

Appendix L
Sewer Capacity Study



Appendices

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SEWER CAPACITY STUDY

**Prepared For:
Spring Trails -
Tentative Tract 15576**

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**Prepared For:
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**Submittal To:
City of San Bernardino
Department of Public Works**

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A.) OBJECTIVE

Rick Engineering Company has been asked to prepare a Sewer Study based on the ultimate developed condition for the Spring Trails project site, Tentative Tract 15576, in the Verdernont Area of the County of San Bernardino. This project proposes to annex into the City of San Bernardino and convey the project's wastewater through the City of San Bernardino's wastewater system.

The City of San Bernardino's existing infrastructure sewer system is proposed to handle the conveyance for the Spring Trails Project site. Therefore, it needs to be analyzed to verify if there is sufficient capacity in the system for the projects added wastewater flows. The sewer analysis will be prepared following the city of San Bernardino's Department of Public Works Sewer Policy and Procedures, issued 1/5/87, and the City's 2002 Sewer Master Plan prepared by Psomas for the City of San Bernardino, which was provided to Rick Engineering Co. by the City of San Bernardino on 6/11/09.

Based on the Sewer Master Plan, the City's existing system ends on N. Little League Drive. At this point, the Spring Trails project proposes to match into the existing system. This existing system drains south, then east on W. Little League Drive, Kendall Drive, and 40th Street. At this point, it drains south on Mountain View Ave. and Waterman Ave. until it outlets into the 33 MGD capacity Margaret H. Chandler Water Reclamation Facility.

This sewer study is based on build out for the year 2020, as required by the City per their memo dated 6/10/09 regarding responses to the 5/29/09 sewer service questionnaire. The Sewer Master Plan also analyzed a build out year of 2020. This sewer study will review the future 2020 peaked model flows from the Master Plan and add the proposed design sewer flows from the Spring Trails project to determine the ultimate increased flows in the existing system. The segments of sewer lines affected by the project will be reviewed to determine if they have adequate capacity for this additional flow. If the existing line does not have capacity, this report will make recommendations as necessary to allow for adequate capacity for the Spring Trails added sewer impact.

B.) ANALYSIS CRITERIA

Design Flow = $Q_{\text{Design}} = 3.6 * (Q_{\text{Average}})^{0.85}$

Average Flow = Q_{Average} is determined from Table A of the San Bernardino Sewer Policies and Procedures dated 1/5/87

Q_{Average} for Low density Residential = 0.000282 cfs/acre

Minimum slope for 12" and smaller is 0.4%

Minimum slope for 15" and larger is 0.08%

Assumed Manning's coefficient of 0.013 for proposed pipes

12" and smaller diameter pipes flowing no more than 50% full

15" and larger diameter pipes flowing no more than 75% full

C.) SEWER ANALYSIS

This sewer capacity analysis is based on calculations using the City of San Bernardino’s Department of Public Works Sewer Policy & Procedures design criteria for sanitary sewers. The Spring Trails proposed onsite sewer system will sewer southerly and into a proposed offsite sewer system located in the future street, known as Verdemont Drive per Tract 17329. This system will drain easterly to N. Little League Drive, and then southerly, where it will ultimately match into the existing sewer system. This proposed sewer system can be found in Appendix B – Proposed Onsite Sewer System. Based on the 2002 Sewer Master Plan, this existing line in N. Little League Drive is 8”.

The onsite system will be sized based on the 1 dwelling/acre residential flow from Table A of the Sewer Policy & Procedures (0.000282cfs/acre). A copy of this table can be found in Appendix C – Reference Documents. The minimum slope of the main sewer exiting the project site is 5%. The ultimate design of the sewer in Verdemont Drive is unknown, so the capacity of the sewer within this section was examined in 2 ways. First, the capacity was determined for a pipe flowing at the minimum slope of 0.4%. Then the section of pipe was examined to determine the minimum slope required for an 8” pipe to have the capacity of the project’s design flow. The sewer flows and pipe sizes can be found in Table 1: Project Capacity, below. Please see the supporting calculations in Appendix A – Supporting Calculations.

Table 1: Project Capacity

Location	Project Flow (cfs)	Slope (%)	Pipe Size	Pipe Design Flow (cfs)
Onsite	0.5064	5.0	8”	1.354
Offsite – Verdemont Dr.	0.5064	0.4	10’	0.6946
Offsite – Verdemont Dr.	0.5064	0.698	8”	0.5064

The analysis of the existing offsite infrastructure sewer system from N. Little League Drive to the Sewer Reclamation plant can be found in Table 2 – 2020 Peaked Model Analysis, found on pages 5-7. This table is based on the information from the 2002 Master Sewer Plan for Future Peaked Model Analysis. A column was added to calculate the total pipe flow, which is the addition of the Spring Trails project flow of 0.5064 cfs to the 2020 sewer pipe flow calculated in the 2020 Sewer Study for each section of the infrastructure system. This total sewer flow was then compared to the allowable design flow for each section to determine if each section of existing pipe has adequate capacity for the additional flow. A second column was added to the table to show if the pipe size is adequate or not based on this analysis.

The results from the analysis found 4 locations in the existing sewer system that show a pipe flow over that of the design flow for those pipe sections. Please see Table 3: Pipe Sections Over Design Flow Capacity, below. However, all 4 of these locations are still well below the full flow capacity even with the addition of the Spring Trails wastewater.

Table 3: Pipe Sections Over Design Flow Capacity

ID	Location	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	Recommended Size
201	N. Little League Drive	210	18	8	350.00	0.05	2.813	1.401	1.433	10"
27	W. Little League Drive	26	30	10	103.00	0.02	3.061	1.525	1.568	12"
571	Little Mtn At Kendall	562	584	12	346.97	0.02	4.931	2.457	3.957	15"
2241	Central Ave. at Waterman	2194	2442	54	567.30	0.00	26.179	23.835	25.279	Parallel System

Per Table 3 and the City of San Bernardino’s Sewer Policy and Procedures, Section ID 201 requires an upsize to a 10” pipe. For Section ID 27, the 2020 pipe flow was found to be just 0.04 cfs above the design flow (approximately 3%).

For Section ID 571, on Little Mountain Drive, this pipe is currently undersized as determined in the 2002 Sewer Master Plan. The current flow is 3.45 cfs, which is approximately 1 cfs over the design flow of 2.46 cfs in the 12” diameter pipe. Per the 2002 Sewer Master Plan, this pipe needs to be replaced with a 14” pipe. However, due to the increase flow from the Spring Trails project, a 14” pipe does not have the design capacity (14” design flow = 3.8106 cfs). Per our calculations a 15” pipe’s design flow is 8.352 cfs and therefore is adequate. Please see the Supporting Calculations in Appendix 1.

The final offsite section of pipe that needs to be addressed is the existing 54” pipe, Section ID 2241 on Central Ave. at Waterman Ave. As seen in Table 3, with the addition of the Spring Trail wastewater, the new flow is calculated at 25.279 cfs. Even with the addition of Spring Trails, the pipe is still well below the full flow capacity of the pipe (full flow capacity = 26.179 cfs). The downstream system from this section is an existing 54” pipe all the way to the Wastewater Treatment Plan. Therefore, upsizing the pipe would not be recommended. Adding a parallel system to handle additional flows in this section would suffice.

D.) CONCLUSION

Based on the findings described in the sewer analysis, the existing sewer infrastructure in The City of San Bernardino has capacity to allow service to the Spring Trails project without any offsite improvements necessary for the construction of the project. Table 4, below, shows the difference in the proposed pipe flow to the design flow of the 4 sections of pipe found to be over the design flow criteria, as well as the remaining full flow capacity of the pipes.

Table 4: Project Offsite Recommendations

ID	Location	Dia.	FULL FLOW	DES FLOW	PIPE FLOW	Diff. From Design to Flow	Remaining to Full Capacity	Recommended Improvement
201	N. Little League Drive	8	2.813	1.401	1.433	0.03	1.4	10"
27	W. Little League Drive	10	3.061	1.525	1.568	.04	1.5	No Change
571	Little Mtn At Kendall	12	4.931	2.457	3.957	1.5	1.0	No Change
2241	Central Ave. at Waterman	54	26.179	23.835	25.279	1.4	0.9	No Change

Section ID 201 only has a 0.03 cfs difference in the flows. We recommend that this section of pipe only be upsized to a 10" line if the proposed offsite section of Spring Trails sewer line is 10". As discussed in the analysis, the actual slope of the proposed pipe in the future Verdemont Drive, is unknown. Depending on the slope, this section of pipe may be 8" or 10". If this proposed pipe becomes 8", then the existing line in N. Little League Drive has the capacity to handle the sewer flows from Spring Trails, and no upsizing is necessary. However, if the proposed line in future Verdemont Drive is found to be 10", then this existing 8" line in N. Little League Drive should be upsized to 10" as it is not recommended to tie a proposed 10" pipe into an existing 8" on the downstream end.

For Section ID 27, the 2020 pipe flow was found to be just 0.04 cfs above the design flow (approximately 3%). This is a minimal amount over the design flow and well below the full capacity of the 10" diameter pipe of 3.051 cfs. Since this future flow with the addition of the Spring Trails wastewater is right at the design flow for this section of pipe, no improvements are recommended.

For Section ID 571, on Little Mountain Drive, this pipe is currently undersized as determined in the 2002 Sewer Master Plan. The current flow is 3.45 cfs, which is approximately 1 cfs over the design flow of 2.46 cfs in the 12" diameter pipe. Even with the addition of the Spring Trails proposed flow to this section of pipe, the pipe would still be able to adequately function at its current size. Therefore, no improvements are recommended for this section of pipe by this project.

The final offsite section of pipe that needs to be addressed is the existing 54" pipe, Section ID 2241 on Central Ave. at Waterman Ave. Based on the 2002 Sewer Master plan the current flow in this pipe is 23.954 cfs, which is over the design flow for this pipe size. As seen in Table 4, with the addition of the Spring Trail wastewater, the new design flow is calculated at 25.279 cfs. This leaves 0.9 cfs of capacity before the pipe is flowing full. Even with the addition of Spring Trails, the pipe is still below the full flow capacity of the pipe, and therefore, it will still function properly without improving the sewer system in this area, so no improvement is recommended for this project at this location.

In summary, the development of the Spring Trails project will require the construction of an 8" or 10" sewer line (depending on the ultimate slope of the sewer line as determined in final engineering) offsite in Verdemont Drive easterly to N. Little League Drive. On North Little League Dr. the sewer system will drain southerly and match into the existing City of San Bernardino infrastructure sewer system. It is recommended to upgrade the sewer line in N. Little League Drive to a 10" pipe only if a 10" line is required in Verdemont Drive as constructed by the Spring Trails project. With these improvements, the proposed and existing sewer systems will have capacity to handle the Spring Trails wastewater production.

TABLE 2 -
2020 Peaked Model Analysis

ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD	Total Pipe Flow	Pipe Size Adequate
201	210	18	8	350.00	0.05	2.813	1.401	0.927	1.886	0.475	0.263	0.457	7.225	0.50	0.40	1.433	N
15	18	20	10	471.00	0.02	3.085	1.537	0.987	2.098	0.550	0.324	0.441	5.032	0.50	0.39	1.493	Y
17	20	22	10	460.00	0.04	4.143	2.064	0.987	3.156	1.077	0.277	0.441	6.230	0.50	0.33	1.493	Y
19	22	24	10	420.00	0.02	3.092	1.541	1.031	2.061	0.510	0.331	0.451	5.099	0.50	0.40	1.537	Y
23	24	28	10	38.00	0.03	3.492	1.740	1.062	2.430	0.678	0.315	0.458	5.616	0.50	0.38	1.568	Y
25	28	26	10	136.00	0.08	6.130	3.055	1.062	5.069	1.993	0.235	0.458	8.423	0.50	0.28	1.568	Y
27	26	30	10	103.00	0.02	3.061	1.525	1.062	2.000	0.464	0.339	0.458	5.103	0.50	0.41	1.568	N
29	30	32	15	407.00	0.02	7.994	7.278	1.353	6.641	5.926	0.348	0.460	4.850	0.75	0.28	1.859	Y
41	32	44	15	259.07	0.01	7.740	7.047	1.353	6.388	5.695	0.354	0.460	4.739	0.75	0.28	1.859	Y
43	44	46	15	2537.69	0.02	8.253	7.514	1.392	6.861	6.122	0.347	0.466	5.002	0.75	0.28	1.898	Y
45	46	48	15	384.00	0.02	9.070	8.258	1.507	7.563	6.751	0.345	0.486	5.474	0.75	0.28	2.013	Y
47	48	50	15	440.00	0.02	9.196	8.373	1.507	7.689	6.866	0.342	0.486	5.529	0.75	0.27	2.013	Y
49	50	52	15	668.00	0.02	8.990	8.185	1.513	7.477	6.672	0.347	0.487	5.446	0.75	0.28	2.019	Y
51	52	54	15	607.00	0.02	7.926	7.216	2.022	5.905	5.195	0.431	0.567	5.399	0.75	0.34	2.528	Y
53	54	56	15	105.00	0.01	6.477	5.897	2.027	4.450	3.870	0.480	0.567	4.667	0.75	0.38	2.533	Y
79	56	86	15	762.00	0.02	9.496	8.646	2.028	7.468	6.618	0.392	0.567	6.155	0.75	0.31	2.534	Y
81	86	88	15	1123.86	0.02	8.773	7.988	2.035	6.738	5.953	0.410	0.569	5.820	0.75	0.33	2.541	Y
83	88	90	15	65.50	0.09	19.423	17.684	2.035	17.387	15.648	0.273	0.569	10.259	0.75	0.22	2.541	Y
85	90	3658	18	155.49	0.08	30.606	27.866	2.066	28.540	25.799	0.264	0.542	9.867	0.75	0.18	2.572	Y
87	92	94	18	54.50	0.01	8.910	8.112	2.066	6.843	6.045	0.491	0.542	4.104	0.75	0.33	2.572	Y
89	94	96	18	412.00	0.01	8.367	7.618	2.074	6.292	5.543	0.509	0.543	3.927	0.75	0.34	2.580	Y
91	96	98	18	493.00	0.02	15.356	13.981	2.074	13.282	11.907	0.372	0.543	6.064	0.75	0.25	2.580	Y
93	98	100	18	904.04	0.02	15.697	14.291	2.121	13.576	12.170	0.372	0.550	6.199	0.75	0.25	2.627	Y
95	100	102	18	38.26	0.03	16.943	15.426	2.763	14.180	12.664	0.410	0.631	7.063	0.75	0.27	3.269	Y
261	102	274	18	419.00	0.02	15.453	14.070	2.765	12.688	11.304	0.430	0.631	6.615	0.75	0.29	3.271	Y
263	274	276	18	400.00	0.02	14.923	13.587	2.812	12.111	10.775	0.441	0.637	6.483	0.75	0.29	3.318	Y
265	276	278	18	600.00	0.02	15.728	14.320	2.822	12.906	11.498	0.430	0.638	6.738	0.75	0.29	3.328	Y
267	278	280	18	596.00	0.02	14.700	13.384	2.862	11.838	10.522	0.449	0.643	6.446	0.75	0.30	3.368	Y
269	280	282	21	1200.00	0.01	11.755	10.703	2.874	8.881	7.829	0.589	0.615	4.038	0.75	0.34	3.380	Y
271	282	284	21	230.86	0.01	13.226	12.042	2.874	10.352	9.168	0.554	0.615	4.395	0.75	0.32	3.380	Y
273	284	286	21	49.00	0.15	60.561	55.139	2.874	57.686	52.264	0.259	0.615	12.919	0.75	0.15	3.380	Y
275	286	288	24	192.00	0.00	10.091	9.188	2.888	7.203	6.300	0.732	0.593	2.772	0.75	0.37	3.394	Y
277	288	290	24	290.00	0.00	13.778	12.545	2.888	10.890	9.656	0.622	0.593	3.470	0.75	0.31	3.394	Y
279	290	292	24	122.00	0.00	11.059	10.069	2.889	8.170	7.180	0.698	0.593	2.962	0.75	0.35	3.395	Y
281	292	294	24	271.00	0.00	9.645	8.782	2.890	6.755	5.892	0.751	0.593	2.683	0.75	0.38	3.396	Y
283	294	296	24	480.35	0.01	25.540	23.254	2.891	22.649	20.362	0.454	0.593	5.390	0.75	0.23	3.397	Y
285	296	298	24	15.50	0.01	26.402	24.038	2.891	23.511	21.147	0.447	0.593	5.518	0.75	0.22	3.397	Y
287	298	300	18	370.00	0.02	14.466	13.171	2.899	11.567	10.272	0.455	0.647	6.395	0.75	0.30	3.405	Y
291	300	302	18	353.00	0.02	15.565	14.172	2.899	12.666	11.273	0.439	0.647	6.740	0.75	0.29	3.405	Y
293	302	304	18	273.00	0.02	15.431	14.049	2.905	12.525	11.144	0.441	0.648	6.702	0.75	0.29	3.411	Y
295	304	306	18	250.00	0.02	14.715	13.398	2.906	11.809	10.492	0.452	0.648	6.478	0.75	0.30	3.412	Y
297	306	308	18	526.97	0.03	16.549	15.067	2.906	13.642	12.161	0.425	0.648	7.047	0.75	0.28	3.412	Y
299	308	310	18	211.00	0.01	11.736	10.686	2.927	8.809	7.759	0.511	0.650	5.517	0.75	0.34	3.433	Y
301	310	312	18	440.00	0.02	13.492	12.284	2.927	10.565	9.357	0.475	0.650	6.099	0.75	0.32	3.433	Y
303	312	314	18	180.00	0.02	13.665	12.441	2.935	10.730	9.506	0.472	0.651	6.160	0.75	0.32	3.441	Y
305	314	316	18	401.14	0.02	13.793	12.558	2.944	10.849	9.614	0.471	0.652	6.207	0.75	0.31	3.450	Y
487	316	502	18	420.36	0.02	13.688	12.462	3.066	10.622	9.396	0.483	0.666	6.244	0.75	0.32	3.572	Y
489	502	504	18	400.00	0.02	13.903	12.658	3.079	10.824	9.580	0.480	0.667	6.322	0.75	0.32	3.585	Y
491	504	506	18	400.00	0.02	15.052	13.705	3.085	11.968	10.620	0.461	0.668	6.696	0.75	0.31	3.591	Y
493	506	508	27	250.00	0.00	15.213	13.851	3.116	12.097	10.735	0.691	0.596	3.008	0.75	0.31	3.622	Y
495	508	510	30	354.00	0.00	21.305	19.398	3.118	18.187	16.279	0.646	0.579	3.100	0.75	0.26	3.624	Y
497	510	512	27	175.25	0.00	18.170	16.543	3.118	15.051	13.425	0.631	0.596	3.416	0.75	0.28	3.624	Y
499	512	514	27	313.71	0.00	15.082	13.732	3.194	11.888	10.538	0.703	0.603	3.010	0.75	0.31	3.700	Y
511	514	526	27	139.00	0.00	16.449	14.976	3.196	13.253	11.780	0.672	0.604	3.204	0.75	0.30	3.702	Y
513	526	528	27	111.09	0.00	16.404	14.935	3.196	13.208	11.739	0.673	0.604	3.197	0.75	0.30	3.702	Y
515	528	530	27	184.00	0.00	16.666	15.174	3.197	13.469	11.977	0.668	0.604	3.234	0.75	0.30	3.703	Y
517	530	532	27	590.05	0.00	17.294	15.745	3.197	14.096	12.548	0.655	0.604	3.321	0.75	0.29	3.703	Y
519	532	534	27	245.48	0.00	14.015	12.760	3.237	10.777	9.523	0.736	0.608	2.866	0.75	0.33	3.743	Y
521	534	536	27	240.00	0.01	32.937	29.988	3.239	29.698	26.749	0.477	0.608	5.271	0.75	0.21	3.745	Y

TABLE 2 -
2020 Peaked Model Analysis

ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD	Total Pipe Flow	Pipe Size Adequate
523	536	538	27	40.00	0.06	75.268	68.529	3.244	72.024	65.285	0.318	0.608	9.438	0.75	0.14	3.750	Y
525	538	540	27	347.00	0.00	19.080	17.372	3.248	15.832	14.124	0.628	0.609	3.579	0.75	0.28	3.754	Y
553	540	566	27	260.54	0.01	31.729	28.888	3.254	28.474	25.634	0.487	0.609	5.141	0.75	0.22	3.760	Y
551	566	548	27	329.12	0.01	29.499	26.858	3.255	26.244	23.603	0.505	0.609	4.882	0.75	0.22	3.761	Y
535	548	550	27	369.89	0.01	31.681	28.845	3.255	28.427	25.590	0.487	0.609	5.135	0.75	0.22	3.761	Y
537	550	552	27	56.78	0.05	71.616	65.204	3.255	68.361	61.950	0.327	0.609	9.123	0.75	0.15	3.761	Y
539	552	554	27	359.34	0.02	39.892	36.320	3.269	36.623	33.052	0.435	0.611	6.051	0.75	0.19	3.775	Y
541	554	556	21	517.12	0.01	18.178	16.551	3.295	14.883	13.255	0.505	0.660	5.738	0.75	0.29	3.801	Y
543	556	558	21	400.00	0.02	19.555	17.804	3.397	16.158	14.408	0.494	0.671	6.098	0.75	0.28	3.903	Y
545	558	560	21	187.00	0.01	15.630	14.231	3.399	12.232	10.832	0.554	0.671	5.195	0.75	0.32	3.905	Y
547	560	562	21	185.00	0.01	16.016	14.582	3.424	12.591	11.157	0.549	0.673	5.298	0.75	0.31	3.930	Y
571	562	584	12	346.97	0.02	4.931	2.457	3.451	1.480	-0.994	0.616	0.794	6.792	0.50	0.62	3.957	N
573	584	588	27	130.00	0.03	55.349	50.393	3.529	51.819	46.864	0.385	0.635	7.797	0.75	0.17	4.035	Y
575	588	590	27	240.00	0.01	28.134	25.615	3.529	24.605	22.086	0.538	0.635	4.833	0.75	0.24	4.035	Y
577	590	592	24	595.00	0.02	27.601	25.130	3.530	24.071	21.600	0.483	0.657	6.035	0.75	0.24	4.036	Y
579	592	594	24	1297.76	0.01	25.272	23.010	4.706	20.567	18.304	0.585	0.763	6.155	0.75	0.29	5.212	Y
581	594	596	24	400.00	0.02	27.595	25.124	4.716	22.879	20.409	0.559	0.764	6.558	0.75	0.28	5.222	Y
587	600	602	27	56.19	0.02	41.425	37.717	4.751	36.674	32.966	0.515	0.741	6.934	0.75	0.23	5.257	Y
589	596	604	24	481.02	0.01	25.606	23.314	4.727	20.879	18.587	0.582	0.765	6.221	0.75	0.29	5.233	Y
591	604	600	27	378.00	0.02	44.061	40.116	4.751	39.310	35.365	0.499	0.741	7.243	0.75	0.22	5.257	Y
657	602	668	27	330.00	0.17	127.360	115.957	5.010	122.350	110.948	0.305	0.761	15.540	0.75	0.14	5.516	Y
659	668	670	30	249.00	0.01	30.283	27.571	5.019	25.264	22.553	0.688	0.739	4.566	0.75	0.28	5.525	Y
661	670	672	30	28.00	0.01	41.855	38.108	5.019	36.835	33.088	0.585	0.739	5.749	0.75	0.23	5.525	Y
663	672	674	30	400.00	0.01	30.982	28.208	5.019	25.962	23.189	0.681	0.739	4.641	0.75	0.27	5.525	Y
665	674	676	30	400.00	0.01	35.438	32.266	5.336	30.103	26.930	0.656	0.763	5.198	0.75	0.26	5.842	Y
707	698	720	30	1323.85	0.01	29.410	26.777	5.532	23.878	21.245	0.735	0.777	4.597	0.75	0.29	6.038	Y
709	720	722	30	92.00	0.02	50.370	45.860	5.790	44.580	40.070	0.572	0.795	6.833	0.75	0.23	6.296	Y
787	722	796	30	527.73	0.01	29.796	27.129	5.790	24.006	21.338	0.747	0.796	4.701	0.75	0.30	6.296	Y
789	796	798	27	330.00	0.01	30.435	27.710	5.802	24.633	21.908	0.666	0.821	5.896	0.75	0.30	6.308	Y
795	798	802	27	879.18	0.01	29.510	26.868	5.811	23.700	21.057	0.677	0.822	5.769	0.75	0.30	6.317	Y
797	802	804	27	321.00	0.01	33.294	30.313	6.084	27.210	24.229	0.651	0.842	6.372	0.75	0.29	6.590	Y
799	804	806	27	27.00	0.26	157.888	143.753	6.087	151.801	137.665	0.302	0.842	19.150	0.75	0.13	6.593	Y
801	806	808	33	490.00	0.00	32.407	29.505	6.088	26.318	23.417	0.808	0.794	4.185	0.75	0.29	6.594	Y
803	808	810	33	646.86	0.00	28.282	25.750	6.577	21.705	19.173	0.902	0.826	3.879	0.75	0.33	7.083	Y
805	810	812	33	425.00	0.00	13.852	12.612	6.582	7.270	6.030	1.335	0.827	2.302	0.75	0.49	7.088	Y
897	812	902	27	1251.61	0.01	32.023	29.156	6.583	25.440	22.573	0.692	0.877	6.337	0.75	0.31	7.089	Y
899	902	904	27	150.00	0.06	77.030	70.133	6.589	70.441	63.544	0.445	0.878	11.834	0.75	0.20	7.095	Y
901	904	906	27	799.47	0.00	15.915	14.490	6.590	9.326	7.901	1.009	0.878	3.814	0.75	0.45	7.096	Y
903	906	908	27	400.00	0.01	34.017	30.971	6.590	27.427	24.382	0.671	0.878	6.620	0.75	0.30	7.096	Y
905	908	910	27	400.00	0.02	38.285	34.857	6.590	31.695	28.268	0.632	0.878	7.204	0.75	0.28	7.096	Y
907	910	912	27	400.00	0.03	49.975	45.501	6.590	43.386	38.911	0.552	0.878	8.710	0.75	0.25	7.096	Y
909	912	914	27	832.00	0.00	17.558	15.986	7.220	10.338	8.766	1.005	0.920	4.200	0.75	0.45	7.726	Y
911	914	916	27	400.00	0.01	35.677	32.483	7.220	28.457	25.263	0.687	0.920	7.029	0.75	0.31	7.726	Y
913	916	918	27	660.00	0.01	31.147	28.358	7.220	23.927	21.138	0.737	0.920	6.376	0.75	0.33	7.726	Y
915	918	920	27	112.00	0.02	42.216	38.437	7.220	34.996	31.216	0.630	0.920	7.929	0.75	0.28	7.726	Y
933	920	940	27	473.00	0.02	44.354	40.383	7.220	37.134	33.163	0.614	0.920	8.214	0.75	0.27	7.726	Y
935	940	942	27	100.00	0.02	43.696	39.783	7.220	36.475	32.563	0.619	0.920	8.127	0.75	0.28	7.726	Y
1027	942	1034	27	352.06	0.07	83.917	76.403	7.944	75.973	68.460	0.468	0.967	13.281	0.75	0.21	8.450	Y
1029	1034	1036	27	650.00	0.00	13.343	12.148	7.944	5.399	4.204	1.250	0.967	3.501	0.75	0.56	8.450	Y
1031	1036	1038	27	1343.58	0.00	14.074	12.814	7.944	6.131	4.871	1.210	0.967	3.647	0.75	0.54	8.450	Y
1033	1038	1040	27	800.00	0.01	35.963	32.743	7.944	28.020	24.800	0.719	0.967	7.263	0.75	0.32	8.450	Y
1751	1040	1740	27	400.00	0.02	40.249	36.646	7.944	32.306	28.702	0.678	0.967	7.874	0.75	0.30	8.450	Y
1753	1740	1742	27	150.00	0.02	39.279	35.763	7.944	31.336	27.819	0.686	0.967	7.737	0.75	0.31	8.450	Y
1755	1742	1744	27	318.00	0.01	32.251	29.363	7.944	24.307	21.419	0.761	0.967	6.714	0.75	0.34	8.450	Y
1757	1744	1746	27	1500.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31	8.450	Y
1759	1746	1748	27	375.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31	8.450	Y
1761	1748	1750	27	375.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31	8.450	Y
1763	1750	1752	27	56.00	0.02	38.258	34.833	8.089	30.169	26.744	0.702	0.977	7.631	0.75	0.31	8.595	Y
1765	1752	1754	27	348.00	0.02	38.322	34.891	8.089	30.234	26.803	0.702	0.977	7.641	0.75	0.31	8.595	Y

**TABLE 2 -
2020 Peaked Model Analysis**

ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD	Total Pipe Flow	Pipe Size Adequate
1767	1754	1756	27	800.00	0.02	38.285	34.857	8.089	30.196	26.768	0.702	0.977	7.635	0.75	0.31	8.595	Y
1769	1756	1758	27	400.00	0.02	38.285	34.857	8.089	30.196	26.768	0.702	0.977	7.635	0.75	0.31	8.595	Y
1771	1758	1760	27	358.00	0.02	37.997	34.595	8.093	29.904	26.502	0.705	0.977	7.595	0.75	0.31	8.599	Y
1773	1760	1762	27	1406.00	0.02	38.516	35.068	8.096	30.420	26.972	0.700	0.977	7.670	0.75	0.31	8.602	Y
1775	1762	1764	30	1285.17	0.01	34.664	31.561	8.115	26.549	23.446	0.823	0.948	5.763	0.75	0.33	8.621	Y
1777	1764	1766	30	1403.62	0.01	44.238	40.277	8.115	36.123	32.162	0.725	0.948	6.866	0.75	0.29	8.621	Y
2191	1766	2150	30	316.00	0.01	32.882	29.938	8.986	23.896	20.952	0.893	0.999	5.707	0.75	0.36	9.492	Y
2193	2150	2152	30	325.00	0.01	34.823	31.705	8.986	25.837	22.719	0.866	0.999	5.949	0.75	0.35	9.492	Y
2209	2152	2156	30	815.00	0.00	17.106	15.575	8.986	8.121	6.589	1.287	0.999	3.528	0.75	0.52	9.492	Y
2201	2158	2160	36	545.00	0.00	42.297	38.510	9.109	33.188	29.401	0.945	0.953	4.771	0.75	0.32	9.615	Y
2203	2160	2162	36	488.00	0.01	47.289	43.056	9.217	38.072	33.838	0.898	0.959	5.185	0.75	0.30	9.723	Y
2205	2162	1556	36	641.00	0.01	80.381	73.185	9.320	71.062	63.865	0.690	0.965	7.592	0.75	0.23	9.826	Y
2211	1556	2166	39	1329.64	0.01	59.812	54.457	22.500	37.312	31.957	1.381	1.489	6.699	0.75	0.43	23.006	Y
2213	2166	2168	39	36.27	0.02	128.226	116.746	22.500	105.726	94.246	0.921	1.489	11.628	0.75	0.28	23.006	Y
2215	2168	2170	48	663.00	0.00	64.509	58.734	22.500	42.009	36.234	1.630	1.399	4.674	0.75	0.41	23.006	Y
2217	2170	2172	48	596.00	0.00	31.771	28.926	22.786	8.985	6.140	2.506	1.408	2.750	0.75	0.63	23.292	Y
2219	2172	2174	48	600.00	0.01	119.206	108.533	22.920	96.286	85.613	1.189	1.412	7.324	0.75	0.30	23.426	Y
2221	2174	2176	48	258.00	0.00	64.037	58.303	23.020	41.016	35.283	1.658	1.415	4.678	0.75	0.41	23.526	Y
2223	2176	2178	48	867.79	0.00	64.122	58.381	23.020	41.102	35.361	1.657	1.415	4.682	0.75	0.41	23.526	Y
2225	2178	2180	48	1239.04	0.00	69.198	63.003	23.020	46.178	39.983	1.589	1.415	4.951	0.75	0.40	23.526	Y
2227	2180	2182	48	308.78	0.00	73.768	67.164	23.034	50.734	44.130	1.535	1.416	5.188	0.75	0.38	23.540	Y
2229	2182	2184	48	191.00	0.03	244.631	222.729	23.034	221.597	199.695	0.829	1.416	12.231	0.75	0.21	23.540	Y
2231	2184	2186	54	502.27	0.00	69.277	63.074	23.034	46.242	40.040	1.787	1.368	3.915	0.75	0.40	23.540	Y
2233	2186	2188	54	441.00	0.00	68.357	62.236	23.970	44.387	38.267	1.840	1.396	3.919	0.75	0.41	24.476	Y
2235	2188	2190	54	1020.15	0.00	64.748	58.951	23.982	40.766	34.969	1.896	1.397	3.767	0.75	0.42	24.488	Y
2237	2190	2192	54	310.74	0.00	65.224	59.384	24.043	41.180	35.341	1.891	1.398	3.790	0.75	0.42	24.549	Y
2239	2192	2194	54	600.00	0.00	68.305	62.189	24.096	44.209	38.093	1.846	1.400	3.923	0.75	0.41	24.602	Y
2241	2194	2442	54	567.30	0.00	26.179	23.835	24.773	1.406	-0.938	3.488	1.420	1.873	0.75	0.78	25.279	N
2507	2442	2196	54	62.54	0.01	188.246	171.392	24.830	163.417	146.563	1.104	1.422	8.203	0.75	0.25	25.336	Y
2263	2196	2202	54	1820.72	0.00	69.161	62.969	24.830	44.332	38.139	1.864	1.422	3.990	0.75	0.41	25.336	Y
2261	2202	2206	54	518.19	0.00	68.205	62.098	24.862	43.343	37.237	1.879	1.423	3.951	0.75	0.42	25.368	Y
2253	2206	2208	54	469.00	0.00	68.135	62.035	25.146	42.989	36.889	1.892	1.431	3.960	0.75	0.42	25.652	Y
2255	2208	2210	54	466.87	0.00	107.976	98.309	25.203	82.773	73.106	1.479	1.433	5.536	0.75	0.33	25.709	Y
2257	2210	2212	54	692.78	0.00	53.499	48.709	32.160	21.339	16.549	2.515	1.626	3.518	0.75	0.56	32.666	Y
2259	2212	3524	54	515.15	0.00	70.041	63.770	32.160	37.881	31.610	2.141	1.626	4.310	0.75	0.48	32.666	Y

ID = Model pipe identification number used on Figure 3-5 of the San Bernardino Sewer Master Plan - 2002 Existing Wastewater System Model. Please see Appendix C for copy of this exhibit.

Full Flow = Calculated flow rate if the pipe is flowing full.

DES FLOW = Design Flow

PIPE FLOW = Model pipe flow rate

FULL EXCS = Full excess = allowable flow rate before pipe will flow full

DES EXCS = Design excess = allowable flow rate before pipe is flowing at its design flow rate

DEPTH = Average flow depth in pipe section

CRIT DEPH = Critical Depth = flow depth in pipe section that requires the minimum amount of energy to flow.

VELOCITY = feet per second

DES_DD = Design D/d ratio = Maximum ratio of the depth of flow (d) to pipe diameter (D)

ACT_DD = Actual d/D Ratio = Actual ratio of the depth of flow (d) to pipe diameter (D)

Total Pipe Flow = Pipe Flow + 0.5063 cfs; 0.5063 cfs is the additional flow from the proposed Spring Trails project

APPENDIX A
SUPPORTING CALCULATIONS

ONSITE FLOWS AND PIPE SIZING:

$$Q_{\text{Average}} = 0.000282 \text{ cfs/acre}$$

$$\text{Project size} = 352.8 \text{ Acres}$$

$$\text{Manning's coefficient} = n = 0.013$$

$$\text{Min. Pipe Slope} = 5.0\%$$

$$Q_{\text{Design}} = 3.6 * (Q_{\text{Average}})^{0.85}$$

$$Q_{\text{Design}} = 3.6 (0.000282 \text{ cfs/Acre})^{0.85}$$

$$Q_{\text{Design}} = \mathbf{0.5064 \text{ cfs}}$$

Design Flow for 8" Pipe (Flowing half full):

$$Q = (1.49/n) * A * R^{0.666} * S^{0.5}$$

$$A = \text{Area} = (3.14 * r^2) / 2 = 0.1744 \text{ (For 8" pipe flowing half full)}$$

$$R = \text{Hydraulic Radius} = 0.16667 \text{ (For 8" pipe flowing half full)}$$

$$S = \text{Slope} = 0.05$$

$$Q = (1.49 / 0.013) * 0.1744 * (0.16667)^{0.666} * (0.05)^{0.5}$$

$$Q = \mathbf{1.354 \text{ cfs}}$$

1.3554 cfs > 0.5064 cfs : Therefore 8" pipe is adequate for the onsite sewer

Verdemont Drive Pipe Sizing:

$$Q_{\text{Design}} = 0.5064 \text{ cfs}$$

$$\text{Manning's coefficient} = n = 0.013$$

$$\text{Min. Pipe Slope} = 0.40\%$$

Design Flow for 8" Pipe (Flowing half full):

$$Q = (1.49/n) * A * R^{0.666} * S^{0.5}$$

$$A = \text{Area} = (3.14 * r^2) / 2 = 0.1744 \text{ (For 8" pipe flowing half full)}$$

$$R = \text{Hydraulic Radius} = 0.16667 \text{ (For 8" pipe flowing half full)}$$

$$S = \text{Slope} = 0.004$$

$$Q = (1.49 / 0.013) * 0.1744 * (0.16667)^{0.666} * (0.004)^{0.5}$$

$$Q = \mathbf{0.3829 \text{ cfs}}$$

0.3829 cfs < 0.5064 cfs : Therefore 8" pipe is NOT adequate for the proposed offsite sewer at minimum slope.

$$Q = (1.49/n) * A * R^{0.666} * S^{0.5}$$

$$A = \text{Area} = (3.14 * r^2) / 2 = 0.1744 \text{ (For 8" pipe flowing half full)}$$

$$R = \text{Hydraulic Radius} = 0.16667 \text{ (For 8" pipe flowing half full)}$$

$$S = \text{Slope} = \text{unkown}$$

$$Q = 0.5064 \text{ cfs}$$

$$Q = 0.5064 = (1.49/.013)*0.1744*(0.16667)^{0.666}*(S)^{0.5}$$

$$0.5064 = 6.061*(S)^{0.5}$$

$$S=(0.08355)^2$$

$$S=0.00698 = 0.698\%$$

Design Flow for 10" Pipe (Flowing half full):

$$Q = (1.49/n)*A*R^{0.666}*S^{0.5}$$

$$A = \text{Area} = (3.14*r^2)/2 = 0.2727 \text{ (For 10" pipe flowing half full)}$$

$$R = \text{Hydraulic Radius} = 0.2083 \text{ (For 10" pipe flowing half full)}$$

$$S = \text{Slope} = 0.004$$

$$Q = (1.49/.013)*0.2727*(0.2083)^{0.666}*(0.004)^{0.5}$$

$$Q = \mathbf{0.6946 \text{ cfs}}$$

0.6946 cfs > 0.5064 cfs : Therefore 10" pipe is adequate for the proposed offsite sewer

NEW PIPE SIZE FOR SECTION ID 571:

Design Flow for 14" Pipe (Flowing half full):

$$Q = (1.49/n)*A*R^{0.666}*S^{0.5}$$

$$A = \text{Area} = (3.14*r^2)/2 = 0.5345 \text{ (For 14" pipe flowing half full)}$$

$$R = \text{Hydraulic Radius} = 0.2917 \text{ (For 14" pipe flowing half full)}$$

$$S = \text{Slope} = 0.02$$

$$Q = (1.49/.013)*0.5345*(0.2917)^{0.666}*(0.02)^{0.5}$$

$$Q = \mathbf{3.8106 \text{ cfs}}$$

3.8106 cfs > 3.957 cfs : Therefore 14" pipe is NOT adequate for the proposed offsite sewer

Design Flow for 15" Pipe (Flowing 3/4 full):

$$Q = (1.49/n)*A*R^{0.666}*S^{0.5}$$

$$A = \text{Area} = (3.14*r^2)/2 = 0.9872 \text{ (For 15" pipe flowing 3/4 full)}$$

$$R = \text{Hydraulic Radius} = 0.3771 \text{ (For 15" pipe flowing 3/4 full)}$$

$$S = \text{Slope} = 0.02$$

$$Q = (1.49/.013)*0.9872*(0.3771)^{0.666}*(0.02)^{0.5}$$

$$Q = \mathbf{8.352 \text{ cfs}}$$

8.352 cfs > 3.957 cfs : Therefore 15" pipe is adequate for the proposed offsite sewer

CONVERSION OF 54" SEWER CAPACITY FROM CFS TO MGD:

Future Flow = 32.160 cfs

= 32.160 cfs x 7.48052 gal. / cu. ft. x 60 sec./min. x 60 min./hr. x 24 hr./day
= 20,785,552 GPD => **20.8 MGD**

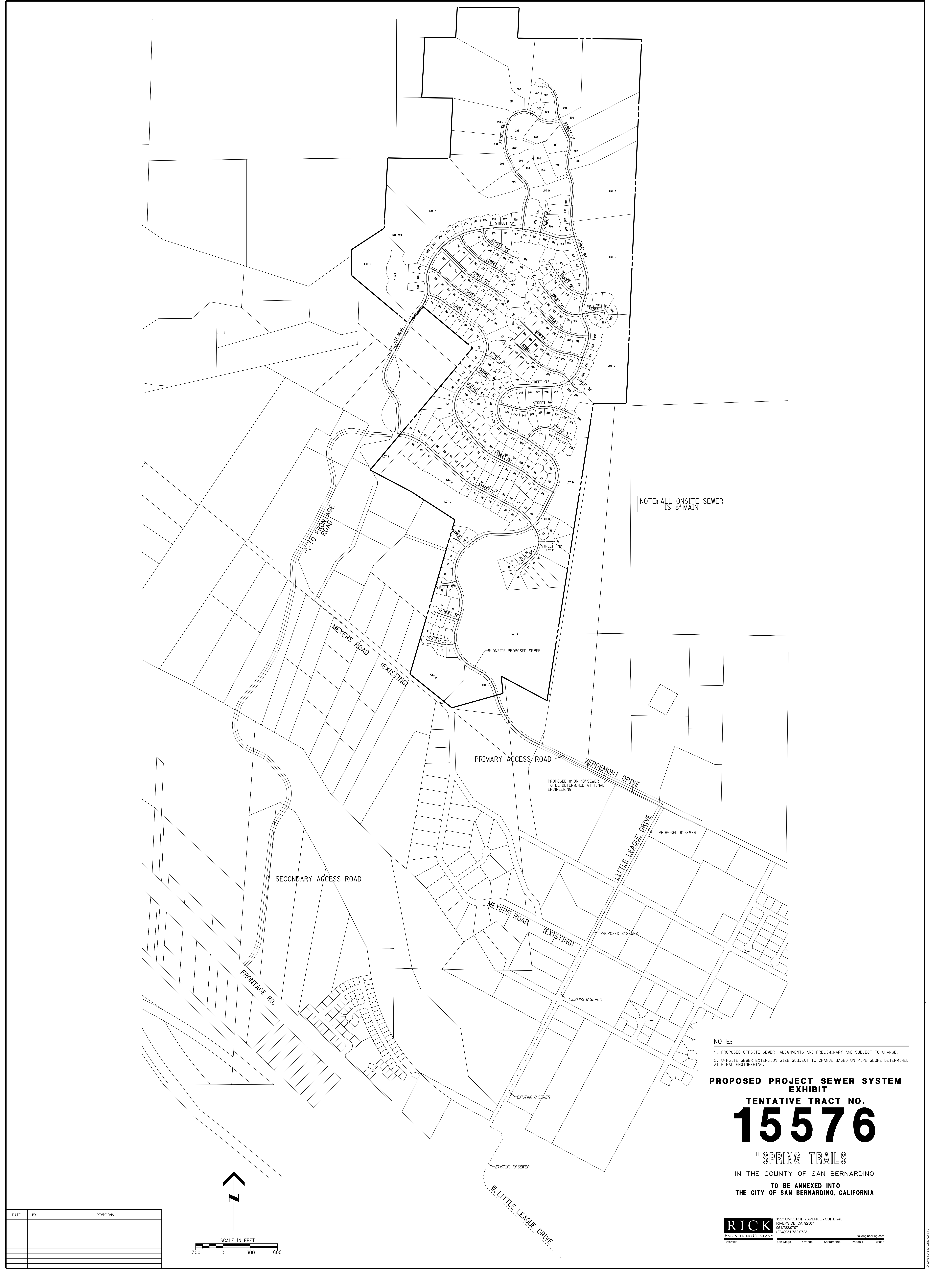
Future Flow + Spring Trails flow = 32.160 + 0.506 = 32.666 cfs

= 32.666 cfs x 7.48052 gal. / cu. ft. x 60 sec./min. x 60 min./hr. x 24 hr./day
= 21,112,589 GPD => **21.1 MGD**

INCREASE IN FLOW:

$[(21.1 \text{ MGD} - 20.8 \text{ MGD}) / 20.8 \text{ MGD}] * 100\% = 1.44\% \text{ Increase in Flow}$

Appendix B
Proposed Project Sewer System



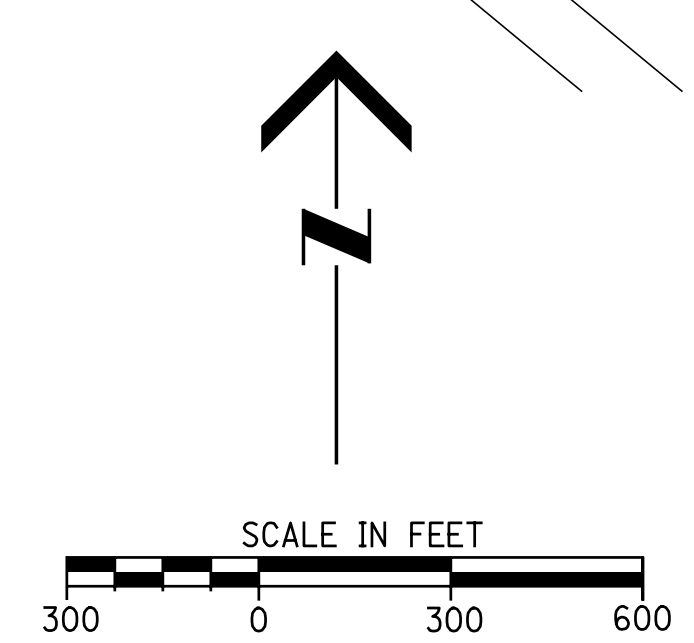
NOTE: ALL ONSITE SEWER IS 8" MAIN

PROPOSED 8" OR 10" SEWER TO BE DETERMINED AT FINAL ENGINEERING

- NOTE:
1. PROPOSED OFFSITE SEWER ALIGNMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE.
 2. OFFSITE SEWER EXTENSION SIZE SUBJECT TO CHANGE BASED ON PIPE SLOPE DETERMINED AT FINAL ENGINEERING.

PROPOSED PROJECT SEWER SYSTEM EXHIBIT
TENTATIVE TRACT NO. 15576
 "SPRING TRAILS"
 IN THE COUNTY OF SAN BERNARDINO
 TO BE ANNEXED INTO
 THE CITY OF SAN BERNARDINO, CALIFORNIA

DATE	BY	REVISIONS



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 Riverside San Diego Orange Sacramento Phoenix Tucson

APPENDIX C
REFERENCE DOCUMENTS

- Table A from the City of San Bernardino Department of Public Works Sewer Policy & Procedures, Issued 1/5/87
- Appendix B and D of the 2020 City of San Bernardino Wastewater Collection System Master Plan Report, Prepared by Psomas
- Figure 3-5 – Existing Wastewater System Model from the 2002 Wastewater Collection System Master Plan Report

TABLE A				
AVERAGE FLOWS — DU = DWELLING UNIT				
Land Use Designation	Description	DU/Acre	Persons/Ac	CFS/AC
R-1	Residential	1	2.6	.000282
R-2	Residential	2	5.2	.000563
R-3	Residential	3	7.8	.000845
R-4	Residential	4	10.4	.001130
R-6	Residential	6	15.6	.001690
R-8	Residential	8	20.8	.002250
R-11	Residential	11	28.6	.003100
R-14	Residential	14	36.4	.003940
R-15	Residential	15	39.0	.004220
R-20	Residential	20	52.0	.005630
R-30	Residential	30	78.0	.008450
E	Elementary School			.002000
J	Junior High School			.002000
S	Senior High School			.002000
JC	Junior College			.002500
SC	Colleges and Universities			.002500
(E)	Proposed Elementary School			.002000
(J)	Proposed Junior High School			.002000
(S)	Proposed Senior High School			.002000
C	Commercial			.003000

***Appendix B
Existing Peaked Model Analysis***

TABLE LEGEND FOR APPENDIX B & D: MODEL ANALYSIS

The model analysis spreadsheets show the values required to analyze the wastewater collection system during the specified loading scenario.

ID = Model pipe identification number.

FROM ID = Upstream model MH number.

TO ID = Downstream model MH number.

DIA. = Pipe diameter, inches.

LENGTH = Pipe length, feet.

FULL FLOW = Calculated flow rate if the pipe was flowing full (d/D=100%), cubic feet per second.

DES FLOW = Design Flow = Calculated flow rate if the pipe was flowing at its design d/D ratio, cubic feet per second.

PIPE FLOW = Model pipe flow rate, cubic feet per second.

FULL EXCS = Full Excess = Allowable flow rate before pipe will flow full, cubic feet per second.

DES EXCS = Design Excess = Allowable flow rate before pipe will flow at its design d/D ratio, cubic feet per second.

DEPTH = Average depth of flow in the pipe, feet.

CRIT DEPTH = Critical Depth = Depth of flow in the pipe at which requires the minimum amount of energy to flow, feet.

VELOCITY = Speed of flow through the pipe, feet per second.

DES_DD = Design d/D Ratio = Maximum ratio of the depth of flow (d) to pipe diameter (D), inches over inches.

ACT_DD = Actual d/D Ratio = Actual ratio of the depth of flow (d) to pipe diameter (D), inches over inches.

d/D Ratio Criteria:

Pipes < 15" in diameter = d/D Ratio \leq 0.50 (50%)

Pipes \geq 15" in diameter = d/D Ratio \leq 0.75 (75%)

Velocity Criteria:

Minimum Design Velocity = 2 fps

Maximum Design Velocity = 10 fps

Flow velocities lower than the City's Design Standard of 2 fps are considered an ancillary deficiency regarding existing pipelines thus are not considered to be deficient. Areas showing velocities of 0.0 fps are the first pipes (end of a branch) of a piping system. Because of the loading method used in modeling, typically the initial pipe of system contains no flow. Usually these pipes are removed from the skeletonized piping system, but for completeness they are to remain.

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Velocities exceeding the City's Design Standards may or may not be acceptable. The majority of pipes shown in **Appendix B** that contain velocities exceeding 10 fps are either drop-structures or siphons. The remaining pipe sections were constructed with steep slopes. To remedy this situation sections of the pipelines will have to be redesigned, removed, and reconstructed. This is not recommended and thus the reason for not being included in the C.I.P. as deficiencies.

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
1001	1008	1010	8	1251.97	0.01	1.285	0.640	0.463	0.822	0.178	0.277	0.318	3.382	0.50	0.42
1003	1010	1012	8	343.00	0.02	1.464	0.730	0.505	0.959	0.224	0.270	0.333	3.809	0.50	0.41
1005	1012	1014	8	314.00	0.01	0.865	0.431	0.513	0.352	-0.082	0.369	0.335	2.583	0.50	0.55
1007	1014	1016	8	649.04	0.01	0.851	0.424	0.586	0.265	-0.162	0.406	0.360	2.628	0.50	0.61
1009	1016	930	8	320.00	0.02	1.468	0.732	0.664	0.804	0.068	0.314	0.384	4.101	0.50	0.47
101	108	110	8	578.81	0.07	3.161	1.575	0.187	2.974	1.389	0.110	0.198	4.958	0.50	0.17
1011	1018	1020	8	1178.47	0.01	1.215	0.605	0.097	1.118	0.508	0.128	0.142	2.085	0.50	0.19
1013	1020	1022	8	681.20	0.02	1.554	0.774	0.114	1.439	0.660	0.122	0.154	2.600	0.50	0.18
1015	1022	1024	8	625.00	0.01	1.384	0.689	0.124	1.259	0.565	0.135	0.161	2.456	0.50	0.20
1017	1024	1026	8	667.00	0.01	1.191	0.594	0.133	1.058	0.461	0.150	0.167	2.254	0.50	0.23
1019	1026	1028	8	1287.46	0.01	1.261	0.628	0.142	1.119	0.486	0.151	0.172	2.393	0.50	0.23
1021	1028	1030	8	44.94	0.02	1.734	0.864	0.220	1.514	0.644	0.160	0.216	3.404	0.50	0.24
1023	1030	1032	8	648.66	0.00	0.763	0.380	0.220	0.543	0.160	0.245	0.216	1.890	0.50	0.37
1025	1032	942	8	64.65	0.04	2.434	1.213	0.248	2.187	0.966	0.144	0.230	4.481	0.50	0.22
1027	942	1034	27	352.06	0.07	83.917	76.403	7.944	75.973	68.460	0.468	0.967	13.281	0.75	0.21
1029	1034	1036	27	650.00	0.00	13.343	12.148	7.944	5.399	4.204	1.250	0.967	3.501	0.75	0.56
103	110	112	8	265.00	0.06	2.996	1.493	0.219	2.776	1.273	0.122	0.216	5.007	0.50	0.18
1031	1036	1038	27	1343.58	0.00	14.074	12.814	7.944	6.131	4.871	1.210	0.967	3.647	0.75	0.54
1033	1038	1040	27	800.00	0.01	35.963	32.743	7.944	28.020	24.800	0.719	0.967	7.263	0.75	0.32
1035	1042	1044	8	1385.62	0.01	0.931	0.464	0.013	0.918	0.451	0.055	0.051	0.950	0.50	0.08
1037	1044	1046	8	1978.35	0.01	1.318	0.657	0.050	1.268	0.607	0.089	0.101	1.815	0.50	0.13
1039	1046	1048	8	644.00	0.01	0.948	0.472	0.073	0.875	0.400	0.125	0.122	1.605	0.50	0.19
1041	1048	1052	8	35.00	0.03	1.932	0.963	0.079	1.853	0.883	0.092	0.128	2.719	0.50	0.14
1043	1052	1050	8	569.00	0.01	1.339	0.667	0.104	1.235	0.563	0.126	0.147	2.277	0.50	0.19
1045	1054	1056	8	140.00	0.08	3.469	1.729	0.006	3.464	1.723	0.021	0.034	1.861	0.50	0.03
1047	1056	1058	8	1668.44	0.00	0.711	0.354	0.010	0.700	0.344	0.056	0.046	0.733	0.50	0.08
1049	1058	1060	8	212.00	0.01	0.941	0.469	0.120	0.822	0.349	0.161	0.158	1.850	0.50	0.24
105	112	114	8	281.31	0.05	2.588	1.290	0.255	2.333	1.035	0.141	0.233	4.721	0.50	0.21
1051	1060	1062	8	601.00	0.01	1.308	0.652	0.140	1.168	0.512	0.147	0.171	2.442	0.50	0.22
1053	1062	1064	8	1284.95	0.01	1.063	0.530	0.151	0.913	0.379	0.170	0.178	2.155	0.50	0.25
1055	1064	1066	8	1369.62	0.01	1.076	0.536	0.208	0.867	0.328	0.199	0.210	2.385	0.50	0.30
1057	1066	1068	8	176.00	0.00	0.540	0.269	0.382	0.158	-0.113	0.414	0.288	1.678	0.50	0.62
1059	1068	1070	8	162.00	0.00	0.521	0.260	0.382	0.140	-0.122	0.424	0.288	1.631	0.50	0.64
1061	1070	1072	8	640.00	0.01	0.915	0.456	0.385	0.530	0.071	0.302	0.289	2.508	0.50	0.45
1063	1074	1076	8	213.12	0.01	1.043	0.520	0.114	0.930	0.406	0.149	0.154	1.959	0.50	0.22
1065	1076	1078	8	96.00	0.01	1.057	0.526	0.116	0.941	0.411	0.149	0.155	1.988	0.50	0.22
1067	1078	1080	15	452.00	0.00	2.742	2.496	0.328	2.413	2.168	0.292	0.222	1.506	0.75	0.23
107	114	116	8	197.55	0.03	2.240	1.116	0.260	1.980	0.856	0.153	0.235	4.283	0.50	0.23
1073	1080	1072	15	243.00	0.00	1.763	1.605	0.332	1.431	1.273	0.367	0.223	1.102	0.75	0.29
1075	1072	1084	15	30.00	0.01	4.580	4.170	0.629	3.950	3.540	0.313	0.310	2.617	0.75	0.25
1079	1086	1088	18	230.00	0.00	4.659	4.242	0.309	4.350	3.932	0.262	0.205	1.494	0.75	0.18
1081	1088	1090	12	100.00	0.02	4.630	2.307	0.309	4.321	1.998	0.175	0.229	3.347	0.50	0.18
1083	1090	1092	12	280.00	0.00	2.259	1.126	0.309	1.950	0.817	0.250	0.229	2.015	0.50	0.25
1085	1092	1094	12	100.00	0.00	2.259	1.126	0.309	1.950	0.817	0.250	0.229	2.015	0.50	0.25
1087	1084	1096	15	654.53	0.00	2.192	1.996	0.629	1.563	1.367	0.458	0.310	1.543	0.75	0.37
1089	1096	1098	15	349.36	0.01	4.649	4.233	0.641	4.008	3.591	0.314	0.313	2.660	0.75	0.25
109	116	118	8	79.65	0.03	1.901	0.947	0.261	1.640	0.687	0.167	0.236	3.816	0.50	0.25
1091	1098	1100	15	320.00	0.01	5.491	4.999	0.642	4.849	4.358	0.289	0.313	2.994	0.75	0.23
1093	1100	1102	15	137.00	0.01	6.617	6.025	0.642	5.975	5.383	0.263	0.313	3.417	0.75	0.21
1095	1102	1104	15	183.00	0.01	5.903	5.374	0.643	5.260	4.731	0.279	0.313	3.154	0.75	0.22
1097	1104	1106	15	129.00	0.01	6.195	5.640	0.647	5.548	4.993	0.273	0.314	3.268	0.75	0.22
1099	1106	1108	15	252.00	0.01	6.912	6.293	0.647	6.266	5.647	0.258	0.314	3.532	0.75	0.21
1101	1108	1110	15	391.00	0.01	5.251	4.781	0.649	4.602	4.132	0.297	0.314	2.910	0.75	0.24

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
1107	1114	1116	15	32.79	0.06	15.591	14.195	0.668	14.923	13.527	0.176	0.319	6.322	0.75	0.14
1109	1116	1118	15	380.00	0.00	4.294	3.909	2.179	2.115	1.730	0.631	0.589	3.512	0.75	0.50
111	118	120	8	341.00	0.03	2.039	1.016	0.266	1.774	0.751	0.162	0.238	4.034	0.50	0.24
1111	1118	1120	15	190.00	0.01	5.619	5.116	2.182	3.437	2.934	0.541	0.590	4.290	0.75	0.43
1113	1120	1122	15	205.00	0.01	5.722	5.210	2.183	3.539	3.027	0.535	0.590	4.348	0.75	0.43
1115	1122	1124	15	366.00	0.01	6.424	5.849	2.184	4.239	3.664	0.502	0.590	4.734	0.75	0.40
1117	1124	1126	15	240.00	0.01	6.517	5.934	2.186	4.331	3.748	0.499	0.590	4.785	0.75	0.40
1123	1130	1132	15	358.00	0.01	5.870	5.344	2.277	3.592	3.067	0.541	0.603	4.480	0.75	0.43
1125	1132	1134	12	1369.30	0.01	3.987	1.987	2.319	1.668	-0.332	0.548	0.652	5.268	0.50	0.55
1127	1134	1136	12	327.00	0.01	3.264	1.626	2.350	0.914	-0.724	0.628	0.656	4.523	0.50	0.63
1129	1136	1138	12	365.00	0.01	2.703	1.347	2.366	0.338	-1.019	0.725	0.658	3.880	0.50	0.73
113	120	124	8	358.00	0.03	1.924	0.959	0.307	1.617	0.652	0.180	0.257	4.035	0.50	0.27
1131	1138	1140	12	340.00	0.01	2.925	1.458	2.366	0.560	-0.908	0.682	0.658	4.146	0.50	0.68
1133	1126	1130	15	316.39	0.01	6.880	6.264	2.189	4.691	4.075	0.485	0.591	4.980	0.75	0.39
1135	1110	1114	15	700.00	0.01	5.153	4.691	0.649	4.503	4.042	0.300	0.315	2.872	0.75	0.24
1137	1050	1142	8	353.00	0.01	0.826	0.412	0.116	0.710	0.296	0.169	0.155	1.669	0.50	0.25
1139	1142	1144	10	470.54	0.01	2.303	1.147	0.158	2.144	0.989	0.148	0.171	2.418	0.50	0.18
1141	1144	1146	10	398.00	0.01	1.644	0.819	0.267	1.377	0.552	0.227	0.224	2.219	0.50	0.27
1143	1146	1148	10	712.24	0.01	1.817	0.905	0.278	1.539	0.627	0.220	0.228	2.409	0.50	0.26
1145	1148	1150	10	247.00	0.01	2.524	1.258	0.289	2.235	0.969	0.190	0.233	3.078	0.50	0.23
1147	1150	1152	12	371.00	0.01	3.103	1.546	0.302	2.802	1.245	0.211	0.226	2.506	0.50	0.21
1149	1152	1086	15	295.00	0.00	3.477	3.165	0.309	3.168	2.857	0.252	0.215	1.749	0.75	0.20
115	124	122	8	722.91	0.03	2.130	1.062	0.316	1.814	0.746	0.174	0.261	4.375	0.50	0.26
1151	1094	1154	15	351.00	0.01	5.333	4.856	0.309	5.024	4.547	0.204	0.215	2.367	0.75	0.16
1153	1154	1156	12	1348.80	0.01	3.889	1.938	0.310	3.579	1.628	0.191	0.229	2.963	0.50	0.19
1155	1156	1158	21	316.00	0.00	9.626	8.764	0.310	9.316	8.454	0.215	0.197	1.829	0.75	0.12
1157	1158	1160	21	664.00	0.00	9.310	8.476	0.310	8.999	8.166	0.219	0.197	1.787	0.75	0.13
1159	1160	1162	21	431.00	0.00	9.215	8.390	0.310	8.905	8.080	0.220	0.197	1.774	0.75	0.13
1161	1162	1164	21	20.00	0.01	18.798	17.115	0.310	18.488	16.805	0.157	0.197	2.920	0.75	0.09
1163	490	1166	15	515.00	0.01	5.932	5.401	0.180	5.752	5.221	0.150	0.164	2.171	0.75	0.12
1165	1166	1168	15	600.00	0.01	6.280	5.717	0.901	5.379	4.816	0.320	0.372	3.634	0.75	0.26
1169	1168	1172	15	463.00	0.01	6.930	6.309	0.907	6.023	5.402	0.305	0.374	3.905	0.75	0.24
1171	1172	1174	15	450.00	0.01	7.264	6.614	1.005	6.259	5.609	0.314	0.394	4.159	0.75	0.25
1177	1178	1180	15	217.00	0.01	7.278	6.626	1.204	6.074	5.422	0.344	0.433	4.387	0.75	0.28
1179	1180	1182	15	505.00	0.01	7.314	6.659	1.204	6.110	5.455	0.343	0.433	4.403	0.75	0.27
1181	1182	1184	15	281.00	0.01	7.187	6.544	1.204	5.983	5.339	0.346	0.433	4.348	0.75	0.28
1183	1174	1178	15	302.00	0.01	5.083	4.628	1.204	3.879	3.424	0.414	0.433	3.392	0.75	0.33
1185	1184	1186	15	356.00	0.01	6.093	5.547	1.636	4.457	3.911	0.442	0.507	4.209	0.75	0.35
1187	1186	1188	15	42.00	0.01	5.474	4.984	1.636	3.838	3.348	0.468	0.507	3.895	0.75	0.38
1189	1188	1190	15	356.00	0.01	4.489	4.087	1.676	2.813	2.411	0.529	0.514	3.392	0.75	0.42
119	122	132	8	273.00	0.04	2.319	1.155	0.335	1.984	0.821	0.171	0.268	4.726	0.50	0.26
1191	1190	1192	15	750.00	0.02	8.038	7.318	1.676	6.362	5.642	0.387	0.514	5.174	0.75	0.31
1193	1192	1194	15	281.00	0.02	9.782	8.907	1.676	8.106	7.230	0.350	0.514	5.956	0.75	0.28
1195	1194	1196	18	353.00	0.00	3.633	3.308	1.676	1.957	1.632	0.716	0.487	2.014	0.75	0.48
1197	1196	1198	18	356.00	0.01	10.017	9.120	1.676	8.341	7.444	0.415	0.487	4.207	0.75	0.28
1199	1198	1200	18	770.00	0.01	9.428	8.584	1.676	7.752	6.908	0.428	0.487	4.028	0.75	0.29
1201	1200	1116	18	350.00	0.01	10.487	9.548	1.676	8.811	7.872	0.405	0.487	4.347	0.75	0.27
1203	1202	1204	8	105.00	0.04	2.329	1.161	0.643	1.686	0.518	0.239	0.378	5.700	0.50	0.36
1205	1204	1206	8	210.00	0.07	3.093	1.541	0.650	2.443	0.891	0.207	0.380	7.017	0.50	0.31
1207	1206	1208	8	446.00	0.01	1.423	0.709	0.650	0.773	0.059	0.316	0.380	3.984	0.50	0.47
121	132	134	8	291.00	0.02	1.856	0.925	0.394	1.462	0.531	0.209	0.292	4.223	0.50	0.31
1213	1208	1184	8	1319.39	0.01	1.235	0.615	0.659	0.576	-0.044	0.347	0.383	3.596	0.50	0.52
123	134	136	8	296.00	0.04	2.455	1.223	0.396	2.059	0.827	0.181	0.293	5.164	0.50	0.27

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
1237	1234	1236	8	348.00	0.01	1.402	0.699	0.469	0.933	0.229	0.266	0.320	3.617	0.50	0.40
1239	1236	1238	8	444.00	0.01	1.387	0.691	0.472	0.915	0.219	0.268	0.321	3.594	0.50	0.40
1241	1238	1240	8	307.00	0.01	0.928	0.462	0.474	0.454	-0.012	0.338	0.322	2.672	0.50	0.51
1243	1240	1202	8	1031.79	0.03	1.966	0.980	0.476	1.490	0.504	0.223	0.323	4.641	0.50	0.34
1245	1242	1244	8	540.00	0.01	1.279	0.637	0.178	1.101	0.459	0.168	0.194	2.580	0.50	0.25
1247	1244	1246	8	490.00	0.01	1.275	0.636	0.182	1.094	0.454	0.170	0.196	2.590	0.50	0.26
1249	1246	1248	8	115.00	0.02	1.618	0.806	0.189	1.428	0.617	0.154	0.200	3.102	0.50	0.23
125	136	138	8	34.00	0.03	2.099	1.046	0.397	1.701	0.648	0.197	0.294	4.622	0.50	0.30
1251	1248	1250	8	175.00	0.02	1.713	0.854	0.190	1.524	0.664	0.150	0.200	3.235	0.50	0.23
1253	1250	1252	8	85.00	0.01	1.009	0.503	0.207	0.802	0.296	0.205	0.209	2.275	0.50	0.31
1255	1252	1254	8	581.00	0.01	1.428	0.712	0.208	1.220	0.504	0.172	0.210	2.917	0.50	0.26
1257	1254	1256	8	490.50	0.02	1.482	0.739	0.209	1.273	0.529	0.169	0.210	3.001	0.50	0.25
1259	1256	1258	8	734.02	0.01	1.314	0.655	0.240	1.074	0.415	0.193	0.226	2.866	0.50	0.29
1261	1258	1260	8	160.00	0.02	1.620	0.807	0.247	1.372	0.560	0.176	0.229	3.355	0.50	0.26
1267	1260	1078	12	486.87	0.02	5.445	2.713	0.253	5.191	2.460	0.147	0.207	3.536	0.50	0.15
1269	1264	1266	8	131.00	0.03	2.200	1.096	0.163	2.037	0.934	0.123	0.185	3.690	0.50	0.18
127	138	140	8	739.00	0.04	2.261	1.127	0.404	1.857	0.722	0.191	0.296	4.898	0.50	0.29
1271	1266	1268	8	252.00	0.10	3.914	1.950	0.164	3.750	1.786	0.093	0.186	5.547	0.50	0.14
1273	1268	1270	8	300.00	0.07	3.199	1.594	0.167	3.032	1.427	0.104	0.188	4.842	0.50	0.16
1275	1270	1272	8	206.92	0.10	3.884	1.935	0.174	3.710	1.762	0.096	0.191	5.609	0.50	0.14
1277	1272	1274	8	179.53	0.15	4.626	2.305	0.206	4.420	2.100	0.096	0.208	6.668	0.50	0.14
1279	1274	1276	8	435.00	0.05	2.593	1.292	0.212	2.382	1.080	0.129	0.212	4.477	0.50	0.19
1281	1276	1278	8	415.00	0.04	2.405	1.198	0.225	2.180	0.974	0.138	0.218	4.319	0.50	0.21
1283	1278	1280	8	142.00	0.01	0.838	0.418	0.233	0.605	0.185	0.240	0.222	2.056	0.50	0.36
129	140	142	12	332.00	0.03	5.733	2.857	0.724	5.009	2.133	0.240	0.355	4.995	0.50	0.24
1291	1286	1288	8	226.00	0.01	1.297	0.646	0.247	1.050	0.400	0.197	0.229	2.860	0.50	0.30
1293	1288	1290	8	271.00	0.00	0.799	0.398	0.248	0.552	0.151	0.255	0.230	2.020	0.50	0.38
1295	1290	1292	8	290.16	0.00	0.773	0.385	0.249	0.524	0.136	0.260	0.230	1.972	0.50	0.39
1297	1292	1294	8	328.00	0.01	0.922	0.460	0.295	0.627	0.164	0.259	0.251	2.350	0.50	0.39
1299	1294	1296	8	328.00	0.01	1.360	0.677	0.298	1.061	0.379	0.212	0.253	3.122	0.50	0.32
1301	1296	1298	8	167.00	0.00	0.663	0.330	0.329	0.334	0.001	0.332	0.266	1.896	0.50	0.50
1303	1298	1300	8	265.00	0.06	2.830	1.410	0.363	2.467	1.048	0.161	0.280	5.573	0.50	0.24
1305	1300	1302	8	166.00	0.06	3.017	1.503	0.363	2.654	1.140	0.156	0.280	5.832	0.50	0.23
1307	1302	1304	8	300.00	0.03	1.945	0.969	0.365	1.580	0.604	0.196	0.281	4.272	0.50	0.29
1309	1304	1306	8	305.00	0.01	1.309	0.652	0.367	0.942	0.285	0.241	0.282	3.218	0.50	0.36
131	144	146	8	233.38	0.07	3.085	1.537	0.396	2.689	1.141	0.161	0.293	6.076	0.50	0.24
1311	1306	1308	8	268.00	0.01	0.831	0.414	0.375	0.456	0.039	0.314	0.285	2.319	0.50	0.47
1313	1308	1312	8	327.72	0.01	0.915	0.456	0.377	0.538	0.079	0.298	0.286	2.495	0.50	0.45
1315	1314	1318	8	286.00	0.01	1.369	0.682	0.425	0.943	0.257	0.255	0.304	3.461	0.50	0.38
1317	1312	1314	8	315.00	0.01	0.943	0.470	0.377	0.566	0.093	0.293	0.286	2.552	0.50	0.44
1323	1318	1320	8	288.00	0.01	1.454	0.725	0.443	1.012	0.282	0.252	0.311	3.656	0.50	0.38
1325	1320	1322	8	572.08	0.02	1.647	0.821	0.449	1.198	0.372	0.238	0.313	4.016	0.50	0.36
1327	1322	1324	8	572.35	0.01	1.432	0.713	0.460	0.971	0.253	0.260	0.317	3.653	0.50	0.39
1329	1324	1326	8	63.00	0.01	1.122	0.559	0.468	0.654	0.091	0.300	0.320	3.068	0.50	0.45
133	146	148	8	690.47	0.08	3.337	1.663	0.397	2.940	1.266	0.155	0.293	6.431	0.50	0.23
1331	1326	1328	8	287.00	0.01	1.016	0.507	0.472	0.545	0.035	0.319	0.321	2.858	0.50	0.48
1333	1328	1330	8	311.00	0.02	1.724	0.859	0.473	1.251	0.386	0.239	0.322	4.214	0.50	0.36
1335	1330	1332	8	181.00	0.01	0.923	0.460	0.477	0.446	-0.017	0.340	0.323	2.665	0.50	0.51
1337	1332	1334	8	312.00	0.00	0.661	0.330	0.480	0.181	-0.150	0.421	0.324	2.066	0.50	0.63
1343	1338	1340	8	996.00	0.01	1.397	0.696	0.485	0.912	0.211	0.271	0.326	3.640	0.50	0.41
1345	1340	1342	8	147.00	0.03	2.084	1.039	0.485	1.599	0.554	0.219	0.326	4.865	0.50	0.33
1347	1342	1344	8	385.00	0.01	1.418	0.706	0.485	0.932	0.221	0.269	0.326	3.680	0.50	0.40
1349	1344	1346	8	401.00	0.02	1.722	0.858	0.486	1.236	0.372	0.242	0.326	4.241	0.50	0.36

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
135	148	150	8	184.42	0.04	2.417	1.204	0.400	2.017	0.804	0.183	0.295	5.123	0.50	0.28
1351	1346	1348	8	512.00	0.01	1.360	0.678	0.034	1.326	0.643	0.073	0.084	1.655	0.50	0.11
1353	1348	1350	8	210.22	0.02	1.798	0.896	0.064	1.734	0.832	0.086	0.115	2.427	0.50	0.13
1355	1350	1352	8	279.59	0.01	1.458	0.727	0.066	1.392	0.660	0.097	0.117	2.115	0.50	0.15
1357	1352	1354	8	762.00	0.00	0.785	0.391	0.068	0.717	0.323	0.133	0.118	1.378	0.50	0.20
1359	1354	1356	8	257.00	0.01	1.003	0.500	0.072	0.931	0.428	0.121	0.121	1.664	0.50	0.18
1361	1356	1358	8	176.00	0.03	2.005	0.999	0.093	1.912	0.906	0.098	0.139	2.926	0.50	0.15
1363	1358	1360	8	880.81	0.02	1.550	0.772	0.095	1.456	0.678	0.112	0.140	2.455	0.50	0.17
1365	1360	1362	8	199.64	0.01	0.858	0.427	0.102	0.756	0.325	0.155	0.145	1.652	0.50	0.23
1367	1362	1364	8	117.11	0.01	1.348	0.672	0.176	1.172	0.496	0.163	0.192	2.669	0.50	0.24
1369	1364	1366	8	1191.00	0.02	1.510	0.752	0.179	1.331	0.573	0.155	0.194	2.907	0.50	0.23
137	150	140	10	268.00	0.02	2.940	1.465	0.425	2.515	1.040	0.214	0.284	3.837	0.50	0.26
1371	1366	1368	8	401.00	0.01	1.252	0.624	0.197	1.055	0.427	0.179	0.204	2.614	0.50	0.27
1373	1280	1370	8	273.81	0.00	0.695	0.346	0.233	0.462	0.113	0.266	0.222	1.793	0.50	0.40
1375	1370	1286	8	261.00	0.04	2.322	1.157	0.245	2.078	0.913	0.146	0.228	4.319	0.50	0.22
1379	1334	1372	8	150.00	0.00	0.700	0.349	0.484	0.215	-0.136	0.408	0.326	2.163	0.50	0.61
1381	1372	1338	8	821.20	0.01	0.866	0.432	0.485	0.381	-0.053	0.357	0.326	2.552	0.50	0.54
1383	1374	1376	10	310.00	0.02	2.804	1.397	0.531	2.273	0.866	0.246	0.319	3.953	0.50	0.30
1385	1376	1378	10	350.00	0.01	2.152	1.073	0.531	1.621	0.541	0.282	0.319	3.269	0.50	0.34
1387	1378	1380	10	700.00	0.01	2.286	1.139	0.531	1.755	0.608	0.273	0.319	3.414	0.50	0.33
1389	1380	1382	10	660.00	0.01	2.516	1.254	0.531	1.985	0.723	0.260	0.319	3.658	0.50	0.31
139	142	152	12	483.85	0.02	5.488	2.735	0.724	4.764	2.010	0.245	0.355	4.844	0.50	0.25
1391	1384	1386	8	375.00	0.03	2.103	1.048	0.336	1.767	0.712	0.180	0.269	4.413	0.50	0.27
1393	1386	1388	8	371.00	0.02	1.623	0.809	0.379	1.244	0.430	0.219	0.286	3.793	0.50	0.33
1395	1388	1390	8	364.00	0.02	1.800	0.897	0.380	1.420	0.517	0.208	0.287	4.087	0.50	0.31
1397	1390	1374	8	357.00	0.02	1.686	0.840	0.381	1.304	0.459	0.216	0.287	3.903	0.50	0.32
1399	1392	1394	8	383.00	0.03	2.199	1.096	0.332	1.867	0.764	0.175	0.267	4.541	0.50	0.26
1401	1394	1396	8	373.00	0.03	1.964	0.979	0.333	1.631	0.645	0.186	0.268	4.193	0.50	0.28
1403	1396	1384	8	375.00	0.02	1.759	0.876	0.335	1.424	0.541	0.197	0.269	3.879	0.50	0.30
1405	1398	1400	8	425.00	0.02	1.662	0.828	0.199	1.463	0.629	0.156	0.205	3.209	0.50	0.23
1407	1400	1402	8	424.00	0.02	1.557	0.776	0.199	1.358	0.577	0.161	0.205	3.063	0.50	0.24
1409	1402	1374	8	311.00	0.01	1.441	0.718	0.224	1.217	0.494	0.178	0.218	3.000	0.50	0.27
141	152	154	12	171.00	0.02	4.864	2.424	0.741	4.122	1.682	0.264	0.359	4.475	0.50	0.26
1411	1346	1404	12	226.00	0.27	18.493	9.215	0.467	18.026	8.748	0.110	0.283	10.003	0.50	0.11
1413	1404	1406	12	226.00	0.00	1.558	0.776	0.475	1.084	0.302	0.379	0.285	1.741	0.50	0.38
1415	1406	1408	12	279.00	0.00	1.482	0.738	0.475	1.006	0.263	0.389	0.286	1.679	0.50	0.39
1417	1408	1410	12	269.00	0.00	1.715	0.855	0.478	1.237	0.377	0.361	0.286	1.870	0.50	0.36
1419	1410	1412	12	335.08	0.01	3.677	1.832	0.809	2.868	1.023	0.319	0.376	3.755	0.50	0.32
1421	1412	1382	12	1015.90	0.00	2.076	1.034	0.809	1.267	0.225	0.434	0.376	2.479	0.50	0.43
1423	1382	1416	15	296.00	0.00	4.259	3.878	1.296	2.963	2.582	0.473	0.449	3.046	0.75	0.38
1425	1416	1418	15	328.00	0.00	4.321	3.934	1.331	2.990	2.603	0.476	0.456	3.101	0.75	0.38
1427	1418	1420	15	100.00	0.00	3.721	3.388	1.366	2.354	2.021	0.524	0.462	2.799	0.75	0.42
1429	1420	1422	15	349.00	0.00	3.814	3.472	1.401	2.413	2.071	0.524	0.468	2.869	0.75	0.42
143	154	156	12	370.00	0.03	5.826	2.903	0.741	5.084	2.162	0.241	0.359	5.088	0.50	0.24
1435	1426	1428	15	234.00	0.02	10.020	9.123	1.608	8.412	7.515	0.339	0.503	5.987	0.75	0.27
1437	1428	1430	15	248.00	0.03	11.633	10.591	1.641	9.992	8.950	0.317	0.508	6.699	0.75	0.25
1439	1422	1426	15	360.00	0.01	4.372	3.980	1.435	2.936	2.545	0.493	0.474	3.191	0.75	0.39
1441	1430	1432	15	289.00	0.01	7.610	6.929	1.674	5.936	5.255	0.398	0.513	4.974	0.75	0.32
1443	1432	1434	15	253.00	0.01	6.477	5.897	1.707	4.770	4.190	0.438	0.519	4.452	0.75	0.35
1445	1434	1436	15	92.26	0.01	6.844	6.231	2.301	4.542	3.929	0.499	0.606	5.028	0.75	0.40
1447	1436	1438	15	254.00	0.02	8.659	7.884	2.332	6.328	5.552	0.443	0.610	5.987	0.75	0.35
1449	1438	1440	15	53.18	0.05	14.432	13.139	2.362	12.070	10.777	0.342	0.615	8.672	0.75	0.27
145	156	158	15	744.91	0.02	9.203	8.379	0.815	8.388	7.564	0.251	0.354	4.628	0.75	0.20

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1451	1440	1442	15	389.12	0.01	4.417	4.022	2.392	2.025	1.630	0.655	0.619	3.671	0.75	0.52
1453	1442	1444	15	64.91	0.01	5.393	4.910	2.422	2.971	2.488	0.587	0.623	4.277	0.75	0.47
1455	1444	1446	15	350.00	0.01	7.664	6.977	2.452	5.211	4.525	0.486	0.627	5.556	0.75	0.39
1457	1446	1448	15	659.00	0.01	7.669	6.983	2.482	5.187	4.501	0.489	0.631	5.577	0.75	0.39
1459	1448	1450	15	330.00	0.02	9.829	8.949	2.512	7.317	6.437	0.431	0.635	6.699	0.75	0.35
1461	1450	1452	15	330.00	0.00	4.293	3.909	3.357	0.936	0.552	0.832	0.739	3.871	0.75	0.67
1463	1452	1454	15	325.00	0.00	4.296	3.912	3.385	0.912	0.527	0.836	0.742	3.879	0.75	0.67
1465	1454	1456	15	371.00	0.01	7.329	6.673	3.412	3.916	3.260	0.600	0.745	5.866	0.75	0.48
1471	1460	1462	15	275.00	0.02	8.295	7.552	3.620	4.674	3.932	0.578	0.768	6.529	0.75	0.46
1473	1462	1464	15	300.00	0.01	7.095	6.460	3.647	3.448	2.813	0.635	0.771	5.822	0.75	0.51
1475	1464	1466	15	4.00	1.99	91.311	83.136	3.674	87.637	79.462	0.171	0.774	36.345	0.75	0.14
1477	1466	1468	15	92.95	0.01	4.456	4.057	3.701	0.755	0.356	0.870	0.777	4.061	0.75	0.70
1479	1468	1470	15	192.69	0.01	5.715	5.203	3.759	1.956	1.444	0.740	0.784	4.971	0.75	0.59
1481	1470	1472	15	357.00	0.01	4.663	4.245	4.053	0.609	0.192	0.901	0.815	4.279	0.75	0.72
1483	1472	1474	15	300.00	0.01	7.095	6.460	4.080	3.015	2.380	0.680	0.818	5.983	0.75	0.54
1485	1474	1476	15	650.00	0.02	8.279	7.538	4.106	4.173	3.432	0.622	0.820	6.733	0.75	0.50
1487	1476	1478	18	660.00	0.01	7.334	6.677	4.147	3.187	2.530	0.807	0.780	4.277	0.75	0.54
1489	1456	1460	15	274.00	0.02	8.310	7.566	3.593	4.717	3.973	0.575	0.765	6.525	0.75	0.46
1491	1478	1480	15	225.00	0.01	6.689	6.090	4.173	2.516	1.917	0.715	0.827	5.749	0.75	0.57
1493	1480	1482	15	225.00	0.04	12.350	11.244	4.199	8.150	7.044	0.502	0.830	9.101	0.75	0.40
1495	1482	1484	18	660.00	0.01	7.276	6.625	4.270	3.007	2.355	0.826	0.792	4.281	0.75	0.55
1497	1484	1486	15	325.00	0.01	7.689	7.000	4.295	3.393	2.705	0.668	0.840	6.439	0.75	0.53
1499	1486	1488	15	325.00	0.02	7.880	7.174	4.321	3.558	2.853	0.660	0.842	6.569	0.75	0.53
15	18	20	10	471.00	0.02	3.085	1.537	0.987	2.098	0.550	0.324	0.441	5.032	0.50	0.39
1501	1488	1490	15	325.00	0.02	7.880	7.174	4.347	3.532	2.827	0.663	0.845	6.578	0.75	0.53
1503	1490	1492	15	720.00	0.02	8.295	7.553	4.373	3.922	3.179	0.645	0.847	6.849	0.75	0.52
1505	1492	1494	15	300.00	0.02	9.929	9.040	4.399	5.530	4.641	0.583	0.850	7.846	0.75	0.47
1507	1494	1496	24	429.00	0.00	14.279	13.000	9.413	4.866	3.587	1.185	1.096	4.854	0.75	0.59
1509	1496	1498	24	155.48	0.01	18.372	16.727	9.434	8.938	7.293	1.016	1.098	5.887	0.75	0.51
151	162	164	21	220.00	0.01	11.336	10.321	0.920	10.416	9.401	0.337	0.342	2.835	0.75	0.19
1517	1504	1506	24	147.58	0.01	18.006	16.394	9.519	8.487	6.875	1.034	1.103	5.811	0.75	0.52
1523	1506	1512	21	343.00	0.01	15.079	13.729	9.667	5.412	4.062	1.019	1.157	6.653	0.75	0.58
1525	1512	1514	21	550.00	0.01	15.728	14.319	9.688	6.039	4.631	0.993	1.159	6.876	0.75	0.57
1527	1514	1516	24	652.28	0.00	15.020	13.675	9.745	5.275	3.930	1.173	1.116	5.088	0.75	0.59
1529	1516	1518	24	221.00	0.00	15.182	13.822	9.789	5.392	4.033	1.169	1.119	5.135	0.75	0.58
153	158	162	21	378.00	0.01	13.427	12.225	0.909	12.518	11.316	0.308	0.340	3.182	0.75	0.18
1541	1528	1530	24	442.00	0.00	7.238	6.590	9.895	-2.657	-3.305	2.000	0.955	2.304	0.75	1.00
1543	1530	1532	24	138.70	0.02	32.343	29.448	9.915	22.428	19.532	0.760	1.127	9.053	0.75	0.38
1545	1532	1534	27	373.00	0.00	17.392	15.835	10.600	6.792	5.235	1.268	1.125	4.589	0.75	0.56
1547	1524	3660	14	90.47	0.12	16.321	8.133	4.151	12.170	3.981	0.401	0.841	12.752	0.50	0.34
1549	1534	1536	27	1312.93	0.00	18.341	16.699	10.620	7.720	6.078	1.229	1.126	4.781	0.75	0.55
155	164	166	21	348.00	0.01	11.584	10.547	0.920	10.664	9.627	0.334	0.342	2.878	0.75	0.19
1551	1536	1538	27	510.00	0.00	15.496	14.109	10.676	4.821	3.433	1.372	1.129	4.202	0.75	0.61
1553	1538	1540	30	1498.19	0.00	22.863	20.816	10.716	12.147	10.100	1.204	1.095	4.582	0.75	0.48
1555	1540	1542	30	245.00	0.00	23.205	21.128	16.067	7.138	5.061	1.530	1.354	5.103	0.75	0.61
1557	1542	1544	27	1240.41	0.01	24.876	22.649	16.086	8.790	6.563	1.317	1.399	6.653	0.75	0.59
1559	1544	1546	27	64.00	0.03	53.785	48.970	16.148	37.638	32.822	0.845	1.402	11.827	0.75	0.38
1561	1546	1548	33	361.00	0.00	23.682	21.562	16.166	7.516	5.396	1.667	1.319	4.291	0.75	0.61
1563	1548	3706	33	87.39	0.13	189.757	172.768	16.185	173.572	156.583	0.543	1.320	19.498	0.75	0.20
1565	1550	1552	33	1226.10	0.00	26.318	23.962	16.222	10.096	7.740	1.561	1.321	4.660	0.75	0.57
1567	1552	1554	33	42.00	0.01	35.666	32.473	16.260	19.407	16.213	1.303	1.323	5.866	0.75	0.47
1569	1554	1556	33	272.00	0.01	44.784	40.775	16.278	28.506	24.496	1.147	1.324	6.942	0.75	0.42
157	166	168	15	198.00	0.06	15.452	14.069	1.004	14.449	13.065	0.216	0.394	7.092	0.75	0.17

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
1571	1558	1560	12	974.72	0.00	1.787	0.891	0.000	1.787	0.891	0.000	0.000	0.000	0.50	0.00
1573	1560	1562	12	1005.83	0.00	1.784	0.889	0.000	1.784	0.889	0.000	0.000	0.000	0.50	0.00
1575	1562	1564	12	660.00	0.00	1.759	0.876	0.000	1.759	0.876	0.000	0.000	0.000	0.50	0.00
1577	1564	1566	12	1123.17	0.00	1.732	0.863	0.000	1.732	0.863	0.000	0.000	0.000	0.50	0.00
1579	1566	1568	12	17.00	0.01	2.740	1.365	0.106	2.634	1.260	0.134	0.133	1.682	0.50	0.13
1581	1568	1570	12	870.00	0.00	1.700	0.847	0.170	1.530	0.677	0.213	0.169	1.384	0.50	0.21
1583	1570	1572	12	134.00	0.00	1.480	0.737	0.172	1.308	0.565	0.230	0.170	1.260	0.50	0.23
1585	1572	1574	10	480.03	0.01	1.705	0.849	0.206	1.499	0.643	0.196	0.196	2.111	0.50	0.24
1587	1574	1576	10	266.11	0.01	1.740	0.867	0.206	1.534	0.661	0.194	0.196	2.143	0.50	0.23
1589	1576	1578	10	317.33	0.01	2.607	1.299	0.206	2.401	1.093	0.158	0.196	2.852	0.50	0.19
159	168	170	15	306.00	0.02	10.072	9.170	1.004	9.069	8.167	0.267	0.394	5.243	0.75	0.21
1591	1578	1580	10	100.35	0.01	2.149	1.071	0.206	1.943	0.865	0.174	0.196	2.488	0.50	0.21
1593	1580	3664	10	14.03	0.73	16.313	8.129	0.206	16.107	7.923	0.066	0.196	10.305	0.50	0.08
1595	1582	1584	10	1187.97	0.00	1.379	0.687	0.282	1.097	0.405	0.256	0.230	1.987	0.50	0.31
1597	1584	1586	15	433.00	0.00	3.683	3.353	0.673	3.009	2.680	0.362	0.321	2.284	0.75	0.29
1599	1586	1588	12	1105.54	0.02	4.338	2.161	0.684	3.654	1.478	0.268	0.345	4.030	0.50	0.27
1601	1588	1590	15	439.59	0.00	3.783	3.445	0.688	3.096	2.757	0.361	0.324	2.343	0.75	0.29
1605	1594	1596	10	1604.91	0.02	2.944	1.467	0.018	2.926	1.449	0.047	0.057	1.492	0.50	0.06
1607	1596	1598	10	74.63	0.02	3.083	1.536	0.058	3.025	1.478	0.079	0.103	2.197	0.50	0.10
1609	1598	1600	10	121.75	0.04	4.261	2.123	0.078	4.183	2.045	0.078	0.119	3.014	0.50	0.09
161	170	172	15	58.00	0.02	10.099	9.195	1.009	9.089	8.185	0.267	0.395	5.261	0.75	0.21
1611	1600	1602	10	175.47	0.02	2.790	1.390	0.080	2.710	1.310	0.097	0.121	2.258	0.50	0.12
1613	1602	1604	10	306.33	0.02	2.909	1.449	0.087	2.822	1.362	0.099	0.126	2.382	0.50	0.12
1615	1604	1606	10	348.00	0.01	2.638	1.315	0.145	2.494	1.170	0.133	0.163	2.591	0.50	0.16
1617	1606	1608	10	347.00	0.02	2.684	1.337	0.446	2.238	0.892	0.230	0.291	3.645	0.50	0.28
1619	1608	1584	10	305.00	0.02	3.328	1.658	0.453	2.875	1.205	0.208	0.294	4.269	0.50	0.25
1621	1368	1610	10	1065.24	0.00	1.293	0.644	0.264	1.029	0.380	0.256	0.223	1.862	0.50	0.31
1623	1610	1612	10	566.00	0.00	1.197	0.596	0.345	0.852	0.252	0.306	0.255	1.897	0.50	0.37
1625	1612	1606	10	338.00	0.01	1.780	0.887	0.351	1.429	0.536	0.251	0.258	2.539	0.50	0.30
1627	1590	1614	12	544.47	0.00	1.196	0.596	0.782	0.414	-0.186	0.589	0.369	1.623	0.50	0.59
1629	1614	1616	12	318.00	0.04	6.656	3.317	0.822	5.834	2.495	0.237	0.379	5.762	0.50	0.24
163	172	100	18	267.00	0.02	13.794	12.559	1.009	12.785	11.550	0.275	0.375	4.554	0.75	0.18
1631	1616	1618	15	43.00	0.01	5.843	5.320	0.822	5.022	4.499	0.317	0.355	3.362	0.75	0.25
1633	1618	1620	15	318.00	0.00	4.298	3.913	0.822	3.476	3.091	0.370	0.355	2.700	0.75	0.30
1635	1620	1622	15	900.00	0.00	3.064	2.789	0.822	2.241	1.967	0.442	0.355	2.116	0.75	0.35
1637	1622	1624	15	355.00	0.01	6.841	6.228	0.835	6.006	5.394	0.295	0.358	3.777	0.75	0.24
1639	1624	1626	15	23.04	0.02	8.427	7.673	0.856	7.571	6.816	0.269	0.363	4.412	0.75	0.22
1641	1626	1628	15	909.24	0.01	6.894	6.276	0.856	6.037	5.420	0.298	0.363	3.826	0.75	0.24
1643	1628	1630	15	202.50	0.01	7.751	7.057	0.872	6.879	6.185	0.283	0.366	4.180	0.75	0.23
1645	1630	1632	15	329.94	0.01	6.176	5.623	0.926	5.250	4.697	0.327	0.378	3.619	0.75	0.26
1647	1632	1634	15	1125.07	0.02	8.722	7.941	0.926	7.796	7.015	0.275	0.378	4.625	0.75	0.22
1649	1634	1636	15	51.91	0.07	16.649	15.158	0.926	15.723	14.232	0.200	0.378	7.298	0.75	0.16
1651	1636	1638	21	384.00	0.00	7.860	7.157	1.637	6.223	5.519	0.542	0.460	2.581	0.75	0.31
1653	1638	1640	21	450.00	0.00	10.131	9.224	1.637	8.494	7.587	0.476	0.460	3.095	0.75	0.27
1655	1640	1642	21	333.00	0.00	4.769	4.342	1.637	3.131	2.704	0.707	0.460	1.798	0.75	0.40
1657	1642	1644	21	299.00	0.02	24.824	22.602	1.637	23.187	20.964	0.305	0.460	5.839	0.75	0.17
1659	1644	1646	21	44.47	0.00	8.914	8.116	1.637	7.277	6.478	0.508	0.460	2.825	0.75	0.29
1661	1646	1648	21	1000.00	0.00	5.706	5.195	1.637	4.069	3.558	0.642	0.460	2.049	0.75	0.37
1663	1648	1650	21	73.94	0.01	13.827	12.589	1.637	12.189	10.951	0.407	0.460	3.861	0.75	0.23
1665	1658	1660	12	477.00	0.00	2.260	1.126	0.907	1.353	0.219	0.441	0.399	2.720	0.50	0.44
1667	1660	1662	12	168.04	0.00	2.386	1.189	0.960	1.427	0.230	0.441	0.411	2.873	0.50	0.44
1669	1662	1636	12	561.25	0.01	2.801	1.396	0.960	1.841	0.436	0.404	0.411	3.232	0.50	0.40
167	178	180	8	342.00	0.04	2.305	1.149	0.057	2.248	1.092	0.072	0.108	2.783	0.50	0.11

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1673	1666	1668	12	331.00	0.01	2.965	1.477	0.574	2.391	0.903	0.298	0.315	2.920	0.50	0.30
1675	1668	1670	12	365.62	0.00	1.868	0.931	0.575	1.293	0.356	0.381	0.315	2.094	0.50	0.38
1677	1670	1672	12	260.22	0.02	5.487	2.734	0.577	4.911	2.158	0.219	0.316	4.532	0.50	0.22
1679	1672	1674	12	981.57	0.11	12.084	6.022	0.590	11.494	5.431	0.150	0.319	7.963	0.50	0.15
1681	1674	1676	12	902.48	0.00	1.669	0.832	0.745	0.924	0.086	0.468	0.360	2.065	0.50	0.47
1683	1676	1678	12	79.05	0.02	4.546	2.265	0.884	3.662	1.382	0.299	0.394	4.482	0.50	0.30
1685	1678	1658	12	535.00	0.00	2.259	1.126	0.885	1.375	0.241	0.435	0.394	2.701	0.50	0.44
1687	1680	1682	10	1510.43	0.00	0.987	0.492	0.570	0.417	-0.078	0.454	0.331	1.875	0.50	0.55
169	180	182	8	345.00	0.03	1.964	0.979	0.058	1.906	0.921	0.079	0.109	2.510	0.50	0.12
1693	1686	1688	10	620.00	0.00	1.417	0.706	0.796	0.621	-0.090	0.447	0.394	2.673	0.50	0.54
1695	1688	1690	10	42.00	0.10	7.013	3.494	0.802	6.211	2.692	0.190	0.396	8.550	0.50	0.23
1697	1690	1692	12	328.00	0.01	3.855	1.921	0.802	3.053	1.119	0.310	0.374	3.875	0.50	0.31
1699	1692	1650	12	378.28	0.02	4.704	2.344	0.802	3.902	1.542	0.279	0.374	4.469	0.50	0.28
17	20	22	10	460.00	0.04	4.143	2.064	0.987	3.156	1.077	0.277	0.441	6.230	0.50	0.33
1701	1682	1686	10	392.00	0.00	1.142	0.569	0.752	0.390	-0.183	0.493	0.383	2.236	0.50	0.59
1703	1650	1694	21	595.00	0.00	7.015	6.387	2.150	4.865	4.236	0.665	0.529	2.564	0.75	0.38
1705	1694	1696	21	68.00	0.00	7.706	7.016	2.150	5.556	4.866	0.632	0.529	2.746	0.75	0.36
1707	1696	1698	21	1280.95	0.00	6.761	6.156	2.150	4.611	4.006	0.678	0.529	2.497	0.75	0.39
1709	1698	1700	21	77.00	0.01	18.989	17.289	2.150	16.839	15.138	0.398	0.529	5.235	0.75	0.23
171	182	184	8	301.00	0.01	1.212	0.604	0.099	1.113	0.505	0.129	0.143	2.089	0.50	0.19
1711	1702	1704	18	37.92	0.01	10.404	9.473	0.022	10.382	9.451	0.051	0.054	1.181	0.75	0.03
1713	1704	1164	18	1410.05	0.01	11.493	10.464	0.022	11.471	10.442	0.049	0.054	1.266	0.75	0.03
1715	1164	1706	18	913.02	0.01	11.702	10.654	0.319	11.382	10.335	0.170	0.208	2.879	0.75	0.11
1717	1706	1708	18	940.94	0.01	11.527	10.495	0.319	11.207	10.175	0.172	0.208	2.849	0.75	0.11
1719	1708	1710	18	982.34	0.01	11.281	10.271	0.323	10.958	9.948	0.174	0.210	2.816	0.75	0.12
1721	1710	1712	18	467.00	0.02	13.655	12.433	0.323	13.332	12.110	0.159	0.210	3.219	0.75	0.11
1723	1712	1714	21	2162.61	0.01	14.506	13.208	0.323	14.183	12.885	0.180	0.201	2.467	0.75	0.10
1725	1714	1716	24	103.03	0.01	18.962	17.265	0.342	18.620	16.923	0.187	0.200	2.317	0.75	0.09
1727	1716	1718	21	290.00	0.00	9.740	8.868	0.528	9.212	8.340	0.277	0.258	2.162	0.75	0.16
1729	1718	1720	21	999.18	0.00	10.127	9.221	0.528	9.599	8.693	0.272	0.258	2.222	0.75	0.16
173	184	186	8	249.00	0.01	1.226	0.611	0.104	1.122	0.507	0.131	0.147	2.142	0.50	0.20
1731	1720	1722	27	347.00	0.00	19.654	17.894	0.917	18.737	16.977	0.331	0.319	2.523	0.75	0.15
1733	1722	1724	27	977.64	0.00	19.638	17.880	0.919	18.719	16.961	0.331	0.319	2.523	0.75	0.15
1735	1724	1726	27	66.63	0.02	48.271	43.949	0.919	47.352	43.030	0.215	0.319	4.736	0.75	0.10
1737	1726	1728	24	358.00	0.01	25.118	22.869	1.127	23.991	21.742	0.289	0.366	4.034	0.75	0.14
1739	1728	1730	24	349.00	0.03	36.627	33.348	1.127	35.500	32.221	0.241	0.366	5.255	0.75	0.12
1741	1730	1732	27	412.00	0.01	30.978	28.204	1.127	29.851	27.077	0.293	0.354	3.693	0.75	0.13
1743	1732	1734	27	402.00	0.01	21.738	19.792	1.127	20.611	18.665	0.348	0.354	2.880	0.75	0.16
1745	1734	1736	24	402.00	0.01	22.683	20.652	1.127	21.556	19.525	0.303	0.366	3.756	0.75	0.15
1747	1736	1738	24	402.00	0.01	22.683	20.652	1.127	21.556	19.525	0.303	0.366	3.756	0.75	0.15
1749	1738	1700	24	402.00	0.02	30.754	28.001	1.127	29.627	26.874	0.262	0.366	4.650	0.75	0.13
175	186	188	8	282.00	0.01	1.260	0.628	0.104	1.156	0.524	0.130	0.147	2.184	0.50	0.20
1751	1040	1740	27	400.00	0.02	40.249	36.646	7.944	32.306	28.702	0.678	0.967	7.874	0.75	0.30
1753	1740	1742	27	150.00	0.02	39.279	35.763	7.944	31.336	27.819	0.686	0.967	7.737	0.75	0.31
1755	1742	1744	27	318.00	0.01	32.251	29.363	7.944	24.307	21.419	0.761	0.967	6.714	0.75	0.34
1757	1744	1746	27	1500.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31
1759	1746	1748	27	375.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31
1761	1748	1750	27	375.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31
1763	1750	1752	27	56.00	0.02	38.258	34.833	8.089	30.169	26.744	0.702	0.977	7.631	0.75	0.31
1765	1752	1754	27	348.00	0.02	38.322	34.891	8.089	30.234	26.803	0.702	0.977	7.641	0.75	0.31
1767	1754	1756	27	800.00	0.02	38.285	34.857	8.089	30.196	26.768	0.702	0.977	7.635	0.75	0.31
1769	1756	1758	27	400.00	0.02	38.285	34.857	8.089	30.196	26.768	0.702	0.977	7.635	0.75	0.31
177	188	190	8	235.00	0.01	1.325	0.660	0.104	1.221	0.556	0.127	0.147	2.263	0.50	0.19

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1771	1758	1760	27	358.00	0.02	37.997	34.595	8.093	29.904	26.502	0.705	0.977	7.595	0.75	0.31
1773	1760	1762	27	1406.00	0.02	38.516	35.068	8.096	30.420	26.972	0.700	0.977	7.670	0.75	0.31
1775	1762	1764	30	1285.17	0.01	34.664	31.561	8.115	26.549	23.446	0.823	0.948	5.763	0.75	0.33
1777	1764	1766	30	1403.62	0.01	44.238	40.277	8.115	36.123	32.162	0.725	0.948	6.866	0.75	0.29
1779	1770	1772	18	352.00	0.00	0.591	0.538	0.003	0.588	0.535	0.079	0.021	0.089	0.75	0.05
1781	1772	1774	18	362.00	0.00	4.288	3.904	0.016	4.272	3.888	0.066	0.046	0.576	0.75	0.04
1783	1774	1776	18	85.19	0.00	4.974	4.529	0.022	4.952	4.506	0.073	0.054	0.707	0.75	0.05
1785	1776	1778	21	577.65	0.00	8.361	7.613	0.022	8.339	7.591	0.066	0.052	0.746	0.75	0.04
1787	1778	1780	21	81.00	0.00	9.669	8.803	0.022	9.646	8.781	0.062	0.052	0.825	0.75	0.04
1789	1780	1782	21	393.00	0.00	8.014	7.297	0.022	7.992	7.274	0.068	0.052	0.724	0.75	0.04
179	190	192	8	67.35	0.01	1.199	0.598	0.129	1.071	0.469	0.147	0.164	2.243	0.50	0.22
1791	1782	1784	21	1301.29	0.00	8.950	8.149	0.022	8.928	8.127	0.064	0.052	0.782	0.75	0.04
1793	1784	1786	21	131.34	0.02	23.931	21.788	0.022	23.909	21.766	0.041	0.052	1.547	0.75	0.02
1795	1786	1788	21	437.00	0.00	9.703	8.834	0.022	9.681	8.812	0.062	0.052	0.827	0.75	0.04
1797	1788	1702	21	437.00	0.01	14.299	13.019	0.022	14.277	12.997	0.052	0.052	1.082	0.75	0.03
1799	1770	1790	10	688.00	0.01	2.572	1.282	0.048	2.524	1.234	0.079	0.093	1.829	0.50	0.10
1801	1790	1792	10	1065.14	0.01	2.596	1.293	0.057	2.539	1.237	0.085	0.102	1.935	0.50	0.10
1803	1792	1794	10	601.00	0.02	2.839	1.415	0.076	2.763	1.339	0.094	0.118	2.252	0.50	0.11
1805	1794	1796	12	1217.66	0.02	4.458	2.221	0.247	4.211	1.974	0.160	0.204	3.050	0.50	0.16
1807	1796	1798	12	174.00	0.02	4.691	2.337	0.298	4.393	2.040	0.171	0.225	3.340	0.50	0.17
1809	1798	1800	12	979.51	0.01	3.871	1.929	0.300	3.570	1.629	0.188	0.226	2.925	0.50	0.19
181	192	194	8	306.00	0.02	1.466	0.731	0.138	1.328	0.592	0.138	0.170	2.639	0.50	0.21
1811	1800	1802	12	382.00	0.02	4.432	2.208	0.318	4.114	1.891	0.181	0.232	3.273	0.50	0.18
1813	1802	1804	12	38.32	0.00	1.825	0.909	0.326	1.499	0.584	0.286	0.235	1.756	0.50	0.29
1815	1804	1806	12	300.00	0.00	1.879	0.936	0.326	1.553	0.611	0.282	0.235	1.793	0.50	0.28
1817	1806	1808	12	340.00	0.00	1.878	0.936	0.347	1.531	0.589	0.291	0.243	1.826	0.50	0.29
1819	1808	1750	12	31.66	0.02	5.312	2.647	0.393	4.918	2.253	0.184	0.259	3.960	0.50	0.18
1821	1810	1770	10	618.00	0.02	2.680	1.336	0.044	2.636	1.291	0.074	0.089	1.836	0.50	0.09
1823	1812	1814	27	333.00	0.01	24.365	22.183	5.701	18.663	16.482	0.741	0.814	5.001	0.75	0.33
1825	1814	1816	27	362.00	0.01	23.024	20.962	5.701	17.322	15.261	0.763	0.814	4.801	0.75	0.34
183	194	196	8	116.08	0.01	1.055	0.526	0.144	0.911	0.381	0.167	0.174	2.116	0.50	0.25
1837	1816	1822	27	351.00	0.01	23.027	20.965	5.701	17.325	15.264	0.763	0.814	4.801	0.75	0.34
1839	1822	1826	27	405.22	0.01	25.674	23.376	5.701	19.973	17.674	0.721	0.814	5.193	0.75	0.32
1841	1826	1828	27	371.00	0.01	26.294	23.940	5.701	20.593	18.239	0.712	0.814	5.282	0.75	0.32
1845	1830	1832	12	2054.85	0.01	3.285	1.637	1.371	1.914	0.266	0.451	0.495	3.994	0.50	0.45
1847	1832	1834	12	325.00	0.01	3.712	1.850	1.433	2.279	0.417	0.431	0.507	4.422	0.50	0.43
1849	1834	1836	12	325.00	0.01	3.765	1.876	1.441	2.324	0.435	0.429	0.508	4.474	0.50	0.43
185	196	198	8	182.00	0.01	0.847	0.422	0.145	0.702	0.277	0.187	0.174	1.814	0.50	0.28
1851	1836	1838	12	86.25	0.01	3.077	1.533	3.261	-0.184	-1.727	1.000	0.752	3.918	0.50	1.00
1853	1838	1840	12	246.00	0.01	3.197	1.593	3.263	-0.067	-1.670	1.000	0.766	4.070	0.50	1.00
1855	1840	1842	12	977.21	0.01	3.472	1.730	3.269	0.203	-1.539	0.772	0.774	5.027	0.50	0.77
1857	1842	1844	12	325.00	0.01	3.567	1.777	3.274	0.293	-1.497	0.754	0.775	5.151	0.50	0.75
1859	1844	1846	12	42.20	0.04	6.735	3.356	3.276	3.458	0.080	0.492	0.775	8.516	0.50	0.49
1861	1846	1848	12	561.13	0.01	3.585	1.786	3.440	0.144	-1.654	0.786	0.793	5.197	0.50	0.79
1863	1848	1850	12	342.00	0.01	3.675	1.831	3.444	0.231	-1.613	0.768	0.793	5.319	0.50	0.77
1865	1850	1852	12	452.00	0.01	3.674	1.831	3.444	0.229	-1.614	0.769	0.793	5.317	0.50	0.77
1867	1852	1854	15	450.00	0.01	5.428	4.942	3.444	1.983	1.497	0.723	0.749	4.683	0.75	0.58
1869	1854	1856	15	338.00	0.01	6.506	5.923	3.521	2.984	2.402	0.655	0.757	5.406	0.75	0.52
187	198	200	8	402.00	0.00	0.781	0.389	0.145	0.636	0.244	0.195	0.174	1.711	0.50	0.29
1871	1856	1858	15	302.00	0.01	5.998	5.461	3.545	2.453	1.916	0.691	0.760	5.091	0.75	0.55
1873	1858	1860	15	52.00	0.01	6.351	5.783	3.545	2.806	2.238	0.667	0.760	5.317	0.75	0.53
1875	1860	1862	14	327.00	0.01	4.616	2.300	3.570	1.047	-1.269	0.770	0.778	4.767	0.50	0.66
1877	1862	1864	14	400.00	0.00	3.300	1.644	2.319	0.981	-0.675	0.721	0.622	3.343	0.50	0.62

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
1879	1864	1866	14	263.00	0.01	3.640	1.814	2.552	1.088	-0.738	0.720	0.654	3.685	0.50	0.62
1885	1870	1872	15	97.00	0.01	6.477	5.897	2.607	3.870	3.290	0.552	0.647	4.992	0.75	0.44
1887	1872	1874	15	171.00	0.01	6.970	6.346	2.672	4.298	3.674	0.537	0.656	5.303	0.75	0.43
1889	1874	1876	15	207.00	0.01	6.351	5.782	2.672	3.679	3.110	0.566	0.656	4.952	0.75	0.45
189	200	202	8	300.00	0.02	1.477	0.736	0.157	1.321	0.579	0.147	0.181	2.753	0.50	0.22
1891	1876	1878	15	359.00	0.01	6.611	6.019	3.162	3.449	2.857	0.609	0.716	5.327	0.75	0.49
1893	1878	1880	15	81.00	0.01	5.574	5.075	4.754	0.821	0.322	0.888	0.884	5.102	0.75	0.71
1895	1880	1882	15	670.00	0.01	5.815	5.294	4.754	1.061	0.540	0.859	0.884	5.285	0.75	0.69
1897	1882	1884	15	140.00	0.01	5.996	5.460	4.764	1.233	0.696	0.841	0.885	5.422	0.75	0.67
1899	1884	1886	15	600.00	0.01	5.751	5.236	4.854	0.897	0.382	0.880	0.893	5.254	0.75	0.70
19	22	24	10	420.00	0.02	3.092	1.541	1.031	2.061	0.510	0.331	0.451	5.099	0.50	0.40
1901	1866	1870	14	694.77	0.01	5.260	2.621	2.581	2.679	0.040	0.577	0.658	4.897	0.50	0.50
1903	1140	1888	12	651.76	0.01	3.464	1.726	2.366	1.099	-0.639	0.606	0.658	4.747	0.50	0.61
1905	1888	1890	12	23.00	0.01	2.979	1.485	2.366	0.614	-0.881	0.673	0.658	4.209	0.50	0.67
1907	1890	1892	12	939.69	0.01	3.023	1.506	2.374	0.649	-0.868	0.668	0.660	4.262	0.50	0.67
191	202	204	10	300.00	0.00	1.384	0.689	0.162	1.222	0.528	0.192	0.173	1.697	0.50	0.23
1913	1896	1898	15	478.00	0.00	2.857	2.601	3.472	-0.616	-0.871	1.250	0.679	2.328	0.75	1.00
1915	1898	1900	15	649.00	0.01	6.366	5.796	3.480	2.886	2.316	0.659	0.753	5.303	0.75	0.53
1917	1900	1902	15	1672.53	0.01	5.470	4.980	3.616	1.854	1.364	0.742	0.768	4.763	0.75	0.59
1919	1902	1904	15	55.00	0.01	7.307	6.653	3.648	3.659	3.005	0.624	0.771	5.952	0.75	0.50
1921	1904	1906	15	302.00	0.01	7.593	6.913	3.648	3.945	3.265	0.611	0.771	6.125	0.75	0.49
1923	1906	1908	15	740.00	0.01	7.589	6.910	3.655	3.935	3.255	0.611	0.772	6.126	0.75	0.49
1925	1908	1910	15	1043.61	0.01	5.369	4.888	3.665	1.703	1.223	0.758	0.773	4.708	0.75	0.61
193	204	206	10	108.00	0.00	1.449	0.722	0.162	1.288	0.561	0.188	0.173	1.754	0.50	0.23
1939	1922	1924	15	339.00	0.01	6.381	5.809	3.704	2.677	2.106	0.684	0.778	5.392	0.75	0.55
1941	1862	1926	8	379.00	0.01	1.269	0.633	1.269	0.000	-0.637	0.667	0.533	3.636	0.50	1.00
1943	1926	1896	8	340.00	0.00	0.794	0.396	1.569	-0.775	-1.173	0.667	0.422	2.275	0.50	1.00
1945	1892	1896	12	474.00	0.01	3.091	1.540	2.390	0.701	-0.850	0.660	0.662	4.345	0.50	0.66
1947	1910	1914	15	679.00	0.01	6.139	5.589	3.678	2.461	1.911	0.697	0.775	5.227	0.75	0.56
1949	1914	1918	15	678.00	0.01	6.214	5.657	3.681	2.533	1.976	0.692	0.775	5.277	0.75	0.55
195	206	208	10	190.00	0.02	3.312	1.651	0.173	3.140	1.478	0.129	0.179	3.206	0.50	0.16
1951	1918	1922	15	683.00	0.01	6.439	5.862	3.700	2.739	2.162	0.680	0.777	5.429	0.75	0.54
1953	1928	1930	8	279.00	0.01	0.960	0.478	0.366	0.593	0.112	0.286	0.281	2.564	0.50	0.43
1959	1934	1936	8	391.00	0.02	1.644	0.819	0.467	1.177	0.352	0.243	0.319	4.056	0.50	0.37
1961	1936	1938	8	361.00	0.01	1.259	0.628	0.506	0.754	0.122	0.294	0.333	3.410	0.50	0.44
1963	1938	1940	8	361.00	0.02	1.626	0.810	0.516	1.109	0.294	0.258	0.337	4.135	0.50	0.39
1965	1940	1942	8	719.00	0.01	1.293	0.644	0.541	0.752	0.104	0.301	0.345	3.539	0.50	0.45
1967	1942	1944	8	299.00	0.01	1.339	0.667	0.559	0.780	0.108	0.300	0.351	3.662	0.50	0.45
1969	1944	1946	8	299.00	0.01	1.453	0.724	0.559	0.894	0.165	0.287	0.351	3.891	0.50	0.43
197	208	158	10	192.00	0.03	3.688	1.838	0.175	3.513	1.663	0.123	0.180	3.468	0.50	0.15
1971	1946	1948	8	219.00	0.01	1.385	0.690	0.559	0.826	0.131	0.295	0.351	3.755	0.50	0.44
1979	1954	1956	8	412.00	0.01	0.857	0.427	0.612	0.244	-0.186	0.417	0.368	2.667	0.50	0.63
1981	1956	1958	8	158.00	0.03	1.921	0.957	0.626	1.295	0.331	0.262	0.372	4.918	0.50	0.39
1983	1958	1960	8	240.00	0.00	0.782	0.390	0.626	0.156	-0.236	0.451	0.372	2.489	0.50	0.68
1985	1960	1962	8	461.00	0.01	1.234	0.615	1.100	0.134	-0.485	0.491	0.498	3.995	0.50	0.74
1987	1962	1964	8	870.00	0.01	1.432	0.713	1.109	0.322	-0.396	0.441	0.500	4.530	0.50	0.66
1989	1964	1966	8	402.00	0.01	0.859	0.428	1.224	-0.366	-0.796	0.667	0.439	2.460	0.50	1.00
199	14	210	8	355.00	0.04	2.277	1.135	0.923	1.354	0.211	0.295	0.456	6.182	0.50	0.44
1991	1966	1968	8	400.00	0.02	1.497	0.746	1.276	0.222	-0.529	0.473	0.534	4.817	0.50	0.71
1993	1968	1970	8	810.00	0.01	1.139	0.568	1.763	-0.624	-1.196	0.667	0.506	3.263	0.50	1.00
1995	1970	1972	8	430.76	0.01	1.001	0.499	2.151	-1.150	-1.653	0.667	0.475	2.868	0.50	1.00
1997	1972	1974	8	824.62	0.00	0.654	0.326	2.209	-1.555	-1.883	0.667	0.381	1.873	0.50	1.00
1999	1974	1976	8	98.46	0.00	0.488	0.243	2.273	-1.784	-2.029	0.667	0.327	1.399	0.50	1.00

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2001	1976	1978	8	541.56	0.01	1.064	0.530	2.273	-1.208	-1.742	0.667	0.490	3.049	0.50	1.00
2003	1978	1980	8	270.58	0.02	1.504	0.749	2.289	-0.785	-1.539	0.667	0.573	4.309	0.50	1.00
2005	3426	3430	24	639.77	0.01	22.221	20.232	5.702	16.520	14.530	0.691	0.843	5.922	0.75	0.35
2007	1930	1934	8	391.00	0.02	1.644	0.819	0.366	1.278	0.453	0.214	0.281	3.791	0.50	0.32
2009	1948	1954	8	904.00	0.01	1.358	0.677	0.559	0.799	0.118	0.298	0.351	3.702	0.50	0.45
201	210	18	8	350.00	0.05	2.813	1.401	0.927	1.886	0.475	0.263	0.457	7.225	0.50	0.40
2011	1984	1986	10	650.00	0.01	2.088	1.040	1.066	1.022	-0.026	0.422	0.459	3.848	0.50	0.51
2013	1986	1988	10	182.00	0.01	2.559	1.275	1.805	0.754	-0.530	0.516	0.603	5.085	0.50	0.62
2015	1988	1990	10	1532.50	0.01	1.944	0.969	2.042	-0.098	-1.073	0.833	0.625	3.564	0.50	1.00
2017	1990	1992	10	350.00	0.01	1.965	0.979	2.185	-0.220	-1.206	0.833	0.629	3.603	0.50	1.00
2019	1992	1994	10	568.77	0.01	2.180	1.086	2.192	-0.012	-1.106	0.833	0.661	3.997	0.50	1.00
2021	1994	1878	10	430.04	0.01	1.907	0.950	2.271	-0.364	-1.320	0.833	0.620	3.496	0.50	1.00
2023	1886	1996	15	170.00	0.01	4.892	4.454	4.884	0.009	-0.429	1.022	0.896	4.545	0.75	0.82
2031	2004	2006	18	453.00	0.01	7.521	6.848	5.072	2.449	1.776	0.902	0.867	4.568	0.75	0.60
2033	2006	2008	18	18.00	0.04	20.770	18.910	5.103	15.667	13.807	0.507	0.870	9.723	0.75	0.34
2035	2008	2010	18	656.78	0.01	11.961	10.890	5.243	6.717	5.646	0.695	0.882	6.546	0.75	0.46
2037	2010	2012	18	26.86	0.00	4.978	4.532	5.249	-0.271	-0.717	1.500	0.858	2.817	0.75	1.00
2039	2012	2014	18	423.38	0.00	6.535	5.950	7.936	-1.401	-1.986	1.500	0.989	3.698	0.75	1.00
2041	2014	2016	21	354.00	0.01	11.138	10.141	7.939	3.199	2.202	1.092	1.045	5.030	0.75	0.62
2043	2016	2018	21	323.00	0.01	10.681	9.725	7.941	2.740	1.784	1.124	1.045	4.865	0.75	0.64
2045	2018	2020	21	484.00	0.01	17.659	16.078	8.038	9.621	8.040	0.828	1.052	7.170	0.75	0.47
2047	1996	2004	15	264.00	0.01	4.866	4.430	4.894	-0.028	-0.464	1.250	0.894	3.965	0.75	1.00
2049	2020	2022	24	659.84	0.01	19.863	18.085	8.618	11.246	9.467	0.921	1.047	6.098	0.75	0.46
2051	2022	2024	24	510.79	0.01	16.461	14.987	8.618	7.843	6.369	1.028	1.047	5.300	0.75	0.51
2053	2024	2026	24	680.00	0.01	20.232	18.421	8.756	11.476	9.665	0.920	1.056	6.208	0.75	0.46
2055	2026	2028	24	235.00	0.02	33.741	30.721	8.831	24.911	21.890	0.698	1.060	9.042	0.75	0.35
2057	1924	2030	15	214.00	0.00	3.935	3.583	3.708	0.228	-0.125	0.965	0.778	3.647	0.75	0.77
2059	2030	2028	15	599.48	0.01	4.387	3.994	3.708	0.679	0.286	0.881	0.778	4.009	0.75	0.71
2063	2034	2036	8	1318.01	0.01	1.150	0.573	0.098	1.051	0.475	0.132	0.143	2.012	0.50	0.20
2065	2036	2038	8	660.00	0.01	1.445	0.720	0.148	1.298	0.573	0.144	0.176	2.664	0.50	0.22
2067	2038	2040	8	306.00	0.01	0.845	0.421	0.238	0.608	0.184	0.242	0.225	2.079	0.50	0.36
2073	2044	2046	8	338.00	0.01	1.303	0.649	0.291	1.012	0.358	0.214	0.250	3.007	0.50	0.32
2075	2046	2048	8	342.00	0.01	1.040	0.518	0.373	0.667	0.146	0.276	0.284	2.732	0.50	0.41
2077	2048	2050	8	340.00	0.01	1.057	0.527	0.384	0.674	0.143	0.278	0.288	2.788	0.50	0.42
2079	2050	2052	8	340.00	0.01	1.194	0.595	0.454	0.740	0.141	0.285	0.315	3.186	0.50	0.43
2081	2052	2054	8	681.00	0.01	1.153	0.575	0.457	0.697	0.118	0.292	0.316	3.111	0.50	0.44
2087	2058	2060	8	40.00	0.09	3.579	1.783	0.518	3.061	1.265	0.171	0.337	7.299	0.50	0.26
2089	2060	2062	10	284.00	0.01	2.212	1.102	0.518	1.694	0.584	0.274	0.315	3.311	0.50	0.33
209	222	224	8	533.05	0.08	3.315	1.652	0.037	3.278	1.615	0.050	0.087	3.155	0.50	0.07
2091	2062	2064	10	82.64	0.01	1.585	0.790	0.522	1.063	0.268	0.329	0.316	2.605	0.50	0.40
2093	2040	2044	8	678.00	0.01	1.179	0.587	0.252	0.927	0.336	0.209	0.232	2.687	0.50	0.31
2095	2054	2058	8	340.00	0.01	1.117	0.557	0.517	0.600	0.039	0.319	0.337	3.139	0.50	0.48
2097	1986	2066	10	371.00	0.01	2.008	1.001	1.498	0.510	-0.497	0.536	0.548	4.036	0.50	0.64
2099	2066	2068	10	318.00	0.01	2.155	1.074	1.799	0.356	-0.725	0.582	0.602	4.422	0.50	0.70
2101	2068	2070	10	1410.77	0.01	1.901	0.948	1.839	0.063	-0.891	0.660	0.609	3.972	0.50	0.79
2103	2070	2072	10	680.00	0.01	1.974	0.984	1.840	0.134	-0.857	0.637	0.609	4.112	0.50	0.77
2105	2072	2074	12	1440.85	0.01	3.263	1.626	3.766	-0.504	-2.141	1.000	0.773	4.154	0.50	1.00
2107	2074	2076	12	342.00	0.01	3.139	1.564	3.816	-0.677	-2.252	1.000	0.759	3.996	0.50	1.00
2109	2076	2078	12	343.00	0.01	3.525	1.757	3.826	-0.301	-2.070	1.000	0.802	4.488	0.50	1.00
211	224	226	8	124.00	0.02	1.866	0.930	0.043	1.823	0.887	0.070	0.094	2.207	0.50	0.11
2111	2078	2080	12	349.00	0.01	3.552	1.770	3.837	-0.286	-2.067	1.000	0.805	4.522	0.50	1.00
2113	2080	2012	12	345.00	0.02	5.554	2.768	3.849	1.705	-1.082	0.612	0.834	7.635	0.50	0.61
2115	2082	2084	10	1637.42	0.00	1.193	0.595	0.207	0.987	0.388	0.235	0.196	1.639	0.50	0.28

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2117	2084	2086	12	1067.68	0.00	1.989	0.991	0.440	1.549	0.551	0.320	0.274	2.034	0.50	0.32
2119	2086	2088	12	991.06	0.00	2.317	1.155	0.477	1.840	0.678	0.308	0.286	2.322	0.50	0.31
2121	2088	2090	12	318.00	0.01	3.018	1.504	0.498	2.520	1.006	0.275	0.293	2.841	0.50	0.28
2123	2090	2092	12	658.54	0.02	4.340	2.163	0.511	3.829	1.651	0.232	0.297	3.706	0.50	0.23
2125	2092	2094	12	1380.66	0.01	2.706	1.348	0.518	2.188	0.830	0.296	0.298	2.656	0.50	0.30
2127	2094	2096	12	63.56	0.00	1.002	0.499	0.518	0.484	-0.018	0.510	0.298	1.286	0.50	0.51
2129	2096	2098	12	813.00	0.00	2.115	1.054	0.518	1.597	0.536	0.337	0.298	2.225	0.50	0.34
213	226	228	8	248.89	0.07	3.260	1.625	0.060	3.200	1.565	0.063	0.111	3.601	0.50	0.09
2133	2102	2104	10	668.00	0.01	1.793	0.893	0.093	1.700	0.801	0.129	0.130	1.731	0.50	0.16
2135	2104	2106	10	37.82	0.02	2.813	1.401	0.093	2.720	1.309	0.104	0.130	2.374	0.50	0.12
2137	2106	2108	10	1384.66	0.01	2.120	1.057	0.093	2.028	0.964	0.119	0.130	1.948	0.50	0.14
2139	2108	2110	10	694.67	0.01	2.298	1.145	0.384	1.913	0.761	0.231	0.270	3.126	0.50	0.28
2141	2110	2112	10	641.00	0.02	2.758	1.374	0.398	2.360	0.976	0.214	0.275	3.596	0.50	0.26
2143	2112	2114	10	882.94	0.01	1.718	0.856	0.410	1.308	0.446	0.277	0.279	2.585	0.50	0.33
2145	2114	2116	10	1137.41	0.01	1.590	0.792	0.423	1.167	0.369	0.293	0.284	2.466	0.50	0.35
2147	2116	2118	10	328.22	0.00	1.043	0.520	0.590	0.453	-0.070	0.449	0.337	1.971	0.50	0.54
2149	2118	2120	10	170.49	0.00	0.336	0.168	0.647	-0.311	-0.480	0.833	0.252	0.617	0.50	1.00
215	228	230	8	377.50	0.01	1.227	0.611	0.073	1.154	0.538	0.110	0.123	1.930	0.50	0.17
2151	2120	2122	10	28.45	0.01	2.100	1.047	0.647	1.453	0.399	0.318	0.354	3.391	0.50	0.38
2153	2098	2122	12	413.27	0.00	2.064	1.029	0.532	1.532	0.497	0.346	0.303	2.203	0.50	0.35
2155	2122	2124	15	781.48	0.00	4.190	3.815	1.047	3.143	2.768	0.426	0.402	2.838	0.75	0.34
217	230	232	8	129.00	0.01	1.178	0.587	0.074	1.105	0.513	0.113	0.123	1.880	0.50	0.17
2173	2140	2142	18	104.19	0.01	8.694	7.916	1.539	7.155	6.377	0.427	0.466	3.710	0.75	0.29
2175	2136	2140	18	652.51	0.00	4.665	4.247	1.484	3.181	2.763	0.582	0.457	2.345	0.75	0.39
2177	2132	2136	18	467.10	0.00	6.823	6.212	1.447	5.376	4.765	0.469	0.451	3.065	0.75	0.31
2179	2128	2132	18	618.00	0.00	5.137	4.677	1.230	3.907	3.447	0.500	0.415	2.387	0.75	0.33
2181	2124	2128	15	278.00	0.01	5.602	5.101	1.201	4.402	3.900	0.393	0.432	3.635	0.75	0.31
2183	1700	2144	30	479.00	0.01	30.934	28.165	2.882	28.053	25.283	0.516	0.556	3.947	0.75	0.21
2185	2144	2146	30	905.27	0.01	30.626	27.884	2.882	27.744	25.002	0.518	0.556	3.919	0.75	0.21
2187	2146	2148	30	332.00	0.00	26.031	23.700	1.444	24.586	22.256	0.400	0.391	2.850	0.75	0.16
2189	2148	1766	30	328.84	0.01	33.943	30.904	1.663	32.281	29.242	0.376	0.420	3.582	0.75	0.15
219	232	234	8	85.00	0.01	1.403	0.699	0.074	1.329	0.626	0.104	0.123	2.125	0.50	0.16
2191	1766	2150	30	316.00	0.01	32.882	29.938	8.986	23.896	20.952	0.893	0.999	5.707	0.75	0.36
2193	2150	2152	30	325.00	0.01	34.823	31.705	8.986	25.837	22.719	0.866	0.999	5.949	0.75	0.35
2199	2156	2164	30	1.00	3.40	758.343	690.447	9.009	749.334	681.438	0.191	1.001	52.262	0.75	0.08
2201	2158	2160	36	545.00	0.00	42.297	38.510	9.109	33.188	29.401	0.945	0.953	4.771	0.75	0.32
2203	2160	2162	36	488.00	0.01	47.289	43.056	9.217	38.072	33.838	0.898	0.959	5.185	0.75	0.30
2205	2162	1556	36	641.00	0.01	80.381	73.185	9.320	71.062	63.865	0.690	0.965	7.592	0.75	0.23
2207	2164	2158	30	170.29	0.00	18.910	17.217	9.009	9.901	8.208	1.215	1.001	3.806	0.75	0.49
2209	2152	2156	30	815.00	0.00	17.106	15.575	8.986	8.121	6.589	1.287	0.999	3.528	0.75	0.52
221	234	236	8	219.00	0.02	1.717	0.856	0.074	1.643	0.781	0.095	0.124	2.456	0.50	0.14
2211	1556	2166	39	1329.64	0.01	59.812	54.457	22.500	37.312	31.957	1.381	1.489	6.699	0.75	0.43
2213	2166	2168	39	36.27	0.02	128.226	116.746	22.500	105.726	94.246	0.921	1.489	11.628	0.75	0.28
2215	2168	2170	48	663.00	0.00	64.509	58.734	22.500	42.009	36.234	1.630	1.399	4.674	0.75	0.41
2217	2170	2172	48	596.00	0.00	31.771	28.926	22.786	8.985	6.140	2.506	1.408	2.750	0.75	0.63
2219	2172	2174	48	600.00	0.01	119.206	108.533	22.920	96.286	85.613	1.189	1.412	7.324	0.75	0.30
2221	2174	2176	48	258.00	0.00	64.037	58.303	23.020	41.016	35.283	1.658	1.415	4.678	0.75	0.41
2223	2176	2178	48	867.79	0.00	64.122	58.381	23.020	41.102	35.361	1.657	1.415	4.682	0.75	0.41
2225	2178	2180	48	1239.04	0.00	69.198	63.003	23.020	46.178	39.983	1.589	1.415	4.951	0.75	0.40
2227	2180	2182	48	308.78	0.00	73.768	67.164	23.034	50.734	44.130	1.535	1.416	5.188	0.75	0.38
2229	2182	2184	48	191.00	0.03	244.631	222.729	23.034	221.597	199.695	0.829	1.416	12.231	0.75	0.21
223	236	238	8	170.00	0.00	0.416	0.207	0.080	0.335	0.127	0.199	0.129	0.920	0.50	0.30
2231	2184	2186	54	502.27	0.00	69.277	63.074	23.034	46.242	40.040	1.787	1.368	3.915	0.75	0.40

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2233	2186	2188	54	441.00	0.00	68.357	62.236	23.312	45.044	38.924	1.812	1.376	3.890	0.75	0.40
2235	2188	2190	54	1020.15	0.00	64.748	58.951	23.324	41.423	35.627	1.867	1.377	3.739	0.75	0.42
2237	2190	2192	54	310.74	0.00	65.224	59.384	23.386	41.838	35.998	1.862	1.379	3.762	0.75	0.41
2239	2192	2194	54	600.00	0.00	68.305	62.189	23.439	44.866	38.751	1.818	1.380	3.894	0.75	0.40
2241	2194	2442	54	567.30	0.00	26.179	23.835	23.954	2.225	-0.119	3.385	1.396	1.866	0.75	0.75
225	238	240	8	191.00	0.01	1.037	0.517	0.083	0.954	0.434	0.128	0.131	1.780	0.50	0.19
2253	2206	2208	54	469.00	0.00	68.135	62.035	24.330	43.805	37.704	1.858	1.407	3.926	0.75	0.41
2255	2208	2210	54	466.87	0.00	107.976	98.309	24.388	83.589	73.921	1.454	1.409	5.486	0.75	0.32
2257	2210	2212	54	692.78	0.00	53.499	48.709	27.163	26.336	21.546	2.270	1.489	3.377	0.75	0.51
2259	2212	3524	54	515.15	0.00	70.041	63.770	27.163	42.878	36.607	1.945	1.489	4.125	0.75	0.43
2261	2202	2206	54	518.19	0.00	68.205	62.098	24.044	44.161	38.054	1.845	1.398	3.916	0.75	0.41
2263	2196	2202	54	1820.72	0.00	69.161	62.969	24.012	45.149	38.957	1.830	1.397	3.955	0.75	0.41
2265	2146	2216	30	116.00	0.00	25.899	23.580	1.437	24.461	22.143	0.400	0.390	2.836	0.75	0.16
2267	2216	2218	30	370.00	0.01	30.910	28.143	1.656	29.254	26.487	0.393	0.419	3.350	0.75	0.16
2269	2218	2220	27	504.72	0.02	45.989	41.871	1.656	44.333	40.216	0.292	0.431	5.465	0.75	0.13
227	240	242	8	740.00	0.03	2.122	1.057	0.088	2.035	0.970	0.092	0.134	2.991	0.50	0.14
2271	2220	2222	27	372.00	0.01	32.720	29.790	1.656	31.064	28.134	0.344	0.431	4.304	0.75	0.15
2273	2222	2224	27	682.00	0.01	30.269	27.559	1.656	28.613	25.903	0.357	0.431	4.075	0.75	0.16
2275	2224	2226	30	616.11	0.01	34.756	31.644	1.656	33.100	29.988	0.371	0.419	3.637	0.75	0.15
2279	2228	2230	30	216.00	0.02	50.058	45.576	1.656	48.402	43.920	0.311	0.419	4.698	0.75	0.13
2281	2230	2142	30	117.70	0.06	96.426	87.793	0.986	95.440	86.807	0.178	0.322	6.349	0.75	0.07
2283	2232	2234	8	2763.07	0.01	1.220	0.608	0.227	0.993	0.381	0.195	0.219	2.671	0.50	0.29
2285	2234	2236	8	298.59	0.01	1.091	0.544	0.657	0.434	-0.113	0.373	0.382	3.269	0.50	0.56
229	242	244	8	149.00	0.02	1.803	0.898	0.095	1.708	0.804	0.104	0.140	2.732	0.50	0.16
2295	2240	2244	27	301.61	0.02	42.199	38.421	0.806	41.394	37.615	0.216	0.299	4.145	0.75	0.10
2297	2244	2246	27	29.97	0.04	64.172	58.426	0.806	63.366	57.621	0.177	0.299	5.553	0.75	0.08
2299	2246	2248	27	123.75	0.00	20.130	18.328	0.806	19.324	17.522	0.307	0.299	2.469	0.75	0.14
23	24	28	10	38.00	0.03	3.492	1.740	1.062	2.430	0.678	0.315	0.458	5.616	0.50	0.38
2301	2248	2250	27	24.01	0.01	22.852	20.806	0.806	22.046	20.000	0.289	0.299	2.699	0.75	0.13
2303	2250	2252	33	139.31	0.01	51.028	46.459	0.806	50.222	45.653	0.241	0.283	3.168	0.75	0.09
2305	2252	2254	33	62.71	0.00	32.115	29.240	0.806	31.309	28.434	0.300	0.283	2.292	0.75	0.11
2307	2254	2256	33	88.54	0.00	26.433	24.066	0.806	25.627	23.261	0.330	0.283	2.001	0.75	0.12
2309	2256	2258	33	31.27	0.03	88.446	80.527	0.806	87.640	79.721	0.186	0.283	4.648	0.75	0.07
231	244	246	8	99.00	0.04	2.310	1.151	0.106	2.205	1.045	0.097	0.148	3.361	0.50	0.15
2311	2258	2260	33	55.27	0.03	84.399	76.843	0.806	83.593	76.037	0.190	0.283	4.499	0.75	0.07
2313	2260	2262	36	873.60	0.01	47.892	43.604	0.806	47.086	42.798	0.271	0.277	2.547	0.75	0.09
2315	2262	2264	36	33.89	0.00	38.103	34.692	0.806	37.297	33.886	0.302	0.277	2.171	0.75	0.10
2317	2264	2266	30	467.03	0.02	49.808	45.349	0.806	49.002	44.543	0.221	0.291	3.769	0.75	0.09
2319	2266	2268	30	78.50	0.04	86.719	78.955	0.806	85.913	78.149	0.170	0.291	5.547	0.75	0.07
2321	2268	2270	42	624.64	0.00	50.090	45.605	0.806	49.284	44.799	0.309	0.266	1.931	0.75	0.09
2323	2270	2272	42	1202.80	0.00	50.297	45.794	0.806	49.491	44.988	0.309	0.266	1.936	0.75	0.09
2329	2230	2240	27	24.52	0.03	52.466	47.768	0.670	51.795	47.098	0.178	0.272	4.563	0.75	0.08
233	246	248	8	399.00	0.00	0.809	0.403	0.106	0.703	0.297	0.163	0.148	1.605	0.50	0.25
2335	2226	2228	30	98.00	0.02	60.774	55.333	1.656	59.118	53.677	0.284	0.419	5.381	0.75	0.11
2339	2236	2242	8	382.61	0.01	1.144	0.570	0.676	0.468	-0.106	0.369	0.388	3.413	0.50	0.55
2345	2142	2282	14	360.54	0.00	1.419	0.707	2.296	-0.877	-1.589	1.167	0.481	1.327	0.50	1.00
2347	2242	2288	8	214.68	0.06	2.963	1.477	0.692	2.271	0.785	0.219	0.392	6.923	0.50	0.33
2349	2288	2286	8	782.15	0.01	1.328	0.662	0.692	0.636	-0.030	0.342	0.392	3.844	0.50	0.51
235	248	250	8	155.00	0.01	0.870	0.434	0.106	0.764	0.328	0.157	0.148	1.690	0.50	0.24
2351	2286	2290	14	401.51	0.00	2.250	1.121	0.802	1.448	0.319	0.481	0.358	1.928	0.50	0.41
2353	2290	2292	14	322.05	0.00	2.686	1.338	0.941	1.744	0.397	0.477	0.389	2.290	0.50	0.41
2355	2292	2294	14	213.00	0.00	2.121	1.057	0.947	1.174	0.109	0.546	0.390	1.928	0.50	0.47
2357	2294	2296	14	28.07	0.04	10.471	5.218	0.947	9.524	4.270	0.237	0.390	6.083	0.50	0.20

City of San Bernardino
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Existing Peaked Model Analysis

ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
2359	2296	2298	14	2484.87	0.01	3.765	1.876	0.947	2.817	0.929	0.399	0.390	2.933	0.50	0.34
2361	2298	2300	14	60.61	0.01	4.894	2.439	1.121	3.774	1.318	0.380	0.425	3.713	0.50	0.33
2363	2300	2302	10	261.00	0.01	1.814	0.904	1.341	0.473	-0.437	0.533	0.518	3.640	0.50	0.64
2365	2272	2304	42	165.08	0.02	130.914	119.193	0.997	129.917	118.196	0.217	0.296	4.022	0.75	0.06
2367	2304	2306	42	71.30	0.00	59.737	54.388	4.192	55.544	50.196	0.628	0.613	3.578	0.75	0.18
2369	2306	2308	54	744.00	0.00	104.508	95.151	20.512	83.996	74.639	1.352	1.288	5.103	0.75	0.30
237	250	252	8	859.56	0.01	0.962	0.479	0.111	0.851	0.368	0.153	0.152	1.837	0.50	0.23
2375	2314	2316	12	520.52	0.00	2.089	1.041	0.366	1.723	0.675	0.283	0.250	2.000	0.50	0.28
2377	2316	2300	12	78.84	0.00	1.799	0.897	0.375	1.424	0.521	0.310	0.253	1.810	0.50	0.31
2379	2310	2306	45	444.00	0.00	71.181	64.808	18.238	52.943	46.570	1.295	1.279	5.394	0.75	0.35
2381	2318	2320	8	603.00	0.00	0.666	0.332	0.000	0.666	0.332	0.000	0.000	0.000	0.50	0.00
2383	2320	2322	8	124.46	0.00	0.154	0.077	0.023	0.131	0.054	0.173	0.068	0.315	0.50	0.26
2385	2322	3666	8	81.37	0.13	4.408	2.196	0.023	4.385	2.174	0.034	0.068	3.309	0.50	0.05
2387	2324	2326	8	52.00	0.03	1.967	0.980	0.023	1.944	0.957	0.050	0.068	1.887	0.50	0.08
2389	2326	2328	12	36.07	0.02	4.568	2.276	0.227	4.342	2.050	0.151	0.195	3.024	0.50	0.15
239	252	254	8	76.00	0.01	1.077	0.536	0.124	0.952	0.412	0.153	0.161	2.055	0.50	0.23
2391	2328	2330	12	676.00	0.01	2.533	1.262	0.227	2.307	1.036	0.202	0.195	1.996	0.50	0.20
2393	2330	2332	12	496.00	0.01	2.511	1.251	0.252	2.259	0.999	0.214	0.206	2.046	0.50	0.21
2395	2332	2314	12	583.43	0.00	2.267	1.130	0.350	1.917	0.779	0.266	0.244	2.094	0.50	0.27
2399	2336	2338	15	42.57	0.02	8.423	7.669	0.462	7.961	7.207	0.199	0.264	3.676	0.75	0.16
2401	2338	2340	15	368.00	0.01	5.619	5.116	0.462	5.158	4.654	0.242	0.264	2.764	0.75	0.19
2403	2340	2342	15	1478.43	0.01	5.879	5.353	0.508	5.370	4.844	0.248	0.278	2.936	0.75	0.20
2405	2342	2344	21	739.30	0.00	7.132	6.494	0.587	6.545	5.906	0.340	0.272	1.791	0.75	0.19
2407	2344	2346	21	61.92	0.00	6.696	6.097	0.623	6.073	5.473	0.361	0.281	1.743	0.75	0.21
2409	2346	3648	21	831.78	0.00	6.724	6.122	0.671	6.053	5.451	0.374	0.292	1.787	0.75	0.21
241	254	256	8	298.54	0.00	0.443	0.221	0.128	0.315	0.093	0.246	0.164	1.100	0.50	0.37
2411	2348	2350	18	319.00	0.00	4.293	3.909	0.805	3.488	3.103	0.440	0.334	1.863	0.75	0.29
2419	2356	2358	18	605.00	0.01	7.292	6.639	1.274	6.018	5.365	0.424	0.422	3.100	0.75	0.28
2421	2358	2360	18	305.00	0.01	7.793	7.096	1.274	6.519	5.822	0.410	0.422	3.251	0.75	0.27
2423	2360	2362	18	166.00	0.02	13.054	11.885	1.274	11.780	10.611	0.317	0.422	4.690	0.75	0.21
2425	2362	2364	18	324.00	0.00	5.938	5.407	1.274	4.664	4.133	0.472	0.422	2.676	0.75	0.32
2427	2364	2366	18	325.00	0.00	5.958	5.425	1.276	4.682	4.148	0.471	0.423	2.684	0.75	0.31
2429	2366	2368	21	325.00	0.01	10.757	9.794	1.280	9.477	8.514	0.408	0.405	3.008	0.75	0.23
2435	2372	2374	18	354.00	0.00	6.407	5.833	1.282	5.125	4.551	0.455	0.424	2.831	0.75	0.30
2437	2374	2376	21	905.72	0.00	4.662	4.245	1.282	3.380	2.963	0.627	0.406	1.654	0.75	0.36
2441	2378	2380	21	263.62	0.00	8.474	7.715	1.419	7.055	6.296	0.484	0.427	2.615	0.75	0.28
2443	2380	2382	21	456.00	0.00	6.044	5.503	1.553	4.492	3.951	0.605	0.447	2.105	0.75	0.35
2445	2382	2384	24	319.00	0.00	7.184	6.541	1.683	5.501	4.858	0.659	0.449	1.867	0.75	0.33
2449	2350	2404	18	299.96	0.01	7.906	7.198	0.805	7.100	6.392	0.323	0.334	2.876	0.75	0.22
2451	2368	2372	18	155.00	0.00	4.710	4.288	1.282	3.428	3.006	0.535	0.424	2.269	0.75	0.36
2453	2376	2388	21	36.00	0.01	12.972	11.811	1.282	11.690	10.528	0.372	0.406	3.437	0.75	0.21
2455	2388	2378	21	420.31	0.00	9.772	8.897	1.282	8.489	7.614	0.428	0.406	2.811	0.75	0.25
2457	2390	2392	10	224.00	0.00	0.704	0.351	0.376	0.328	-0.026	0.434	0.267	1.312	0.50	0.52
2459	2392	2394	10	265.00	0.01	1.899	0.946	0.376	1.523	0.570	0.252	0.267	2.711	0.50	0.30
2461	2394	3668	8	160.40	0.07	3.230	1.610	0.400	2.830	1.209	0.158	0.295	6.298	0.50	0.24
2463	2396	2398	10	778.00	0.01	1.667	0.831	0.438	1.229	0.393	0.292	0.289	2.576	0.50	0.35
2465	2398	2400	10	228.00	0.00	0.504	0.251	0.445	0.059	-0.194	0.609	0.291	1.043	0.50	0.73
2469	2404	2356	18	81.48	0.00	4.667	4.249	1.224	3.443	3.025	0.524	0.414	2.225	0.75	0.35
247	260	262	8	110.00	0.09	3.664	1.826	0.138	3.526	1.688	0.088	0.170	5.030	0.50	0.13
2471	2400	2404	10	1195.29	0.01	1.625	0.810	0.459	1.166	0.351	0.303	0.296	2.562	0.50	0.36
2473	2406	2408	10	963.64	0.01	1.552	0.773	0.000	1.552	0.773	0.000	0.000	0.000	0.50	0.00
2475	2408	2410	12	1122.19	0.01	2.845	1.418	0.174	2.672	1.244	0.168	0.171	2.004	0.50	0.17
2477	2410	2412	12	697.58	0.01	3.201	1.595	0.174	3.027	1.421	0.158	0.171	2.176	0.50	0.16

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2479	2412	2414	12	640.18	0.01	3.241	1.615	0.324	2.918	1.291	0.213	0.234	2.638	0.50	0.21
2481	2414	2416	12	406.00	0.01	3.331	1.660	0.452	2.879	1.208	0.249	0.278	2.963	0.50	0.25
2483	2416	2418	12	188.00	0.02	5.065	2.524	0.604	4.461	1.920	0.233	0.323	4.341	0.50	0.23
2485	2418	2420	12	414.00	0.01	3.463	1.725	0.635	2.827	1.090	0.290	0.332	3.359	0.50	0.29
2487	2420	2422	15	1012.27	0.00	4.172	3.798	0.723	3.449	3.076	0.352	0.332	2.548	0.75	0.28
2489	2422	2424	15	186.00	0.00	3.457	3.148	0.813	2.645	2.335	0.412	0.353	2.302	0.75	0.33
249	262	264	8	183.75	0.02	1.868	0.931	0.139	1.730	0.792	0.123	0.170	3.138	0.50	0.19
2491	2424	2186	15	60.00	0.08	18.281	16.645	0.817	17.465	15.828	0.180	0.354	7.508	0.75	0.14
2493	2426	3552	8	911.94	0.00	0.755	0.376	0.055	0.700	0.321	0.121	0.106	1.258	0.50	0.18
25	28	26	10	136.00	0.08	6.130	3.055	1.062	5.069	1.993	0.235	0.458	8.423	0.50	0.28
2501	2434	2436	12	336.00	0.00	1.765	0.879	0.168	1.596	0.711	0.209	0.168	1.417	0.50	0.21
2503	2436	2438	12	282.00	0.00	1.767	0.881	0.192	1.575	0.689	0.222	0.179	1.473	0.50	0.22
2507	2442	2196	54	62.54	0.01	188.246	171.392	24.012	164.235	147.381	1.085	1.397	8.124	0.75	0.24
2509	2438	2442	12	49.94	0.02	4.927	2.455	0.192	4.736	2.264	0.135	0.179	3.033	0.50	0.14
251	264	266	8	98.73	0.02	1.685	0.840	0.143	1.543	0.697	0.131	0.173	2.940	0.50	0.20
2511	2444	2446	15	381.05	0.01	6.784	6.176	1.018	5.765	5.158	0.327	0.397	3.977	0.75	0.26
2515	2448	2450	15	665.00	0.01	4.652	4.235	1.140	3.512	3.095	0.422	0.421	3.133	0.75	0.34
2517	2450	2452	15	425.00	0.01	7.294	6.641	1.287	6.007	5.354	0.355	0.448	4.478	0.75	0.28
2519	2452	2454	16	425.00	0.00	4.586	4.175	1.307	3.279	2.868	0.487	0.443	2.831	0.75	0.37
2521	2454	2194	16	94.70	0.03	13.784	12.550	1.336	12.447	11.213	0.280	0.448	6.256	0.75	0.21
2527	2446	2448	15	976.76	0.00	4.317	3.931	1.018	3.299	2.913	0.413	0.397	2.877	0.75	0.33
2529	2456	2458	12	971.31	0.01	2.426	1.209	0.000	2.426	1.209	0.000	0.000	0.000	0.50	0.00
253	266	268	8	145.20	0.02	1.815	0.905	0.143	1.672	0.761	0.127	0.173	3.103	0.50	0.19
2531	2458	3670	6	132.55	0.11	1.591	0.793	0.111	1.479	0.681	0.090	0.165	4.665	0.50	0.18
2533	2458	3672	10	140.98	0.10	6.023	3.001	0.146	5.877	2.855	0.090	0.164	4.637	0.50	0.11
2535	2460	2462	21	80.00	0.01	12.560	11.435	4.482	8.078	6.954	0.722	0.775	4.784	0.75	0.41
2537	2462	3676	12	459.68	0.03	5.678	2.829	1.445	4.233	1.385	0.344	0.509	6.038	0.50	0.34
2539	2466	2464	24	508.00	0.00	14.303	13.023	4.482	9.822	8.541	0.769	0.744	4.027	0.75	0.38
2541	2468	2466	24	142.00	0.01	17.755	16.165	4.482	13.273	11.683	0.685	0.744	4.710	0.75	0.34
2543	2462	3674	8	470.70	0.03	1.903	0.948	1.003	0.900	-0.055	0.344	0.475	5.524	0.50	0.52
2545	2462	3678	20	475.37	0.03	21.801	19.850	2.034	19.767	17.815	0.344	0.522	6.262	0.75	0.21
2547	2464	2470	24	1361.64	0.00	14.231	12.957	4.482	9.750	8.475	0.771	0.744	4.013	0.75	0.39
2549	2470	2472	24	73.40	0.00	14.258	12.981	4.484	9.773	8.497	0.771	0.744	4.019	0.75	0.39
255	268	270	8	188.31	0.01	1.045	0.521	0.145	0.899	0.375	0.168	0.174	2.106	0.50	0.25
2551	2472	2474	24	81.69	0.00	12.295	11.194	4.484	7.810	6.709	0.836	0.744	3.606	0.75	0.42
2553	2474	2210	24	939.09	0.00	14.122	12.858	5.177	8.945	7.681	0.838	0.802	4.148	0.75	0.42
2555	2476	2478	6	460.00	0.01	0.419	0.209	0.000	0.419	0.209	0.000	0.000	0.000	0.50	0.00
2557	2478	2480	15	416.00	0.00	2.840	2.586	1.045	1.796	1.541	0.525	0.402	2.138	0.75	0.42
2559	2480	3680	8	463.23	0.03	1.935	0.964	0.453	1.481	0.511	0.220	0.315	4.524	0.50	0.33
2561	2482	2484	15	1135.92	0.00	2.330	2.121	1.055	1.275	1.066	0.590	0.404	1.852	0.75	0.47
2563	2480	3682	12	465.16	0.03	5.692	2.836	0.602	5.090	2.235	0.220	0.323	4.710	0.50	0.22
2565	2484	2486	15	31.61	0.01	5.760	5.244	1.228	4.532	4.016	0.392	0.437	3.731	0.75	0.31
2567	2486	2474	15	794.29	0.00	3.354	3.054	1.228	2.126	1.826	0.523	0.437	2.521	0.75	0.42
2569	2488	2490	21	193.00	0.01	10.969	9.987	4.043	6.926	5.943	0.735	0.734	4.214	0.75	0.42
2571	2490	2492	21	144.00	0.01	17.262	15.717	4.043	13.219	11.673	0.576	0.734	5.858	0.75	0.33
2573	2492	2494	21	295.00	0.01	13.844	12.605	4.088	9.756	8.517	0.652	0.738	5.009	0.75	0.37
2575	2494	2496	21	85.00	0.01	11.300	10.288	4.132	7.168	6.156	0.732	0.743	4.332	0.75	0.42
2577	2496	2498	21	307.00	0.01	14.508	13.209	4.132	10.376	9.077	0.639	0.743	5.198	0.75	0.37
2579	2498	2460	21	849.08	0.01	15.129	13.775	4.132	10.997	9.643	0.625	0.743	5.358	0.75	0.36
2581	2500	2502	10	356.00	0.01	1.770	0.882	0.133	1.636	0.748	0.155	0.157	1.910	0.50	0.19
2583	2502	2504	10	684.83	0.01	1.800	0.897	0.154	1.647	0.743	0.165	0.169	2.015	0.50	0.20
2585	2504	2506	10	114.00	0.00	1.455	0.725	0.179	1.276	0.546	0.198	0.182	1.813	0.50	0.24
2587	2506	2508	12	1438.51	0.01	3.620	1.804	0.256	3.364	1.548	0.180	0.208	2.662	0.50	0.18

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2589	2508	2510	15	746.00	0.00	2.755	2.509	0.332	2.424	2.177	0.293	0.223	1.515	0.75	0.23
2591	2510	2512	15	365.00	0.01	5.445	4.958	0.831	4.615	4.127	0.330	0.357	3.207	0.75	0.26
2593	2512	2514	15	474.00	0.01	5.707	5.196	0.840	4.867	4.356	0.324	0.359	3.327	0.75	0.26
2595	2514	2488	15	865.00	0.01	5.155	4.694	0.878	4.277	3.816	0.349	0.367	3.134	0.75	0.28
2607	2526	2528	10	207.00	0.03	3.979	1.983	0.412	3.566	1.570	0.181	0.280	4.713	0.50	0.22
2609	2528	2530	10	407.00	0.00	1.386	0.691	0.695	0.691	-0.005	0.417	0.367	2.543	0.50	0.50
261	102	274	18	419.00	0.02	15.453	14.070	2.765	12.688	11.304	0.430	0.631	6.615	0.75	0.29
2611	2530	2532	10	809.00	0.00	1.390	0.693	0.695	0.695	-0.002	0.417	0.367	2.549	0.50	0.50
2613	2532	2534	10	87.00	0.00	1.393	0.694	0.788	0.605	-0.094	0.449	0.392	2.633	0.50	0.54
2615	2534	2536	10	384.00	0.00	1.387	0.691	0.788	0.598	-0.097	0.450	0.392	2.624	0.50	0.54
2617	2536	2538	10	440.00	0.00	1.389	0.692	0.810	0.579	-0.118	0.457	0.398	2.645	0.50	0.55
2619	2538	2540	10	130.00	0.01	1.565	0.780	0.836	0.730	-0.056	0.433	0.404	2.917	0.50	0.52
2621	2540	2542	18	555.00	0.01	9.856	8.973	2.990	6.866	5.983	0.567	0.657	4.890	0.75	0.38
2623	2542	2544	21	565.00	0.01	11.900	10.835	3.065	8.835	7.769	0.606	0.636	4.147	0.75	0.35
2625	2544	2546	21	1027.01	0.00	10.340	9.414	3.380	6.960	6.034	0.688	0.669	3.846	0.75	0.39
2627	2546	2548	21	66.00	0.00	7.574	6.896	3.463	4.111	3.433	0.831	0.677	3.079	0.75	0.48
2629	2548	2550	21	57.00	0.00	6.654	6.059	3.463	3.191	2.595	0.896	0.677	2.794	0.75	0.51
263	274	276	18	400.00	0.02	14.923	13.587	2.812	12.111	10.775	0.441	0.637	6.483	0.75	0.29
2631	2550	2552	21	151.00	0.00	6.464	5.886	3.463	3.001	2.422	0.912	0.677	2.734	0.75	0.52
2633	2552	2554	24	261.93	0.00	12.298	11.197	3.466	8.832	7.731	0.726	0.651	3.364	0.75	0.36
2635	2554	2488	24	358.00	0.00	10.655	9.701	3.487	7.168	6.214	0.787	0.653	3.036	0.75	0.39
2637	2556	2558	18	1103.60	0.01	10.195	9.282	2.338	7.857	6.944	0.488	0.578	4.681	0.75	0.33
2639	2558	2560	18	550.00	0.01	10.513	9.572	2.469	8.044	7.102	0.495	0.595	4.860	0.75	0.33
2641	2560	2540	18	66.24	0.01	10.827	9.858	2.484	8.343	7.373	0.489	0.597	4.973	0.75	0.33
2643	2028	2562	24	395.00	0.01	25.083	22.837	11.132	13.950	11.705	0.933	1.197	7.746	0.75	0.47
2645	2562	2564	24	400.00	0.02	31.491	28.672	11.145	20.346	17.527	0.822	1.198	9.163	0.75	0.41
2647	2564	2566	24	316.00	0.01	18.969	17.271	11.150	7.819	6.121	1.102	1.198	6.281	0.75	0.55
2649	2566	2568	24	320.00	0.01	18.978	17.279	11.151	7.827	6.128	1.102	1.198	6.283	0.75	0.55
265	276	278	18	600.00	0.02	15.728	14.320	2.822	12.906	11.498	0.430	0.638	6.738	0.75	0.29
2651	2568	2570	24	321.00	0.01	18.083	16.464	11.153	6.930	5.311	1.136	1.198	6.055	0.75	0.57
2653	2064	3540	10	93.00	0.01	1.674	0.834	0.522	1.152	0.312	0.320	0.316	2.711	0.50	0.38
2655	2572	2574	12	704.69	0.01	3.107	1.548	0.558	2.549	0.990	0.287	0.310	2.995	0.50	0.29
2657	2574	2578	12	37.45	0.01	3.033	1.512	0.570	2.464	0.942	0.294	0.314	2.962	0.50	0.29
2659	2578	2580	12	333.00	0.01	3.345	1.667	0.570	2.776	1.097	0.279	0.314	3.177	0.50	0.28
2661	2580	2582	12	361.00	0.02	5.210	2.596	0.573	4.637	2.023	0.224	0.315	4.362	0.50	0.22
2663	2582	2584	18	912.41	0.02	13.816	12.579	11.428	2.387	1.151	1.040	1.290	8.737	0.75	0.69
2665	2584	2384	18	106.00	0.03	17.895	16.293	11.515	6.379	4.777	0.875	1.294	10.756	0.75	0.58
2669	2588	2590	8	347.00	0.01	1.283	0.639	0.187	1.096	0.452	0.172	0.199	2.622	0.50	0.26
267	278	280	18	596.00	0.02	14.700	13.384	2.862	11.838	10.522	0.449	0.643	6.446	0.75	0.30
2671	2590	2592	8	337.90	0.01	1.113	0.554	0.187	0.926	0.367	0.185	0.199	2.369	0.50	0.28
2673	2592	2594	8	339.00	0.01	1.416	0.706	0.206	1.210	0.500	0.172	0.209	2.892	0.50	0.26
2675	2594	2596	8	352.52	0.01	1.103	0.549	0.121	0.982	0.428	0.149	0.159	2.076	0.50	0.22
2677	2596	2598	8	299.00	0.01	1.220	0.608	0.165	1.055	0.443	0.166	0.186	2.439	0.50	0.25
2679	2598	2600	8	84.30	0.15	4.637	2.311	0.175	4.462	2.135	0.089	0.192	6.371	0.50	0.13
2681	2600	2602	33	328.00	0.00	23.424	21.327	2.488	20.936	18.839	0.605	0.502	2.567	0.75	0.22
2683	2602	2604	33	76.00	0.00	18.248	16.615	2.498	15.751	14.117	0.687	0.503	2.152	0.75	0.25
2685	2604	2606	33	290.00	0.00	32.955	30.004	2.498	30.457	27.507	0.512	0.503	3.270	0.75	0.19
2687	2606	2610	27	700.27	0.01	31.814	28.966	2.501	29.312	26.464	0.427	0.532	4.768	0.75	0.19
269	280	282	21	1200.00	0.01	11.755	10.703	2.874	8.881	7.829	0.589	0.615	4.038	0.75	0.34
2691	2610	2612	27	648.00	0.00	14.015	12.761	2.866	11.149	9.895	0.690	0.571	2.769	0.75	0.31
2693	2612	2614	27	727.00	0.00	14.011	12.757	3.007	11.004	9.750	0.708	0.585	2.807	0.75	0.32
2695	2614	2616	27	650.00	0.00	12.599	11.471	3.173	9.426	8.298	0.770	0.601	2.639	0.75	0.34
2697	2616	2618	27	342.00	0.00	13.847	12.607	3.317	10.530	9.290	0.750	0.615	2.860	0.75	0.33

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
2699	2618	2620	27	285.00	0.00	12.339	11.234	3.459	8.880	7.776	0.815	0.629	2.663	0.75	0.36
27	26	30	10	103.00	0.02	3.061	1.525	1.062	2.000	0.464	0.339	0.458	5.103	0.50	0.41
2701	2620	2304	27	260.89	0.00	20.617	18.771	3.605	17.011	15.166	0.637	0.642	3.897	0.75	0.28
2703	2622	2624	12	983.00	0.00	1.128	0.562	0.219	0.909	0.343	0.298	0.192	1.111	0.50	0.30
2705	2624	2626	12	275.00	0.00	1.119	0.558	0.240	0.879	0.318	0.315	0.201	1.135	0.50	0.32
2707	2626	2628	12	27.66	0.00	1.358	0.677	0.250	1.108	0.427	0.291	0.206	1.319	0.50	0.29
2709	2628	2630	15	321.00	0.00	0.362	0.329	0.250	0.111	0.079	0.765	0.193	0.318	0.75	0.61
271	282	284	21	230.86	0.01	13.226	12.042	2.874	10.352	9.168	0.554	0.615	4.395	0.75	0.32
2711	2630	2632	15	40.00	0.00	1.448	1.319	0.250	1.198	1.068	0.352	0.193	0.884	0.75	0.28
2713	2632	2634	15	300.77	0.01	5.066	4.612	0.250	4.816	4.362	0.189	0.193	2.144	0.75	0.15
2715	2634	2610	15	365.81	0.00	3.861	3.515	0.468	3.393	3.048	0.294	0.266	2.127	0.75	0.24
2717	2636	2622	12	339.00	0.00	1.820	0.907	0.217	1.603	0.690	0.233	0.191	1.559	0.50	0.23
2719	2638	2640	10	470.00	0.01	1.631	0.813	0.104	1.527	0.709	0.142	0.138	1.673	0.50	0.17
2721	2640	2642	10	24.00	0.01	2.456	1.224	0.136	2.320	1.087	0.133	0.159	2.421	0.50	0.16
2723	2642	2644	10	126.47	0.04	4.153	2.069	0.136	4.017	1.933	0.103	0.159	3.501	0.50	0.12
2725	2644	2646	10	37.39	0.02	3.332	1.660	0.140	3.192	1.521	0.116	0.160	3.020	0.50	0.14
2727	2646	2648	10	222.00	0.00	1.234	0.615	0.140	1.094	0.475	0.189	0.160	1.499	0.50	0.23
2729	2648	2650	10	450.00	0.00	1.243	0.619	0.140	1.103	0.480	0.189	0.160	1.507	0.50	0.23
273	284	286	21	49.00	0.15	60.561	55.139	2.874	57.686	52.264	0.259	0.615	12.919	0.75	0.15
2731	2650	2588	10	377.45	0.01	1.945	0.969	0.163	1.782	0.806	0.163	0.174	2.166	0.50	0.20
2733	2282	2652	33	218.04	0.01	36.623	33.344	2.405	34.218	30.940	0.477	0.493	3.484	0.75	0.17
2739	2656	2658	33	262.00	0.00	18.241	16.607	2.408	15.833	14.200	0.675	0.494	2.129	0.75	0.25
2741	2658	2600	33	192.00	0.00	27.861	25.366	2.417	25.444	22.950	0.547	0.495	2.877	0.75	0.20
2743	2652	2656	33	470.93	0.00	17.279	15.732	2.408	14.871	13.324	0.693	0.494	2.048	0.75	0.25
2749	2664	2666	10	448.00	0.01	2.050	1.021	0.141	1.909	0.881	0.148	0.161	2.151	0.50	0.18
275	286	288	24	192.00	0.00	10.091	9.188	2.888	7.203	6.300	0.732	0.593	2.772	0.75	0.37
2751	2666	2660	10	48.44	0.01	2.141	1.067	0.160	1.981	0.907	0.154	0.172	2.302	0.50	0.19
2753	2594	2668	10	337.00	0.02	3.116	1.553	0.218	2.898	1.335	0.149	0.201	3.288	0.50	0.18
2759	2668	2282	10	370.00	0.03	3.453	1.720	0.244	3.209	1.476	0.150	0.214	3.656	0.50	0.18
2761	2308	2672	54	3425.10	0.00	78.293	71.283	20.598	57.695	50.685	1.575	1.291	4.150	0.75	0.35
2767	2676	2678	54	149.00	0.00	126.163	114.868	20.769	105.394	94.099	1.235	1.297	5.860	0.75	0.27
2769	2678	2680	54	736.00	0.00	83.820	76.316	20.854	62.966	55.461	1.530	1.299	4.375	0.75	0.34
277	288	290	24	290.00	0.00	13.778	12.545	2.888	10.890	9.656	0.622	0.593	3.470	0.75	0.31
2771	2680	2682	54	219.35	0.00	83.143	75.699	20.854	62.289	54.845	1.536	1.299	4.349	0.75	0.34
2773	2672	2676	54	607.38	0.00	104.010	94.698	20.683	83.327	74.015	1.361	1.294	5.098	0.75	0.30
2775	2302	2684	10	1380.44	0.00	1.343	0.669	1.341	0.002	-0.672	0.682	0.518	2.807	0.50	0.82
2777	2684	2686	10	350.00	0.02	3.186	1.587	1.391	1.795	0.197	0.385	0.528	5.643	0.50	0.46
2779	2686	2688	12	182.00	0.00	1.426	0.711	1.391	0.035	-0.680	0.798	0.499	2.069	0.50	0.80
2781	2688	2690	12	319.00	0.00	1.428	0.712	1.574	-0.146	-0.863	1.000	0.506	1.819	0.50	1.00
2783	2690	2692	12	325.00	0.00	1.429	0.712	1.590	-0.161	-0.878	1.000	0.506	1.819	0.50	1.00
2785	2692	2694	12	1136.58	0.00	1.528	0.761	1.618	-0.090	-0.856	1.000	0.524	1.946	0.50	1.00
2787	2694	2696	12	298.00	0.00	1.589	0.792	1.663	-0.074	-0.871	1.000	0.535	2.024	0.50	1.00
2789	2696	2698	12	163.00	0.00	1.655	0.825	1.699	-0.044	-0.875	1.000	0.547	2.108	0.50	1.00
279	290	292	24	122.00	0.00	11.059	10.069	2.889	8.170	7.180	0.698	0.593	2.962	0.75	0.35
2791	2698	2700	12	750.00	0.00	1.696	0.845	1.711	-0.015	-0.866	1.000	0.554	2.159	0.50	1.00
2793	2700	2702	12	772.00	0.00	2.021	1.007	2.012	0.008	-1.005	0.816	0.605	2.933	0.50	0.82
2795	2702	2704	12	12.00	0.12	12.114	6.036	2.012	10.102	4.024	0.276	0.605	11.423	0.50	0.28
2801	2710	2712	10	209.00	0.00	0.985	0.491	0.348	0.637	0.143	0.342	0.256	1.650	0.50	0.41
2803	2712	2714	10	481.00	0.00	0.981	0.489	0.367	0.614	0.122	0.353	0.264	1.669	0.50	0.42
2805	2714	2716	10	417.67	0.03	3.787	1.887	0.425	3.362	1.462	0.188	0.284	4.591	0.50	0.23
2807	2716	2718	10	342.00	0.00	1.056	0.526	0.453	0.603	0.073	0.381	0.294	1.862	0.50	0.46
281	292	294	24	271.00	0.00	9.645	8.782	2.890	6.755	5.892	0.751	0.593	2.683	0.75	0.38
2813	2722	2724	10	800.55	0.00	0.925	0.461	0.453	0.472	0.008	0.412	0.294	1.688	0.50	0.49

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2815	2724	2700	10	388.00	0.01	2.410	1.201	0.453	1.957	0.748	0.245	0.294	3.390	0.50	0.29
2817	2718	2722	10	387.28	0.01	2.317	1.155	0.453	1.864	0.701	0.251	0.294	3.276	0.50	0.30
2819	2726	2728	18	301.00	0.04	19.867	18.088	3.001	16.866	15.087	0.394	0.659	8.102	0.75	0.26
2821	2728	2730	24	313.00	0.00	12.885	11.731	3.001	9.884	8.730	0.657	0.605	3.343	0.75	0.33
2823	2730	2732	24	323.00	0.00	12.809	11.662	3.001	9.808	8.661	0.659	0.605	3.328	0.75	0.33
2825	2732	2734	24	415.00	0.00	12.841	11.691	3.010	9.831	8.681	0.659	0.606	3.337	0.75	0.33
2827	2734	2736	24	450.00	0.00	12.831	11.683	3.022	9.809	8.660	0.661	0.607	3.339	0.75	0.33
2829	2736	2738	21	422.00	0.01	11.881	10.817	3.036	8.845	7.781	0.603	0.633	4.131	0.75	0.35
283	294	296	24	480.35	0.01	25.540	23.254	2.891	22.649	20.362	0.454	0.593	5.390	0.75	0.23
2831	2738	2740	21	327.00	0.01	11.917	10.850	5.253	6.664	5.597	0.813	0.842	4.799	0.75	0.47
2833	2740	2742	21	342.00	0.01	11.873	10.810	5.257	6.615	5.552	0.815	0.842	4.786	0.75	0.47
2835	2742	2744	21	569.00	0.01	11.896	10.831	5.335	6.561	5.496	0.821	0.849	4.811	0.75	0.47
2837	2744	2746	24	700.00	0.00	10.535	9.592	5.345	5.190	4.247	1.009	0.815	3.366	0.75	0.50
2839	2746	2748	21	540.00	0.02	24.393	22.209	5.350	19.043	16.859	0.557	0.850	8.127	0.75	0.32
2841	2748	2750	21	1391.72	0.00	3.212	2.925	5.354	-2.141	-2.429	1.750	0.651	1.336	0.75	1.00
2843	2750	2752	21	293.82	0.00	7.415	6.751	5.408	2.007	1.343	1.109	0.855	3.364	0.75	0.63
2845	2752	2754	21	101.00	0.08	46.170	42.036	5.409	40.761	36.627	0.404	0.855	12.854	0.75	0.23
2847	2754	2756	21	575.00	0.00	5.622	5.119	5.431	0.191	-0.312	1.384	0.857	2.663	0.75	0.79
2849	2756	2758	21	91.83	0.02	23.151	21.079	5.446	17.705	15.632	0.578	0.858	7.866	0.75	0.33
285	296	298	24	15.50	0.01	26.402	24.038	2.891	23.511	21.147	0.447	0.593	5.518	0.75	0.22
2851	2758	2760	21	102.31	0.00	6.846	6.233	5.452	1.394	0.781	1.180	0.858	3.160	0.75	0.67
2857	2764	2766	21	413.00	0.01	15.199	13.838	5.463	9.736	8.375	0.725	0.859	5.800	0.75	0.41
2859	2760	2764	21	254.00	0.01	14.342	13.058	5.453	8.889	7.605	0.748	0.858	5.556	0.75	0.43
2861	2768	2770	8	1725.26	0.01	1.159	0.578	0.000	1.159	0.578	0.000	0.000	0.000	0.50	0.00
2863	2770	2772	8	264.00	0.01	1.101	0.549	0.414	0.687	0.134	0.283	0.300	2.931	0.50	0.43
2865	2772	2774	8	175.00	0.01	1.404	0.700	0.414	0.990	0.285	0.248	0.300	3.500	0.50	0.37
2867	2774	2776	8	628.00	0.01	0.851	0.424	0.414	0.437	0.010	0.328	0.300	2.422	0.50	0.49
2869	2776	2778	8	650.00	0.01	1.259	0.627	0.414	0.845	0.213	0.263	0.300	3.233	0.50	0.40
287	298	300	18	370.00	0.02	14.466	13.171	2.899	11.567	10.272	0.455	0.647	6.395	0.75	0.30
2871	2778	2802	8	325.00	0.01	1.259	0.627	0.414	0.845	0.213	0.263	0.300	3.233	0.50	0.40
2873	2780	2782	8	275.00	0.00	0.678	0.338	0.414	0.263	-0.077	0.377	0.300	2.038	0.50	0.57
2875	2782	2784	8	350.00	0.00	0.685	0.342	0.414	0.271	-0.073	0.374	0.300	2.056	0.50	0.56
2881	2788	2790	8	288.00	0.02	1.647	0.821	0.414	1.233	0.406	0.228	0.300	3.928	0.50	0.34
2883	2790	2792	12	1055.76	0.00	1.762	0.878	0.553	1.210	0.325	0.385	0.309	1.986	0.50	0.39
2885	2792	2794	12	350.00	0.00	1.429	0.712	0.703	0.726	0.009	0.495	0.350	1.812	0.50	0.50
2887	2794	2796	12	113.71	0.00	1.498	0.747	0.703	0.795	0.043	0.482	0.350	1.877	0.50	0.48
2889	2796	2798	12	378.00	0.00	1.537	0.766	0.703	0.834	0.063	0.475	0.350	1.914	0.50	0.48
2891	2798	2800	12	140.00	0.00	1.811	0.903	0.703	1.108	0.199	0.433	0.350	2.161	0.50	0.43
2893	2784	2788	8	350.00	0.01	1.212	0.604	0.414	0.797	0.190	0.269	0.300	3.144	0.50	0.40
2895	2802	2780	8	1.00	4.87	26.738	13.323	0.414	26.323	12.909	0.058	0.300	28.080	0.50	0.09
2897	2804	2806	8	234.00	0.00	0.808	0.402	0.000	0.808	0.402	0.000	0.000	0.000	0.50	0.00
2899	2806	2808	8	196.00	0.01	1.049	0.523	0.011	1.038	0.512	0.048	0.047	0.974	0.50	0.07
29	30	32	15	407.00	0.02	7.994	7.278	1.353	6.641	5.926	0.348	0.460	4.850	0.75	0.28
2901	2808	2810	8	919.73	0.01	0.813	0.405	0.014	0.799	0.391	0.061	0.053	0.884	0.50	0.09
2903	2810	2812	8	224.00	0.00	0.810	0.403	0.050	0.759	0.353	0.112	0.101	1.288	0.50	0.17
2905	2812	2814	8	168.00	0.01	0.921	0.459	0.071	0.849	0.388	0.125	0.121	1.564	0.50	0.19
2907	2814	2816	10	621.23	0.00	1.166	0.581	0.274	0.892	0.307	0.275	0.227	1.747	0.50	0.33
291	300	302	18	353.00	0.02	15.565	14.172	2.899	12.666	11.273	0.439	0.647	6.740	0.75	0.29
2913	2820	2822	12	532.00	0.00	1.813	0.903	0.356	1.457	0.548	0.300	0.246	1.792	0.50	0.30
2915	2816	2820	12	389.00	0.00	1.589	0.792	0.356	1.234	0.436	0.322	0.246	1.631	0.50	0.32
2929	2836	2838	8	121.00	0.01	1.045	0.521	0.118	0.927	0.403	0.151	0.157	1.984	0.50	0.23
293	302	304	18	273.00	0.02	15.431	14.049	2.905	12.525	11.144	0.441	0.648	6.702	0.75	0.29
2931	2838	2840	8	286.00	0.01	0.923	0.460	0.118	0.805	0.342	0.161	0.157	1.817	0.50	0.24

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
2933	2840	2842	8	426.00	0.01	0.877	0.437	0.118	0.758	0.319	0.165	0.157	1.751	0.50	0.25
2935	2842	2844	8	500.00	0.01	0.929	0.463	0.118	0.811	0.345	0.161	0.157	1.825	0.50	0.24
2937	2844	2846	8	473.73	0.00	0.771	0.384	0.183	0.588	0.201	0.221	0.196	1.810	0.50	0.33
2939	2846	2848	10	240.00	0.01	1.560	0.777	0.203	1.357	0.575	0.203	0.194	1.973	0.50	0.24
2941	2848	2850	10	338.00	0.00	0.414	0.206	0.214	0.200	-0.008	0.425	0.200	0.765	0.50	0.51
2943	2850	2852	10	292.00	0.01	1.516	0.755	0.214	1.301	0.541	0.212	0.200	1.965	0.50	0.25
2945	2852	2790	10	75.84	0.01	1.854	0.924	0.214	1.639	0.709	0.191	0.200	2.267	0.50	0.23
295	304	306	18	250.00	0.02	14.715	13.398	2.906	11.809	10.492	0.452	0.648	6.478	0.75	0.30
2953	2766	2860	21	133.00	0.01	14.514	13.214	5.467	9.047	7.748	0.744	0.860	5.608	0.75	0.43
2955	2860	2862	24	310.00	0.01	20.288	18.472	5.634	14.654	12.838	0.721	0.838	5.527	0.75	0.36
2963	2822	2860	12	2091.47	0.01	2.535	1.263	0.410	2.125	0.853	0.272	0.265	2.372	0.50	0.27
2965	2800	2866	12	650.00	0.00	1.509	0.752	0.994	0.515	-0.242	0.592	0.419	2.052	0.50	0.59
2967	2866	2868	12	448.00	0.00	1.954	0.974	1.028	0.926	-0.054	0.515	0.426	2.519	0.50	0.52
2969	2868	2870	12	678.99	0.00	1.271	0.634	1.036	0.235	-0.403	0.686	0.428	1.804	0.50	0.69
297	306	308	18	526.97	0.03	16.549	15.067	2.906	13.642	12.161	0.425	0.648	7.047	0.75	0.28
2971	2870	2888	12	230.00	0.00	0.408	0.203	1.118	-0.710	-0.914	1.000	0.264	0.519	0.50	1.00
2973	2872	2874	12	45.00	0.00	0.922	0.460	1.129	-0.207	-0.670	1.000	0.403	1.174	0.50	1.00
2977	2862	2878	24	300.00	0.00	15.103	13.751	5.634	9.469	8.117	0.846	0.838	4.457	0.75	0.42
2979	2878	2880	27	1784.30	0.00	12.860	11.708	5.634	7.226	6.074	1.042	0.809	3.127	0.75	0.46
2983	2880	2882	27	117.00	0.01	26.931	24.520	5.634	21.297	18.886	0.698	0.809	5.356	0.75	0.31
2985	2882	3690	16	424.61	0.03	11.481	10.453	1.839	9.642	8.614	0.361	0.529	6.027	0.75	0.27
2987	2874	3526	15	85.00	0.01	6.919	6.300	1.129	5.790	5.170	0.342	0.418	4.155	0.75	0.27
2989	2888	2872	12	190.00	0.00	1.216	0.606	1.129	0.086	-0.524	0.762	0.447	1.758	0.50	0.76
299	308	310	18	211.00	0.01	11.736	10.686	2.927	8.809	7.759	0.511	0.650	5.517	0.75	0.34
2991	2890	2892	8	34.00	0.01	0.831	0.414	0.000	0.831	0.414	0.000	0.000	0.000	0.50	0.00
2993	2892	2894	8	312.69	0.01	1.226	0.611	0.004	1.221	0.606	0.029	0.030	0.830	0.50	0.04
2995	2894	2896	8	36.00	0.00	0.452	0.225	0.007	0.444	0.218	0.059	0.038	0.482	0.50	0.09
2997	2896	2898	8	431.00	0.02	1.833	0.914	0.011	1.823	0.903	0.037	0.047	1.436	0.50	0.06
2999	2898	2900	8	391.36	0.04	2.403	1.198	0.011	2.393	1.187	0.032	0.047	1.734	0.50	0.05
3001	2902	2904	19	889.39	0.01	8.596	7.826	0.040	8.556	7.786	0.078	0.072	1.108	0.75	0.05
3003	2904	2900	10	462.50	0.01	1.576	0.785	0.040	1.536	0.746	0.091	0.085	1.226	0.50	0.11
3005	2900	2906	10	508.00	0.07	5.773	2.877	0.053	5.720	2.824	0.056	0.098	3.305	0.50	0.07
3007	2906	2908	10	818.42	0.00	1.238	0.617	0.053	1.186	0.564	0.117	0.098	1.128	0.50	0.14
3009	2908	9014	10	111.69	0.01	1.610	0.802	0.091	1.519	0.711	0.134	0.129	1.595	0.50	0.16
301	310	312	18	440.00	0.02	13.492	12.284	2.927	10.565	9.357	0.475	0.650	6.099	0.75	0.32
3015	2914	2916	8	16.00	0.13	4.347	2.166	0.091	4.256	2.075	0.067	0.137	5.000	0.50	0.10
3017	2918	2920	8	560.01	0.01	1.339	0.667	0.028	1.311	0.640	0.066	0.075	1.533	0.50	0.10
3019	2920	2922	8	209.39	0.01	1.012	0.504	0.043	0.969	0.461	0.094	0.094	1.440	0.50	0.14
3025	2926	2928	8	247.00	0.00	0.645	0.321	0.048	0.597	0.273	0.123	0.099	1.084	0.50	0.19
3027	2928	2930	8	260.00	0.01	1.036	0.516	0.056	0.980	0.460	0.105	0.107	1.584	0.50	0.16
3029	2930	2932	8	382.00	0.01	1.075	0.536	0.058	1.018	0.478	0.105	0.109	1.642	0.50	0.16
303	312	314	18	180.00	0.02	13.665	12.441	2.935	10.730	9.506	0.472	0.651	6.160	0.75	0.32
3031	2932	2934	8	404.00	0.01	1.150	0.573	0.071	1.079	0.502	0.112	0.121	1.828	0.50	0.17
3033	2934	2936	8	223.00	0.01	0.851	0.424	0.103	0.748	0.321	0.157	0.146	1.648	0.50	0.24
3035	2936	2938	8	51.00	0.01	1.314	0.655	0.103	1.211	0.552	0.126	0.146	2.241	0.50	0.19
3037	2938	2916	8	385.00	0.00	0.688	0.343	0.104	0.584	0.239	0.175	0.147	1.420	0.50	0.26
3039	2940	2942	8	155.65	0.00	0.758	0.378	0.039	0.719	0.339	0.103	0.089	1.144	0.50	0.16
3041	2942	2944	8	382.00	0.00	0.392	0.195	0.047	0.345	0.148	0.156	0.098	0.757	0.50	0.23
3043	2944	2934	8	112.00	0.01	0.971	0.484	0.047	0.924	0.437	0.100	0.098	1.436	0.50	0.15
3045	2946	2948	8	517.00	0.01	1.115	0.556	0.008	1.107	0.548	0.041	0.040	0.931	0.50	0.06
3047	2948	2950	8	128.00	0.00	0.660	0.329	0.018	0.642	0.311	0.077	0.061	0.828	0.50	0.12
3049	2950	2952	8	21.00	0.00	0.648	0.323	0.018	0.629	0.304	0.077	0.061	0.817	0.50	0.12
305	314	316	18	401.14	0.02	13.793	12.558	2.944	10.849	9.614	0.471	0.652	6.207	0.75	0.31

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3051	2952	2954	8	154.00	0.00	0.625	0.312	0.018	0.607	0.293	0.079	0.061	0.797	0.50	0.12
3053	2954	2956	8	539.07	0.00	0.662	0.330	0.019	0.643	0.311	0.078	0.062	0.838	0.50	0.12
3055	2956	2920	8	18.00	0.24	5.963	2.971	0.022	5.941	2.949	0.029	0.067	4.047	0.50	0.04
3057	2922	2926	8	482.19	0.01	0.927	0.462	0.045	0.882	0.417	0.100	0.096	1.369	0.50	0.15
3059	2916	2958	12	552.00	0.00	1.720	0.857	0.204	1.516	0.653	0.233	0.185	1.473	0.50	0.23
3061	2958	2960	12	1036.06	0.00	1.534	0.764	0.205	1.329	0.559	0.247	0.186	1.358	0.50	0.25
3063	2960	2962	12	251.00	0.05	8.312	4.142	0.217	8.095	3.925	0.111	0.191	4.544	0.50	0.11
3065	2962	2964	12	300.00	0.00	2.021	1.007	0.217	1.803	0.789	0.222	0.191	1.681	0.50	0.22
3067	2964	2966	12	154.29	0.05	7.603	3.789	0.235	7.369	3.554	0.121	0.199	4.367	0.50	0.12
3069	2966	2968	12	73.84	0.09	10.525	5.245	0.248	10.278	4.997	0.106	0.204	5.572	0.50	0.11
307	318	320	8	794.00	0.01	1.449	0.722	0.004	1.445	0.718	0.025	0.027	0.885	0.50	0.04
3071	2968	2970	12	1462.09	0.00	2.114	1.053	0.248	1.866	0.806	0.231	0.204	1.802	0.50	0.23
3073	2970	2972	12	300.00	0.00	2.183	1.088	0.250	1.932	0.837	0.229	0.206	1.849	0.50	0.23
3075	2972	2974	10	52.00	0.00	0.862	0.429	0.116	0.745	0.313	0.207	0.146	1.103	0.50	0.25
3077	2974	2976	10	290.00	0.01	1.842	0.918	0.141	1.702	0.778	0.156	0.161	1.995	0.50	0.19
3079	2976	2978	10	25.00	0.03	3.459	1.724	0.141	3.319	1.583	0.115	0.161	3.107	0.50	0.14
3081	2978	2980	10	418.61	0.03	4.060	2.023	0.293	3.767	1.730	0.152	0.235	4.325	0.50	0.18
3083	2980	2982	10	30.00	0.27	11.337	5.649	0.293	11.044	5.356	0.092	0.235	8.891	0.50	0.11
3085	2982	2984	15	338.00	0.01	4.818	4.386	0.293	4.525	4.093	0.209	0.210	2.168	0.75	0.17
3087	2984	3222	15	375.00	0.01	5.383	4.901	0.293	5.090	4.608	0.198	0.210	2.344	0.75	0.16
3089	2986	2988	21	800.00	0.01	10.921	9.943	0.789	10.132	9.154	0.318	0.317	2.639	0.75	0.18
309	320	322	8	99.00	0.04	2.441	1.217	0.117	2.325	1.100	0.099	0.156	3.597	0.50	0.15
3091	2988	2990	18	289.00	0.00	6.348	5.780	0.789	5.560	4.991	0.357	0.330	2.447	0.75	0.24
3099	2996	2998	12	244.00	0.00	1.333	0.664	0.789	0.545	-0.124	0.553	0.371	1.769	0.50	0.55
31	34	36	8	1275.00	0.02	1.752	0.873	0.423	1.329	0.450	0.223	0.303	4.132	0.50	0.34
3101	2998	3000	12	244.00	0.01	2.516	1.254	0.789	1.727	0.465	0.385	0.371	2.834	0.50	0.39
3103	3000	3002	12	2402.39	0.00	1.617	0.806	0.789	0.828	0.017	0.493	0.371	2.046	0.50	0.49
3105	3002	3004	24	32.68	0.12	77.144	70.237	0.817	76.327	69.420	0.145	0.311	8.022	0.75	0.07
3107	3004	3006	24	3194.15	0.01	25.390	23.116	1.456	23.933	21.660	0.325	0.417	4.387	0.75	0.16
3109	3006	3008	24	15.61	0.02	29.831	27.160	1.497	28.334	25.663	0.305	0.423	4.953	0.75	0.15
311	322	324	8	242.67	0.01	0.823	0.410	0.121	0.702	0.289	0.173	0.159	1.686	0.50	0.26
3111	3008	3010	36	1405.79	0.01	50.921	46.362	6.712	44.209	39.650	0.736	0.814	4.992	0.75	0.25
3113	3010	3012	36	23.30	0.01	47.994	43.697	6.712	41.283	36.986	0.758	0.814	4.786	0.75	0.25
3115	3012	3698	24	134.68	0.05	49.945	45.474	3.466	46.479	42.008	0.357	0.651	9.131	0.75	0.18
3117	3014	3016	36	509.85	0.01	64.415	58.648	6.712	57.704	51.936	0.654	0.814	5.897	0.75	0.22
3119	3016	3018	36	473.00	0.00	39.211	35.700	6.802	32.409	28.898	0.846	0.820	4.160	0.75	0.28
3121	3018	3020	36	3.00	0.18	283.736	258.333	7.003	276.733	251.330	0.325	0.832	16.935	0.75	0.11
3123	3012	3700	24	153.58	0.04	46.772	42.584	3.246	43.526	39.339	0.357	0.630	8.551	0.75	0.18
3125	2972	3022	10	82.00	0.00	1.306	0.651	0.177	1.130	0.474	0.207	0.181	1.672	0.50	0.25
3127	3022	2978	10	290.00	0.01	2.019	1.006	0.196	1.823	0.810	0.175	0.191	2.346	0.50	0.21
313	324	326	8	965.61	0.00	0.682	0.340	0.132	0.550	0.208	0.199	0.166	1.510	0.50	0.30
3131	3026	3004	12	14.00	0.11	12.001	5.980	0.851	11.150	5.129	0.180	0.386	8.831	0.50	0.18
3133	3026	3030	12	460.00	0.01	3.611	1.799	0.047	3.563	1.752	0.080	0.088	1.603	0.50	0.08
3135	3030	3032	12	455.00	0.01	3.473	1.730	0.089	3.384	1.642	0.110	0.121	1.886	0.50	0.11
3137	3032	3034	12	477.00	0.02	4.509	2.247	0.208	4.301	2.039	0.146	0.187	2.920	0.50	0.15
3139	3034	3036	12	2753.26	0.01	3.536	1.762	0.210	3.326	1.552	0.165	0.188	2.469	0.50	0.17
3141	3036	3038	12	417.78	0.01	3.184	1.587	0.247	2.938	1.340	0.188	0.204	2.405	0.50	0.19
3143	3038	3040	12	23.97	0.01	2.420	1.206	0.258	2.162	0.948	0.220	0.209	2.007	0.50	0.22
3145	3040	3696	8	205.50	0.05	2.707	1.349	0.123	2.584	1.226	0.097	0.160	3.928	0.50	0.15
3147	3042	3044	12	38.79	0.00	2.068	1.030	0.258	1.810	0.773	0.238	0.209	1.795	0.50	0.24
3149	3044	3046	12	450.00	0.01	2.528	1.260	0.288	2.240	0.971	0.228	0.221	2.138	0.50	0.23
315	326	328	8	504.97	0.02	1.609	0.802	0.270	1.340	0.532	0.185	0.240	3.423	0.50	0.28
3155	3040	3694	10	221.82	0.05	4.725	2.354	0.135	4.590	2.219	0.097	0.158	3.818	0.50	0.12

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3157	3046	3018	12	420.00	0.01	3.284	1.636	0.490	2.794	1.146	0.261	0.290	3.003	0.50	0.26
3163	3052	3054	12	35.00	0.01	4.270	2.128	0.000	4.270	2.128	0.000	0.000	0.000	0.50	0.00
3165	3054	3056	12	240.00	0.01	4.144	2.065	0.000	4.144	2.065	0.000	0.000	0.000	0.50	0.00
3167	3056	3058	12	400.14	0.01	2.643	1.317	0.000	2.643	1.317	0.000	0.000	0.000	0.50	0.00
3169	3058	3060	15	302.56	0.01	4.954	4.510	0.040	4.913	4.470	0.080	0.077	1.219	0.75	0.06
317	328	330	8	257.00	0.02	1.534	0.764	0.273	1.261	0.491	0.190	0.241	3.320	0.50	0.29
3171	3060	3062	15	267.00	0.01	6.204	5.649	0.040	6.164	5.608	0.072	0.077	1.426	0.75	0.06
3173	3062	3064	15	333.00	0.00	3.348	3.049	0.040	3.308	3.008	0.096	0.077	0.928	0.75	0.08
3175	3064	3066	16	60.00	0.01	8.772	7.986	1.112	7.660	6.875	0.321	0.407	4.304	0.75	0.24
3177	3066	3712	16	130.43	0.04	15.198	13.837	1.112	14.086	12.725	0.244	0.407	6.350	0.75	0.18
3179	3068	3070	16	812.00	0.00	3.468	3.157	1.112	2.356	2.045	0.519	0.407	2.211	0.75	0.39
3181	3070	3072	16	68.36	0.09	22.410	20.403	1.254	21.156	19.150	0.214	0.433	8.648	0.75	0.16
3183	3072	3074	16	50.56	0.01	7.258	6.608	1.254	6.005	5.355	0.375	0.433	3.893	0.75	0.28
3185	3020	3074	36	6.00	0.41	425.955	387.818	7.744	418.210	380.074	0.281	0.877	23.185	0.75	0.09
3187	3036	3052	12	71.17	0.01	4.235	2.110	0.000	4.235	2.110	0.000	0.000	0.000	0.50	0.00
3189	3076	3078	8	381.00	0.01	1.446	0.721	0.000	1.446	0.721	0.000	0.000	0.000	0.50	0.00
319	330	332	8	116.00	0.01	0.857	0.427	0.275	0.581	0.152	0.260	0.243	2.186	0.50	0.39
3191	3078	3080	8	219.00	0.00	0.596	0.297	0.000	0.596	0.297	0.000	0.000	0.000	0.50	0.00
3193	3080	3082	8	364.20	0.00	0.535	0.267	0.267	0.268	-0.001	0.333	0.239	1.532	0.50	0.50
3195	3082	3084	8	165.00	0.03	2.051	1.022	0.392	1.659	0.630	0.197	0.291	4.529	0.50	0.30
3197	3084	3086	8	340.00	0.01	1.247	0.621	0.409	0.837	0.212	0.263	0.298	3.200	0.50	0.39
3199	3086	3088	8	870.00	0.01	0.822	0.409	0.433	0.389	-0.023	0.344	0.307	2.384	0.50	0.52
3201	3088	3090	8	119.00	0.01	1.111	0.553	0.519	0.591	0.034	0.320	0.338	3.128	0.50	0.48
3203	3090	3092	8	315.00	0.01	0.965	0.481	0.519	0.446	-0.038	0.348	0.338	2.816	0.50	0.52
3205	3092	3094	8	102.20	0.03	2.171	1.082	0.533	1.637	0.548	0.225	0.342	5.144	0.50	0.34
3207	3094	3096	8	150.03	0.00	0.727	0.362	0.578	0.149	-0.216	0.449	0.357	2.311	0.50	0.67
3209	3096	9020	8	118.66	0.04	2.354	1.173	0.578	1.776	0.595	0.225	0.357	5.578	0.50	0.34
321	332	334	8	172.00	0.02	1.824	0.909	0.276	1.548	0.633	0.175	0.243	3.769	0.50	0.26
3217	3104	3106	10	20.00	0.02	2.988	1.489	0.684	2.304	0.805	0.271	0.364	4.444	0.50	0.33
3219	3106	3108	10	190.59	0.00	0.503	0.251	0.684	-0.181	-0.434	0.833	0.310	0.923	0.50	1.00
3221	3108	3110	10	452.00	0.00	1.214	0.605	0.686	0.528	-0.081	0.448	0.365	2.293	0.50	0.54
3223	3110	3112	16	754.00	0.01	6.333	5.766	1.041	5.292	4.725	0.366	0.394	3.349	0.75	0.27
3225	3112	3064	16	500.00	0.00	3.300	3.005	1.093	2.207	1.912	0.528	0.404	2.122	0.75	0.40
3227	3114	3116	8	478.00	0.02	1.600	0.797	0.108	1.493	0.690	0.117	0.150	2.609	0.50	0.18
3229	3116	9020	8	239.86	0.00	0.247	0.123	0.183	0.064	-0.060	0.427	0.197	0.776	0.50	0.64
323	334	316	8	35.01	0.01	1.044	0.520	0.280	0.764	0.240	0.236	0.245	2.536	0.50	0.35
3231	3118	3120	8	455.00	0.01	0.825	0.411	0.579	0.246	-0.168	0.412	0.358	2.559	0.50	0.62
3233	3120	3122	8	488.64	0.01	0.916	0.456	0.600	0.315	-0.144	0.394	0.364	2.798	0.50	0.59
3235	3122	3124	8	450.00	0.00	0.753	0.375	0.648	0.105	-0.273	0.477	0.379	2.427	0.50	0.72
3237	3124	3126	10	652.52	0.00	1.316	0.656	0.691	0.625	-0.035	0.429	0.366	2.441	0.50	0.52
3243	3130	3132	10	879.35	0.01	1.859	0.927	0.846	1.013	0.081	0.394	0.407	3.329	0.50	0.47
3245	3132	3134	10	932.50	0.00	1.225	0.610	0.854	0.371	-0.244	0.512	0.409	2.428	0.50	0.62
3247	3134	3026	10	606.71	0.00	1.092	0.544	0.894	0.198	-0.350	0.573	0.419	2.234	0.50	0.69
3249	3126	3130	10	492.00	0.01	1.905	0.949	0.809	1.096	0.140	0.379	0.397	3.350	0.50	0.46
3259	2384	3140	48	24.12	0.10	451.527	411.101	12.329	439.198	398.772	0.455	1.026	15.626	0.75	0.11
3261	3140	3074	48	2068.21	0.00	75.147	68.419	12.329	62.818	56.090	1.096	1.026	4.413	0.75	0.27
3263	3142	3144	12	186.08	0.03	5.598	2.790	0.747	4.851	2.043	0.247	0.361	4.957	0.50	0.25
3265	3144	3716	8	68.08	0.15	4.084	2.035	0.753	3.331	1.282	0.194	0.410	8.927	0.50	0.29
3267	3146	3148	12	720.99	0.01	3.106	1.548	0.753	2.353	0.795	0.335	0.362	3.259	0.50	0.34
3269	3148	3150	12	1377.98	0.01	3.196	1.593	0.981	2.215	0.612	0.380	0.416	3.579	0.50	0.38
3271	3150	3152	18	1115.58	0.00	6.401	5.828	1.232	5.169	4.596	0.446	0.415	2.797	0.75	0.30
3273	3152	3020	18	61.20	0.05	22.911	20.860	1.418	21.493	19.442	0.253	0.446	7.199	0.75	0.17
3277	3154	3156	12	159.00	0.02	5.412	2.697	0.739	4.673	1.958	0.250	0.359	4.824	0.50	0.25

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3279	3156	3142	12	692.70	0.01	3.377	1.683	0.741	2.636	0.942	0.318	0.359	3.446	0.50	0.32
3283	3160	3162	12	389.00	0.01	2.510	1.251	0.400	2.109	0.850	0.270	0.261	2.339	0.50	0.27
3285	3162	3164	12	398.00	0.01	3.183	1.586	0.533	2.650	1.054	0.277	0.303	3.008	0.50	0.28
3287	3164	3166	12	364.00	0.00	2.127	1.060	0.540	1.587	0.520	0.344	0.305	2.260	0.50	0.34
3293	3170	3172	12	1474.74	0.01	3.391	1.690	0.556	2.835	1.134	0.274	0.310	3.185	0.50	0.27
3295	3172	3174	12	518.48	0.01	2.530	1.261	0.578	1.952	0.683	0.325	0.316	2.610	0.50	0.33
3297	3174	3176	12	599.00	0.02	4.487	2.236	0.594	3.892	1.641	0.246	0.321	3.964	0.50	0.25
3299	3176	3154	12	602.00	0.01	2.484	1.238	0.720	1.763	0.517	0.369	0.354	2.739	0.50	0.37
33	36	38	12	292.00	0.02	5.197	2.590	0.435	4.762	2.155	0.196	0.273	4.016	0.50	0.20
3301	3166	3170	12	86.00	0.03	6.457	3.218	0.549	5.908	2.669	0.197	0.308	5.013	0.50	0.20
3305	3182	3184	10	351.00	0.01	2.561	1.276	0.249	2.312	1.027	0.176	0.216	2.979	0.50	0.21
3307	3184	3186	10	350.00	0.02	2.654	1.323	0.250	2.404	1.072	0.173	0.216	3.059	0.50	0.21
3309	3186	3188	10	331.00	0.01	1.518	0.756	0.252	1.265	0.504	0.230	0.217	2.061	0.50	0.28
3311	3188	3190	10	55.00	0.01	1.510	0.753	0.257	1.253	0.496	0.233	0.219	2.065	0.50	0.28
3313	3190	3192	10	984.06	0.01	1.479	0.737	0.257	1.222	0.480	0.235	0.219	2.034	0.50	0.28
3315	3192	3194	10	177.00	0.02	2.945	1.467	0.265	2.680	1.202	0.169	0.223	3.347	0.50	0.20
3317	3194	3196	10	276.00	0.05	4.753	2.368	0.271	4.482	2.098	0.135	0.225	4.721	0.50	0.16
3319	3196	3198	10	299.00	0.05	4.818	2.401	0.276	4.542	2.125	0.135	0.227	4.793	0.50	0.16
3321	3198	3200	10	44.00	0.01	1.518	0.756	0.565	0.953	0.191	0.352	0.330	2.578	0.50	0.42
3323	3200	3202	15	605.12	0.00	4.334	3.946	0.565	3.770	3.382	0.305	0.293	2.439	0.75	0.24
3325	3202	3204	15	490.00	0.01	4.437	4.040	0.571	3.867	3.469	0.303	0.295	2.488	0.75	0.24
3327	3204	3206	15	287.00	0.01	6.443	5.866	0.574	5.869	5.293	0.252	0.295	3.245	0.75	0.20
3329	3206	3208	15	15.00	0.02	7.844	7.142	0.578	7.266	6.564	0.230	0.296	3.736	0.75	0.18
3331	3208	3210	15	845.71	0.01	6.444	5.867	0.578	5.866	5.289	0.253	0.296	3.252	0.75	0.20
3333	3210	3212	15	351.00	0.02	8.760	7.975	0.584	8.175	7.391	0.219	0.298	4.052	0.75	0.18
3335	3212	3214	15	369.41	0.01	5.133	4.673	0.597	4.536	4.077	0.288	0.301	2.794	0.75	0.23
3337	3214	3216	15	72.94	0.00	2.006	1.827	0.599	1.407	1.228	0.468	0.302	1.427	0.75	0.38
3339	3216	3218	15	350.00	0.01	5.604	5.102	0.602	5.002	4.500	0.277	0.303	2.981	0.75	0.22
3341	3218	3220	15	349.00	0.02	8.743	7.961	0.602	8.142	7.359	0.222	0.303	4.082	0.75	0.18
3345	3220	3222	15	350.00	0.00	3.192	2.906	0.602	2.590	2.304	0.368	0.303	1.997	0.75	0.29
3347	3222	2986	21	350.00	0.00	7.003	6.376	0.789	6.214	5.587	0.397	0.317	1.928	0.75	0.23
3349	3224	3226	10	335.00	0.01	1.812	0.903	0.000	1.812	0.903	0.000	0.000	0.000	0.50	0.00
3351	3226	3228	10	22.00	0.01	1.814	0.904	0.000	1.814	0.904	0.000	0.000	0.000	0.50	0.00
3353	3228	3230	10	363.00	0.04	4.461	2.223	0.000	4.461	2.223	0.000	0.000	0.000	0.50	0.00
3355	3230	3232	10	105.00	0.07	5.708	2.845	0.032	5.676	2.812	0.045	0.076	2.824	0.50	0.05
3357	3232	3234	10	803.87	0.02	2.816	1.403	0.032	2.784	1.371	0.063	0.076	1.727	0.50	0.08
3359	3234	3236	10	89.00	0.06	5.269	2.626	0.099	5.170	2.527	0.079	0.135	3.753	0.50	0.10
3361	3236	3238	10	318.00	0.03	3.669	1.828	0.099	3.570	1.729	0.094	0.135	2.914	0.50	0.11
3363	3238	3240	10	313.00	0.02	3.044	1.517	0.105	2.939	1.411	0.106	0.139	2.607	0.50	0.13
3365	3240	3242	12	339.00	0.01	3.782	1.885	0.105	3.677	1.779	0.115	0.132	2.108	0.50	0.12
3367	3242	3244	12	314.00	0.01	2.779	1.385	0.119	2.660	1.266	0.141	0.141	1.760	0.50	0.14
3369	3244	3246	12	299.00	0.01	2.848	1.419	0.121	2.726	1.298	0.141	0.142	1.801	0.50	0.14
3371	3246	3248	12	375.00	0.01	2.946	1.468	0.286	2.660	1.182	0.210	0.220	2.377	0.50	0.21
3373	3248	3250	12	12.00	0.02	5.553	2.767	0.366	5.187	2.401	0.174	0.250	4.000	0.50	0.17
3375	3250	3198	12	500.00	0.01	3.081	1.535	0.366	2.715	1.169	0.233	0.250	2.638	0.50	0.23
3377	3252	3254	10	333.00	0.01	1.849	0.922	0.153	1.696	0.769	0.162	0.168	2.051	0.50	0.19
3379	3254	3256	10	333.00	0.01	2.514	1.253	0.153	2.361	1.100	0.139	0.168	2.546	0.50	0.17
3381	3256	3258	10	1059.50	0.01	2.524	1.258	0.153	2.371	1.105	0.139	0.168	2.554	0.50	0.17
3383	3258	3260	10	188.62	0.01	1.745	0.869	0.201	1.544	0.669	0.191	0.193	2.131	0.50	0.23
3385	3260	3262	10	623.59	0.01	1.710	0.852	0.201	1.509	0.651	0.193	0.193	2.101	0.50	0.23
3387	3262	3182	10	194.00	0.01	2.464	1.228	0.209	2.255	1.019	0.164	0.197	2.752	0.50	0.20
3389	3264	3266	8	808.44	0.01	1.307	0.651	0.008	1.299	0.643	0.038	0.041	1.044	0.50	0.06
339	350	352	8	337.54	0.02	1.812	0.903	0.627	1.185	0.276	0.271	0.373	4.716	0.50	0.41

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3391	3266	3268	8	461.00	0.02	1.716	0.855	0.026	1.690	0.829	0.058	0.073	1.800	0.50	0.09
3393	3268	3270	8	327.14	0.01	0.850	0.424	0.065	0.785	0.359	0.125	0.116	1.439	0.50	0.19
3395	3270	3272	8	335.50	0.01	0.839	0.418	0.070	0.769	0.348	0.130	0.120	1.458	0.50	0.20
3397	3272	3274	10	330.00	0.01	1.525	0.760	0.073	1.452	0.687	0.124	0.115	1.436	0.50	0.15
3399	3274	3276	10	164.50	0.00	1.473	0.734	0.076	1.397	0.658	0.129	0.118	1.424	0.50	0.16
3401	3276	3278	10	187.50	0.01	1.513	0.754	0.085	1.429	0.669	0.134	0.124	1.495	0.50	0.16
3403	3278	3280	10	670.20	0.01	1.674	0.834	0.085	1.589	0.749	0.127	0.124	1.605	0.50	0.15
3405	3280	3252	10	185.00	0.02	3.073	1.531	0.093	2.980	1.438	0.099	0.130	2.526	0.50	0.12
3407	3282	3284	8	375.00	0.02	1.587	0.791	0.020	1.567	0.771	0.052	0.063	1.556	0.50	0.08
3409	3284	3286	8	387.00	0.02	1.579	0.787	0.020	1.558	0.766	0.053	0.064	1.565	0.50	0.08
341	352	354	8	879.95	0.02	1.696	0.845	0.718	0.978	0.127	0.303	0.400	4.658	0.50	0.45
3411	3286	3288	8	74.00	0.01	0.945	0.471	0.022	0.923	0.449	0.070	0.066	1.117	0.50	0.11
3415	3288	3292	8	527.42	0.01	1.191	0.594	0.028	1.163	0.565	0.071	0.076	1.425	0.50	0.11
3417	3292	3294	8	823.96	0.01	1.225	0.610	0.031	1.194	0.579	0.073	0.079	1.489	0.50	0.11
3419	3294	3296	8	340.00	0.01	0.941	0.469	0.033	0.908	0.436	0.085	0.081	1.258	0.50	0.13
3421	3296	3298	8	502.00	0.00	0.664	0.331	0.033	0.631	0.298	0.101	0.082	0.992	0.50	0.15
3423	3298	3300	8	992.79	0.00	0.665	0.331	0.034	0.630	0.297	0.103	0.084	1.003	0.50	0.16
3425	3300	3302	10	10.31	0.67	17.995	8.967	0.075	17.920	8.892	0.039	0.117	8.115	0.50	0.05
3427	3302	3304	10	492.61	0.01	1.914	0.954	0.075	1.839	0.879	0.113	0.117	1.700	0.50	0.14
3429	3304	3306	10	150.00	0.00	1.091	0.544	0.080	1.011	0.463	0.153	0.121	1.169	0.50	0.18
343	354	356	12	450.66	0.02	4.500	2.242	0.913	3.586	1.329	0.306	0.401	4.492	0.50	0.31
3431	3306	3308	10	150.00	0.01	1.794	0.894	0.080	1.713	0.814	0.120	0.121	1.658	0.50	0.14
3433	3308	3310	10	432.00	0.01	1.818	0.906	0.080	1.738	0.826	0.119	0.121	1.674	0.50	0.14
3435	3310	3312	10	150.00	0.01	1.812	0.903	0.080	1.731	0.822	0.119	0.121	1.669	0.50	0.14
3437	3312	3252	10	122.00	0.02	3.346	1.667	0.082	3.264	1.585	0.090	0.122	2.583	0.50	0.11
3443	3316	3318	24	649.28	0.01	18.545	16.885	11.198	7.347	5.687	1.121	1.200	6.179	0.75	0.56
345	356	358	12	642.82	0.01	4.027	2.007	1.009	3.018	0.998	0.341	0.422	4.265	0.50	0.34
3451	3326	3328	22	22.20	0.02	26.446	24.079	0.094	26.352	23.985	0.080	0.107	2.347	0.75	0.04
3457	3332	3334	24	206.00	0.00	12.936	11.778	0.094	12.842	11.684	0.121	0.104	1.200	0.75	0.06
3459	3334	3336	24	299.66	0.00	12.568	11.443	0.094	12.474	11.349	0.123	0.104	1.176	0.75	0.06
3461	3336	2570	24	636.71	0.01	19.550	17.800	0.111	19.440	17.690	0.108	0.113	1.680	0.75	0.05
3465	3328	3332	22	177.37	0.02	23.816	21.684	0.094	23.722	21.590	0.084	0.107	2.183	0.75	0.05
3467	3338	3340	27	1099.86	0.01	29.743	27.080	5.702	24.040	21.377	0.668	0.814	5.771	0.75	0.30
3469	3340	3456	27	643.65	0.02	42.135	38.362	5.753	36.381	32.609	0.562	0.818	7.418	0.75	0.25
347	358	360	12	222.00	0.02	4.931	2.457	1.009	3.922	1.448	0.307	0.422	4.934	0.50	0.31
3471	2570	3316	24	492.67	0.01	17.522	15.954	11.188	6.334	4.765	1.161	1.200	5.914	0.75	0.58
3475	3318	3342	24	266.00	0.01	21.320	19.411	11.210	10.110	8.201	1.030	1.201	6.872	0.75	0.52
3477	3342	2582	24	43.44	0.03	41.869	38.120	11.210	30.659	26.910	0.707	1.201	11.291	0.75	0.35
3479	3344	3346	10	330.00	0.01	1.702	0.848	0.456	1.246	0.392	0.294	0.295	2.643	0.50	0.35
3481	3346	3348	10	1227.63	0.00	0.528	0.263	0.497	0.031	-0.234	0.643	0.308	1.101	0.50	0.77
3483	3348	3350	10	52.14	0.01	1.748	0.871	0.688	1.060	0.183	0.363	0.365	3.013	0.50	0.44
3485	3350	3352	10	1389.69	0.01	2.051	1.022	0.711	1.340	0.311	0.338	0.371	3.418	0.50	0.41
3487	3352	3354	10	309.00	0.01	1.653	0.824	0.899	0.754	-0.075	0.438	0.420	3.095	0.50	0.53
3489	3354	3356	10	29.00	0.01	1.778	0.886	0.908	0.870	-0.022	0.422	0.422	3.278	0.50	0.51
349	360	362	12	596.31	0.01	2.508	1.250	1.170	1.339	0.080	0.480	0.456	3.138	0.50	0.48
3491	3356	3358	10	2832.67	0.01	1.786	0.890	0.931	0.856	-0.041	0.427	0.428	3.309	0.50	0.51
3493	3358	3360	10	353.00	0.01	1.921	0.957	1.100	0.821	-0.143	0.452	0.467	3.641	0.50	0.54
3495	3360	3362	10	180.00	0.00	1.111	0.553	1.111	-0.001	-0.558	0.833	0.469	2.036	0.50	1.00
3497	3362	3364	10	343.00	0.00	1.106	0.551	1.111	-0.005	-0.560	0.833	0.468	2.028	0.50	1.00
3499	3364	2020	10	327.00	0.02	3.216	1.603	1.115	2.101	0.488	0.339	0.470	5.361	0.50	0.41
35	38	40	15	303.00	0.01	5.262	4.791	0.442	4.821	4.349	0.245	0.258	2.604	0.75	0.20
351	362	364	12	334.00	0.00	1.189	0.592	1.328	-0.139	-0.736	1.000	0.460	1.514	0.50	1.00
3515	3380	2024	12	351.00	0.01	3.770	1.879	0.385	3.385	1.494	0.216	0.256	3.089	0.50	0.22

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
3521	3382	3380	12	3829.35	0.01	2.579	1.285	0.385	2.194	0.900	0.261	0.256	2.359	0.50	0.26
3523	3388	3390	15	4573.89	0.02	9.675	8.809	2.332	7.343	6.476	0.418	0.611	6.487	0.75	0.33
3525	3390	3392	15	2122.47	0.02	9.186	8.363	3.454	5.731	4.909	0.531	0.750	6.954	0.75	0.43
3527	3392	3394	18	190.83	0.04	17.104	15.572	3.619	13.485	11.953	0.468	0.726	7.678	0.75	0.31
3529	3394	3396	18	545.73	0.02	14.314	13.032	3.619	10.695	9.414	0.514	0.726	6.754	0.75	0.34
353	364	366	12	1416.79	0.02	4.656	2.320	1.328	3.328	0.992	0.366	0.487	5.111	0.50	0.37
3531	3396	3398	18	2984.22	0.02	16.119	14.676	4.336	11.783	10.340	0.531	0.798	7.738	0.75	0.35
3533	3398	3400	18	789.09	0.02	14.228	12.954	4.726	9.502	8.228	0.595	0.835	7.235	0.75	0.40
3535	3400	368	18	151.01	0.11	34.645	31.543	4.726	29.920	26.818	0.374	0.835	13.720	0.75	0.25
3537	3402	3404	24	10.00	0.02	32.870	29.928	5.701	27.169	24.226	0.564	0.843	7.845	0.75	0.28
3539	3404	3406	24	684.85	0.01	27.231	24.793	5.701	21.529	19.091	0.621	0.843	6.856	0.75	0.31
3541	3406	3408	24	648.34	0.01	25.941	23.619	5.701	20.240	17.918	0.637	0.843	6.621	0.75	0.32
3543	3408	3410	24	1335.87	0.02	28.588	26.029	5.701	22.887	20.327	0.606	0.843	7.099	0.75	0.30
3545	3410	1812	27	850.43	0.00	16.565	15.082	5.701	10.864	9.381	0.910	0.814	3.780	0.75	0.41
3547	3412	3414	24	306.00	0.01	23.232	21.152	5.701	17.531	15.451	0.675	0.843	6.115	0.75	0.34
3549	3414	3402	24	290.00	0.02	34.374	31.297	5.701	28.673	25.596	0.551	0.843	8.100	0.75	0.28
355	366	368	12	267.00	0.07	9.278	4.623	1.513	7.765	3.110	0.273	0.521	8.702	0.50	0.27
3553	3416	3412	24	1275.23	0.01	24.805	22.584	5.701	19.104	16.883	0.652	0.843	6.411	0.75	0.33
3555	1828	3418	24	486.75	0.03	38.592	35.137	5.701	32.891	29.436	0.519	0.843	8.797	0.75	0.26
3557	3418	3420	24	675.55	0.01	21.870	19.912	5.701	16.168	14.210	0.697	0.843	5.854	0.75	0.35
3563	3424	3426	24	20.74	0.01	25.878	23.561	5.702	20.176	17.860	0.638	0.843	6.609	0.75	0.32
3567	1980	1986	8	2968.04	0.00	0.600	0.299	2.308	-1.708	-2.009	0.667	0.364	1.719	0.50	1.00
3569	3420	3424	24	1453.16	0.01	21.741	19.795	5.701	16.040	14.093	0.699	0.843	5.829	0.75	0.35
357	368	370	18	240.00	0.01	10.554	9.609	5.613	4.941	3.997	0.778	0.914	6.064	0.75	0.52
3571	3430	3432	27	2135.59	0.01	27.468	25.009	5.702	21.767	19.308	0.696	0.814	5.451	0.75	0.31
3573	3432	3434	30	1140.69	0.01	29.021	26.423	5.702	23.320	20.721	0.751	0.789	4.593	0.75	0.30
3575	3434	3436	27	192.94	0.01	34.271	31.203	5.702	28.569	25.501	0.621	0.814	6.386	0.75	0.28
3577	3436	3438	27	291.65	0.02	38.744	35.275	5.702	33.042	29.573	0.583	0.814	6.970	0.75	0.26
3579	3438	3440	27	658.59	0.01	27.936	25.435	5.702	22.234	19.733	0.690	0.814	5.517	0.75	0.31
3581	3440	3442	27	2515.26	0.01	30.137	27.439	5.702	24.434	21.736	0.663	0.814	5.826	0.75	0.30
3583	3442	3444	27	686.03	0.01	34.687	31.582	5.702	28.985	25.879	0.617	0.814	6.442	0.75	0.27
3585	3444	3446	27	607.77	0.01	30.099	27.404	5.702	24.397	21.702	0.664	0.814	5.820	0.75	0.30
3587	3446	3448	27	265.90	0.01	30.469	27.741	5.702	24.767	22.039	0.659	0.814	5.872	0.75	0.29
3589	3448	3450	27	521.78	0.01	27.960	25.456	5.702	22.257	19.754	0.689	0.814	5.521	0.75	0.31
359	370	372	18	1068.45	0.01	11.618	10.577	5.617	6.001	4.961	0.735	0.914	6.519	0.75	0.49
3591	3450	3452	27	692.81	0.01	29.018	26.420	5.702	23.316	20.718	0.676	0.814	5.670	0.75	0.30
3593	3452	3454	27	398.29	0.01	28.691	26.122	5.702	22.989	20.420	0.680	0.814	5.624	0.75	0.30
3595	3454	3338	27	632.25	0.00	15.425	14.044	5.702	9.723	8.342	0.947	0.814	3.588	0.75	0.42
3597	3456	3458	27	757.67	0.01	36.206	32.965	5.753	30.453	27.211	0.606	0.818	6.659	0.75	0.27
3599	3458	3460	27	93.00	0.02	39.437	35.907	5.753	33.684	30.153	0.581	0.818	7.077	0.75	0.26
3601	3460	3462	27	100.00	0.02	48.107	43.800	5.753	42.354	38.047	0.525	0.818	8.151	0.75	0.23
3603	3462	3464	27	755.29	0.01	24.884	22.656	5.753	19.131	16.903	0.736	0.818	5.090	0.75	0.33
3605	3464	3708	18	117.36	0.13	32.469	29.562	2.735	29.734	26.827	0.294	0.627	11.172	0.75	0.20
3607	3466	3008	27	1309.23	0.00	18.939	17.244	5.762	13.177	11.482	0.851	0.819	4.180	0.75	0.38
3609	3464	3710	24	136.66	0.11	64.803	59.001	3.027	61.775	55.974	0.294	0.607	10.534	0.75	0.15
361	372	374	18	1053.75	0.02	13.179	11.999	5.645	7.535	6.355	0.686	0.917	7.169	0.75	0.46
3611	3074	3468	36	690.00	0.01	50.728	46.186	18.061	32.668	28.126	1.237	1.361	6.571	0.75	0.41
3613	3468	2310	36	220.00	0.05	142.154	129.427	18.149	124.005	111.278	0.724	1.364	13.807	0.75	0.24
3615	3472	3474	10	1313.31	0.00	1.217	0.606	0.008	1.209	0.598	0.048	0.038	0.628	0.50	0.06
3617	3474	3476	10	862.58	0.00	1.190	0.593	0.053	1.137	0.540	0.120	0.098	1.100	0.50	0.14
3619	3476	3478	10	1042.60	0.00	1.126	0.561	0.165	0.961	0.396	0.216	0.175	1.476	0.50	0.26
3621	3478	3480	10	94.00	0.00	1.211	0.603	0.218	0.992	0.385	0.239	0.202	1.682	0.50	0.29
3623	3480	3704	10	37.59	0.28	10.029	4.998	0.218	9.811	4.780	0.085	0.202	7.467	0.50	0.10

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3625	3482	3484	10	88.00	0.00	1.267	0.632	0.218	1.049	0.414	0.234	0.202	1.738	0.50	0.28
3627	3484	3486	8	586.78	0.00	0.570	0.284	0.290	0.281	-0.005	0.336	0.249	1.640	0.50	0.51
3629	3486	3488	8	150.32	0.01	1.122	0.559	0.317	0.806	0.243	0.242	0.261	2.764	0.50	0.36
363	374	376	18	404.09	0.01	9.858	8.975	5.662	4.195	3.313	0.815	0.918	5.771	0.75	0.54
3631	3488	3490	8	307.00	0.00	0.732	0.365	0.323	0.409	0.042	0.310	0.263	2.031	0.50	0.47
3633	3490	2704	8	524.46	0.02	1.577	0.786	0.339	1.239	0.447	0.210	0.270	3.599	0.50	0.32
3635	2704	3492	30	139.00	0.00	25.870	23.554	2.234	23.637	21.320	0.497	0.488	3.228	0.75	0.20
3647	3502	3500	15	127.00	0.00	2.072	1.887	1.320	0.752	0.566	0.725	0.454	1.790	0.75	0.58
3649	3500	3498	15	2601.84	0.00	1.205	1.097	1.320	-0.116	-0.224	1.250	0.433	0.982	0.75	1.00
365	376	378	18	163.08	0.01	11.895	10.830	5.666	6.229	5.164	0.729	0.918	6.649	0.75	0.49
3651	3498	9000	15	171.86	0.01	7.160	6.519	1.320	5.839	5.198	0.364	0.454	4.451	0.75	0.29
3655	3492	9000	12	148.48	0.01	3.368	1.678	2.234	1.135	-0.555	0.595	0.639	4.586	0.50	0.60
367	378	380	18	651.71	0.02	15.018	13.673	5.666	9.351	8.007	0.639	0.918	7.902	0.75	0.43
3673	2886	3502	30	124.00	0.00	12.794	11.649	1.129	11.665	10.519	0.502	0.345	1.607	0.75	0.20
3675	3526	3686	8	425.49	0.03	1.726	0.860	0.387	1.339	0.473	0.215	0.290	3.988	0.50	0.32
3677	3526	3684	22	427.35	0.03	25.570	23.281	0.742	24.828	22.539	0.215	0.303	4.290	0.75	0.12
3679	2882	3692	20	430.53	0.03	20.673	18.822	2.125	18.549	16.698	0.361	0.533	6.108	0.75	0.22
3681	2882	3688	14	424.52	0.03	8.042	4.008	1.671	6.372	2.337	0.361	0.524	5.937	0.50	0.31
3683	2884	3528	30	81.00	0.00	12.925	11.768	5.634	7.291	6.134	1.154	0.784	2.543	0.75	0.46
3685	3528	3530	30	470.13	0.00	7.346	6.689	5.634	1.712	1.054	1.641	0.784	1.650	0.75	0.66
3687	3530	3532	30	103.33	0.01	32.113	29.238	5.659	26.453	23.578	0.710	0.786	4.928	0.75	0.28
3689	3532	3534	30	756.71	0.00	12.774	11.630	5.659	7.114	5.971	1.165	0.786	2.524	0.75	0.47
369	380	382	18	506.00	0.02	12.933	11.775	5.701	7.232	6.074	0.697	0.921	7.088	0.75	0.47
3691	3534	3536	30	1125.96	0.00	12.796	11.650	5.679	7.117	5.971	1.166	0.788	2.529	0.75	0.47
3693	3536	3538	30	365.00	0.00	13.951	12.702	5.701	8.250	7.001	1.113	0.789	2.699	0.75	0.45
3695	3540	2572	10	199.00	0.01	1.596	0.795	0.557	1.039	0.238	0.340	0.327	2.665	0.50	0.41
3697	3542	9004	8	111.50	0.00	0.770	0.384	0.070	0.700	0.314	0.136	0.120	1.371	0.50	0.20
37	40	42	15	224.00	0.01	5.318	4.842	0.442	4.876	4.400	0.244	0.258	2.624	0.75	0.20
3701	3552	9008	10	14.50	0.02	2.998	1.494	0.168	2.829	1.326	0.134	0.177	2.964	0.50	0.16
3707	3558	3560	10	427.88	0.00	1.381	0.688	0.245	1.135	0.443	0.238	0.214	1.911	0.50	0.29
3709	3560	3562	8	426.39	0.01	0.980	0.488	0.379	0.601	0.109	0.288	0.287	2.628	0.50	0.43
371	382	384	18	1335.21	0.01	8.889	8.093	5.701	3.187	2.392	0.873	0.921	5.339	0.75	0.58
3711	3562	3564	8	423.00	0.01	0.970	0.483	0.433	0.536	0.050	0.312	0.307	2.700	0.50	0.47
3713	3564	2800	12	93.18	0.02	5.439	2.710	0.433	5.005	2.277	0.191	0.272	4.142	0.50	0.19
3717	3572	3502	15	91.07	0.01	5.344	4.866	0.334	5.010	4.531	0.212	0.224	2.426	0.75	0.17
3721	3574	3572	15	371.15	0.00	3.007	2.738	0.332	2.675	2.406	0.280	0.223	1.613	0.75	0.22
3727	3578	3580	8	350.00	0.01	1.125	0.561	0.027	1.099	0.534	0.071	0.074	1.347	0.50	0.11
3729	3580	2966	8	280.00	0.03	2.018	1.006	0.028	1.990	0.978	0.055	0.076	2.053	0.50	0.08
373	384	386	18	1858.61	0.02	14.676	13.362	5.701	8.975	7.661	0.649	0.921	7.782	0.75	0.43
3733	3582	3540	8	160.00	0.01	0.888	0.443	0.070	0.818	0.373	0.127	0.120	1.517	0.50	0.19
3737	3538	9000	30	76.00	0.00	20.015	18.223	5.705	14.310	12.519	0.913	0.789	3.514	0.75	0.37
3743	2682	3590	54	61.02	0.00	97.765	89.012	20.854	76.910	68.157	1.411	1.299	4.888	0.75	0.31
3745	270	9024	8	161.23	0.01	0.910	0.454	0.159	0.751	0.294	0.189	0.183	1.960	0.50	0.28
3749	256	260	8	65.09	0.01	0.950	0.473	0.130	0.819	0.343	0.167	0.165	1.907	0.50	0.25
375	386	388	18	71.15	0.02	13.564	12.349	5.701	7.862	6.648	0.678	0.921	7.343	0.75	0.45
3767	3598	2556	15	674.79	0.01	6.367	5.797	2.276	4.090	3.520	0.517	0.603	4.756	0.75	0.41
3769	3610	3608	18	324.92	0.00	6.738	6.135	2.247	4.491	3.888	0.597	0.566	3.430	0.75	0.40
377	388	390	18	695.02	0.02	16.360	14.895	5.701	10.659	9.194	0.611	0.921	8.428	0.75	0.41
3771	3608	3606	18	324.89	0.00	6.739	6.135	2.251	4.487	3.884	0.597	0.567	3.432	0.75	0.40
3773	3606	3604	18	321.00	0.00	6.805	6.196	2.256	4.549	3.940	0.595	0.568	3.459	0.75	0.40
3775	3604	3602	15	332.81	0.01	4.348	3.959	2.261	2.088	1.698	0.640	0.601	3.578	0.75	0.51
3777	3602	3600	15	320.98	0.01	4.850	4.416	2.265	2.585	2.151	0.601	0.601	3.885	0.75	0.48
3779	3600	3598	15	360.14	0.02	8.821	8.031	2.271	6.550	5.760	0.433	0.602	6.024	0.75	0.35

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3781	66	64	8	120.56	0.02	1.846	0.920	0.370	1.477	0.550	0.202	0.283	4.131	0.50	0.30
3783	64	60	8	287.45	0.03	2.128	1.061	0.376	1.752	0.685	0.190	0.285	4.596	0.50	0.29
3785	60	58	8	661.74	0.03	1.914	0.954	0.377	1.537	0.577	0.201	0.285	4.261	0.50	0.30
3787	412	3612	8	505.87	0.03	1.943	0.968	0.027	1.916	0.941	0.055	0.074	1.982	0.50	0.08
3789	3612	3614	8	112.51	0.01	1.272	0.634	0.027	1.245	0.607	0.068	0.074	1.474	0.50	0.10
379	390	392	21	2645.76	0.02	20.667	18.816	5.701	14.965	13.115	0.628	0.879	7.340	0.75	0.36
3791	3614	3616	8	144.62	0.02	1.615	0.805	0.027	1.588	0.777	0.060	0.074	1.742	0.50	0.09
3793	3616	3618	8	140.66	0.01	1.147	0.571	0.027	1.119	0.544	0.071	0.074	1.371	0.50	0.11
3795	3618	3620	8	179.54	0.01	1.237	0.616	0.027	1.209	0.589	0.068	0.074	1.445	0.50	0.10
3797	3620	406	8	474.95	0.01	1.410	0.702	0.027	1.382	0.675	0.064	0.074	1.584	0.50	0.10
3807	3628	9016	8	75.39	0.02	1.496	0.746	0.027	1.470	0.719	0.062	0.074	1.644	0.50	0.09
3809	3630	9012	8	289.00	0.01	1.074	0.535	0.076	0.997	0.459	0.120	0.126	1.780	0.50	0.18
381	396	398	8	615.00	0.01	1.237	0.616	0.006	1.231	0.611	0.032	0.033	0.891	0.50	0.05
3811	3632	9010	8	449.04	0.01	0.827	0.412	0.348	0.479	0.064	0.302	0.274	2.266	0.50	0.45
3813	3634	9018	12	391.00	0.00	1.422	0.709	0.271	1.151	0.437	0.296	0.214	1.395	0.50	0.30
3815	3636	9018	10	425.00	0.00	1.187	0.591	0.100	1.086	0.491	0.164	0.136	1.325	0.50	0.20
3817	3638	9026	6	18.02	0.01	0.513	0.256	0.000	0.513	0.256	0.000	0.000	0.000	0.50	0.00
3819	3640	9022	8	83.80	0.02	1.695	0.845	0.355	1.340	0.490	0.207	0.277	3.840	0.50	0.31
3821	3644	2348	21	246.61	0.00	9.544	8.690	0.671	8.873	8.018	0.314	0.292	2.288	0.75	0.18
3823	3646	3714	21	203.30	0.05	36.618	33.340	0.671	35.947	32.668	0.165	0.292	5.873	0.75	0.09
3825	3648	3646	21	403.81	0.00	7.071	6.438	0.671	6.400	5.767	0.364	0.292	1.852	0.75	0.21
3827	1518	1524	24	170.27	0.00	10.856	9.884	9.811	1.045	0.073	1.489	1.120	3.913	0.75	0.74
3829	1524	3662	24	102.75	0.11	64.468	58.696	5.680	58.788	53.016	0.401	0.842	12.644	0.75	0.20
383	398	400	8	281.00	0.04	2.524	1.257	0.015	2.509	1.243	0.037	0.055	1.975	0.50	0.06
3831	1498	3652	24	55.96	0.18	83.146	75.702	5.556	77.590	70.146	0.350	0.832	15.032	0.75	0.18
3833	1498	3650	14	55.21	0.18	19.885	9.909	3.899	15.986	6.009	0.350	0.814	14.443	0.50	0.30
3835	3650	1504	14	56.02	-0.18	-1.000	-1.000	4.696	-1.000	-1.000	1.167	0.893	4.393	0.50	1.00
3837	3652	1504	24	58.66	-0.17	-1.000	-1.000	6.215	-1.000	-1.000	2.000	0.882	1.978	0.75	1.00
3839	1664	1666	12	517.00	0.01	2.845	1.418	0.574	2.271	0.844	0.305	0.315	2.836	0.50	0.31
3843	3656	3512	20	26.21	0.01	10.561	9.616	7.741	2.820	1.875	1.060	1.047	5.288	0.75	0.64
3845	2660	2594	10	912.24	0.00	1.425	0.710	0.160	1.266	0.551	0.188	0.172	1.727	0.50	0.23
3847	2990	3702	18	72.37	0.19	39.989	36.409	0.789	39.200	35.620	0.146	0.330	8.924	0.75	0.10
3849	3658	92	18	154.04	-0.07	-1.000	-1.000	2.066	-1.000	-1.000	1.500	0.542	1.169	0.75	1.00
385	400	402	8	310.00	0.01	0.958	0.478	0.038	0.921	0.440	0.091	0.088	1.335	0.50	0.14
3851	3660	1528	14	89.34	-0.11	-1.000	-1.000	4.973	-1.000	-1.000	1.167	0.918	4.652	0.50	1.00
3853	3662	1528	24	106.88	-0.09	-1.000	-1.000	6.375	-1.000	-1.000	2.000	0.894	2.029	0.75	1.00
3855	3664	1582	10	15.75	-0.64	-1.000	-1.000	0.206	-1.000	-1.000	0.833	0.196	0.378	0.50	1.00
3857	3666	2324	8	82.42	-0.12	-1.000	-1.000	0.023	-1.000	-1.000	0.667	0.068	0.065	0.50	1.00
3859	3668	2396	8	199.24	-0.05	-1.000	-1.000	0.400	-1.000	-1.000	0.667	0.295	1.147	0.50	1.00
3861	3670	2460	6	132.36	-0.08	-1.000	-1.000	0.132	-1.000	-1.000	0.500	0.180	0.673	0.50	1.00
3863	3672	2460	10	148.56	-0.07	-1.000	-1.000	0.164	-1.000	-1.000	0.833	0.174	0.301	0.50	1.00
3865	3674	2468	8	477.05	-0.02	-1.000	-1.000	1.361	-1.000	-1.000	0.667	0.550	3.898	0.50	1.00
3867	3676	2468	12	454.11	-0.02	-1.000	-1.000	1.819	-1.000	-1.000	1.000	0.574	2.316	0.50	1.00
3869	3678	2468	20	456.67	-0.02	-1.000	-1.000	2.389	-1.000	-1.000	1.667	0.567	1.095	0.75	1.00
387	402	404	8	304.00	0.00	0.659	0.328	0.048	0.611	0.281	0.122	0.099	1.099	0.50	0.18
3871	3680	2482	8	467.25	-0.02	-1.000	-1.000	0.538	-1.000	-1.000	0.667	0.344	1.543	0.50	1.00
3873	3682	2482	12	470.00	-0.02	-1.000	-1.000	0.675	-1.000	-1.000	1.000	0.342	0.859	0.50	1.00
3875	3684	2886	22	445.07	-0.02	-1.000	-1.000	0.808	-1.000	-1.000	1.833	0.316	0.306	0.75	1.00
3877	3686	2886	8	437.64	-0.02	-1.000	-1.000	0.481	-1.000	-1.000	0.667	0.325	1.379	0.50	1.00
3879	3688	2884	14	459.75	-0.02	-1.000	-1.000	2.140	-1.000	-1.000	1.167	0.596	2.002	0.50	1.00
3881	3690	2884	16	453.55	-0.02	-1.000	-1.000	2.310	-1.000	-1.000	1.333	0.596	1.655	0.75	1.00
3883	3692	2884	20	452.93	-0.02	-1.000	-1.000	2.592	-1.000	-1.000	1.667	0.591	1.188	0.75	1.00
3885	3694	3042	10	214.84	-0.02	-1.000	-1.000	0.154	-1.000	-1.000	0.833	0.169	0.282	0.50	1.00

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
3887	3696	3042	8	186.95	-0.03	-1.000	-1.000	0.143	-1.000	-1.000	0.667	0.173	0.410	0.50	1.00
3889	3698	3014	24	136.55	-0.04	-1.000	-1.000	3.965	-1.000	-1.000	2.000	0.698	1.262	0.75	1.00
389	404	406	8	1188.23	0.01	1.028	0.512	0.057	0.972	0.456	0.106	0.108	1.580	0.50	0.16
3891	3700	3014	24	156.69	-0.03	-1.000	-1.000	3.764	-1.000	-1.000	2.000	0.680	1.198	0.75	1.00
3893	3702	2996	18	75.31	-0.13	-1.000	-1.000	0.789	-1.000	-1.000	1.500	0.330	0.446	0.75	1.00
3895	3704	3482	10	36.55	-0.27	-1.000	-1.000	0.218	-1.000	-1.000	0.833	0.202	0.400	0.50	1.00
3897	3706	1550	33	80.13	-0.13	-1.000	-1.000	16.203	-1.000	-1.000	2.750	1.320	2.728	0.75	1.00
3899	3708	3466	18	119.76	-0.08	-1.000	-1.000	3.183	-1.000	-1.000	1.500	0.679	1.801	0.75	1.00
39	42	30	15	207.00	0.04	13.024	11.858	0.442	12.583	11.416	0.158	0.258	4.925	0.75	0.13
3901	3710	3466	24	139.55	-0.07	-1.000	-1.000	3.451	-1.000	-1.000	2.000	0.650	1.099	0.75	1.00
3903	3712	3068	16	134.08	-0.04	-1.000	-1.000	1.112	-1.000	-1.000	1.333	0.407	0.796	0.75	1.00
3905	3714	3644	21	207.10	-0.05	-1.000	-1.000	0.671	-1.000	-1.000	1.750	0.292	0.279	0.75	1.00
3907	3716	3146	8	65.82	-0.15	-1.000	-1.000	0.753	-1.000	-1.000	0.667	0.410	2.157	0.50	1.00
391	406	380	8	685.00	0.01	1.041	0.519	0.118	0.924	0.401	0.151	0.156	1.976	0.50	0.23
3913	3720	3146	10	72.24	-0.14	-1.000	-1.000	0.000	-1.000	-1.000	0.833	0.000	0.000	0.50	1.00
3915	3144	3720	10	82.81	0.13	6.888	3.432	0.000	6.888	3.432	0.000	0.000	0.000	0.50	0.00
393	408	410	8	315.00	0.01	1.055	0.526	0.005	1.050	0.520	0.034	0.033	0.792	0.50	0.05
395	410	412	8	693.90	0.01	1.161	0.578	0.013	1.148	0.566	0.050	0.051	1.103	0.50	0.07
397	414	412	8	131.52	0.01	1.336	0.666	0.007	1.330	0.659	0.034	0.037	0.998	0.50	0.05
399	416	414	8	337.77	0.01	0.962	0.479	0.002	0.961	0.478	0.020	0.018	0.512	0.50	0.03
403	418	420	8	322.00	0.03	1.950	0.972	0.009	1.940	0.962	0.033	0.043	1.437	0.50	0.05
405	420	422	8	162.00	0.01	1.094	0.545	0.014	1.080	0.531	0.052	0.052	1.074	0.50	0.08
409	422	376	8	229.00	0.02	1.891	0.942	0.016	1.875	0.926	0.044	0.057	1.664	0.50	0.07
41	32	44	15	259.07	0.01	7.740	7.047	1.353	6.388	5.695	0.354	0.460	4.739	0.75	0.28
411	428	430	15	575.00	0.01	6.589	5.999	0.018	6.571	5.981	0.048	0.051	1.162	0.75	0.04
413	430	432	15	596.00	0.02	8.703	7.924	0.023	8.680	7.901	0.047	0.058	1.516	0.75	0.04
415	432	434	15	567.00	0.02	8.713	7.933	0.023	8.690	7.910	0.047	0.058	1.518	0.75	0.04
417	434	436	15	46.00	0.01	4.479	4.078	0.030	4.449	4.048	0.073	0.067	1.041	0.75	0.06
419	436	438	15	868.25	0.01	7.470	6.801	0.046	7.425	6.756	0.070	0.082	1.684	0.75	0.06
421	438	440	15	595.00	0.02	8.977	8.173	0.054	8.923	8.119	0.069	0.089	2.012	0.75	0.06
423	440	442	15	374.00	0.04	12.683	11.547	0.054	12.629	11.493	0.059	0.089	2.559	0.75	0.05
425	442	444	15	546.00	0.03	10.154	9.245	0.059	10.095	9.186	0.068	0.093	2.253	0.75	0.06
427	444	446	15	556.00	0.02	9.006	8.200	0.065	8.941	8.134	0.076	0.098	2.138	0.75	0.06
429	446	448	15	280.86	0.02	8.162	7.431	0.068	8.094	7.363	0.081	0.100	2.018	0.75	0.07
43	44	46	15	2537.69	0.02	8.253	7.514	1.392	6.861	6.122	0.347	0.466	5.002	0.75	0.28
435	452	454	15	63.46	0.02	8.171	7.440	0.076	8.095	7.363	0.085	0.106	2.093	0.75	0.07
437	454	456	15	262.00	0.01	6.427	5.852	0.077	6.350	5.774	0.096	0.107	1.779	0.75	0.08
439	456	458	15	396.00	0.02	9.055	8.244	0.077	8.978	8.167	0.082	0.107	2.259	0.75	0.07
441	458	460	15	534.00	0.01	7.096	6.461	0.118	6.978	6.343	0.112	0.132	2.166	0.75	0.09
443	460	462	15	368.00	0.02	9.060	8.249	0.118	8.942	8.131	0.100	0.132	2.568	0.75	0.08
445	462	464	15	375.00	0.03	10.645	9.692	0.121	10.524	9.571	0.094	0.134	2.897	0.75	0.08
447	464	466	15	177.00	0.00	2.177	1.982	0.144	2.034	1.839	0.217	0.146	1.004	0.75	0.17
449	466	468	15	290.00	0.02	9.254	8.426	0.144	9.110	8.282	0.109	0.146	2.766	0.75	0.09
45	46	48	15	384.00	0.02	9.070	8.258	1.507	7.563	6.751	0.345	0.486	5.474	0.75	0.28
451	468	470	15	1200.00	0.03	10.152	9.243	0.144	10.008	9.099	0.104	0.146	2.950	0.75	0.08
453	470	472	15	295.00	0.02	9.283	8.452	0.144	9.140	8.308	0.108	0.146	2.772	0.75	0.09
455	448	452	15	265.47	0.02	10.104	9.199	0.076	10.027	9.123	0.077	0.106	2.427	0.75	0.06
457	392	474	21	1352.65	0.01	15.321	13.950	5.701	9.620	8.248	0.739	0.879	5.901	0.75	0.42
459	474	476	21	1302.98	0.01	14.397	13.108	5.701	8.696	7.407	0.765	0.879	5.637	0.75	0.44
461	476	478	21	1300.50	0.01	17.622	16.044	5.701	11.921	10.343	0.685	0.879	6.537	0.75	0.39
463	478	480	21	650.00	0.02	20.431	18.602	5.701	14.730	12.901	0.632	0.879	7.279	0.75	0.36
465	480	482	24	2035.90	0.01	18.957	17.260	5.701	13.256	11.558	0.752	0.843	5.278	0.75	0.38
467	482	3416	24	538.05	0.02	30.784	28.028	5.701	25.083	22.326	0.583	0.843	7.486	0.75	0.29

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469	484	486	15	276.00	0.02	8.066	7.343	0.172	7.894	7.172	0.126	0.160	2.651	0.75	0.10
47	48	50	15	440.00	0.02	9.196	8.373	1.507	7.689	6.866	0.342	0.486	5.529	0.75	0.27
471	486	488	15	515.00	0.01	7.664	6.977	0.173	7.491	6.805	0.130	0.160	2.563	0.75	0.10
473	488	490	15	1030.00	0.01	7.285	6.633	0.174	7.111	6.459	0.133	0.161	2.480	0.75	0.11
475	472	492	15	595.00	0.01	6.702	6.102	0.144	6.558	5.958	0.127	0.146	2.208	0.75	0.10
477	492	494	15	1071.12	0.02	9.792	8.915	0.144	9.648	8.771	0.106	0.146	2.877	0.75	0.09
479	494	496	15	313.00	0.01	6.849	6.236	0.144	6.705	6.092	0.125	0.146	2.242	0.75	0.10
481	496	498	12	326.00	0.02	4.525	2.255	0.149	4.375	2.105	0.124	0.158	2.652	0.50	0.12
483	498	500	15	785.83	0.02	9.340	8.503	0.150	9.189	8.353	0.111	0.149	2.823	0.75	0.09
485	500	484	15	1505.71	0.02	7.868	7.164	0.153	7.715	7.011	0.121	0.151	2.518	0.75	0.10
487	316	502	18	420.36	0.02	13.688	12.462	3.066	10.622	9.396	0.483	0.666	6.244	0.75	0.32
489	502	504	18	400.00	0.02	13.903	12.658	3.079	10.824	9.580	0.480	0.667	6.322	0.75	0.32
49	50	52	15	668.00	0.02	8.990	8.185	1.513	7.477	6.672	0.347	0.487	5.446	0.75	0.28
491	504	506	18	400.00	0.02	15.052	13.705	3.085	11.968	10.620	0.461	0.668	6.696	0.75	0.31
493	506	508	27	250.00	0.00	15.213	13.851	3.116	12.097	10.735	0.691	0.596	3.008	0.75	0.31
495	508	510	30	354.00	0.00	21.305	19.398	3.118	18.187	16.279	0.646	0.579	3.100	0.75	0.26
497	510	512	27	175.25	0.00	18.170	16.543	3.118	15.051	13.425	0.631	0.596	3.416	0.75	0.28
499	512	514	27	313.71	0.00	15.082	13.732	3.194	11.888	10.538	0.703	0.603	3.010	0.75	0.31
501	516	518	8	472.88	0.01	1.431	0.713	0.106	1.325	0.607	0.123	0.149	2.403	0.50	0.18
503	518	520	8	255.00	0.02	1.761	0.878	0.106	1.655	0.771	0.111	0.149	2.782	0.50	0.17
505	520	522	8	105.70	0.00	0.204	0.102	0.106	0.098	-0.005	0.342	0.149	0.591	0.50	0.51
507	522	524	8	230.60	0.02	1.467	0.731	0.147	1.320	0.584	0.143	0.175	2.689	0.50	0.21
509	524	512	8	220.00	0.03	1.928	0.961	0.147	1.781	0.814	0.125	0.175	3.262	0.50	0.19
51	52	54	15	607.00	0.02	7.926	7.216	2.022	5.905	5.195	0.431	0.567	5.399	0.75	0.34
511	514	526	27	139.00	0.00	16.449	14.976	3.196	13.253	11.780	0.672	0.604	3.204	0.75	0.30
513	526	528	27	111.09	0.00	16.404	14.935	3.196	13.208	11.739	0.673	0.604	3.197	0.75	0.30
515	528	530	27	184.00	0.00	16.666	15.174	3.197	13.469	11.977	0.668	0.604	3.234	0.75	0.30
517	530	532	27	590.05	0.00	17.294	15.745	3.197	14.096	12.548	0.655	0.604	3.321	0.75	0.29
519	532	534	27	245.48	0.00	14.015	12.760	3.237	10.777	9.523	0.736	0.608	2.866	0.75	0.33
521	534	536	27	240.00	0.01	32.937	29.988	3.239	29.698	26.749	0.477	0.608	5.271	0.75	0.21
523	536	538	27	40.00	0.06	75.268	68.529	3.244	72.024	65.285	0.318	0.608	9.438	0.75	0.14
525	538	540	27	347.00	0.00	19.080	17.372	3.248	15.832	14.124	0.628	0.609	3.579	0.75	0.28
53	54	56	15	105.00	0.01	6.477	5.897	2.027	4.450	3.870	0.480	0.567	4.667	0.75	0.38
535	548	550	27	369.89	0.01	31.681	28.845	3.255	28.427	25.590	0.487	0.609	5.135	0.75	0.22
537	550	552	27	56.78	0.05	71.616	65.204	3.255	68.361	61.950	0.327	0.609	9.123	0.75	0.15
539	552	554	27	359.34	0.02	39.892	36.320	3.269	36.623	33.052	0.435	0.611	6.051	0.75	0.19
541	554	556	21	517.12	0.01	18.178	16.551	3.295	14.883	13.255	0.505	0.660	5.738	0.75	0.29
543	556	558	21	400.00	0.02	19.555	17.804	3.397	16.158	14.408	0.494	0.671	6.098	0.75	0.28
545	558	560	21	187.00	0.01	15.630	14.231	3.399	12.232	10.832	0.554	0.671	5.195	0.75	0.32
547	560	562	21	185.00	0.01	16.016	14.582	3.424	12.591	11.157	0.549	0.673	5.298	0.75	0.31
551	566	548	27	329.12	0.01	29.499	26.858	3.255	26.244	23.603	0.505	0.609	4.882	0.75	0.22
553	540	566	27	260.54	0.01	31.729	28.888	3.254	28.474	25.634	0.487	0.609	5.141	0.75	0.22
555	568	570	8	600.00	0.01	1.433	0.714	0.012	1.420	0.702	0.044	0.050	1.256	0.50	0.07
557	570	572	8	401.00	0.02	1.820	0.907	0.021	1.799	0.886	0.050	0.065	1.746	0.50	0.08
559	572	574	8	449.00	0.01	1.337	0.666	0.038	1.299	0.628	0.077	0.088	1.686	0.50	0.12
561	574	576	8	2592.31	0.02	1.473	0.734	0.045	1.428	0.689	0.080	0.095	1.893	0.50	0.12
563	576	562	8	660.81	0.02	1.536	0.765	0.080	1.456	0.685	0.104	0.129	2.323	0.50	0.16
565	578	580	10	400.00	0.02	2.668	1.329	0.046	2.622	1.284	0.076	0.091	1.848	0.50	0.09
567	580	582	10	4492.88	0.02	2.876	1.433	0.101	2.775	1.332	0.107	0.136	2.471	0.50	0.13
569	582	584	10	59.00	0.11	7.297	3.636	0.204	7.093	3.433	0.096	0.195	5.857	0.50	0.12
571	562	584	12	346.97	0.02	4.931	2.457	3.451	1.480	-0.994	0.616	0.794	6.792	0.50	0.62
573	584	588	27	130.00	0.03	55.349	50.393	3.529	51.819	46.864	0.385	0.635	7.797	0.75	0.17
575	588	590	27	240.00	0.01	28.134	25.615	3.529	24.605	22.086	0.538	0.635	4.833	0.75	0.24

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577	590	592	24	595.00	0.02	27.601	25.130	3.530	24.071	21.600	0.483	0.657	6.035	0.75	0.24
579	592	594	24	1297.76	0.01	25.272	23.010	4.706	20.567	18.304	0.585	0.763	6.155	0.75	0.29
581	594	596	24	400.00	0.02	27.595	25.124	4.716	22.879	20.409	0.559	0.764	6.558	0.75	0.28
587	600	602	27	56.19	0.02	41.425	37.717	4.751	36.674	32.966	0.515	0.741	6.934	0.75	0.23
589	596	604	24	481.02	0.01	25.606	23.314	4.727	20.879	18.587	0.582	0.765	6.221	0.75	0.29
591	604	600	27	378.00	0.02	44.061	40.116	4.751	39.310	35.365	0.499	0.741	7.243	0.75	0.22
595	608	610	15	123.86	0.01	5.365	4.885	1.659	3.707	3.226	0.477	0.511	3.853	0.75	0.38
597	610	612	15	301.00	0.01	6.699	6.099	1.735	4.964	4.364	0.434	0.523	4.582	0.75	0.35
599	612	614	15	327.00	0.01	6.477	5.897	1.741	4.736	4.156	0.443	0.524	4.476	0.75	0.35
601	614	616	15	249.87	0.01	5.358	4.878	1.741	3.617	3.137	0.490	0.524	3.900	0.75	0.39
603	616	618	15	132.55	0.01	7.094	6.459	1.756	5.337	4.702	0.424	0.526	4.792	0.75	0.34
605	618	620	15	300.00	0.03	11.784	10.729	1.757	10.026	8.971	0.326	0.527	6.895	0.75	0.26
607	620	592	15	350.00	0.01	4.406	4.012	1.761	2.646	2.251	0.549	0.527	3.390	0.75	0.44
609	622	624	18	312.00	0.00	6.979	6.354	1.609	5.370	4.745	0.490	0.476	3.210	0.75	0.33
61	58	68	8	823.34	0.05	2.666	1.328	0.444	2.222	0.885	0.184	0.311	5.659	0.50	0.28
611	624	626	18	315.00	0.00	5.964	5.430	1.609	4.355	3.821	0.532	0.476	2.865	0.75	0.36
617	630	632	18	350.00	0.00	5.958	5.425	1.645	4.313	3.779	0.539	0.482	2.881	0.75	0.36
619	632	634	15	350.00	0.01	5.793	5.274	1.647	4.146	3.628	0.456	0.509	4.066	0.75	0.37
621	634	636	15	172.41	0.01	7.165	6.524	1.651	5.515	4.873	0.408	0.510	4.744	0.75	0.33
623	636	638	15	179.56	0.00	4.015	3.656	1.656	2.359	2.000	0.559	0.510	3.114	0.75	0.45
625	638	640	15	350.00	0.01	6.477	5.897	1.656	4.821	4.241	0.431	0.510	4.414	0.75	0.35
627	640	608	15	153.79	0.02	8.192	7.458	1.656	6.536	5.803	0.381	0.510	5.227	0.75	0.31
629	626	630	18	195.45	0.01	7.571	6.893	1.609	5.962	5.284	0.470	0.476	3.403	0.75	0.31
63	68	70	8	307.00	0.04	2.354	1.173	0.466	1.889	0.708	0.201	0.319	5.249	0.50	0.30
631	642	622	8	110.00	0.00	0.740	0.369	0.711	0.029	-0.342	0.524	0.398	2.413	0.50	0.79
633	644	646	12	1179.43	0.02	5.193	2.587	0.791	4.402	1.796	0.264	0.372	4.776	0.50	0.26
635	646	648	12	400.00	0.02	4.898	2.441	0.908	3.990	1.532	0.292	0.399	4.766	0.50	0.29
637	648	650	12	400.00	0.02	4.898	2.441	0.966	3.932	1.475	0.301	0.412	4.849	0.50	0.30
639	650	652	12	400.00	0.02	4.898	2.441	1.039	3.859	1.402	0.313	0.428	4.951	0.50	0.31
641	652	654	15	328.00	0.01	6.069	5.526	1.062	5.007	4.464	0.354	0.405	3.717	0.75	0.28
643	654	656	15	725.00	0.01	5.793	5.274	1.062	4.731	4.213	0.362	0.405	3.596	0.75	0.29
645	656	658	15	400.00	0.01	7.212	6.567	1.062	6.150	5.505	0.324	0.405	4.205	0.75	0.26
647	658	660	15	400.00	0.01	6.762	6.157	1.062	5.700	5.095	0.335	0.405	4.016	0.75	0.27
649	660	622	15	296.00	0.02	9.672	8.806	1.107	8.564	7.699	0.286	0.414	5.242	0.75	0.23
65	70	72	8	18.00	0.04	2.473	1.232	0.466	2.008	0.767	0.196	0.319	5.437	0.50	0.29
651	662	664	8	427.00	0.01	1.237	0.616	0.000	1.237	0.616	0.000	0.000	0.000	0.50	0.00
653	664	666	8	515.00	0.01	1.028	0.512	0.100	0.929	0.413	0.140	0.144	1.868	0.50	0.21
655	666	602	8	115.00	0.01	1.147	0.571	0.561	0.586	0.010	0.329	0.352	3.267	0.50	0.49
657	602	668	27	330.00	0.17	127.360	115.957	5.010	122.350	110.948	0.305	0.761	15.540	0.75	0.14
659	668	670	30	249.00	0.01	30.283	27.571	5.019	25.264	22.553	0.688	0.739	4.566	0.75	0.28
661	670	672	30	28.00	0.01	41.855	38.108	5.019	36.835	33.088	0.585	0.739	5.749	0.75	0.23
663	672	674	30	400.00	0.01	30.982	28.208	5.019	25.962	23.189	0.681	0.739	4.641	0.75	0.27
665	674	676	30	400.00	0.01	35.438	32.266	5.336	30.103	26.930	0.656	0.763	5.198	0.75	0.26
667	678	680	10	1008.91	0.01	2.052	1.022	0.153	1.898	0.869	0.154	0.168	2.207	0.50	0.19
669	680	682	10	325.00	0.02	3.240	1.615	0.163	3.077	1.452	0.127	0.174	3.101	0.50	0.15
67	72	74	8	307.76	0.04	2.354	1.173	0.472	1.883	0.702	0.202	0.321	5.268	0.50	0.30
671	682	684	10	961.99	0.01	1.544	0.769	0.358	1.186	0.411	0.273	0.260	2.304	0.50	0.33
673	684	686	10	384.00	0.02	2.825	1.408	0.425	2.400	0.983	0.218	0.284	3.727	0.50	0.26
675	686	688	10	304.00	0.01	1.839	0.916	0.436	1.403	0.480	0.276	0.288	2.761	0.50	0.33
677	688	690	10	1026.51	0.01	2.250	1.121	0.438	1.812	0.683	0.249	0.289	3.197	0.50	0.30
679	690	692	12	660.00	0.01	3.705	1.846	0.573	3.132	1.273	0.266	0.315	3.423	0.50	0.27
681	692	694	12	670.00	0.01	2.911	1.451	0.652	2.259	0.798	0.322	0.336	2.988	0.50	0.32
683	694	674	12	670.00	0.01	3.646	1.817	0.661	2.985	1.156	0.288	0.339	3.525	0.50	0.29

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685	676	698	27	258.00	0.04	63.534	57.846	5.341	58.193	52.505	0.441	0.787	9.711	0.75	0.20
687	700	702	8	290.00	0.02	1.552	0.773	0.108	1.445	0.666	0.119	0.149	2.553	0.50	0.18
689	702	704	8	85.00	0.01	1.366	0.681	0.115	1.250	0.565	0.131	0.155	2.380	0.50	0.20
69	74	76	12	429.00	0.05	7.641	3.808	0.626	7.015	3.181	0.194	0.329	5.869	0.50	0.19
691	704	706	8	75.00	0.02	1.613	0.804	0.186	1.428	0.618	0.153	0.198	3.079	0.50	0.23
693	706	708	8	155.00	0.01	1.417	0.706	0.190	1.227	0.516	0.165	0.200	2.828	0.50	0.25
695	708	710	8	262.00	0.02	1.558	0.776	0.204	1.353	0.572	0.163	0.208	3.088	0.50	0.25
697	710	712	8	780.00	0.00	0.801	0.399	0.230	0.571	0.170	0.244	0.221	1.981	0.50	0.37
699	712	714	8	467.00	0.00	0.789	0.393	0.236	0.553	0.157	0.250	0.224	1.973	0.50	0.38
701	714	716	8	473.00	0.00	0.523	0.260	0.242	0.281	0.019	0.318	0.227	1.468	0.50	0.48
703	716	718	8	16.00	0.08	3.387	1.688	0.242	3.145	1.446	0.121	0.227	5.618	0.50	0.18
705	718	698	8	71.49	0.03	1.938	0.966	0.251	1.687	0.715	0.162	0.231	3.830	0.50	0.24
707	698	720	30	1323.85	0.01	29.410	26.777	5.532	23.878	21.245	0.735	0.777	4.597	0.75	0.29
709	720	722	30	92.00	0.02	50.370	45.860	5.790	44.580	40.070	0.572	0.795	6.833	0.75	0.23
71	76	78	12	1582.00	0.05	7.744	3.859	0.633	7.111	3.226	0.193	0.331	5.942	0.50	0.19
711	724	726	12	2278.29	0.01	2.856	1.423	0.417	2.439	1.006	0.258	0.267	2.595	0.50	0.26
713	726	720	12	496.00	0.02	4.497	2.241	0.513	3.984	1.727	0.228	0.297	3.805	0.50	0.23
715	728	730	8	169.81	0.03	2.014	1.003	0.373	1.641	0.631	0.194	0.284	4.406	0.50	0.29
717	730	732	8	145.42	0.03	2.183	1.088	0.377	1.806	0.711	0.187	0.286	4.683	0.50	0.28
719	732	734	8	41.00	0.02	1.864	0.929	0.378	1.486	0.551	0.204	0.286	4.183	0.50	0.31
721	734	724	8	21.00	0.04	2.508	1.250	0.417	2.091	0.833	0.184	0.301	5.323	0.50	0.28
723	736	738	8	734.00	0.05	2.600	1.296	0.114	2.486	1.182	0.095	0.154	3.729	0.50	0.14
725	738	740	8	92.00	0.04	2.383	1.188	0.128	2.256	1.060	0.105	0.163	3.632	0.50	0.16
727	740	742	8	624.19	0.04	2.308	1.150	0.128	2.180	1.022	0.107	0.164	3.558	0.50	0.16
729	742	728	8	217.00	0.03	2.187	1.090	0.134	2.053	0.956	0.112	0.167	3.465	0.50	0.17
731	744	746	8	332.00	0.03	2.173	1.083	0.249	1.924	0.834	0.152	0.230	4.140	0.50	0.23
733	746	748	8	295.00	0.03	2.140	1.066	0.254	1.885	0.812	0.155	0.233	4.122	0.50	0.23
735	748	750	8	255.00	0.02	1.481	0.738	0.258	1.223	0.480	0.188	0.235	3.187	0.50	0.28
737	750	752	8	260.00	0.00	0.755	0.376	0.263	0.492	0.113	0.272	0.237	1.970	0.50	0.41
739	752	754	8	260.00	0.01	1.120	0.558	0.275	0.845	0.283	0.225	0.242	2.652	0.50	0.34
741	754	728	8	530.71	0.01	1.335	0.665	0.281	1.054	0.384	0.208	0.245	3.029	0.50	0.31
743	756	758	8	327.00	0.01	1.049	0.523	0.158	0.890	0.364	0.175	0.182	2.165	0.50	0.26
749	762	764	8	79.00	0.05	2.576	1.283	0.164	2.412	1.119	0.114	0.186	4.131	0.50	0.17
75	78	82	12	577.39	0.03	5.790	2.885	0.742	5.049	2.144	0.242	0.360	5.066	0.50	0.24
751	764	766	8	249.00	0.04	2.537	1.264	0.170	2.367	1.094	0.117	0.189	4.131	0.50	0.18
753	766	768	8	301.00	0.07	3.139	1.564	0.172	2.966	1.392	0.106	0.190	4.818	0.50	0.16
755	768	744	8	343.00	0.01	0.855	0.426	0.239	0.616	0.187	0.241	0.225	2.101	0.50	0.36
757	758	762	8	287.00	0.04	2.452	1.222	0.163	2.288	1.059	0.116	0.185	3.984	0.50	0.18
759	770	772	8	263.00	0.05	2.676	1.333	0.044	2.632	1.289	0.060	0.095	2.868	0.50	0.09
765	776	778	8	25.00	0.02	1.552	0.773	0.056	1.495	0.717	0.087	0.107	2.103	0.50	0.13
767	778	780	8	208.00	0.01	1.257	0.627	0.065	1.192	0.561	0.103	0.116	1.897	0.50	0.16
769	780	782	8	33.00	0.12	4.208	2.097	0.065	4.143	2.032	0.058	0.116	4.418	0.50	0.09
77	82	52	15	270.50	0.01	5.327	4.850	0.764	4.564	4.087	0.320	0.342	3.082	0.75	0.26
771	782	784	8	235.00	0.04	2.493	1.242	0.085	2.408	1.157	0.084	0.132	3.320	0.50	0.13
773	784	786	8	280.00	0.04	2.292	1.142	0.103	2.189	1.039	0.096	0.146	3.318	0.50	0.15
775	786	756	8	384.17	0.01	1.113	0.554	0.120	0.993	0.435	0.148	0.158	2.083	0.50	0.22
777	772	776	8	293.00	0.01	1.073	0.535	0.056	1.017	0.479	0.104	0.107	1.624	0.50	0.16
779	788	790	8	128.00	0.03	2.023	1.008	0.028	1.995	0.980	0.055	0.076	2.059	0.50	0.08
781	790	792	8	152.00	0.06	2.992	1.491	0.028	2.964	1.463	0.046	0.076	2.705	0.50	0.07
783	792	794	8	73.00	0.05	2.782	1.386	0.028	2.754	1.358	0.047	0.076	2.571	0.50	0.07
785	794	782	8	358.00	0.04	2.458	1.225	0.029	2.428	1.195	0.051	0.077	2.381	0.50	0.08
787	722	796	30	527.73	0.01	29.796	27.129	5.790	24.006	21.338	0.747	0.796	4.701	0.75	0.30
789	796	798	27	330.00	0.01	30.435	27.710	5.802	24.633	21.908	0.666	0.821	5.896	0.75	0.30

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79	56	86	15	762.00	0.02	9.496	8.646	2.028	7.468	6.618	0.392	0.567	6.155	0.75	0.31
795	798	802	27	879.18	0.01	29.510	26.868	5.811	23.700	21.057	0.677	0.822	5.769	0.75	0.30
797	802	804	27	321.00	0.01	33.294	30.313	6.084	27.210	24.229	0.651	0.842	6.372	0.75	0.29
799	804	806	27	27.00	0.26	157.888	143.753	6.087	151.801	137.665	0.302	0.842	19.150	0.75	0.13
801	806	808	33	490.00	0.00	32.407	29.505	6.088	26.318	23.417	0.808	0.794	4.185	0.75	0.29
803	808	810	33	646.86	0.00	28.282	25.750	6.577	21.705	19.173	0.902	0.826	3.879	0.75	0.33
805	810	812	33	425.00	0.00	13.852	12.612	6.582	7.270	6.030	1.335	0.827	2.302	0.75	0.49
807	814	816	8	202.00	0.01	1.264	0.630	0.495	0.769	0.135	0.290	0.329	3.402	0.50	0.44
809	816	818	8	644.00	0.01	0.952	0.475	0.501	0.451	-0.027	0.344	0.331	2.763	0.50	0.52
81	86	88	15	1123.86	0.02	8.773	7.988	2.035	6.738	5.953	0.410	0.569	5.820	0.75	0.33
811	818	820	8	123.00	0.00	0.691	0.344	0.544	0.147	-0.200	0.446	0.346	2.193	0.50	0.67
813	820	822	12	655.00	0.00	2.373	1.182	0.545	1.828	0.638	0.326	0.306	2.452	0.50	0.33
815	822	824	12	325.00	0.00	1.890	0.942	0.579	1.312	0.363	0.380	0.316	2.115	0.50	0.38
817	824	802	12	325.00	0.01	4.227	2.106	0.582	3.645	1.524	0.251	0.317	3.776	0.50	0.25
819	826	828	8	18.00	0.04	2.554	1.273	0.467	2.087	0.806	0.193	0.319	5.570	0.50	0.29
821	828	830	8	800.00	0.00	0.766	0.382	0.468	0.299	-0.086	0.376	0.320	2.304	0.50	0.56
823	830	832	8	297.00	0.01	0.889	0.443	0.473	0.416	-0.030	0.346	0.322	2.587	0.50	0.52
825	832	834	8	305.70	0.01	1.004	0.500	0.476	0.528	0.024	0.323	0.323	2.839	0.50	0.49
827	834	836	8	38.58	0.03	2.224	1.108	0.980	1.244	0.128	0.310	0.470	6.170	0.50	0.47
829	836	808	8	54.36	0.10	3.899	1.943	0.980	2.919	0.963	0.228	0.470	9.299	0.50	0.34
83	88	90	15	65.50	0.09	19.423	17.684	2.035	17.387	15.648	0.273	0.569	10.259	0.75	0.22
831	838	814	8	670.00	0.02	1.741	0.867	0.490	1.251	0.378	0.242	0.328	4.283	0.50	0.36
833	840	842	8	405.00	0.03	2.056	1.024	0.456	1.600	0.568	0.213	0.315	4.735	0.50	0.32
835	842	844	8	423.00	0.02	1.748	0.871	0.459	1.289	0.412	0.233	0.316	4.218	0.50	0.35
837	844	826	8	406.00	0.01	1.397	0.696	0.461	0.936	0.235	0.264	0.317	3.591	0.50	0.40
839	846	848	8	325.00	0.01	1.364	0.680	0.025	1.340	0.655	0.062	0.071	1.499	0.50	0.09
841	848	850	8	152.00	0.01	0.997	0.497	0.027	0.971	0.470	0.075	0.073	1.234	0.50	0.11
843	850	838	8	735.00	0.01	0.999	0.498	0.028	0.972	0.470	0.076	0.075	1.248	0.50	0.11
845	852	854	8	89.07	0.04	2.388	1.190	0.397	1.991	0.793	0.184	0.294	5.069	0.50	0.28
847	854	856	8	400.00	0.03	2.103	1.048	0.411	1.692	0.636	0.200	0.299	4.674	0.50	0.30
85	90	3658	18	155.49	0.08	30.606	27.866	2.066	28.540	25.799	0.264	0.542	9.867	0.75	0.18
853	860	862	8	625.00	0.03	2.110	1.052	0.451	1.659	0.600	0.209	0.314	4.811	0.50	0.31
855	862	838	8	300.00	0.02	1.718	0.856	0.475	1.243	0.381	0.240	0.322	4.207	0.50	0.36
857	864	866	8	467.00	0.05	2.642	1.317	0.057	2.585	1.260	0.068	0.108	3.068	0.50	0.10
859	866	868	8	333.00	0.01	1.357	0.676	0.438	0.919	0.238	0.261	0.309	3.468	0.50	0.39
861	868	840	8	1070.94	0.04	2.424	1.208	0.447	1.977	0.761	0.194	0.312	5.298	0.50	0.29
863	856	860	8	158.84	0.04	2.301	1.147	0.415	1.886	0.731	0.192	0.300	4.999	0.50	0.29
865	870	872	8	121.00	0.06	2.857	1.424	0.008	2.849	1.416	0.026	0.040	1.780	0.50	0.04
867	872	874	8	439.00	0.04	2.520	1.256	0.010	2.510	1.246	0.031	0.045	1.753	0.50	0.05
869	874	876	8	581.00	0.04	2.385	1.188	0.018	2.367	1.171	0.041	0.060	1.998	0.50	0.06
87	92	94	18	54.50	0.01	8.910	8.112	2.066	6.843	6.045	0.491	0.542	4.104	0.75	0.33
871	876	878	8	108.00	0.08	3.339	1.664	0.025	3.314	1.639	0.041	0.071	2.810	0.50	0.06
873	878	852	8	415.67	0.04	2.377	1.184	0.396	1.981	0.789	0.184	0.293	5.046	0.50	0.28
875	880	882	8	360.00	0.07	3.221	1.605	0.013	3.208	1.592	0.031	0.051	2.244	0.50	0.05
877	882	884	8	151.00	0.07	3.196	1.593	0.019	3.177	1.573	0.037	0.063	2.529	0.50	0.06
879	884	886	8	300.50	0.11	4.003	1.995	0.030	3.973	1.964	0.041	0.078	3.382	0.50	0.06
881	886	888	8	384.00	0.07	3.126	1.558	0.036	3.090	1.522	0.050	0.086	3.000	0.50	0.08
883	888	890	8	31.00	0.04	2.323	1.158	0.047	2.276	1.111	0.066	0.098	2.647	0.50	0.10
885	890	892	8	234.00	0.06	2.856	1.423	0.049	2.807	1.374	0.061	0.100	3.086	0.50	0.09
887	892	864	8	405.00	0.04	2.460	1.226	0.051	2.408	1.175	0.067	0.102	2.822	0.50	0.10
889	894	896	8	122.00	0.06	2.881	1.436	0.000	2.881	1.436	0.000	0.000	0.000	0.50	0.00
89	94	96	18	412.00	0.01	8.367	7.618	2.074	6.292	5.543	0.509	0.543	3.927	0.75	0.34
891	896	898	8	70.00	0.06	2.860	1.425	0.196	2.664	1.229	0.118	0.203	4.688	0.50	0.18

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
893	898	900	8	503.00	0.02	1.489	0.742	0.196	1.293	0.546	0.163	0.203	2.955	0.50	0.25
895	900	878	8	225.00	0.04	2.369	1.180	0.218	2.151	0.963	0.137	0.215	4.233	0.50	0.21
897	812	902	27	1251.61	0.01	32.023	29.156	6.583	25.440	22.573	0.692	0.877	6.337	0.75	0.31
899	902	904	27	150.00	0.06	77.030	70.133	6.589	70.441	63.544	0.445	0.878	11.834	0.75	0.20
901	904	906	27	799.47	0.00	15.915	14.490	6.590	9.326	7.901	1.009	0.878	3.814	0.75	0.45
903	906	908	27	400.00	0.01	34.017	30.971	6.590	27.427	24.382	0.671	0.878	6.620	0.75	0.30
905	908	910	27	400.00	0.02	38.285	34.857	6.590	31.695	28.268	0.632	0.878	7.204	0.75	0.28
907	910	912	27	400.00	0.03	49.975	45.501	6.590	43.386	38.911	0.552	0.878	8.710	0.75	0.25
909	912	914	27	832.00	0.00	17.558	15.986	7.220	10.338	8.766	1.005	0.920	4.200	0.75	0.45
91	96	98	18	493.00	0.02	15.356	13.981	2.074	13.282	11.907	0.372	0.543	6.064	0.75	0.25
911	914	916	27	400.00	0.01	35.677	32.483	7.220	28.457	25.263	0.687	0.920	7.029	0.75	0.31
913	916	918	27	660.00	0.01	31.147	28.358	7.220	23.927	21.138	0.737	0.920	6.376	0.75	0.33
915	918	920	27	112.00	0.02	42.216	38.437	7.220	34.996	31.216	0.630	0.920	7.929	0.75	0.28
917	922	924	10	574.00	0.01	2.343	1.168	0.630	1.713	0.538	0.295	0.349	3.643	0.50	0.35
919	924	926	10	393.00	0.01	2.606	1.299	0.632	1.973	0.666	0.280	0.350	3.939	0.50	0.34
921	926	928	10	769.00	0.01	2.282	1.137	0.733	1.550	0.405	0.325	0.377	3.726	0.50	0.39
923	928	930	10	1298.17	0.01	2.346	1.169	0.739	1.606	0.430	0.321	0.379	3.810	0.50	0.39
925	930	934	12	36.44	0.00	1.450	0.722	1.231	0.219	-0.509	0.708	0.468	2.072	0.50	0.71
927	934	936	12	400.00	0.13	12.880	6.418	1.231	11.649	5.187	0.209	0.468	10.348	0.50	0.21
929	936	938	12	228.00	0.01	2.526	1.259	1.231	1.295	0.028	0.493	0.468	3.196	0.50	0.49
93	98	100	18	904.04	0.02	15.697	14.291	2.121	13.576	12.170	0.372	0.550	6.199	0.75	0.25
931	938	912	12	36.69	0.17	14.613	7.282	1.231	13.382	6.051	0.196	0.468	11.314	0.50	0.20
933	920	940	27	473.00	0.02	44.354	40.383	7.220	37.134	33.163	0.614	0.920	8.214	0.75	0.27
935	940	942	27	100.00	0.02	43.696	39.783	7.220	36.475	32.563	0.619	0.920	8.127	0.75	0.28
937	944	946	10	1063.79	0.01	2.410	1.201	0.233	2.177	0.968	0.175	0.208	2.797	0.50	0.21
939	946	948	10	402.00	0.02	2.752	1.371	0.243	2.510	1.129	0.167	0.213	3.110	0.50	0.20
941	950	952	10	123.00	0.02	3.379	1.684	0.793	2.586	0.891	0.275	0.393	5.060	0.50	0.33
943	952	954	10	419.76	0.01	2.580	1.286	0.795	1.785	0.491	0.317	0.394	4.165	0.50	0.38
945	954	956	10	326.40	0.02	2.953	1.472	0.800	2.154	0.672	0.296	0.395	4.602	0.50	0.36
947	956	958	21	128.21	0.01	14.171	12.902	0.824	13.347	12.078	0.286	0.324	3.211	0.75	0.16
949	958	960	21	362.00	0.00	7.085	6.451	0.825	6.260	5.626	0.403	0.324	1.969	0.75	0.23
95	100	102	18	38.26	0.03	16.943	15.426	2.763	14.180	12.664	0.410	0.631	7.063	0.75	0.27
951	960	962	21	800.26	0.00	6.924	6.304	0.825	6.099	5.479	0.408	0.324	1.937	0.75	0.23
953	962	964	21	1062.20	0.00	7.131	6.493	0.913	6.218	5.580	0.423	0.341	2.037	0.75	0.24
955	964	966	21	1025.94	0.00	7.102	6.466	0.947	6.154	5.519	0.432	0.347	2.053	0.75	0.25
957	966	948	21	630.00	0.00	7.105	6.469	1.062	6.043	5.407	0.457	0.368	2.123	0.75	0.26
959	948	968	21	316.00	0.00	8.982	8.178	1.207	7.775	6.971	0.433	0.393	2.602	0.75	0.25
961	968	942	21	336.39	0.01	14.181	12.911	1.217	12.964	11.694	0.347	0.395	3.605	0.75	0.20
963	970	972	10	280.00	0.02	2.849	1.420	0.073	2.776	1.347	0.092	0.115	2.228	0.50	0.11
965	972	974	10	740.00	0.02	2.982	1.486	0.082	2.901	1.404	0.095	0.122	2.380	0.50	0.11
967	974	976	10	390.00	0.02	2.677	1.334	0.130	2.547	1.204	0.125	0.155	2.534	0.50	0.15
969	976	978	10	781.04	0.02	2.830	1.410	0.142	2.688	1.268	0.127	0.162	2.705	0.50	0.15
97	104	106	8	496.22	0.09	3.662	1.825	0.160	3.502	1.665	0.095	0.183	5.248	0.50	0.14
971	978	980	10	425.00	0.02	2.961	1.475	0.189	2.772	1.287	0.143	0.187	3.040	0.50	0.17
973	980	950	10	2404.44	0.01	2.602	1.297	0.194	2.408	1.103	0.154	0.190	2.799	0.50	0.19
975	982	984	8	1169.95	0.02	1.664	0.829	0.197	1.467	0.632	0.155	0.204	3.205	0.50	0.23
977	984	986	8	545.00	0.02	1.554	0.775	0.261	1.293	0.513	0.185	0.236	3.310	0.50	0.28
979	986	988	8	520.00	0.01	1.244	0.620	0.287	0.957	0.333	0.218	0.248	2.896	0.50	0.33
981	990	992	8	976.00	0.01	0.921	0.459	0.005	0.916	0.454	0.036	0.032	0.706	0.50	0.05
983	992	994	8	243.00	0.01	1.420	0.708	0.054	1.366	0.653	0.089	0.106	1.959	0.50	0.13
985	994	996	8	325.00	0.02	1.607	0.801	0.058	1.549	0.743	0.087	0.109	2.181	0.50	0.13
987	996	998	8	685.00	0.01	1.442	0.718	0.066	1.376	0.653	0.097	0.116	2.093	0.50	0.15
989	998	1000	8	305.00	0.01	1.181	0.589	0.116	1.065	0.473	0.141	0.155	2.152	0.50	0.21

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
99	106	108	8	325.47	0.05	2.677	1.334	0.184	2.494	1.150	0.118	0.197	4.389	0.50	0.18
991	1000	988	8	305.00	0.00	0.669	0.333	0.118	0.551	0.215	0.190	0.157	1.445	0.50	0.29
993	988	1002	8	105.00	0.02	1.801	0.897	0.401	1.400	0.497	0.214	0.295	4.152	0.50	0.32
995	1002	1004	8	250.09	0.01	1.270	0.633	0.447	0.824	0.187	0.273	0.312	3.321	0.50	0.41
997	1004	1006	8	290.00	0.01	1.344	0.670	0.447	0.897	0.222	0.265	0.312	3.463	0.50	0.40
999	1006	1008	8	463.00	0.01	1.198	0.597	0.451	0.748	0.146	0.283	0.314	3.190	0.50	0.43

***Appendix D
Future Peaked Model Analysis***

TABLE LEGEND FOR APPENDIX B & D: MODEL ANALYSIS

The model analysis spreadsheets show the values required to analyze the wastewater collection system during the specified loading scenario.

ID = Model pipe identification number.

FROM ID = Upstream model MH number.

TO ID = Downstream model MH number.

DIA. = Pipe diameter, inches.

LENGTH = Pipe length, feet.

FULL FLOW = Calculated flow rate if the pipe was flowing full ($d/D=100\%$), cubic feet per second.

DES FLOW = Design Flow = Calculated flow rate if the pipe was flowing at its design d/D ratio, cubic feet per second.

PIPE FLOW = Model pipe flow rate, cubic feet per second.

FULL EXCS = Full Excess = Allowable flow rate before pipe will flow full, cubic feet per second.

DES EXCS = Design Excess = Allowable flow rate before pipe will flow at its design d/D ratio, cubic feet per second.

DEPTH = Average depth of flow in the pipe, feet.

CRIT DEPH = Critical Depth = Depth of flow in the pipe at which requires the minimum amount of energy to flow, feet.

VELOCITY = Speed of flow through the pipe, feet per second.

DES_DD = Design d/D Ratio = Maximum ratio of the depth of flow (d) to pipe diameter (D), inches over inches.

ACT_DD = Actual d/D Ratio = Actual ratio of the depth of flow (d) to pipe diameter (D), inches over inches.

d/D Ratio Criteria:

Pipes < 15" in diameter = d/D Ratio ≤ 0.50 (50%)

Pipes ≥ 15 " in diameter = d/D Ratio ≤ 0.75 (75%)

Velocity Criteria:

Minimum Design Velocity = 2 fps

Maximum Design Velocity = 10 fps

Flow velocities lower than the City's Design Standard of 2 fps are considered an ancillary deficiency regarding existing pipelines thus are not considered to be deficient. Areas showing velocities of 0.0 fps are the first pipes (end of a branch) of a piping system. Because of the loading method used in modeling, typically the initial pipe of system contains no flow. Usually these pipes are removed from the skeletonized piping system, but for completeness they are to remain.

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Velocities exceeding the City's Design Standards may or may not be acceptable. The majority of pipes shown in **Appendix B** that contain velocities exceeding 10 fps are either drop-structures or siphons. The remaining pipe sections were constructed with steep slopes. To remedy this situation sections of the pipelines will have to be redesigned, removed, and reconstructed. This is not recommended and thus the reason for not being included in the C.I.P. as deficiencies.

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
1001	1008	1010	8	1251.97	0.01	1.285	0.640	0.463	0.822	0.178	0.277	0.318	3.382	0.50	0.42
1003	1010	1012	8	343.00	0.02	1.464	0.730	0.505	0.959	0.224	0.270	0.333	3.809	0.50	0.41
1005	1012	1014	8	314.00	0.01	0.865	0.431	0.513	0.352	-0.082	0.369	0.335	2.583	0.50	0.55
1007	1014	1016	8	649.04	0.01	0.851	0.424	0.586	0.265	-0.162	0.406	0.360	2.628	0.50	0.61
1009	1016	930	8	320.00	0.02	1.468	0.732	0.664	0.804	0.068	0.314	0.384	4.101	0.50	0.47
101	108	110	8	578.81	0.07	3.161	1.575	0.187	2.974	1.389	0.110	0.198	4.958	0.50	0.17
1011	1018	1020	8	1178.47	0.01	1.215	0.605	0.097	1.118	0.508	0.128	0.142	2.085	0.50	0.19
1013	1020	1022	8	681.20	0.02	1.554	0.774	0.114	1.439	0.660	0.122	0.154	2.600	0.50	0.18
1015	1022	1024	8	625.00	0.01	1.384	0.689	0.124	1.259	0.565	0.135	0.161	2.456	0.50	0.20
1017	1024	1026	8	667.00	0.01	1.191	0.594	0.133	1.058	0.461	0.150	0.167	2.254	0.50	0.23
1019	1026	1028	8	1287.46	0.01	1.261	0.628	0.142	1.119	0.486	0.151	0.172	2.393	0.50	0.23
1021	1028	1030	8	44.94	0.02	1.734	0.864	0.220	1.514	0.644	0.160	0.216	3.404	0.50	0.24
1023	1030	1032	8	648.66	0.00	0.763	0.380	0.220	0.543	0.160	0.245	0.216	1.890	0.50	0.37
1025	1032	942	8	64.65	0.04	2.434	1.213	0.248	2.187	0.966	0.144	0.230	4.481	0.50	0.22
1027	942	1034	27	352.06	0.07	83.917	76.403	7.944	75.973	68.460	0.468	0.967	13.281	0.75	0.21
1029	1034	1036	27	650.00	0.00	13.343	12.148	7.944	5.399	4.204	1.250	0.967	3.501	0.75	0.56
103	110	112	8	265.00	0.06	2.996	1.493	0.219	2.776	1.273	0.122	0.216	5.007	0.50	0.18
1031	1036	1038	27	1343.58	0.00	14.074	12.814	7.944	6.131	4.871	1.210	0.967	3.647	0.75	0.54
1033	1038	1040	27	800.00	0.01	35.963	32.743	7.944	28.020	24.800	0.719	0.967	7.263	0.75	0.32
1035	1042	1044	8	1385.62	0.01	0.931	0.464	0.013	0.918	0.451	0.055	0.051	0.950	0.50	0.08
1037	1044	1046	8	1978.35	0.01	1.318	0.657	0.050	1.268	0.607	0.089	0.101	1.815	0.50	0.13
1039	1046	1048	8	644.00	0.01	0.948	0.472	0.073	0.875	0.400	0.125	0.122	1.605	0.50	0.19
1041	1048	1052	8	35.00	0.03	1.932	0.963	0.079	1.853	0.883	0.092	0.128	2.719	0.50	0.14
1043	1052	1050	8	569.00	0.01	1.339	0.667	0.104	1.235	0.563	0.126	0.147	2.277	0.50	0.19
1045	1054	1056	8	140.00	0.08	3.469	1.729	0.006	3.464	1.723	0.021	0.034	1.861	0.50	0.03
1047	1056	1058	8	1668.44	0.00	0.711	0.354	0.010	0.700	0.344	0.056	0.046	0.733	0.50	0.08
1049	1058	1060	8	212.00	0.01	0.941	0.469	0.120	0.822	0.349	0.161	0.158	1.850	0.50	0.24
105	112	114	8	281.31	0.05	2.588	1.290	0.255	2.333	1.035	0.141	0.233	4.721	0.50	0.21
1051	1060	1062	8	601.00	0.01	1.308	0.652	0.140	1.168	0.512	0.147	0.171	2.442	0.50	0.22
1053	1062	1064	8	1284.95	0.01	1.063	0.530	0.151	0.913	0.379	0.170	0.178	2.155	0.50	0.25
1055	1064	1066	8	1369.62	0.01	1.076	0.536	0.208	0.867	0.328	0.199	0.210	2.385	0.50	0.30
1057	1066	1068	8	176.00	0.00	0.540	0.269	0.382	0.158	-0.113	0.414	0.288	1.678	0.50	0.62
1059	1068	1070	8	162.00	0.00	0.521	0.260	0.382	0.140	-0.122	0.424	0.288	1.631	0.50	0.64
1061	1070	1072	8	640.00	0.01	0.915	0.456	0.385	0.530	0.071	0.302	0.289	2.508	0.50	0.45
1063	1074	1076	8	213.12	0.01	1.043	0.520	0.114	0.930	0.406	0.149	0.154	1.959	0.50	0.22
1065	1076	1078	8	96.00	0.01	1.057	0.526	0.116	0.941	0.411	0.149	0.155	1.988	0.50	0.22
1067	1078	1080	15	452.00	0.00	2.742	2.496	0.328	2.413	2.168	0.292	0.222	1.506	0.75	0.23
107	114	116	8	197.55	0.03	2.240	1.116	0.260	1.980	0.856	0.153	0.235	4.283	0.50	0.23
1073	1080	1072	15	243.00	0.00	1.763	1.605	0.332	1.431	1.273	0.367	0.223	1.102	0.75	0.29
1075	1072	1084	15	30.00	0.01	4.580	4.170	0.629	3.950	3.540	0.313	0.310	2.617	0.75	0.25
1079	1086	1088	18	230.00	0.00	4.659	4.242	0.309	4.350	3.932	0.262	0.205	1.494	0.75	0.18
1081	1088	1090	12	100.00	0.02	4.630	2.307	0.309	4.321	1.998	0.175	0.229	3.347	0.50	0.18
1083	1090	1092	12	280.00	0.00	2.259	1.126	0.309	1.950	0.817	0.250	0.229	2.015	0.50	0.25
1085	1092	1094	12	100.00	0.00	2.259	1.126	0.309	1.950	0.817	0.250	0.229	2.015	0.50	0.25
1087	1084	1096	15	654.53	0.00	2.192	1.996	0.629	1.563	1.367	0.458	0.310	1.543	0.75	0.37
1089	1096	1098	15	349.36	0.01	4.649	4.233	0.641	4.008	3.591	0.314	0.313	2.660	0.75	0.25
109	116	118	8	79.65	0.03	1.901	0.947	0.261	1.640	0.687	0.167	0.236	3.816	0.50	0.25
1091	1098	1100	15	320.00	0.01	5.491	4.999	0.642	4.849	4.358	0.289	0.313	2.994	0.75	0.23
1093	1100	1102	15	137.00	0.01	6.617	6.025	0.642	5.975	5.383	0.263	0.313	3.417	0.75	0.21
1095	1102	1104	15	183.00	0.01	5.903	5.374	0.643	5.260	4.731	0.279	0.313	3.154	0.75	0.22
1097	1104	1106	15	129.00	0.01	6.195	5.640	0.647	5.548	4.993	0.273	0.314	3.268	0.75	0.22
1099	1106	1108	15	252.00	0.01	6.912	6.293	0.647	6.266	5.647	0.258	0.314	3.532	0.75	0.21
1101	1108	1110	15	391.00	0.01	5.251	4.781	0.649	4.602	4.132	0.297	0.314	2.910	0.75	0.24

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
1107	1114	1116	15	32.79	0.06	15.591	14.195	0.668	14.923	13.527	0.176	0.319	6.322	0.75	0.14
1109	1116	1118	15	380.00	0.00	4.294	3.909	2.179	2.115	1.730	0.631	0.589	3.512	0.75	0.50
111	118	120	8	341.00	0.03	2.039	1.016	0.266	1.774	0.751	0.162	0.238	4.034	0.50	0.24
1111	1118	1120	15	190.00	0.01	5.619	5.116	2.182	3.437	2.934	0.541	0.590	4.290	0.75	0.43
1113	1120	1122	15	205.00	0.01	5.722	5.210	2.183	3.539	3.027	0.535	0.590	4.348	0.75	0.43
1115	1122	1124	15	366.00	0.01	6.424	5.849	2.184	4.239	3.664	0.502	0.590	4.734	0.75	0.40
1117	1124	1126	15	240.00	0.01	6.517	5.934	2.186	4.331	3.748	0.499	0.590	4.785	0.75	0.40
1123	1130	1132	15	358.00	0.01	5.870	5.344	2.277	3.592	3.067	0.541	0.603	4.480	0.75	0.43
1125	1132	1134	12	1369.30	0.01	3.987	1.987	2.319	1.668	-0.332	0.548	0.652	5.268	0.50	0.55
1127	1134	1136	12	327.00	0.01	3.264	1.626	2.350	0.914	-0.724	0.628	0.656	4.523	0.50	0.63
1129	1136	1138	12	365.00	0.01	2.703	1.347	2.366	0.338	-1.019	0.725	0.658	3.880	0.50	0.73
113	120	124	8	358.00	0.03	1.924	0.959	0.307	1.617	0.652	0.180	0.257	4.035	0.50	0.27
1131	1138	1140	12	340.00	0.01	2.925	1.458	2.366	0.560	-0.908	0.682	0.658	4.146	0.50	0.68
1133	1126	1130	15	316.39	0.01	6.880	6.264	2.189	4.691	4.075	0.485	0.591	4.980	0.75	0.39
1135	1110	1114	15	700.00	0.01	5.153	4.691	0.649	4.503	4.042	0.300	0.315	2.872	0.75	0.24
1137	1050	1142	8	353.00	0.01	0.826	0.412	0.116	0.710	0.296	0.169	0.155	1.669	0.50	0.25
1139	1142	1144	10	470.54	0.01	2.303	1.147	0.158	2.144	0.989	0.148	0.171	2.418	0.50	0.18
1141	1144	1146	10	398.00	0.01	1.644	0.819	0.267	1.377	0.552	0.227	0.224	2.219	0.50	0.27
1143	1146	1148	10	712.24	0.01	1.817	0.905	0.278	1.539	0.627	0.220	0.228	2.409	0.50	0.26
1145	1148	1150	10	247.00	0.01	2.524	1.258	0.289	2.235	0.969	0.190	0.233	3.078	0.50	0.23
1147	1150	1152	12	371.00	0.01	3.103	1.546	0.302	2.802	1.245	0.211	0.226	2.506	0.50	0.21
1149	1152	1086	15	295.00	0.00	3.477	3.165	0.309	3.168	2.857	0.252	0.215	1.749	0.75	0.20
115	124	122	8	722.91	0.03	2.130	1.062	0.316	1.814	0.746	0.174	0.261	4.375	0.50	0.26
1151	1094	1154	15	351.00	0.01	5.333	4.856	0.309	5.024	4.547	0.204	0.215	2.367	0.75	0.16
1153	1154	1156	12	1348.80	0.01	3.889	1.938	0.310	3.579	1.628	0.191	0.229	2.963	0.50	0.19
1155	1156	1158	21	316.00	0.00	9.626	8.764	0.310	9.316	8.454	0.215	0.197	1.829	0.75	0.12
1157	1158	1160	21	664.00	0.00	9.310	8.476	0.310	8.999	8.166	0.219	0.197	1.787	0.75	0.13
1159	1160	1162	21	431.00	0.00	9.215	8.390	0.310	8.905	8.080	0.220	0.197	1.774	0.75	0.13
1161	1162	1164	21	20.00	0.01	18.798	17.115	0.310	18.488	16.805	0.157	0.197	2.920	0.75	0.09
1163	490	1166	15	515.00	0.01	5.932	5.401	0.180	5.752	5.221	0.150	0.164	2.171	0.75	0.12
1165	1166	1168	15	600.00	0.01	6.280	5.717	0.901	5.379	4.816	0.320	0.372	3.634	0.75	0.26
1169	1168	1172	15	463.00	0.01	6.930	6.309	0.907	6.023	5.402	0.305	0.374	3.905	0.75	0.24
1171	1172	1174	15	450.00	0.01	7.264	6.614	1.005	6.259	5.609	0.314	0.394	4.159	0.75	0.25
1177	1178	1180	15	217.00	0.01	7.278	6.626	1.204	6.074	5.422	0.344	0.433	4.387	0.75	0.28
1179	1180	1182	15	505.00	0.01	7.314	6.659	1.204	6.110	5.455	0.343	0.433	4.403	0.75	0.27
1181	1182	1184	15	281.00	0.01	7.187	6.544	1.204	5.983	5.339	0.346	0.433	4.348	0.75	0.28
1183	1174	1178	15	302.00	0.01	5.083	4.628	1.204	3.879	3.424	0.414	0.433	3.392	0.75	0.33
1185	1184	1186	15	356.00	0.01	6.093	5.547	1.636	4.457	3.911	0.442	0.507	4.209	0.75	0.35
1187	1186	1188	15	42.00	0.01	5.474	4.984	1.636	3.838	3.348	0.468	0.507	3.895	0.75	0.38
1189	1188	1190	15	356.00	0.01	4.489	4.087	1.676	2.813	2.411	0.529	0.514	3.392	0.75	0.42
119	122	132	8	273.00	0.04	2.319	1.155	0.335	1.984	0.821	0.171	0.268	4.726	0.50	0.26
1191	1190	1192	15	750.00	0.02	8.038	7.318	1.676	6.362	5.642	0.387	0.514	5.174	0.75	0.31
1193	1192	1194	15	281.00	0.02	9.782	8.907	1.676	8.106	7.230	0.350	0.514	5.956	0.75	0.28
1195	1194	1196	18	353.00	0.00	3.633	3.308	1.676	1.957	1.632	0.716	0.487	2.014	0.75	0.48
1197	1196	1198	18	356.00	0.01	10.017	9.120	1.676	8.341	7.444	0.415	0.487	4.207	0.75	0.28
1199	1198	1200	18	770.00	0.01	9.428	8.584	1.676	7.752	6.908	0.428	0.487	4.028	0.75	0.29
1201	1200	1116	18	350.00	0.01	10.487	9.548	1.676	8.811	7.872	0.405	0.487	4.347	0.75	0.27
1203	1202	1204	8	105.00	0.04	2.329	1.161	0.643	1.686	0.518	0.239	0.378	5.700	0.50	0.36
1205	1204	1206	8	210.00	0.07	3.093	1.541	0.650	2.443	0.891	0.207	0.380	7.017	0.50	0.31
1207	1206	1208	8	446.00	0.01	1.423	0.709	0.650	0.773	0.059	0.316	0.380	3.984	0.50	0.47
121	132	134	8	291.00	0.02	1.856	0.925	0.394	1.462	0.531	0.209	0.292	4.223	0.50	0.31
1213	1208	1184	8	1319.39	0.01	1.235	0.615	0.659	0.576	-0.044	0.347	0.383	3.596	0.50	0.52
123	134	136	8	296.00	0.04	2.455	1.223	0.396	2.059	0.827	0.181	0.293	5.164	0.50	0.27

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1237	1234	1236	8	348.00	0.01	1.402	0.699	0.469	0.933	0.229	0.266	0.320	3.617	0.50	0.40
1239	1236	1238	8	444.00	0.01	1.387	0.691	0.472	0.915	0.219	0.268	0.321	3.594	0.50	0.40
1241	1238	1240	8	307.00	0.01	0.928	0.462	0.474	0.454	-0.012	0.338	0.322	2.672	0.50	0.51
1243	1240	1202	8	1031.79	0.03	1.966	0.980	0.476	1.490	0.504	0.223	0.323	4.641	0.50	0.34
1245	1242	1244	8	540.00	0.01	1.279	0.637	0.178	1.101	0.459	0.168	0.194	2.580	0.50	0.25
1247	1244	1246	8	490.00	0.01	1.275	0.636	0.182	1.094	0.454	0.170	0.196	2.590	0.50	0.26
1249	1246	1248	8	115.00	0.02	1.618	0.806	0.189	1.428	0.617	0.154	0.200	3.102	0.50	0.23
125	136	138	8	34.00	0.03	2.099	1.046	0.397	1.701	0.648	0.197	0.294	4.622	0.50	0.30
1251	1248	1250	8	175.00	0.02	1.713	0.854	0.190	1.524	0.664	0.150	0.200	3.235	0.50	0.23
1253	1250	1252	8	85.00	0.01	1.009	0.503	0.207	0.802	0.296	0.205	0.209	2.275	0.50	0.31
1255	1252	1254	8	581.00	0.01	1.428	0.712	0.208	1.220	0.504	0.172	0.210	2.917	0.50	0.26
1257	1254	1256	8	490.50	0.02	1.482	0.739	0.209	1.273	0.529	0.169	0.210	3.001	0.50	0.25
1259	1256	1258	8	734.02	0.01	1.314	0.655	0.240	1.074	0.415	0.193	0.226	2.866	0.50	0.29
1261	1258	1260	8	160.00	0.02	1.620	0.807	0.247	1.372	0.560	0.176	0.229	3.355	0.50	0.26
1267	1260	1078	12	486.87	0.02	5.445	2.713	0.253	5.191	2.460	0.147	0.207	3.536	0.50	0.15
1269	1264	1266	8	131.00	0.03	2.200	1.096	0.163	2.037	0.934	0.123	0.185	3.690	0.50	0.18
127	138	140	8	739.00	0.04	2.261	1.127	0.404	1.857	0.722	0.191	0.296	4.898	0.50	0.29
1271	1266	1268	8	252.00	0.10	3.914	1.950	0.164	3.750	1.786	0.093	0.186	5.547	0.50	0.14
1273	1268	1270	8	300.00	0.07	3.199	1.594	0.167	3.032	1.427	0.104	0.188	4.842	0.50	0.16
1275	1270	1272	8	206.92	0.10	3.884	1.935	0.174	3.710	1.762	0.096	0.191	5.609	0.50	0.14
1277	1272	1274	8	179.53	0.15	4.626	2.305	0.206	4.420	2.100	0.096	0.208	6.668	0.50	0.14
1279	1274	1276	8	435.00	0.05	2.593	1.292	0.212	2.382	1.080	0.129	0.212	4.477	0.50	0.19
1281	1276	1278	8	415.00	0.04	2.405	1.198	0.225	2.180	0.974	0.138	0.218	4.319	0.50	0.21
1283	1278	1280	8	142.00	0.01	0.838	0.418	0.233	0.605	0.185	0.240	0.222	2.056	0.50	0.36
129	140	142	12	332.00	0.03	5.733	2.857	0.724	5.009	2.133	0.240	0.355	4.995	0.50	0.24
1291	1286	1288	8	226.00	0.01	1.297	0.646	0.247	1.050	0.400	0.197	0.229	2.860	0.50	0.30
1293	1288	1290	8	271.00	0.00	0.799	0.398	0.248	0.552	0.151	0.255	0.230	2.020	0.50	0.38
1295	1290	1292	8	290.16	0.00	0.773	0.385	0.249	0.524	0.136	0.260	0.230	1.972	0.50	0.39
1297	1292	1294	8	328.00	0.01	0.922	0.460	0.295	0.627	0.164	0.259	0.251	2.350	0.50	0.39
1299	1294	1296	8	328.00	0.01	1.360	0.677	0.298	1.061	0.379	0.212	0.253	3.122	0.50	0.32
1301	1296	1298	8	167.00	0.00	0.663	0.330	0.329	0.334	0.001	0.332	0.266	1.896	0.50	0.50
1303	1298	1300	8	265.00	0.06	2.830	1.410	0.363	2.467	1.048	0.161	0.280	5.573	0.50	0.24
1305	1300	1302	8	166.00	0.06	3.017	1.503	0.363	2.654	1.140	0.156	0.280	5.832	0.50	0.23
1307	1302	1304	8	300.00	0.03	1.945	0.969	0.365	1.580	0.604	0.196	0.281	4.272	0.50	0.29
1309	1304	1306	8	305.00	0.01	1.309	0.652	0.367	0.942	0.285	0.241	0.282	3.218	0.50	0.36
131	144	146	8	233.38	0.07	3.085	1.537	0.396	2.689	1.141	0.161	0.293	6.076	0.50	0.24
1311	1306	1308	8	268.00	0.01	0.831	0.414	0.375	0.456	0.039	0.314	0.285	2.319	0.50	0.47
1313	1308	1312	8	327.72	0.01	0.915	0.456	0.377	0.538	0.079	0.298	0.286	2.495	0.50	0.45
1315	1314	1318	8	286.00	0.01	1.369	0.682	0.425	0.943	0.257	0.255	0.304	3.461	0.50	0.38
1317	1312	1314	8	315.00	0.01	0.943	0.470	0.377	0.566	0.093	0.293	0.286	2.552	0.50	0.44
1323	1318	1320	8	288.00	0.01	1.454	0.725	0.443	1.012	0.282	0.252	0.311	3.656	0.50	0.38
1325	1320	1322	8	572.08	0.02	1.647	0.821	0.449	1.198	0.372	0.238	0.313	4.016	0.50	0.36
1327	1322	1324	8	572.35	0.01	1.432	0.713	0.460	0.971	0.253	0.260	0.317	3.653	0.50	0.39
1329	1324	1326	8	63.00	0.01	1.122	0.559	0.468	0.654	0.091	0.300	0.320	3.068	0.50	0.45
133	146	148	8	690.47	0.08	3.337	1.663	0.397	2.940	1.266	0.155	0.293	6.431	0.50	0.23
1331	1326	1328	8	287.00	0.01	1.016	0.507	0.472	0.545	0.035	0.319	0.321	2.858	0.50	0.48
1333	1328	1330	8	311.00	0.02	1.724	0.859	0.473	1.251	0.386	0.239	0.322	4.214	0.50	0.36
1335	1330	1332	8	181.00	0.01	0.923	0.460	0.477	0.446	-0.017	0.340	0.323	2.665	0.50	0.51
1337	1332	1334	8	312.00	0.00	0.661	0.330	0.480	0.181	-0.150	0.421	0.324	2.066	0.50	0.63
1343	1338	1340	8	996.00	0.01	1.397	0.696	0.485	0.912	0.211	0.271	0.326	3.640	0.50	0.41
1345	1340	1342	8	147.00	0.03	2.084	1.039	0.485	1.599	0.554	0.219	0.326	4.865	0.50	0.33
1347	1342	1344	8	385.00	0.01	1.418	0.706	0.485	0.932	0.221	0.269	0.326	3.680	0.50	0.40
1349	1344	1346	8	401.00	0.02	1.722	0.858	0.486	1.236	0.372	0.242	0.326	4.241	0.50	0.36

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
135	148	150	8	184.42	0.04	2.417	1.204	0.400	2.017	0.804	0.183	0.295	5.123	0.50	0.28
1351	1346	1348	8	512.00	0.01	1.360	0.678	0.034	1.326	0.643	0.073	0.084	1.655	0.50	0.11
1353	1348	1350	8	210.22	0.02	1.798	0.896	0.064	1.734	0.832	0.086	0.115	2.427	0.50	0.13
1355	1350	1352	8	279.59	0.01	1.458	0.727	0.066	1.392	0.660	0.097	0.117	2.115	0.50	0.15
1357	1352	1354	8	762.00	0.00	0.785	0.391	0.068	0.717	0.323	0.133	0.118	1.378	0.50	0.20
1359	1354	1356	8	257.00	0.01	1.003	0.500	0.072	0.931	0.428	0.121	0.121	1.664	0.50	0.18
1361	1356	1358	8	176.00	0.03	2.005	0.999	0.093	1.912	0.906	0.098	0.139	2.926	0.50	0.15
1363	1358	1360	8	880.81	0.02	1.550	0.772	0.095	1.456	0.678	0.112	0.140	2.455	0.50	0.17
1365	1360	1362	8	199.64	0.01	0.858	0.427	0.102	0.756	0.325	0.155	0.145	1.652	0.50	0.23
1367	1362	1364	8	117.11	0.01	1.348	0.672	0.176	1.172	0.496	0.163	0.192	2.669	0.50	0.24
1369	1364	1366	8	1191.00	0.02	1.510	0.752	0.179	1.331	0.573	0.155	0.194	2.907	0.50	0.23
137	150	140	10	268.00	0.02	2.940	1.465	0.425	2.515	1.040	0.214	0.284	3.837	0.50	0.26
1371	1366	1368	8	401.00	0.01	1.252	0.624	0.197	1.055	0.427	0.179	0.204	2.614	0.50	0.27
1373	1280	1370	8	273.81	0.00	0.695	0.346	0.233	0.462	0.113	0.266	0.222	1.793	0.50	0.40
1375	1370	1286	8	261.00	0.04	2.322	1.157	0.245	2.078	0.913	0.146	0.228	4.319	0.50	0.22
1379	1334	1372	8	150.00	0.00	0.700	0.349	0.484	0.215	-0.136	0.408	0.326	2.163	0.50	0.61
1381	1372	1338	8	821.20	0.01	0.866	0.432	0.485	0.381	-0.053	0.357	0.326	2.552	0.50	0.54
1383	1374	1376	10	310.00	0.02	2.804	1.397	0.531	2.273	0.866	0.246	0.319	3.953	0.50	0.30
1385	1376	1378	10	350.00	0.01	2.152	1.073	0.531	1.621	0.541	0.282	0.319	3.269	0.50	0.34
1387	1378	1380	10	700.00	0.01	2.286	1.139	0.531	1.755	0.608	0.273	0.319	3.414	0.50	0.33
1389	1380	1382	10	660.00	0.01	2.516	1.254	0.531	1.985	0.723	0.260	0.319	3.658	0.50	0.31
139	142	152	12	483.85	0.02	5.488	2.735	0.724	4.764	2.010	0.245	0.355	4.844	0.50	0.25
1391	1384	1386	8	375.00	0.03	2.103	1.048	0.336	1.767	0.712	0.180	0.269	4.413	0.50	0.27
1393	1386	1388	8	371.00	0.02	1.623	0.809	0.379	1.244	0.430	0.219	0.286	3.793	0.50	0.33
1395	1388	1390	8	364.00	0.02	1.800	0.897	0.380	1.420	0.517	0.208	0.287	4.087	0.50	0.31
1397	1390	1374	8	357.00	0.02	1.686	0.840	0.381	1.304	0.459	0.216	0.287	3.903	0.50	0.32
1399	1392	1394	8	383.00	0.03	2.199	1.096	0.332	1.867	0.764	0.175	0.267	4.541	0.50	0.26
1401	1394	1396	8	373.00	0.03	1.964	0.979	0.333	1.631	0.645	0.186	0.268	4.193	0.50	0.28
1403	1396	1384	8	375.00	0.02	1.759	0.876	0.335	1.424	0.541	0.197	0.269	3.879	0.50	0.30
1405	1398	1400	8	425.00	0.02	1.662	0.828	0.199	1.463	0.629	0.156	0.205	3.209	0.50	0.23
1407	1400	1402	8	424.00	0.02	1.557	0.776	0.199	1.358	0.577	0.161	0.205	3.063	0.50	0.24
1409	1402	1374	8	311.00	0.01	1.441	0.718	0.224	1.217	0.494	0.178	0.218	3.000	0.50	0.27
141	152	154	12	171.00	0.02	4.864	2.424	0.741	4.122	1.682	0.264	0.359	4.475	0.50	0.26
1411	1346	1404	12	226.00	0.27	18.493	9.215	0.467	18.026	8.748	0.110	0.283	10.003	0.50	0.11
1413	1404	1406	12	226.00	0.00	1.558	0.776	0.475	1.084	0.302	0.379	0.285	1.741	0.50	0.38
1415	1406	1408	12	279.00	0.00	1.482	0.738	0.475	1.006	0.263	0.389	0.286	1.679	0.50	0.39
1417	1408	1410	12	269.00	0.00	1.715	0.855	0.478	1.237	0.377	0.361	0.286	1.870	0.50	0.36
1419	1410	1412	12	335.08	0.01	3.677	1.832	0.809	2.868	1.023	0.319	0.376	3.755	0.50	0.32
1421	1412	1382	12	1015.90	0.00	2.076	1.034	0.809	1.267	0.225	0.434	0.376	2.479	0.50	0.43
1423	1382	1416	15	296.00	0.00	4.259	3.878	1.296	2.963	2.582	0.473	0.449	3.046	0.75	0.38
1425	1416	1418	15	328.00	0.00	4.321	3.934	1.331	2.990	2.603	0.476	0.456	3.101	0.75	0.38
1427	1418	1420	15	100.00	0.00	3.721	3.388	1.366	2.354	2.021	0.524	0.462	2.799	0.75	0.42
1429	1420	1422	15	349.00	0.00	3.814	3.472	1.401	2.413	2.071	0.524	0.468	2.869	0.75	0.42
143	154	156	12	370.00	0.03	5.826	2.903	0.741	5.084	2.162	0.241	0.359	5.088	0.50	0.24
1435	1426	1428	15	234.00	0.02	10.020	9.123	1.608	8.412	7.515	0.339	0.503	5.987	0.75	0.27
1437	1428	1430	15	248.00	0.03	11.633	10.591	1.641	9.992	8.950	0.317	0.508	6.699	0.75	0.25
1439	1422	1426	15	360.00	0.01	4.372	3.980	1.435	2.936	2.545	0.493	0.474	3.191	0.75	0.39
1441	1430	1432	15	289.00	0.01	7.610	6.929	1.674	5.936	5.255	0.398	0.513	4.974	0.75	0.32
1443	1432	1434	15	253.00	0.01	6.477	5.897	1.707	4.770	4.190	0.438	0.519	4.452	0.75	0.35
1445	1434	1436	15	92.26	0.01	6.844	6.231	2.301	4.542	3.929	0.499	0.606	5.028	0.75	0.40
1447	1436	1438	15	254.00	0.02	8.659	7.884	2.332	6.328	5.552	0.443	0.610	5.987	0.75	0.35
1449	1438	1440	15	53.18	0.05	14.432	13.139	2.362	12.070	10.777	0.342	0.615	8.672	0.75	0.27
145	156	158	15	744.91	0.02	9.203	8.379	0.815	8.388	7.564	0.251	0.354	4.628	0.75	0.20

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1451	1440	1442	15	389.12	0.01	4.417	4.022	2.392	2.025	1.630	0.655	0.619	3.671	0.75	0.52
1453	1442	1444	15	64.91	0.01	5.393	4.910	2.422	2.971	2.488	0.587	0.623	4.277	0.75	0.47
1455	1444	1446	15	350.00	0.01	7.664	6.977	2.452	5.211	4.525	0.486	0.627	5.556	0.75	0.39
1457	1446	1448	15	659.00	0.01	7.669	6.983	2.482	5.187	4.501	0.489	0.631	5.577	0.75	0.39
1459	1448	1450	15	330.00	0.02	9.829	8.949	2.512	7.317	6.437	0.431	0.635	6.699	0.75	0.35
1461	1450	1452	15	330.00	0.00	4.293	3.909	3.357	0.936	0.552	0.832	0.739	3.871	0.75	0.67
1463	1452	1454	15	325.00	0.00	4.296	3.912	3.385	0.912	0.527	0.836	0.742	3.879	0.75	0.67
1465	1454	1456	15	371.00	0.01	7.329	6.673	3.412	3.916	3.260	0.600	0.745	5.866	0.75	0.48
1471	1460	1462	15	275.00	0.02	8.295	7.552	3.620	4.674	3.932	0.578	0.768	6.529	0.75	0.46
1473	1462	1464	15	300.00	0.01	7.095	6.460	3.647	3.448	2.813	0.635	0.771	5.822	0.75	0.51
1475	1464	1466	15	4.00	1.99	91.311	83.136	3.674	87.637	79.462	0.171	0.774	36.345	0.75	0.14
1477	1466	1468	15	92.95	0.01	4.456	4.057	3.701	0.755	0.356	0.870	0.777	4.061	0.75	0.70
1479	1468	1470	15	192.69	0.01	5.715	5.203	3.759	1.956	1.444	0.740	0.784	4.971	0.75	0.59
1481	1470	1472	15	357.00	0.01	4.663	4.245	4.053	0.609	0.192	0.901	0.815	4.279	0.75	0.72
1483	1472	1474	15	300.00	0.01	7.095	6.460	4.080	3.015	2.380	0.680	0.818	5.983	0.75	0.54
1485	1474	1476	15	650.00	0.02	8.279	7.538	4.106	4.173	3.432	0.622	0.820	6.733	0.75	0.50
1487	1476	1478	18	660.00	0.01	7.334	6.677	4.147	3.187	2.530	0.807	0.780	4.277	0.75	0.54
1489	1456	1460	15	274.00	0.02	8.310	7.566	3.593	4.717	3.973	0.575	0.765	6.525	0.75	0.46
1491	1478	1480	15	225.00	0.01	6.689	6.090	4.173	2.516	1.917	0.715	0.827	5.749	0.75	0.57
1493	1480	1482	15	225.00	0.04	12.350	11.244	4.199	8.150	7.044	0.502	0.830	9.101	0.75	0.40
1495	1482	1484	18	660.00	0.01	7.276	6.625	4.270	3.007	2.355	0.826	0.792	4.281	0.75	0.55
1497	1484	1486	15	325.00	0.01	7.689	7.000	4.295	3.393	2.705	0.668	0.840	6.439	0.75	0.53
1499	1486	1488	15	325.00	0.02	7.880	7.174	4.321	3.558	2.853	0.660	0.842	6.569	0.75	0.53
15	18	20	10	471.00	0.02	3.085	1.537	0.987	2.098	0.550	0.324	0.441	5.032	0.50	0.39
1501	1488	1490	15	325.00	0.02	7.880	7.174	4.347	3.532	2.827	0.663	0.845	6.578	0.75	0.53
1503	1490	1492	15	720.00	0.02	8.295	7.553	4.373	3.922	3.179	0.645	0.847	6.849	0.75	0.52
1505	1492	1494	15	300.00	0.02	9.929	9.040	4.399	5.530	4.641	0.583	0.850	7.846	0.75	0.47
1507	1494	1496	24	429.00	0.00	14.279	13.000	9.413	4.866	3.587	1.185	1.096	4.854	0.75	0.59
1509	1496	1498	24	155.48	0.01	18.372	16.727	9.434	8.938	7.293	1.016	1.098	5.887	0.75	0.51
151	162	164	21	220.00	0.01	11.336	10.321	0.920	10.416	9.401	0.337	0.342	2.835	0.75	0.19
1517	1504	1506	24	147.58	0.01	18.006	16.394	9.519	8.487	6.875	1.034	1.103	5.811	0.75	0.52
1523	1506	1512	21	343.00	0.01	15.079	13.729	9.667	5.412	4.062	1.019	1.157	6.653	0.75	0.58
1525	1512	1514	21	550.00	0.01	15.728	14.319	9.688	6.039	4.631	0.993	1.159	6.876	0.75	0.57
1527	1514	1516	24	652.28	0.00	15.020	13.675	9.745	5.275	3.930	1.173	1.116	5.088	0.75	0.59
1529	1516	1518	24	221.00	0.00	15.182	13.822	9.789	5.392	4.033	1.169	1.119	5.135	0.75	0.58
153	158	162	21	378.00	0.01	13.427	12.225	0.909	12.518	11.316	0.308	0.340	3.182	0.75	0.18
1541	1528	1530	24	442.00	0.00	7.238	6.590	9.895	-2.657	-3.305	2.000	0.955	2.304	0.75	1.00
1543	1530	1532	24	138.70	0.02	32.343	29.448	9.915	22.428	19.532	0.760	1.127	9.053	0.75	0.38
1545	1532	1534	27	373.00	0.00	17.392	15.835	10.600	6.792	5.235	1.268	1.125	4.589	0.75	0.56
1547	1524	3660	14	90.47	0.12	16.321	8.133	4.151	12.170	3.981	0.401	0.841	12.752	0.50	0.34
1549	1534	1536	27	1312.93	0.00	18.341	16.699	10.620	7.720	6.078	1.229	1.126	4.781	0.75	0.55
155	164	166	21	348.00	0.01	11.584	10.547	0.920	10.664	9.627	0.334	0.342	2.878	0.75	0.19
1551	1536	1538	27	510.00	0.00	15.496	14.109	10.676	4.821	3.433	1.372	1.129	4.202	0.75	0.61
1553	1538	1540	30	1498.19	0.00	22.863	20.816	10.716	12.147	10.100	1.204	1.095	4.582	0.75	0.48
1555	1540	1542	30	245.00	0.00	23.205	21.128	16.067	7.138	5.061	1.530	1.354	5.103	0.75	0.61
1557	1542	1544	27	1240.41	0.01	24.876	22.649	16.086	8.790	6.563	1.317	1.399	6.653	0.75	0.59
1559	1544	1546	27	64.00	0.03	53.785	48.970	16.148	37.638	32.822	0.845	1.402	11.827	0.75	0.38
1561	1546	1548	33	361.00	0.00	23.682	21.562	16.166	7.516	5.396	1.667	1.319	4.291	0.75	0.61
1563	1548	3706	33	87.39	0.13	189.757	172.768	16.185	173.572	156.583	0.543	1.320	19.498	0.75	0.20
1565	1550	1552	33	1226.10	0.00	26.318	23.962	16.222	10.096	7.740	1.561	1.321	4.660	0.75	0.57
1567	1552	1554	33	42.00	0.01	35.666	32.473	16.260	19.407	16.213	1.303	1.323	5.866	0.75	0.47
1569	1554	1556	33	272.00	0.01	44.784	40.775	16.278	28.506	24.496	1.147	1.324	6.942	0.75	0.42
157	166	168	15	198.00	0.06	15.452	14.069	1.004	14.449	13.065	0.216	0.394	7.092	0.75	0.17

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1571	1558	1560	12	974.72	0.00	1.787	0.891	0.000	1.787	0.891	0.000	0.000	0.000	0.50	0.00
1573	1560	1562	12	1005.83	0.00	1.784	0.889	0.000	1.784	0.889	0.000	0.000	0.000	0.50	0.00
1575	1562	1564	12	660.00	0.00	1.759	0.876	0.000	1.759	0.876	0.000	0.000	0.000	0.50	0.00
1577	1564	1566	12	1123.17	0.00	1.732	0.863	0.000	1.732	0.863	0.000	0.000	0.000	0.50	0.00
1579	1566	1568	12	17.00	0.01	2.740	1.365	0.106	2.634	1.260	0.134	0.133	1.682	0.50	0.13
1581	1568	1570	12	870.00	0.00	1.700	0.847	0.170	1.530	0.677	0.213	0.169	1.384	0.50	0.21
1583	1570	1572	12	134.00	0.00	1.480	0.737	0.172	1.308	0.565	0.230	0.170	1.260	0.50	0.23
1585	1572	1574	10	480.03	0.01	1.705	0.849	0.206	1.499	0.643	0.196	0.196	2.111	0.50	0.24
1587	1574	1576	10	266.11	0.01	1.740	0.867	0.206	1.534	0.661	0.194	0.196	2.143	0.50	0.23
1589	1576	1578	10	317.33	0.01	2.607	1.299	0.206	2.401	1.093	0.158	0.196	2.852	0.50	0.19
159	168	170	15	306.00	0.02	10.072	9.170	1.004	9.069	8.167	0.267	0.394	5.243	0.75	0.21
1591	1578	1580	10	100.35	0.01	2.149	1.071	0.206	1.943	0.865	0.174	0.196	2.488	0.50	0.21
1593	1580	3664	10	14.03	0.73	16.313	8.129	0.206	16.107	7.923	0.066	0.196	10.305	0.50	0.08
1595	1582	1584	10	1187.97	0.00	1.379	0.687	0.282	1.097	0.405	0.256	0.230	1.987	0.50	0.31
1597	1584	1586	15	433.00	0.00	3.683	3.353	0.673	3.009	2.680	0.362	0.321	2.284	0.75	0.29
1599	1586	1588	12	1105.54	0.02	4.338	2.161	0.684	3.654	1.478	0.268	0.345	4.030	0.50	0.27
1601	1588	1590	15	439.59	0.00	3.783	3.445	0.688	3.096	2.757	0.361	0.324	2.343	0.75	0.29
1605	1594	1596	10	1604.91	0.02	2.944	1.467	0.018	2.926	1.449	0.047	0.057	1.492	0.50	0.06
1607	1596	1598	10	74.63	0.02	3.083	1.536	0.058	3.025	1.478	0.079	0.103	2.197	0.50	0.10
1609	1598	1600	10	121.75	0.04	4.261	2.123	0.078	4.183	2.045	0.078	0.119	3.014	0.50	0.09
161	170	172	15	58.00	0.02	10.099	9.195	1.009	9.089	8.185	0.267	0.395	5.261	0.75	0.21
1611	1600	1602	10	175.47	0.02	2.790	1.390	0.080	2.710	1.310	0.097	0.121	2.258	0.50	0.12
1613	1602	1604	10	306.33	0.02	2.909	1.449	0.087	2.822	1.362	0.099	0.126	2.382	0.50	0.12
1615	1604	1606	10	348.00	0.01	2.638	1.315	0.145	2.494	1.170	0.133	0.163	2.591	0.50	0.16
1617	1606	1608	10	347.00	0.02	2.684	1.337	0.446	2.238	0.892	0.230	0.291	3.645	0.50	0.28
1619	1608	1584	10	305.00	0.02	3.328	1.658	0.453	2.875	1.205	0.208	0.294	4.269	0.50	0.25
1621	1368	1610	10	1065.24	0.00	1.293	0.644	0.264	1.029	0.380	0.256	0.223	1.862	0.50	0.31
1623	1610	1612	10	566.00	0.00	1.197	0.596	0.345	0.852	0.252	0.306	0.255	1.897	0.50	0.37
1625	1612	1606	10	338.00	0.01	1.780	0.887	0.351	1.429	0.536	0.251	0.258	2.539	0.50	0.30
1627	1590	1614	12	544.47	0.00	1.196	0.596	0.782	0.414	-0.186	0.589	0.369	1.623	0.50	0.59
1629	1614	1616	12	318.00	0.04	6.656	3.317	0.822	5.834	2.495	0.237	0.379	5.762	0.50	0.24
163	172	100	18	267.00	0.02	13.794	12.559	1.009	12.785	11.550	0.275	0.375	4.554	0.75	0.18
1631	1616	1618	15	43.00	0.01	5.843	5.320	0.822	5.022	4.499	0.317	0.355	3.362	0.75	0.25
1633	1618	1620	15	318.00	0.00	4.298	3.913	0.822	3.476	3.091	0.370	0.355	2.700	0.75	0.30
1635	1620	1622	15	900.00	0.00	3.064	2.789	0.822	2.241	1.967	0.442	0.355	2.116	0.75	0.35
1637	1622	1624	15	355.00	0.01	6.841	6.228	0.835	6.006	5.394	0.295	0.358	3.777	0.75	0.24
1639	1624	1626	15	23.04	0.02	8.427	7.673	0.856	7.571	6.816	0.269	0.363	4.412	0.75	0.22
1641	1626	1628	15	909.24	0.01	6.894	6.276	0.856	6.037	5.420	0.298	0.363	3.826	0.75	0.24
1643	1628	1630	15	202.50	0.01	7.751	7.057	0.872	6.879	6.185	0.283	0.366	4.180	0.75	0.23
1645	1630	1632	15	329.94	0.01	6.176	5.623	0.926	5.250	4.697	0.327	0.378	3.619	0.75	0.26
1647	1632	1634	15	1125.07	0.02	8.722	7.941	0.926	7.796	7.015	0.275	0.378	4.625	0.75	0.22
1649	1634	1636	15	51.91	0.07	16.649	15.158	0.926	15.723	14.232	0.200	0.378	7.298	0.75	0.16
1651	1636	1638	21	384.00	0.00	7.860	7.157	1.637	6.223	5.519	0.542	0.460	2.581	0.75	0.31
1653	1638	1640	21	450.00	0.00	10.131	9.224	1.637	8.494	7.587	0.476	0.460	3.095	0.75	0.27
1655	1640	1642	21	333.00	0.00	4.769	4.342	1.637	3.131	2.704	0.707	0.460	1.798	0.75	0.40
1657	1642	1644	21	299.00	0.02	24.824	22.602	1.637	23.187	20.964	0.305	0.460	5.839	0.75	0.17
1659	1644	1646	21	44.47	0.00	8.914	8.116	1.637	7.277	6.478	0.508	0.460	2.825	0.75	0.29
1661	1646	1648	21	1000.00	0.00	5.706	5.195	1.637	4.069	3.558	0.642	0.460	2.049	0.75	0.37
1663	1648	1650	21	73.94	0.01	13.827	12.589	1.637	12.189	10.951	0.407	0.460	3.861	0.75	0.23
1665	1658	1660	12	477.00	0.00	2.260	1.126	0.907	1.353	0.219	0.441	0.399	2.720	0.50	0.44
1667	1660	1662	12	168.04	0.00	2.386	1.189	0.960	1.427	0.230	0.441	0.411	2.873	0.50	0.44
1669	1662	1636	12	561.25	0.01	2.801	1.396	0.960	1.841	0.436	0.404	0.411	3.232	0.50	0.40
167	178	180	8	342.00	0.04	2.305	1.149	0.057	2.248	1.092	0.072	0.108	2.783	0.50	0.11

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1673	1666	1668	12	331.00	0.01	2.965	1.477	0.574	2.391	0.903	0.298	0.315	2.920	0.50	0.30
1675	1668	1670	12	365.62	0.00	1.868	0.931	0.575	1.293	0.356	0.381	0.315	2.094	0.50	0.38
1677	1670	1672	12	260.22	0.02	5.487	2.734	0.577	4.911	2.158	0.219	0.316	4.532	0.50	0.22
1679	1672	1674	12	981.57	0.11	12.084	6.022	0.590	11.494	5.431	0.150	0.319	7.963	0.50	0.15
1681	1674	1676	12	902.48	0.00	1.669	0.832	0.745	0.924	0.086	0.468	0.360	2.065	0.50	0.47
1683	1676	1678	12	79.05	0.02	4.546	2.265	0.884	3.662	1.382	0.299	0.394	4.482	0.50	0.30
1685	1678	1658	12	535.00	0.00	2.259	1.126	0.885	1.375	0.241	0.435	0.394	2.701	0.50	0.44
1687	1680	1682	10	1510.43	0.00	0.987	0.492	0.570	0.417	-0.078	0.454	0.331	1.875	0.50	0.55
169	180	182	8	345.00	0.03	1.964	0.979	0.058	1.906	0.921	0.079	0.109	2.510	0.50	0.12
1693	1686	1688	10	620.00	0.00	1.417	0.706	0.796	0.621	-0.090	0.447	0.394	2.673	0.50	0.54
1695	1688	1690	10	42.00	0.10	7.013	3.494	0.802	6.211	2.692	0.190	0.396	8.550	0.50	0.23
1697	1690	1692	12	328.00	0.01	3.855	1.921	0.802	3.053	1.119	0.310	0.374	3.875	0.50	0.31
1699	1692	1650	12	378.28	0.02	4.704	2.344	0.802	3.902	1.542	0.279	0.374	4.469	0.50	0.28
17	20	22	10	460.00	0.04	4.143	2.064	0.987	3.156	1.077	0.277	0.441	6.230	0.50	0.33
1701	1682	1686	10	392.00	0.00	1.142	0.569	0.752	0.390	-0.183	0.493	0.383	2.236	0.50	0.59
1703	1650	1694	21	595.00	0.00	7.015	6.387	2.150	4.865	4.236	0.665	0.529	2.564	0.75	0.38
1705	1694	1696	21	68.00	0.00	7.706	7.016	2.150	5.556	4.866	0.632	0.529	2.746	0.75	0.36
1707	1696	1698	21	1280.95	0.00	6.761	6.156	2.150	4.611	4.006	0.678	0.529	2.497	0.75	0.39
1709	1698	1700	21	77.00	0.01	18.989	17.289	2.150	16.839	15.138	0.398	0.529	5.235	0.75	0.23
171	182	184	8	301.00	0.01	1.212	0.604	0.099	1.113	0.505	0.129	0.143	2.089	0.50	0.19
1711	1702	1704	18	37.92	0.01	10.404	9.473	0.022	10.382	9.451	0.051	0.054	1.181	0.75	0.03
1713	1704	1164	18	1410.05	0.01	11.493	10.464	0.022	11.471	10.442	0.049	0.054	1.266	0.75	0.03
1715	1164	1706	18	913.02	0.01	11.702	10.654	0.319	11.382	10.335	0.170	0.208	2.879	0.75	0.11
1717	1706	1708	18	940.94	0.01	11.527	10.495	0.319	11.207	10.175	0.172	0.208	2.849	0.75	0.11
1719	1708	1710	18	982.34	0.01	11.281	10.271	0.323	10.958	9.948	0.174	0.210	2.816	0.75	0.12
1721	1710	1712	18	467.00	0.02	13.655	12.433	0.323	13.332	12.110	0.159	0.210	3.219	0.75	0.11
1723	1712	1714	21	2162.61	0.01	14.506	13.208	0.323	14.183	12.885	0.180	0.201	2.467	0.75	0.10
1725	1714	1716	24	103.03	0.01	18.962	17.265	0.342	18.620	16.923	0.187	0.200	2.317	0.75	0.09
1727	1716	1718	21	290.00	0.00	9.740	8.868	0.528	9.212	8.340	0.277	0.258	2.162	0.75	0.16
1729	1718	1720	21	999.18	0.00	10.127	9.221	0.528	9.599	8.693	0.272	0.258	2.222	0.75	0.16
173	184	186	8	249.00	0.01	1.226	0.611	0.104	1.122	0.507	0.131	0.147	2.142	0.50	0.20
1731	1720	1722	27	347.00	0.00	19.654	17.894	0.917	18.737	16.977	0.331	0.319	2.523	0.75	0.15
1733	1722	1724	27	977.64	0.00	19.638	17.880	0.919	18.719	16.961	0.331	0.319	2.523	0.75	0.15
1735	1724	1726	27	66.63	0.02	48.271	43.949	0.919	47.352	43.030	0.215	0.319	4.736	0.75	0.10
1737	1726	1728	24	358.00	0.01	25.118	22.869	1.127	23.991	21.742	0.289	0.366	4.034	0.75	0.14
1739	1728	1730	24	349.00	0.03	36.627	33.348	1.127	35.500	32.221	0.241	0.366	5.255	0.75	0.12
1741	1730	1732	27	412.00	0.01	30.978	28.204	1.127	29.851	27.077	0.293	0.354	3.693	0.75	0.13
1743	1732	1734	27	402.00	0.01	21.738	19.792	1.127	20.611	18.665	0.348	0.354	2.880	0.75	0.16
1745	1734	1736	24	402.00	0.01	22.683	20.652	1.127	21.556	19.525	0.303	0.366	3.756	0.75	0.15
1747	1736	1738	24	402.00	0.01	22.683	20.652	1.127	21.556	19.525	0.303	0.366	3.756	0.75	0.15
1749	1738	1700	24	402.00	0.02	30.754	28.001	1.127	29.627	26.874	0.262	0.366	4.650	0.75	0.13
175	186	188	8	282.00	0.01	1.260	0.628	0.104	1.156	0.524	0.130	0.147	2.184	0.50	0.20
1751	1040	1740	27	400.00	0.02	40.249	36.646	7.944	32.306	28.702	0.678	0.967	7.874	0.75	0.30
1753	1740	1742	27	150.00	0.02	39.279	35.763	7.944	31.336	27.819	0.686	0.967	7.737	0.75	0.31
1755	1742	1744	27	318.00	0.01	32.251	29.363	7.944	24.307	21.419	0.761	0.967	6.714	0.75	0.34
1757	1744	1746	27	1500.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31
1759	1746	1748	27	375.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31
1761	1748	1750	27	375.00	0.02	38.285	34.857	7.944	30.341	26.913	0.696	0.967	7.596	0.75	0.31
1763	1750	1752	27	56.00	0.02	38.258	34.833	8.089	30.169	26.744	0.702	0.977	7.631	0.75	0.31
1765	1752	1754	27	348.00	0.02	38.322	34.891	8.089	30.234	26.803	0.702	0.977	7.641	0.75	0.31
1767	1754	1756	27	800.00	0.02	38.285	34.857	8.089	30.196	26.768	0.702	0.977	7.635	0.75	0.31
1769	1756	1758	27	400.00	0.02	38.285	34.857	8.089	30.196	26.768	0.702	0.977	7.635	0.75	0.31
177	188	190	8	235.00	0.01	1.325	0.660	0.104	1.221	0.556	0.127	0.147	2.263	0.50	0.19

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1771	1758	1760	27	358.00	0.02	37.997	34.595	8.093	29.904	26.502	0.705	0.977	7.595	0.75	0.31
1773	1760	1762	27	1406.00	0.02	38.516	35.068	8.096	30.420	26.972	0.700	0.977	7.670	0.75	0.31
1775	1762	1764	30	1285.17	0.01	34.664	31.561	8.115	26.549	23.446	0.823	0.948	5.763	0.75	0.33
1777	1764	1766	30	1403.62	0.01	44.238	40.277	8.115	36.123	32.162	0.725	0.948	6.866	0.75	0.29
1779	1770	1772	18	352.00	0.00	0.591	0.538	0.003	0.588	0.535	0.079	0.021	0.089	0.75	0.05
1781	1772	1774	18	362.00	0.00	4.288	3.904	0.016	4.272	3.888	0.066	0.046	0.576	0.75	0.04
1783	1774	1776	18	85.19	0.00	4.974	4.529	0.022	4.952	4.506	0.073	0.054	0.707	0.75	0.05
1785	1776	1778	21	577.65	0.00	8.361	7.613	0.022	8.339	7.591	0.066	0.052	0.746	0.75	0.04
1787	1778	1780	21	81.00	0.00	9.669	8.803	0.022	9.646	8.781	0.062	0.052	0.825	0.75	0.04
1789	1780	1782	21	393.00	0.00	8.014	7.297	0.022	7.992	7.274	0.068	0.052	0.724	0.75	0.04
179	190	192	8	67.35	0.01	1.199	0.598	0.129	1.071	0.469	0.147	0.164	2.243	0.50	0.22
1791	1782	1784	21	1301.29	0.00	8.950	8.149	0.022	8.928	8.127	0.064	0.052	0.782	0.75	0.04
1793	1784	1786	21	131.34	0.02	23.931	21.788	0.022	23.909	21.766	0.041	0.052	1.547	0.75	0.02
1795	1786	1788	21	437.00	0.00	9.703	8.834	0.022	9.681	8.812	0.062	0.052	0.827	0.75	0.04
1797	1788	1702	21	437.00	0.01	14.299	13.019	0.022	14.277	12.997	0.052	0.052	1.082	0.75	0.03
1799	1770	1790	10	688.00	0.01	2.572	1.282	0.048	2.524	1.234	0.079	0.093	1.829	0.50	0.10
1801	1790	1792	10	1065.14	0.01	2.596	1.293	0.057	2.539	1.237	0.085	0.102	1.935	0.50	0.10
1803	1792	1794	10	601.00	0.02	2.839	1.415	0.076	2.763	1.339	0.094	0.118	2.252	0.50	0.11
1805	1794	1796	12	1217.66	0.02	4.458	2.221	0.247	4.211	1.974	0.160	0.204	3.050	0.50	0.16
1807	1796	1798	12	174.00	0.02	4.691	2.337	0.298	4.393	2.040	0.171	0.225	3.340	0.50	0.17
1809	1798	1800	12	979.51	0.01	3.871	1.929	0.300	3.570	1.629	0.188	0.226	2.925	0.50	0.19
181	192	194	8	306.00	0.02	1.466	0.731	0.138	1.328	0.592	0.138	0.170	2.639	0.50	0.21
1811	1800	1802	12	382.00	0.02	4.432	2.208	0.318	4.114	1.891	0.181	0.232	3.273	0.50	0.18
1813	1802	1804	12	38.32	0.00	1.825	0.909	0.326	1.499	0.584	0.286	0.235	1.756	0.50	0.29
1815	1804	1806	12	300.00	0.00	1.879	0.936	0.326	1.553	0.611	0.282	0.235	1.793	0.50	0.28
1817	1806	1808	12	340.00	0.00	1.878	0.936	0.347	1.531	0.589	0.291	0.243	1.826	0.50	0.29
1819	1808	1750	12	31.66	0.02	5.312	2.647	0.393	4.918	2.253	0.184	0.259	3.960	0.50	0.18
1821	1810	1770	10	618.00	0.02	2.680	1.336	0.044	2.636	1.291	0.074	0.089	1.836	0.50	0.09
1823	1812	1814	27	333.00	0.01	24.365	22.183	5.701	18.663	16.482	0.741	0.814	5.001	0.75	0.33
1825	1814	1816	27	362.00	0.01	23.024	20.962	5.701	17.322	15.261	0.763	0.814	4.801	0.75	0.34
183	194	196	8	116.08	0.01	1.055	0.526	0.144	0.911	0.381	0.167	0.174	2.116	0.50	0.25
1837	1816	1822	27	351.00	0.01	23.027	20.965	5.701	17.325	15.264	0.763	0.814	4.801	0.75	0.34
1839	1822	1826	27	405.22	0.01	25.674	23.376	5.701	19.973	17.674	0.721	0.814	5.193	0.75	0.32
1841	1826	1828	27	371.00	0.01	26.294	23.940	5.701	20.593	18.239	0.712	0.814	5.282	0.75	0.32
1845	1830	1832	12	2054.85	0.01	3.285	1.637	1.371	1.914	0.266	0.451	0.495	3.994	0.50	0.45
1847	1832	1834	12	325.00	0.01	3.712	1.850	1.433	2.279	0.417	0.431	0.507	4.422	0.50	0.43
1849	1834	1836	12	325.00	0.01	3.765	1.876	1.441	2.324	0.435	0.429	0.508	4.474	0.50	0.43
185	196	198	8	182.00	0.01	0.847	0.422	0.145	0.702	0.277	0.187	0.174	1.814	0.50	0.28
1851	1836	1838	12	86.25	0.01	3.077	1.533	3.261	-0.184	-1.727	1.000	0.752	3.918	0.50	1.00
1853	1838	1840	12	246.00	0.01	3.197	1.593	3.263	-0.067	-1.670	1.000	0.766	4.070	0.50	1.00
1855	1840	1842	12	977.21	0.01	3.472	1.730	3.269	0.203	-1.539	0.772	0.774	5.027	0.50	0.77
1857	1842	1844	12	325.00	0.01	3.567	1.777	3.274	0.293	-1.497	0.754	0.775	5.151	0.50	0.75
1859	1844	1846	12	42.20	0.04	6.735	3.356	3.276	3.458	0.080	0.492	0.775	8.516	0.50	0.49
1861	1846	1848	12	561.13	0.01	3.585	1.786	3.440	0.144	-1.654	0.786	0.793	5.197	0.50	0.79
1863	1848	1850	12	342.00	0.01	3.675	1.831	3.444	0.231	-1.613	0.768	0.793	5.319	0.50	0.77
1865	1850	1852	12	452.00	0.01	3.674	1.831	3.444	0.229	-1.614	0.769	0.793	5.317	0.50	0.77
1867	1852	1854	15	450.00	0.01	5.428	4.942	3.444	1.983	1.497	0.723	0.749	4.683	0.75	0.58
1869	1854	1856	15	338.00	0.01	6.506	5.923	3.521	2.984	2.402	0.655	0.757	5.406	0.75	0.52
187	198	200	8	402.00	0.00	0.781	0.389	0.145	0.636	0.244	0.195	0.174	1.711	0.50	0.29
1871	1856	1858	15	302.00	0.01	5.998	5.461	3.545	2.453	1.916	0.691	0.760	5.091	0.75	0.55
1873	1858	1860	15	52.00	0.01	6.351	5.783	3.545	2.806	2.238	0.667	0.760	5.317	0.75	0.53
1875	1860	1862	14	327.00	0.01	4.616	2.300	3.570	1.047	-1.269	0.770	0.778	4.767	0.50	0.66
1877	1862	1864	14	400.00	0.00	3.300	1.644	2.319	0.981	-0.675	0.721	0.622	3.343	0.50	0.62

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1879	1864	1866	14	263.00	0.01	3.640	1.814	2.552	1.088	-0.738	0.720	0.654	3.685	0.50	0.62
1885	1870	1872	15	97.00	0.01	6.477	5.897	2.607	3.870	3.290	0.552	0.647	4.992	0.75	0.44
1887	1872	1874	15	171.00	0.01	6.970	6.346	2.672	4.298	3.674	0.537	0.656	5.303	0.75	0.43
1889	1874	1876	15	207.00	0.01	6.351	5.782	2.672	3.679	3.110	0.566	0.656	4.952	0.75	0.45
189	200	202	8	300.00	0.02	1.477	0.736	0.157	1.321	0.579	0.147	0.181	2.753	0.50	0.22
1891	1876	1878	15	359.00	0.01	6.611	6.019	3.162	3.449	2.857	0.609	0.716	5.327	0.75	0.49
1893	1878	1880	15	81.00	0.01	5.574	5.075	4.754	0.821	0.322	0.888	0.884	5.102	0.75	0.71
1895	1880	1882	15	670.00	0.01	5.815	5.294	4.754	1.061	0.540	0.859	0.884	5.285	0.75	0.69
1897	1882	1884	15	140.00	0.01	5.996	5.460	4.764	1.233	0.696	0.841	0.885	5.422	0.75	0.67
1899	1884	1886	15	600.00	0.01	5.751	5.236	4.854	0.897	0.382	0.880	0.893	5.254	0.75	0.70
19	22	24	10	420.00	0.02	3.092	1.541	1.031	2.061	0.510	0.331	0.451	5.099	0.50	0.40
1901	1866	1870	14	694.77	0.01	5.260	2.621	2.581	2.679	0.040	0.577	0.658	4.897	0.50	0.50
1903	1140	1888	12	651.76	0.01	3.464	1.726	2.366	1.099	-0.639	0.606	0.658	4.747	0.50	0.61
1905	1888	1890	12	23.00	0.01	2.979	1.485	2.366	0.614	-0.881	0.673	0.658	4.209	0.50	0.67
1907	1890	1892	12	939.69	0.01	3.023	1.506	2.374	0.649	-0.868	0.668	0.660	4.262	0.50	0.67
191	202	204	10	300.00	0.00	1.384	0.689	0.162	1.222	0.528	0.192	0.173	1.697	0.50	0.23
1913	1896	1898	15	478.00	0.00	2.857	2.601	3.472	-0.616	-0.871	1.250	0.679	2.328	0.75	1.00
1915	1898	1900	15	649.00	0.01	6.366	5.796	3.480	2.886	2.316	0.659	0.753	5.303	0.75	0.53
1917	1900	1902	15	1672.53	0.01	5.470	4.980	3.616	1.854	1.364	0.742	0.768	4.763	0.75	0.59
1919	1902	1904	15	55.00	0.01	7.307	6.653	3.648	3.659	3.005	0.624	0.771	5.952	0.75	0.50
1921	1904	1906	15	302.00	0.01	7.593	6.913	3.648	3.945	3.265	0.611	0.771	6.125	0.75	0.49
1923	1906	1908	15	740.00	0.01	7.589	6.910	3.655	3.935	3.255	0.611	0.772	6.126	0.75	0.49
1925	1908	1910	15	1043.61	0.01	5.369	4.888	3.665	1.703	1.223	0.758	0.773	4.708	0.75	0.61
193	204	206	10	108.00	0.00	1.449	0.722	0.162	1.288	0.561	0.188	0.173	1.754	0.50	0.23
1939	1922	1924	15	339.00	0.01	6.381	5.809	3.704	2.677	2.106	0.684	0.778	5.392	0.75	0.55
1941	1862	1926	8	379.00	0.01	1.269	0.633	1.269	0.000	-0.637	0.667	0.533	3.636	0.50	1.00
1943	1926	1896	8	340.00	0.00	0.794	0.396	1.569	-0.775	-1.173	0.667	0.422	2.275	0.50	1.00
1945	1892	1896	12	474.00	0.01	3.091	1.540	2.390	0.701	-0.850	0.660	0.662	4.345	0.50	0.66
1947	1910	1914	15	679.00	0.01	6.139	5.589	3.678	2.461	1.911	0.697	0.775	5.227	0.75	0.56
1949	1914	1918	15	678.00	0.01	6.214	5.657	3.681	2.533	1.976	0.692	0.775	5.277	0.75	0.55
195	206	208	10	190.00	0.02	3.312	1.651	0.173	3.140	1.478	0.129	0.179	3.206	0.50	0.16
1951	1918	1922	15	683.00	0.01	6.439	5.862	3.700	2.739	2.162	0.680	0.777	5.429	0.75	0.54
1953	1928	1930	8	279.00	0.01	0.960	0.478	0.366	0.593	0.112	0.286	0.281	2.564	0.50	0.43
1959	1934	1936	8	391.00	0.02	1.644	0.819	0.467	1.177	0.352	0.243	0.319	4.056	0.50	0.37
1961	1936	1938	8	361.00	0.01	1.259	0.628	0.506	0.754	0.122	0.294	0.333	3.410	0.50	0.44
1963	1938	1940	8	361.00	0.02	1.626	0.810	0.516	1.109	0.294	0.258	0.337	4.135	0.50	0.39
1965	1940	1942	8	719.00	0.01	1.293	0.644	0.541	0.752	0.104	0.301	0.345	3.539	0.50	0.45
1967	1942	1944	8	299.00	0.01	1.339	0.667	0.559	0.780	0.108	0.300	0.351	3.662	0.50	0.45
1969	1944	1946	8	299.00	0.01	1.453	0.724	0.559	0.894	0.165	0.287	0.351	3.891	0.50	0.43
197	208	158	10	192.00	0.03	3.688	1.838	0.175	3.513	1.663	0.123	0.180	3.468	0.50	0.15
1971	1946	1948	8	219.00	0.01	1.385	0.690	0.559	0.826	0.131	0.295	0.351	3.755	0.50	0.44
1979	1954	1956	8	412.00	0.01	0.857	0.427	0.612	0.244	-0.186	0.417	0.368	2.667	0.50	0.63
1981	1956	1958	8	158.00	0.03	1.921	0.957	0.626	1.295	0.331	0.262	0.372	4.918	0.50	0.39
1983	1958	1960	8	240.00	0.00	0.782	0.390	0.626	0.156	-0.236	0.451	0.372	2.489	0.50	0.68
1985	1960	1962	8	461.00	0.01	1.234	0.615	1.100	0.134	-0.485	0.491	0.498	3.995	0.50	0.74
1987	1962	1964	8	870.00	0.01	1.432	0.713	1.109	0.322	-0.396	0.441	0.500	4.530	0.50	0.66
1989	1964	1966	8	402.00	0.01	0.859	0.428	1.224	-0.366	-0.796	0.667	0.439	2.460	0.50	1.00
199	14	210	8	355.00	0.04	2.277	1.135	0.923	1.354	0.211	0.295	0.456	6.182	0.50	0.44
1991	1966	1968	8	400.00	0.02	1.497	0.746	1.276	0.222	-0.529	0.473	0.534	4.817	0.50	0.71
1993	1968	1970	8	810.00	0.01	1.139	0.568	1.763	-0.624	-1.196	0.667	0.506	3.263	0.50	1.00
1995	1970	1972	8	430.76	0.01	1.001	0.499	2.151	-1.150	-1.653	0.667	0.475	2.868	0.50	1.00
1997	1972	1974	8	824.62	0.00	0.654	0.326	2.209	-1.555	-1.883	0.667	0.381	1.873	0.50	1.00
1999	1974	1976	8	98.46	0.00	0.488	0.243	2.273	-1.784	-2.029	0.667	0.327	1.399	0.50	1.00

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2001	1976	1978	8	541.56	0.01	1.064	0.530	2.273	-1.208	-1.742	0.667	0.490	3.049	0.50	1.00
2003	1978	1980	8	270.58	0.02	1.504	0.749	2.289	-0.785	-1.539	0.667	0.573	4.309	0.50	1.00
2005	3426	3430	24	639.77	0.01	22.221	20.232	5.702	16.520	14.530	0.691	0.843	5.922	0.75	0.35
2007	1930	1934	8	391.00	0.02	1.644	0.819	0.366	1.278	0.453	0.214	0.281	3.791	0.50	0.32
2009	1948	1954	8	904.00	0.01	1.358	0.677	0.559	0.799	0.118	0.298	0.351	3.702	0.50	0.45
201	210	18	8	350.00	0.05	2.813	1.401	0.927	1.886	0.475	0.263	0.457	7.225	0.50	0.40
2011	1984	1986	10	650.00	0.01	2.088	1.040	1.066	1.022	-0.026	0.422	0.459	3.848	0.50	0.51
2013	1986	1988	10	182.00	0.01	2.559	1.275	1.805	0.754	-0.530	0.516	0.603	5.085	0.50	0.62
2015	1988	1990	10	1532.50	0.01	1.944	0.969	2.042	-0.098	-1.073	0.833	0.625	3.564	0.50	1.00
2017	1990	1992	10	350.00	0.01	1.965	0.979	2.185	-0.220	-1.206	0.833	0.629	3.603	0.50	1.00
2019	1992	1994	10	568.77	0.01	2.180	1.086	2.192	-0.012	-1.106	0.833	0.661	3.997	0.50	1.00
2021	1994	1878	10	430.04	0.01	1.907	0.950	2.271	-0.364	-1.320	0.833	0.620	3.496	0.50	1.00
2023	1886	1996	15	170.00	0.01	4.892	4.454	4.884	0.009	-0.429	1.022	0.896	4.545	0.75	0.82
2031	2004	2006	18	453.00	0.01	7.521	6.848	5.072	2.449	1.776	0.902	0.867	4.568	0.75	0.60
2033	2006	2008	18	18.00	0.04	20.770	18.910	5.103	15.667	13.807	0.507	0.870	9.723	0.75	0.34
2035	2008	2010	18	656.78	0.01	11.961	10.890	5.243	6.717	5.646	0.695	0.882	6.546	0.75	0.46
2037	2010	2012	18	26.86	0.00	4.978	4.532	5.249	-0.271	-0.717	1.500	0.858	2.817	0.75	1.00
2039	2012	2014	18	423.38	0.00	6.535	5.950	7.936	-1.401	-1.986	1.500	0.989	3.698	0.75	1.00
2041	2014	2016	21	354.00	0.01	11.138	10.141	7.939	3.199	2.202	1.092	1.045	5.030	0.75	0.62
2043	2016	2018	21	323.00	0.01	10.681	9.725	7.941	2.740	1.784	1.124	1.045	4.865	0.75	0.64
2045	2018	2020	21	484.00	0.01	17.659	16.078	8.038	9.621	8.040	0.828	1.052	7.170	0.75	0.47
2047	1996	2004	15	264.00	0.01	4.866	4.430	4.894	-0.028	-0.464	1.250	0.894	3.965	0.75	1.00
2049	2020	2022	24	659.84	0.01	19.863	18.085	8.618	11.246	9.467	0.921	1.047	6.098	0.75	0.46
2051	2022	2024	24	510.79	0.01	16.461	14.987	8.618	7.843	6.369	1.028	1.047	5.300	0.75	0.51
2053	2024	2026	24	680.00	0.01	20.232	18.421	8.756	11.476	9.665	0.920	1.056	6.208	0.75	0.46
2055	2026	2028	24	235.00	0.02	33.741	30.721	8.831	24.911	21.890	0.698	1.060	9.042	0.75	0.35
2057	1924	2030	15	214.00	0.00	3.935	3.583	3.708	0.228	-0.125	0.965	0.778	3.647	0.75	0.77
2059	2030	2028	15	599.48	0.01	4.387	3.994	3.708	0.679	0.286	0.881	0.778	4.009	0.75	0.71
2063	2034	2036	8	1318.01	0.01	1.150	0.573	0.098	1.051	0.475	0.132	0.143	2.012	0.50	0.20
2065	2036	2038	8	660.00	0.01	1.445	0.720	0.148	1.298	0.573	0.144	0.176	2.664	0.50	0.22
2067	2038	2040	8	306.00	0.01	0.845	0.421	0.238	0.608	0.184	0.242	0.225	2.079	0.50	0.36
2073	2044	2046	8	338.00	0.01	1.303	0.649	0.291	1.012	0.358	0.214	0.250	3.007	0.50	0.32
2075	2046	2048	8	342.00	0.01	1.040	0.518	0.373	0.667	0.146	0.276	0.284	2.732	0.50	0.41
2077	2048	2050	8	340.00	0.01	1.057	0.527	0.384	0.674	0.143	0.278	0.288	2.788	0.50	0.42
2079	2050	2052	8	340.00	0.01	1.194	0.595	0.454	0.740	0.141	0.285	0.315	3.186	0.50	0.43
2081	2052	2054	8	681.00	0.01	1.153	0.575	0.457	0.697	0.118	0.292	0.316	3.111	0.50	0.44
2087	2058	2060	8	40.00	0.09	3.579	1.783	0.518	3.061	1.265	0.171	0.337	7.299	0.50	0.26
2089	2060	2062	10	284.00	0.01	2.212	1.102	0.518	1.694	0.584	0.274	0.315	3.311	0.50	0.33
209	222	224	8	533.05	0.08	3.315	1.652	0.037	3.278	1.615	0.050	0.087	3.155	0.50	0.07
2091	2062	2064	10	82.64	0.01	1.585	0.790	0.522	1.063	0.268	0.329	0.316	2.605	0.50	0.40
2093	2040	2044	8	678.00	0.01	1.179	0.587	0.252	0.927	0.336	0.209	0.232	2.687	0.50	0.31
2095	2054	2058	8	340.00	0.01	1.117	0.557	0.517	0.600	0.039	0.319	0.337	3.139	0.50	0.48
2097	1986	2066	10	371.00	0.01	2.008	1.001	1.498	0.510	-0.497	0.536	0.548	4.036	0.50	0.64
2099	2066	2068	10	318.00	0.01	2.155	1.074	1.799	0.356	-0.725	0.582	0.602	4.422	0.50	0.70
2101	2068	2070	10	1410.77	0.01	1.901	0.948	1.839	0.063	-0.891	0.660	0.609	3.972	0.50	0.79
2103	2070	2072	10	680.00	0.01	1.974	0.984	1.840	0.134	-0.857	0.637	0.609	4.112	0.50	0.77
2105	2072	2074	12	1440.85	0.01	3.263	1.626	3.766	-0.504	-2.141	1.000	0.773	4.154	0.50	1.00
2107	2074	2076	12	342.00	0.01	3.139	1.564	3.816	-0.677	-2.252	1.000	0.759	3.996	0.50	1.00
2109	2076	2078	12	343.00	0.01	3.525	1.757	3.826	-0.301	-2.070	1.000	0.802	4.488	0.50	1.00
211	224	226	8	124.00	0.02	1.866	0.930	0.043	1.823	0.887	0.070	0.094	2.207	0.50	0.11
2111	2078	2080	12	349.00	0.01	3.552	1.770	3.837	-0.286	-2.067	1.000	0.805	4.522	0.50	1.00
2113	2080	2012	12	345.00	0.02	5.554	2.768	3.849	1.705	-1.082	0.612	0.834	7.635	0.50	0.61
2115	2082	2084	10	1637.42	0.00	1.193	0.595	0.207	0.987	0.388	0.235	0.196	1.639	0.50	0.28

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2117	2084	2086	12	1067.68	0.00	1.989	0.991	0.440	1.549	0.551	0.320	0.274	2.034	0.50	0.32
2119	2086	2088	12	991.06	0.00	2.317	1.155	0.477	1.840	0.678	0.308	0.286	2.322	0.50	0.31
2121	2088	2090	12	318.00	0.01	3.018	1.504	0.498	2.520	1.006	0.275	0.293	2.841	0.50	0.28
2123	2090	2092	12	658.54	0.02	4.340	2.163	0.511	3.829	1.651	0.232	0.297	3.706	0.50	0.23
2125	2092	2094	12	1380.66	0.01	2.706	1.348	0.518	2.188	0.830	0.296	0.298	2.656	0.50	0.30
2127	2094	2096	12	63.56	0.00	1.002	0.499	0.518	0.484	-0.018	0.510	0.298	1.286	0.50	0.51
2129	2096	2098	12	813.00	0.00	2.115	1.054	0.518	1.597	0.536	0.337	0.298	2.225	0.50	0.34
213	226	228	8	248.89	0.07	3.260	1.625	0.060	3.200	1.565	0.063	0.111	3.601	0.50	0.09
2133	2102	2104	10	668.00	0.01	1.793	0.893	0.093	1.700	0.801	0.129	0.130	1.731	0.50	0.16
2135	2104	2106	10	37.82	0.02	2.813	1.401	0.093	2.720	1.309	0.104	0.130	2.374	0.50	0.12
2137	2106	2108	10	1384.66	0.01	2.120	1.057	0.093	2.028	0.964	0.119	0.130	1.948	0.50	0.14
2139	2108	2110	10	694.67	0.01	2.298	1.145	0.384	1.913	0.761	0.231	0.270	3.126	0.50	0.28
2141	2110	2112	10	641.00	0.02	2.758	1.374	0.398	2.360	0.976	0.214	0.275	3.596	0.50	0.26
2143	2112	2114	10	882.94	0.01	1.718	0.856	0.410	1.308	0.446	0.277	0.279	2.585	0.50	0.33
2145	2114	2116	10	1137.41	0.01	1.590	0.792	0.423	1.167	0.369	0.293	0.284	2.466	0.50	0.35
2147	2116	2118	10	328.22	0.00	1.043	0.520	0.590	0.453	-0.070	0.449	0.337	1.971	0.50	0.54
2149	2118	2120	10	170.49	0.00	0.336	0.168	0.647	-0.311	-0.480	0.833	0.252	0.617	0.50	1.00
215	228	230	8	377.50	0.01	1.227	0.611	0.073	1.154	0.538	0.110	0.123	1.930	0.50	0.17
2151	2120	2122	10	28.45	0.01	2.100	1.047	0.647	1.453	0.399	0.318	0.354	3.391	0.50	0.38
2153	2098	2122	12	413.27	0.00	2.064	1.029	0.532	1.532	0.497	0.346	0.303	2.203	0.50	0.35
2155	2122	2124	15	781.48	0.00	4.190	3.815	1.047	3.143	2.768	0.426	0.402	2.838	0.75	0.34
217	230	232	8	129.00	0.01	1.178	0.587	0.074	1.105	0.513	0.113	0.123	1.880	0.50	0.17
2173	2140	2142	18	104.19	0.01	8.694	7.916	1.539	7.155	6.377	0.427	0.466	3.710	0.75	0.29
2175	2136	2140	18	652.51	0.00	4.665	4.247	1.484	3.181	2.763	0.582	0.457	2.345	0.75	0.39
2177	2132	2136	18	467.10	0.00	6.823	6.212	1.447	5.376	4.765	0.469	0.451	3.065	0.75	0.31
2179	2128	2132	18	618.00	0.00	5.137	4.677	1.230	3.907	3.447	0.500	0.415	2.387	0.75	0.33
2181	2124	2128	15	278.00	0.01	5.602	5.101	1.201	4.402	3.900	0.393	0.432	3.635	0.75	0.31
2183	1700	2144	30	479.00	0.01	30.934	28.165	2.882	28.053	25.283	0.516	0.556	3.947	0.75	0.21
2185	2144	2146	30	905.27	0.01	30.626	27.884	2.882	27.744	25.002	0.518	0.556	3.919	0.75	0.21
2187	2146	2148	30	332.00	0.00	26.031	23.700	1.444	24.586	22.256	0.400	0.391	2.850	0.75	0.16
2189	2148	1766	30	328.84	0.01	33.943	30.904	1.663	32.281	29.242	0.376	0.420	3.582	0.75	0.15
219	232	234	8	85.00	0.01	1.403	0.699	0.074	1.329	0.626	0.104	0.123	2.125	0.50	0.16
2191	1766	2150	30	316.00	0.01	32.882	29.938	8.986	23.896	20.952	0.893	0.999	5.707	0.75	0.36
2193	2150	2152	30	325.00	0.01	34.823	31.705	8.986	25.837	22.719	0.866	0.999	5.949	0.75	0.35
2199	2156	2164	30	1.00	3.40	758.343	690.447	9.009	749.334	681.438	0.191	1.001	52.262	0.75	0.08
2201	2158	2160	36	545.00	0.00	42.297	38.510	9.109	33.188	29.401	0.945	0.953	4.771	0.75	0.32
2203	2160	2162	36	488.00	0.01	47.289	43.056	9.217	38.072	33.838	0.898	0.959	5.185	0.75	0.30
2205	2162	1556	36	641.00	0.01	80.381	73.185	9.320	71.062	63.865	0.690	0.965	7.592	0.75	0.23
2207	2164	2158	30	170.29	0.00	18.910	17.217	9.009	9.901	8.208	1.215	1.001	3.806	0.75	0.49
2209	2152	2156	30	815.00	0.00	17.106	15.575	8.986	8.121	6.589	1.287	0.999	3.528	0.75	0.52
221	234	236	8	219.00	0.02	1.717	0.856	0.074	1.643	0.781	0.095	0.124	2.456	0.50	0.14
2211	1556	2166	39	1329.64	0.01	59.812	54.457	22.500	37.312	31.957	1.381	1.489	6.699	0.75	0.43
2213	2166	2168	39	36.27	0.02	128.226	116.746	22.500	105.726	94.246	0.921	1.489	11.628	0.75	0.28
2215	2168	2170	48	663.00	0.00	64.509	58.734	22.500	42.009	36.234	1.630	1.399	4.674	0.75	0.41
2217	2170	2172	48	596.00	0.00	31.771	28.926	22.786	8.985	6.140	2.506	1.408	2.750	0.75	0.63
2219	2172	2174	48	600.00	0.01	119.206	108.533	22.920	96.286	85.613	1.189	1.412	7.324	0.75	0.30
2221	2174	2176	48	258.00	0.00	64.037	58.303	23.020	41.016	35.283	1.658	1.415	4.678	0.75	0.41
2223	2176	2178	48	867.79	0.00	64.122	58.381	23.020	41.102	35.361	1.657	1.415	4.682	0.75	0.41
2225	2178	2180	48	1239.04	0.00	69.198	63.003	23.020	46.178	39.983	1.589	1.415	4.951	0.75	0.40
2227	2180	2182	48	308.78	0.00	73.768	67.164	23.034	50.734	44.130	1.535	1.416	5.188	0.75	0.38
2229	2182	2184	48	191.00	0.03	244.631	222.729	23.034	221.597	199.695	0.829	1.416	12.231	0.75	0.21
223	236	238	8	170.00	0.00	0.416	0.207	0.080	0.335	0.127	0.199	0.129	0.920	0.50	0.30
2231	2184	2186	54	502.27	0.00	69.277	63.074	23.034	46.242	40.040	1.787	1.368	3.915	0.75	0.40

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
2233	2186	2188	54	441.00	0.00	68.357	62.236	23.970	44.387	38.267	1.840	1.396	3.919	0.75	0.41
2235	2188	2190	54	1020.15	0.00	64.748	58.951	23.982	40.766	34.969	1.896	1.397	3.767	0.75	0.42
2237	2190	2192	54	310.74	0.00	65.224	59.384	24.043	41.180	35.341	1.891	1.398	3.790	0.75	0.42
2239	2192	2194	54	600.00	0.00	68.305	62.189	24.096	44.209	38.093	1.846	1.400	3.923	0.75	0.41
2241	2194	2442	54	567.30	0.00	26.179	23.835	24.773	1.406	-0.938	3.488	1.420	1.873	0.75	0.78
225	238	240	8	191.00	0.01	1.037	0.517	0.083	0.954	0.434	0.128	0.131	1.780	0.50	0.19
2253	2206	2208	54	469.00	0.00	68.135	62.035	25.146	42.989	36.889	1.892	1.431	3.960	0.75	0.42
2255	2208	2210	54	466.87	0.00	107.976	98.309	25.203	82.773	73.106	1.479	1.433	5.536	0.75	0.33
2257	2210	2212	54	692.78	0.00	53.499	48.709	32.160	21.339	16.549	2.515	1.626	3.518	0.75	0.56
2259	2212	3524	54	515.15	0.00	70.041	63.770	32.160	37.881	31.610	2.141	1.626	4.310	0.75	0.48
2261	2202	2206	54	518.19	0.00	68.205	62.098	24.862	43.343	37.237	1.879	1.423	3.951	0.75	0.42
2263	2196	2202	54	1820.72	0.00	69.161	62.969	24.830	44.332	38.139	1.864	1.422	3.990	0.75	0.41
2265	2146	2216	30	116.00	0.00	25.899	23.580	1.437	24.461	22.143	0.400	0.390	2.836	0.75	0.16
2267	2216	2218	30	370.00	0.01	30.910	28.143	1.656	29.254	26.487	0.393	0.419	3.350	0.75	0.16
2269	2218	2220	27	504.72	0.02	45.989	41.871	1.656	44.333	40.216	0.292	0.431	5.465	0.75	0.13
227	240	242	8	740.00	0.03	2.122	1.057	0.088	2.035	0.970	0.092	0.134	2.991	0.50	0.14
2271	2220	2222	27	372.00	0.01	32.720	29.790	1.656	31.064	28.134	0.344	0.431	4.304	0.75	0.15
2273	2222	2224	27	682.00	0.01	30.269	27.559	1.656	28.613	25.903	0.357	0.431	4.075	0.75	0.16
2275	2224	2226	30	616.11	0.01	34.756	31.644	1.656	33.100	29.988	0.371	0.419	3.637	0.75	0.15
2279	2228	2230	30	216.00	0.02	50.058	45.576	1.656	48.402	43.920	0.311	0.419	4.698	0.75	0.13
2281	2230	2142	30	117.70	0.06	96.426	87.793	0.986	95.440	86.807	0.178	0.322	6.349	0.75	0.07
2283	2232	2234	8	2763.07	0.01	1.220	0.608	0.227	0.993	0.381	0.195	0.219	2.671	0.50	0.29
2285	2234	2236	8	298.59	0.01	1.091	0.544	0.657	0.434	-0.113	0.373	0.382	3.269	0.50	0.56
229	242	244	8	149.00	0.02	1.803	0.898	0.095	1.708	0.804	0.104	0.140	2.732	0.50	0.16
2295	2240	2244	27	301.61	0.02	42.199	38.421	0.806	41.394	37.615	0.216	0.299	4.145	0.75	0.10
2297	2244	2246	27	29.97	0.04	64.172	58.426	0.806	63.366	57.621	0.177	0.299	5.553	0.75	0.08
2299	2246	2248	27	123.75	0.00	20.130	18.328	0.806	19.324	17.522	0.307	0.299	2.469	0.75	0.14
23	24	28	10	38.00	0.03	3.492	1.740	1.062	2.430	0.678	0.315	0.458	5.616	0.50	0.38
2301	2248	2250	27	24.01	0.01	22.852	20.806	0.806	22.046	20.000	0.289	0.299	2.699	0.75	0.13
2303	2250	2252	33	139.31	0.01	51.028	46.459	0.806	50.222	45.653	0.241	0.283	3.168	0.75	0.09
2305	2252	2254	33	62.71	0.00	32.115	29.240	0.806	31.309	28.434	0.300	0.283	2.292	0.75	0.11
2307	2254	2256	33	88.54	0.00	26.433	24.066	0.806	25.627	23.261	0.330	0.283	2.001	0.75	0.12
2309	2256	2258	33	31.27	0.03	88.446	80.527	0.806	87.640	79.721	0.186	0.283	4.648	0.75	0.07
231	244	246	8	99.00	0.04	2.310	1.151	0.106	2.205	1.045	0.097	0.148	3.361	0.50	0.15
2311	2258	2260	33	55.27	0.03	84.399	76.843	0.806	83.593	76.037	0.190	0.283	4.499	0.75	0.07
2313	2260	2262	36	873.60	0.01	47.892	43.604	0.806	47.086	42.798	0.271	0.277	2.547	0.75	0.09
2315	2262	2264	36	33.89	0.00	38.103	34.692	0.806	37.297	33.886	0.302	0.277	2.171	0.75	0.10
2317	2264	2266	30	467.03	0.02	49.808	45.349	0.806	49.002	44.543	0.221	0.291	3.769	0.75	0.09
2319	2266	2268	30	78.50	0.04	86.719	78.955	0.806	85.913	78.149	0.170	0.291	5.547	0.75	0.07
2321	2268	2270	42	624.64	0.00	50.090	45.605	0.806	49.284	44.799	0.309	0.266	1.931	0.75	0.09
2323	2270	2272	42	1202.80	0.00	50.297	45.794	0.806	49.491	44.988	0.309	0.266	1.936	0.75	0.09
2329	2230	2240	27	24.52	0.03	52.466	47.768	0.670	51.795	47.098	0.178	0.272	4.563	0.75	0.08
233	246	248	8	399.00	0.00	0.809	0.403	0.106	0.703	0.297	0.163	0.148	1.605	0.50	0.25
2335	2226	2228	30	98.00	0.02	60.774	55.333	1.656	59.118	53.677	0.284	0.419	5.381	0.75	0.11
2339	2236	2242	8	382.61	0.01	1.144	0.570	0.676	0.468	-0.106	0.369	0.388	3.413	0.50	0.55
2345	2142	2282	14	360.54	0.00	1.419	0.707	2.296	-0.877	-1.589	1.167	0.481	1.327	0.50	1.00
2347	2242	2288	8	214.68	0.06	2.963	1.477	0.692	2.271	0.785	0.219	0.392	6.923	0.50	0.33
2349	2288	2286	8	782.15	0.01	1.328	0.662	0.692	0.636	-0.030	0.342	0.392	3.844	0.50	0.51
235	248	250	8	155.00	0.01	0.870	0.434	0.106	0.764	0.328	0.157	0.148	1.690	0.50	0.24
2351	2286	2290	14	401.51	0.00	2.250	1.121	0.802	1.448	0.319	0.481	0.358	1.928	0.50	0.41
2353	2290	2292	14	322.05	0.00	2.686	1.338	0.941	1.744	0.397	0.477	0.389	2.290	0.50	0.41
2355	2292	2294	14	213.00	0.00	2.121	1.057	0.947	1.174	0.109	0.546	0.390	1.928	0.50	0.47
2357	2294	2296	14	28.07	0.04	10.471	5.218	0.947	9.524	4.270	0.237	0.390	6.083	0.50	0.20

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2359	2296	2298	14	2484.87	0.01	3.765	1.876	0.947	2.817	0.929	0.399	0.390	2.933	0.50	0.34
2361	2298	2300	14	60.61	0.01	4.894	2.439	1.121	3.774	1.318	0.380	0.425	3.713	0.50	0.33
2363	2300	2302	10	261.00	0.01	1.814	0.904	1.341	0.473	-0.437	0.533	0.518	3.640	0.50	0.64
2365	2272	2304	42	165.08	0.02	130.914	119.193	0.997	129.917	118.196	0.217	0.296	4.022	0.75	0.06
2367	2304	2306	42	71.30	0.00	59.737	54.388	4.192	55.544	50.196	0.628	0.613	3.578	0.75	0.18
2369	2306	2308	54	744.00	0.00	104.508	95.151	21.018	83.490	74.133	1.369	1.305	5.139	0.75	0.30
237	250	252	8	859.56	0.01	0.962	0.479	0.111	0.851	0.368	0.153	0.152	1.837	0.50	0.23
2375	2314	2316	12	520.52	0.00	2.089	1.041	0.366	1.723	0.675	0.283	0.250	2.000	0.50	0.28
2377	2316	2300	12	78.84	0.00	1.799	0.897	0.375	1.424	0.521	0.310	0.253	1.810	0.50	0.31
2379	2310	2306	45	444.00	0.00	71.181	64.808	18.759	52.422	46.049	1.314	1.297	5.436	0.75	0.35
2381	2318	2320	8	603.00	0.00	0.666	0.332	0.000	0.666	0.332	0.000	0.000	0.000	0.50	0.00
2383	2320	2322	8	124.46	0.00	0.154	0.077	0.023	0.131	0.054	0.173	0.068	0.315	0.50	0.26
2385	2322	3666	8	81.37	0.13	4.408	2.196	0.023	4.385	2.174	0.034	0.068	3.309	0.50	0.05
2387	2324	2326	8	52.00	0.03	1.967	0.980	0.023	1.944	0.957	0.050	0.068	1.887	0.50	0.08
2389	2326	2328	12	36.07	0.02	4.568	2.276	0.227	4.342	2.050	0.151	0.195	3.024	0.50	0.15
239	252	254	8	76.00	0.01	1.077	0.536	0.124	0.952	0.412	0.153	0.161	2.055	0.50	0.23
2391	2328	2330	12	676.00	0.01	2.533	1.262	0.227	2.307	1.036	0.202	0.195	1.996	0.50	0.20
2393	2330	2332	12	496.00	0.01	2.511	1.251	0.252	2.259	0.999	0.214	0.206	2.046	0.50	0.21
2395	2332	2314	12	583.43	0.00	2.267	1.130	0.350	1.917	0.779	0.266	0.244	2.094	0.50	0.27
2399	2336	2338	15	42.57	0.02	8.423	7.669	1.568	6.855	6.101	0.365	0.496	5.252	0.75	0.29
2401	2338	2340	15	368.00	0.01	5.619	5.116	1.568	4.051	3.548	0.452	0.496	3.924	0.75	0.36
2403	2340	2342	15	1478.43	0.01	5.879	5.353	1.603	4.276	3.750	0.446	0.502	4.079	0.75	0.36
2405	2342	2344	21	739.30	0.00	7.132	6.494	1.663	5.470	4.831	0.575	0.463	2.417	0.75	0.33
2407	2344	2346	21	61.92	0.00	6.696	6.097	1.690	5.006	4.406	0.599	0.467	2.320	0.75	0.34
2409	2346	3648	21	831.78	0.00	6.724	6.122	1.728	4.996	4.394	0.605	0.473	2.342	0.75	0.35
241	254	256	8	298.54	0.00	0.443	0.221	0.128	0.315	0.093	0.246	0.164	1.100	0.50	0.37
2411	2348	2350	18	319.00	0.00	4.293	3.909	1.835	2.458	2.074	0.685	0.510	2.334	0.75	0.46
2419	2356	2358	18	605.00	0.01	7.292	6.639	2.229	5.063	4.410	0.569	0.564	3.626	0.75	0.38
2421	2358	2360	18	305.00	0.01	7.793	7.096	2.229	5.564	4.867	0.549	0.564	3.805	0.75	0.37
2423	2360	2362	18	166.00	0.02	13.054	11.885	2.229	10.825	9.656	0.419	0.564	5.514	0.75	0.28
2425	2362	2364	18	324.00	0.00	5.938	5.407	2.229	3.709	3.178	0.637	0.564	3.120	0.75	0.43
2427	2364	2366	18	325.00	0.00	5.958	5.425	2.231	3.727	3.194	0.636	0.564	3.129	0.75	0.42
2429	2366	2368	21	325.00	0.01	10.757	9.794	2.234	8.523	7.560	0.541	0.540	3.529	0.75	0.31
2435	2372	2374	18	354.00	0.00	6.407	5.833	2.236	4.171	3.597	0.612	0.565	3.302	0.75	0.41
2437	2374	2376	21	905.72	0.00	4.662	4.245	2.236	2.426	2.009	0.854	0.540	1.918	0.75	0.49
2441	2378	2380	21	263.62	0.00	8.474	7.715	2.356	6.118	5.360	0.631	0.555	3.016	0.75	0.36
2443	2380	2382	21	456.00	0.00	6.044	5.503	2.473	3.571	3.030	0.780	0.569	2.387	0.75	0.45
2445	2382	2384	24	319.00	0.00	7.184	6.541	2.590	4.594	3.951	0.830	0.560	2.101	0.75	0.42
2449	2350	2404	18	299.96	0.01	7.906	7.198	1.835	6.071	5.363	0.492	0.510	3.642	0.75	0.33
2451	2368	2372	18	155.00	0.00	4.710	4.288	2.236	2.474	2.052	0.728	0.565	2.631	0.75	0.49
2453	2376	2388	21	36.00	0.01	12.972	11.811	2.236	10.736	9.574	0.492	0.540	4.037	0.75	0.28
2455	2388	2378	21	420.31	0.00	9.772	8.897	2.236	7.535	6.661	0.569	0.540	3.295	0.75	0.33
2457	2390	2392	10	224.00	0.00	0.704	0.351	0.376	0.328	-0.026	0.434	0.267	1.312	0.50	0.52
2459	2392	2394	10	265.00	0.01	1.899	0.946	0.376	1.523	0.570	0.252	0.267	2.711	0.50	0.30
2461	2394	3668	8	160.40	0.07	3.230	1.610	0.400	2.830	1.209	0.158	0.295	6.298	0.50	0.24
2463	2396	2398	10	778.00	0.01	1.667	0.831	0.438	1.229	0.393	0.292	0.289	2.576	0.50	0.35
2465	2398	2400	10	228.00	0.00	0.504	0.251	0.445	0.059	-0.194	0.609	0.291	1.043	0.50	0.73
2469	2404	2356	18	81.48	0.00	4.667	4.249	2.186	2.482	2.064	0.722	0.558	2.598	0.75	0.48
247	260	262	8	110.00	0.09	3.664	1.826	0.138	3.526	1.688	0.088	0.170	5.030	0.50	0.13
2471	2400	2404	10	1195.29	0.01	1.625	0.810	0.459	1.166	0.351	0.303	0.296	2.562	0.50	0.36
2473	2406	2408	10	963.64	0.01	1.552	0.773	1.628	-0.076	-0.855	0.833	0.558	2.846	0.50	1.00
2475	2408	2410	12	1122.19	0.01	2.845	1.418	1.706	1.139	-0.288	0.558	0.555	3.786	0.50	0.56
2477	2410	2412	12	697.58	0.01	3.201	1.595	1.706	1.495	-0.111	0.519	0.555	4.140	0.50	0.52

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2479	2412	2414	12	640.18	0.01	3.241	1.615	1.797	1.444	-0.182	0.532	0.571	4.233	0.50	0.53
2481	2414	2416	12	406.00	0.01	3.331	1.660	1.882	1.448	-0.223	0.538	0.585	4.370	0.50	0.54
2483	2416	2418	12	188.00	0.02	5.065	2.524	1.992	3.073	0.532	0.436	0.602	6.063	0.50	0.44
2485	2418	2420	12	414.00	0.01	3.463	1.725	2.015	1.448	-0.289	0.548	0.606	4.575	0.50	0.55
2487	2420	2422	15	1012.27	0.00	4.172	3.798	2.081	2.091	1.718	0.624	0.575	3.398	0.75	0.50
2489	2422	2424	15	186.00	0.00	3.457	3.148	2.150	1.307	0.998	0.714	0.585	2.969	0.75	0.57
249	262	264	8	183.75	0.02	1.868	0.931	0.139	1.730	0.792	0.123	0.170	3.138	0.50	0.19
2491	2424	2186	15	60.00	0.08	18.281	16.645	2.153	16.128	14.491	0.290	0.586	9.991	0.75	0.23
2493	2426	3552	8	911.94	0.00	0.755	0.376	0.055	0.700	0.321	0.121	0.106	1.258	0.50	0.18
25	28	26	10	136.00	0.08	6.130	3.055	1.062	5.069	1.993	0.235	0.458	8.423	0.50	0.28
2501	2434	2436	12	336.00	0.00	1.765	0.879	0.168	1.596	0.711	0.209	0.168	1.417	0.50	0.21
2503	2436	2438	12	282.00	0.00	1.767	0.881	0.192	1.575	0.689	0.222	0.179	1.473	0.50	0.22
2507	2442	2196	54	62.54	0.01	188.246	171.392	24.830	163.417	146.563	1.104	1.422	8.203	0.75	0.25
2509	2438	2442	12	49.94	0.02	4.927	2.455	0.192	4.736	2.264	0.135	0.179	3.033	0.50	0.14
251	264	266	8	98.73	0.02	1.685	0.840	0.143	1.543	0.697	0.131	0.173	2.940	0.50	0.20
2511	2444	2446	15	381.05	0.01	6.784	6.176	1.373	5.410	4.803	0.382	0.463	4.331	0.75	0.31
2515	2448	2450	15	665.00	0.01	4.652	4.235	1.487	3.165	2.748	0.486	0.483	3.371	0.75	0.39
2517	2450	2452	15	425.00	0.01	7.294	6.641	1.624	5.670	5.017	0.401	0.505	4.783	0.75	0.32
2519	2452	2454	16	425.00	0.00	4.586	4.175	1.643	2.943	2.532	0.552	0.499	3.012	0.75	0.41
2521	2454	2194	16	94.70	0.03	13.784	12.550	1.671	12.113	10.879	0.313	0.503	6.677	0.75	0.24
2527	2446	2448	15	976.76	0.00	4.317	3.931	1.373	2.944	2.557	0.485	0.463	3.125	0.75	0.39
2529	2456	2458	12	971.31	0.01	2.426	1.209	0.000	2.426	1.209	0.000	0.000	0.000	0.50	0.00
253	266	268	8	145.20	0.02	1.815	0.905	0.143	1.672	0.761	0.127	0.173	3.103	0.50	0.19
2531	2458	3670	6	132.55	0.11	1.591	0.793	0.111	1.479	0.681	0.090	0.165	4.665	0.50	0.18
2533	2458	3672	10	140.98	0.10	6.023	3.001	0.146	5.877	2.855	0.090	0.164	4.637	0.50	0.11
2535	2460	2462	21	80.00	0.01	12.560	11.435	10.477	2.083	0.958	1.222	1.206	5.844	0.75	0.70
2537	2462	3676	12	459.68	0.03	5.678	2.829	3.361	2.317	-0.532	0.554	0.784	7.532	0.50	0.55
2539	2466	2464	24	508.00	0.00	14.303	13.023	10.477	3.826	2.545	1.271	1.159	4.973	0.75	0.64
2541	2468	2466	24	142.00	0.01	17.755	16.165	10.477	7.277	5.688	1.105	1.159	5.884	0.75	0.55
2543	2462	3674	8	470.70	0.03	1.903	0.948	1.925	-0.022	-0.977	0.667	0.619	5.452	0.50	1.00
2545	2462	3678	20	475.37	0.03	21.801	19.850	5.192	16.610	14.658	0.554	0.849	8.195	0.75	0.33
2547	2464	2470	24	1361.64	0.00	14.231	12.957	10.477	3.754	2.480	1.276	1.159	4.953	0.75	0.64
2549	2470	2472	24	73.40	0.00	14.258	12.981	10.480	3.778	2.502	1.274	1.160	4.961	0.75	0.64
255	268	270	8	188.31	0.01	1.045	0.521	0.145	0.899	0.375	0.168	0.174	2.106	0.50	0.25
2551	2472	2474	24	81.69	0.00	12.295	11.194	10.480	1.815	0.714	1.420	1.160	4.395	0.75	0.71
2553	2474	2210	24	939.09	0.00	14.122	12.858	11.043	3.078	1.814	1.331	1.192	4.973	0.75	0.67
2555	2476	2478	6	460.00	0.01	0.419	0.209	0.000	0.419	0.209	0.000	0.000	0.000	0.50	0.00
2557	2478	2480	15	416.00	0.00	2.840	2.586	1.045	1.796	1.541	0.525	0.402	2.138	0.75	0.42
2559	2480	3680	8	463.23	0.03	1.935	0.964	0.453	1.481	0.511	0.220	0.315	4.524	0.50	0.33
2561	2482	2484	15	1135.92	0.00	2.330	2.121	1.055	1.275	1.066	0.590	0.404	1.852	0.75	0.47
2563	2480	3682	12	465.16	0.03	5.692	2.836	0.602	5.090	2.235	0.220	0.323	4.710	0.50	0.22
2565	2484	2486	15	31.61	0.01	5.760	5.244	1.228	4.532	4.016	0.392	0.437	3.731	0.75	0.31
2567	2486	2474	15	794.29	0.00	3.354	3.054	1.228	2.126	1.826	0.523	0.437	2.521	0.75	0.42
2569	2488	2490	21	193.00	0.01	10.969	9.987	10.128	0.841	-0.141	1.327	1.185	5.176	0.75	0.76
2571	2490	2492	21	144.00	0.01	17.262	15.717	10.128	7.134	5.589	0.963	1.185	7.462	0.75	0.55
2573	2492	2494	21	295.00	0.01	13.844	12.605	10.163	3.681	2.442	1.114	1.187	6.289	0.75	0.64
2575	2494	2496	21	85.00	0.01	11.300	10.288	10.198	1.102	0.090	1.301	1.190	5.318	0.75	0.74
2577	2496	2498	21	307.00	0.01	14.508	13.209	10.198	4.310	3.011	1.082	1.190	6.532	0.75	0.62
2579	2498	2460	21	849.08	0.01	15.129	13.775	10.198	4.932	3.577	1.052	1.190	6.750	0.75	0.60
2581	2500	2502	10	356.00	0.01	1.770	0.882	0.133	1.636	0.748	0.155	0.157	1.910	0.50	0.19
2583	2502	2504	10	684.83	0.01	1.800	0.897	0.154	1.647	0.743	0.165	0.169	2.015	0.50	0.20
2585	2504	2506	10	114.00	0.00	1.455	0.725	0.179	1.276	0.546	0.198	0.182	1.813	0.50	0.24
2587	2506	2508	12	1438.51	0.01	3.620	1.804	0.256	3.364	1.548	0.180	0.208	2.662	0.50	0.18

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2589	2508	2510	15	746.00	0.00	2.755	2.509	0.332	2.424	2.177	0.293	0.223	1.515	0.75	0.23
2591	2510	2512	15	365.00	0.01	5.445	4.958	0.831	4.615	4.127	0.330	0.357	3.207	0.75	0.26
2593	2512	2514	15	474.00	0.01	5.707	5.196	0.840	4.867	4.356	0.324	0.359	3.327	0.75	0.26
2595	2514	2488	15	865.00	0.01	5.155	4.694	0.878	4.277	3.816	0.349	0.367	3.134	0.75	0.28
2607	2526	2528	10	207.00	0.03	3.979	1.983	0.412	3.566	1.570	0.181	0.280	4.713	0.50	0.22
2609	2528	2530	10	407.00	0.00	1.386	0.691	0.695	0.691	-0.005	0.417	0.367	2.543	0.50	0.50
261	102	274	18	419.00	0.02	15.453	14.070	2.765	12.688	11.304	0.430	0.631	6.615	0.75	0.29
2611	2530	2532	10	809.00	0.00	1.390	0.693	0.695	0.695	-0.002	0.417	0.367	2.549	0.50	0.50
2613	2532	2534	10	87.00	0.00	1.393	0.694	0.788	0.605	-0.094	0.449	0.392	2.633	0.50	0.54
2615	2534	2536	10	384.00	0.00	1.387	0.691	0.788	0.598	-0.097	0.450	0.392	2.624	0.50	0.54
2617	2536	2538	10	440.00	0.00	1.389	0.692	0.810	0.579	-0.118	0.457	0.398	2.645	0.50	0.55
2619	2538	2540	10	130.00	0.01	1.565	0.780	0.836	0.730	-0.056	0.433	0.404	2.917	0.50	0.52
2621	2540	2542	18	555.00	0.01	9.856	8.973	9.316	0.540	-0.343	1.162	1.180	6.344	0.75	0.77
2623	2542	2544	21	565.00	0.01	11.900	10.835	9.372	2.528	1.462	1.171	1.139	5.481	0.75	0.67
2625	2544	2546	21	1027.01	0.00	10.340	9.414	9.611	0.729	-0.197	1.335	1.154	4.883	0.75	0.76
2627	2546	2548	21	66.00	0.00	7.574	6.896	9.675	-2.101	-2.779	1.750	1.020	3.149	0.75	1.00
2629	2548	2550	21	57.00	0.00	6.654	6.059	9.675	-3.021	-3.616	1.750	0.953	2.767	0.75	1.00
263	274	276	18	400.00	0.02	14.923	13.587	2.812	12.111	10.775	0.441	0.637	6.483	0.75	0.29
2631	2550	2552	21	151.00	0.00	6.464	5.886	9.675	-3.211	-3.789	1.750	0.938	2.688	0.75	1.00
2633	2552	2554	24	261.93	0.00	12.298	11.197	9.677	2.621	1.520	1.337	1.112	4.336	0.75	0.67
2635	2554	2488	24	358.00	0.00	10.655	9.701	9.693	0.962	0.008	1.497	1.113	3.843	0.75	0.75
2637	2556	2558	18	1103.60	0.01	10.195	9.282	8.839	1.355	0.443	1.079	1.151	6.495	0.75	0.72
2639	2558	2560	18	550.00	0.01	10.513	9.572	8.934	1.579	0.638	1.062	1.157	6.678	0.75	0.71
2641	2560	2540	18	66.24	0.01	10.827	9.858	8.945	1.883	0.913	1.039	1.157	6.846	0.75	0.69
2643	2028	2562	24	395.00	0.01	25.083	22.837	11.132	13.950	11.705	0.933	1.197	7.746	0.75	0.47
2645	2562	2564	24	400.00	0.02	31.491	28.672	11.145	20.346	17.527	0.822	1.198	9.163	0.75	0.41
2647	2564	2566	24	316.00	0.01	18.969	17.271	11.150	7.819	6.121	1.102	1.198	6.281	0.75	0.55
2649	2566	2568	24	320.00	0.01	18.978	17.279	11.151	7.827	6.128	1.102	1.198	6.283	0.75	0.55
265	276	278	18	600.00	0.02	15.728	14.320	2.822	12.906	11.498	0.430	0.638	6.738	0.75	0.29
2651	2568	2570	24	321.00	0.01	18.083	16.464	11.153	6.930	5.311	1.136	1.198	6.055	0.75	0.57
2653	2064	3540	10	93.00	0.01	1.674	0.834	0.522	1.152	0.312	0.320	0.316	2.711	0.50	0.38
2655	2572	2574	12	704.69	0.01	3.107	1.548	0.558	2.549	0.990	0.287	0.310	2.995	0.50	0.29
2657	2574	2578	12	37.45	0.01	3.033	1.512	0.570	2.464	0.942	0.294	0.314	2.962	0.50	0.29
2659	2578	2580	12	333.00	0.01	3.345	1.667	0.570	2.776	1.097	0.279	0.314	3.177	0.50	0.28
2661	2580	2582	12	361.00	0.02	5.210	2.596	0.573	4.637	2.023	0.224	0.315	4.362	0.50	0.22
2663	2582	2584	18	912.41	0.02	13.816	12.579	11.428	2.387	1.151	1.040	1.290	8.737	0.75	0.69
2665	2584	2384	18	106.00	0.03	17.895	16.293	11.515	6.379	4.777	0.875	1.294	10.756	0.75	0.58
2669	2588	2590	8	347.00	0.01	1.283	0.639	0.187	1.096	0.452	0.172	0.199	2.622	0.50	0.26
267	278	280	18	596.00	0.02	14.700	13.384	2.862	11.838	10.522	0.449	0.643	6.446	0.75	0.30
2671	2590	2592	8	337.90	0.01	1.113	0.554	0.187	0.926	0.367	0.185	0.199	2.369	0.50	0.28
2673	2592	2594	8	339.00	0.01	1.416	0.706	0.206	1.210	0.500	0.172	0.209	2.892	0.50	0.26
2675	2594	2596	8	352.52	0.01	1.103	0.549	0.121	0.982	0.428	0.149	0.159	2.076	0.50	0.22
2677	2596	2598	8	299.00	0.01	1.220	0.608	0.165	1.055	0.443	0.166	0.186	2.439	0.50	0.25
2679	2598	2600	8	84.30	0.15	4.637	2.311	0.175	4.462	2.135	0.089	0.192	6.371	0.50	0.13
2681	2600	2602	33	328.00	0.00	23.424	21.327	2.488	20.936	18.839	0.605	0.502	2.567	0.75	0.22
2683	2602	2604	33	76.00	0.00	18.248	16.615	2.498	15.751	14.117	0.687	0.503	2.152	0.75	0.25
2685	2604	2606	33	290.00	0.00	32.955	30.004	2.498	30.457	27.507	0.512	0.503	3.270	0.75	0.19
2687	2606	2610	27	700.27	0.01	31.814	28.966	2.501	29.312	26.464	0.427	0.532	4.768	0.75	0.19
269	280	282	21	1200.00	0.01	11.755	10.703	2.874	8.881	7.829	0.589	0.615	4.038	0.75	0.34
2691	2610	2612	27	648.00	0.00	14.015	12.761	2.866	11.149	9.895	0.690	0.571	2.769	0.75	0.31
2693	2612	2614	27	727.00	0.00	14.011	12.757	3.007	11.004	9.750	0.708	0.585	2.807	0.75	0.32
2695	2614	2616	27	650.00	0.00	12.599	11.471	3.173	9.426	8.298	0.770	0.601	2.639	0.75	0.34
2697	2616	2618	27	342.00	0.00	13.847	12.607	3.317	10.530	9.290	0.750	0.615	2.860	0.75	0.33

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Future Peaked Model Analysis

ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
2699	2618	2620	27	285.00	0.00	12.339	11.234	3.459	8.880	7.776	0.815	0.629	2.663	0.75	0.36
27	26	30	10	103.00	0.02	3.061	1.525	1.062	2.000	0.464	0.339	0.458	5.103	0.50	0.41
2701	2620	2304	27	260.89	0.00	20.617	18.771	3.605	17.011	15.166	0.637	0.642	3.897	0.75	0.28
2703	2622	2624	12	983.00	0.00	1.128	0.562	0.219	0.909	0.343	0.298	0.192	1.111	0.50	0.30
2705	2624	2626	12	275.00	0.00	1.119	0.558	0.240	0.879	0.318	0.315	0.201	1.135	0.50	0.32
2707	2626	2628	12	27.66	0.00	1.358	0.677	0.250	1.108	0.427	0.291	0.206	1.319	0.50	0.29
2709	2628	2630	15	321.00	0.00	0.362	0.329	0.250	0.111	0.079	0.765	0.193	0.318	0.75	0.61
271	282	284	21	230.86	0.01	13.226	12.042	2.874	10.352	9.168	0.554	0.615	4.395	0.75	0.32
2711	2630	2632	15	40.00	0.00	1.448	1.319	0.250	1.198	1.068	0.352	0.193	0.884	0.75	0.28
2713	2632	2634	15	300.77	0.01	5.066	4.612	0.250	4.816	4.362	0.189	0.193	2.144	0.75	0.15
2715	2634	2610	15	365.81	0.00	3.861	3.515	0.468	3.393	3.048	0.294	0.266	2.127	0.75	0.24
2717	2636	2622	12	339.00	0.00	1.820	0.907	0.217	1.603	0.690	0.233	0.191	1.559	0.50	0.23
2719	2638	2640	10	470.00	0.01	1.631	0.813	0.104	1.527	0.709	0.142	0.138	1.673	0.50	0.17
2721	2640	2642	10	24.00	0.01	2.456	1.224	0.136	2.320	1.087	0.133	0.159	2.421	0.50	0.16
2723	2642	2644	10	126.47	0.04	4.153	2.069	0.136	4.017	1.933	0.103	0.159	3.501	0.50	0.12
2725	2644	2646	10	37.39	0.02	3.332	1.660	0.140	3.192	1.521	0.116	0.160	3.020	0.50	0.14
2727	2646	2648	10	222.00	0.00	1.234	0.615	0.140	1.094	0.475	0.189	0.160	1.499	0.50	0.23
2729	2648	2650	10	450.00	0.00	1.243	0.619	0.140	1.103	0.480	0.189	0.160	1.507	0.50	0.23
273	284	286	21	49.00	0.15	60.561	55.139	2.874	57.686	52.264	0.259	0.615	12.919	0.75	0.15
2731	2650	2588	10	377.45	0.01	1.945	0.969	0.163	1.782	0.806	0.163	0.174	2.166	0.50	0.20
2733	2282	2652	33	218.04	0.01	36.623	33.344	2.405	34.218	30.940	0.477	0.493	3.484	0.75	0.17
2739	2656	2658	33	262.00	0.00	18.241	16.607	2.408	15.833	14.200	0.675	0.494	2.129	0.75	0.25
2741	2658	2600	33	192.00	0.00	27.861	25.366	2.417	25.444	22.950	0.547	0.495	2.877	0.75	0.20
2743	2652	2656	33	470.93	0.00	17.279	15.732	2.408	14.871	13.324	0.693	0.494	2.048	0.75	0.25
2749	2664	2666	10	448.00	0.01	2.050	1.021	0.141	1.909	0.881	0.148	0.161	2.151	0.50	0.18
275	286	288	24	192.00	0.00	10.091	9.188	2.888	7.203	6.300	0.732	0.593	2.772	0.75	0.37
2751	2666	2660	10	48.44	0.01	2.141	1.067	0.160	1.981	0.907	0.154	0.172	2.302	0.50	0.19
2753	2594	2668	10	337.00	0.02	3.116	1.553	0.218	2.898	1.335	0.149	0.201	3.288	0.50	0.18
2759	2668	2282	10	370.00	0.03	3.453	1.720	0.244	3.209	1.476	0.150	0.214	3.656	0.50	0.18
2761	2308	2672	54	3425.10	0.00	78.293	71.283	21.103	57.190	50.180	1.596	1.307	4.178	0.75	0.36
2767	2676	2678	54	149.00	0.00	126.163	114.868	21.273	104.890	93.594	1.250	1.313	5.900	0.75	0.28
2769	2678	2680	54	736.00	0.00	83.820	76.316	21.358	62.462	54.957	1.549	1.316	4.404	0.75	0.34
277	288	290	24	290.00	0.00	13.778	12.545	2.888	10.890	9.656	0.622	0.593	3.470	0.75	0.31
2771	2680	2682	54	219.35	0.00	83.143	75.699	21.358	61.785	54.341	1.556	1.316	4.378	0.75	0.35
2773	2672	2676	54	607.38	0.00	104.010	94.698	21.188	82.822	73.510	1.378	1.310	5.133	0.75	0.31
2775	2302	2684	10	1380.44	0.00	1.343	0.669	1.341	0.002	-0.672	0.682	0.518	2.807	0.50	0.82
2777	2684	2686	10	350.00	0.02	3.186	1.587	1.391	1.795	0.197	0.385	0.528	5.643	0.50	0.46
2779	2686	2688	12	182.00	0.00	1.426	0.711	1.391	0.035	-0.680	0.798	0.499	2.069	0.50	0.80
2781	2688	2690	12	319.00	0.00	1.428	0.712	1.574	-0.146	-0.863	1.000	0.506	1.819	0.50	1.00
2783	2690	2692	12	325.00	0.00	1.429	0.712	1.590	-0.161	-0.878	1.000	0.506	1.819	0.50	1.00
2785	2692	2694	12	1136.58	0.00	1.528	0.761	1.618	-0.090	-0.856	1.000	0.524	1.946	0.50	1.00
2787	2694	2696	12	298.00	0.00	1.589	0.792	1.663	-0.074	-0.871	1.000	0.535	2.024	0.50	1.00
2789	2696	2698	12	163.00	0.00	1.655	0.825	1.699	-0.044	-0.875	1.000	0.547	2.108	0.50	1.00
279	290	292	24	122.00	0.00	11.059	10.069	2.889	8.170	7.180	0.698	0.593	2.962	0.75	0.35
2791	2698	2700	12	750.00	0.00	1.696	0.845	1.711	-0.015	-0.866	1.000	0.554	2.159	0.50	1.00
2793	2700	2702	12	772.00	0.00	2.021	1.007	2.012	0.008	-1.005	0.816	0.605	2.933	0.50	0.82
2795	2702	2704	12	12.00	0.12	12.114	6.036	2.012	10.102	4.024	0.276	0.605	11.423	0.50	0.28
2801	2710	2712	10	209.00	0.00	0.985	0.491	0.348	0.637	0.143	0.342	0.256	1.650	0.50	0.41
2803	2712	2714	10	481.00	0.00	0.981	0.489	0.367	0.614	0.122	0.353	0.264	1.669	0.50	0.42
2805	2714	2716	10	417.67	0.03	3.787	1.887	0.425	3.362	1.462	0.188	0.284	4.591	0.50	0.23
2807	2716	2718	10	342.00	0.00	1.056	0.526	0.453	0.603	0.073	0.381	0.294	1.862	0.50	0.46
281	292	294	24	271.00	0.00	9.645	8.782	2.890	6.755	5.892	0.751	0.593	2.683	0.75	0.38
2813	2722	2724	10	800.55	0.00	0.925	0.461	0.453	0.472	0.008	0.412	0.294	1.688	0.50	0.49

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2815	2724	2700	10	388.00	0.01	2.410	1.201	0.453	1.957	0.748	0.245	0.294	3.390	0.50	0.29
2817	2718	2722	10	387.28	0.01	2.317	1.155	0.453	1.864	0.701	0.251	0.294	3.276	0.50	0.30
2819	2726	2728	18	301.00	0.04	19.867	18.088	3.001	16.866	15.087	0.394	0.659	8.102	0.75	0.26
2821	2728	2730	24	313.00	0.00	12.885	11.731	3.001	9.884	8.730	0.657	0.605	3.343	0.75	0.33
2823	2730	2732	24	323.00	0.00	12.809	11.662	3.001	9.808	8.661	0.659	0.605	3.328	0.75	0.33
2825	2732	2734	24	415.00	0.00	12.841	11.691	3.010	9.831	8.681	0.659	0.606	3.337	0.75	0.33
2827	2734	2736	24	450.00	0.00	12.831	11.683	3.022	9.809	8.660	0.661	0.607	3.339	0.75	0.33
2829	2736	2738	21	422.00	0.01	11.881	10.817	3.036	8.845	7.781	0.603	0.633	4.131	0.75	0.35
283	294	296	24	480.35	0.01	25.540	23.254	2.891	22.649	20.362	0.454	0.593	5.390	0.75	0.23
2831	2738	2740	21	327.00	0.01	11.917	10.850	5.253	6.664	5.597	0.813	0.842	4.799	0.75	0.47
2833	2740	2742	21	342.00	0.01	11.873	10.810	5.257	6.615	5.552	0.815	0.842	4.786	0.75	0.47
2835	2742	2744	21	569.00	0.01	11.896	10.831	5.335	6.561	5.496	0.821	0.849	4.811	0.75	0.47
2837	2744	2746	24	700.00	0.00	10.535	9.592	5.345	5.190	4.247	1.009	0.815	3.366	0.75	0.50
2839	2746	2748	21	540.00	0.02	24.393	22.209	5.350	19.043	16.859	0.557	0.850	8.127	0.75	0.32
2841	2748	2750	21	1391.72	0.00	3.212	2.925	5.354	-2.141	-2.429	1.750	0.651	1.336	0.75	1.00
2843	2750	2752	21	293.82	0.00	7.415	6.751	5.408	2.007	1.343	1.109	0.855	3.364	0.75	0.63
2845	2752	2754	21	101.00	0.08	46.170	42.036	5.409	40.761	36.627	0.404	0.855	12.854	0.75	0.23
2847	2754	2756	21	575.00	0.00	5.622	5.119	5.431	0.191	-0.312	1.384	0.857	2.663	0.75	0.79
2849	2756	2758	21	91.83	0.02	23.151	21.079	5.446	17.705	15.632	0.578	0.858	7.866	0.75	0.33
285	296	298	24	15.50	0.01	26.402	24.038	2.891	23.511	21.147	0.447	0.593	5.518	0.75	0.22
2851	2758	2760	21	102.31	0.00	6.846	6.233	5.452	1.394	0.781	1.180	0.858	3.160	0.75	0.67
2857	2764	2766	21	413.00	0.01	15.199	13.838	5.463	9.736	8.375	0.725	0.859	5.800	0.75	0.41
2859	2760	2764	21	254.00	0.01	14.342	13.058	5.453	8.889	7.605	0.748	0.858	5.556	0.75	0.43
2861	2768	2770	8	1725.26	0.01	1.159	0.578	0.000	1.159	0.578	0.000	0.000	0.000	0.50	0.00
2863	2770	2772	8	264.00	0.01	1.101	0.549	0.414	0.687	0.134	0.283	0.300	2.931	0.50	0.43
2865	2772	2774	8	175.00	0.01	1.404	0.700	0.414	0.990	0.285	0.248	0.300	3.500	0.50	0.37
2867	2774	2776	8	628.00	0.01	0.851	0.424	0.414	0.437	0.010	0.328	0.300	2.422	0.50	0.49
2869	2776	2778	8	650.00	0.01	1.259	0.627	0.414	0.845	0.213	0.263	0.300	3.233	0.50	0.40
287	298	300	18	370.00	0.02	14.466	13.171	2.899	11.567	10.272	0.455	0.647	6.395	0.75	0.30
2871	2778	2802	8	325.00	0.01	1.259	0.627	0.414	0.845	0.213	0.263	0.300	3.233	0.50	0.40
2873	2780	2782	8	275.00	0.00	0.678	0.338	0.414	0.263	-0.077	0.377	0.300	2.038	0.50	0.57
2875	2782	2784	8	350.00	0.00	0.685	0.342	0.414	0.271	-0.073	0.374	0.300	2.056	0.50	0.56
2881	2788	2790	8	288.00	0.02	1.647	0.821	0.414	1.233	0.406	0.228	0.300	3.928	0.50	0.34
2883	2790	2792	12	1055.76	0.00	1.762	0.878	0.553	1.210	0.325	0.385	0.309	1.986	0.50	0.39
2885	2792	2794	12	350.00	0.00	1.429	0.712	0.703	0.726	0.009	0.495	0.350	1.812	0.50	0.50
2887	2794	2796	12	113.71	0.00	1.498	0.747	0.703	0.795	0.043	0.482	0.350	1.877	0.50	0.48
2889	2796	2798	12	378.00	0.00	1.537	0.766	0.703	0.834	0.063	0.475	0.350	1.914	0.50	0.48
2891	2798	2800	12	140.00	0.00	1.811	0.903	0.703	1.108	0.199	0.433	0.350	2.161	0.50	0.43
2893	2784	2788	8	350.00	0.01	1.212	0.604	0.414	0.797	0.190	0.269	0.300	3.144	0.50	0.40
2895	2802	2780	8	1.00	4.87	26.738	13.323	0.414	26.323	12.909	0.058	0.300	28.080	0.50	0.09
2897	2804	2806	8	234.00	0.00	0.808	0.402	0.000	0.808	0.402	0.000	0.000	0.000	0.50	0.00
2899	2806	2808	8	196.00	0.01	1.049	0.523	0.011	1.038	0.512	0.048	0.047	0.974	0.50	0.07
29	30	32	15	407.00	0.02	7.994	7.278	1.353	6.641	5.926	0.348	0.460	4.850	0.75	0.28
2901	2808	2810	8	919.73	0.01	0.813	0.405	0.014	0.799	0.391	0.061	0.053	0.884	0.50	0.09
2903	2810	2812	8	224.00	0.00	0.810	0.403	0.050	0.759	0.353	0.112	0.101	1.288	0.50	0.17
2905	2812	2814	8	168.00	0.01	0.921	0.459	0.071	0.849	0.388	0.125	0.121	1.564	0.50	0.19
2907	2814	2816	10	621.23	0.00	1.166	0.581	0.274	0.892	0.307	0.275	0.227	1.747	0.50	0.33
291	300	302	18	353.00	0.02	15.565	14.172	2.899	12.666	11.273	0.439	0.647	6.740	0.75	0.29
2913	2820	2822	12	532.00	0.00	1.813	0.903	0.356	1.457	0.548	0.300	0.246	1.792	0.50	0.30
2915	2816	2820	12	389.00	0.00	1.589	0.792	0.356	1.234	0.436	0.322	0.246	1.631	0.50	0.32
2929	2836	2838	8	121.00	0.01	1.045	0.521	0.118	0.927	0.403	0.151	0.157	1.984	0.50	0.23
293	302	304	18	273.00	0.02	15.431	14.049	2.905	12.525	11.144	0.441	0.648	6.702	0.75	0.29
2931	2838	2840	8	286.00	0.01	0.923	0.460	0.118	0.805	0.342	0.161	0.157	1.817	0.50	0.24

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2933	2840	2842	8	426.00	0.01	0.877	0.437	0.118	0.758	0.319	0.165	0.157	1.751	0.50	0.25
2935	2842	2844	8	500.00	0.01	0.929	0.463	0.118	0.811	0.345	0.161	0.157	1.825	0.50	0.24
2937	2844	2846	8	473.73	0.00	0.771	0.384	0.183	0.588	0.201	0.221	0.196	1.810	0.50	0.33
2939	2846	2848	10	240.00	0.01	1.560	0.777	0.203	1.357	0.575	0.203	0.194	1.973	0.50	0.24
2941	2848	2850	10	338.00	0.00	0.414	0.206	0.214	0.200	-0.008	0.425	0.200	0.765	0.50	0.51
2943	2850	2852	10	292.00	0.01	1.516	0.755	0.214	1.301	0.541	0.212	0.200	1.965	0.50	0.25
2945	2852	2790	10	75.84	0.01	1.854	0.924	0.214	1.639	0.709	0.191	0.200	2.267	0.50	0.23
295	304	306	18	250.00	0.02	14.715	13.398	2.906	11.809	10.492	0.452	0.648	6.478	0.75	0.30
2953	2766	2860	21	133.00	0.01	14.514	13.214	5.467	9.047	7.748	0.744	0.860	5.608	0.75	0.43
2955	2860	2862	24	310.00	0.01	20.288	18.472	5.634	14.654	12.838	0.721	0.838	5.527	0.75	0.36
2963	2822	2860	12	2091.47	0.01	2.535	1.263	0.410	2.125	0.853	0.272	0.265	2.372	0.50	0.27
2965	2800	2866	12	650.00	0.00	1.509	0.752	0.994	0.515	-0.242	0.592	0.419	2.052	0.50	0.59
2967	2866	2868	12	448.00	0.00	1.954	0.974	1.028	0.926	-0.054	0.515	0.426	2.519	0.50	0.52
2969	2868	2870	12	678.99	0.00	1.271	0.634	1.036	0.235	-0.403	0.686	0.428	1.804	0.50	0.69
297	306	308	18	526.97	0.03	16.549	15.067	2.906	13.642	12.161	0.425	0.648	7.047	0.75	0.28
2971	2870	2888	12	230.00	0.00	0.408	0.203	1.118	-0.710	-0.914	1.000	0.264	0.519	0.50	1.00
2973	2872	2874	12	45.00	0.00	0.922	0.460	1.129	-0.207	-0.670	1.000	0.403	1.174	0.50	1.00
2977	2862	2878	24	300.00	0.00	15.103	13.751	5.634	9.469	8.117	0.846	0.838	4.457	0.75	0.42
2979	2878	2880	27	1784.30	0.00	12.860	11.708	5.634	7.226	6.074	1.042	0.809	3.127	0.75	0.46
2983	2880	2882	27	117.00	0.01	26.931	24.520	5.634	21.297	18.886	0.698	0.809	5.356	0.75	0.31
2985	2882	3690	16	424.61	0.03	11.481	10.453	1.839	9.642	8.614	0.361	0.529	6.027	0.75	0.27
2987	2874	3526	15	85.00	0.01	6.919	6.300	1.129	5.790	5.170	0.342	0.418	4.155	0.75	0.27
2989	2888	2872	12	190.00	0.00	1.216	0.606	1.129	0.086	-0.524	0.762	0.447	1.758	0.50	0.76
299	308	310	18	211.00	0.01	11.736	10.686	2.927	8.809	7.759	0.511	0.650	5.517	0.75	0.34
2991	2890	2892	8	34.00	0.01	0.831	0.414	0.000	0.831	0.414	0.000	0.000	0.000	0.50	0.00
2993	2892	2894	8	312.69	0.01	1.226	0.611	0.004	1.221	0.606	0.029	0.030	0.830	0.50	0.04
2995	2894	2896	8	36.00	0.00	0.452	0.225	0.007	0.444	0.218	0.059	0.038	0.482	0.50	0.09
2997	2896	2898	8	431.00	0.02	1.833	0.914	0.011	1.823	0.903	0.037	0.047	1.436	0.50	0.06
2999	2898	2900	8	391.36	0.04	2.403	1.198	0.011	2.393	1.187	0.032	0.047	1.734	0.50	0.05
3001	2902	2904	19	889.39	0.01	8.596	7.826	0.040	8.556	7.786	0.078	0.072	1.108	0.75	0.05
3003	2904	2900	10	462.50	0.01	1.576	0.785	0.040	1.536	0.746	0.091	0.085	1.226	0.50	0.11
3005	2900	2906	10	508.00	0.07	5.773	2.877	0.053	5.720	2.824	0.056	0.098	3.305	0.50	0.07
3007	2906	2908	10	818.42	0.00	1.238	0.617	0.053	1.186	0.564	0.117	0.098	1.128	0.50	0.14
3009	2908	9014	10	111.69	0.01	1.610	0.802	0.091	1.519	0.711	0.134	0.129	1.595	0.50	0.16
301	310	312	18	440.00	0.02	13.492	12.284	2.927	10.565	9.357	0.475	0.650	6.099	0.75	0.32
3015	2914	2916	8	16.00	0.13	4.347	2.166	0.091	4.256	2.075	0.067	0.137	5.000	0.50	0.10
3017	2918	2920	8	560.01	0.01	1.339	0.667	0.028	1.311	0.640	0.066	0.075	1.533	0.50	0.10
3019	2920	2922	8	209.39	0.01	1.012	0.504	0.043	0.969	0.461	0.094	0.094	1.440	0.50	0.14
3025	2926	2928	8	247.00	0.00	0.645	0.321	0.048	0.597	0.273	0.123	0.099	1.084	0.50	0.19
3027	2928	2930	8	260.00	0.01	1.036	0.516	0.056	0.980	0.460	0.105	0.107	1.584	0.50	0.16
3029	2930	2932	8	382.00	0.01	1.075	0.536	0.058	1.018	0.478	0.105	0.109	1.642	0.50	0.16
303	312	314	18	180.00	0.02	13.665	12.441	2.935	10.730	9.506	0.472	0.651	6.160	0.75	0.32
3031	2932	2934	8	404.00	0.01	1.150	0.573	0.071	1.079	0.502	0.112	0.121	1.828	0.50	0.17
3033	2934	2936	8	223.00	0.01	0.851	0.424	0.103	0.748	0.321	0.157	0.146	1.648	0.50	0.24
3035	2936	2938	8	51.00	0.01	1.314	0.655	0.103	1.211	0.552	0.126	0.146	2.241	0.50	0.19
3037	2938	2916	8	385.00	0.00	0.688	0.343	0.104	0.584	0.239	0.175	0.147	1.420	0.50	0.26
3039	2940	2942	8	155.65	0.00	0.758	0.378	0.039	0.719	0.339	0.103	0.089	1.144	0.50	0.16
3041	2942	2944	8	382.00	0.00	0.392	0.195	0.047	0.345	0.148	0.156	0.098	0.757	0.50	0.23
3043	2944	2934	8	112.00	0.01	0.971	0.484	0.047	0.924	0.437	0.100	0.098	1.436	0.50	0.15
3045	2946	2948	8	517.00	0.01	1.115	0.556	0.008	1.107	0.548	0.041	0.040	0.931	0.50	0.06
3047	2948	2950	8	128.00	0.00	0.660	0.329	0.018	0.642	0.311	0.077	0.061	0.828	0.50	0.12
3049	2950	2952	8	21.00	0.00	0.648	0.323	0.018	0.629	0.304	0.077	0.061	0.817	0.50	0.12
305	314	316	18	401.14	0.02	13.793	12.558	2.944	10.849	9.614	0.471	0.652	6.207	0.75	0.31

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
3051	2952	2954	8	154.00	0.00	0.625	0.312	0.018	0.607	0.293	0.079	0.061	0.797	0.50	0.12
3053	2954	2956	8	539.07	0.00	0.662	0.330	0.019	0.643	0.311	0.078	0.062	0.838	0.50	0.12
3055	2956	2920	8	18.00	0.24	5.963	2.971	0.022	5.941	2.949	0.029	0.067	4.047	0.50	0.04
3057	2922	2926	8	482.19	0.01	0.927	0.462	0.045	0.882	0.417	0.100	0.096	1.369	0.50	0.15
3059	2916	2958	12	552.00	0.00	1.720	0.857	0.204	1.516	0.653	0.233	0.185	1.473	0.50	0.23
3061	2958	2960	12	1036.06	0.00	1.534	0.764	0.205	1.329	0.559	0.247	0.186	1.358	0.50	0.25
3063	2960	2962	12	251.00	0.05	8.312	4.142	0.217	8.095	3.925	0.111	0.191	4.544	0.50	0.11
3065	2962	2964	12	300.00	0.00	2.021	1.007	0.217	1.803	0.789	0.222	0.191	1.681	0.50	0.22
3067	2964	2966	12	154.29	0.05	7.603	3.789	0.235	7.369	3.554	0.121	0.199	4.367	0.50	0.12
3069	2966	2968	12	73.84	0.09	10.525	5.245	0.248	10.278	4.997	0.106	0.204	5.572	0.50	0.11
307	318	320	8	794.00	0.01	1.449	0.722	0.004	1.445	0.718	0.025	0.027	0.885	0.50	0.04
3071	2968	2970	12	1462.09	0.00	2.114	1.053	0.248	1.866	0.806	0.231	0.204	1.802	0.50	0.23
3073	2970	2972	12	300.00	0.00	2.183	1.088	0.250	1.932	0.837	0.229	0.206	1.849	0.50	0.23
3075	2972	2974	10	52.00	0.00	0.862	0.429	0.116	0.745	0.313	0.207	0.146	1.103	0.50	0.25
3077	2974	2976	10	290.00	0.01	1.842	0.918	0.141	1.702	0.778	0.156	0.161	1.995	0.50	0.19
3079	2976	2978	10	25.00	0.03	3.459	1.724	0.141	3.319	1.583	0.115	0.161	3.107	0.50	0.14
3081	2978	2980	10	418.61	0.03	4.060	2.023	0.293	3.767	1.730	0.152	0.235	4.325	0.50	0.18
3083	2980	2982	10	30.00	0.27	11.337	5.649	0.293	11.044	5.356	0.092	0.235	8.891	0.50	0.11
3085	2982	2984	15	338.00	0.01	4.818	4.386	0.293	4.525	4.093	0.209	0.210	2.168	0.75	0.17
3087	2984	3222	15	375.00	0.01	5.383	4.901	0.293	5.090	4.608	0.198	0.210	2.344	0.75	0.16
3089	2986	2988	21	800.00	0.01	10.921	9.943	0.789	10.132	9.154	0.318	0.317	2.639	0.75	0.18
309	320	322	8	99.00	0.04	2.441	1.217	0.117	2.325	1.100	0.099	0.156	3.597	0.50	0.15
3091	2988	2990	18	289.00	0.00	6.348	5.780	0.789	5.560	4.991	0.357	0.330	2.447	0.75	0.24
3099	2996	2998	12	244.00	0.00	1.333	0.664	0.789	0.545	-0.124	0.553	0.371	1.769	0.50	0.55
31	34	36	8	1275.00	0.02	1.752	0.873	0.423	1.329	0.450	0.223	0.303	4.132	0.50	0.34
3101	2998	3000	12	244.00	0.01	2.516	1.254	0.789	1.727	0.465	0.385	0.371	2.834	0.50	0.39
3103	3000	3002	12	2402.39	0.00	1.617	0.806	0.789	0.828	0.017	0.493	0.371	2.046	0.50	0.49
3105	3002	3004	24	32.68	0.12	77.144	70.237	0.817	76.327	69.420	0.145	0.311	8.022	0.75	0.07
3107	3004	3006	24	3194.15	0.01	25.390	23.116	1.456	23.933	21.660	0.325	0.417	4.387	0.75	0.16
3109	3006	3008	24	15.61	0.02	29.831	27.160	1.497	28.334	25.663	0.305	0.423	4.953	0.75	0.15
311	322	324	8	242.67	0.01	0.823	0.410	0.121	0.702	0.289	0.173	0.159	1.686	0.50	0.26
3111	3008	3010	36	1405.79	0.01	50.921	46.362	6.712	44.209	39.650	0.736	0.814	4.992	0.75	0.25
3113	3010	3012	36	23.30	0.01	47.994	43.697	6.712	41.283	36.986	0.758	0.814	4.786	0.75	0.25
3115	3012	3698	24	134.68	0.05	49.945	45.474	3.466	46.479	42.008	0.357	0.651	9.131	0.75	0.18
3117	3014	3016	36	509.85	0.01	64.415	58.648	6.712	57.704	51.936	0.654	0.814	5.897	0.75	0.22
3119	3016	3018	36	473.00	0.00	39.211	35.700	6.802	32.409	28.898	0.846	0.820	4.160	0.75	0.28
3121	3018	3020	36	3.00	0.18	283.736	258.333	7.003	276.733	251.330	0.325	0.832	16.935	0.75	0.11
3123	3012	3700	24	153.58	0.04	46.772	42.584	3.246	43.526	39.339	0.357	0.630	8.551	0.75	0.18
3125	2972	3022	10	82.00	0.00	1.306	0.651	0.177	1.130	0.474	0.207	0.181	1.672	0.50	0.25
3127	3022	2978	10	290.00	0.01	2.019	1.006	0.196	1.823	0.810	0.175	0.191	2.346	0.50	0.21
313	324	326	8	965.61	0.00	0.682	0.340	0.132	0.550	0.208	0.199	0.166	1.510	0.50	0.30
3131	3026	3004	12	14.00	0.11	12.001	5.980	0.851	11.150	5.129	0.180	0.386	8.831	0.50	0.18
3133	3026	3030	12	460.00	0.01	3.611	1.799	0.047	3.563	1.752	0.080	0.088	1.603	0.50	0.08
3135	3030	3032	12	455.00	0.01	3.473	1.730	0.089	3.384	1.642	0.110	0.121	1.886	0.50	0.11
3137	3032	3034	12	477.00	0.02	4.509	2.247	0.208	4.301	2.039	0.146	0.187	2.920	0.50	0.15
3139	3034	3036	12	2753.26	0.01	3.536	1.762	0.210	3.326	1.552	0.165	0.188	2.469	0.50	0.17
3141	3036	3038	12	417.78	0.01	3.184	1.587	0.247	2.938	1.340	0.188	0.204	2.405	0.50	0.19
3143	3038	3040	12	23.97	0.01	2.420	1.206	0.258	2.162	0.948	0.220	0.209	2.007	0.50	0.22
3145	3040	3696	8	205.50	0.05	2.707	1.349	0.123	2.584	1.226	0.097	0.160	3.928	0.50	0.15
3147	3042	3044	12	38.79	0.00	2.068	1.030	0.258	1.810	0.773	0.238	0.209	1.795	0.50	0.24
3149	3044	3046	12	450.00	0.01	2.528	1.260	0.288	2.240	0.971	0.228	0.221	2.138	0.50	0.23
315	326	328	8	504.97	0.02	1.609	0.802	0.270	1.340	0.532	0.185	0.240	3.423	0.50	0.28
3155	3040	3694	10	221.82	0.05	4.725	2.354	0.135	4.590	2.219	0.097	0.158	3.818	0.50	0.12

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3157	3046	3018	12	420.00	0.01	3.284	1.636	0.490	2.794	1.146	0.261	0.290	3.003	0.50	0.26
3163	3052	3054	12	35.00	0.01	4.270	2.128	0.000	4.270	2.128	0.000	0.000	0.000	0.50	0.00
3165	3054	3056	12	240.00	0.01	4.144	2.065	0.000	4.144	2.065	0.000	0.000	0.000	0.50	0.00
3167	3056	3058	12	400.14	0.01	2.643	1.317	0.000	2.643	1.317	0.000	0.000	0.000	0.50	0.00
3169	3058	3060	15	302.56	0.01	4.954	4.510	0.040	4.913	4.470	0.080	0.077	1.219	0.75	0.06
317	328	330	8	257.00	0.02	1.534	0.764	0.273	1.261	0.491	0.190	0.241	3.320	0.50	0.29
3171	3060	3062	15	267.00	0.01	6.204	5.649	0.040	6.164	5.608	0.072	0.077	1.426	0.75	0.06
3173	3062	3064	15	333.00	0.00	3.348	3.049	0.040	3.308	3.008	0.096	0.077	0.928	0.75	0.08
3175	3064	3066	16	60.00	0.01	8.772	7.986	1.112	7.660	6.875	0.321	0.407	4.304	0.75	0.24
3177	3066	3712	16	130.43	0.04	15.198	13.837	1.112	14.086	12.725	0.244	0.407	6.350	0.75	0.18
3179	3068	3070	16	812.00	0.00	3.468	3.157	1.112	2.356	2.045	0.519	0.407	2.211	0.75	0.39
3181	3070	3072	16	68.36	0.09	22.410	20.403	1.254	21.156	19.150	0.214	0.433	8.648	0.75	0.16
3183	3072	3074	16	50.56	0.01	7.258	6.608	1.254	6.005	5.355	0.375	0.433	3.893	0.75	0.28
3185	3020	3074	36	6.00	0.41	425.955	387.818	7.744	418.210	380.074	0.281	0.877	23.185	0.75	0.09
3187	3036	3052	12	71.17	0.01	4.235	2.110	0.000	4.235	2.110	0.000	0.000	0.000	0.50	0.00
3189	3076	3078	8	381.00	0.01	1.446	0.721	0.000	1.446	0.721	0.000	0.000	0.000	0.50	0.00
319	330	332	8	116.00	0.01	0.857	0.427	0.275	0.581	0.152	0.260	0.243	2.186	0.50	0.39
3191	3078	3080	8	219.00	0.00	0.596	0.297	0.000	0.596	0.297	0.000	0.000	0.000	0.50	0.00
3193	3080	3082	8	364.20	0.00	0.535	0.267	0.267	0.268	-0.001	0.333	0.239	1.532	0.50	0.50
3195	3082	3084	8	165.00	0.03	2.051	1.022	0.392	1.659	0.630	0.197	0.291	4.529	0.50	0.30
3197	3084	3086	8	340.00	0.01	1.247	0.621	0.409	0.837	0.212	0.263	0.298	3.200	0.50	0.39
3199	3086	3088	8	870.00	0.01	0.822	0.409	0.433	0.389	-0.023	0.344	0.307	2.384	0.50	0.52
3201	3088	3090	8	119.00	0.01	1.111	0.553	0.519	0.591	0.034	0.320	0.338	3.128	0.50	0.48
3203	3090	3092	8	315.00	0.01	0.965	0.481	0.519	0.446	-0.038	0.348	0.338	2.816	0.50	0.52
3205	3092	3094	8	102.20	0.03	2.171	1.082	0.533	1.637	0.548	0.225	0.342	5.144	0.50	0.34
3207	3094	3096	8	150.03	0.00	0.727	0.362	0.578	0.149	-0.216	0.449	0.357	2.311	0.50	0.67
3209	3096	9020	8	118.66	0.04	2.354	1.173	0.578	1.776	0.595	0.225	0.357	5.578	0.50	0.34
321	332	334	8	172.00	0.02	1.824	0.909	0.276	1.548	0.633	0.175	0.243	3.769	0.50	0.26
3217	3104	3106	10	20.00	0.02	2.988	1.489	0.684	2.304	0.805	0.271	0.364	4.444	0.50	0.33
3219	3106	3108	10	190.59	0.00	0.503	0.251	0.684	-0.181	-0.434	0.833	0.310	0.923	0.50	1.00
3221	3108	3110	10	452.00	0.00	1.214	0.605	0.686	0.528	-0.081	0.448	0.365	2.293	0.50	0.54
3223	3110	3112	16	754.00	0.01	6.333	5.766	1.041	5.292	4.725	0.366	0.394	3.349	0.75	0.27
3225	3112	3064	16	500.00	0.00	3.300	3.005	1.093	2.207	1.912	0.528	0.404	2.122	0.75	0.40
3227	3114	3116	8	478.00	0.02	1.600	0.797	0.108	1.493	0.690	0.117	0.150	2.609	0.50	0.18
3229	3116	9020	8	239.86	0.00	0.247	0.123	0.183	0.064	-0.060	0.427	0.197	0.776	0.50	0.64
323	334	316	8	35.01	0.01	1.044	0.520	0.280	0.764	0.240	0.236	0.245	2.536	0.50	0.35
3231	3118	3120	8	455.00	0.01	0.825	0.411	0.579	0.246	-0.168	0.412	0.358	2.559	0.50	0.62
3233	3120	3122	8	488.64	0.01	0.916	0.456	0.600	0.315	-0.144	0.394	0.364	2.798	0.50	0.59
3235	3122	3124	8	450.00	0.00	0.753	0.375	0.648	0.105	-0.273	0.477	0.379	2.427	0.50	0.72
3237	3124	3126	10	652.52	0.00	1.316	0.656	0.691	0.625	-0.035	0.429	0.366	2.441	0.50	0.52
3243	3130	3132	10	879.35	0.01	1.859	0.927	0.846	1.013	0.081	0.394	0.407	3.329	0.50	0.47
3245	3132	3134	10	932.50	0.00	1.225	0.610	0.854	0.371	-0.244	0.512	0.409	2.428	0.50	0.62
3247	3134	3026	10	606.71	0.00	1.092	0.544	0.894	0.198	-0.350	0.573	0.419	2.234	0.50	0.69
3249	3126	3130	10	492.00	0.01	1.905	0.949	0.809	1.096	0.140	0.379	0.397	3.350	0.50	0.46
3259	2384	3140	48	24.12	0.10	451.527	411.101	12.904	438.623	398.197	0.465	1.050	15.841	0.75	0.12
3261	3140	3074	48	2068.21	0.00	75.147	68.419	12.904	62.243	55.515	1.122	1.050	4.471	0.75	0.28
3263	3142	3144	12	186.08	0.03	5.598	2.790	0.747	4.851	2.043	0.247	0.361	4.957	0.50	0.25
3265	3144	3716	8	68.08	0.15	4.084	2.035	0.753	3.331	1.282	0.194	0.410	8.927	0.50	0.29
3267	3146	3148	12	720.99	0.01	3.106	1.548	0.753	2.353	0.795	0.335	0.362	3.259	0.50	0.34
3269	3148	3150	12	1377.98	0.01	3.196	1.593	0.981	2.215	0.612	0.380	0.416	3.579	0.50	0.38
3271	3150	3152	18	1115.58	0.00	6.401	5.828	1.232	5.169	4.596	0.446	0.415	2.797	0.75	0.30
3273	3152	3020	18	61.20	0.05	22.911	20.860	1.418	21.493	19.442	0.253	0.446	7.199	0.75	0.17
3277	3154	3156	12	159.00	0.02	5.412	2.697	0.739	4.673	1.958	0.250	0.359	4.824	0.50	0.25

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
3279	3156	3142	12	692.70	0.01	3.377	1.683	0.741	2.636	0.942	0.318	0.359	3.446	0.50	0.32
3283	3160	3162	12	389.00	0.01	2.510	1.251	0.400	2.109	0.850	0.270	0.261	2.339	0.50	0.27
3285	3162	3164	12	398.00	0.01	3.183	1.586	0.533	2.650	1.054	0.277	0.303	3.008	0.50	0.28
3287	3164	3166	12	364.00	0.00	2.127	1.060	0.540	1.587	0.520	0.344	0.305	2.260	0.50	0.34
3293	3170	3172	12	1474.74	0.01	3.391	1.690	0.556	2.835	1.134	0.274	0.310	3.185	0.50	0.27
3295	3172	3174	12	518.48	0.01	2.530	1.261	0.578	1.952	0.683	0.325	0.316	2.610	0.50	0.33
3297	3174	3176	12	599.00	0.02	4.487	2.236	0.594	3.892	1.641	0.246	0.321	3.964	0.50	0.25
3299	3176	3154	12	602.00	0.01	2.484	1.238	0.720	1.763	0.517	0.369	0.354	2.739	0.50	0.37
33	36	38	12	292.00	0.02	5.197	2.590	0.435	4.762	2.155	0.196	0.273	4.016	0.50	0.20
3301	3166	3170	12	86.00	0.03	6.457	3.218	0.549	5.908	2.669	0.197	0.308	5.013	0.50	0.20
3305	3182	3184	10	351.00	0.01	2.561	1.276	0.249	2.312	1.027	0.176	0.216	2.979	0.50	0.21
3307	3184	3186	10	350.00	0.02	2.654	1.323	0.250	2.404	1.072	0.173	0.216	3.059	0.50	0.21
3309	3186	3188	10	331.00	0.01	1.518	0.756	0.252	1.265	0.504	0.230	0.217	2.061	0.50	0.28
3311	3188	3190	10	55.00	0.01	1.510	0.753	0.257	1.253	0.496	0.233	0.219	2.065	0.50	0.28
3313	3190	3192	10	984.06	0.01	1.479	0.737	0.257	1.222	0.480	0.235	0.219	2.034	0.50	0.28
3315	3192	3194	10	177.00	0.02	2.945	1.467	0.265	2.680	1.202	0.169	0.223	3.347	0.50	0.20
3317	3194	3196	10	276.00	0.05	4.753	2.368	0.271	4.482	2.098	0.135	0.225	4.721	0.50	0.16
3319	3196	3198	10	299.00	0.05	4.818	2.401	0.276	4.542	2.125	0.135	0.227	4.793	0.50	0.16
3321	3198	3200	10	44.00	0.01	1.518	0.756	0.565	0.953	0.191	0.352	0.330	2.578	0.50	0.42
3323	3200	3202	15	605.12	0.00	4.334	3.946	0.565	3.770	3.382	0.305	0.293	2.439	0.75	0.24
3325	3202	3204	15	490.00	0.01	4.437	4.040	0.571	3.867	3.469	0.303	0.295	2.488	0.75	0.24
3327	3204	3206	15	287.00	0.01	6.443	5.866	0.574	5.869	5.293	0.252	0.295	3.245	0.75	0.20
3329	3206	3208	15	15.00	0.02	7.844	7.142	0.578	7.266	6.564	0.230	0.296	3.736	0.75	0.18
3331	3208	3210	15	845.71	0.01	6.444	5.867	0.578	5.866	5.289	0.253	0.296	3.252	0.75	0.20
3333	3210	3212	15	351.00	0.02	8.760	7.975	0.584	8.175	7.391	0.219	0.298	4.052	0.75	0.18
3335	3212	3214	15	369.41	0.01	5.133	4.673	0.597	4.536	4.077	0.288	0.301	2.794	0.75	0.23
3337	3214	3216	15	72.94	0.00	2.006	1.827	0.599	1.407	1.228	0.468	0.302	1.427	0.75	0.38
3339	3216	3218	15	350.00	0.01	5.604	5.102	0.602	5.002	4.500	0.277	0.303	2.981	0.75	0.22
3341	3218	3220	15	349.00	0.02	8.743	7.961	0.602	8.142	7.359	0.222	0.303	4.082	0.75	0.18
3345	3220	3222	15	350.00	0.00	3.192	2.906	0.602	2.590	2.304	0.368	0.303	1.997	0.75	0.29
3347	3222	2986	21	350.00	0.00	7.003	6.376	0.789	6.214	5.587	0.397	0.317	1.928	0.75	0.23
3349	3224	3226	10	335.00	0.01	1.812	0.903	0.000	1.812	0.903	0.000	0.000	0.000	0.50	0.00
3351	3226	3228	10	22.00	0.01	1.814	0.904	0.000	1.814	0.904	0.000	0.000	0.000	0.50	0.00
3353	3228	3230	10	363.00	0.04	4.461	2.223	0.000	4.461	2.223	0.000	0.000	0.000	0.50	0.00
3355	3230	3232	10	105.00	0.07	5.708	2.845	0.032	5.676	2.812	0.045	0.076	2.824	0.50	0.05
3357	3232	3234	10	803.87	0.02	2.816	1.403	0.032	2.784	1.371	0.063	0.076	1.727	0.50	0.08
3359	3234	3236	10	89.00	0.06	5.269	2.626	0.099	5.170	2.527	0.079	0.135	3.753	0.50	0.10
3361	3236	3238	10	318.00	0.03	3.669	1.828	0.099	3.570	1.729	0.094	0.135	2.914	0.50	0.11
3363	3238	3240	10	313.00	0.02	3.044	1.517	0.105	2.939	1.411	0.106	0.139	2.607	0.50	0.13
3365	3240	3242	12	339.00	0.01	3.782	1.885	0.105	3.677	1.779	0.115	0.132	2.108	0.50	0.12
3367	3242	3244	12	314.00	0.01	2.779	1.385	0.119	2.660	1.266	0.141	0.141	1.760	0.50	0.14
3369	3244	3246	12	299.00	0.01	2.848	1.419	0.121	2.726	1.298	0.141	0.142	1.801	0.50	0.14
3371	3246	3248	12	375.00	0.01	2.946	1.468	0.286	2.660	1.182	0.210	0.220	2.377	0.50	0.21
3373	3248	3250	12	12.00	0.02	5.553	2.767	0.366	5.187	2.401	0.174	0.250	4.000	0.50	0.17
3375	3250	3198	12	500.00	0.01	3.081	1.535	0.366	2.715	1.169	0.233	0.250	2.638	0.50	0.23
3377	3252	3254	10	333.00	0.01	1.849	0.922	0.153	1.696	0.769	0.162	0.168	2.051	0.50	0.19
3379	3254	3256	10	333.00	0.01	2.514	1.253	0.153	2.361	1.100	0.139	0.168	2.546	0.50	0.17
3381	3256	3258	10	1059.50	0.01	2.524	1.258	0.153	2.371	1.105	0.139	0.168	2.554	0.50	0.17
3383	3258	3260	10	188.62	0.01	1.745	0.869	0.201	1.544	0.669	0.191	0.193	2.131	0.50	0.23
3385	3260	3262	10	623.59	0.01	1.710	0.852	0.201	1.509	0.651	0.193	0.193	2.101	0.50	0.23
3387	3262	3182	10	194.00	0.01	2.464	1.228	0.209	2.255	1.019	0.164	0.197	2.752	0.50	0.20
3389	3264	3266	8	808.44	0.01	1.307	0.651	0.008	1.299	0.643	0.038	0.041	1.044	0.50	0.06
339	350	352	8	337.54	0.02	1.812	0.903	0.627	1.185	0.276	0.271	0.373	4.716	0.50	0.41

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3391	3266	3268	8	461.00	0.02	1.716	0.855	0.026	1.690	0.829	0.058	0.073	1.800	0.50	0.09
3393	3268	3270	8	327.14	0.01	0.850	0.424	0.065	0.785	0.359	0.125	0.116	1.439	0.50	0.19
3395	3270	3272	8	335.50	0.01	0.839	0.418	0.070	0.769	0.348	0.130	0.120	1.458	0.50	0.20
3397	3272	3274	10	330.00	0.01	1.525	0.760	0.073	1.452	0.687	0.124	0.115	1.436	0.50	0.15
3399	3274	3276	10	164.50	0.00	1.473	0.734	0.076	1.397	0.658	0.129	0.118	1.424	0.50	0.16
3401	3276	3278	10	187.50	0.01	1.513	0.754	0.085	1.429	0.669	0.134	0.124	1.495	0.50	0.16
3403	3278	3280	10	670.20	0.01	1.674	0.834	0.085	1.589	0.749	0.127	0.124	1.605	0.50	0.15
3405	3280	3252	10	185.00	0.02	3.073	1.531	0.093	2.980	1.438	0.099	0.130	2.526	0.50	0.12
3407	3282	3284	8	375.00	0.02	1.587	0.791	0.020	1.567	0.771	0.052	0.063	1.556	0.50	0.08
3409	3284	3286	8	387.00	0.02	1.579	0.787	0.020	1.558	0.766	0.053	0.064	1.565	0.50	0.08
341	352	354	8	879.95	0.02	1.696	0.845	0.718	0.978	0.127	0.303	0.400	4.658	0.50	0.45
3411	3286	3288	8	74.00	0.01	0.945	0.471	0.022	0.923	0.449	0.070	0.066	1.117	0.50	0.11
3415	3288	3292	8	527.42	0.01	1.191	0.594	0.028	1.163	0.565	0.071	0.076	1.425	0.50	0.11
3417	3292	3294	8	823.96	0.01	1.225	0.610	0.031	1.194	0.579	0.073	0.079	1.489	0.50	0.11
3419	3294	3296	8	340.00	0.01	0.941	0.469	0.033	0.908	0.436	0.085	0.081	1.258	0.50	0.13
3421	3296	3298	8	502.00	0.00	0.664	0.331	0.033	0.631	0.298	0.101	0.082	0.992	0.50	0.15
3423	3298	3300	8	992.79	0.00	0.665	0.331	0.034	0.630	0.297	0.103	0.084	1.003	0.50	0.16
3425	3300	3302	10	10.31	0.67	17.995	8.967	0.075	17.920	8.892	0.039	0.117	8.115	0.50	0.05
3427	3302	3304	10	492.61	0.01	1.914	0.954	0.075	1.839	0.879	0.113	0.117	1.700	0.50	0.14
3429	3304	3306	10	150.00	0.00	1.091	0.544	0.080	1.011	0.463	0.153	0.121	1.169	0.50	0.18
343	354	356	12	450.66	0.02	4.500	2.242	0.913	3.586	1.329	0.306	0.401	4.492	0.50	0.31
3431	3306	3308	10	150.00	0.01	1.794	0.894	0.080	1.713	0.814	0.120	0.121	1.658	0.50	0.14
3433	3308	3310	10	432.00	0.01	1.818	0.906	0.080	1.738	0.826	0.119	0.121	1.674	0.50	0.14
3435	3310	3312	10	150.00	0.01	1.812	0.903	0.080	1.731	0.822	0.119	0.121	1.669	0.50	0.14
3437	3312	3252	10	122.00	0.02	3.346	1.667	0.082	3.264	1.585	0.090	0.122	2.583	0.50	0.11
3443	3316	3318	24	649.28	0.01	18.545	16.885	11.198	7.347	5.687	1.121	1.200	6.179	0.75	0.56
345	356	358	12	642.82	0.01	4.027	2.007	1.009	3.018	0.998	0.341	0.422	4.265	0.50	0.34
3451	3326	3328	22	22.20	0.02	26.446	24.079	0.094	26.352	23.985	0.080	0.107	2.347	0.75	0.04
3457	3332	3334	24	206.00	0.00	12.936	11.778	0.094	12.842	11.684	0.121	0.104	1.200	0.75	0.06
3459	3334	3336	24	299.66	0.00	12.568	11.443	0.094	12.474	11.349	0.123	0.104	1.176	0.75	0.06
3461	3336	2570	24	636.71	0.01	19.550	17.800	0.111	19.440	17.690	0.108	0.113	1.680	0.75	0.05
3465	3328	3332	22	177.37	0.02	23.816	21.684	0.094	23.722	21.590	0.084	0.107	2.183	0.75	0.05
3467	3338	3340	27	1099.86	0.01	29.743	27.080	5.702	24.040	21.377	0.668	0.814	5.771	0.75	0.30
3469	3340	3456	27	643.65	0.02	42.135	38.362	5.753	36.381	32.609	0.562	0.818	7.418	0.75	0.25
347	358	360	12	222.00	0.02	4.931	2.457	1.009	3.922	1.448	0.307	0.422	4.934	0.50	0.31
3471	2570	3316	24	492.67	0.01	17.522	15.954	11.188	6.334	4.765	1.161	1.200	5.914	0.75	0.58
3475	3318	3342	24	266.00	0.01	21.320	19.411	11.210	10.110	8.201	1.030	1.201	6.872	0.75	0.52
3477	3342	2582	24	43.44	0.03	41.869	38.120	11.210	30.659	26.910	0.707	1.201	11.291	0.75	0.35
3479	3344	3346	10	330.00	0.01	1.702	0.848	0.456	1.246	0.392	0.294	0.295	2.643	0.50	0.35
3481	3346	3348	10	1227.63	0.00	0.528	0.263	0.497	0.031	-0.234	0.643	0.308	1.101	0.50	0.77
3483	3348	3350	10	52.14	0.01	1.748	0.871	0.688	1.060	0.183	0.363	0.365	3.013	0.50	0.44
3485	3350	3352	10	1389.69	0.01	2.051	1.022	0.711	1.340	0.311	0.338	0.371	3.418	0.50	0.41
3487	3352	3354	10	309.00	0.01	1.653	0.824	0.899	0.754	-0.075	0.438	0.420	3.095	0.50	0.53
3489	3354	3356	10	29.00	0.01	1.778	0.886	0.908	0.870	-0.022	0.422	0.422	3.278	0.50	0.51
349	360	362	12	596.31	0.01	2.508	1.250	1.170	1.339	0.080	0.480	0.456	3.138	0.50	0.48
3491	3356	3358	10	2832.67	0.01	1.786	0.890	0.931	0.856	-0.041	0.427	0.428	3.309	0.50	0.51
3493	3358	3360	10	353.00	0.01	1.921	0.957	1.100	0.821	-0.143	0.452	0.467	3.641	0.50	0.54
3495	3360	3362	10	180.00	0.00	1.111	0.553	1.111	-0.001	-0.558	0.833	0.469	2.036	0.50	1.00
3497	3362	3364	10	343.00	0.00	1.106	0.551	1.111	-0.005	-0.560	0.833	0.468	2.028	0.50	1.00
3499	3364	2020	10	327.00	0.02	3.216	1.603	1.115	2.101	0.488	0.339	0.470	5.361	0.50	0.41
35	38	40	15	303.00	0.01	5.262	4.791	0.442	4.821	4.349	0.245	0.258	2.604	0.75	0.20
351	362	364	12	334.00	0.00	1.189	0.592	1.328	-0.139	-0.736	1.000	0.460	1.514	0.50	1.00
3515	3380	2024	12	351.00	0.01	3.770	1.879	0.385	3.385	1.494	0.216	0.256	3.089	0.50	0.22

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3521	3382	3380	12	3829.35	0.01	2.579	1.285	0.385	2.194	0.900	0.261	0.256	2.359	0.50	0.26
3523	3388	3390	15	4573.89	0.02	9.675	8.809	2.332	7.343	6.476	0.418	0.611	6.487	0.75	0.33
3525	3390	3392	15	2122.47	0.02	9.186	8.363	3.454	5.731	4.909	0.531	0.750	6.954	0.75	0.43
3527	3392	3394	18	190.83	0.04	17.104	15.572	3.619	13.485	11.953	0.468	0.726	7.678	0.75	0.31
3529	3394	3396	18	545.73	0.02	14.314	13.032	3.619	10.695	9.414	0.514	0.726	6.754	0.75	0.34
353	364	366	12	1416.79	0.02	4.656	2.320	1.328	3.328	0.992	0.366	0.487	5.111	0.50	0.37
3531	3396	3398	18	2984.22	0.02	16.119	14.676	4.336	11.783	10.340	0.531	0.798	7.738	0.75	0.35
3533	3398	3400	18	789.09	0.02	14.228	12.954	4.726	9.502	8.228	0.595	0.835	7.235	0.75	0.40
3535	3400	368	18	151.01	0.11	34.645	31.543	4.726	29.920	26.818	0.374	0.835	13.720	0.75	0.25
3537	3402	3404	24	10.00	0.02	32.870	29.928	5.701	27.169	24.226	0.564	0.843	7.845	0.75	0.28
3539	3404	3406	24	684.85	0.01	27.231	24.793	5.701	21.529	19.091	0.621	0.843	6.856	0.75	0.31
3541	3406	3408	24	648.34	0.01	25.941	23.619	5.701	20.240	17.918	0.637	0.843	6.621	0.75	0.32
3543	3408	3410	24	1335.87	0.02	28.588	26.029	5.701	22.887	20.327	0.606	0.843	7.099	0.75	0.30
3545	3410	1812	27	850.43	0.00	16.565	15.082	5.701	10.864	9.381	0.910	0.814	3.780	0.75	0.41
3547	3412	3414	24	306.00	0.01	23.232	21.152	5.701	17.531	15.451	0.675	0.843	6.115	0.75	0.34
3549	3414	3402	24	290.00	0.02	34.374	31.297	5.701	28.673	25.596	0.551	0.843	8.100	0.75	0.28
355	366	368	12	267.00	0.07	9.278	4.623	1.513	7.765	3.110	0.273	0.521	8.702	0.50	0.27
3553	3416	3412	24	1275.23	0.01	24.805	22.584	5.701	19.104	16.883	0.652	0.843	6.411	0.75	0.33
3555	1828	3418	24	486.75	0.03	38.592	35.137	5.701	32.891	29.436	0.519	0.843	8.797	0.75	0.26
3557	3418	3420	24	675.55	0.01	21.870	19.912	5.701	16.168	14.210	0.697	0.843	5.854	0.75	0.35
3563	3424	3426	24	20.74	0.01	25.878	23.561	5.702	20.176	17.860	0.638	0.843	6.609	0.75	0.32
3567	1980	1986	8	2968.04	0.00	0.600	0.299	2.308	-1.708	-2.009	0.667	0.364	1.719	0.50	1.00
3569	3420	3424	24	1453.16	0.01	21.741	19.795	5.701	16.040	14.093	0.699	0.843	5.829	0.75	0.35
357	368	370	18	240.00	0.01	10.554	9.609	5.613	4.941	3.997	0.778	0.914	6.064	0.75	0.52
3571	3430	3432	27	2135.59	0.01	27.468	25.009	5.702	21.767	19.308	0.696	0.814	5.451	0.75	0.31
3573	3432	3434	30	1140.69	0.01	29.021	26.423	5.702	23.320	20.721	0.751	0.789	4.593	0.75	0.30
3575	3434	3436	27	192.94	0.01	34.271	31.203	5.702	28.569	25.501	0.621	0.814	6.386	0.75	0.28
3577	3436	3438	27	291.65	0.02	38.744	35.275	5.702	33.042	29.573	0.583	0.814	6.970	0.75	0.26
3579	3438	3440	27	658.59	0.01	27.936	25.435	5.702	22.234	19.733	0.690	0.814	5.517	0.75	0.31
3581	3440	3442	27	2515.26	0.01	30.137	27.439	5.702	24.434	21.736	0.663	0.814	5.826	0.75	0.30
3583	3442	3444	27	686.03	0.01	34.687	31.582	5.702	28.985	25.879	0.617	0.814	6.442	0.75	0.27
3585	3444	3446	27	607.77	0.01	30.099	27.404	5.702	24.397	21.702	0.664	0.814	5.820	0.75	0.30
3587	3446	3448	27	265.90	0.01	30.469	27.741	5.702	24.767	22.039	0.659	0.814	5.872	0.75	0.29
3589	3448	3450	27	521.78	0.01	27.960	25.456	5.702	22.257	19.754	0.689	0.814	5.521	0.75	0.31
359	370	372	18	1068.45	0.01	11.618	10.577	5.617	6.001	4.961	0.735	0.914	6.519	0.75	0.49
3591	3450	3452	27	692.81	0.01	29.018	26.420	5.702	23.316	20.718	0.676	0.814	5.670	0.75	0.30
3593	3452	3454	27	398.29	0.01	28.691	26.122	5.702	22.989	20.420	0.680	0.814	5.624	0.75	0.30
3595	3454	3338	27	632.25	0.00	15.425	14.044	5.702	9.723	8.342	0.947	0.814	3.588	0.75	0.42
3597	3456	3458	27	757.67	0.01	36.206	32.965	5.753	30.453	27.211	0.606	0.818	6.659	0.75	0.27
3599	3458	3460	27	93.00	0.02	39.437	35.907	5.753	33.684	30.153	0.581	0.818	7.077	0.75	0.26
3601	3460	3462	27	100.00	0.02	48.107	43.800	5.753	42.354	38.047	0.525	0.818	8.151	0.75	0.23
3603	3462	3464	27	755.29	0.01	24.884	22.656	5.753	19.131	16.903	0.736	0.818	5.090	0.75	0.33
3605	3464	3708	18	117.36	0.13	32.469	29.562	2.735	29.734	26.827	0.294	0.627	11.172	0.75	0.20
3607	3466	3008	27	1309.23	0.00	18.939	17.244	5.762	13.177	11.482	0.851	0.819	4.180	0.75	0.38
3609	3464	3710	24	136.66	0.11	64.803	59.001	3.027	61.775	55.974	0.294	0.607	10.534	0.75	0.15
361	372	374	18	1053.75	0.02	13.179	11.999	5.645	7.535	6.355	0.686	0.917	7.169	0.75	0.46
3611	3074	3468	36	690.00	0.01	50.728	46.186	18.583	32.145	27.603	1.256	1.381	6.621	0.75	0.42
3613	3468	2310	36	220.00	0.05	142.154	129.427	18.671	123.483	110.756	0.734	1.384	13.921	0.75	0.25
3615	3472	3474	10	1313.31	0.00	1.217	0.606	0.008	1.209	0.598	0.048	0.038	0.628	0.50	0.06
3617	3474	3476	10	862.58	0.00	1.190	0.593	0.053	1.137	0.540	0.120	0.098	1.100	0.50	0.14
3619	3476	3478	10	1042.60	0.00	1.126	0.561	0.165	0.961	0.396	0.216	0.175	1.476	0.50	0.26
3621	3478	3480	10	94.00	0.00	1.211	0.603	0.218	0.992	0.385	0.239	0.202	1.682	0.50	0.29
3623	3480	3704	10	37.59	0.28	10.029	4.998	0.218	9.811	4.780	0.085	0.202	7.467	0.50	0.10

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
3625	3482	3484	10	88.00	0.00	1.267	0.632	0.218	1.049	0.414	0.234	0.202	1.738	0.50	0.28
3627	3484	3486	8	586.78	0.00	0.570	0.284	0.290	0.281	-0.005	0.336	0.249	1.640	0.50	0.51
3629	3486	3488	8	150.32	0.01	1.122	0.559	0.317	0.806	0.243	0.242	0.261	2.764	0.50	0.36
363	374	376	18	404.09	0.01	9.858	8.975	5.662	4.195	3.313	0.815	0.918	5.771	0.75	0.54
3631	3488	3490	8	307.00	0.00	0.732	0.365	0.323	0.409	0.042	0.310	0.263	2.031	0.50	0.47
3633	3490	2704	8	524.46	0.02	1.577	0.786	0.339	1.239	0.447	0.210	0.270	3.599	0.50	0.32
3635	2704	3492	30	139.00	0.00	25.870	23.554	2.234	23.637	21.320	0.497	0.488	3.228	0.75	0.20
3647	3502	3500	15	127.00	0.00	2.072	1.887	1.320	0.752	0.566	0.725	0.454	1.790	0.75	0.58
3649	3500	3498	15	2601.84	0.00	1.205	1.097	1.320	-0.116	-0.224	1.250	0.433	0.982	0.75	1.00
365	376	378	18	163.08	0.01	11.895	10.830	5.666	6.229	5.164	0.729	0.918	6.649	0.75	0.49
3651	3498	9000	15	171.86	0.01	7.160	6.519	1.320	5.839	5.198	0.364	0.454	4.451	0.75	0.29
3655	3492	9000	12	148.48	0.01	3.368	1.678	2.234	1.135	-0.555	0.595	0.639	4.586	0.50	0.60
367	378	380	18	651.71	0.02	15.018	13.673	5.666	9.351	8.007	0.639	0.918	7.902	0.75	0.43
3673	2886	3502	30	124.00	0.00	12.794	11.649	1.129	11.665	10.519	0.502	0.345	1.607	0.75	0.20
3675	3526	3686	8	425.49	0.03	1.726	0.860	0.387	1.339	0.473	0.215	0.290	3.988	0.50	0.32
3677	3526	3684	22	427.35	0.03	25.570	23.281	0.742	24.828	22.539	0.215	0.303	4.290	0.75	0.12
3679	2882	3692	20	430.53	0.03	20.673	18.822	2.125	18.549	16.698	0.361	0.533	6.108	0.75	0.22
3681	2882	3688	14	424.52	0.03	8.042	4.008	1.671	6.372	2.337	0.361	0.524	5.937	0.50	0.31
3683	2884	3528	30	81.00	0.00	12.925	11.768	5.634	7.291	6.134	1.154	0.784	2.543	0.75	0.46
3685	3528	3530	30	470.13	0.00	7.346	6.689	5.634	1.712	1.054	1.641	0.784	1.650	0.75	0.66
3687	3530	3532	30	103.33	0.01	32.113	29.238	5.659	26.453	23.578	0.710	0.786	4.928	0.75	0.28
3689	3532	3534	30	756.71	0.00	12.774	11.630	5.659	7.114	5.971	1.165	0.786	2.524	0.75	0.47
369	380	382	18	506.00	0.02	12.933	11.775	5.701	7.232	6.074	0.697	0.921	7.088	0.75	0.47
3691	3534	3536	30	1125.96	0.00	12.796	11.650	5.679	7.117	5.971	1.166	0.788	2.529	0.75	0.47
3693	3536	3538	30	365.00	0.00	13.951	12.702	5.701	8.250	7.001	1.113	0.789	2.699	0.75	0.45
3695	3540	2572	10	199.00	0.01	1.596	0.795	0.557	1.039	0.238	0.340	0.327	2.665	0.50	0.41
3697	3542	9004	8	111.50	0.00	0.770	0.384	0.070	0.700	0.314	0.136	0.120	1.371	0.50	0.20
37	40	42	15	224.00	0.01	5.318	4.842	0.442	4.876	4.400	0.244	0.258	2.624	0.75	0.20
3701	3552	9008	10	14.50	0.02	2.998	1.494	0.168	2.829	1.326	0.134	0.177	2.964	0.50	0.16
3707	3558	3560	10	427.88	0.00	1.381	0.688	0.245	1.135	0.443	0.238	0.214	1.911	0.50	0.29
3709	3560	3562	8	426.39	0.01	0.980	0.488	0.379	0.601	0.109	0.288	0.287	2.628	0.50	0.43
371	382	384	18	1335.21	0.01	8.889	8.093	5.701	3.187	2.392	0.873	0.921	5.339	0.75	0.58
3711	3562	3564	8	423.00	0.01	0.970	0.483	0.433	0.536	0.050	0.312	0.307	2.700	0.50	0.47
3713	3564	2800	12	93.18	0.02	5.439	2.710	0.433	5.005	2.277	0.191	0.272	4.142	0.50	0.19
3717	3572	3502	15	91.07	0.01	5.344	4.866	0.334	5.010	4.531	0.212	0.224	2.426	0.75	0.17
3721	3574	3572	15	371.15	0.00	3.007	2.738	0.332	2.675	2.406	0.280	0.223	1.613	0.75	0.22
3727	3578	3580	8	350.00	0.01	1.125	0.561	0.027	1.099	0.534	0.071	0.074	1.347	0.50	0.11
3729	3580	2966	8	280.00	0.03	2.018	1.006	0.028	1.990	0.978	0.055	0.076	2.053	0.50	0.08
373	384	386	18	1858.61	0.02	14.676	13.362	5.701	8.975	7.661	0.649	0.921	7.782	0.75	0.43
3733	3582	3540	8	160.00	0.01	0.888	0.443	0.070	0.818	0.373	0.127	0.120	1.517	0.50	0.19
3737	3538	9000	30	76.00	0.00	20.015	18.223	5.705	14.310	12.519	0.913	0.789	3.514	0.75	0.37
3743	2682	3590	54	61.02	0.00	97.765	89.012	21.358	76.406	67.653	1.429	1.316	4.921	0.75	0.32
3745	270	9024	8	161.23	0.01	0.910	0.454	0.159	0.751	0.294	0.189	0.183	1.960	0.50	0.28
3749	256	260	8	65.09	0.01	0.950	0.473	0.130	0.819	0.343	0.167	0.165	1.907	0.50	0.25
375	386	388	18	71.15	0.02	13.564	12.349	5.701	7.862	6.648	0.678	0.921	7.343	0.75	0.45
3767	3598	2556	15	674.79	0.01	6.367	5.797	8.796	-2.429	-2.999	1.250	1.018	5.188	0.75	1.00
3769	3610	3608	18	324.92	0.00	6.738	6.135	8.775	-2.037	-2.640	1.500	1.005	3.813	0.75	1.00
377	388	390	18	695.02	0.02	16.360	14.895	5.701	10.659	9.194	0.611	0.921	8.428	0.75	0.41
3771	3608	3606	18	324.89	0.00	6.739	6.135	8.778	-2.040	-2.643	1.500	1.005	3.813	0.75	1.00
3773	3606	3604	18	321.00	0.00	6.805	6.196	8.782	-1.977	-2.586	1.500	1.010	3.851	0.75	1.00
3775	3604	3602	15	332.81	0.01	4.348	3.959	8.785	-4.437	-4.826	1.250	0.845	3.543	0.75	1.00
3777	3602	3600	15	320.98	0.01	4.850	4.416	8.788	-3.938	-4.372	1.250	0.893	3.952	0.75	1.00
3779	3600	3598	15	360.14	0.02	8.821	8.031	8.792	0.029	-0.761	1.021	1.148	8.194	0.75	0.82

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3781	66	64	8	120.56	0.02	1.846	0.920	0.370	1.477	0.550	0.202	0.283	4.131	0.50	0.30
3783	64	60	8	287.45	0.03	2.128	1.061	0.376	1.752	0.685	0.190	0.285	4.596	0.50	0.29
3785	60	58	8	661.74	0.03	1.914	0.954	0.377	1.537	0.577	0.201	0.285	4.261	0.50	0.30
3787	412	3612	8	505.87	0.03	1.943	0.968	0.027	1.916	0.941	0.055	0.074	1.982	0.50	0.08
3789	3612	3614	8	112.51	0.01	1.272	0.634	0.027	1.245	0.607	0.068	0.074	1.474	0.50	0.10
379	390	392	21	2645.76	0.02	20.667	18.816	5.701	14.965	13.115	0.628	0.879	7.340	0.75	0.36
3791	3614	3616	8	144.62	0.02	1.615	0.805	0.027	1.588	0.777	0.060	0.074	1.742	0.50	0.09
3793	3616	3618	8	140.66	0.01	1.147	0.571	0.027	1.119	0.544	0.071	0.074	1.371	0.50	0.11
3795	3618	3620	8	179.54	0.01	1.237	0.616	0.027	1.209	0.589	0.068	0.074	1.445	0.50	0.10
3797	3620	406	8	474.95	0.01	1.410	0.702	0.027	1.382	0.675	0.064	0.074	1.584	0.50	0.10
3807	3628	9016	8	75.39	0.02	1.496	0.746	0.027	1.470	0.719	0.062	0.074	1.644	0.50	0.09
3809	3630	9012	8	289.00	0.01	1.074	0.535	0.076	0.997	0.459	0.120	0.126	1.780	0.50	0.18
381	396	398	8	615.00	0.01	1.237	0.616	0.006	1.231	0.611	0.032	0.033	0.891	0.50	0.05
3811	3632	9010	8	449.04	0.01	0.827	0.412	0.348	0.479	0.064	0.302	0.274	2.266	0.50	0.45
3813	3634	9018	12	391.00	0.00	1.422	0.709	0.271	1.151	0.437	0.296	0.214	1.395	0.50	0.30
3815	3636	9018	10	425.00	0.00	1.187	0.591	0.100	1.086	0.491	0.164	0.136	1.325	0.50	0.20
3817	3638	9026	6	18.02	0.01	0.513	0.256	0.000	0.513	0.256	0.000	0.000	0.000	0.50	0.00
3819	3640	9022	8	83.80	0.02	1.695	0.845	0.355	1.340	0.490	0.207	0.277	3.840	0.50	0.31
3821	3644	2348	21	246.61	0.00	9.544	8.690	1.728	7.816	6.962	0.504	0.473	3.012	0.75	0.29
3823	3646	3714	21	203.30	0.05	36.618	33.340	1.728	34.890	31.612	0.259	0.473	7.798	0.75	0.15
3825	3648	3646	21	403.81	0.00	7.071	6.438	1.728	5.344	4.710	0.589	0.473	2.428	0.75	0.34
3827	1518	1524	24	170.27	0.00	10.856	9.884	9.811	1.045	0.073	1.489	1.120	3.913	0.75	0.74
3829	1524	3662	24	102.75	0.11	64.468	58.696	5.680	58.788	53.016	0.401	0.842	12.644	0.75	0.20
383	398	400	8	281.00	0.04	2.524	1.257	0.015	2.509	1.243	0.037	0.055	1.975	0.50	0.06
3831	1498	3652	24	55.96	0.18	83.146	75.702	5.556	77.590	70.146	0.350	0.832	15.032	0.75	0.18
3833	1498	3650	14	55.21	0.18	19.885	9.909	3.899	15.986	6.009	0.350	0.814	14.443	0.50	0.30
3835	3650	1504	14	56.02	-0.18	-1.000	-1.000	4.696	-1.000	-1.000	1.167	0.893	4.393	0.50	1.00
3837	3652	1504	24	58.66	-0.17	-1.000	-1.000	6.215	-1.000	-1.000	2.000	0.882	1.978	0.75	1.00
3839	1664	1666	12	517.00	0.01	2.845	1.418	0.574	2.271	0.844	0.305	0.315	2.836	0.50	0.31
3843	3656	3512	20	26.21	0.01	10.561	9.616	7.741	2.820	1.875	1.060	1.047	5.288	0.75	0.64
3845	2660	2594	10	912.24	0.00	1.425	0.710	0.160	1.266	0.551	0.188	0.172	1.727	0.50	0.23
3847	2990	3702	18	72.37	0.19	39.989	36.409	0.789	39.200	35.620	0.146	0.330	8.924	0.75	0.10
3849	3658	92	18	154.04	-0.07	-1.000	-1.000	2.066	-1.000	-1.000	1.500	0.542	1.169	0.75	1.00
385	400	402	8	310.00	0.01	0.958	0.478	0.038	0.921	0.440	0.091	0.088	1.335	0.50	0.14
3851	3660	1528	14	89.34	-0.11	-1.000	-1.000	4.973	-1.000	-1.000	1.167	0.918	4.652	0.50	1.00
3853	3662	1528	24	106.88	-0.09	-1.000	-1.000	6.375	-1.000	-1.000	2.000	0.894	2.029	0.75	1.00
3855	3664	1582	10	15.75	-0.64	-1.000	-1.000	0.206	-1.000	-1.000	0.833	0.196	0.378	0.50	1.00
3857	3666	2324	8	82.42	-0.12	-1.000	-1.000	0.023	-1.000	-1.000	0.667	0.068	0.065	0.50	1.00
3859	3668	2396	8	199.24	-0.05	-1.000	-1.000	0.400	-1.000	-1.000	0.667	0.295	1.147	0.50	1.00
3861	3670	2460	6	132.36	-0.08	-1.000	-1.000	0.132	-1.000	-1.000	0.500	0.180	0.673	0.50	1.00
3863	3672	2460	10	148.56	-0.07	-1.000	-1.000	0.164	-1.000	-1.000	0.833	0.174	0.301	0.50	1.00
3865	3674	2468	8	477.05	-0.02	-1.000	-1.000	2.718	-1.000	-1.000	0.667	0.654	7.787	0.50	1.00
3867	3676	2468	12	454.11	-0.02	-1.000	-1.000	4.237	-1.000	-1.000	1.000	0.867	5.394	0.50	1.00
3869	3678	2468	20	456.67	-0.02	-1.000	-1.000	5.990	-1.000	-1.000	1.667	0.915	2.746	0.75	1.00
387	402	404	8	304.00	0.00	0.659	0.328	0.048	0.611	0.281	0.122	0.099	1.099	0.50	0.18
3871	3680	2482	8	467.25	-0.02	-1.000	-1.000	0.538	-1.000	-1.000	0.667	0.344	1.543	0.50	1.00
3873	3682	2482	12	470.00	-0.02	-1.000	-1.000	0.675	-1.000	-1.000	1.000	0.342	0.859	0.50	1.00
3875	3684	2886	22	445.07	-0.02	-1.000	-1.000	0.808	-1.000	-1.000	1.833	0.316	0.306	0.75	1.00
3877	3686	2886	8	437.64	-0.02	-1.000	-1.000	0.481	-1.000	-1.000	0.667	0.325	1.379	0.50	1.00
3879	3688	2884	14	459.75	-0.02	-1.000	-1.000	2.140	-1.000	-1.000	1.167	0.596	2.002	0.50	1.00
3881	3690	2884	16	453.55	-0.02	-1.000	-1.000	2.310	-1.000	-1.000	1.333	0.596	1.655	0.75	1.00
3883	3692	2884	20	452.93	-0.02	-1.000	-1.000	2.592	-1.000	-1.000	1.667	0.591	1.188	0.75	1.00
3885	3694	3042	10	214.84	-0.02	-1.000	-1.000	0.154	-1.000	-1.000	0.833	0.169	0.282	0.50	1.00

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
3887	3696	3042	8	186.95	-0.03	-1.000	-1.000	0.143	-1.000	-1.000	0.667	0.173	0.410	0.50	1.00
3889	3698	3014	24	136.55	-0.04	-1.000	-1.000	3.965	-1.000	-1.000	2.000	0.698	1.262	0.75	1.00
389	404	406	8	1188.23	0.01	1.028	0.512	0.057	0.972	0.456	0.106	0.108	1.580	0.50	0.16
3891	3700	3014	24	156.69	-0.03	-1.000	-1.000	3.764	-1.000	-1.000	2.000	0.680	1.198	0.75	1.00
3893	3702	2996	18	75.31	-0.13	-1.000	-1.000	0.789	-1.000	-1.000	1.500	0.330	0.446	0.75	1.00
3895	3704	3482	10	36.55	-0.27	-1.000	-1.000	0.218	-1.000	-1.000	0.833	0.202	0.400	0.50	1.00
3897	3706	1550	33	80.13	-0.13	-1.000	-1.000	16.203	-1.000	-1.000	2.750	1.320	2.728	0.75	1.00
3899	3708	3466	18	119.76	-0.08	-1.000	-1.000	3.183	-1.000	-1.000	1.500	0.679	1.801	0.75	1.00
39	42	30	15	207.00	0.04	13.024	11.858	0.442	12.583	11.416	0.158	0.258	4.925	0.75	0.13
3901	3710	3466	24	139.55	-0.07	-1.000	-1.000	3.451	-1.000	-1.000	2.000	0.650	1.099	0.75	1.00
3903	3712	3068	16	134.08	-0.04	-1.000	-1.000	1.112	-1.000	-1.000	1.333	0.407	0.796	0.75	1.00
3905	3714	3644	21	207.10	-0.05	-1.000	-1.000	1.728	-1.000	-1.000	1.750	0.473	0.718	0.75	1.00
3907	3716	3146	8	65.82	-0.15	-1.000	-1.000	0.753	-1.000	-1.000	0.667	0.410	2.157	0.50	1.00
391	406	380	8	685.00	0.01	1.041	0.519	0.118	0.924	0.401	0.151	0.156	1.976	0.50	0.23
3913	3720	3146	10	72.24	-0.14	-1.000	-1.000	0.000	-1.000	-1.000	0.833	0.000	0.000	0.50	1.00
3915	3144	3720	10	82.81	0.13	6.888	3.432	0.000	6.888	3.432	0.000	0.000	0.000	0.50	0.00
393	408	410	8	315.00	0.01	1.055	0.526	0.005	1.050	0.520	0.034	0.033	0.792	0.50	0.05
395	410	412	8	693.90	0.01	1.161	0.578	0.013	1.148	0.566	0.050	0.051	1.103	0.50	0.07
397	414	412	8	131.52	0.01	1.336	0.666	0.007	1.330	0.659	0.034	0.037	0.998	0.50	0.05
399	416	414	8	337.77	0.01	0.962	0.479	0.002	0.961	0.478	0.020	0.018	0.512	0.50	0.03
403	418	420	8	322.00	0.03	1.950	0.972	0.009	1.940	0.962	0.033	0.043	1.437	0.50	0.05
405	420	422	8	162.00	0.01	1.094	0.545	0.014	1.080	0.531	0.052	0.052	1.074	0.50	0.08
409	422	376	8	229.00	0.02	1.891	0.942	0.016	1.875	0.926	0.044	0.057	1.664	0.50	0.07
41	32	44	15	259.07	0.01	7.740	7.047	1.353	6.388	5.695	0.354	0.460	4.739	0.75	0.28
411	428	430	15	575.00	0.01	6.589	5.999	0.018	6.571	5.981	0.048	0.051	1.162	0.75	0.04
413	430	432	15	596.00	0.02	8.703	7.924	0.023	8.680	7.901	0.047	0.058	1.516	0.75	0.04
415	432	434	15	567.00	0.02	8.713	7.933	0.023	8.690	7.910	0.047	0.058	1.518	0.75	0.04
417	434	436	15	46.00	0.01	4.479	4.078	0.030	4.449	4.048	0.073	0.067	1.041	0.75	0.06
419	436	438	15	868.25	0.01	7.470	6.801	0.046	7.425	6.756	0.070	0.082	1.684	0.75	0.06
421	438	440	15	595.00	0.02	8.977	8.173	0.054	8.923	8.119	0.069	0.089	2.012	0.75	0.06
423	440	442	15	374.00	0.04	12.683	11.547	0.054	12.629	11.493	0.059	0.089	2.559	0.75	0.05
425	442	444	15	546.00	0.03	10.154	9.245	0.059	10.095	9.186	0.068	0.093	2.253	0.75	0.06
427	444	446	15	556.00	0.02	9.006	8.200	0.065	8.941	8.134	0.076	0.098	2.138	0.75	0.06
429	446	448	15	280.86	0.02	8.162	7.431	0.068	8.094	7.363	0.081	0.100	2.018	0.75	0.07
43	44	46	15	2537.69	0.02	8.253	7.514	1.392	6.861	6.122	0.347	0.466	5.002	0.75	0.28
435	452	454	15	63.46	0.02	8.171	7.440	0.076	8.095	7.363	0.085	0.106	2.093	0.75	0.07
437	454	456	15	262.00	0.01	6.427	5.852	0.077	6.350	5.774	0.096	0.107	1.779	0.75	0.08
439	456	458	15	396.00	0.02	9.055	8.244	0.077	8.978	8.167	0.082	0.107	2.259	0.75	0.07
441	458	460	15	534.00	0.01	7.096	6.461	0.118	6.978	6.343	0.112	0.132	2.166	0.75	0.09
443	460	462	15	368.00	0.02	9.060	8.249	0.118	8.942	8.131	0.100	0.132	2.568	0.75	0.08
445	462	464	15	375.00	0.03	10.645	9.692	0.121	10.524	9.571	0.094	0.134	2.897	0.75	0.08
447	464	466	15	177.00	0.00	2.177	1.982	0.144	2.034	1.839	0.217	0.146	1.004	0.75	0.17
449	466	468	15	290.00	0.02	9.254	8.426	0.144	9.110	8.282	0.109	0.146	2.766	0.75	0.09
45	46	48	15	384.00	0.02	9.070	8.258	1.507	7.563	6.751	0.345	0.486	5.474	0.75	0.28
451	468	470	15	1200.00	0.03	10.152	9.243	0.144	10.008	9.099	0.104	0.146	2.950	0.75	0.08
453	470	472	15	295.00	0.02	9.283	8.452	0.144	9.140	8.308	0.108	0.146	2.772	0.75	0.09
455	448	452	15	265.47	0.02	10.104	9.199	0.076	10.027	9.123	0.077	0.106	2.427	0.75	0.06
457	392	474	21	1352.65	0.01	15.321	13.950	5.701	9.620	8.248	0.739	0.879	5.901	0.75	0.42
459	474	476	21	1302.98	0.01	14.397	13.108	5.701	8.696	7.407	0.765	0.879	5.637	0.75	0.44
461	476	478	21	1300.50	0.01	17.622	16.044	5.701	11.921	10.343	0.685	0.879	6.537	0.75	0.39
463	478	480	21	650.00	0.02	20.431	18.602	5.701	14.730	12.901	0.632	0.879	7.279	0.75	0.36
465	480	482	24	2035.90	0.01	18.957	17.260	5.701	13.256	11.558	0.752	0.843	5.278	0.75	0.38
467	482	3416	24	538.05	0.02	30.784	28.028	5.701	25.083	22.326	0.583	0.843	7.486	0.75	0.29

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469	484	486	15	276.00	0.02	8.066	7.343	0.172	7.894	7.172	0.126	0.160	2.651	0.75	0.10
47	48	50	15	440.00	0.02	9.196	8.373	1.507	7.689	6.866	0.342	0.486	5.529	0.75	0.27
471	486	488	15	515.00	0.01	7.664	6.977	0.173	7.491	6.805	0.130	0.160	2.563	0.75	0.10
473	488	490	15	1030.00	0.01	7.285	6.633	0.174	7.111	6.459	0.133	0.161	2.480	0.75	0.11
475	472	492	15	595.00	0.01	6.702	6.102	0.144	6.558	5.958	0.127	0.146	2.208	0.75	0.10
477	492	494	15	1071.12	0.02	9.792	8.915	0.144	9.648	8.771	0.106	0.146	2.877	0.75	0.09
479	494	496	15	313.00	0.01	6.849	6.236	0.144	6.705	6.092	0.125	0.146	2.242	0.75	0.10
481	496	498	12	326.00	0.02	4.525	2.255	0.149	4.375	2.105	0.124	0.158	2.652	0.50	0.12
483	498	500	15	785.83	0.02	9.340	8.503	0.150	9.189	8.353	0.111	0.149	2.823	0.75	0.09
485	500	484	15	1505.71	0.02	7.868	7.164	0.153	7.715	7.011	0.121	0.151	2.518	0.75	0.10
487	316	502	18	420.36	0.02	13.688	12.462	3.066	10.622	9.396	0.483	0.666	6.244	0.75	0.32
489	502	504	18	400.00	0.02	13.903	12.658	3.079	10.824	9.580	0.480	0.667	6.322	0.75	0.32
49	50	52	15	668.00	0.02	8.990	8.185	1.513	7.477	6.672	0.347	0.487	5.446	0.75	0.28
491	504	506	18	400.00	0.02	15.052	13.705	3.085	11.968	10.620	0.461	0.668	6.696	0.75	0.31
493	506	508	27	250.00	0.00	15.213	13.851	3.116	12.097	10.735	0.691	0.596	3.008	0.75	0.31
495	508	510	30	354.00	0.00	21.305	19.398	3.118	18.187	16.279	0.646	0.579	3.100	0.75	0.26
497	510	512	27	175.25	0.00	18.170	16.543	3.118	15.051	13.425	0.631	0.596	3.416	0.75	0.28
499	512	514	27	313.71	0.00	15.082	13.732	3.194	11.888	10.538	0.703	0.603	3.010	0.75	0.31
501	516	518	8	472.88	0.01	1.431	0.713	0.106	1.325	0.607	0.123	0.149	2.403	0.50	0.18
503	518	520	8	255.00	0.02	1.761	0.878	0.106	1.655	0.771	0.111	0.149	2.782	0.50	0.17
505	520	522	8	105.70	0.00	0.204	0.102	0.106	0.098	-0.005	0.342	0.149	0.591	0.50	0.51
507	522	524	8	230.60	0.02	1.467	0.731	0.147	1.320	0.584	0.143	0.175	2.689	0.50	0.21
509	524	512	8	220.00	0.03	1.928	0.961	0.147	1.781	0.814	0.125	0.175	3.262	0.50	0.19
51	52	54	15	607.00	0.02	7.926	7.216	2.022	5.905	5.195	0.431	0.567	5.399	0.75	0.34
511	514	526	27	139.00	0.00	16.449	14.976	3.196	13.253	11.780	0.672	0.604	3.204	0.75	0.30
513	526	528	27	111.09	0.00	16.404	14.935	3.196	13.208	11.739	0.673	0.604	3.197	0.75	0.30
515	528	530	27	184.00	0.00	16.666	15.174	3.197	13.469	11.977	0.668	0.604	3.234	0.75	0.30
517	530	532	27	590.05	0.00	17.294	15.745	3.197	14.096	12.548	0.655	0.604	3.321	0.75	0.29
519	532	534	27	245.48	0.00	14.015	12.760	3.237	10.777	9.523	0.736	0.608	2.866	0.75	0.33
521	534	536	27	240.00	0.01	32.937	29.988	3.239	29.698	26.749	0.477	0.608	5.271	0.75	0.21
523	536	538	27	40.00	0.06	75.268	68.529	3.244	72.024	65.285	0.318	0.608	9.438	0.75	0.14
525	538	540	27	347.00	0.00	19.080	17.372	3.248	15.832	14.124	0.628	0.609	3.579	0.75	0.28
53	54	56	15	105.00	0.01	6.477	5.897	2.027	4.450	3.870	0.480	0.567	4.667	0.75	0.38
535	548	550	27	369.89	0.01	31.681	28.845	3.255	28.427	25.590	0.487	0.609	5.135	0.75	0.22
537	550	552	27	56.78	0.05	71.616	65.204	3.255	68.361	61.950	0.327	0.609	9.123	0.75	0.15
539	552	554	27	359.34	0.02	39.892	36.320	3.269	36.623	33.052	0.435	0.611	6.051	0.75	0.19
541	554	556	21	517.12	0.01	18.178	16.551	3.295	14.883	13.255	0.505	0.660	5.738	0.75	0.29
543	556	558	21	400.00	0.02	19.555	17.804	3.397	16.158	14.408	0.494	0.671	6.098	0.75	0.28
545	558	560	21	187.00	0.01	15.630	14.231	3.399	12.232	10.832	0.554	0.671	5.195	0.75	0.32
547	560	562	21	185.00	0.01	16.016	14.582	3.424	12.591	11.157	0.549	0.673	5.298	0.75	0.31
551	566	548	27	329.12	0.01	29.499	26.858	3.255	26.244	23.603	0.505	0.609	4.882	0.75	0.22
553	540	566	27	260.54	0.01	31.729	28.888	3.254	28.474	25.634	0.487	0.609	5.141	0.75	0.22
555	568	570	8	600.00	0.01	1.433	0.714	0.012	1.420	0.702	0.044	0.050	1.256	0.50	0.07
557	570	572	8	401.00	0.02	1.820	0.907	0.021	1.799	0.886	0.050	0.065	1.746	0.50	0.08
559	572	574	8	449.00	0.01	1.337	0.666	0.038	1.299	0.628	0.077	0.088	1.686	0.50	0.12
561	574	576	8	2592.31	0.02	1.473	0.734	0.045	1.428	0.689	0.080	0.095	1.893	0.50	0.12
563	576	562	8	660.81	0.02	1.536	0.765	0.080	1.456	0.685	0.104	0.129	2.323	0.50	0.16
565	578	580	10	400.00	0.02	2.668	1.329	0.046	2.622	1.284	0.076	0.091	1.848	0.50	0.09
567	580	582	10	4492.88	0.02	2.876	1.433	0.101	2.775	1.332	0.107	0.136	2.471	0.50	0.13
569	582	584	10	59.00	0.11	7.297	3.636	0.204	7.093	3.433	0.096	0.195	5.857	0.50	0.12
571	562	584	12	346.97	0.02	4.931	2.457	3.451	1.480	-0.994	0.616	0.794	6.792	0.50	0.62
573	584	588	27	130.00	0.03	55.349	50.393	3.529	51.819	46.864	0.385	0.635	7.797	0.75	0.17
575	588	590	27	240.00	0.01	28.134	25.615	3.529	24.605	22.086	0.538	0.635	4.833	0.75	0.24

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577	590	592	24	595.00	0.02	27.601	25.130	3.530	24.071	21.600	0.483	0.657	6.035	0.75	0.24
579	592	594	24	1297.76	0.01	25.272	23.010	4.706	20.567	18.304	0.585	0.763	6.155	0.75	0.29
581	594	596	24	400.00	0.02	27.595	25.124	4.716	22.879	20.409	0.559	0.764	6.558	0.75	0.28
587	600	602	27	56.19	0.02	41.425	37.717	4.751	36.674	32.966	0.515	0.741	6.934	0.75	0.23
589	596	604	24	481.02	0.01	25.606	23.314	4.727	20.879	18.587	0.582	0.765	6.221	0.75	0.29
591	604	600	27	378.00	0.02	44.061	40.116	4.751	39.310	35.365	0.499	0.741	7.243	0.75	0.22
595	608	610	15	123.86	0.01	5.365	4.885	1.659	3.707	3.226	0.477	0.511	3.853	0.75	0.38
597	610	612	15	301.00	0.01	6.699	6.099	1.735	4.964	4.364	0.434	0.523	4.582	0.75	0.35
599	612	614	15	327.00	0.01	6.477	5.897	1.741	4.736	4.156	0.443	0.524	4.476	0.75	0.35
601	614	616	15	249.87	0.01	5.358	4.878	1.741	3.617	3.137	0.490	0.524	3.900	0.75	0.39
603	616	618	15	132.55	0.01	7.094	6.459	1.756	5.337	4.702	0.424	0.526	4.792	0.75	0.34
605	618	620	15	300.00	0.03	11.784	10.729	1.757	10.026	8.971	0.326	0.527	6.895	0.75	0.26
607	620	592	15	350.00	0.01	4.406	4.012	1.761	2.646	2.251	0.549	0.527	3.390	0.75	0.44
609	622	624	18	312.00	0.00	6.979	6.354	1.609	5.370	4.745	0.490	0.476	3.210	0.75	0.33
61	58	68	8	823.34	0.05	2.666	1.328	0.444	2.222	0.885	0.184	0.311	5.659	0.50	0.28
611	624	626	18	315.00	0.00	5.964	5.430	1.609	4.355	3.821	0.532	0.476	2.865	0.75	0.36
617	630	632	18	350.00	0.00	5.958	5.425	1.645	4.313	3.779	0.539	0.482	2.881	0.75	0.36
619	632	634	15	350.00	0.01	5.793	5.274	1.647	4.146	3.628	0.456	0.509	4.066	0.75	0.37
621	634	636	15	172.41	0.01	7.165	6.524	1.651	5.515	4.873	0.408	0.510	4.744	0.75	0.33
623	636	638	15	179.56	0.00	4.015	3.656	1.656	2.359	2.000	0.559	0.510	3.114	0.75	0.45
625	638	640	15	350.00	0.01	6.477	5.897	1.656	4.821	4.241	0.431	0.510	4.414	0.75	0.35
627	640	608	15	153.79	0.02	8.192	7.458	1.656	6.536	5.803	0.381	0.510	5.227	0.75	0.31
629	626	630	18	195.45	0.01	7.571	6.893	1.609	5.962	5.284	0.470	0.476	3.403	0.75	0.31
63	68	70	8	307.00	0.04	2.354	1.173	0.466	1.889	0.708	0.201	0.319	5.249	0.50	0.30
631	642	622	8	110.00	0.00	0.740	0.369	0.711	0.029	-0.342	0.524	0.398	2.413	0.50	0.79
633	644	646	12	1179.43	0.02	5.193	2.587	0.791	4.402	1.796	0.264	0.372	4.776	0.50	0.26
635	646	648	12	400.00	0.02	4.898	2.441	0.908	3.990	1.532	0.292	0.399	4.766	0.50	0.29
637	648	650	12	400.00	0.02	4.898	2.441	0.966	3.932	1.475	0.301	0.412	4.849	0.50	0.30
639	650	652	12	400.00	0.02	4.898	2.441	1.039	3.859	1.402	0.313	0.428	4.951	0.50	0.31
641	652	654	15	328.00	0.01	6.069	5.526	1.062	5.007	4.464	0.354	0.405	3.717	0.75	0.28
643	654	656	15	725.00	0.01	5.793	5.274	1.062	4.731	4.213	0.362	0.405	3.596	0.75	0.29
645	656	658	15	400.00	0.01	7.212	6.567	1.062	6.150	5.505	0.324	0.405	4.205	0.75	0.26
647	658	660	15	400.00	0.01	6.762	6.157	1.062	5.700	5.095	0.335	0.405	4.016	0.75	0.27
649	660	622	15	296.00	0.02	9.672	8.806	1.107	8.564	7.699	0.286	0.414	5.242	0.75	0.23
65	70	72	8	18.00	0.04	2.473	1.232	0.466	2.008	0.767	0.196	0.319	5.437	0.50	0.29
651	662	664	8	427.00	0.01	1.237	0.616	0.000	1.237	0.616	0.000	0.000	0.000	0.50	0.00
653	664	666	8	515.00	0.01	1.028	0.512	0.100	0.929	0.413	0.140	0.144	1.868	0.50	0.21
655	666	602	8	115.00	0.01	1.147	0.571	0.561	0.586	0.010	0.329	0.352	3.267	0.50	0.49
657	602	668	27	330.00	0.17	127.360	115.957	5.010	122.350	110.948	0.305	0.761	15.540	0.75	0.14
659	668	670	30	249.00	0.01	30.283	27.571	5.019	25.264	22.553	0.688	0.739	4.566	0.75	0.28
661	670	672	30	28.00	0.01	41.855	38.108	5.019	36.835	33.088	0.585	0.739	5.749	0.75	0.23
663	672	674	30	400.00	0.01	30.982	28.208	5.019	25.962	23.189	0.681	0.739	4.641	0.75	0.27
665	674	676	30	400.00	0.01	35.438	32.266	5.336	30.103	26.930	0.656	0.763	5.198	0.75	0.26
667	678	680	10	1008.91	0.01	2.052	1.022	0.153	1.898	0.869	0.154	0.168	2.207	0.50	0.19
669	680	682	10	325.00	0.02	3.240	1.615	0.163	3.077	1.452	0.127	0.174	3.101	0.50	0.15
67	72	74	8	307.76	0.04	2.354	1.173	0.472	1.883	0.702	0.202	0.321	5.268	0.50	0.30
671	682	684	10	961.99	0.01	1.544	0.769	0.358	1.186	0.411	0.273	0.260	2.304	0.50	0.33
673	684	686	10	384.00	0.02	2.825	1.408	0.425	2.400	0.983	0.218	0.284	3.727	0.50	0.26
675	686	688	10	304.00	0.01	1.839	0.916	0.436	1.403	0.480	0.276	0.288	2.761	0.50	0.33
677	688	690	10	1026.51	0.01	2.250	1.121	0.438	1.812	0.683	0.249	0.289	3.197	0.50	0.30
679	690	692	12	660.00	0.01	3.705	1.846	0.573	3.132	1.273	0.266	0.315	3.423	0.50	0.27
681	692	694	12	670.00	0.01	2.911	1.451	0.652	2.259	0.798	0.322	0.336	2.988	0.50	0.32
683	694	674	12	670.00	0.01	3.646	1.817	0.661	2.985	1.156	0.288	0.339	3.525	0.50	0.29

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ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
685	676	698	27	258.00	0.04	63.534	57.846	5.341	58.193	52.505	0.441	0.787	9.711	0.75	0.20
687	700	702	8	290.00	0.02	1.552	0.773	0.108	1.445	0.666	0.119	0.149	2.553	0.50	0.18
689	702	704	8	85.00	0.01	1.366	0.681	0.115	1.250	0.565	0.131	0.155	2.380	0.50	0.20
69	74	76	12	429.00	0.05	7.641	3.808	0.626	7.015	3.181	0.194	0.329	5.869	0.50	0.19
691	704	706	8	75.00	0.02	1.613	0.804	0.186	1.428	0.618	0.153	0.198	3.079	0.50	0.23
693	706	708	8	155.00	0.01	1.417	0.706	0.190	1.227	0.516	0.165	0.200	2.828	0.50	0.25
695	708	710	8	262.00	0.02	1.558	0.776	0.204	1.353	0.572	0.163	0.208	3.088	0.50	0.25
697	710	712	8	780.00	0.00	0.801	0.399	0.230	0.571	0.170	0.244	0.221	1.981	0.50	0.37
699	712	714	8	467.00	0.00	0.789	0.393	0.236	0.553	0.157	0.250	0.224	1.973	0.50	0.38
701	714	716	8	473.00	0.00	0.523	0.260	0.242	0.281	0.019	0.318	0.227	1.468	0.50	0.48
703	716	718	8	16.00	0.08	3.387	1.688	0.242	3.145	1.446	0.121	0.227	5.618	0.50	0.18
705	718	698	8	71.49	0.03	1.938	0.966	0.251	1.687	0.715	0.162	0.231	3.830	0.50	0.24
707	698	720	30	1323.85	0.01	29.410	26.777	5.532	23.878	21.245	0.735	0.777	4.597	0.75	0.29
709	720	722	30	92.00	0.02	50.370	45.860	5.790	44.580	40.070	0.572	0.795	6.833	0.75	0.23
71	76	78	12	1582.00	0.05	7.744	3.859	0.633	7.111	3.226	0.193	0.331	5.942	0.50	0.19
711	724	726	12	2278.29	0.01	2.856	1.423	0.417	2.439	1.006	0.258	0.267	2.595	0.50	0.26
713	726	720	12	496.00	0.02	4.497	2.241	0.513	3.984	1.727	0.228	0.297	3.805	0.50	0.23
715	728	730	8	169.81	0.03	2.014	1.003	0.373	1.641	0.631	0.194	0.284	4.406	0.50	0.29
717	730	732	8	145.42	0.03	2.183	1.088	0.377	1.806	0.711	0.187	0.286	4.683	0.50	0.28
719	732	734	8	41.00	0.02	1.864	0.929	0.378	1.486	0.551	0.204	0.286	4.183	0.50	0.31
721	734	724	8	21.00	0.04	2.508	1.250	0.417	2.091	0.833	0.184	0.301	5.323	0.50	0.28
723	736	738	8	734.00	0.05	2.600	1.296	0.114	2.486	1.182	0.095	0.154	3.729	0.50	0.14
725	738	740	8	92.00	0.04	2.383	1.188	0.128	2.256	1.060	0.105	0.163	3.632	0.50	0.16
727	740	742	8	624.19	0.04	2.308	1.150	0.128	2.180	1.022	0.107	0.164	3.558	0.50	0.16
729	742	728	8	217.00	0.03	2.187	1.090	0.134	2.053	0.956	0.112	0.167	3.465	0.50	0.17
731	744	746	8	332.00	0.03	2.173	1.083	0.249	1.924	0.834	0.152	0.230	4.140	0.50	0.23
733	746	748	8	295.00	0.03	2.140	1.066	0.254	1.885	0.812	0.155	0.233	4.122	0.50	0.23
735	748	750	8	255.00	0.02	1.481	0.738	0.258	1.223	0.480	0.188	0.235	3.187	0.50	0.28
737	750	752	8	260.00	0.00	0.755	0.376	0.263	0.492	0.113	0.272	0.237	1.970	0.50	0.41
739	752	754	8	260.00	0.01	1.120	0.558	0.275	0.845	0.283	0.225	0.242	2.652	0.50	0.34
741	754	728	8	530.71	0.01	1.335	0.665	0.281	1.054	0.384	0.208	0.245	3.029	0.50	0.31
743	756	758	8	327.00	0.01	1.049	0.523	0.158	0.890	0.364	0.175	0.182	2.165	0.50	0.26
749	762	764	8	79.00	0.05	2.576	1.283	0.164	2.412	1.119	0.114	0.186	4.131	0.50	0.17
75	78	82	12	577.39	0.03	5.790	2.885	0.742	5.049	2.144	0.242	0.360	5.066	0.50	0.24
751	764	766	8	249.00	0.04	2.537	1.264	0.170	2.367	1.094	0.117	0.189	4.131	0.50	0.18
753	766	768	8	301.00	0.07	3.139	1.564	0.172	2.966	1.392	0.106	0.190	4.818	0.50	0.16
755	768	744	8	343.00	0.01	0.855	0.426	0.239	0.616	0.187	0.241	0.225	2.101	0.50	0.36
757	758	762	8	287.00	0.04	2.452	1.222	0.163	2.288	1.059	0.116	0.185	3.984	0.50	0.18
759	770	772	8	263.00	0.05	2.676	1.333	0.044	2.632	1.289	0.060	0.095	2.868	0.50	0.09
765	776	778	8	25.00	0.02	1.552	0.773	0.056	1.495	0.717	0.087	0.107	2.103	0.50	0.13
767	778	780	8	208.00	0.01	1.257	0.627	0.065	1.192	0.561	0.103	0.116	1.897	0.50	0.16
769	780	782	8	33.00	0.12	4.208	2.097	0.065	4.143	2.032	0.058	0.116	4.418	0.50	0.09
77	82	52	15	270.50	0.01	5.327	4.850	0.764	4.564	4.087	0.320	0.342	3.082	0.75	0.26
771	782	784	8	235.00	0.04	2.493	1.242	0.085	2.408	1.157	0.084	0.132	3.320	0.50	0.13
773	784	786	8	280.00	0.04	2.292	1.142	0.103	2.189	1.039	0.096	0.146	3.318	0.50	0.15
775	786	756	8	384.17	0.01	1.113	0.554	0.120	0.993	0.435	0.148	0.158	2.083	0.50	0.22
777	772	776	8	293.00	0.01	1.073	0.535	0.056	1.017	0.479	0.104	0.107	1.624	0.50	0.16
779	788	790	8	128.00	0.03	2.023	1.008	0.028	1.995	0.980	0.055	0.076	2.059	0.50	0.08
781	790	792	8	152.00	0.06	2.992	1.491	0.028	2.964	1.463	0.046	0.076	2.705	0.50	0.07
783	792	794	8	73.00	0.05	2.782	1.386	0.028	2.754	1.358	0.047	0.076	2.571	0.50	0.07
785	794	782	8	358.00	0.04	2.458	1.225	0.029	2.428	1.195	0.051	0.077	2.381	0.50	0.08
787	722	796	30	527.73	0.01	29.796	27.129	5.790	24.006	21.338	0.747	0.796	4.701	0.75	0.30
789	796	798	27	330.00	0.01	30.435	27.710	5.802	24.633	21.908	0.666	0.821	5.896	0.75	0.30

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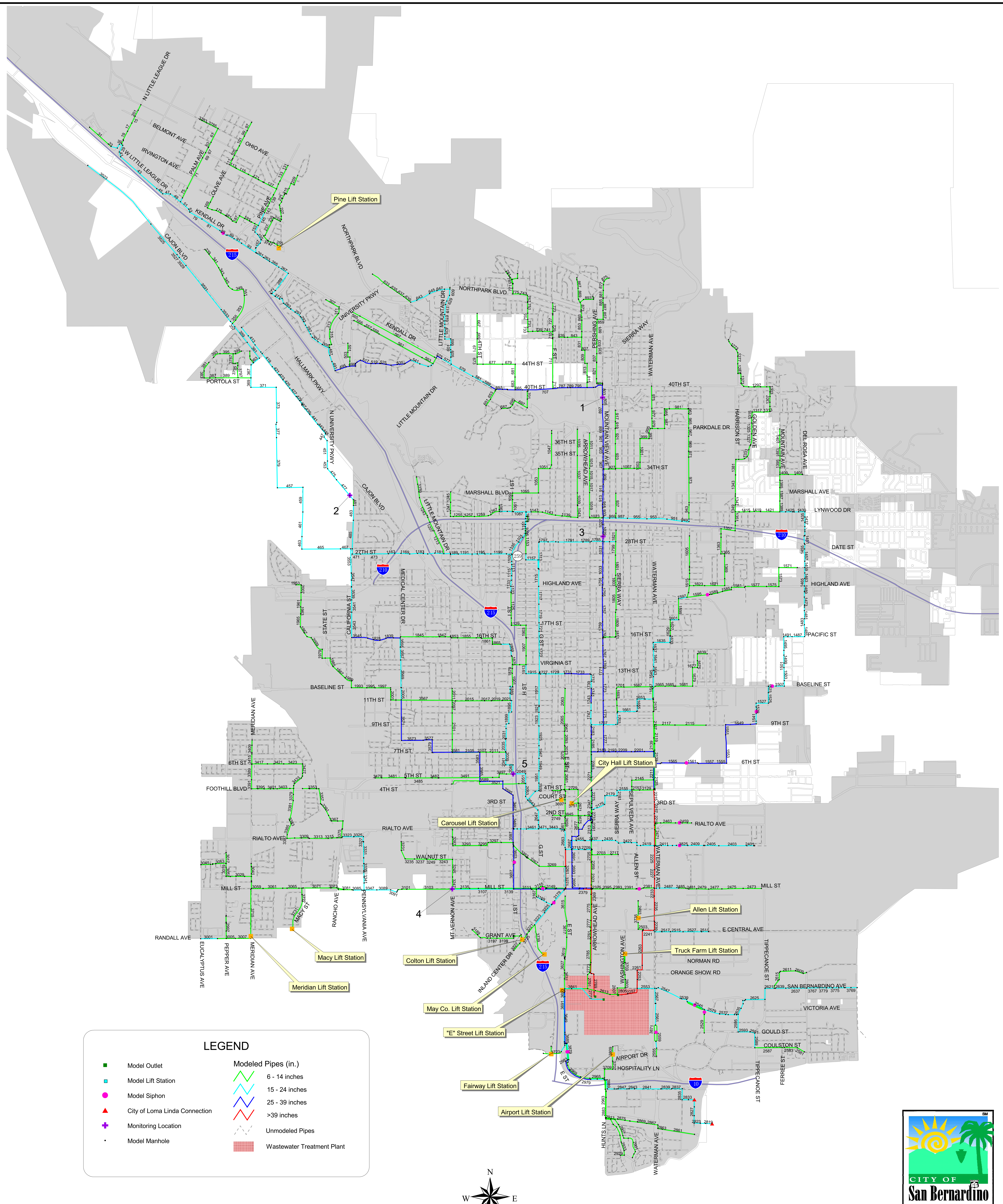
ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
79	56	86	15	762.00	0.02	9.496	8.646	2.028	7.468	6.618	0.392	0.567	6.155	0.75	0.31
795	798	802	27	879.18	0.01	29.510	26.868	5.811	23.700	21.057	0.677	0.822	5.769	0.75	0.30
797	802	804	27	321.00	0.01	33.294	30.313	6.084	27.210	24.229	0.651	0.842	6.372	0.75	0.29
799	804	806	27	27.00	0.26	157.888	143.753	6.087	151.801	137.665	0.302	0.842	19.150	0.75	0.13
801	806	808	33	490.00	0.00	32.407	29.505	6.088	26.318	23.417	0.808	0.794	4.185	0.75	0.29
803	808	810	33	646.86	0.00	28.282	25.750	6.577	21.705	19.173	0.902	0.826	3.879	0.75	0.33
805	810	812	33	425.00	0.00	13.852	12.612	6.582	7.270	6.030	1.335	0.827	2.302	0.75	0.49
807	814	816	8	202.00	0.01	1.264	0.630	0.495	0.769	0.135	0.290	0.329	3.402	0.50	0.44
809	816	818	8	644.00	0.01	0.952	0.475	0.501	0.451	-0.027	0.344	0.331	2.763	0.50	0.52
81	86	88	15	1123.86	0.02	8.773	7.988	2.035	6.738	5.953	0.410	0.569	5.820	0.75	0.33
811	818	820	8	123.00	0.00	0.691	0.344	0.544	0.147	-0.200	0.446	0.346	2.193	0.50	0.67
813	820	822	12	655.00	0.00	2.373	1.182	0.545	1.828	0.638	0.326	0.306	2.452	0.50	0.33
815	822	824	12	325.00	0.00	1.890	0.942	0.579	1.312	0.363	0.380	0.316	2.115	0.50	0.38
817	824	802	12	325.00	0.01	4.227	2.106	0.582	3.645	1.524	0.251	0.317	3.776	0.50	0.25
819	826	828	8	18.00	0.04	2.554	1.273	0.467	2.087	0.806	0.193	0.319	5.570	0.50	0.29
821	828	830	8	800.00	0.00	0.766	0.382	0.468	0.299	-0.086	0.376	0.320	2.304	0.50	0.56
823	830	832	8	297.00	0.01	0.889	0.443	0.473	0.416	-0.030	0.346	0.322	2.587	0.50	0.52
825	832	834	8	305.70	0.01	1.004	0.500	0.476	0.528	0.024	0.323	0.323	2.839	0.50	0.49
827	834	836	8	38.58	0.03	2.224	1.108	0.980	1.244	0.128	0.310	0.470	6.170	0.50	0.47
829	836	808	8	54.36	0.10	3.899	1.943	0.980	2.919	0.963	0.228	0.470	9.299	0.50	0.34
83	88	90	15	65.50	0.09	19.423	17.684	2.035	17.387	15.648	0.273	0.569	10.259	0.75	0.22
831	838	814	8	670.00	0.02	1.741	0.867	0.490	1.251	0.378	0.242	0.328	4.283	0.50	0.36
833	840	842	8	405.00	0.03	2.056	1.024	0.456	1.600	0.568	0.213	0.315	4.735	0.50	0.32
835	842	844	8	423.00	0.02	1.748	0.871	0.459	1.289	0.412	0.233	0.316	4.218	0.50	0.35
837	844	826	8	406.00	0.01	1.397	0.696	0.461	0.936	0.235	0.264	0.317	3.591	0.50	0.40
839	846	848	8	325.00	0.01	1.364	0.680	0.025	1.340	0.655	0.062	0.071	1.499	0.50	0.09
841	848	850	8	152.00	0.01	0.997	0.497	0.027	0.971	0.470	0.075	0.073	1.234	0.50	0.11
843	850	838	8	735.00	0.01	0.999	0.498	0.028	0.972	0.470	0.076	0.075	1.248	0.50	0.11
845	852	854	8	89.07	0.04	2.388	1.190	0.397	1.991	0.793	0.184	0.294	5.069	0.50	0.28
847	854	856	8	400.00	0.03	2.103	1.048	0.411	1.692	0.636	0.200	0.299	4.674	0.50	0.30
85	90	3658	18	155.49	0.08	30.606	27.866	2.066	28.540	25.799	0.264	0.542	9.867	0.75	0.18
853	860	862	8	625.00	0.03	2.110	1.052	0.451	1.659	0.600	0.209	0.314	4.811	0.50	0.31
855	862	838	8	300.00	0.02	1.718	0.856	0.475	1.243	0.381	0.240	0.322	4.207	0.50	0.36
857	864	866	8	467.00	0.05	2.642	1.317	0.057	2.585	1.260	0.068	0.108	3.068	0.50	0.10
859	866	868	8	333.00	0.01	1.357	0.676	0.438	0.919	0.238	0.261	0.309	3.468	0.50	0.39
861	868	840	8	1070.94	0.04	2.424	1.208	0.447	1.977	0.761	0.194	0.312	5.298	0.50	0.29
863	856	860	8	158.84	0.04	2.301	1.147	0.415	1.886	0.731	0.192	0.300	4.999	0.50	0.29
865	870	872	8	121.00	0.06	2.857	1.424	0.008	2.849	1.416	0.026	0.040	1.780	0.50	0.04
867	872	874	8	439.00	0.04	2.520	1.256	0.010	2.510	1.246	0.031	0.045	1.753	0.50	0.05
869	874	876	8	581.00	0.04	2.385	1.188	0.018	2.367	1.171	0.041	0.060	1.998	0.50	0.06
87	92	94	18	54.50	0.01	8.910	8.112	2.066	6.843	6.045	0.491	0.542	4.104	0.75	0.33
871	876	878	8	108.00	0.08	3.339	1.664	0.025	3.314	1.639	0.041	0.071	2.810	0.50	0.06
873	878	852	8	415.67	0.04	2.377	1.184	0.396	1.981	0.789	0.184	0.293	5.046	0.50	0.28
875	880	882	8	360.00	0.07	3.221	1.605	0.013	3.208	1.592	0.031	0.051	2.244	0.50	0.05
877	882	884	8	151.00	0.07	3.196	1.593	0.019	3.177	1.573	0.037	0.063	2.529	0.50	0.06
879	884	886	8	300.50	0.11	4.003	1.995	0.030	3.973	1.964	0.041	0.078	3.382	0.50	0.06
881	886	888	8	384.00	0.07	3.126	1.558	0.036	3.090	1.522	0.050	0.086	3.000	0.50	0.08
883	888	890	8	31.00	0.04	2.323	1.158	0.047	2.276	1.111	0.066	0.098	2.647	0.50	0.10
885	890	892	8	234.00	0.06	2.856	1.423	0.049	2.807	1.374	0.061	0.100	3.086	0.50	0.09
887	892	864	8	405.00	0.04	2.460	1.226	0.051	2.408	1.175	0.067	0.102	2.822	0.50	0.10
889	894	896	8	122.00	0.06	2.881	1.436	0.000	2.881	1.436	0.000	0.000	0.000	0.50	0.00
89	94	96	18	412.00	0.01	8.367	7.618	2.074	6.292	5.543	0.509	0.543	3.927	0.75	0.34
891	896	898	8	70.00	0.06	2.860	1.425	0.196	2.664	1.229	0.118	0.203	4.688	0.50	0.18

City of San Bernardino
Sewer Master Plan - 2002
Future Peaked Model Analysis

ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPTH	VELOCITY	DES_DD	ACT_DD
893	898	900	8	503.00	0.02	1.489	0.742	0.196	1.293	0.546	0.163	0.203	2.955	0.50	0.25
895	900	878	8	225.00	0.04	2.369	1.180	0.218	2.151	0.963	0.137	0.215	4.233	0.50	0.21
897	812	902	27	1251.61	0.01	32.023	29.156	6.583	25.440	22.573	0.692	0.877	6.337	0.75	0.31
899	902	904	27	150.00	0.06	77.030	70.133	6.589	70.441	63.544	0.445	0.878	11.834	0.75	0.20
901	904	906	27	799.47	0.00	15.915	14.490	6.590	9.326	7.901	1.009	0.878	3.814	0.75	0.45
903	906	908	27	400.00	0.01	34.017	30.971	6.590	27.427	24.382	0.671	0.878	6.620	0.75	0.30
905	908	910	27	400.00	0.02	38.285	34.857	6.590	31.695	28.268	0.632	0.878	7.204	0.75	0.28
907	910	912	27	400.00	0.03	49.975	45.501	6.590	43.386	38.911	0.552	0.878	8.710	0.75	0.25
909	912	914	27	832.00	0.00	17.558	15.986	7.220	10.338	8.766	1.005	0.920	4.200	0.75	0.45
91	96	98	18	493.00	0.02	15.356	13.981	2.074	13.282	11.907	0.372	0.543	6.064	0.75	0.25
911	914	916	27	400.00	0.01	35.677	32.483	7.220	28.457	25.263	0.687	0.920	7.029	0.75	0.31
913	916	918	27	660.00	0.01	31.147	28.358	7.220	23.927	21.138	0.737	0.920	6.376	0.75	0.33
915	918	920	27	112.00	0.02	42.216	38.437	7.220	34.996	31.216	0.630	0.920	7.929	0.75	0.28
917	922	924	10	574.00	0.01	2.343	1.168	0.630	1.713	0.538	0.295	0.349	3.643	0.50	0.35
919	924	926	10	393.00	0.01	2.606	1.299	0.632	1.973	0.666	0.280	0.350	3.939	0.50	0.34
921	926	928	10	769.00	0.01	2.282	1.137	0.733	1.550	0.405	0.325	0.377	3.726	0.50	0.39
923	928	930	10	1298.17	0.01	2.346	1.169	0.739	1.606	0.430	0.321	0.379	3.810	0.50	0.39
925	930	934	12	36.44	0.00	1.450	0.722	1.231	0.219	-0.509	0.708	0.468	2.072	0.50	0.71
927	934	936	12	400.00	0.13	12.880	6.418	1.231	11.649	5.187	0.209	0.468	10.348	0.50	0.21
929	936	938	12	228.00	0.01	2.526	1.259	1.231	1.295	0.028	0.493	0.468	3.196	0.50	0.49
93	98	100	18	904.04	0.02	15.697	14.291	2.121	13.576	12.170	0.372	0.550	6.199	0.75	0.25
931	938	912	12	36.69	0.17	14.613	7.282	1.231	13.382	6.051	0.196	0.468	11.314	0.50	0.20
933	920	940	27	473.00	0.02	44.354	40.383	7.220	37.134	33.163	0.614	0.920	8.214	0.75	0.27
935	940	942	27	100.00	0.02	43.696	39.783	7.220	36.475	32.563	0.619	0.920	8.127	0.75	0.28
937	944	946	10	1063.79	0.01	2.410	1.201	0.233	2.177	0.968	0.175	0.208	2.797	0.50	0.21
939	946	948	10	402.00	0.02	2.752	1.371	0.243	2.510	1.129	0.167	0.213	3.110	0.50	0.20
941	950	952	10	123.00	0.02	3.379	1.684	0.793	2.586	0.891	0.275	0.393	5.060	0.50	0.33
943	952	954	10	419.76	0.01	2.580	1.286	0.795	1.785	0.491	0.317	0.394	4.165	0.50	0.38
945	954	956	10	326.40	0.02	2.953	1.472	0.800	2.154	0.672	0.296	0.395	4.602	0.50	0.36
947	956	958	21	128.21	0.01	14.171	12.902	0.824	13.347	12.078	0.286	0.324	3.211	0.75	0.16
949	958	960	21	362.00	0.00	7.085	6.451	0.825	6.260	5.626	0.403	0.324	1.969	0.75	0.23
95	100	102	18	38.26	0.03	16.943	15.426	2.763	14.180	12.664	0.410	0.631	7.063	0.75	0.27
951	960	962	21	800.26	0.00	6.924	6.304	0.825	6.099	5.479	0.408	0.324	1.937	0.75	0.23
953	962	964	21	1062.20	0.00	7.131	6.493	0.913	6.218	5.580	0.423	0.341	2.037	0.75	0.24
955	964	966	21	1025.94	0.00	7.102	6.466	0.947	6.154	5.519	0.432	0.347	2.053	0.75	0.25
957	966	948	21	630.00	0.00	7.105	6.469	1.062	6.043	5.407	0.457	0.368	2.123	0.75	0.26
959	948	968	21	316.00	0.00	8.982	8.178	1.207	7.775	6.971	0.433	0.393	2.602	0.75	0.25
961	968	942	21	336.39	0.01	14.181	12.911	1.217	12.964	11.694	0.347	0.395	3.605	0.75	0.20
963	970	972	10	280.00	0.02	2.849	1.420	0.073	2.776	1.347	0.092	0.115	2.228	0.50	0.11
965	972	974	10	740.00	0.02	2.982	1.486	0.082	2.901	1.404	0.095	0.122	2.380	0.50	0.11
967	974	976	10	390.00	0.02	2.677	1.334	0.130	2.547	1.204	0.125	0.155	2.534	0.50	0.15
969	976	978	10	781.04	0.02	2.830	1.410	0.142	2.688	1.268	0.127	0.162	2.705	0.50	0.15
97	104	106	8	496.22	0.09	3.662	1.825	0.160	3.502	1.665	0.095	0.183	5.248	0.50	0.14
971	978	980	10	425.00	0.02	2.961	1.475	0.189	2.772	1.287	0.143	0.187	3.040	0.50	0.17
973	980	950	10	2404.44	0.01	2.602	1.297	0.194	2.408	1.103	0.154	0.190	2.799	0.50	0.19
975	982	984	8	1169.95	0.02	1.664	0.829	0.197	1.467	0.632	0.155	0.204	3.205	0.50	0.23
977	984	986	8	545.00	0.02	1.554	0.775	0.261	1.293	0.513	0.185	0.236	3.310	0.50	0.28
979	986	988	8	520.00	0.01	1.244	0.620	0.287	0.957	0.333	0.218	0.248	2.896	0.50	0.33
981	990	992	8	976.00	0.01	0.921	0.459	0.005	0.916	0.454	0.036	0.032	0.706	0.50	0.05
983	992	994	8	243.00	0.01	1.420	0.708	0.054	1.366	0.653	0.089	0.106	1.959	0.50	0.13
985	994	996	8	325.00	0.02	1.607	0.801	0.058	1.549	0.743	0.087	0.109	2.181	0.50	0.13
987	996	998	8	685.00	0.01	1.442	0.718	0.066	1.376	0.653	0.097	0.116	2.093	0.50	0.15
989	998	1000	8	305.00	0.01	1.181	0.589	0.116	1.065	0.473	0.141	0.155	2.152	0.50	0.21

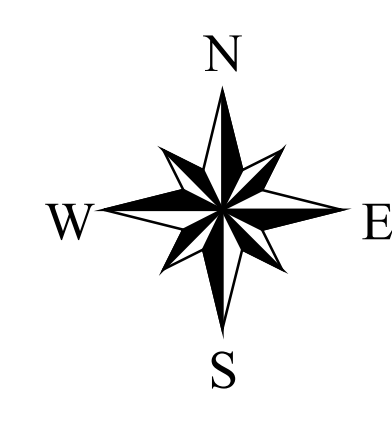
City of San Bernardino
Sewer Master Plan - 2002
Future Peaked Model Analysis

ID	FROM ID	TO ID	DIA.	LENGTH	SLOPE	FULL FLOW	DES FLOW	PIPE FLOW	FULL EXCS	DES EXCS	DEPTH	CRIT DEPH	VELOCITY	DES_DD	ACT_DD
99	106	108	8	325.47	0.05	2.677	1.334	0.184	2.494	1.150	0.118	0.197	4.389	0.50	0.18
991	1000	988	8	305.00	0.00	0.669	0.333	0.118	0.551	0.215	0.190	0.157	1.445	0.50	0.29
993	988	1002	8	105.00	0.02	1.801	0.897	0.401	1.400	0.497	0.214	0.295	4.152	0.50	0.32
995	1002	1004	8	250.09	0.01	1.270	0.633	0.447	0.824	0.187	0.273	0.312	3.321	0.50	0.41
997	1004	1006	8	290.00	0.01	1.344	0.670	0.447	0.897	0.222	0.265	0.312	3.463	0.50	0.40
999	1006	1008	8	463.00	0.01	1.198	0.597	0.451	0.748	0.146	0.283	0.314	3.190	0.50	0.43



LEGEND

■ Model Outlet	— Modeled Pipes (in.)
■ Model Lift Station	— 6 - 14 inches
● Model Siphon	— 15 - 24 inches
▲ City of Loma Linda Connection	— 25 - 39 inches
+ Monitoring Location	— >39 inches
• Model Manhole	--- Unmodeled Pipes
	 Wastewater Treatment Plant



**FIGURE 3-5
CITY OF SAN BERNARDINO
SEWER MASTER PLAN - 2002
EXISTING WASTEWATER SYSTEM MODEL**

M:\SAN120100\SB Sewer MFGIS_DATA\apr_files\ex_pipe_results.apr (Layout: Fig 3-5 Exst Model)