CVL CONSULTANTS

June 5, 2020

City of Aurora, Public Works
15151 E. Alameda Parkway
Aurora, CO 80012

RE: Porteos PA-3 Master Utility Letter

To whom it may concern,

This letter serves as a Master Utility Update for the Porteos – PA-3 site which is within the overall Porteos site.

Location:
Jackson Gap Street between E. 64th Avenue and E. 68th Avenue.

A Master Utility Report Amendment Letter to the overall master utility report for the Porteos site for the individual 'PA-3' site. Based on the water and sewer demands provided by the developer, no major master utility report changes need to be made for the sanitary sewer demands. Demands for water consumption have changed to due demands provided from the developer. Sanitary sewer demands based on information provided by developer are lower than the approved allowable gallons per day from approved MUS 217130. Below are the confirmation of sewer demands (Appendix A), as well as the updated water model calculations (Appendix B).

A sampling station will be including within the PA-3 planning area. The sampling station location has not been determined at this time. Location will preferably be near a fire hydrant, in a low traffic area, and not under any trees.

Sincerely,
CVL Consultants of Colorado, Inc.

Joseph Ferris, PE
Project Manager

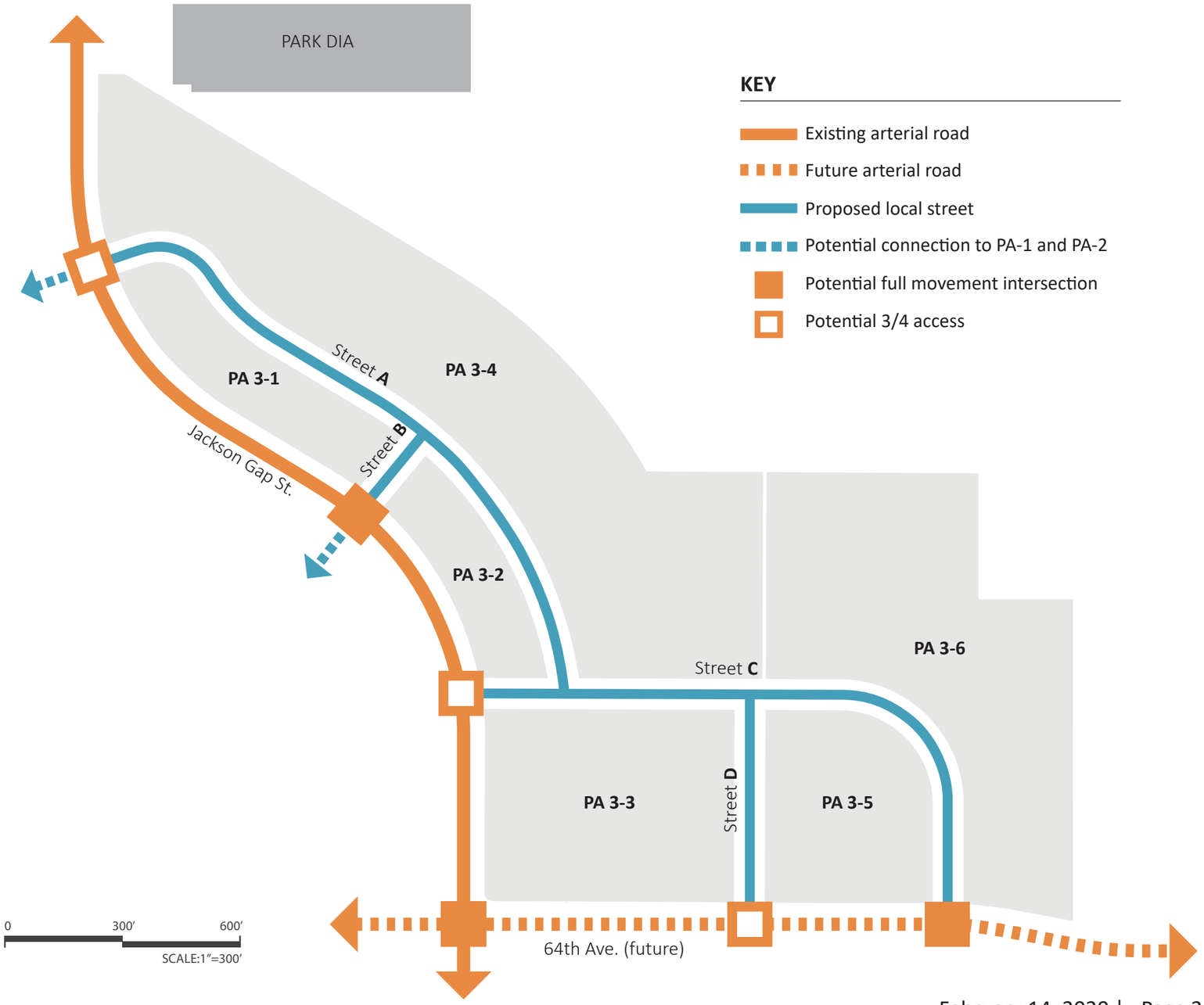
STREETS AND BLOCKS

Intent Statement

There are three proposed entries for both vehicles and pedestrian to PA-3 from the exising arterial road, Jackson Gap St. One is a full movement intersection in the middle of site, and others are 3/4 access. New street A and B are potential future connection to PA-1 and PA-2. A pedestrian scale local street is parallel to the Jackson Gap St. to provide access through blocks. Parcel sizes are established by the preliminary plat and are intended to be sub-divided to suit future uses.

APPROXIMATE BLOCK SIZE

BLOCK	BLOCK ACRES
PA 3-1	+/- 3.26
PA 3-2	+/- 2.42
PA 3-3	+/- 7.28
PA 3-4	+/- 18.33
PA 3-5	+/- 4.64
PA 3-6	+/- 12.13
R.O.W.	+/- 10.74
Total	**58.80**



TIE INTO EXISTING 18" SANITARY SEWER LINE

TIE INTO EXISTING 16" WATER LINE

PROPOSED 8" SANITARY SEWER LINE

PA3-6 CONNECTION POINT

PROPOSED 8" SANITARY SEWER LINE

PROPOSED 10" SANITARY SEWER LINE

EXISTING PA-4
PARK DIA

PA3-1

PROPOSED 8"" WATER LINE

EXISTING 12" WATER LINE

PA3-6

JACKSON GAP STREET

FUTURE PA-2

PA-3

PA3-2

TIE INTO EXISTING 16" WATER LINE

PROPOSED 8" SANITARY SEWER LINE

PA3-5

EXISTING JAG
LOGISTICS CENTER

PROPOSED 8" SANITARY SEWER LINE

FUTURE PA-2

PROPOSED 8"" WATER LINE

PA3-3

PA3-4

TIE INTO EXISTING 24" WATER LINE

E. 64TH AVENUE

100 50 0 100 200

SCALE: 1" = 100'

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CVLINC.NET

PORTEOS - PA-3 FILING NO. 1 UTILITY EXHIBIT

No.	Revisions	Date	Init.	Appr.	Date

SCALE: AS SHOWN

DRAWN BY: JF

CHECKED BY:

FILE NO:

DATE: 06-05-2020

SHEET NO: 1

Appendix A
Sanitary Sewer Demands

PORTEOS PA-3 FILING NO. 1

SANITARY SEWER CALCULATIONS

BASIN	PLANNING AREAS	TYPE OF DEVELOPMENT	AREA (AC)	UNITS/ ROOM COUNT	DENSITY (DU/AC)	OCCUPANCY (PERSONS/DU)	POPULATION (THOUSDNDS)	AVG DAY FLOW (GPD/CAP)	AVG DAY FLOW (GPD)	PEAKING FACTOR (PF)	PEAK DAILY FLOW (GPD)	INFILTRATION 10% OF AVG DAY FLOW (GPD)	PEAK DAY FLOW WITH INFILTRATION (GPD)	PEAK DAY FLOW WITH INFILTRATION (CFS)	ROUTED SUM (CFS)
1	PA-3-1	COMM	3.68			22	0.08096	1500	5520	4.00	22,080	552	22,632	0.04	0.04
1	PA-3-2	COMM	2.06			22	0.04532	1500	3090	4.00	12,360	309	12,669	0.02	0.05
1	PA-3-3	HOTEL		250				122	30500	4.00	122,000	3050	125,050	0.19	0.25
		COMM	2.05			22	0.0451	1500	3075	4.00	12,300	307.5	12,608	0.02	0.27
1	PA-3-4	COMM	4.34			22	0.09548	1500	6510	4.00	26,040	651	26,691	0.04	0.31
1	PA-3-5	COMM	23.84			22	0.52448	1500	35760	4.00	143,040	3576	146,616	0.23	0.54
1	PA-3-6	HOTEL		838				122	102236	4.00	408,944	10223.6	419,168	0.65	1.18
								SUM	**186,691**		**746,764**	**18,669**	**765,433**		**1.18**

1. ROOM COUNTS FOR HOTEL ROOMS PROVIDED FROM DEVELOPER

TOTAL AVERAGE DAILY FLOWS FROM APPROVED MASTER UTILITY STUDY FOR POTEOS (217130 APPENDIX B)HAS 265,000 GPD. FLOWS SHOWN FOR DEVELOPMENT OF PA-3 OF 186,691 FIT WITHIN TOTAL ALLOWABLE FLOWS.

Worksheet for PA3-1 TO PA3-6

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.011	
Channel Slope	0.40000	%
Diameter	8.00	in
Discharge	0.54	ft³/s

Results

Normal Depth	4.46	in
Flow Area	0.20	ft²
Wetted Perimeter	1.12	ft
Hydraulic Radius	2.13	in
Top Width	0.66	ft
Critical Depth	0.34	ft
Percent Full	55.7	%
Critical Slope	0.00510	ft/ft
Velocity	2.70	ft/s
Velocity Head	0.11	ft
Specific Energy	0.48	ft
Froude Number	0.87	
Maximum Discharge	0.97	ft³/s
Discharge Full	0.90	ft³/s
Slope Full	0.00143	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	55.70	%
Downstream Velocity	Infinity	ft/s

Worksheet for PA3-1 TO PA3-6

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	4.46	in
Critical Depth	0.34	ft
Channel Slope	0.40000	%
Critical Slope	0.00510	ft/ft

Worksheet for PA3-6 TO JACKSON GAP

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.011	
Channel Slope	0.40000	%
Diameter	10.00	in
Discharge	1.18	ft³/s

Results

Normal Depth	6.29	in
Flow Area	0.36	ft²
Wetted Perimeter	1.53	ft
Hydraulic Radius	2.84	in
Top Width	0.81	ft
Critical Depth	0.48	ft
Percent Full	62.9	%
Critical Slope	0.00508	ft/ft
Velocity	3.27	ft/s
Velocity Head	0.17	ft
Specific Energy	0.69	ft
Froude Number	0.86	
Maximum Discharge	1.76	ft³/s
Discharge Full	1.64	ft³/s
Slope Full	0.00208	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	62.88	%
Downstream Velocity	Infinity	ft/s

Worksheet for PA3-6 TO JACKSON GAP

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	6.29	in
Critical Depth	0.48	ft
Channel Slope	0.40000	%
Critical Slope	0.00508	ft/ft

Appendix B
Water Demands

Water Demands

	Land Use			Commercial/Industrial				Hotel				Irrigation			
Development Area	**Use**	**Acerage**	**Hotel Rooms**	**Average Day (gpm)**	**Max Day (gpm)**	**Max Hour (gpm)**	**Max Day + Fire Flow**	**Average Day (gpm)**	**Max Day (gpm)**	**Max Hour (gpm)**	**Max Day + Fire Flow**	**Average Day (gpm)**	**Max Day (gpm)**	**Max Hour (gpm)**	**Max Day + Fire Flow**
PA-3-1	COMM	3.68		3.83	10.73	17.25	1510.73								
PA-3-2	COMM	2.06		2.15	6.01	9.66	1506.01								
PA-3-3	HOTEL		250					21.25	59.50	95.63	1559.50				
PA-3-3	COMM	2.05		2.14	5.98	9.61	1505.98								
PA-3-4	COMM	4.34		4.52	12.66	20.34	1512.66								
PA-3-5	COMM	23.84		24.83	69.53	111.75	1569.53								
PA-3-6	HOTEL		838					71.23	199.44	320.54	1699.44				
Irrigation	Irrigation	5.75										7.19	20.13	32.34375	2570.13
Total Demands				**37.47**	**104.91**	**168.61**	**2604.91**	**92.48**	**258.94**	**416.16**	1758.94	**7.19**	**20.13**	**32.34**	**2570.13**
						Average Day (gpm)	**137.14**			**Max Day (gpm)**	**447.68**			**Max Hour (gpm)**	**617.11**

1. Residential demands based on 101 gpcd and 2.77 people per unit.
2. Hotel and Apartment demands based on 122 gpd per unit/room. (Unit demand based on approved Master Utility Study 220059)
3. Commercial demand based on 1,500 gpd/acre.
4. Irrigation demands based on 1,800 gpd/acre.
5. Max day factor= 2.8 times average daily flow.
6. Max hour factor= 4.5 times average daily flow.

AVERAGE DAY

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-1	1,048	J-1	J-2	16.0	PVC	150.0	23	0.04	0.000
P-2	1,200	J-2	J-3	16.0	PVC	150.0	35	0.06	0.000
P-3	942	J-3	J-4	16.0	PVC	150.0	-55	0.09	0.000
P-4	889	J-4	J-5	16.0	PVC	150.0	-110	0.18	0.000
P-5	2,266	J-2	J-6	16.0	PVC	150.0	-23	0.04	0.000
P-9	1,938	J-9	J-10	24.0	PVC	150.0	533	0.38	0.000
P-10	733	J-10	J-11	24.0	PVC	150.0	384	0.27	0.000
P-11	698	J-11	J-12	24.0	PVC	150.0	308	0.22	0.000
P-12	1,323	J-12	J-13	24.0	PVC	150.0	262	0.19	0.000
P-13	556	J-13	J-14	24.0	PVC	150.0	225	0.16	0.000
P-14	2,458	J-14	J-15	24.0	PVC	150.0	142	0.10	0.000
P-15	2,649	J-15	J-16	12.0	PVC	150.0	67	0.19	0.000
P-16	2,483	J-16	J-17	12.0	PVC	150.0	-50	0.14	0.000
P-17	1,267	J-17	J-18	16.0	PVC	150.0	-127	0.20	0.000
P-18	1,386	J-18	J-14	16.0	PVC	150.0	-84	0.13	0.000
P-19	1,356	J-13	J-19	12.0	PVC	150.0	37	0.11	0.000
P-20	1,341	J-12	J-20	12.0	PVC	150.0	45	0.13	0.000
P-21	1,328	J-11	J-21	12.0	PVC	150.0	59	0.17	0.000
P-22	533	J-18	J-19	12.0	PVC	150.0	-43	0.12	0.000
P-23	755	J-19	J-22	12.0	PVC	150.0	-6	0.02	0.000
P-24	571	J-22	J-20	12.0	PVC	150.0	-52	0.15	0.000
P-25	718	J-20	J-21	12.0	PVC	150.0	-7	0.02	0.000
P-26	1,324	J-21	J-23	12.0	PVC	150.0	52	0.15	0.000
P-27	1,311	J-23	J-24	16.0	PVC	150.0	51	0.08	0.000
P-28	1,269	J-24	J-17	16.0	PVC	150.0	97	0.15	0.000
P-30	695	J-23	J-25	16.0	PVC	150.0	2	0.00	0.000
P-37	2,763	J-27	J-28	16.0	PVC	150.0	20	0.03	0.000
P-39	1,237	J-5	J-29	24.0	PVC	150.0	-51	0.04	0.000
P-40	296	J-29	J-30	24.0	PVC	150.0	-94	0.07	0.000
P-45	877	J-30	J-32	12.0	PVC	150.0	35	0.10	0.000
P-46	2,044	J-32	J-6	12.0	PVC	150.0	25	0.07	0.000
P-47	812	J-28	J-33	16.0	PVC	150.0	28	0.05	0.000
P-48	904	J-33	J-6	16.0	PVC	150.0	-1	0.00	0.000
P-50	456	J-34	J-28	16.0	PVC	150.0	68	0.11	0.000
P-53	611	J-22	J-36	12.0	PVC	150.0	46	0.13	0.000
P-54	695	J-36	J-24	12.0	PVC	150.0	46	0.13	0.000
P-55	1,180	J-10	J-37	16.0	PVC	150.0	148	0.24	0.000
P-58	467	J-38	J-8	16.0	PVC	150.0	15	0.02	0.000
P-59	972	J-5	J-39	24.0	PVC	150.0	-6	0.00	0.000
P-60	1,049	J-39	J-7	24.0	PVC	150.0	-38	0.03	0.000
P-61	947	J-30	J-40	24.0	PVC	150.0	-129	0.09	0.000
P-62	764	J-40	J-31	24.0	PVC	150.0	-129	0.09	0.000
P-65	105	J-25	PRV-2	16.0	PVC	150.0	62	0.10	0.000
P-67	225	J-25	PRV-3	16.0	PVC	150.0	53	0.09	0.000
P-68	2,437	PRV-3	J-5	16.0	PVC	150.0	53	0.09	0.000
P-69	660	J-35	PRV-4	16.0	PVC	150.0	62	0.10	0.000
P-70	699	PRV-4	J-31	16.0	PVC	150.0	62	0.10	0.000
P-71	938	J-31	PRV-5	24.0	PVC	150.0	-155	0.11	0.000

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-72	1,580	PRV-5	J-26	24.0	PVC	150.0	-155	0.11	0.000
P-73	68	PRV-2	J-41	16.0	PVC	150.0	62	0.10	0.000
P-74	1,338	J-38	J-41	16.0	PVC	150.0	-41	0.06	0.000
P-75	1,411	J-37	J-42	16.0	PVC	150.0	131	0.21	0.000
P-76	61	J-42	J-25	16.0	PVC	150.0	113	0.18	0.000
P-78	1,271	R-1	J-9	24.0	PVC	150.0	628	0.45	0.000
P-80	2,345	J-44	J-27	12.0	PVC	150.0	20	0.06	0.000
P-81	330	J-31	J-45	16.0	PVC	150.0	88	0.14	0.000
P-82	1,960	J-45	J-34	16.0	PVC	150.0	68	0.11	0.000
P-83	2,520	J-44	J-45	12.0	PVC	150.0	-20	0.06	0.000
P-86	2,669	J-8	J-7	24.0	PVC	150.0	110	0.08	0.000
P-64	334	J-9	PRV-1	24.0	PVC	150.0	95	0.07	0.000
P-63	2,321	PRV-1	J-8	24.0	PVC	150.0	95	0.07	0.000
P-94	76	J-49	J-48	8.0	PVC	150.0	0	0.00	0.000
P-95	74	J-49	H-1	6.0	PVC	150.0	0	0.00	0.000
P-96	860	J-1	J-50	16.0	PVC	150.0	-44	0.07	0.000
P-97	1,764	J-50	J-7	16.0	PVC	150.0	-72	0.12	0.000
P-98	31	J-49	J-50	8.0	PVC	150.0	-8	0.05	0.000
P-99	126	J-51	J-3	8.0	PVC	150.0	8	0.05	0.000
P-101	438	J-52	J-49	8.0	PVC	150.0	-8	0.05	0.000
P-102	1,100	J-51	J-52	8.0	PVC	150.0	-8	0.05	0.000
P-35	2,276	J-53	J-26	12.0	PVC	150.0	178	0.50	0.000
P-105	339	J-17	J-54	16.0	PVC	150.0	124	0.20	0.000
P-106	917	J-54	J-35	16.0	PVC	150.0	62	0.10	0.000
P-107	2,494	J-53	J-54	12.0	PVC	150.0	-61	0.17	0.000
P-108	340	J-16	J-53	12.0	PVC	150.0	116	0.33	0.000

AVERAGE DAY

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	5,366.51	21	5,599.99	101
J-2	5,378.53	10	5,599.99	96
J-3	5,382.52	98	5,599.99	94
J-4	5,409.33	55	5,599.99	82
J-5	5,404.20	0	5,600.00	85
J-6	5,392.61	0	5,599.99	90
J-7	5,393.61	0	5,600.00	89
J-8	5,405.65	0	5,600.00	84
J-9	5,424.10	0	5,719.96	128
J-10	5,442.29	0	5,719.92	120
J-11	5,467.72	18	5,719.92	109
J-12	5,487.72	0	5,719.91	100
J-13	5,496.00	0	5,719.90	97
J-14	5,493.52	0	5,719.90	98
J-15	5,483.01	75	5,719.90	102
J-16	5,487.47	0	5,719.86	101
J-17	5,444.88	50	5,719.88	119
J-18	5,459.89	0	5,719.89	112
J-19	5,461.68	0	5,719.90	112
J-20	5,456.14	0	5,719.90	114
J-21	5,450.04	0	5,719.90	117
J-22	5,458.84	0	5,719.90	113
J-23	5,416.94	0	5,719.89	131
J-24	5,430.90	0	5,719.89	125
J-25	5,419.48	0	5,719.89	130
J-26	5,436.45	23	5,719.67	123
J-27	5,413.23	0	5,599.99	81
J-28	5,361.37	60	5,599.99	103
J-29	5,417.46	43	5,600.00	79
J-30	5,417.70	0	5,600.00	79
J-31	5,409.37	0	5,600.00	82
J-32	5,411.95	11	5,599.99	81
J-33	5,374.55	30	5,599.99	98
J-34	5,379.29	0	5,599.99	95
J-35	5,426.58	0	5,719.88	127
J-36	5,444.06	0	5,719.89	119
J-37	5,445.66	17	5,719.91	119
J-38	5,401.89	26	5,600.00	86
J-39	5,383.75	32	5,600.00	94
J-40	5,414.00	0	5,600.00	80
J-41	5,416.08	21	5,600.00	80
J-42	5,417.86	18	5,719.89	131
J-44	5,433.36	0	5,599.99	72
J-45	5,405.04	0	5,600.00	84
J-48	5,371.00	0	5,599.99	99
J-49	5,372.00	0	5,599.99	99
J-50	5,371.59	21	5,599.99	99
J-51	5,372.50	0	5,599.99	98
J-52	5,383.00	0	5,599.99	94

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-53	5,480.84	0	5,719.85	103
J-54	5,439.94	0	5,719.88	121

MAX DAY

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-1	1,048	J-1	J-2	16.0	PVC	150.0	166	0.26	0.000
P-2	1,200	J-2	J-3	16.0	PVC	150.0	196	0.31	0.000
P-3	942	J-3	J-4	16.0	PVC	150.0	-261	0.42	0.000
P-4	889	J-4	J-5	16.0	PVC	150.0	-544	0.87	0.000
P-5	2,266	J-2	J-6	16.0	PVC	150.0	-84	0.13	0.000
P-9	1,938	J-9	J-10	24.0	PVC	150.0	3,455	2.45	0.001
P-10	733	J-10	J-11	24.0	PVC	150.0	2,533	1.80	0.000
P-11	698	J-11	J-12	24.0	PVC	150.0	2,081	1.48	0.000
P-12	1,323	J-12	J-13	24.0	PVC	150.0	1,774	1.26	0.000
P-13	556	J-13	J-14	24.0	PVC	150.0	1,500	1.06	0.000
P-14	2,458	J-14	J-15	24.0	PVC	150.0	845	0.60	0.000
P-15	2,649	J-15	J-16	12.0	PVC	150.0	461	1.31	0.000
P-16	2,483	J-16	J-17	12.0	PVC	150.0	-274	0.78	0.000
P-17	1,267	J-17	J-18	16.0	PVC	150.0	-996	1.59	0.000
P-18	1,386	J-18	J-14	16.0	PVC	150.0	-655	1.04	0.000
P-19	1,356	J-13	J-19	12.0	PVC	150.0	274	0.78	0.000
P-20	1,341	J-12	J-20	12.0	PVC	150.0	308	0.87	0.000
P-21	1,328	J-11	J-21	12.0	PVC	150.0	395	1.12	0.000
P-22	533	J-18	J-19	12.0	PVC	150.0	-341	0.97	0.000
P-23	755	J-19	J-22	12.0	PVC	150.0	-68	0.19	0.000
P-24	571	J-22	J-20	12.0	PVC	150.0	-385	1.09	0.000
P-25	718	J-20	J-21	12.0	PVC	150.0	-77	0.22	0.000
P-26	1,324	J-21	J-23	12.0	PVC	150.0	318	0.90	0.000
P-27	1,311	J-23	J-24	16.0	PVC	150.0	534	0.85	0.000
P-28	1,269	J-24	J-17	16.0	PVC	150.0	851	1.36	0.000
P-30	695	J-23	J-25	16.0	PVC	150.0	-215	0.34	0.000
P-37	2,763	J-27	J-28	16.0	PVC	150.0	110	0.18	0.000
P-39	1,237	J-5	J-29	24.0	PVC	150.0	56	0.04	0.000
P-40	296	J-29	J-30	24.0	PVC	150.0	-653	0.46	0.000
P-45	877	J-30	J-32	12.0	PVC	150.0	239	0.68	0.000
P-46	2,044	J-32	J-6	12.0	PVC	150.0	64	0.18	0.000
P-47	812	J-28	J-33	16.0	PVC	150.0	172	0.27	0.000
P-48	904	J-33	J-6	16.0	PVC	150.0	19	0.03	0.000
P-50	456	J-34	J-28	16.0	PVC	150.0	368	0.59	0.000
P-53	611	J-22	J-36	12.0	PVC	150.0	317	0.90	0.000
P-54	695	J-36	J-24	12.0	PVC	150.0	317	0.90	0.000
P-55	1,180	J-10	J-37	16.0	PVC	150.0	922	1.47	0.000
P-58	467	J-38	J-8	16.0	PVC	150.0	149	0.24	0.000
P-59	972	J-5	J-39	24.0	PVC	150.0	-258	0.18	0.000
P-60	1,049	J-39	J-7	24.0	PVC	150.0	-359	0.25	0.000
P-61	947	J-30	J-40	24.0	PVC	150.0	-892	0.63	0.000
P-62	764	J-40	J-31	24.0	PVC	150.0	-892	0.63	0.000
P-65	105	J-25	PRV-2	16.0	PVC	150.0	252	0.40	0.000
P-67	225	J-25	PRV-3	16.0	PVC	150.0	342	0.55	0.000
P-68	2,437	PRV-3	J-5	16.0	PVC	150.0	342	0.55	0.000
P-69	660	J-35	PRV-4	16.0	PVC	150.0	394	0.63	0.000
P-70	699	PRV-4	J-31	16.0	PVC	150.0	394	0.63	0.000
P-71	938	J-31	PRV-5	24.0	PVC	150.0	-976	0.69	0.000

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-72	1,580	PRV-5	J-26	24.0	PVC	150.0	-976	0.69	0.000
P-73	68	PRV-2	J-41	16.0	PVC	150.0	252	0.40	0.000
P-74	1,338	J-38	J-41	16.0	PVC	150.0	-231	0.37	0.000
P-75	1,411	J-37	J-42	16.0	PVC	150.0	866	1.38	0.000
P-76	61	J-42	J-25	16.0	PVC	150.0	810	1.29	0.000
P-78	1,271	R-1	J-9	24.0	PVC	150.0	4,010	2.84	0.001
P-80	2,345	J-44	J-27	12.0	PVC	150.0	110	0.31	0.000
P-81	330	J-31	J-45	16.0	PVC	150.0	478	0.76	0.000
P-82	1,960	J-45	J-34	16.0	PVC	150.0	368	0.59	0.000
P-83	2,520	J-44	J-45	12.0	PVC	150.0	-110	0.31	0.000
P-86	2,669	J-8	J-7	24.0	PVC	150.0	704	0.50	0.000
P-64	334	J-9	PRV-1	24.0	PVC	150.0	554	0.39	0.000
P-63	2,321	PRV-1	J-8	24.0	PVC	150.0	554	0.39	0.000
P-94	76	J-49	J-48	8.0	PVC	150.0	0	0.00	0.000
P-95	74	J-49	H-1	6.0	PVC	150.0	0	0.00	0.000
P-96	860	J-1	J-50	16.0	PVC	150.0	-233	0.37	0.000
P-97	1,764	J-50	J-7	16.0	PVC	150.0	-344	0.55	0.000
P-98	31	J-49	J-50	8.0	PVC	150.0	-44	0.28	0.000
P-99	126	J-51	J-3	8.0	PVC	150.0	44	0.28	0.000
P-101	438	J-52	J-49	8.0	PVC	150.0	-44	0.28	0.000
P-102	1,100	J-51	J-52	8.0	PVC	150.0	-44	0.28	0.000
P-35	2,276	J-53	J-26	12.0	PVC	150.0	1,092	3.10	0.002
P-105	339	J-17	J-54	16.0	PVC	150.0	750	1.20	0.000
P-106	917	J-54	J-35	16.0	PVC	150.0	394	0.63	0.000
P-107	2,494	J-53	J-54	12.0	PVC	150.0	-357	1.01	0.000
P-108	340	J-16	J-53	12.0	PVC	150.0	735	2.09	0.001

MAX DAY

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	5,366.51	67	5,599.71	101
J-2	5,378.53	53	5,599.69	96
J-3	5,382.52	502	5,599.66	94
J-4	5,409.33	283	5,599.70	82
J-5	5,404.20	0	5,599.84	85
J-6	5,392.61	0	5,599.70	90
J-7	5,393.61	0	5,599.86	89
J-8	5,405.65	0	5,599.95	84
J-9	5,424.10	0	5,718.89	128
J-10	5,442.29	0	5,717.62	119
J-11	5,467.72	56	5,717.34	108
J-12	5,487.72	0	5,717.16	99
J-13	5,496.00	0	5,716.91	96
J-14	5,493.52	0	5,716.83	97
J-15	5,483.01	384	5,716.71	101
J-16	5,487.47	0	5,715.48	99
J-17	5,444.88	822	5,715.92	117
J-18	5,459.89	0	5,716.53	111
J-19	5,461.68	0	5,716.67	110
J-20	5,456.14	0	5,716.87	113
J-21	5,450.04	0	5,716.88	115
J-22	5,458.84	0	5,716.68	112
J-23	5,416.94	0	5,716.57	130
J-24	5,430.90	0	5,716.38	124
J-25	5,419.48	0	5,716.59	129
J-26	5,436.45	116	5,709.90	118
J-27	5,413.23	0	5,599.74	81
J-28	5,361.37	306	5,599.72	103
J-29	5,417.46	709	5,599.84	79
J-30	5,417.70	0	5,599.85	79
J-31	5,409.37	0	5,599.94	82
J-32	5,411.95	174	5,599.73	81
J-33	5,374.55	153	5,599.70	97
J-34	5,379.29	0	5,599.75	95
J-35	5,426.58	0	5,715.75	125
J-36	5,444.06	0	5,716.54	118
J-37	5,445.66	56	5,717.13	117
J-38	5,401.89	82	5,599.96	86
J-39	5,383.75	101	5,599.85	93
J-40	5,414.00	0	5,599.90	80
J-41	5,416.08	21	5,600.00	80
J-42	5,417.86	56	5,716.61	129
J-44	5,433.36	0	5,599.82	72
J-45	5,405.04	0	5,599.90	84
J-48	5,371.00	0	5,599.74	99
J-49	5,372.00	0	5,599.74	99
J-50	5,371.59	67	5,599.74	99
J-51	5,372.50	0	5,599.67	98
J-52	5,383.00	0	5,599.72	94

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-53	5,480.84	0	5,715.11	101
J-54	5,439.94	0	5,715.83	119

MAX HOUR

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-1	1,048	J-1	J-2	16.0	PVC	150.0	117	0.19	0.000
P-2	1,200	J-2	J-3	16.0	PVC	150.0	159	0.25	0.000
P-3	942	J-3	J-4	16.0	PVC	150.0	-245	0.39	0.000
P-4	889	J-4	J-5	16.0	PVC	150.0	-494	0.79	0.000
P-5	2,266	J-2	J-6	16.0	PVC	150.0	-90	0.14	0.000
P-9	1,938	J-9	J-10	24.0	PVC	150.0	3,785	2.68	0.001
P-10	733	J-10	J-11	24.0	PVC	150.0	2,755	1.95	0.000
P-11	698	J-11	J-12	24.0	PVC	150.0	2,240	1.59	0.000
P-12	1,323	J-12	J-13	24.0	PVC	150.0	1,897	1.35	0.000
P-13	556	J-13	J-14	24.0	PVC	150.0	1,585	1.12	0.000
P-14	2,458	J-14	J-15	24.0	PVC	150.0	840	0.60	0.000
P-15	2,649	J-15	J-16	12.0	PVC	150.0	502	1.42	0.001
P-16	2,483	J-16	J-17	12.0	PVC	150.0	-269	0.76	0.000
P-17	1,267	J-17	J-18	16.0	PVC	150.0	-1,119	1.79	0.001
P-18	1,386	J-18	J-14	16.0	PVC	150.0	-745	1.19	0.000
P-19	1,356	J-13	J-19	12.0	PVC	150.0	312	0.88	0.000
P-20	1,341	J-12	J-20	12.0	PVC	150.0	343	0.97	0.000
P-21	1,328	J-11	J-21	12.0	PVC	150.0	436	1.24	0.000
P-22	533	J-18	J-19	12.0	PVC	150.0	-374	1.06	0.000
P-23	755	J-19	J-22	12.0	PVC	150.0	-62	0.18	0.000
P-24	571	J-22	J-20	12.0	PVC	150.0	-421	1.19	0.000
P-25	718	J-20	J-21	12.0	PVC	150.0	-77	0.22	0.000
P-26	1,324	J-21	J-23	12.0	PVC	150.0	358	1.02	0.000
P-27	1,311	J-23	J-24	16.0	PVC	150.0	583	0.93	0.000
P-28	1,269	J-24	J-17	16.0	PVC	150.0	942	1.50	0.000
P-30	695	J-23	J-25	16.0	PVC	150.0	-225	0.36	0.000
P-37	2,763	J-27	J-28	16.0	PVC	150.0	108	0.17	0.000
P-39	1,237	J-5	J-29	24.0	PVC	150.0	140	0.10	0.000
P-40	296	J-29	J-30	24.0	PVC	150.0	-737	0.52	0.000
P-45	877	J-30	J-32	12.0	PVC	150.0	241	0.68	0.000
P-46	2,044	J-32	J-6	12.0	PVC	150.0	25	0.07	0.000
P-47	812	J-28	J-33	16.0	PVC	150.0	199	0.32	0.000
P-48	904	J-33	J-6	16.0	PVC	150.0	65	0.10	0.000
P-50	456	J-34	J-28	16.0	PVC	150.0	360	0.57	0.000
P-53	611	J-22	J-36	12.0	PVC	150.0	359	1.02	0.000
P-54	695	J-36	J-24	12.0	PVC	150.0	359	1.02	0.000
P-55	1,180	J-10	J-37	16.0	PVC	150.0	1,030	1.64	0.001
P-58	467	J-38	J-8	16.0	PVC	150.0	142	0.23	0.000
P-59	972	J-5	J-39	24.0	PVC	150.0	-265	0.19	0.000
P-60	1,049	J-39	J-7	24.0	PVC	150.0	-407	0.29	0.000
P-61	947	J-30	J-40	24.0	PVC	150.0	-977	0.69	0.000
P-62	764	J-40	J-31	24.0	PVC	150.0	-977	0.69	0.000
P-65	105	J-25	PRV-2	16.0	PVC	150.0	279	0.44	0.000
P-67	225	J-25	PRV-3	16.0	PVC	150.0	369	0.59	0.000
P-68	2,437	PRV-3	J-5	16.0	PVC	150.0	369	0.59	0.000
P-69	660	J-35	PRV-4	16.0	PVC	150.0	415	0.66	0.000
P-70	699	PRV-4	J-31	16.0	PVC	150.0	415	0.66	0.000
P-71	938	J-31	PRV-5	24.0	PVC	150.0	-1,029	0.73	0.000

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-72	1,580	PRV-5	J-26	24.0	PVC	150.0	-1,029	0.73	0.000
P-73	68	PRV-2	J-41	16.0	PVC	150.0	279	0.44	0.000
P-74	1,338	J-38	J-41	16.0	PVC	150.0	-258	0.41	0.000
P-75	1,411	J-37	J-42	16.0	PVC	150.0	952	1.52	0.000
P-76	61	J-42	J-25	16.0	PVC	150.0	872	1.39	0.000
P-78	1,271	R-1	J-9	24.0	PVC	150.0	4,392	3.11	0.001
P-80	2,345	J-44	J-27	12.0	PVC	150.0	108	0.31	0.000
P-81	330	J-31	J-45	16.0	PVC	150.0	467	0.75	0.000
P-82	1,960	J-45	J-34	16.0	PVC	150.0	360	0.57	0.000
P-83	2,520	J-44	J-45	12.0	PVC	150.0	-108	0.31	0.000
P-86	2,669	J-8	J-7	24.0	PVC	150.0	749	0.53	0.000
P-64	334	J-9	PRV-1	24.0	PVC	150.0	607	0.43	0.000
P-63	2,321	PRV-1	J-8	24.0	PVC	150.0	607	0.43	0.000
P-94	76	J-49	J-48	8.0	PVC	150.0	0	0.00	0.000
P-95	74	J-49	H-1	6.0	PVC	150.0	0	0.00	0.000
P-96	860	J-1	J-50	16.0	PVC	150.0	-211	0.34	0.000
P-97	1,764	J-50	J-7	16.0	PVC	150.0	-342	0.55	0.000
P-98	31	J-49	J-50	8.0	PVC	150.0	-36	0.23	0.000
P-99	126	J-51	J-3	8.0	PVC	150.0	36	0.23	0.000
P-101	438	J-52	J-49	8.0	PVC	150.0	-36	0.23	0.000
P-102	1,100	J-51	J-52	8.0	PVC	150.0	-36	0.23	0.000
P-35	2,276	J-53	J-26	12.0	PVC	150.0	1,131	3.21	0.002
P-105	339	J-17	J-54	16.0	PVC	150.0	775	1.24	0.000
P-106	917	J-54	J-35	16.0	PVC	150.0	415	0.66	0.000
P-107	2,494	J-53	J-54	12.0	PVC	150.0	-360	1.02	0.000
P-108	340	J-16	J-53	12.0	PVC	150.0	771	2.19	0.001

MAX HOUR

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	5,366.51	94	5,599.70	101
J-2	5,378.53	47	5,599.69	96
J-3	5,382.52	441	5,599.67	94
J-4	5,409.33	249	5,599.70	82
J-5	5,404.20	0	5,599.82	85
J-6	5,392.61	0	5,599.70	90
J-7	5,393.61	0	5,599.83	89
J-8	5,405.65	0	5,599.94	84
J-9	5,424.10	0	5,718.69	127
J-10	5,442.29	0	5,717.18	119
J-11	5,467.72	79	5,716.86	108
J-12	5,487.72	0	5,716.65	99
J-13	5,496.00	0	5,716.36	95
J-14	5,493.52	0	5,716.28	96
J-15	5,483.01	338	5,716.16	101
J-16	5,487.47	0	5,714.72	98
J-17	5,444.88	1,017	5,715.14	117
J-18	5,459.89	0	5,715.89	111
J-19	5,461.68	0	5,716.06	110
J-20	5,456.14	0	5,716.29	113
J-21	5,450.04	0	5,716.30	115
J-22	5,458.84	0	5,716.07	111
J-23	5,416.94	0	5,715.92	129
J-24	5,430.90	0	5,715.69	123
J-25	5,419.48	0	5,715.94	128
J-26	5,436.45	102	5,708.75	118
J-27	5,413.23	0	5,599.74	81
J-28	5,361.37	269	5,599.72	103
J-29	5,417.46	876	5,599.81	79
J-30	5,417.70	0	5,599.83	79
J-31	5,409.37	0	5,599.93	82
J-32	5,411.95	216	5,599.70	81
J-33	5,374.55	134	5,599.70	97
J-34	5,379.29	0	5,599.75	95
J-35	5,426.58	0	5,714.96	125
J-36	5,444.06	0	5,715.89	118
J-37	5,445.66	79	5,716.58	117
J-38	5,401.89	115	5,599.94	86
J-39	5,383.75	142	5,599.82	93
J-40	5,414.00	0	5,599.89	80
J-41	5,416.08	21	5,600.00	80
J-42	5,417.86	79	5,715.96	129
J-44	5,433.36	0	5,599.82	72
J-45	5,405.04	0	5,599.90	84
J-48	5,371.00	0	5,599.72	99
J-49	5,372.00	0	5,599.72	99
J-50	5,371.59	94	5,599.72	99
J-51	5,372.50	0	5,599.67	98
J-52	5,383.00	0	5,599.71	94

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-53	5,480.84	0	5,714.31	101
J-54	5,439.94	0	5,715.04	119

MAX DAY WITH FIRE FLOW

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-1	1,048	J-1	J-2	16.0	PVC	150.0	1,142	1.82	0.001
P-2	1,200	J-2	J-3	16.0	PVC	150.0	-1,062	1.70	0.001
P-3	942	J-3	J-4	16.0	PVC	150.0	-1,429	2.28	0.001
P-4	889	J-4	J-5	16.0	PVC	150.0	-1,707	2.72	0.001
P-5	2,266	J-2	J-6	16.0	PVC	150.0	2,153	3.44	0.002
P-9	1,938	J-9	J-10	24.0	PVC	150.0	13,792	9.78	0.009
P-10	733	J-10	J-11	24.0	PVC	150.0	10,619	7.53	0.005
P-11	698	J-11	J-12	24.0	PVC	150.0	9,155	6.49	0.004
P-12	1,323	J-12	J-13	24.0	PVC	150.0	8,193	5.81	0.003
P-13	556	J-13	J-14	24.0	PVC	150.0	3,648	2.59	0.001
P-14	2,458	J-14	J-15	24.0	PVC	150.0	1,950	1.38	0.000
P-15	2,649	J-15	J-16	12.0	PVC	150.0	1,566	4.44	0.004
P-16	2,483	J-16	J-17	12.0	PVC	150.0	-1,167	3.31	0.003
P-17	1,267	J-17	J-18	16.0	PVC	150.0	-2,838	4.53	0.003
P-18	1,386	J-18	J-14	16.0	PVC	150.0	-1,698	2.71	0.001
P-19	1,356	J-13	J-19	12.0	PVC	150.0	545	1.55	0.001
P-20	1,341	J-12	J-20	12.0	PVC	150.0	961	2.73	0.002
P-21	1,328	J-11	J-21	12.0	PVC	150.0	1,407	3.99	0.004
P-22	533	J-18	J-19	12.0	PVC	150.0	-1,140	3.23	0.002
P-23	755	J-19	J-22	12.0	PVC	150.0	-595	1.69	0.001
P-24	571	J-22	J-20	12.0	PVC	150.0	-1,446	4.10	0.004
P-25	718	J-20	J-21	12.0	PVC	150.0	-484	1.37	0.001
P-26	1,324	J-21	J-23	12.0	PVC	150.0	923	2.62	0.002
P-27	1,311	J-23	J-24	16.0	PVC	150.0	1,982	3.16	0.002
P-28	1,269	J-24	J-17	16.0	PVC	150.0	2,833	4.52	0.003
P-30	695	J-23	J-25	16.0	PVC	150.0	-1,059	1.69	0.001
P-37	2,763	J-27	J-28	16.0	PVC	150.0	-1,688	2.69	0.001
P-39	1,237	J-5	J-29	24.0	PVC	150.0	582	0.41	0.000
P-40	296	J-29	J-30	24.0	PVC	150.0	33	0.02	0.000
P-45	877	J-30	J-32	12.0	PVC	150.0	1,254	3.56	0.003
P-46	2,044	J-32	J-6	12.0	PVC	150.0	1,073	3.04	0.002
P-47	812	J-28	J-33	16.0	PVC	150.0	773	1.23	0.000
P-48	904	J-33	J-6	16.0	PVC	150.0	-3,227	5.15	0.004
P-50	456	J-34	J-28	16.0	PVC	150.0	2,769	4.42	0.003
P-53	611	J-22	J-36	12.0	PVC	150.0	851	2.41	0.001
P-54	695	J-36	J-24	12.0	PVC	150.0	851	2.41	0.001
P-55	1,180	J-10	J-37	16.0	PVC	150.0	3,173	5.06	0.004
P-58	467	J-38	J-8	16.0	PVC	150.0	673	1.07	0.000
P-59	972	J-5	J-39	24.0	PVC	150.0	-1,065	0.75	0.000
P-60	1,049	J-39	J-7	24.0	PVC	150.0	-1,167	0.83	0.000
P-61	947	J-30	J-40	24.0	PVC	150.0	-1,220	0.87	0.000
P-62	764	J-40	J-31	24.0	PVC	150.0	-1,220	0.87	0.000
P-65	105	J-25	PRV-2	16.0	PVC	150.0	777	1.24	0.000
P-67	225	J-25	PRV-3	16.0	PVC	150.0	1,225	1.95	0.001
P-68	2,437	PRV-3	J-5	16.0	PVC	150.0	1,225	1.96	0.001
P-69	660	J-35	PRV-4	16.0	PVC	150.0	2,299	3.67	0.002
P-70	699	PRV-4	J-31	16.0	PVC	150.0	2,300	3.67	0.002
P-71	938	J-31	PRV-5	24.0	PVC	150.0	-4,001	2.84	0.001

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-72	1,580	PRV-5	J-26	24.0	PVC	150.0	-4,001	2.84	0.001
P-73	68	PRV-2	J-41	16.0	PVC	150.0	777	1.24	0.000
P-74	1,338	J-38	J-41	16.0	PVC	150.0	-756	1.21	0.000
P-75	1,411	J-37	J-42	16.0	PVC	150.0	3,119	4.98	0.004
P-76	61	J-42	J-25	16.0	PVC	150.0	3,061	4.88	0.004
P-78	1,271	R-1	J-9	24.0	PVC	150.0	15,697	11.13	0.011
P-80	2,345	J-44	J-27	12.0	PVC	150.0	-1,688	4.79	0.005
P-81	330	J-31	J-45	16.0	PVC	150.0	5,081	8.11	0.010
P-82	1,960	J-45	J-34	16.0	PVC	150.0	2,769	4.42	0.003
P-83	2,520	J-44	J-45	12.0	PVC	150.0	-2,312	6.56	0.009
P-86	2,669	J-8	J-7	24.0	PVC	150.0	2,579	1.83	0.000
P-64	334	J-9	PRV-1	24.0	PVC	150.0	1,905	1.35	0.000
P-63	2,321	PRV-1	J-8	24.0	PVC	150.0	1,906	1.35	0.000
P-94	76	J-49	J-48	8.0	PVC	150.0	0	0.00	0.000
P-95	74	J-49	H-1	6.0	PVC	150.0	0	0.00	0.000
P-96	860	J-1	J-50	16.0	PVC	150.0	-1,209	1.93	0.001
P-97	1,764	J-50	J-7	16.0	PVC	150.0	-1,412	2.25	0.001
P-98	31	J-49	J-50	8.0	PVC	150.0	-135	0.86	0.000
P-99	126	J-51	J-3	8.0	PVC	150.0	135	0.86	0.000
P-101	438	J-52	J-49	8.0	PVC	150.0	-135	0.86	0.000
P-102	1,100	J-51	J-52	8.0	PVC	150.0	-135	0.86	0.000
P-35	2,276	J-53	J-26	12.0	PVC	150.0	4,119	11.68	0.027
P-105	339	J-17	J-54	16.0	PVC	150.0	3,684	5.88	0.005
P-106	917	J-54	J-35	16.0	PVC	150.0	2,299	3.67	0.002
P-107	2,494	J-53	J-54	12.0	PVC	150.0	-1,385	3.93	0.004
P-108	340	J-16	J-53	12.0	PVC	150.0	2,733	7.75	0.013

MAX DAY WITH FIRE FLOW

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	5,366.51	67	5,596.28	99
J-2	5,378.53	51	5,595.64	94
J-3	5,382.52	502	5,596.28	92
J-4	5,409.33	279	5,597.15	81
J-5	5,404.20	0	5,598.30	84
J-6	5,392.61	0	5,591.15	86
J-7	5,393.61	0	5,598.47	89
J-8	5,405.65	0	5,599.49	84
J-9	5,424.10	0	5,706.16	122
J-10	5,442.29	0	5,689.55	107
J-11	5,467.72	58	5,685.67	94
J-12	5,487.72	0	5,682.87	84
J-13	5,496.00	4,000	5,678.55	79
J-14	5,493.52	0	5,678.14	80
J-15	5,483.01	384	5,677.58	84
J-16	5,487.47	0	5,665.76	77
J-17	5,444.88	819	5,672.19	98
J-18	5,459.89	0	5,676.37	94
J-19	5,461.68	0	5,677.69	93
J-20	5,456.14	0	5,680.45	97
J-21	5,450.04	0	5,680.81	100
J-22	5,458.84	0	5,678.25	95
J-23	5,416.94	0	5,678.60	113
J-24	5,430.90	0	5,676.37	106
J-25	5,419.48	0	5,678.97	112
J-26	5,436.45	118	5,600.62	71
J-27	5,413.23	0	5,584.11	74
J-28	5,361.37	307	5,587.60	98
J-29	5,417.46	549	5,598.27	78
J-30	5,417.70	0	5,598.27	78
J-31	5,409.37	0	5,598.43	82
J-32	5,411.95	180	5,595.68	79
J-33	5,374.55	4,000	5,587.36	92
J-34	5,379.29	0	5,589.04	91
J-35	5,426.58	0	5,668.32	105
J-36	5,444.06	0	5,677.37	101
J-37	5,445.66	54	5,684.75	103
J-38	5,401.89	83	5,599.60	86
J-39	5,383.75	102	5,598.37	93
J-40	5,414.00	0	5,598.36	80
J-41	5,416.08	21	5,599.98	80
J-42	5,417.86	58	5,679.20	113
J-44	5,433.36	4,000	5,572.09	60
J-45	5,405.04	0	5,595.23	82
J-48	5,371.00	0	5,596.85	98
J-49	5,372.00	0	5,596.85	97
J-50	5,371.59	67	5,596.87	97
J-51	5,372.50	0	5,596.32	97
J-52	5,383.00	0	5,596.70	92

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-53	5,480.84	0	5,661.50	78
J-54	5,439.94	0	5,670.37	100

DIA - CITY AND COUNTY OF DENVER

E. 68TH AVENUE (80' 3 LANE COLLECTOR)
E. 68TH AVENUE (84' 4 LANE COLLECTOR)
E. 68TH AVENUE (80' 3 LANE COLLECTOR)
E. 68TH AVENUE (66' 2 LANE COLLECTOR)

16" WATER MAIN
PA-1 MIXED COMMERCIAL 30.3 AC
PA-4 (EXISTING) INDUSTRIAL 57.9 AC
PA-5 INDUSTRIAL 111.11 AC
PA-6A INDUSTRIAL 172.45 AC
EXISTING 16" WATER MAIN
PA-3 MIXED COMMERCIAL 58.8 AC
8" WATER MAIN
JACKSON GAP ST. (84' 4 LANE COLLECTOR)
12" WATER MAIN
POWHATON ROAD (80' 3 LANE COLLECTOR)
PA-2 MIXED COMMERCIAL 60.2 AC
24" WATER MAIN CONNECTS TO ADJACENT DEVELOPMENT INSTALLED BY OTHERS WHEN NECESSARY
E. 64TH AVENUE (144' 6 LANE ARTERIAL)
E. 64TH AVENUE (102' 4 LANE ARTERIAL)
E. 64TH AVENUE (108' 4 LANE ARTERIAL)
24" WATER MAIN
PRV
UPPER ZONE 3
LOWER ZONE 3
16" WATER MAIN IN E. 64TH AVENUE CONNECTION TO VALLEY HEAD STREET BY OTHERS
PA-9A MIXED COMMERCIAL 45.3 AC
PA-9B INDUSTRIAL 15.4 AC
PA-9C MIXED COMMERCIAL 18.8 AC
PA-7 INDUSTRIAL 79.40 AC
PA-6B INDUSTRIAL 135.61 AC
12" WATER MAIN REQUIRED WITH PA-6B BY OTHERS
UNDEVELOPED AURORA
PA-8A MIXED COMMERCIAL 79.3 AC
PA-8B MIXED COMMERCIAL 52.9 AC
PA-9D MIXED COMMERCIAL 28.6 AC
CITY & COUNTY OF DENVER
12" WATER MAIN REQUIRED WITH PA-12 BY OTHERS
E. 60TH AVENUE (80' 3 LANE COLLECTOR)
HARVEST ROAD (144' 6 LANE ARTERIAL)
16" WATER MAIN BY FINE POINT BUSINESS PARK
PA-10A MIXED COMMERCIAL 59.3 AC
PA-10B MIXED COMMERCIAL 40.4 AC
FINE POINT BUSINESS PARK
PA-12 INDUSTRIAL 185.9 AC
JACKSON GAP WAY (84' 4 LANE COLLECTOR) BY FINE POINT BUSINESS PARK
PA-11 MIXED COMMERCIAL 40.8 ACRES
POWHATON ROAD (81' 4 LANE MODIFIED ARTERIAL)
FLOOD PLAIN 14.5 AC
EXISTING 24" WATER MAIN
24" WATER MAIN TO CONNECT TO EXISTING WATER MAIN IN E. 56TH AVENUE
E. 56TH AVENUE (144' 6 LANE ARTERIAL)
24" WATER MAIN BY OTHERS
16" WATER MAIN CONNECTS TO ADJACENT DVELOPMENT INSTALLED BY OTHERS WHEN NECESSARY
24" WATER MAIN BY FINE POINT BUSINESS PARK
UNDEVELOPED AURORA
24" WATER MAIN CONNECTS TO ADJACENT DVELOPMENT INSTALLED BY OTHERS WHEN NECESSARY

LEGEND
- PLANNING AREA BOUNDARY
- SECTION/HALF SECTION LINE
- WATER MAIN
- EXISTING WATER MAIN
- PROPOSED ROW

CITY OF AURORA APPROVAL BLOCK

CITY ENGINEER	DATE
AURORA WATER DEPARTMENT	DATE
AURORA FIRE DEPARTMENT	DATE

FACSIMILE
THIS ELECTRONIC PLAN IS A FACSIMILE OF THE SIGNED AND SEALED PDF SET.

CO PROFESSIONAL ENGINEER
CRAIG C. NORTHAM, CO P.E. NO. 30276
DATE

PREPARED UNDER THE SUPERVISION OF
CRAIG C. NORTHAM
COLORADO P.E. 30276

400 200 0 400 800
SCALE: 1" = 400

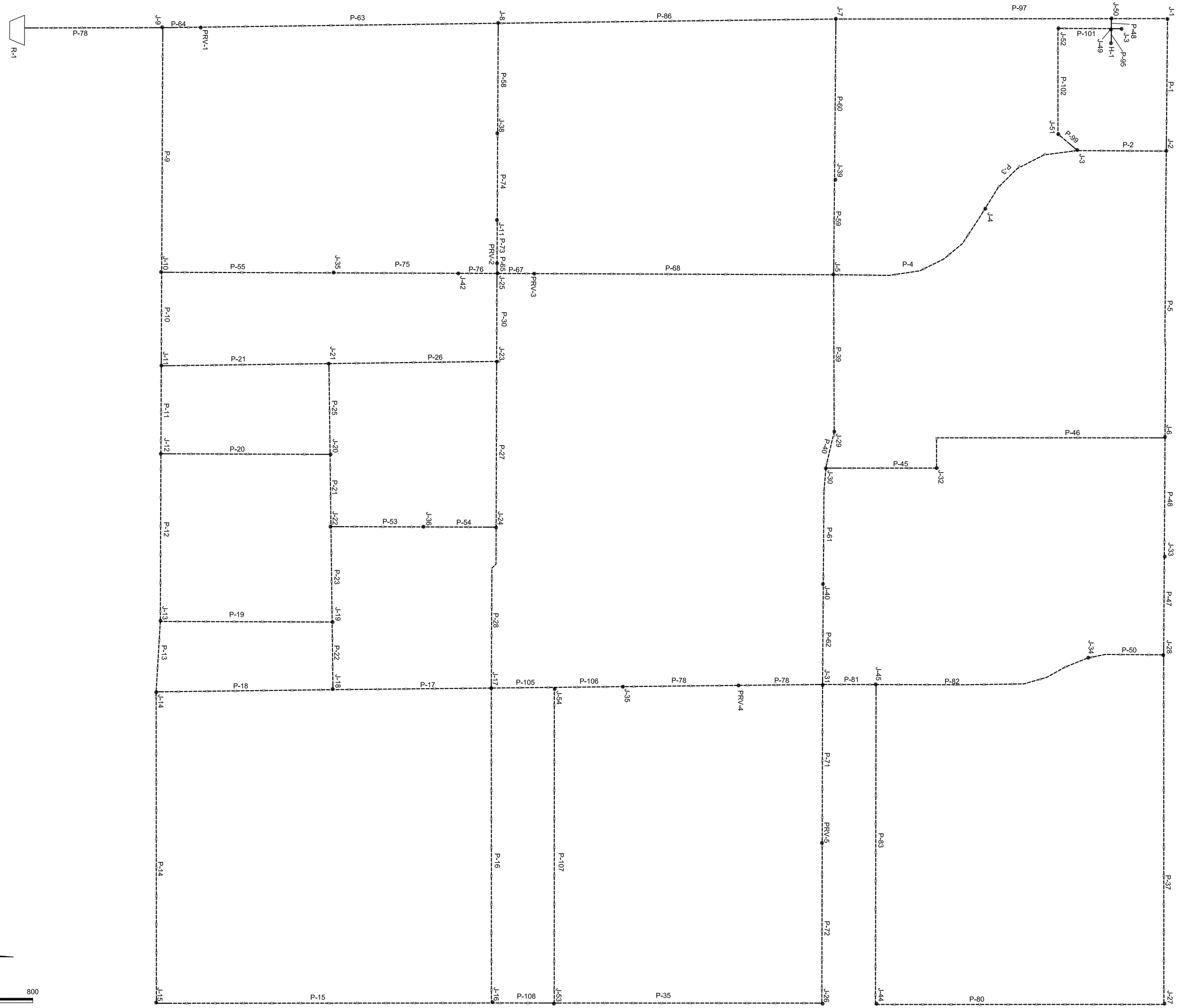
CVL CONSULTANTS
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: 720-482-9526
CVLINC.NET

PORTEOS WATER DISTRIBUTION SYSTEM
FINAL BUILT OUT

No.	Revisions	Date	Init.	Appr.	Date

SCALE: AS SHOWN
AS SHOWN
DRAWN BY: JF
CHECKED BY: KK
FILE NO:
DATE: 11-16-16
SHEET NO: 1

N:\PROJECTS\PORTEOS\DOCS\MASTER UTILITY REPORT\EXHIBIT\WATER MAIN EXHIBIT.DWG, JDEF: 7/30/2020 8:30 AM


R-1
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J-9
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PRV-1
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J-8
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SCALE: 1" = 400'