%+20\%+10\%+0\%) = 50\%$
 $=4,993.8 + 50\% = 7,490.7 \text{ L/min.}$
 Therefore fire flow demand = 7,000 L/min.

Fire Flow Demands for High Density Block 101

$F=220CvA$
 $A=1230 \times 3=3690$
 $C=1.0$
 $F=220 \times 1.0 \times \sqrt{3690}=13,364 \text{ L/min.}$
 Less non-combustible occupancy rating (-25%)
 $=13,364 - 25\% = 10,023 \text{ L/min.}$
 Plus side exposure $(0\%+0\%+0\%+0\%) = 0\%$
 Therefore fire flow demand = 10,000 L/min.

Results

Max Hour:

All S-C requirements were met and fall within the allowable pressure and velocity constraints under the maximum hour demand scenario.

Max Day + Fire:

All S-C requirements were met and fall within the allowable pressure and velocity constraints under the maximum day + fire demand scenario.

Age Analysis:

Water age analysis confirms the water turn over rate is less than the maximum 72 hours in all pipes.



EDGEWOOD SUBDIVISION
PHASE 1 & PHASE 2

Active Scenario: Edgewood Ph 1&2 - Peak Hour

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	288.54	61.8
J-5	245.20	46.25	288.56	61.5
J-6	246.60	65.68	288.59	59.6
J-7	248.40	22.62	288.63	57.1
J-8	244.20	0.00	288.57	63.0
J-9	245.40	68.64	288.57	61.3
J-10	247.80	59.28	288.59	57.9
J-11	248.60	9.75	288.60	56.8
J-12	247.80	62.40	288.59	57.9
J-13	245.50	29.33	288.59	61.2
J-14	244.70	6.47	288.59	62.3
J-15	249.00	25.97	288.62	56.2
J-16	249.00	24.34	288.60	56.2
J-17	249.80	12.95	288.60	55.1
J-18	249.30	48.52	288.60	55.8
J-19	249.50	6.47	288.60	55.5
J-20	249.20	28.08	288.60	55.9
J-27	245.35	0.00	288.35	61.0
J-46	247.40	0.00	288.70	58.6
J-49	249.50	29.25	288.60	55.5

Active Scenario: Edgewood Ph 1&2 - Peak Hour

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-293.07	0.16
P-5	123	J-6	J-7	200.0	PVC	110.0	-358.75	0.19
P-1	102	J-3	J-8	150.0	PVC	100.0	-120.14	0.11
P-6	123	J-8	J-9	200.0	PVC	110.0	-120.14	0.06
P-7	152	J-9	J-10	200.0	PVC	110.0	-188.78	0.10
P-8	81	J-10	J-11	250.0	PVC	110.0	-346.26	0.12
P-10	90	J-10	J-12	300.0	PVC	120.0	98.20	0.02
P-11	135	J-12	J-13	300.0	PVC	110.0	35.80	0.01
P-9	56	J-13	J-14	300.0	PVC	120.0	6.47	0.00
P-16	41	J-7	J-15	250.0	PVC	110.0	531.59	0.18
P-17	92	J-15	J-16	250.0	PVC	110.0	505.62	0.17
P-20	119	J-18	J-19	250.0	PVC	110.0	6.47	0.00
P-22	51	J-20	J-18	250.0	PVC	110.0	54.99	0.02
P-3	91	J-3	J-5	200.0	PVC	110.0	-246.82	0.13
P-14	112	J-27	J-3	150.0	PVC	100.0	-366.96	0.35
P-53	107	J-7	J-46	250.0	PVC	110.0	-912.96	0.31
P-54	41	J-46	R-1	400.0	PVC	120.0	-912.96	0.12
P-55	32	J-27	R-3	400.0	PVC	120.0	366.96	0.05
P-62	86	J-16	J-20	250.0	PVC	110.0	83.07	0.03
P-63	18	J-16	J-11	250.0	PVC	110.0	356.01	0.12
P-18	42	J-16	J-49	250.0	PVC	110.0	42.20	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	12.95	0.03

**Active Scenario: Edgewood Ph 1&2 - Max Day + Fire at
J49**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	286.91	59.5
J-5	245.20	20.76	286.91	59.2
J-6	246.60	29.47	286.91	57.2
J-7	248.40	10.15	286.91	54.7
J-8	244.20	0.00	285.59	58.8
J-9	245.40	30.80	285.27	56.6
J-10	247.80	26.60	284.88	52.6
J-11	248.60	4.37	284.82	51.4
J-12	247.80	28.00	284.88	52.6
J-13	245.50	13.16	284.88	55.9
J-14	244.70	2.91	284.88	57.0
J-15	249.00	11.65	286.26	52.9
J-16	249.00	10.92	284.81	50.8
J-17	249.80	12.60	283.90	48.4
J-18	249.30	21.77	284.81	50.4
J-19	249.50	5.60	284.81	50.1
J-20	249.20	12.60	284.81	50.5
J-27	245.35	0.00	288.35	61.0
J-46	247.40	0.00	288.64	58.5
J-49	249.50	6,015.41	283.90	48.8

Active Scenario: Edgewood Ph 1&2 - Max Day + Fire at J49

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-19.61	0.01
P-5	123	J-6	J-7	200.0	PVC	110.0	-49.08	0.03
P-1	102	J-3	J-8	150.0	PVC	100.0	1,086.02	1.02
P-6	123	J-8	J-9	200.0	PVC	110.0	1,086.02	0.58
P-7	152	J-9	J-10	200.0	PVC	110.0	1,055.22	0.56
P-8	81	J-10	J-11	250.0	PVC	110.0	984.55	0.33
P-10	90	J-10	J-12	300.0	PVC	120.0	44.06	0.01
P-11	135	J-12	J-13	300.0	PVC	110.0	16.07	0.00
P-9	56	J-13	J-14	300.0	PVC	120.0	2.91	0.00
P-16	41	J-7	J-15	250.0	PVC	110.0	5,110.38	1.74
P-17	92	J-15	J-16	250.0	PVC	110.0	5,098.73	1.73
P-20	119	J-18	J-19	250.0	PVC	110.0	5.60	0.00
P-22	51	J-20	J-18	250.0	PVC	110.0	27.37	0.01
P-3	91	J-3	J-5	200.0	PVC	110.0	1.14	0.00
P-14	112	J-27	J-3	150.0	PVC	100.0	1,087.16	1.03
P-53	107	J-7	J-46	250.0	PVC	110.0	-5,169.62	1.76
P-54	41	J-46	R-1	400.0	PVC	120.0	-5,169.62	0.69
P-55	32	J-27	R-3	400.0	PVC	120.0	-1,087.16	0.14
P-62	86	J-16	J-20	250.0	PVC	110.0	39.97	0.01
P-63	18	J-16	J-11	250.0	PVC	110.0	-980.18	0.33
P-18	42	J-16	J-49	250.0	PVC	110.0	6,028.01	2.05
P-19	70	J-49	J-17	100.0	PVC	100.0	12.60	0.03

Active Scenario: Edgewood Ph 1 &2 - Max Day + Fire at J19

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	286.91	59.5
J-5	245.20	20.76	286.91	59.2
J-6	246.60	29.47	286.91	57.2
J-7	248.40	10.15	286.91	54.7
J-8	244.20	0.00	285.60	58.8
J-9	245.40	30.80	285.28	56.6
J-10	247.80	26.60	284.90	52.7
J-11	248.60	4.37	284.84	51.4
J-12	247.80	28.00	284.90	52.7
J-13	245.50	13.16	284.90	55.9
J-14	244.70	2.91	284.90	57.1
J-15	249.00	11.65	286.27	52.9
J-16	249.00	10.92	284.82	50.8
J-17	249.80	5.81	284.82	49.7
J-18	249.30	21.77	281.86	46.2
J-19	249.50	6,001.90	279.33	42.3
J-20	249.20	12.60	282.96	47.9
J-27	245.35	0.00	288.35	61.0
J-46	247.40	0.00	288.64	58.5
J-49	249.50	13.12	284.82	50.1

Active Scenario: Edgewood Ph 1 & 2 - Max Day + Fire at J19

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-20.02	0.01
P-5	123	J-6	J-7	200.0	PVC	110.0	-49.49	0.03
P-1	102	J-3	J-8	150.0	PVC	100.0	1,083.78	1.02
P-6	123	J-8	J-9	200.0	PVC	110.0	1,083.78	0.57
P-7	152	J-9	J-10	200.0	PVC	110.0	1,052.98	0.56
P-8	81	J-10	J-11	250.0	PVC	110.0	982.32	0.33
P-10	90	J-10	J-12	300.0	PVC	120.0	44.06	0.01
P-11	135	J-12	J-13	300.0	PVC	110.0	16.07	0.00
P-9	56	J-13	J-14	300.0	PVC	120.0	2.91	0.00
P-16	41	J-7	J-15	250.0	PVC	110.0	5,099.84	1.73
P-17	92	J-15	J-16	250.0	PVC	110.0	5,088.18	1.73
P-20	119	J-18	J-19	250.0	PVC	110.0	6,001.90	2.04
P-22	51	J-20	J-18	250.0	PVC	110.0	6,023.67	2.05
P-3	91	J-3	J-5	200.0	PVC	110.0	0.73	0.00
P-14	112	J-27	J-3	150.0	PVC	100.0	1,084.52	1.02
P-53	107	J-7	J-46	250.0	PVC	110.0	-5,159.48	1.75
P-54	41	J-46	R-1	400.0	PVC	120.0	-5,159.48	0.68
P-55	32	J-27	R-3	400.0	PVC	120.0	-1,084.52	0.14
P-62	86	J-16	J-20	250.0	PVC	110.0	6,036.27	2.05
P-63	18	J-16	J-11	250.0	PVC	110.0	-977.94	0.33
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01

**Active Scenario: Edgewood Ph 1&2 - Max Day + Fire at
J14**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	286.85	59.4
J-5	245.20	20.76	286.87	59.2
J-6	246.60	29.47	286.90	57.2
J-7	248.40	10.15	286.93	54.7
J-8	244.20	0.00	284.82	57.7
J-9	245.40	30.80	284.31	55.2
J-10	247.80	26.60	283.71	51.0
J-11	248.60	4.37	284.81	51.4
J-12	247.80	23.80	283.02	50.0
J-13	245.50	13.16	281.84	51.6
J-14	244.70	6,002.50	281.42	52.1
J-15	249.00	11.65	286.36	53.0
J-16	249.00	10.92	285.06	51.2
J-17	249.80	5.81	285.06	50.0
J-18	249.30	21.77	285.06	50.8
J-19	249.50	2.91	285.06	50.5
J-20	249.20	12.60	285.06	50.9
J-27	245.35	0.00	288.35	61.0
J-46	247.40	0.00	288.64	58.5
J-49	249.50	13.12	285.06	50.5

Active Scenario: Edgewood Ph 1&2 - Max Day + Fire at J14

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-288.76	0.15
P-5	123	J-6	J-7	200.0	PVC	110.0	-318.23	0.17
P-1	102	J-3	J-8	150.0	PVC	100.0	1,376.34	1.30
P-6	123	J-8	J-9	200.0	PVC	110.0	1,376.34	0.73
P-7	152	J-9	J-10	200.0	PVC	110.0	1,345.54	0.71
P-8	81	J-10	J-11	250.0	PVC	110.0	-4,720.52	1.60
P-10	90	J-10	J-12	300.0	PVC	120.0	6,039.46	1.42
P-11	135	J-12	J-13	300.0	PVC	110.0	6,015.66	1.42
P-9	56	J-13	J-14	300.0	PVC	120.0	6,002.50	1.42
P-16	41	J-7	J-15	250.0	PVC	110.0	4,803.68	1.63
P-17	92	J-15	J-16	250.0	PVC	110.0	4,792.02	1.63
P-20	119	J-18	J-19	250.0	PVC	110.0	2.91	0.00
P-22	51	J-20	J-18	250.0	PVC	110.0	24.68	0.01
P-3	91	J-3	J-5	200.0	PVC	110.0	-268.00	0.14
P-14	112	J-27	J-3	150.0	PVC	100.0	1,108.34	1.05
P-53	107	J-7	J-46	250.0	PVC	110.0	-5,132.06	1.74
P-54	41	J-46	R-1	400.0	PVC	120.0	-5,132.06	0.68
P-55	32	J-27	R-3	400.0	PVC	120.0	-1,108.34	0.15
P-62	86	J-16	J-20	250.0	PVC	110.0	37.28	0.01
P-63	18	J-16	J-11	250.0	PVC	110.0	4,724.89	1.60
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01

Active Scenario: Edgewood Ph 1&2 - Age Analysis

FlexTable: Pipe Table

Current Time: 72.00 hours

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)	Age (Calculated) (hours)
P-4	114	J-5	J-6	200.0	PVC	110.0	-274.63	0.15	0.639
P-5	123	J-6	J-7	200.0	PVC	110.0	-283.05	0.15	0.418
P-1	102	J-3	J-8	150.0	PVC	100.0	-159.59	0.15	2.243
P-6	123	J-8	J-9	200.0	PVC	110.0	-159.59	0.08	1.945
P-7	152	J-9	J-10	200.0	PVC	110.0	-168.39	0.09	1.508
P-8	81	J-10	J-11	250.0	PVC	110.0	-188.58	0.06	1.098
P-10	90	J-10	J-12	300.0	PVC	120.0	12.59	0.00	5.499
P-11	135	J-12	J-13	300.0	PVC	110.0	4.59	0.00	26.999
P-9	56	J-13	J-14	300.0	PVC	120.0	0.83	0.00	67.177
P-16	41	J-7	J-15	250.0	PVC	110.0	212.34	0.07	0.386
P-17	92	J-15	J-16	250.0	PVC	110.0	209.01	0.07	0.641
P-20	119	J-18	J-19	250.0	PVC	110.0	0.83	0.00	57.357
P-22	51	J-20	J-18	250.0	PVC	110.0	7.05	0.00	10.427
P-3	91	J-3	J-5	200.0	PVC	110.0	-268.70	0.14	0.838
P-14	112	J-27	J-3	150.0	PVC	100.0	-428.29	0.40	1.498
P-53	107	J-7	J-46	250.0	PVC	110.0	-498.29	0.17	0.217
P-54	41	J-46	R-1	400.0	PVC	120.0	-498.29	0.07	0.042
P-55	32	J-27	R-3	400.0	PVC	120.0	428.29	0.06	1.633
P-62	86	J-16	J-20	250.0	PVC	110.0	10.65	0.00	4.137
P-63	18	J-16	J-11	250.0	PVC	110.0	189.83	0.06	0.869
P-18	42	J-16	J-49	250.0	PVC	110.0	5.41	0.00	4.021
P-19	70	J-49	J-17	100.0	PVC	100.0	1.66	0.00	9.985

**FULL BUILD OUT
EDGEWOOD SUBDIVISION
& FOREST VIEW SUBDIVISION**

Active Scenario: Full Development Peak Hour

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	288.36	61.5
J-5	245.20	46.25	288.38	61.3
J-6	246.60	65.68	288.41	59.4
J-7	248.40	22.62	288.46	56.9
J-8	244.20	0.00	288.30	62.6
J-9	245.40	68.64	288.29	60.9
J-10	247.80	59.28	288.28	57.5
J-11	248.60	9.75	288.30	56.3
J-12	247.80	62.40	288.27	57.4
J-13	245.50	29.33	288.25	60.7
J-14	244.70	6.47	288.25	61.8
J-15	249.00	25.97	288.41	55.9
J-16	249.00	24.34	288.30	55.8
J-17	249.80	12.95	288.30	54.6
J-18	249.30	48.52	288.25	55.3
J-19	249.50	6.47	288.22	55.0
J-20	249.20	28.08	288.27	55.5
J-27	245.35	0.00	288.35	61.0
J-28	247.50	0.65	288.11	57.6
J-29	248.00	45.47	288.13	57.0
J-30	248.80	35.72	288.14	55.8
J-31	249.20	19.50	288.15	55.3
J-32	249.50	42.28	288.17	54.9
J-33	249.00	39.00	288.15	55.6
J-34	248.40	22.78	288.14	56.4
J-35	246.30	81.28	288.23	59.5
J-36	246.40	53.82	288.23	59.4
J-37	246.30	19.27	288.24	59.5
J-38	246.50	16.22	288.24	59.2
J-39	245.00	98.59	288.24	61.4
J-40	246.50	208.03	288.23	59.2
J-41	244.40	42.28	288.21	62.2
J-44	247.00	0.00	288.01	58.2
J-46	247.40	0.00	288.69	58.6
J-49	249.50	29.25	288.30	55.1

Active Scenario: Full Development Peak Hour

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-328.80	0.17
P-5	123	J-6	J-7	200.0	PVC	110.0	-394.48	0.21
P-1	102	J-3	J-8	150.0	PVC	100.0	206.15	0.19
P-6	123	J-8	J-9	200.0	PVC	110.0	206.15	0.11
P-7	152	J-9	J-10	200.0	PVC	110.0	137.51	0.07
P-8	81	J-10	J-11	250.0	PVC	110.0	-539.45	0.18
P-10	90	J-10	J-12	300.0	PVC	120.0	617.68	0.15
P-11	135	J-12	J-13	300.0	PVC	110.0	555.28	0.13
P-9	56	J-13	J-14	300.0	PVC	120.0	525.95	0.12
P-16	41	J-7	J-15	250.0	PVC	110.0	1,302.24	0.44
P-17	92	J-15	J-16	250.0	PVC	110.0	1,276.27	0.43
P-20	119	J-18	J-19	250.0	PVC	110.0	583.94	0.20
P-22	51	J-20	J-18	250.0	PVC	110.0	632.45	0.21
P-3	91	J-3	J-5	200.0	PVC	110.0	-282.55	0.15
P-14	112	J-27	J-3	150.0	PVC	100.0	-76.40	0.07
P-31	36	J-28	J-29	200.0	PVC	110.0	-372.71	0.20
P-32	129	J-29	J-30	200.0	PVC	110.0	-207.43	0.11
P-33	79	J-30	J-31	200.0	PVC	110.0	-243.16	0.13
P-34	95	J-31	J-32	200.0	PVC	110.0	-262.66	0.14
P-35	115	J-32	J-33	200.0	PVC	110.0	272.53	0.14
P-36	85	J-33	J-34	200.0	PVC	110.0	233.53	0.12
P-37	83	J-34	J-29	200.0	PVC	110.0	210.75	0.11
P-38	57	J-32	J-19	200.0	PVC	110.0	-577.46	0.31
P-39	114	J-35	J-36	250.0	PVC	110.0	-81.28	0.03
P-40	72	J-36	J-37	300.0	PVC	120.0	-385.40	0.09
P-41	53	J-37	J-38	300.0	PVC	120.0	-404.66	0.10
P-42	82	J-38	J-39	300.0	PVC	120.0	-420.89	0.10
P-43	32	J-39	J-14	300.0	PVC	120.0	-519.48	0.12
P-44	95	J-36	J-40	300.0	PVC	120.0	250.30	0.06
P-45	81	J-40	J-41	100.0	PVC	100.0	42.28	0.09
P-51	285	J-44	J-28	200.0	PVC	110.0	-372.06	0.20
P-52	21	J-44	R-2	200.0	PVC	110.0	372.06	0.20
P-53	107	J-7	J-46	250.0	PVC	110.0	-1,719.34	0.58
P-57	329	J-46	J-27	150.0	PVC	100.0	277.78	0.26
P-54	41	J-46	R-1	400.0	PVC	120.0	-1,997.12	0.26
P-55	32	J-27	R-3	400.0	PVC	120.0	354.18	0.05
P-62	86	J-16	J-20	250.0	PVC	110.0	660.53	0.22
P-63	18	J-16	J-11	250.0	PVC	110.0	549.20	0.19
P-18	42	J-16	J-49	250.0	PVC	110.0	42.20	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	12.95	0.03

**Active Scenario: Full Development - Max Day + Fire at
J40**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	286.00	58.2
J-5	245.20	20.76	286.05	58.0
J-6	246.60	29.47	286.11	56.1
J-7	248.40	10.15	286.19	53.6
J-8	244.20	0.00	282.43	54.3
J-9	245.40	30.80	281.54	51.3
J-10	247.80	26.60	280.47	46.4
J-11	248.60	4.37	283.05	48.9
J-12	247.80	28.00	278.96	44.2
J-13	245.50	13.16	276.33	43.8
J-14	244.70	2.91	275.40	43.6
J-15	249.00	11.65	285.40	51.7
J-16	249.00	10.92	283.63	49.2
J-17	249.80	5.81	283.63	48.0
J-18	249.30	21.77	283.96	49.2
J-19	249.50	2.91	284.25	49.3
J-20	249.20	12.60	283.84	49.2
J-27	245.35	0.00	288.35	61.0
J-28	247.50	0.29	285.57	54.0
J-29	248.00	20.41	285.28	52.9
J-30	248.80	16.03	285.01	51.4
J-31	249.20	8.75	284.85	50.6
J-32	249.50	18.97	284.66	49.9
J-33	249.00	17.50	284.91	51.0
J-34	248.40	10.22	285.10	52.1
J-35	246.30	36.47	271.48	35.7
J-36	246.40	24.15	271.48	35.6
J-37	246.30	8.64	272.66	37.4
J-38	246.50	7.28	273.52	38.4
J-39	245.00	44.24	274.87	42.4
J-40	246.50	9,092.65	269.94	33.3
J-41	244.40	18.97	269.94	36.2
J-44	247.00	0.00	287.83	58.0
J-46	247.40	0.00	288.61	58.5
J-49	249.50	13.12	283.63	48.4

Active Scenario: Full Development - Max Day + Fire at J40

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-470.47	0.25
P-5	123	J-6	J-7	200.0	PVC	110.0	-499.94	0.27
P-1	102	J-3	J-8	150.0	PVC	100.0	1,864.17	1.76
P-6	123	J-8	J-9	200.0	PVC	110.0	1,864.17	0.99
P-7	152	J-9	J-10	200.0	PVC	110.0	1,833.37	0.97
P-8	81	J-10	J-11	250.0	PVC	110.0	-7,469.70	2.54
P-10	90	J-10	J-12	300.0	PVC	120.0	9,276.47	2.19
P-11	135	J-12	J-13	300.0	PVC	110.0	9,248.47	2.18
P-9	56	J-13	J-14	300.0	PVC	120.0	9,235.31	2.18
P-16	41	J-7	J-15	250.0	PVC	110.0	5,682.56	1.93
P-17	92	J-15	J-16	250.0	PVC	110.0	5,670.91	1.93
P-20	119	J-18	J-19	250.0	PVC	110.0	-1,867.39	0.63
P-22	51	J-20	J-18	250.0	PVC	110.0	-1,845.62	0.63
P-3	91	J-3	J-5	200.0	PVC	110.0	-449.71	0.24
P-14	112	J-27	J-3	150.0	PVC	100.0	1,414.46	1.33
P-31	36	J-28	J-29	200.0	PVC	110.0	1,962.17	1.04
P-32	129	J-29	J-30	200.0	PVC	110.0	951.99	0.51
P-33	79	J-30	J-31	200.0	PVC	110.0	935.96	0.50
P-34	95	J-31	J-32	200.0	PVC	110.0	927.21	0.49
P-35	115	J-32	J-33	200.0	PVC	110.0	-962.05	0.51
P-36	85	J-33	J-34	200.0	PVC	110.0	-979.55	0.52
P-37	83	J-34	J-29	200.0	PVC	110.0	-989.77	0.53
P-38	57	J-32	J-19	200.0	PVC	110.0	1,870.29	0.99
P-39	114	J-35	J-36	250.0	PVC	110.0	-36.47	0.01
P-40	72	J-36	J-37	300.0	PVC	120.0	-9,172.24	2.16
P-41	53	J-37	J-38	300.0	PVC	120.0	-9,180.88	2.16
P-42	82	J-38	J-39	300.0	PVC	120.0	-9,188.16	2.17
P-43	32	J-39	J-14	300.0	PVC	120.0	-9,232.40	2.18
P-44	95	J-36	J-40	300.0	PVC	120.0	9,111.62	2.15
P-45	81	J-40	J-41	100.0	PVC	100.0	18.97	0.04
P-51	285	J-44	J-28	200.0	PVC	110.0	1,962.46	1.04
P-52	21	J-44	R-2	200.0	PVC	110.0	-1,962.46	1.04
P-53	107	J-7	J-46	250.0	PVC	110.0	-6,192.65	2.10
P-57	329	J-46	J-27	150.0	PVC	100.0	243.58	0.23
P-54	41	J-46	R-1	400.0	PVC	120.0	-6,436.23	0.85
P-55	32	J-27	R-3	400.0	PVC	120.0	-1,170.88	0.16
P-62	86	J-16	J-20	250.0	PVC	110.0	-1,833.02	0.62
P-63	18	J-16	J-11	250.0	PVC	110.0	7,474.07	2.54
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01

**Active Scenario: Full Development - Max Day + Fire at
J-33**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	287.86	60.8
J-5	245.20	20.76	287.86	60.6
J-6	246.60	29.47	287.86	58.6
J-7	248.40	10.15	287.87	56.0
J-8	244.20	0.00	287.28	61.2
J-9	245.40	30.80	287.14	59.2
J-10	247.80	26.60	286.97	55.6
J-11	248.60	4.37	286.96	54.5
J-12	247.80	28.00	286.97	55.6
J-13	245.50	13.16	286.97	58.9
J-14	244.70	2.91	286.97	60.0
J-15	249.00	11.65	287.59	54.8
J-16	249.00	10.92	286.96	53.9
J-17	249.80	5.81	286.96	52.7
J-18	249.30	21.77	285.84	51.9
J-19	249.50	2.91	284.89	50.2
J-20	249.20	12.60	286.26	52.6
J-27	245.35	0.00	288.35	61.0
J-28	247.50	0.29	283.99	51.8
J-29	248.00	20.41	283.52	50.4
J-30	248.80	22.05	283.53	49.3
J-31	249.20	8.75	283.54	48.7
J-32	249.50	18.97	283.55	48.3
J-33	249.00	6,021.05	281.11	45.6
J-34	248.40	10.22	282.33	48.2
J-35	246.30	36.47	286.96	57.7
J-36	246.40	24.15	286.96	57.6
J-37	246.30	8.64	286.96	57.7
J-38	246.50	7.28	286.96	57.4
J-39	245.00	44.24	286.97	59.6
J-40	246.50	93.34	286.96	57.4
J-41	244.40	18.97	286.96	60.4
J-44	247.00	0.00	287.73	57.8
J-46	247.40	0.00	288.67	58.6
J-49	249.50	13.12	286.96	53.2

Active Scenario: Full Development - Max Day + Fire at J-33

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-107.79	0.06
P-5	123	J-6	J-7	200.0	PVC	110.0	-137.26	0.07
P-1	102	J-3	J-8	150.0	PVC	100.0	696.26	0.66
P-6	123	J-8	J-9	200.0	PVC	110.0	696.26	0.37
P-7	152	J-9	J-10	200.0	PVC	110.0	665.46	0.35
P-8	81	J-10	J-11	250.0	PVC	110.0	361.70	0.12
P-10	90	J-10	J-12	300.0	PVC	120.0	277.16	0.07
P-11	135	J-12	J-13	300.0	PVC	110.0	249.16	0.06
P-9	56	J-13	J-14	300.0	PVC	120.0	236.00	0.06
P-16	41	J-7	J-15	250.0	PVC	110.0	3,254.26	1.10
P-17	92	J-15	J-16	250.0	PVC	110.0	3,242.60	1.10
P-20	119	J-18	J-19	250.0	PVC	110.0	3,535.70	1.20
P-22	51	J-20	J-18	250.0	PVC	110.0	3,557.47	1.21
P-3	91	J-3	J-5	200.0	PVC	110.0	-87.04	0.05
P-14	112	J-27	J-3	150.0	PVC	100.0	609.23	0.57
P-31	36	J-28	J-29	200.0	PVC	110.0	2,568.65	1.36
P-32	129	J-29	J-30	200.0	PVC	110.0	-154.78	0.08
P-33	79	J-30	J-31	200.0	PVC	110.0	-176.83	0.09
P-34	95	J-31	J-32	200.0	PVC	110.0	-185.58	0.10
P-35	115	J-32	J-33	200.0	PVC	110.0	3,328.24	1.77
P-36	85	J-33	J-34	200.0	PVC	110.0	-2,692.81	1.43
P-37	83	J-34	J-29	200.0	PVC	110.0	-2,703.03	1.43
P-38	57	J-32	J-19	200.0	PVC	110.0	-3,532.80	1.87
P-39	114	J-35	J-36	250.0	PVC	110.0	-36.47	0.01
P-40	72	J-36	J-37	300.0	PVC	120.0	-172.93	0.04
P-41	53	J-37	J-38	300.0	PVC	120.0	-181.58	0.04
P-42	82	J-38	J-39	300.0	PVC	120.0	-188.86	0.04
P-43	32	J-39	J-14	300.0	PVC	120.0	-233.10	0.05
P-44	95	J-36	J-40	300.0	PVC	120.0	112.31	0.03
P-45	81	J-40	J-41	100.0	PVC	100.0	18.97	0.04
P-51	285	J-44	J-28	200.0	PVC	110.0	2,568.94	1.36
P-52	21	J-44	R-2	200.0	PVC	110.0	-2,568.94	1.36
P-53	107	J-7	J-46	250.0	PVC	110.0	-3,401.67	1.15
P-57	329	J-46	J-27	150.0	PVC	100.0	268.81	0.25
P-54	41	J-46	R-1	400.0	PVC	120.0	-3,670.47	0.49
P-55	32	J-27	R-3	400.0	PVC	120.0	-340.42	0.05
P-62	86	J-16	J-20	250.0	PVC	110.0	3,570.07	1.21
P-63	18	J-16	J-11	250.0	PVC	110.0	-357.32	0.12
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01

**Active Scenario: Full Development - Max Day + Fire at
J-35**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	286.89	59.5
J-5	245.20	20.76	286.92	59.2
J-6	246.60	29.47	286.97	57.3
J-7	248.40	10.15	287.03	54.8
J-8	244.20	0.00	284.58	57.3
J-9	245.40	30.80	284.01	54.8
J-10	247.80	26.60	283.33	50.4
J-11	248.60	4.37	284.97	51.6
J-12	247.80	28.00	282.36	49.1
J-13	245.50	13.16	280.69	49.9
J-14	244.70	2.91	280.10	50.2
J-15	249.00	11.65	286.51	53.2
J-16	249.00	10.92	285.35	51.6
J-17	249.80	5.81	285.35	50.5
J-18	249.30	21.77	285.54	51.4
J-19	249.50	2.91	285.71	51.4
J-20	249.20	12.60	285.47	51.5
J-27	245.35	0.00	288.35	61.0
J-28	247.50	0.29	286.51	55.4
J-29	248.00	20.41	286.33	54.4
J-30	248.80	16.03	286.17	53.0
J-31	249.20	8.75	286.07	52.3
J-32	249.50	18.97	285.96	51.8
J-33	249.00	17.50	286.11	52.7
J-34	248.40	10.22	286.22	53.7
J-35	246.30	7,037.80	274.35	39.8
J-36	246.40	24.15	277.61	44.3
J-37	246.30	8.64	278.35	45.5
J-38	246.50	7.28	278.90	46.0
J-39	245.00	44.24	279.76	49.3
J-40	246.50	93.34	277.61	44.2
J-41	244.40	18.97	277.60	47.1
J-44	247.00	0.00	287.90	58.1
J-46	247.40	0.00	288.64	58.5
J-49	249.50	13.12	285.35	50.9

Active Scenario: Full Development - Max Day + Fire at J-35

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-397.65	0.21
P-5	123	J-6	J-7	200.0	PVC	110.0	-427.12	0.23
P-1	102	J-3	J-8	150.0	PVC	100.0	1,471.42	1.39
P-6	123	J-8	J-9	200.0	PVC	110.0	1,471.42	0.78
P-7	152	J-9	J-10	200.0	PVC	110.0	1,440.62	0.76
P-8	81	J-10	J-11	250.0	PVC	110.0	-5,864.48	1.99
P-10	90	J-10	J-12	300.0	PVC	120.0	7,278.50	1.72
P-11	135	J-12	J-13	300.0	PVC	110.0	7,250.50	1.71
P-9	56	J-13	J-14	300.0	PVC	120.0	7,237.34	1.71
P-16	41	J-7	J-15	250.0	PVC	110.0	4,532.88	1.54
P-17	92	J-15	J-16	250.0	PVC	110.0	4,521.22	1.54
P-20	119	J-18	J-19	250.0	PVC	110.0	-1,411.86	0.48
P-22	51	J-20	J-18	250.0	PVC	110.0	-1,390.09	0.47
P-3	91	J-3	J-5	200.0	PVC	110.0	-376.90	0.20
P-14	112	J-27	J-3	150.0	PVC	100.0	1,094.52	1.03
P-31	36	J-28	J-29	200.0	PVC	110.0	1,506.64	0.80
P-32	129	J-29	J-30	200.0	PVC	110.0	728.43	0.39
P-33	79	J-30	J-31	200.0	PVC	110.0	712.40	0.38
P-34	95	J-31	J-32	200.0	PVC	110.0	703.65	0.37
P-35	115	J-32	J-33	200.0	PVC	110.0	-730.08	0.39
P-36	85	J-33	J-34	200.0	PVC	110.0	-747.58	0.40
P-37	83	J-34	J-29	200.0	PVC	110.0	-757.80	0.40
P-38	57	J-32	J-19	200.0	PVC	110.0	1,414.76	0.75
P-39	114	J-35	J-36	250.0	PVC	110.0	-7,037.80	2.39
P-40	72	J-36	J-37	300.0	PVC	120.0	-7,174.27	1.69
P-41	53	J-37	J-38	300.0	PVC	120.0	-7,182.91	1.69
P-42	82	J-38	J-39	300.0	PVC	120.0	-7,190.19	1.70
P-43	32	J-39	J-14	300.0	PVC	120.0	-7,234.43	1.71
P-44	95	J-36	J-40	300.0	PVC	120.0	112.32	0.03
P-45	81	J-40	J-41	100.0	PVC	100.0	18.97	0.04
P-51	285	J-44	J-28	200.0	PVC	110.0	1,506.93	0.80
P-52	21	J-44	R-2	200.0	PVC	110.0	-1,506.93	0.80
P-53	107	J-7	J-46	250.0	PVC	110.0	-4,970.15	1.69
P-57	329	J-46	J-27	150.0	PVC	100.0	256.31	0.24
P-54	41	J-46	R-1	400.0	PVC	120.0	-5,226.45	0.69
P-55	32	J-27	R-3	400.0	PVC	120.0	-838.22	0.11
P-62	86	J-16	J-20	250.0	PVC	110.0	-1,377.49	0.47
P-63	18	J-16	J-11	250.0	PVC	110.0	5,868.85	1.99
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01

**Active Scenario: Full Development - Max Day + Fire at
J-39**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	285.49	57.5
J-5	245.20	20.76	285.54	57.3
J-6	246.60	29.47	285.62	55.4
J-7	248.40	10.15	285.71	53.0
J-8	244.20	0.00	281.19	52.5
J-9	245.40	30.80	280.12	49.3
J-10	247.80	26.60	278.82	44.0
J-11	248.60	4.37	281.94	47.3
J-12	247.80	28.00	277.00	41.4
J-13	245.50	13.16	273.82	40.2
J-14	244.70	2.91	272.70	39.7
J-15	249.00	11.65	284.77	50.8
J-16	249.00	10.92	282.65	47.8
J-17	249.80	5.81	282.64	46.6
J-18	249.30	21.77	283.05	47.9
J-19	249.50	2.91	283.41	48.1
J-20	249.20	12.60	282.90	47.8
J-27	245.35	0.00	288.35	61.0
J-28	247.50	0.29	285.03	53.3
J-29	248.00	20.41	284.68	52.1
J-30	248.80	16.03	284.35	50.5
J-31	249.20	8.75	284.15	49.6
J-32	249.50	18.97	283.92	48.9
J-33	249.00	17.50	284.22	50.0
J-34	248.40	10.22	284.45	51.2
J-35	246.30	36.47	272.05	36.6
J-36	246.40	24.15	272.05	36.4
J-37	246.30	8.64	272.05	36.6
J-38	246.50	7.28	272.05	36.3
J-39	245.00	10,044.23	272.05	38.4
J-40	246.50	93.34	272.05	36.3
J-41	244.40	18.97	272.05	39.2
J-44	247.00	0.00	287.80	57.9
J-46	247.40	0.00	288.60	58.5
J-49	249.50	13.12	282.65	47.0

Active Scenario: Full Development - Max Day + Fire at J-39

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-508.73	0.27
P-5	123	J-6	J-7	200.0	PVC	110.0	-538.20	0.29
P-1	102	J-3	J-8	150.0	PVC	100.0	2,061.10	1.94
P-6	123	J-8	J-9	200.0	PVC	110.0	2,061.10	1.09
P-7	152	J-9	J-10	200.0	PVC	110.0	2,030.30	1.08
P-8	81	J-10	J-11	250.0	PVC	110.0	-8,273.46	2.81
P-10	90	J-10	J-12	300.0	PVC	120.0	10,277.15	2.42
P-11	135	J-12	J-13	300.0	PVC	110.0	10,249.15	2.42
P-9	56	J-13	J-14	300.0	PVC	120.0	10,235.99	2.41
P-16	41	J-7	J-15	250.0	PVC	110.0	6,261.88	2.13
P-17	92	J-15	J-16	250.0	PVC	110.0	6,250.23	2.12
P-20	119	J-18	J-19	250.0	PVC	110.0	-2,091.83	0.71
P-22	51	J-20	J-18	250.0	PVC	110.0	-2,070.06	0.70
P-3	91	J-3	J-5	200.0	PVC	110.0	-487.97	0.26
P-14	112	J-27	J-3	150.0	PVC	100.0	1,573.12	1.48
P-31	36	J-28	J-29	200.0	PVC	110.0	2,186.61	1.16
P-32	129	J-29	J-30	200.0	PVC	110.0	1,062.14	0.56
P-33	79	J-30	J-31	200.0	PVC	110.0	1,046.11	0.55
P-34	95	J-31	J-32	200.0	PVC	110.0	1,037.36	0.55
P-35	115	J-32	J-33	200.0	PVC	110.0	-1,076.34	0.57
P-36	85	J-33	J-34	200.0	PVC	110.0	-1,093.84	0.58
P-37	83	J-34	J-29	200.0	PVC	110.0	-1,104.06	0.59
P-38	57	J-32	J-19	200.0	PVC	110.0	2,094.73	1.11
P-39	114	J-35	J-36	250.0	PVC	110.0	-36.47	0.01
P-40	72	J-36	J-37	300.0	PVC	120.0	-172.93	0.04
P-41	53	J-37	J-38	300.0	PVC	120.0	-181.58	0.04
P-42	82	J-38	J-39	300.0	PVC	120.0	-188.86	0.04
P-43	32	J-39	J-14	300.0	PVC	120.0	-10,233.09	2.41
P-44	95	J-36	J-40	300.0	PVC	120.0	112.32	0.03
P-45	81	J-40	J-41	100.0	PVC	100.0	18.97	0.04
P-51	285	J-44	J-28	200.0	PVC	110.0	2,186.90	1.16
P-52	21	J-44	R-2	200.0	PVC	110.0	-2,186.90	1.16
P-53	107	J-7	J-46	250.0	PVC	110.0	-6,810.23	2.31
P-57	329	J-46	J-27	150.0	PVC	100.0	236.08	0.22
P-54	41	J-46	R-1	400.0	PVC	120.0	-7,046.31	0.93
P-55	32	J-27	R-3	400.0	PVC	120.0	-1,337.04	0.18
P-62	86	J-16	J-20	250.0	PVC	110.0	-2,057.46	0.70
P-63	18	J-16	J-11	250.0	PVC	110.0	8,277.83	2.81
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01

Active Scenario: Full Development - Age Analysis

FlexTable: Pipe Table

Current Time: 72.00 hours

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)	Age (Calculated) (hours)
P-4	114	J-5	J-6	200.0	PVC	110.0	-293.13	0.16	0.466
P-5	123	J-6	J-7	200.0	PVC	110.0	-301.55	0.16	0.259
P-1	102	J-3	J-8	150.0	PVC	100.0	-51.21	0.05	3.781
P-6	123	J-8	J-9	200.0	PVC	110.0	-51.21	0.03	2.860
P-7	152	J-9	J-10	200.0	PVC	110.0	-60.01	0.03	1.566
P-8	81	J-10	J-11	250.0	PVC	110.0	-146.80	0.05	0.679
P-10	90	J-10	J-12	300.0	PVC	120.0	79.19	0.02	1.574
P-11	135	J-12	J-13	300.0	PVC	110.0	71.19	0.02	3.360
P-9	56	J-13	J-14	300.0	PVC	120.0	67.43	0.02	4.964
P-16	41	J-7	J-15	250.0	PVC	110.0	803.26	0.27	0.200
P-17	92	J-15	J-16	250.0	PVC	110.0	799.93	0.27	0.300
P-20	119	J-18	J-19	250.0	PVC	110.0	633.53	0.22	0.645
P-22	51	J-20	J-18	250.0	PVC	110.0	639.75	0.22	0.510
P-3	91	J-3	J-5	200.0	PVC	110.0	-287.20	0.15	0.656
P-14	112	J-27	J-3	150.0	PVC	100.0	-338.41	0.32	1.288
P-31	36	J-28	J-29	200.0	PVC	110.0	-606.45	0.32	1.359
P-32	129	J-29	J-30	200.0	PVC	110.0	-300.76	0.16	1.227
P-33	79	J-30	J-31	200.0	PVC	110.0	-305.34	0.16	1.051
P-34	95	J-31	J-32	200.0	PVC	110.0	-307.84	0.16	0.901
P-35	115	J-32	J-33	200.0	PVC	110.0	319.44	0.17	0.910
P-36	85	J-33	J-34	200.0	PVC	110.0	314.44	0.17	1.082
P-37	83	J-34	J-29	200.0	PVC	110.0	311.52	0.17	1.222
P-38	57	J-32	J-19	200.0	PVC	110.0	-632.70	0.34	0.763
P-39	114	J-35	J-36	250.0	PVC	110.0	-10.42	0.00	15.193
P-40	72	J-36	J-37	300.0	PVC	120.0	-49.41	0.01	9.871
P-41	53	J-37	J-38	300.0	PVC	120.0	-51.88	0.01	8.414
P-42	82	J-38	J-39	300.0	PVC	120.0	-53.96	0.01	6.918
P-43	32	J-39	J-14	300.0	PVC	120.0	-66.60	0.02	5.740
P-44	95	J-36	J-40	300.0	PVC	120.0	32.09	0.01	12.479
P-45	81	J-40	J-41	100.0	PVC	100.0	5.42	0.01	15.204
P-51	285	J-44	J-28	200.0	PVC	110.0	-606.37	0.32	1.537
P-52	21	J-44	R-2	200.0	PVC	110.0	606.37	0.32	1.704
P-53	107	J-7	J-46	250.0	PVC	110.0	-1,107.71	0.38	0.100
P-57	329	J-46	J-27	150.0	PVC	100.0	279.67	0.26	0.227
P-54	41	J-46	R-1	400.0	PVC	120.0	-1,387.39	0.18	0.000
P-55	32	J-27	R-3	400.0	PVC	120.0	618.09	0.08	0.968
P-62	86	J-16	J-20	250.0	PVC	110.0	643.35	0.22	0.409
P-63	18	J-16	J-11	250.0	PVC	110.0	148.05	0.05	0.401
P-18	42	J-16	J-49	250.0	PVC	110.0	5.41	0.00	3.552
P-19	70	J-49	J-17	100.0	PVC	100.0	1.66	0.00	9.516

**EDGEWOOD SUBDIVISION
PHASE 1 & 2
& FOREST VIEW SUBDIVISION
(SOUTH PART)**

**Active Scenario: Edgewood & Forest View South - Peak
Hour**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	288.44	61.7
J-5	245.20	46.25	288.47	61.4
J-6	246.60	65.68	288.50	59.5
J-7	248.40	22.62	288.56	57.0
J-8	244.20	0.00	288.44	62.8
J-9	245.40	68.64	288.44	61.1
J-10	247.80	59.28	288.44	57.7
J-11	248.60	9.75	288.47	56.6
J-12	247.80	62.40	288.43	57.7
J-13	245.50	29.33	288.41	60.9
J-14	244.70	6.47	288.41	62.0
J-15	249.00	25.97	288.53	56.1
J-16	249.00	24.34	288.48	56.0
J-17	249.80	12.95	288.48	54.9
J-18	249.30	48.52	288.48	55.6
J-19	249.50	6.47	288.48	55.3
J-20	249.20	28.08	288.48	55.8
J-27	245.35	0.00	288.35	61.0
J-35	246.30	81.28	288.40	59.8
J-36	246.40	53.82	288.40	59.6
J-37	246.30	19.27	288.40	59.8
J-38	246.50	16.22	288.40	59.5
J-39	245.00	98.59	288.41	61.6
J-40	246.50	208.03	288.39	59.5
J-41	244.40	42.28	288.38	62.4
J-46	247.40	0.00	288.69	58.6
J-49	249.50	29.25	288.48	55.3

Active Scenario: Edgewood & Forest View South - Peak Hour

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-344.39	0.18
P-5	123	J-6	J-7	200.0	PVC	110.0	-410.07	0.22
P-1	102	J-3	J-8	150.0	PVC	100.0	49.97	0.05
P-6	123	J-8	J-9	200.0	PVC	110.0	49.97	0.03
P-7	152	J-9	J-10	200.0	PVC	110.0	-18.67	0.01
P-8	81	J-10	J-11	250.0	PVC	110.0	-695.63	0.24
P-10	90	J-10	J-12	300.0	PVC	120.0	617.68	0.15
P-11	135	J-12	J-13	300.0	PVC	110.0	555.28	0.13
P-9	56	J-13	J-14	300.0	PVC	120.0	525.95	0.12
P-16	41	J-7	J-15	250.0	PVC	110.0	880.96	0.30
P-17	92	J-15	J-16	250.0	PVC	110.0	854.98	0.29
P-20	119	J-18	J-19	250.0	PVC	110.0	6.47	0.00
P-22	51	J-20	J-18	250.0	PVC	110.0	54.99	0.02
P-3	91	J-3	J-5	200.0	PVC	110.0	-298.14	0.16
P-14	112	J-27	J-3	150.0	PVC	100.0	-248.17	0.23
P-39	114	J-35	J-36	250.0	PVC	110.0	-81.28	0.03
P-40	72	J-36	J-37	300.0	PVC	120.0	-385.40	0.09
P-41	53	J-37	J-38	300.0	PVC	120.0	-404.66	0.10
P-42	82	J-38	J-39	300.0	PVC	120.0	-420.89	0.10
P-43	32	J-39	J-14	300.0	PVC	120.0	-519.48	0.12
P-44	95	J-36	J-40	300.0	PVC	120.0	250.30	0.06
P-45	81	J-40	J-41	100.0	PVC	100.0	42.28	0.09
P-53	107	J-7	J-46	250.0	PVC	110.0	-1,313.65	0.45
P-57	329	J-46	J-27	150.0	PVC	100.0	279.13	0.26
P-54	41	J-46	R-1	400.0	PVC	120.0	-1,592.77	0.21
P-55	32	J-27	R-3	400.0	PVC	120.0	527.29	0.07
P-62	86	J-16	J-20	250.0	PVC	110.0	83.07	0.03
P-63	18	J-16	J-11	250.0	PVC	110.0	705.38	0.24
P-18	42	J-16	J-49	250.0	PVC	110.0	42.20	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	12.95	0.03

**Active Scenario: Edgewood & Forest View South - Max
Day + Fire at J39**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	284.04	55.4
J-5	245.20	20.76	284.07	55.2
J-6	246.60	29.47	284.12	53.3
J-7	248.40	10.15	284.17	50.8
J-8	244.20	0.00	278.64	48.9
J-9	245.40	30.80	277.29	45.3
J-10	247.80	26.60	275.66	39.5
J-11	248.60	4.37	278.59	42.6
J-12	247.80	28.00	273.84	37.0
J-13	245.50	13.16	270.66	35.7
J-14	244.70	2.91	269.53	35.3
J-15	249.00	11.65	282.67	47.8
J-16	249.00	10.92	279.26	42.9
J-17	249.80	5.81	279.26	41.8
J-18	249.30	21.77	279.26	42.5
J-19	249.50	2.91	279.26	42.2
J-20	249.20	12.60	279.26	42.7
J-27	245.35	0.00	288.34	61.0
J-35	246.30	36.47	268.89	32.1
J-36	246.40	24.15	268.89	31.9
J-37	246.30	8.64	268.89	32.1
J-38	246.50	7.28	268.89	31.8
J-39	245.00	10,044.23	268.89	33.9
J-40	246.50	93.34	268.89	31.8
J-41	244.40	18.97	268.88	34.8
J-46	247.40	0.00	288.55	58.4
J-49	249.50	13.12	279.26	42.2

**Active Scenario: Edgewood & Forest View South - Max Day
+ Fire at J39**

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-389.80	0.21
P-5	123	J-6	J-7	200.0	PVC	110.0	-419.27	0.22
P-1	102	J-3	J-8	150.0	PVC	100.0	2,331.26	2.20
P-6	123	J-8	J-9	200.0	PVC	110.0	2,331.26	1.24
P-7	152	J-9	J-10	200.0	PVC	110.0	2,300.46	1.22
P-8	81	J-10	J-11	250.0	PVC	110.0	-8,003.29	2.72
P-10	90	J-10	J-12	300.0	PVC	120.0	10,277.15	2.42
P-11	135	J-12	J-13	300.0	PVC	110.0	10,249.15	2.42
P-9	56	J-13	J-14	300.0	PVC	120.0	10,235.99	2.41
P-16	41	J-7	J-15	250.0	PVC	110.0	8,086.45	2.75
P-17	92	J-15	J-16	250.0	PVC	110.0	8,074.80	2.74
P-20	119	J-18	J-19	250.0	PVC	110.0	2.91	0.00
P-22	51	J-20	J-18	250.0	PVC	110.0	24.68	0.01
P-3	91	J-3	J-5	200.0	PVC	110.0	-369.05	0.20
P-14	112	J-27	J-3	150.0	PVC	100.0	1,962.21	1.85
P-39	114	J-35	J-36	250.0	PVC	110.0	-36.47	0.01
P-40	72	J-36	J-37	300.0	PVC	120.0	-172.93	0.04
P-41	53	J-37	J-38	300.0	PVC	120.0	-181.58	0.04
P-42	82	J-38	J-39	300.0	PVC	120.0	-188.86	0.04
P-43	32	J-39	J-14	300.0	PVC	120.0	-10,233.09	2.41
P-44	95	J-36	J-40	300.0	PVC	120.0	112.31	0.03
P-45	81	J-40	J-41	100.0	PVC	100.0	18.97	0.04
P-53	107	J-7	J-46	250.0	PVC	110.0	-8,515.87	2.89
P-57	329	J-46	J-27	150.0	PVC	100.0	210.93	0.20
P-54	41	J-46	R-1	400.0	PVC	120.0	-8,726.80	1.16
P-55	32	J-27	R-3	400.0	PVC	120.0	-1,751.29	0.23
P-62	86	J-16	J-20	250.0	PVC	110.0	37.28	0.01
P-63	18	J-16	J-11	250.0	PVC	110.0	8,007.67	2.72
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01

**Active Scenario: Edgewood & Forest View South - Max
Day + Fire at J40**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	284.81	56.5
J-5	245.20	20.76	284.84	56.3
J-6	246.60	29.47	284.88	54.3
J-7	248.40	10.15	284.93	51.9
J-8	244.20	0.00	280.34	51.3
J-9	245.40	30.80	279.22	48.0
J-10	247.80	26.60	277.88	42.7
J-11	248.60	4.37	280.30	45.0
J-12	247.80	28.00	276.37	40.5
J-13	245.50	13.16	273.74	40.1
J-14	244.70	2.91	272.81	39.9
J-15	249.00	11.65	283.68	49.2
J-16	249.00	10.92	280.85	45.2
J-17	249.80	5.81	280.85	44.1
J-18	249.30	21.77	280.85	44.8
J-19	249.50	2.91	280.85	44.5
J-20	249.20	12.60	280.85	44.9
J-27	245.35	0.00	288.35	61.0
J-35	246.30	36.47	268.89	32.1
J-36	246.40	24.15	268.89	31.9
J-37	246.30	8.64	270.07	33.7
J-38	246.50	7.28	270.93	34.7
J-39	245.00	44.24	272.28	38.7
J-40	246.50	9,092.65	267.35	29.6
J-41	244.40	18.97	267.34	32.6
J-46	247.40	0.00	288.57	58.4
J-49	249.50	13.12	280.85	44.5

**Active Scenario: Edgewood & Forest View South - Max Day
+ Fire at J40**

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-4	114	J-5	J-6	200.0	PVC	110.0	-363.17	0.19
P-5	123	J-6	J-7	200.0	PVC	110.0	-392.64	0.21
P-1	102	J-3	J-8	150.0	PVC	100.0	2,106.07	1.99
P-6	123	J-8	J-9	200.0	PVC	110.0	2,106.07	1.12
P-7	152	J-9	J-10	200.0	PVC	110.0	2,075.27	1.10
P-8	81	J-10	J-11	250.0	PVC	110.0	-7,227.80	2.45
P-10	90	J-10	J-12	300.0	PVC	120.0	9,276.47	2.19
P-11	135	J-12	J-13	300.0	PVC	110.0	9,248.47	2.18
P-9	56	J-13	J-14	300.0	PVC	120.0	9,235.31	2.18
P-16	41	J-7	J-15	250.0	PVC	110.0	7,310.96	2.48
P-17	92	J-15	J-16	250.0	PVC	110.0	7,299.30	2.48
P-20	119	J-18	J-19	250.0	PVC	110.0	2.91	0.00
P-22	51	J-20	J-18	250.0	PVC	110.0	24.68	0.01
P-3	91	J-3	J-5	200.0	PVC	110.0	-342.42	0.18
P-14	112	J-27	J-3	150.0	PVC	100.0	1,763.66	1.66
P-39	114	J-35	J-36	250.0	PVC	110.0	-36.47	0.01
P-40	72	J-36	J-37	300.0	PVC	120.0	-9,172.24	2.16
P-41	53	J-37	J-38	300.0	PVC	120.0	-9,180.88	2.16
P-42	82	J-38	J-39	300.0	PVC	120.0	-9,188.16	2.17
P-43	32	J-39	J-14	300.0	PVC	120.0	-9,232.40	2.18
P-44	95	J-36	J-40	300.0	PVC	120.0	9,111.62	2.15
P-45	81	J-40	J-41	100.0	PVC	100.0	18.97	0.04
P-53	107	J-7	J-46	250.0	PVC	110.0	-7,713.75	2.62
P-57	329	J-46	J-27	150.0	PVC	100.0	223.56	0.21
P-54	41	J-46	R-1	400.0	PVC	120.0	-7,937.31	1.05
P-55	32	J-27	R-3	400.0	PVC	120.0	-1,540.10	0.20
P-62	86	J-16	J-20	250.0	PVC	110.0	37.28	0.01
P-63	18	J-16	J-11	250.0	PVC	110.0	7,232.17	2.46
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01

**Active Scenario: Edgewood & Forest View South -
Max Day + Fire at J19**

FlexTable: Junction Table

Label	Elevation (m)	Demand (L/min)	Hydraulic Grade (m)	Pressure (psi)
J-3	245.00	0.00	286.79	59.3
J-5	245.20	20.76	286.79	59.0
J-6	246.60	29.47	286.79	57.0
J-7	248.40	10.15	286.79	54.5
J-8	244.20	0.00	285.37	58.4
J-9	245.40	30.80	285.02	56.2
J-10	247.80	26.60	284.60	52.2
J-11	248.60	4.37	284.56	51.0
J-12	247.80	28.00	284.60	52.2
J-13	245.50	13.16	284.60	55.5
J-14	244.70	2.91	284.60	56.6
J-15	249.00	11.65	286.10	52.7
J-16	249.00	10.92	284.55	50.5
J-17	249.80	5.81	284.55	49.3
J-18	249.30	21.77	281.60	45.8
J-19	249.50	6,001.90	279.06	42.0
J-20	249.20	12.60	282.69	47.5
J-27	245.35	0.00	288.35	61.0
J-35	246.30	36.47	284.59	54.4
J-36	246.40	24.15	284.59	54.2
J-37	246.30	8.64	284.59	54.4
J-38	246.50	7.28	284.60	54.1
J-39	245.00	44.24	284.60	56.2
J-40	246.50	93.34	284.59	54.1
J-41	244.40	18.97	284.59	57.0
J-46	247.40	0.00	288.63	58.5
J-49	249.50	13.12	284.55	49.8

**Active Scenario: Edgewood & Forest View South - Max Day +
Fire at J19**

FlexTable: Pipe Table

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)
P-1	102	J-3	J-8	150.0	PVC	100.0	1,131.19	1.07
P-3	91	J-3	J-5	200.0	PVC	110.0	3.42	0.00
P-4	114	J-5	J-6	200.0	PVC	110.0	-17.33	0.01
P-5	123	J-6	J-7	200.0	PVC	110.0	-46.80	0.02
P-6	123	J-8	J-9	200.0	PVC	110.0	1,131.19	0.60
P-7	152	J-9	J-10	200.0	PVC	110.0	1,100.39	0.58
P-8	81	J-10	J-11	250.0	PVC	110.0	796.63	0.27
P-9	56	J-13	J-14	300.0	PVC	120.0	236.00	0.06
P-10	90	J-10	J-12	300.0	PVC	120.0	277.16	0.07
P-11	135	J-12	J-13	300.0	PVC	110.0	249.16	0.06
P-14	112	J-27	J-3	150.0	PVC	100.0	1,134.62	1.07
P-16	41	J-7	J-15	250.0	PVC	110.0	5,285.53	1.79
P-17	92	J-15	J-16	250.0	PVC	110.0	5,273.88	1.79
P-18	42	J-16	J-49	250.0	PVC	110.0	18.93	0.01
P-19	70	J-49	J-17	100.0	PVC	100.0	5.81	0.01
P-20	119	J-18	J-19	250.0	PVC	110.0	6,001.90	2.04
P-22	51	J-20	J-18	250.0	PVC	110.0	6,023.67	2.05
P-39	114	J-35	J-36	250.0	PVC	110.0	-36.47	0.01
P-40	72	J-36	J-37	300.0	PVC	120.0	-172.93	0.04
P-41	53	J-37	J-38	300.0	PVC	120.0	-181.58	0.04
P-42	82	J-38	J-39	300.0	PVC	120.0	-188.86	0.04
P-43	32	J-39	J-14	300.0	PVC	120.0	-233.10	0.05
P-44	95	J-36	J-40	300.0	PVC	120.0	112.31	0.03
P-45	81	J-40	J-41	100.0	PVC	100.0	18.97	0.04
P-53	107	J-7	J-46	250.0	PVC	110.0	-5,342.48	1.81
P-54	41	J-46	R-1	400.0	PVC	120.0	-5,595.10	0.74
P-55	32	J-27	R-3	400.0	PVC	120.0	-882.00	0.12
P-57	329	J-46	J-27	150.0	PVC	100.0	252.62	0.24
P-62	86	J-16	J-20	250.0	PVC	110.0	6,036.27	2.05
P-63	18	J-16	J-11	250.0	PVC	110.0	-792.25	0.27

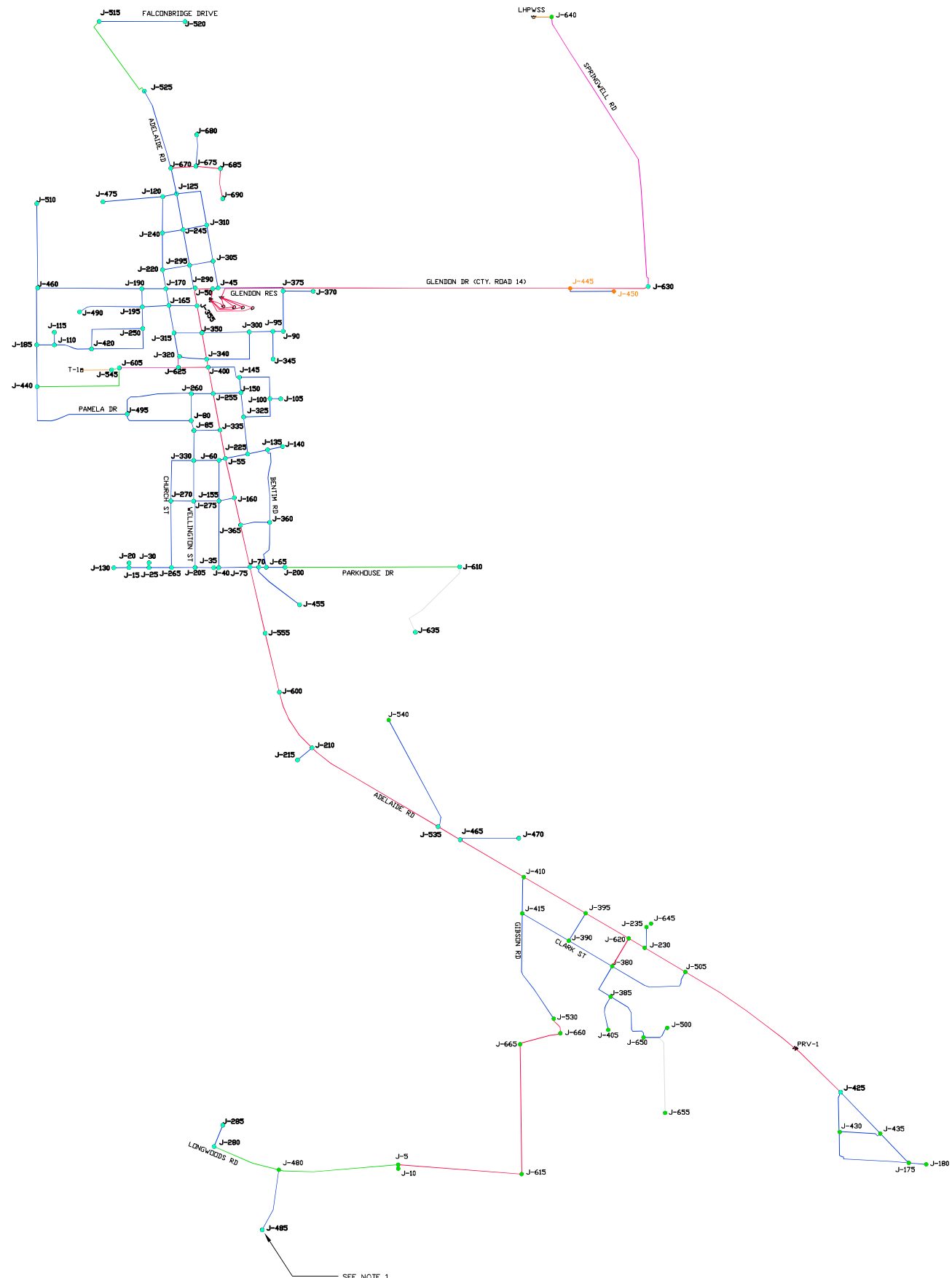
Active Scenario: Edgewood & Forest View South - Age Analysis

FlexTable: Pipe Table

Current Time: 72.00 hours

Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Material	Hazen- Williams C	Flow (L/min)	Velocity (m/s)	Age (Calculated) (hours)
P-4	114	J-5	J-6	200.0	PVC	110.0	-275.47	0.15	0.549
P-5	123	J-6	J-7	200.0	PVC	110.0	-283.89	0.15	0.328
P-1	102	J-3	J-8	150.0	PVC	100.0	-151.87	0.14	2.002
P-6	123	J-8	J-9	200.0	PVC	110.0	-151.87	0.08	1.693
P-7	152	J-9	J-10	200.0	PVC	110.0	-160.67	0.09	1.231
P-8	81	J-10	J-11	250.0	PVC	110.0	-247.46	0.08	0.854
P-10	90	J-10	J-12	300.0	PVC	120.0	79.19	0.02	1.656
P-11	135	J-12	J-13	300.0	PVC	110.0	71.19	0.02	3.442
P-9	56	J-13	J-14	300.0	PVC	120.0	67.43	0.02	5.046
P-16	41	J-7	J-15	250.0	PVC	110.0	271.22	0.09	0.279
P-17	92	J-15	J-16	250.0	PVC	110.0	267.89	0.09	0.477
P-20	119	J-18	J-19	250.0	PVC	110.0	0.83	0.00	57.255
P-22	51	J-20	J-18	250.0	PVC	110.0	7.05	0.00	10.224
P-3	91	J-3	J-5	200.0	PVC	110.0	-269.54	0.14	0.747
P-14	112	J-27	J-3	150.0	PVC	100.0	-421.41	0.40	1.338
P-39	114	J-35	J-36	250.0	PVC	110.0	-10.42	0.00	15.275
P-40	72	J-36	J-37	300.0	PVC	120.0	-49.41	0.01	9.952
P-41	53	J-37	J-38	300.0	PVC	120.0	-51.88	0.01	8.495
P-42	82	J-38	J-39	300.0	PVC	120.0	-53.96	0.01	7.000
P-43	32	J-39	J-14	300.0	PVC	120.0	-66.60	0.02	5.822
P-44	95	J-36	J-40	300.0	PVC	120.0	32.09	0.01	12.560
P-45	81	J-40	J-41	100.0	PVC	100.0	5.42	0.01	15.285
P-53	107	J-7	J-46	250.0	PVC	110.0	-558.01	0.19	0.140
P-57	329	J-46	J-27	150.0	PVC	100.0	280.91	0.26	0.229
P-54	41	J-46	R-1	400.0	PVC	120.0	-838.92	0.11	0.003
P-55	32	J-27	R-3	400.0	PVC	120.0	702.32	0.09	1.042
P-62	86	J-16	J-20	250.0	PVC	110.0	10.65	0.00	3.934
P-63	18	J-16	J-11	250.0	PVC	110.0	248.71	0.08	0.666
P-18	42	J-16	J-49	250.0	PVC	110.0	5.41	0.00	3.818
P-19	70	J-49	J-17	100.0	PVC	100.0	1.66	0.00	9.782

BACKGROUND INFORMATION



LEGEND

- 50 mm DB, WATERMAIN
- 100 mm DB, WATERMAIN
- 150 mm DB, WATERMAIN
- 200 mm DB, WATERMAIN
- 250 mm DB, WATERMAIN
- 300 mm DB, WATERMAIN
- Junction - Operating Pressure < 275 kPa
- Junction - Operating Pressure Between 275 and 350 kPa
- Junction - Operating Pressure Between 350 and 480 kPa
- Junction - Operating Pressure Between 480 and 700 kPa

NOTES

1. At J-485, pressure is less than 480 kPa with ET at 288.5 and no pumps in operation, but is above 480 kPa under other average day operational scenarios modelled.

No.	DATE	REVISION
1	July 2014	Issued for July 2014 Draft Report
2	Aug. 2014	Issued for August 2014 Report



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engineering better communities

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**Municipality of
Strathroy-Caradoc**
Mount Brydges
WaterCAD Model Results
Average Day Demand Pressures

Project No.
13208

Exhibit
A

Scale
1:15,000

Appendix B - Model Results for Existing System**Notes:**

	denotes operating pressure less than 275 kPa
	denotes operating pressure above 275 kPa but less than 350 kPa
	denotes operating pressure greater than 480 kPa

Average Day Flows

Conduct three trials: water tower at 288.5 (stop pumps), water tower at 286.49 (just below duty #1 start), and water tower at 285.49 (just below duty #2 start).

Junction	P at Q_{AVG} with ET @ 288.5, No Pumps (kPa)	P at Q_{AVG} with ET @ 286.49, Pump 2 On (kPa)	P at Q_{AVG} with ET @ 285.49, Pumps 2, 3 On (kPa)
J-5	481	483	483
J-10	490	491	491
J-15	435	436	436
J-20	437	438	438
J-25	425	427	427
J-30	429	431	430
J-35	410	411	411
J-40	417	418	418
J-45	388	413	423
J-50	385	414	424
J-55	375	377	377
J-60	375	377	377
J-65	405	406	406
J-70	405	406	406
J-75	405	406	406
J-80	383	384	384
J-85	378	380	380
J-90	385	398	403
J-95	381	392	396
J-100	376	377	377
J-105	373	375	375
J-110	397	404	407
J-115	399	406	409
J-120	407	428	435
J-125	400	420	428
J-130	449	450	450
J-135	385	387	387
J-140	380	382	382
J-145	376	377	377
J-150	380	382	382
J-155	405	406	406
J-160	395	396	396
J-165	388	402	407
J-170	390	407	413
J-175	502	502	502
J-180	502	502	502
J-185	403	409	410
J-190	398	411	416
J-195	390	403	408
J-200	410	411	411

Junction	P at Q_{AVG} with ET @ 288.5, No Pumps (kPa)	P at Q_{AVG} with ET @ 286.49, Pump 2 On (kPa)	P at Q_{AVG} with ET @ 285.49, Pumps 2, 3 On (kPa)
J-205	415	416	416
J-210	453	455	455
J-215	458	460	460
J-220	400	419	426
J-225	375	377	377
J-230	541	542	542
J-235	541	542	542
J-240	398	418	425
J-245	398	418	426
J-250	395	407	411
J-255	376	377	377
J-260	385	387	386
J-265	419	421	421
J-270	402	404	404
J-275	400	401	401
J-280	461	462	462
J-285	464	465	465
J-290	390	411	419
J-295	390	411	419
J-300	378	387	390
J-305	400	422	430
J-310	405	426	434
J-315	386	393	396
J-320	405	404	402
J-325	371	372	372
J-330	380	382	382
J-335	368	370	369
J-340	378	381	382
J-345	381	392	396
J-350	381	389	392
J-355	388	403	409
J-360	402	404	404
J-365	405	406	406
J-370	390	408	414
J-375	383	400	407
J-380	541	542	542
J-385	551	552	552
J-390	536	538	538
J-395	526	528	528
J-400	378	380	380
J-405	547	548	548
J-410	497	499	498
J-415	519	520	520
J-420	395	405	409
J-425	453	453	453
J-430	517	517	517
J-435	517	517	517
J-440	405	403	401
J-445	320	320	320
J-450	320	320	320
J-455	419	421	421
J-460	410	418	421