CONCEPTUAL DRAINAGE REPORT FOR SONATA TRAILS UNIT 4 APARTMENTS

PREPARED FOR
City of Albuquerque, Planning Department
Development Review Services, Hydrology Section

PREPARED BY
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JUNE 2020

I, Sheldon Greer, do hereby certify that this report was duly prepared by me or under my direction and that I am a duly registered Professional Engineer under the laws of the State of New Mexico.

Sheldon Greer, P.E.
NMPE No. 17154

6 / 10 / 2020

Date

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this conceptual drainage report is to demonstrate that the proposed development of Sonata Trails Unit 4 Apartments safely conveys the peak 100-year storm runoff. The drainage intent for proposed conditions is to match current existing conditions for the site.

The proposed development of Sonata Trails Unit 4 Apartments site is within the "Upper Marcadas Watershed Drainage Management Plan" by Wilson & Company dated April 2017. The project site ultimately drains into an Albuquerque Metropolitan Arroyo and Flood Control Authority (AMAFCA) facility, the Piedras Marcadas Dam. The proposed development impacts the existing detention pond J from the Trails Units 1, 2, and 3, Drainage Master Plan (DMP). The Amendment to the Trails Units 1, 2, and 3 DMP was completed by Thompson Engineering Consultants (TEC) in April 2014 and approved by the City Hydrologist in May 2014. All the Trails surge/detention ponds were based on conservative assumptions when modeled initially by AHYMO but were later modeled using PCSWMM software to maximize the efficiency of the system while decreasing the footprint of Pond D. We have revised the Trails PCSWMM model due to the proposed confined footprint of Pond J and propose increasing the water surface elevation in Pond K, without changing the footprint of Pond K.

1.2 LOCATION AND DESCRIPTION

Sonata Trails Unit 4 Apartments is located southwest of Paseo Del Norte NW and Universe Boulevard NE intersection and contain approximately 17.4 acres. See Figure 1.2.1 below. The legal description of the property is Tracts 1 and 2, The Trails Unit 4, on the plat entitled "Bulk land plat of The Trails Unit 4 within the Town of Alameda Grant in projected Section 15, Township 11 North, Range 2 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, October, 2007." The existing site includes detention pond J for the Trails Units 1, 2, and 3, but is otherwise undeveloped. The existing conditions are described in more detail in Section 3.1 and the proposed conditions are described in Section 3.2.

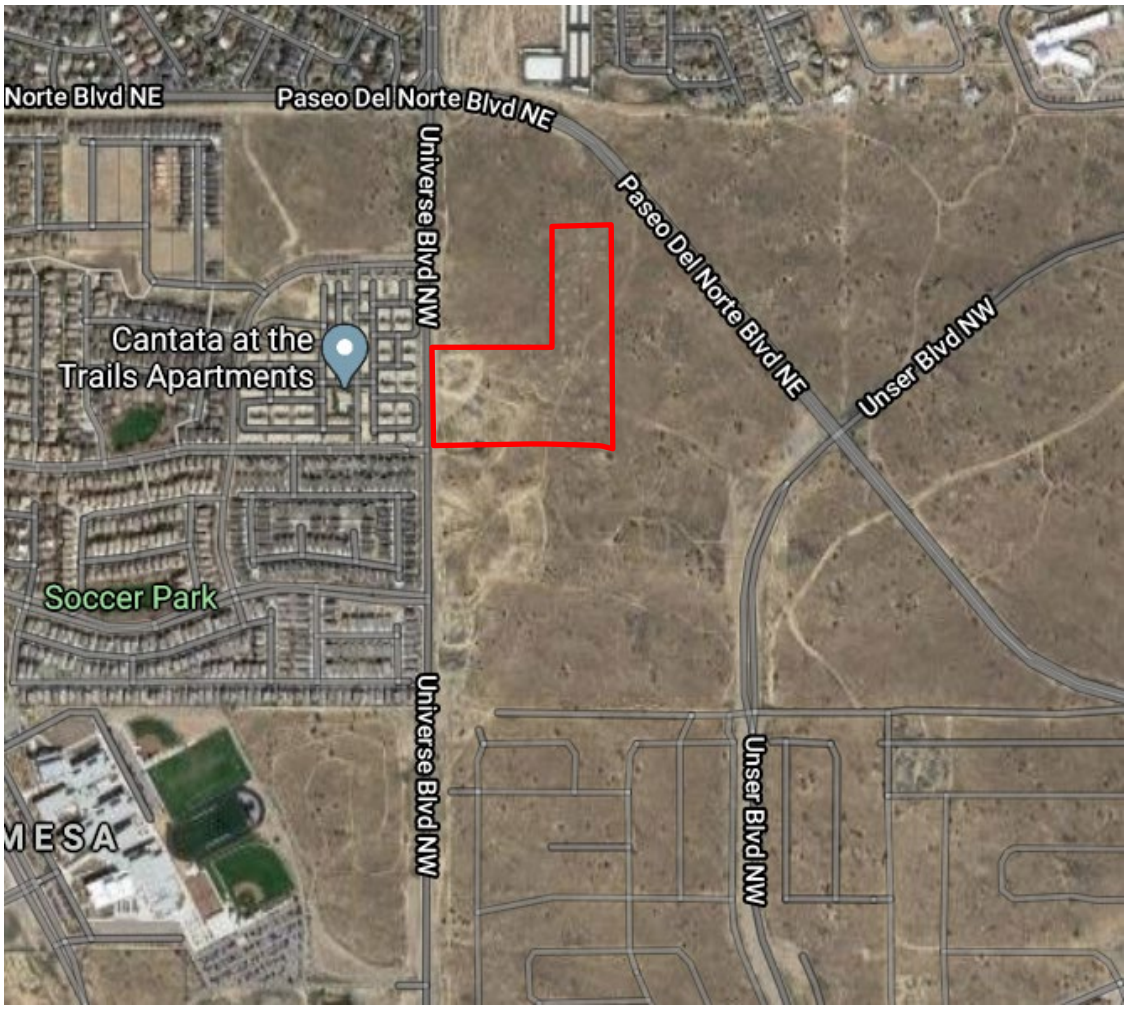


FIGURE 1.2.1 – PROJECT LOCATION

2.0 METHODOLOGY

The hydrologic analysis was performed for the site in accordance with the Albuquerque Development Process Manual (DPM) Section 22.2. AHYMO-S4 (April 2018) was used to develop peak flow rates for the 100-year, 24-hour design storm in order to ensure all flow paths are sufficient to carry flows. The required water quality volume was calculated by multiplying the onsite impervious area by the first flush runoff value of 0.34". All hydrologic and hydraulic calculations are included in this report.

3.0 HYDROLOGY

3.1 EXISTING CONDITIONS

The Sonata Trails Unit 4 Apartment receive offsite flows from the Trails Units 1, 2, and 3 and as well as the neighboring parcel to the northwest. The existing site is 100% pervious area and a portion of the property contains a detention pond, Pond J, which receives flows from the Trails Units 1, 2, and 3. The

total flow generated by the property under existing conditions is 47.71 cfs. The existing property has been split into three sub-basins. Exhibit 1 shows the existing sub-basin boundaries for the site.

Basin A is located in the western corner of the property and is primarily made up of existing detention pond, Pond J, and undeveloped pervious area. In general, the basin slopes from north to south and south to north at varying slopes between 1%-20%. Under existing conditions, runoff from the Universe storm drain system surges into Pond J and exits the detention pond back into the Universe storm drain system or at the overflow weir at the northwest corner of the pond and discharges into Basins B and Basin C. The existing Pond J has a maximum water surface elevation of 5418.46 ft, maximum volume of 3.70 ac-ft, maximum inflow of 136.80 cfs, and maximum outflow of 26.65 cfs. Historically, before the berm and pond were built, the basin flowed northeast into Basins B and Basin C. Basin A generates 6.88 cfs.

Basin B contains the southeast corner of the property and is undeveloped pervious area. In general, the basin slopes from south to north at varying slopes between 1-8%. After ponding a small amount, roughly 6", runoff exits this basin at the northern end of the basin and discharges into Basin C. Basin B generates 12.21 cfs.

Basin C contains of the north end of the property and offsite area west of the property boundary. The area contains undeveloped pervious area. In general, the basin slopes from southeast to northwest at varying slopes between 1-16%. Runoff exists this basin at the northern end of the basin. Basin C generates 28.63 cfs.

TABLE 3.1.1 – HYDROLOGIC DATA - EXISTING

HYDROLOGIC DATA - EXISTING							
SUB-BASIN	AREA (AC)	LAND USE PERCENTAGES				Q100 (CFS)	V100 (AC-FT)
		A	B	C	D		
A	5.14	100%	0%	0%	0%	6.88	0.188
B	9.14	100%	0%	0%	0%	12.21	0.335
C	21.44	100%	0%	0%	0%	28.63	0.785
TOTAL	**35.73**					**47.72**	**1.308**

3.2 PROPOSED CONDITIONS

The proposed site development for the Trails Unit 4 Apartments includes apartment buildings, parking lots, public and private streets, detention ponds, and landscaping. Under the proposed condition, approximately 80% of the site will consist of impervious area and 20% will be landscaped. The total flow generated by the proposed development is 81.35 cfs. Therefore, the discharge from the proposed site is greater than the existing condition so we will limit the discharge in a proposed public Pond A to existing conditions, 47.71 cfs. See Appendix A for the AHYMO input and output results verifying the proposed Pond A reduces the drainage discharge below historic levels. The property has been split into nine proposed basins. Exhibit 2 shows the proposed basin boundaries for the site.

Basin A consists of the edges of the property from the southwest corner to the northeast corner and is made up of apartment buildings, asphalt roads and parking, and landscaping. In general, the basin slopes from southwest to northeast at varying slopes between 0.5%-1%. Runoff is collected in

proposed drop inlets in the new road which discharges into a storm drain that will connect to the public storm drain system, and ultimately discharge into the proposed Pond A. The proposed flow is 19.52 cfs.

Basin B consists of the center portion of the property and is made up of apartment buildings, asphalt roads and parking, and landscaping. In general, the basin slopes from west to east at varying slopes between 0.5%-1%. Runoff is collected in the new road which discharges into Basin A. The proposed flow is 11.84 cfs.

Basin C consists of the center portion of the property and is made up of apartment buildings, asphalt roads and parking, and landscaping. In general, the basin slopes from west to east at varying slopes between 0.5%-1%. Runoff is collected in the new road which discharges into Basin A. The proposed flow is 16.36 cfs.

Basin D is an undeveloped off-site basin to the west and north of the property. The basin also includes a proposed Pond A at the northeast corner of the basin. In general, the basin slopes from southeast to northwest at varying slopes between 3-5%. The southwestern portion of the basin discharges into the swale in Basin F. Runoff exits Basin D at the overflow weir spillway in the proposed Pond A and discharges to the northwest to match the historic discharge. We are proposing a wide spillway to best replicate the sheet flow that historically discharges to this point. The proposed Pond A has a maximum water surface elevation of 5419.33 ft, maximum volume of 2.326 ac-ft, maximum inflow of 80.71 cfs, and maximum outflow of 11.18 cfs. Pond A limits the discharge well below historic rate of 47.72 cfs down to 11.18 cfs. Basin D generates 16.38 cfs.

Basin E consists of the northern end of the property and is made up of apartment buildings, asphalt roads and parking, landscaping, and undeveloped pervious area. In general, the basin slopes from south to north at varying slopes between 0.5%-1%. Runoff is overland flow and discharges into Basin D. The proposed flow is 1.54 cfs.

Basin F consists of the northwestern boundary of the property and is made up of landscaping and a swale. In general, the basin slopes west and then north at varying slopes between 0.5%-1%. Runoff is conveyed in a proposed swale. The primary purpose of the swale is to convey offsite drainage from Basin D to prevent the offsite drainage from affecting the proposed property. The proposed swale ultimately discharges into the ROW at the northwest corner of the property, into Basin D and then Pond A. The proposed flow is 0.94 cfs.

Basin G is an off-site basin and consists of the proposed public streets, Treeline Avenue and Chatsworth Drive. In general, the basin slopes from west to east on Treeline Avenue and south to north on Chatsworth Drive at varying slopes between 0.5%-1%. Runoff is collected in drop inlets which discharges into the proposed Pond A in Basin D via storm drain. The proposed flow is 14.88 cfs.

Basin H is an off-site basin and consists of the half-street expansion of the proposed public street, Universe Drive. In general, the basin slopes from north to south at 0.5%. Runoff in Universe Drive continues south until it is collected in drop inlets immediately south of Woodmont Avenue which discharges directly into Pond K. The proposed flow is 2.88 cfs. This flow has been accounted for in the existing PCSWMM model.

Basin I consists of the reconfiguration of Pond J and landscaping. In general, the basin slopes from north to south at varying slopes between 0.5%-1%. Runoff is collected in Pond J which discharges into the existing storm drain network paralleling Universe Drive. The proposed flow in this basin is 2.00 cfs.

The hydrologic data table below depicts in further detail each sub-basin and its characteristics.

TABLE 3.2.1 – HYDROLOGIC DATA - PROPOSED

HYDROLOGIC DATA - PROPOSED							
SUB-BASIN	AREA (AC)	LAND USE PERCENTAGES				Q100 (CFS)	V100 (AC-FT)
		A	B	C	D		
A	4.89	0%	10%	10%	80%	19.52	0.857
B	2.96	0%	10%	10%	80%	11.84	0.520
C	4.10	0%	10%	10%	80%	16.36	0.718
D	10.01	90%	0%	0%	10%	16.38	0.532
E	0.62	0%	50%	50%	0%	1.54	0.042
F	0.35	0%	45%	45%	10%	0.94	0.028
G	3.55	0%	5%	5%	90%	14.88	0.670
H	0.69	0%	5%	5%	90%	2.88	0.129
I	0.47	0%	5%	5%	90%	2.00	0.089
TOTAL	**27.64**					**86.34**	**3.585**

The total required water quality volume for the site was calculated based on the total proposed onsite impervious area multiplied by the is 13,064 cubic feet. The required stormwater quality volume has been provided in the proposed Pond A. More details regarding water quality will be provided at Building Permit review.

3.2.1 PCSWMM MODEL REVISIONS

Due to Pond J losing volume, we propose sending more drainage into Pond K, raising the 100-yr water surface elevation 0.22 feet from 5407.86' to 5408.08'. Pond K will still have 2.' of freeboard available with the increase in water surface elevation. The proposed Pond J has a maximum volume of 0.58 ac-ft, maximum inflow of 47.56 cfs, and maximum outflow of 32.03 cfs. In order to keep the hydraulic grade line below the existing manhole rim elevations, we propose installing a 24" storm drain out of the next storm drain manhole to the south into Pond K and installing a 3.4' diameter orifice plate in the Pond J manhole. The PCSWMM model included the offsite basin flows from Basin D discharging into Pond J, so we removed input hydrograph "12" from the model since the offsite flows do not discharge into Pond J. Also, input hydrograph "88" was revised from 12.31 cfs to 2.00 cfs to match the peak flow in Basin I. Also, after a field investigation it was discovered a 30" pipe discharges into Pond K at storm drain manhole "SDMH-5A". The existing and proposed results for Pond J and K and an overview map of the PCSWMM model revisions are included in Appendix A.

4.0 HYDRAULICS

4.1 STREETS

Runoff flow rates and volumes for the hydraulic design of the Sonata Trails Unit 4 development are those calculated by the AHYMO model. Private street capacities were checked at certain locations throughout the roadways where flow runoff rates are critical. These include the proposed roadways in Basins A, B, and C.

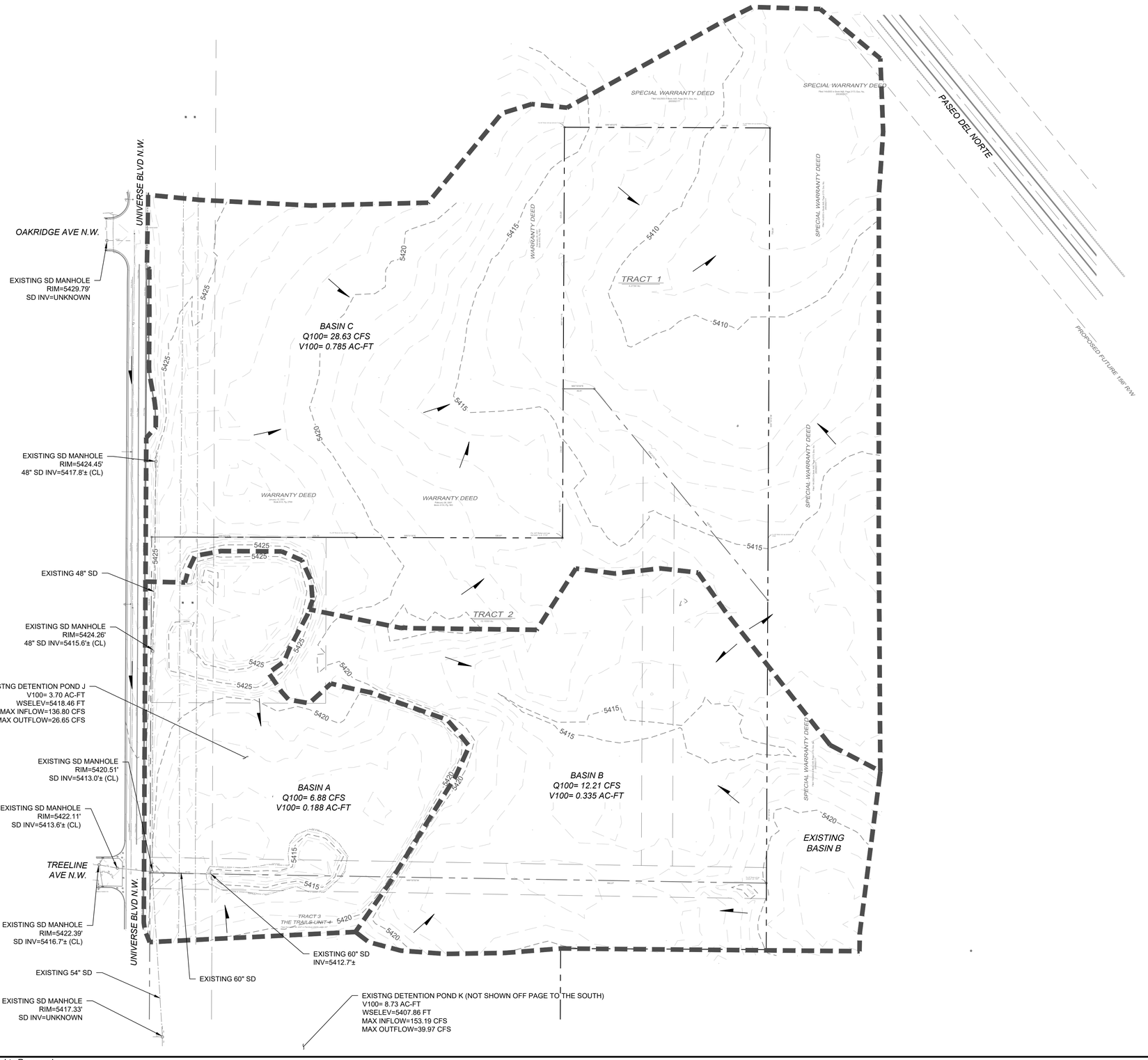
The maximum street capacity was determined for a given street section using ManningSolver Version 1.019 to ensure the design criteria mentioned in Section 2.0 of this report were met. Calculations for street capacities are shown in Appendix B.

4.2 STORM INLETS AND STORM DRAINS

Flow intercepted by drainage inlets were determined using the orifice and weir equations based on the City of Albuquerque Type "D" inlets. Flow quantities intercepted by curb inlets were determined using the Albuquerque DPM grating capacities rating curves for the appropriate inlets. All proposed storm drain capacities were determined using ManningSolver Version 1.019. For further information on drainage inlet and storm drain capacity calculations see Appendix B.

5.0 CONCLUSION

This drainage report is prepared in support of the new development for Sonata Trails Unit 4 Apartments. The existing site is undeveloped and the new development will include apartments, parking, landscaping, public roadways, public Pond A, and revising existing Pond J. The existing detention Pond J will be redesigned to allow for the development of the apartment complex sending more drainage to existing Pond K. The 100-year water surface elevation in Pond K increases from 5407.86' to 5408.08', a 0.22' increase. Pond K will have 2.22' of remaining freeboard after the proposed increase. The proposed conditions limit the discharge out of the proposed Pond A significantly below existing conditions, 47.71 cfs, down to 11.18 cfs. The proposed spillway for Pond A is wide to best replicate the sheet flow that historically discharges out of Basin D. The hydrologic calculations are included in Appendix A. The hydraulic calculations are included in Appendix B.



LEGEND

- PROPERTY BOUNDARY
- BASIN BOUNDARY
- EXISTING STORM DRAIN
- FLOW ARROW
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN INLET

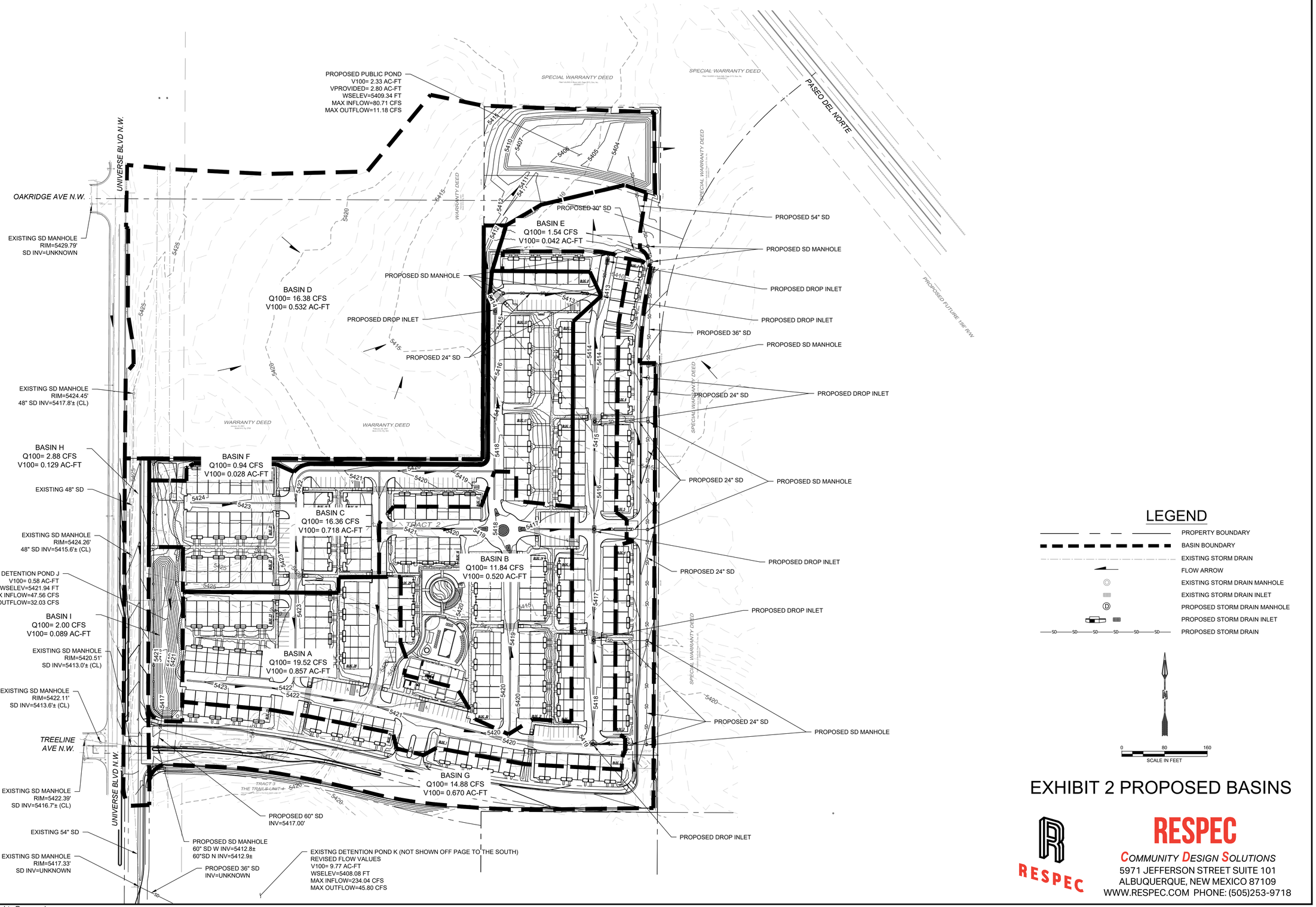
N

0 80 160
SCALE IN FEET

EXHIBIT 1 EXISTING BASINS

RESPEC
COMMUNITY DESIGN SOLUTIONS
5971 JEFFERSON STREET SUITE 101
ALBUQUERQUE, NEW MEXICO 87109
WWW.RESPEC.COM PHONE: (505)253-9718

NAME: L:\Active Projects\04022 Sonata Trails Unit 4 Apartments\3. DWG\Onsite Plan Set\Exhibits\04022 Drainage Existing Conditions.dwg PLOT DATE: May 29, 2020 1:59pm



LEGEND

- PROPERTY BOUNDARY
- BASIN BOUNDARY
- EXISTING STORM DRAIN
- FLOW ARROW
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN

0 80 160
SCALE IN FEET

EXHIBIT 2 PROPOSED BASINS

RESPEC
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NAME: L:\Active Projects\04022 Sonata Trails Unit 4 Apartments\3. DWG\Onsite Plan Set\Exhibits\04022 Drainage Proposed Conditions.dwg PLOT DATE: May 29, 2020 1:53pm

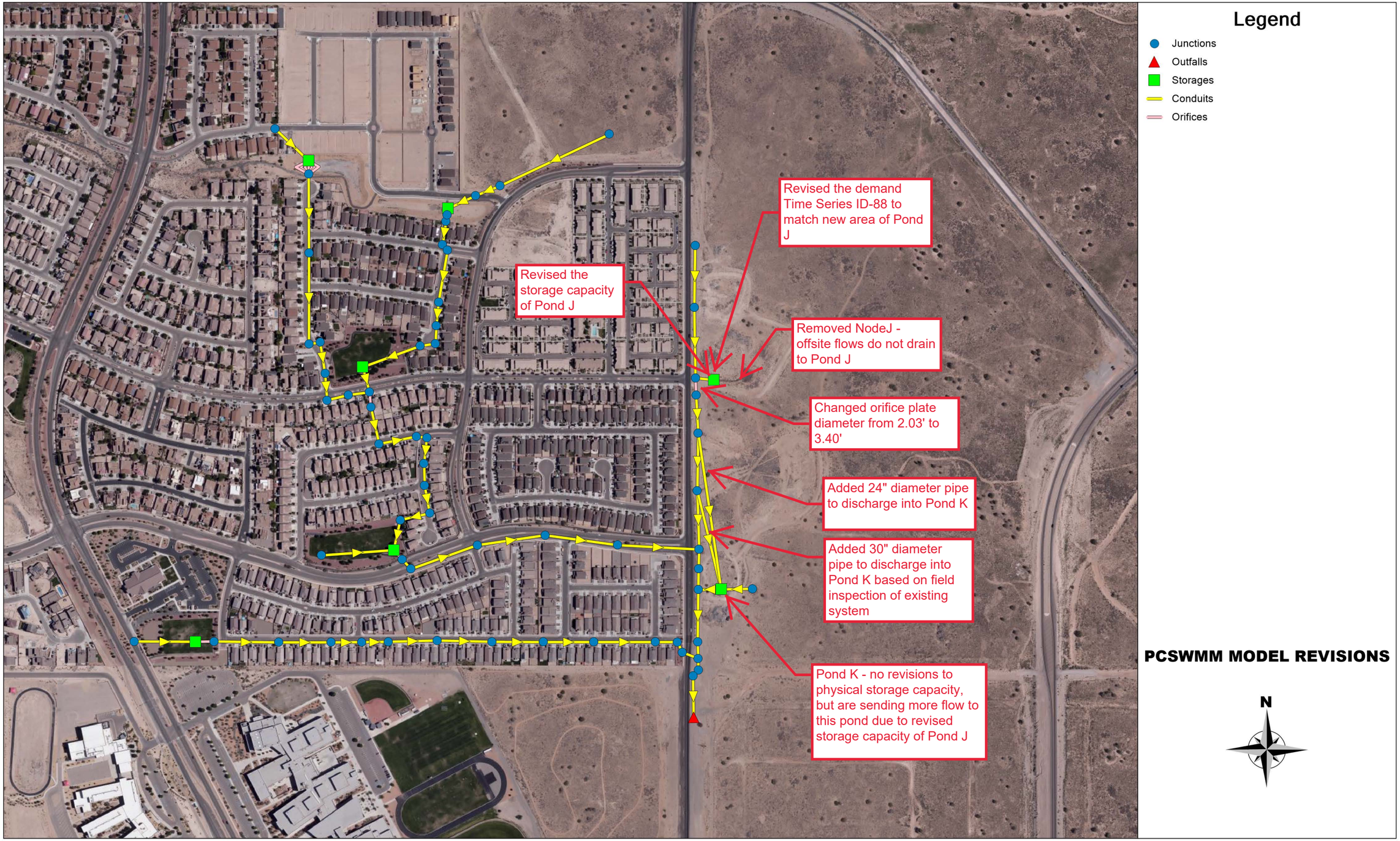
APPENDIX A

HYDROLOGIC CALCULATIONS

Water Quality:

Required Water Quality volume for first flush of 0.34"

Basin	Volume (cu. ft.)	Volume Provided (cu. ft.)
Total Onsite Impervious Area	13,064	122,383


Revised the storage capacity of Pond J
Revised the demand Time Series ID-88 to match new area of Pond J
Removed NodeJ - offsite flows do not drain to Pond J
Changed orifice plate diameter from 2.03' to 3.40'
Added 24" diameter pipe to discharge into Pond K
Added 30" diameter pipe to discharge into Pond K based on field inspection of existing system
Pond K - no revisions to physical storage capacity, but are sending more flow to this pond due to revised storage capacity of Pond J
Legend
Junctions
Outfalls
Storages
Conduits
Orifices
PCSWMM MODEL REVISIONS
N

EXISTING PCSWMM STORAGE SUMMARY											
NAME	POND BOTTOM	TOP OF POND	EMERGENCY SPILLWAY ELEVATION	DEPTH TO EMERGENCY SPILLWAY	MAX WATER SURFACE ELEVATION	MAX HGL	TIME MAX HGL	MAX TOTAL INFLOW	FREEBOARD TO EMERGENCY SPILLWAY	MAX VOLUME	MAX OUTFLOW
	FT	FT	FT	FT	FT	FT	H:M	CFS	FT	AC-FT	CFS
POND-J	5414.00	5418.00	5417.00	3.00	1.66	5415.66	2:03	136.06	1.30	3.70	26.64
POND-K	5404.85	5412.00	5410.30	5.45	3.01	5407.86	4:01	153.19	2.40	8.73	39.97

PROPOSED PCSWMM STORAGE SUMMARY											
NAME	POND BOTTOM	TOP OF POND	EMERGENCY SPILLWAY ELEVATION	DEPTH TO EMERGENCY SPILLWAY	MAX WATER SURFACE ELEVATION	MAX HGL	TIME MAX HGL	MAX TOTAL INFLOW	FREEBOARD TO EMERGENCY SPILLWAY	MAX VOLUME	MAX OUTFLOW
	FT	FT	FT	FT	FT	FT	H:M	CFS	FT	AC-FT	CFS
POND-J	5417.00	5424.00	5423.00	6.00	4.94	5421.94	1:36	47.56	1.06	0.58	32.03
POND-K	5404.85	5412.00	5410.30	2.22	3.23	5408.08	2:22	234.04	2.34	9.77	45.80

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PRINT HYD                ID=4 CODE=10

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PRINT HYD                 ID=22 CODE=10



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                          0.01          0.43    5406.00
                          0.01          0.86    5407.00
                          0.01          1.44    5408.00
                          0.01          2.10    5409.00
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2.0182	2.0215	2.0247	2.0278	2.0309	2.0339	2.0368
2.0396	2.0425	2.0452	2.0479	2.0506	2.0532	2.0557
2.0582	2.0607	2.0631	2.0655	2.0678	2.0702	2.0724
2.0747	2.0769	2.0791	2.0812	2.0833	2.0854	2.0875
2.0895	2.0915	2.0935	2.0955	2.0974	2.0993	2.1012
2.1031	2.1049	2.1067	2.1086	2.1103	2.1121	2.1139
2.1156	2.1173	2.1190	2.1207	2.1223	2.1240	2.1256
2.1272	2.1288	2.1304	2.1320	2.1335	2.1351	2.1366
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2.1484	2.1498	2.1512	2.1526	2.1540	2.1553	2.1567
2.1581	2.1594	2.1607	2.1621	2.1634	2.1647	2.1660
2.1673	2.1686	2.1698	2.1711	2.1723	2.1736	2.1748
2.1761	2.1773	2.1785	2.1797	2.1809	2.1821	2.1833
2.1844	2.1856	2.1868	2.1879	2.1891	2.1902	2.1913
2.1925	2.1936	2.1947	2.1958	2.1969	2.1980	2.1991
2.2002	2.2015	2.2028	2.2041	2.2054	2.2067	2.2080
2.2092	2.2105	2.2118	2.2130	2.2143	2.2156	2.2168

2.2181	2.2193	2.2206	2.2218	2.2231	2.2243	2.2255
2.2268	2.2280	2.2292	2.2305	2.2317	2.2329	2.2341
2.2354	2.2366	2.2378	2.2390	2.2402	2.2414	2.2426
2.2438	2.2450	2.2462	2.2474	2.2486	2.2497	2.2509
2.2521	2.2533	2.2545	2.2556	2.2568	2.2580	2.2591
2.2603	2.2615	2.2626	2.2638	2.2649	2.2661	2.2672
2.2684	2.2695	2.2706	2.2718	2.2729	2.2741	2.2752
2.2763	2.2774	2.2786	2.2797	2.2808	2.2819	2.2830
2.2842	2.2853	2.2864	2.2875	2.2886	2.2897	2.2908
2.2919	2.2930	2.2941	2.2952	2.2963	2.2974	2.2984
2.2995	2.3006	2.3017	2.3028	2.3038	2.3049	2.3060
2.3071	2.3081	2.3092	2.3103	2.3113	2.3124	2.3134
2.3145	2.3155	2.3166	2.3176	2.3187	2.3197	2.3208
2.3218	2.3229	2.3239	2.3249	2.3260	2.3270	2.3280
2.3291	2.3301	2.3311	2.3321	2.3331	2.3342	2.3352
2.3362	2.3372	2.3382	2.3392	2.3402	2.3413	2.3423
2.3433	2.3443	2.3453	2.3463	2.3473	2.3482	2.3492
2.3502	2.3512	2.3522	2.3532	2.3542	2.3552	2.3561
2.3571	2.3581	2.3591	2.3600	2.3610	2.3620	2.3630
2.3639	2.3649	2.3659	2.3668	2.3678	2.3687	2.3697
2.3706	2.3716	2.3726	2.3735	2.3745	2.3754	2.3763
2.3773	2.3782	2.3792	2.3801	2.3811	2.3820	2.3829
2.3839	2.3848	2.3857	2.3867	2.3876	2.3885	2.3894
2.3904	2.3913	2.3922	2.3931	2.3940	2.3950	2.3959
2.3968	2.3977	2.3986	2.3995	2.4004	2.4013	2.4022
2.4031	2.4040	2.4049	2.4058	2.4067	2.4076	2.4085
2.4094	2.4103	2.4112	2.4121	2.4130	2.4139	2.4148
2.4156	2.4165	2.4174	2.4183	2.4192	2.4200	2.4209
2.4218	2.4227	2.4235	2.4244	2.4253	2.4261	2.4270
2.4279	2.4287	2.4296	2.4305	2.4313	2.4322	2.4330
2.4339	2.4348	2.4356	2.4365	2.4373	2.4382	2.4390
2.4399	2.4407	2.4416	2.4424	2.4432	2.4441	2.4449
2.4458	2.4466	2.4474	2.4483	2.4491	2.4499	2.4508
2.4516	2.4524	2.4533	2.4541	2.4549	2.4557	2.4566
2.4574	2.4582	2.4590	2.4599	2.4607	2.4615	2.4623
2.4631	2.4639	2.4647	2.4656	2.4664	2.4672	2.4680
2.4688	2.4696	2.4704	2.4712	2.4720	2.4728	2.4736
2.4744	2.4752	2.4760	2.4768	2.4776	2.4784	2.4792
2.4800	2.4808	2.4816	2.4823	2.4831	2.4839	2.4847
2.4855	2.4863	2.4871	2.4878	2.4886	2.4894	2.4902
2.4910	2.4917	2.4925	2.4933	2.4941	2.4948	2.4956
2.4964	2.4971	2.4979	2.4987	2.4994	2.5002	2.5010
2.5017	2.5025	2.5033	2.5040	2.5048	2.5055	2.5063
2.5070	2.5078	2.5086	2.5093	2.5101	2.5108	2.5116
2.5123	2.5131	2.5138	2.5146	2.5153	2.5161	2.5168
2.5175	2.5183	2.5190	2.5198	2.5205	2.5212	2.5220
2.5227	2.5235	2.5242	2.5249	2.5257	2.5264	2.5271
2.5279	2.5286	2.5293	2.5300	2.5308	2.5315	2.5322

2.5329	2.5337	2.5344	2.5351	2.5358	2.5366	2.5373
2.5380	2.5387	2.5394	2.5401	2.5409	2.5416	2.5423
2.5430	2.5437	2.5444	2.5451	2.5458	2.5465	2.5472
2.5480	2.5487	2.5494	2.5501	2.5508	2.5515	2.5522
2.5529	2.5536	2.5543	2.5550	2.5557	2.5564	2.5571
2.5578	2.5585	2.5591	2.5598	2.5605	2.5612	2.5619
2.5626	2.5633	2.5640	2.5647	2.5654	2.5660	2.5667
2.5674	2.5681	2.5688	2.5695	2.5701	2.5708	2.5715
2.5722	2.5729	2.5735	2.5742	2.5749	2.5756	2.5762
2.5769	2.5776	2.5782	2.5789	2.5796	2.5803	2.5809
2.5816	2.5823	2.5829	2.5836	2.5843	2.5849	2.5856
2.5863	2.5869	2.5876	2.5882	2.5889	2.5896	2.5902
2.5909	2.5915	2.5922	2.5928	2.5935	2.5942	2.5948
2.5955	2.5961	2.5968	2.5974	2.5981	2.5987	2.5994
2.6000	2.6007	2.6013	2.6020	2.6026	2.6032	2.6039
2.6045	2.6052	2.6058	2.6065	2.6071	2.6077	2.6084
2.6090	2.6097	2.6103	2.6109	2.6116	2.6122	2.6128
2.6135	2.6141	2.6147	2.6154	2.6160	2.6166	2.6173
2.6179	2.6185	2.6191	2.6198	2.6204	2.6210	2.6217
2.6223	2.6229	2.6235	2.6241	2.6248	2.6254	2.6260
2.6266	2.6273	2.6279	2.6285	2.6291	2.6297	2.6303
2.6310	2.6316	2.6322	2.6328	2.6334	2.6340	2.6346
2.6353	2.6359	2.6365	2.6371	2.6377	2.6383	2.6389
2.6395	2.6401	2.6407	2.6413	2.6420	2.6426	2.6432
2.6438	2.6444	2.6450	2.6456	2.6462	2.6468	2.6474
2.6480	2.6486	2.6492	2.6498	2.6504	2.6510	2.6516
2.6522	2.6527	2.6533	2.6539	2.6545	2.6551	2.6557
2.6563	2.6569	2.6575	2.6581	2.6587	2.6593	2.6598

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    ************************************************************

    *S EXISTING CONDITIONS


    *S  COMPUTE HYD EXISTING BASIN A

    COMPUTE NM HYD      ID=1  HYDNO=101  DA=0.00804SQ MI

                        PER A=100  PER B=0   PER C=0  PER D=0

                        TP=-0.13   RAIN=-1


         K =  0.159632HR    TP =  0.130000HR    K/TP RATIO =  1.227936     SHAPE
CONSTANT, N =  2.899626
         UNIT PEAK =   16.917    CFS   UNIT VOLUME =   0.9988       B =   273.54
  P60 = 1.8700
```

AREA = 0.008040 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD ID=1 CODE=10

PARTIAL HYDROGRAPH 101.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	0.990	0.0	1.980	0.7	2.970	0.1
3.960	0.0	0.330	0.0	1.320	0.0	2.310	0.3
3.300	0.0	4.290	0.0	0.660	0.0	1.650	4.1
2.640	0.2	3.630	0.0				

RUNOFF VOLUME = 0.43934 INCHES = 0.1884 ACRE-FEET
PEAK DISCHARGE RATE = 6.88 CFS AT 1.518 HOURS BASIN AREA = 0.0080 SQ. MI.

*S COMPUTE HYD EXISTING BASIN B

COMPUTE NM HYD ID=2 HYDNO=102 DA=0.01428SQ MI

PER A=100 PER B=0 PER C=0 PER D=0

TP=-0.13 RAIN=-1

K = 0.159632HR TP = 0.130000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
UNIT PEAK = 30.047 CFS UNIT VOLUME = 0.9991 B = 273.54 P60 = 1.8700
AREA = 0.014280 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD ID=2 CODE=10

PARTIAL HYDROGRAPH 102.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	0.990	0.0	1.980	1.2	2.970	0.1
3.960	0.0						
0.330	0.0	1.320	0.0	2.310	0.6	3.300	0.1
4.290	0.0						
0.660	0.0	1.650	7.3	2.640	0.3	3.630	0.0
4.620	0.0						

RUNOFF VOLUME = 0.43934 INCHES = 0.3346 ACRE-FEET
PEAK DISCHARGE RATE = 12.21 CFS AT 1.518 HOURS BASIN AREA = 0.0143 SQ. MI.

*S COMPUTE HYD EXISTING BASIN C

COMPUTE NM HYD ID=3 HYDNO=103 DA=0.03350SQ MI

PER A=100 PER B=0 PER C=0 PER D=0

TP=-0.13 RAIN=-1

K = 0.159632HR TP = 0.130000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
UNIT PEAK = 70.489 CFS UNIT VOLUME = 0.9994 B = 273.54 P60 = 1.8700
AREA = 0.033500 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD ID=3 CODE=10

PARTIAL HYDROGRAPH 103.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS

HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	1.320	0.0	2.640	0.7
3.960	0.0				
0.330	0.0	1.650	17.1	2.970	0.3
4.290	0.0				
0.660	0.0	1.980	2.7	3.300	0.2
4.620	0.0				
0.990	0.0	2.310	1.3	3.630	0.1
4.950	0.0				

RUNOFF VOLUME = 0.43934 INCHES = 0.7850 ACRE-FEET
PEAK DISCHARGE RATE = 28.63 CFS AT 1.518 HOURS BASIN AREA = 0.0335 SQ. MI.

ADD HYD ID=4 HYD=101TO102 ID I=1 II=2

PRINT HYD ID=4 CODE=10

HYDROGRAPH FROM AREA 101TO102

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	0.990	0.0	1.980	1.8
2.970	0.2	3.960	0.0		
0.330	0.0	1.320	0.0	2.310	0.9
3.300	0.1	4.290	0.0		
0.660	0.0	1.650	11.4	2.640	0.4
3.630	0.1	4.620	0.0		

RUNOFF VOLUME = 0.43933 INCHES = 0.5230 ACRE-FEET
PEAK DISCHARGE RATE = 19.08 CFS AT 1.518 HOURS BASIN AREA = 0.0223 SQ. MI.

ADD HYD ID=5 HYD=COMBINED101-102TO103 ID I=3 II=4

PRINT HYD ID=5 CODE=10

HYDROGRAPH FROM AREA COMBINED101-102TO103

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.320	0.0	2.640	1.1	3.960	0.1
0.330	0.0	1.650	28.5	2.970	0.6	4.290	0.0
0.660	0.0	1.980	4.5	3.300	0.3	4.620	0.0
0.990	0.0	2.310	2.2	3.630	0.1	4.950	0.0

RUNOFF VOLUME = 0.43934 INCHES = 1.3079 ACRE-FEET
PEAK DISCHARGE RATE = 47.71 CFS AT 1.518 HOURS BASIN AREA = 0.0558 SQ. MI.

****

*S PROPOSED CONDITIONS

*S COMPUTE HYD PROPOSED BASIN A

COMPUTE NM HYD ID=6 HYDNO=104 DA=0.00764SQ MI

PER A=0 PER B=10 PER C=10 PER D=80

TP=-0.13 RAIN=-1

K = 0.070850HR TP = 0.130000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 24.743 CFS UNIT VOLUME = 0.9993 B = 526.28 P60 = 1.8700
AREA = 0.006112 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

K = 0.115497HR TP = 0.130000HR K/TP RATIO = 0.888442 SHAPE CONSTANT, N = 3.992344
UNIT PEAK = 4.1687 CFS UNIT VOLUME = 0.9971 B = 354.66 P60 = 1.8700
AREA = 0.001528 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD ID=6 CODE=10

PARTIAL HYDROGRAPH 104.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.1	9.900	0.1
14.850	0.1	19.800	0.1		
0.330	0.0	5.280	0.1	10.230	0.1
15.180	0.1	20.130	0.1		
0.660	0.0	5.610	0.1	10.560	0.1
15.510	0.1	20.460	0.1		
0.990	0.0	5.940	0.1	10.890	0.1
15.840	0.1	20.790	0.1		
1.320	4.8	6.270	0.1	11.220	0.1
16.170	0.1	21.120	0.1		
1.650	10.4	6.600	0.1	11.550	0.1
16.500	0.1	21.450	0.1		
1.980	4.6	6.930	0.1	11.880	0.1
16.830	0.1	21.780	0.1		
2.310	1.0	7.260	0.1	12.210	0.1
17.160	0.1	22.110	0.1		
2.640	0.4	7.590	0.1	12.540	0.1
17.490	0.1	22.440	0.1		
2.970	0.2	7.920	0.1	12.870	0.1
17.820	0.1	22.770	0.1		
3.300	0.1	8.250	0.1	13.200	0.1
18.150	0.1	23.100	0.1		
3.630	0.1	8.580	0.1	13.530	0.1
18.480	0.1	23.430	0.1		
3.960	0.1	8.910	0.1	13.860	0.1
18.810	0.1	23.760	0.1		

```
         4.290       0.1          9.240       0.1         14.190       0.1
19.140       0.1         24.090       0.1
         4.620       0.1          9.570       0.1         14.520       0.1
19.470       0.1         24.420       0.0

        RUNOFF VOLUME =     2.10390 INCHES     =       0.8573 ACRE-FEET
        PEAK DISCHARGE RATE =      19.52 CFS  AT   1.485 HOURS   BASIN AREA =
0.0076 SQ. MI.




    *S  COMPUTE HYD PROPOSED BASIN B

    COMPUTE NM HYD      ID=7  HYDNO=105  DA=0.00463SQ MI

                        PER A=0  PER B=10   PER C=10   PER D=80

                        TP=-0.13   RAIN=-1


         K =  0.070850HR    TP =  0.130000HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
         UNIT PEAK =   14.995    CFS   UNIT VOLUME =   0.9991       B =   526.28
  P60 = 1.8700
         AREA =     0.003704 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.033000


         K =  0.115497HR    TP =  0.130000HR    K/TP RATIO =  0.888442     SHAPE
CONSTANT, N =  3.992344
         UNIT PEAK =   2.5263    CFS   UNIT VOLUME =   0.9951       B =   354.66
  P60 = 1.8700
         AREA =     0.000926 SQ MI    IA =   0.42500 INCHES    INF =   1.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.033000

    PRINT HYD           ID=7  CODE=10


                                    PARTIAL HYDROGRAPH   105.00

         TIME      FLOW           TIME      FLOW           TIME      FLOW
TIME      FLOW           TIME      FLOW
```

HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	4.950	0.1	9.900	0.1
14.850	0.1	19.800	0.0		
0.330	0.0	5.280	0.1	10.230	0.1
15.180	0.1	20.130	0.0		
0.660	0.0	5.610	0.1	10.560	0.1
15.510	0.1	20.460	0.0		
0.990	0.0	5.940	0.1	10.890	0.1
15.840	0.1	20.790	0.0		
1.320	2.9	6.270	0.1	11.220	0.1
16.170	0.1	21.120	0.0		
1.650	6.3	6.600	0.1	11.550	0.1
16.500	0.1	21.450	0.0		
1.980	2.8	6.930	0.1	11.880	0.1
16.830	0.1	21.780	0.0		
2.310	0.6	7.260	0.1	12.210	0.1
17.160	0.1	22.110	0.0		
2.640	0.2	7.590	0.1	12.540	0.1
17.490	0.1	22.440	0.0		
2.970	0.1	7.920	0.1	12.870	0.1
17.820	0.1	22.770	0.0		
3.300	0.1	8.250	0.1	13.200	0.1
18.150	0.1	23.100	0.0		
3.630	0.1	8.580	0.1	13.530	0.1
18.480	0.1	23.430	0.0		
3.960	0.1	8.910	0.1	13.860	0.1
18.810	0.1	23.760	0.0		
4.290	0.1	9.240	0.1	14.190	0.1
19.140	0.1	24.090	0.0		
4.620	0.1	9.570	0.1	14.520	0.1
19.470	0.0	24.420	0.0		

RUNOFF VOLUME = 2.10390 INCHES = 0.5195 ACRE-FEET
PEAK DISCHARGE RATE = 11.84 CFS AT 1.485 HOURS BASIN AREA = 0.0046 SQ. MI.

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    *S  COMPUTE HYD PROPOSED BASIN C

    COMPUTE NM HYD      ID=8  HYDNO=106  DA=0.00640SQ MI

                        PER A=0  PER B=10   PER C=10   PER D=80

                        TP=-0.13   RAIN=-1
```

K = 0.070850HR TP = 0.130000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 20.727 CFS UNIT VOLUME = 0.9993 B = 526.28 P60 = 1.8700
AREA = 0.005120 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

K = 0.115497HR TP = 0.130000HR K/TP RATIO = 0.888442 SHAPE CONSTANT, N = 3.992344
UNIT PEAK = 3.4921 CFS UNIT VOLUME = 0.9964 B = 354.66 P60 = 1.8700
AREA = 0.001280 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD ID=8 CODE=10

PARTIAL HYDROGRAPH 106.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.1	9.900	0.1
14.850	0.1	19.800	0.1		
0.330	0.0	5.280	0.1	10.230	0.1
15.180	0.1	20.130	0.1		
0.660	0.0	5.610	0.1	10.560	0.1
15.510	0.1	20.460	0.1		
0.990	0.0	5.940	0.1	10.890	0.1
15.840	0.1	20.790	0.1		
1.320	4.0	6.270	0.1	11.220	0.1
16.170	0.1	21.120	0.1		
1.650	8.7	6.600	0.1	11.550	0.1
16.500	0.1	21.450	0.1		
1.980	3.9	6.930	0.1	11.880	0.1
16.830	0.1	21.780	0.1		
2.310	0.8	7.260	0.1	12.210	0.1
17.160	0.1	22.110	0.1		
2.640	0.3	7.590	0.1	12.540	0.1
17.490	0.1	22.440	0.1		

```
         2.970       0.2          7.920       0.1          12.870       0.1
17.820       0.1          22.770       0.1
         3.300       0.1          8.250       0.1          13.200       0.1
18.150       0.1          23.100       0.1
         3.630       0.1          8.580       0.1          13.530       0.1
18.480       0.1          23.430       0.1
         3.960       0.1          8.910       0.1          13.860       0.1
18.810       0.1          23.760       0.1
         4.290       0.1          9.240       0.1          14.190       0.1
19.140       0.1          24.090       0.0
         4.620       0.1          9.570       0.1          14.520       0.1
19.470       0.1          24.420       0.0

        RUNOFF VOLUME =     2.10390 INCHES     =       0.7181 ACRE-FEET
        PEAK DISCHARGE RATE =      16.36 CFS  AT   1.485 HOURS   BASIN AREA =
0.0064 SQ. MI.



    ADD HYD                     ID=10 HYD=BTOA ID I=6 II=7

    PRINT HYD                   ID=10 CODE=10

                                                HYDROGRAPH FROM AREA BTOA

         TIME      FLOW           TIME      FLOW           TIME      FLOW
TIME      FLOW           TIME      FLOW
         HRS       CFS             HRS       CFS             HRS       CFS
 HRS       CFS             HRS       CFS
         0.000       0.0          4.950       0.2          9.900       0.2
14.850       0.2          19.800       0.1
         0.330       0.0          5.280       0.2         10.230       0.2
15.180       0.2          20.130       0.1
         0.660       0.0          5.610       0.2         10.560       0.2
15.510       0.2          20.460       0.1
         0.990       0.0          5.940       0.2         10.890       0.2
15.840       0.1          20.790       0.1
         1.320       7.6          6.270       0.2         11.220       0.2
16.170       0.1          21.120       0.1
         1.650      16.8          6.600       0.2         11.550       0.2
16.500       0.1          21.450       0.1
         1.980       7.4          6.930       0.2         11.880       0.2
16.830       0.1          21.780       0.1
         2.310       1.6          7.260       0.2         12.210       0.2
```

17.160	0.1	22.110	0.1				
2.640	0.7	7.590	0.2	12.540	0.2		
17.490	0.1	22.440	0.1				
2.970	0.3	7.920	0.2	12.870	0.2		
17.820	0.1	22.770	0.1				
3.300	0.2	8.250	0.2	13.200	0.2		
18.150	0.1	23.100	0.1				
3.630	0.2	8.580	0.2	13.530	0.2		
18.480	0.1	23.430	0.1				
3.960	0.2	8.910	0.2	13.860	0.2		
18.810	0.1	23.760	0.1				
4.290	0.2	9.240	0.2	14.190	0.2		
19.140	0.1	24.090	0.1				
4.620	0.2	9.570	0.2	14.520	0.2		
19.470	0.1	24.420	0.0				

RUNOFF VOLUME = 2.10385 INCHES = 1.3768 ACRE-FEET
PEAK DISCHARGE RATE = 31.36 CFS AT 1.485 HOURS BASIN AREA = 0.0123 SQ. MI.

ADD HYD ID=11 HYD=B-CTOA ID I=8 II=10

PRINT HYD ID=11 CODE=10

HYDROGRAPH FROM AREA B-CTOA

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.2	9.900	0.3
14.850	0.2	19.800	0.2		
0.330	0.0	5.280	0.3	10.230	0.3
15.180	0.2	20.130	0.2		
0.660	0.0	5.610	0.3	10.560	0.3
15.510	0.2	20.460	0.2		
0.990	0.0	5.940	0.3	10.890	0.3
15.840	0.2	20.790	0.2		
1.320	11.6	6.270	0.4	11.220	0.3
16.170	0.2	21.120	0.2		
1.650	25.5	6.600	0.4	11.550	0.3
16.500	0.2	21.450	0.2		

```
        1.980      11.3          6.930       0.4         11.880       0.3
16.830       0.2         21.780       0.2
        2.310       2.5          7.260       0.4         12.210       0.3
17.160       0.2         22.110       0.2
        2.640       1.0          7.590       0.3         12.540       0.3
17.490       0.2         22.440       0.2
        2.970       0.5          7.920       0.3         12.870       0.3
17.820       0.2         22.770       0.2
        3.300       0.3          8.250       0.3         13.200       0.3
18.150       0.2         23.100       0.2
        3.630       0.3          8.580       0.3         13.530       0.3
18.480       0.2         23.430       0.2
        3.960       0.3          8.910       0.3         13.860       0.2
18.810       0.2         23.760       0.2
        4.290       0.2          9.240       0.3         14.190       0.2
19.140       0.2         24.090       0.1
        4.620       0.2          9.570       0.3         14.520       0.2
19.470       0.2         24.420       0.0

        RUNOFF VOLUME =     2.10385 INCHES     =       2.0949 ACRE-FEET
        PEAK DISCHARGE RATE =      47.71 CFS  AT   1.485 HOURS   BASIN AREA =
0.0187 SQ. MI.



    *S  COMPUTE HYD PROPOSED BASIN D

    COMPUTE NM HYD      ID=12  HYDNO=107  DA=0.01564SQ MI

                        PER A=90  PER B=0   PER C=0   PER D=10

                        TP=-0.13   RAIN=-1


        K =  0.070850HR    TP =  0.130000HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
        UNIT PEAK =   6.3315    CFS   UNIT VOLUME =   0.9979       B =   526.28
  P60 = 1.8700
        AREA =     0.001564 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
        RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.033000


        K =  0.159632HR    TP =  0.130000HR    K/TP RATIO =  1.227936     SHAPE
CONSTANT, N =  2.899626
```

UNIT PEAK = 29.618 CFS UNIT VOLUME = 0.9991 B = 273.54 P60 = 1.8700
AREA = 0.014076 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD ID=12 CODE=10

PARTIAL HYDROGRAPH 107.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0
14.850	0.0	19.800	0.0		
0.330	0.0	5.280	0.0	10.230	0.0
15.180	0.0	20.130	0.0		
0.660	0.0	5.610	0.0	10.560	0.0
15.510	0.0	20.460	0.0		
0.990	0.0	5.940	0.0	10.890	0.0
15.840	0.0	20.790	0.0		
1.320	1.2	6.270	0.0	11.220	0.0
16.170	0.0	21.120	0.0		
1.650	9.5	6.600	0.0	11.550	0.0
16.500	0.0	21.450	0.0		
1.980	2.3	6.930	0.0	11.880	0.0
16.830	0.0	21.780	0.0		
2.310	0.8	7.260	0.0	12.210	0.0
17.160	0.0	22.110	0.0		
2.640	0.4	7.590	0.0	12.540	0.0
17.490	0.0	22.440	0.0		
2.970	0.2	7.920	0.0	12.870	0.0
17.820	0.0	22.770	0.0		
3.300	0.1	8.250	0.0	13.200	0.0
18.150	0.0	23.100	0.0		
3.630	0.1	8.580	0.0	13.530	0.0
18.480	0.0	23.430	0.0		
3.960	0.0	8.910	0.0	13.860	0.0
18.810	0.0	23.760	0.0		
4.290	0.0	9.240	0.0	14.190	0.0
19.140	0.0	24.090	0.0		
4.620	0.0	9.570	0.0	14.520	0.0
19.470	0.0	24.420	0.0		

RUNOFF VOLUME = 0.63801 INCHES = 0.5322 ACRE-FEET

PEAK DISCHARGE RATE = 16.38 CFS AT 1.518 HOURS BASIN AREA = 0.0156 SQ. MI.

*S COMPUTE HYD PROPOSED BASIN E

COMPUTE NM HYD ID=13 HYDNO=108 DA=0.00096SQ MI

PER A=0 PER B=50 PER C=50 PER D=0

TP=-0.13 RAIN=-1

K = 0.115498HR TP = 0.130000HR K/TP RATIO = 0.888442 SHAPE CONSTANT, N = 3.992344
UNIT PEAK = 2.6191 CFS UNIT VOLUME = 0.9951 B = 354.66 P60 = 1.8700
AREA = 0.000960 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD ID=13 CODE=10

PARTIAL HYDROGRAPH 108.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	0.660	0.0	1.320	0.0
1.980	0.2	2.640	0.0		
0.330	0.0	0.990	0.0	1.650	0.9
2.310	0.1	2.970	0.0		

RUNOFF VOLUME = 0.81538 INCHES = 0.0417 ACRE-FEET
PEAK DISCHARGE RATE = 1.54 CFS AT 1.518 HOURS BASIN AREA = 0.0010 SQ. MI.

*S COMPUTE HYD PROPOSED BASIN F

```
    COMPUTE NM HYD      ID=14  HYDNO=109  DA=0.00054SQ MI

                        PER A=0  PER B=45   PER C=45   PER D=10

                        TP=-0.13   RAIN=-1


         K =  0.070850HR    TP =  0.130000HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
         UNIT PEAK =  0.21861    CFS   UNIT VOLUME =   0.9495       B =   526.28
  P60 = 1.8700
         AREA =     0.000054 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.033000


         K =  0.115497HR    TP =  0.130000HR    K/TP RATIO =  0.888442     SHAPE
CONSTANT, N =  3.992344
         UNIT PEAK =   1.3259    CFS   UNIT VOLUME =   0.9902       B =   354.66
  P60 = 1.8700
         AREA =     0.000486 SQ MI    IA =   0.42500 INCHES    INF =   1.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.033000

    PRINT HYD           ID=14  CODE=10


                                      PARTIAL HYDROGRAPH   109.00

         TIME      FLOW           TIME      FLOW           TIME      FLOW
TIME      FLOW           TIME      FLOW
          HRS       CFS            HRS       CFS            HRS       CFS
 HRS       CFS            HRS       CFS
         0.000       0.0          2.310       0.0          4.620       0.0
6.930       0.0          9.240       0.0
         0.330       0.0          2.640       0.0          4.950       0.0
7.260       0.0          9.570       0.0
         0.660       0.0          2.970       0.0          5.280       0.0
7.590       0.0          9.900       0.0
         0.990       0.0          3.300       0.0          5.610       0.0
7.920       0.0         10.230       0.0
         1.320       0.1          3.630       0.0          5.940       0.0
8.250       0.0         10.560       0.0
         1.650       0.5          3.960       0.0          6.270       0.0
8.580       0.0         10.890       0.0
```

1.980 0.1 4.290 0.0 6.600 0.0
8.910 0.0 11.220 0.0

RUNOFF VOLUME = 0.97645 INCHES = 0.0281 ACRE-FEET
PEAK DISCHARGE RATE = 0.94 CFS AT 1.518 HOURS BASIN AREA = 0.0005 SQ. MI.

ADD HYD ID=15 HYD=DTOF ID I=12 II=14

PRINT HYD ID=15 CODE=10

HYDROGRAPH FROM AREA DTOF

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0
14.850	0.0	19.800	0.0		
0.330	0.0	5.280	0.0	10.230	0.0
15.180	0.0	20.130	0.0		
0.660	0.0	5.610	0.0	10.560	0.0
15.510	0.0	20.460	0.0		
0.990	0.0	5.940	0.0	10.890	0.0
15.840	0.0	20.790	0.0		
1.320	1.3	6.270	0.0	11.220	0.0
16.170	0.0	21.120	0.0		
1.650	10.0	6.600	0.0	11.550	0.0
16.500	0.0	21.450	0.0		
1.980	2.4	6.930	0.0	11.880	0.0
16.830	0.0	21.780	0.0		
2.310	0.8	7.260	0.0	12.210	0.0
17.160	0.0	22.110	0.0		
2.640	0.4	7.590	0.0	12.540	0.0
17.490	0.0	22.440	0.0		
2.970	0.2	7.920	0.0	12.870	0.0
17.820	0.0	22.770	0.0		
3.300	0.1	8.250	0.0	13.200	0.0
18.150	0.0	23.100	0.0		
3.630	0.1	8.580	0.0	13.530	0.0
18.480	0.0	23.430	0.0		
3.960	0.0	8.910	0.0	13.860	0.0

18.810	0.0	23.760	0.0				
4.290	0.0	9.240	0.0	14.190	0.0	19.140	0.0
24.090	0.0	4.620	0.0	9.570	0.0	14.520	0.0
19.470	0.0	24.420	0.0				

RUNOFF VOLUME = 0.64835 INCHES = 0.5595 ACRE-FEET
PEAK DISCHARGE RATE = 17.32 CFS AT 1.518 HOURS BASIN AREA = 0.0162 SQ. MI.

ADD HYD ID=16 HYD=ETOF-D ID I=13 II=15

PRINT HYD ID=16 CODE=10

HYDROGRAPH FROM AREA ETOF-D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0	14.850	0.0
19.800	0.0	0.330	0.0	5.280	0.0	10.230	0.0
15.180	0.0	20.130	0.0	0.660	0.0	5.610	0.0
10.560	0.0	15.510	0.0	20.460	0.0	0.990	0.0
5.940	0.0	10.890	0.0	15.840	0.0	20.790	0.0
1.320	1.3	6.270	0.0	11.220	0.0	16.170	0.0
21.120	0.0	1.650	10.9	6.600	0.0	11.550	0.0
16.500	0.0	21.450	0.0	1.980	2.5	6.930	0.0
11.880	0.0	16.830	0.0	21.780	0.0	2.310	0.9
7.260	0.0	12.210	0.0	17.160	0.0	22.110	0.0
2.640	0.4	7.590	0.0	12.540	0.0	17.490	0.0
22.440	0.0	2.970	0.2	7.920	0.0	12.870	0.0
17.820	0.0	22.770	0.0	3.300	0.1	8.250	0.0
13.200	0.0	18.150	0.0	23.100	0.0		

```
         3.630       0.1          8.580       0.0         13.530       0.0
18.480       0.0         23.430       0.0
         3.960       0.0          8.910       0.0         13.860       0.0
18.810       0.0         23.760       0.0
         4.290       0.0          9.240       0.0         14.190       0.0
19.140       0.0         24.090       0.0
         4.620       0.0          9.570       0.0         14.520       0.0
19.470       0.0         24.420       0.0

        RUNOFF VOLUME =     0.65770 INCHES     =       0.6012 ACRE-FEET
        PEAK DISCHARGE RATE =      18.86 CFS  AT   1.518 HOURS   BASIN AREA =
0.0171 SQ. MI.




    *S  COMPUTE HYD PROPOSED BASIN G

    COMPUTE NM HYD      ID=17  HYDNO=110  DA=0.00555SQ MI

                        PER A=0  PER B=5   PER C=5   PER D=90

                        TP=-0.13   RAIN=-1


         K =  0.070850HR    TP =  0.130000HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
         UNIT PEAK =   20.221    CFS   UNIT VOLUME =   0.9993       B =   526.28
  P60 = 1.8700
         AREA =     0.004995 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.033000


         K =  0.115497HR    TP =  0.130000HR    K/TP RATIO =  0.888442     SHAPE
CONSTANT, N =  3.992344
         UNIT PEAK =   1.5141    CFS   UNIT VOLUME =   0.9919       B =   354.66
  P60 = 1.8700
         AREA =     0.000555 SQ MI    IA =   0.42500 INCHES    INF =   1.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.033000

    PRINT HYD           ID=17  CODE=10
```

PARTIAL HYDROGRAPH 110.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.1	9.900	0.1	14.850	0.1
19.800	0.1						
0.330	0.0	5.280	0.1	10.230	0.1	15.180	0.1
20.130	0.1						
0.660	0.0	5.610	0.1	10.560	0.1	15.510	0.1
20.460	0.1						
0.990	0.0	5.940	0.1	10.890	0.1	15.840	0.1
20.790	0.1						
1.320	3.9	6.270	0.1	11.220	0.1	16.170	0.1
21.120	0.1						
1.650	7.9	6.600	0.1	11.550	0.1	16.500	0.1
21.450	0.1						
1.980	3.7	6.930	0.1	11.880	0.1	16.830	0.1
21.780	0.1						
2.310	0.8	7.260	0.1	12.210	0.1	17.160	0.1
22.110	0.1						
2.640	0.3	7.590	0.1	12.540	0.1	17.490	0.1
22.440	0.1						
2.970	0.2	7.920	0.1	12.870	0.1	17.820	0.1
22.770	0.1						
3.300	0.1	8.250	0.1	13.200	0.1	18.150	0.1
23.100	0.1						
3.630	0.1	8.580	0.1	13.530	0.1	18.480	0.1
23.430	0.1						
3.960	0.1	8.910	0.1	13.860	0.1	18.810	0.1
23.760	0.1						
4.290	0.1	9.240	0.1	14.190	0.1	19.140	0.1
24.090	0.0						
4.620	0.1	9.570	0.1	14.520	0.1	19.470	0.1
24.420	0.0						

RUNOFF VOLUME = 2.26496 INCHES = 0.6704 ACRE-FEET
PEAK DISCHARGE RATE = 14.88 CFS AT 1.485 HOURS BASIN AREA = 0.0056 SQ. MI.

*S COMPUTE HYD PROPOSED BASIN H

COMPUTE NM HYD ID=18 HYDNO=111 DA=0.00107Q MI

PER A=0 PER B=5   PER C=5   PER D=90

TP=-0.13   RAIN=-1

K = 0.070850HR   TP = 0.130000HR   K/TP RATIO = 0.545000   SHAPE CONSTANT, N = 7.106428
UNIT PEAK =   3.8985   CFS   UNIT VOLUME =   0.9967   B =   526.28 P60 = 1.8700
AREA =   0.000963 SQ MI   IA =   0.10000 INCHES   INF =   0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

K = 0.115497HR   TP = 0.130000HR   K/TP RATIO = 0.888442   SHAPE CONSTANT, N = 3.992344
UNIT PEAK = 0.29192   CFS   UNIT VOLUME =   0.9534   B =   354.66 P60 = 1.8700
AREA =   0.000107 SQ MI   IA =   0.42500 INCHES   INF =   1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD   ID=18 CODE=10

PARTIAL HYDROGRAPH   111.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0	14.850	0.0
0.330	0.0	5.280	0.0	10.230	0.0	15.180	0.0
0.660	0.0	5.610	0.0	10.560	0.0	15.510	0.0
0.990	0.0	5.940	0.0	10.890	0.0	15.840	0.0
1.320	0.7	6.270	0.0	11.220	0.0	16.170	0.0
1.650	1.5	6.600	0.0	11.550	0.0	16.500	0.0
1.980	0.7	6.930	0.0	11.880	0.0	16.830	0.0

```
        2.310       0.1          7.260       0.0         12.210       0.0
17.160       0.0         22.110       0.0
        2.640       0.1          7.590       0.0         12.540       0.0
17.490       0.0         22.440       0.0
        2.970       0.0          7.920       0.0         12.870       0.0
17.820       0.0         22.770       0.0
        3.300       0.0          8.250       0.0         13.200       0.0
18.150       0.0         23.100       0.0
        3.630       0.0          8.580       0.0         13.530       0.0
18.480       0.0         23.430       0.0
        3.960       0.0          8.910       0.0         13.860       0.0
18.810       0.0         23.760       0.0
        4.290       0.0          9.240       0.0         14.190       0.0
19.140       0.0         24.090       0.0
        4.620       0.0          9.570       0.0         14.520       0.0
19.470       0.0

        RUNOFF VOLUME =     2.26496 INCHES     =       0.1293 ACRE-FEET
        PEAK DISCHARGE RATE =       2.88 CFS  AT   1.485 HOURS   BASIN AREA =
0.0011 SQ. MI.




    *S  COMPUTE HYD PROPOSED BASIN I

    COMPUTE NM HYD      ID=19  HYDNO=112  DA=0.00074SQ MI

                        PER A=0  PER B=5   PER C=5   PER D=90

                        TP=-0.13   RAIN=-1


         K =  0.070850HR    TP =  0.130000HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
         UNIT PEAK =   2.6961    CFS   UNIT VOLUME =   0.9956       B =   526.28
  P60 = 1.8700
         AREA =     0.000666 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.033000


         K =  0.115497HR    TP =  0.130000HR    K/TP RATIO =  0.888442     SHAPE
CONSTANT, N =  3.992344
         UNIT PEAK =  0.20189    CFS   UNIT VOLUME =   0.9316       B =   354.66
  P60 = 1.8700
```

AREA = 0.000074 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033000

PRINT HYD ID=19 CODE=10

PARTIAL HYDROGRAPH 112.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0
14.850	0.0	19.800	0.0		
0.330	0.0	5.280	0.0	10.230	0.0
15.180	0.0	20.130	0.0		
0.660	0.0	5.610	0.0	10.560	0.0
15.510	0.0	20.460	0.0		
0.990	0.0	5.940	0.0	10.890	0.0
15.840	0.0	20.790	0.0		
1.320	0.5	6.270	0.0	11.220	0.0
16.170	0.0	21.120	0.0		
1.650	1.1	6.600	0.0	11.550	0.0
16.500	0.0	21.450	0.0		
1.980	0.5	6.930	0.0	11.880	0.0
16.830	0.0	21.780	0.0		
2.310	0.1	7.260	0.0	12.210	0.0
17.160	0.0	22.110	0.0		
2.640	0.0	7.590	0.0	12.540	0.0
17.490	0.0	22.440	0.0		
2.970	0.0	7.920	0.0	12.870	0.0
17.820	0.0	22.770	0.0		
3.300	0.0	8.250	0.0	13.200	0.0
18.150	0.0	23.100	0.0		
3.630	0.0	8.580	0.0	13.530	0.0
18.480	0.0	23.430	0.0		
3.960	0.0	8.910	0.0	13.860	0.0
18.810	0.0	23.760	0.0		
4.290	0.0	9.240	0.0	14.190	0.0
19.140	0.0	24.090	0.0		
4.620	0.0	9.570	0.0	14.520	0.0
19.470	0.0				

RUNOFF VOLUME = 2.26496 INCHES = 0.0894 ACRE-FEET

PEAK DISCHARGE RATE = 2.00 CFS AT 1.485 HOURS BASIN AREA = 0.0007 SQ. MI.

ADD HYD ID=20 HYD=HTOI ID I=18 II=19

PRINT HYD ID=20 CODE=10

HYDROGRAPH FROM AREA HTOI

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0
14.850	0.0	19.800	0.0		
0.330	0.0	5.280	0.0	10.230	0.0
15.180	0.0	20.130	0.0		
0.660	0.0	5.610	0.0	10.560	0.0
15.510	0.0	20.460	0.0		
0.990	0.0	5.940	0.0	10.890	0.0
15.840	0.0	20.790	0.0		
1.320	1.3	6.270	0.0	11.220	0.0
16.170	0.0	21.120	0.0		
1.650	2.6	6.600	0.0	11.550	0.0
16.500	0.0	21.450	0.0		
1.980	1.2	6.930	0.0	11.880	0.0
16.830	0.0	21.780	0.0		
2.310	0.2	7.260	0.0	12.210	0.0
17.160	0.0	22.110	0.0		
2.640	0.1	7.590	0.0	12.540	0.0
17.490	0.0	22.440	0.0		
2.970	0.1	7.920	0.0	12.870	0.0
17.820	0.0	22.770	0.0		
3.300	0.0	8.250	0.0	13.200	0.0
18.150	0.0	23.100	0.0		
3.630	0.0	8.580	0.0	13.530	0.0
18.480	0.0	23.430	0.0		
3.960	0.0	8.910	0.0	13.860	0.0
18.810	0.0	23.760	0.0		
4.290	0.0	9.240	0.0	14.190	0.0
19.140	0.0	24.090	0.0		
4.620	0.0	9.570	0.0	14.520	0.0
19.470	0.0				

RUNOFF VOLUME = 2.26462 INCHES = 0.2186 ACRE-FEET
PEAK DISCHARGE RATE = 4.88 CFS AT 1.485 HOURS BASIN AREA = 0.0018 SQ. MI.

ADD HYD ID=21 HYD=A-CTOG ID I=11 II=17

PRINT HYD ID=21 CODE=10

HYDROGRAPH FROM AREA A-CTOG

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.3	9.900	0.4
14.850	0.3	19.800	0.3		
0.330	0.0	5.280	0.3	10.230	0.4
15.180	0.3	20.130	0.3		
0.660	0.0	5.610	0.4	10.560	0.4
15.510	0.3	20.460	0.3		
0.990	0.0	5.940	0.4	10.890	0.4
15.840	0.3	20.790	0.3		
1.320	15.5	6.270	0.5	11.220	0.4
16.170	0.3	21.120	0.3		
1.650	33.4	6.600	0.5	11.550	0.4
16.500	0.3	21.450	0.2		
1.980	14.9	6.930	0.5	11.880	0.4
16.830	0.3	21.780	0.2		
2.310	3.3	7.260	0.5	12.210	0.4
17.160	0.3	22.110	0.2		
2.640	1.3	7.590	0.5	12.540	0.4
17.490	0.3	22.440	0.2		
2.970	0.7	7.920	0.4	12.870	0.3
17.820	0.3	22.770	0.2		
3.300	0.4	8.250	0.4	13.200	0.3
18.150	0.3	23.100	0.2		
3.630	0.4	8.580	0.4	13.530	0.3
18.480	0.3	23.430	0.2		
3.960	0.3	8.910	0.4	13.860	0.3
18.810	0.3	23.760	0.2		

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        4.290       0.3          9.240       0.4         14.190       0.3
19.140       0.3         24.090       0.2
        4.620       0.3          9.570       0.4         14.520       0.3
19.470       0.3         24.420       0.0

        RUNOFF VOLUME =     2.14076 INCHES     =       2.7653 ACRE-FEET
        PEAK DISCHARGE RATE =      62.60 CFS  AT   1.485 HOURS   BASIN AREA =
0.0242 SQ. MI.



    ADD HYD                      ID=22 HYD=D-FTOA-DTOG ID I=16 II=21

    PRINT HYD                    ID=22 CODE=10

                                                HYDROGRAPH FROM AREA D-FTOA-DTOG

         TIME      FLOW           TIME      FLOW           TIME      FLOW
TIME      FLOW           TIME      FLOW
         HRS       CFS            HRS       CFS            HRS       CFS
 HRS       CFS            HRS       CFS
        0.000       0.0          4.950       0.4          9.900       0.4
14.850       0.3         19.800       0.3
        0.330       0.0          5.280       0.4         10.230       0.4
15.180       0.3         20.130       0.3
        0.660       0.0          5.610       0.4         10.560       0.4
15.510       0.3         20.460       0.3
        0.990       0.0          5.940       0.4         10.890       0.4
15.840       0.3         20.790       0.3
        1.320      16.8          6.270       0.5         11.220       0.4
16.170       0.3         21.120       0.3
        1.650      44.4          6.600       0.5         11.550       0.4
16.500       0.3         21.450       0.3
        1.980      17.4          6.930       0.5         11.880       0.4
16.830       0.3         21.780       0.3
        2.310       4.2          7.260       0.5         12.210       0.4
17.160       0.3         22.110       0.3
        2.640       1.7          7.590       0.5         12.540       0.4
17.490       0.3         22.440       0.3
        2.970       0.9          7.920       0.5         12.870       0.4
17.820       0.3         22.770       0.3
        3.300       0.6          8.250       0.5         13.200       0.4
18.150       0.3         23.100       0.3
        3.630       0.4          8.580       0.5         13.530       0.4
```

18.480 0.3 23.430 0.3
3.960 0.4 8.910 0.5 13.860 0.4
18.810 0.3 23.760 0.2
4.290 0.4 9.240 0.4 14.190 0.4
19.140 0.3 24.090 0.2
4.620 0.4 9.570 0.4 14.520 0.3
19.470 0.3 24.420 0.0

RUNOFF VOLUME = 1.52616 INCHES = 3.3665 ACRE-FEET
PEAK DISCHARGE RATE = 81.07 CFS AT 1.518 HOURS BASIN AREA = 0.0414 SQ. MI.

ROUTE RESERVOIR ID=50 HYD=POND.A INFLOW ID=22 CODE=5

OUTFLOW	STORAGE	DEPTH
0.0	0	5404.00
0.01	0.17	5405.00
0.01	0.43	5406.00
0.01	0.86	5407.00
0.01	1.44	5408.00
0.01	2.10	5409.00
16.80	2.44	5409.50
47.71	2.80	5410.00

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	5404.00	0.000	0.00
0.16	0.00	5404.00	0.000	0.00

0.33	0.00	5404.00	0.000	0.00
0.50	0.00	5404.00	0.000	0.00
0.66	0.00	5404.00	0.000	0.00
0.82	0.00	5404.00	0.000	0.00
0.99	0.00	5404.00	0.000	0.00
1.15	0.04	5404.00	0.000	0.00
1.32	16.78	5404.46	0.078	0.00
1.49	80.71	5409.00	2.100	0.01
1.65	44.35	5409.00	2.100	0.01
1.81	25.48	5409.00	2.100	0.01
1.98	17.43	5409.27	2.283	9.05
2.14	9.00	5409.33	2.326	11.18
2.31	4.15	5409.25	2.272	8.50
2.47	2.60	5409.18	2.220	5.91
2.64	1.74	5409.12	2.182	4.04
2.81	1.20	5409.08	2.156	2.75
2.97	0.87	5409.06	2.138	1.90
3.13	0.67	5409.04	2.127	1.33
3.30	0.56	5409.03	2.120	0.97
3.46	0.48	5409.02	2.115	0.75
3.63	0.44	5409.02	2.112	0.60
3.80	0.40	5409.02	2.110	0.51
3.96	0.38	5409.01	2.109	0.45
4.12	0.36	5409.01	2.108	0.41
4.29	0.36	5409.01	2.108	0.39
4.45	0.35	5409.01	2.107	0.37
4.62	0.35	5409.01	2.107	0.36
4.78	0.35	5409.01	2.107	0.36
4.95	0.36	5409.01	2.107	0.36
5.11	0.37	5409.01	2.107	0.36
5.28	0.38	5409.01	2.107	0.37
5.45	0.39	5409.01	2.107	0.38
5.61	0.40	5409.01	2.108	0.39
5.78	0.42	5409.01	2.108	0.40
5.94	0.44	5409.01	2.108	0.42
6.11	0.48	5409.01	2.109	0.43
6.27	0.53	5409.01	2.109	0.47
6.43	0.53	5409.01	2.110	0.50
6.60	0.53	5409.02	2.110	0.51
6.76	0.52	5409.02	2.110	0.52
6.93	0.52	5409.02	2.110	0.52
7.09	0.51	5409.02	2.110	0.52
7.26	0.51	5409.02	2.110	0.51
7.43	0.50	5409.01	2.110	0.51
7.59	0.50	5409.01	2.110	0.50
7.76	0.49	5409.01	2.110	0.50
7.92	0.49	5409.01	2.110	0.49
8.09	0.48	5409.01	2.110	0.49

8.25	0.48	5409.01	2.110	0.48
8.41	0.47	5409.01	2.109	0.48
8.58	0.47	5409.01	2.109	0.47
8.74	0.46	5409.01	2.109	0.47
8.91	0.46	5409.01	2.109	0.46
9.07	0.46	5409.01	2.109	0.46

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
9.24	0.45	5409.01	2.109	0.46
9.40	0.44	5409.01	2.109	0.45
9.57	0.44	5409.01	2.109	0.45
9.73	0.44	5409.01	2.109	0.44
9.90	0.43	5409.01	2.109	0.44
10.06	0.43	5409.01	2.109	0.43
10.23	0.43	5409.01	2.109	0.43
10.39	0.42	5409.01	2.108	0.43
10.56	0.42	5409.01	2.108	0.42
10.73	0.41	5409.01	2.108	0.42
10.89	0.41	5409.01	2.108	0.42
11.06	0.41	5409.01	2.108	0.41
11.22	0.41	5409.01	2.108	0.41
11.39	0.40	5409.01	2.108	0.40
11.55	0.40	5409.01	2.108	0.40
11.72	0.39	5409.01	2.108	0.40
11.88	0.39	5409.01	2.108	0.39
12.05	0.39	5409.01	2.108	0.39
12.21	0.38	5409.01	2.108	0.39
12.38	0.38	5409.01	2.108	0.38
12.54	0.38	5409.01	2.108	0.38
12.70	0.38	5409.01	2.107	0.38
12.87	0.37	5409.01	2.107	0.38
13.03	0.37	5409.01	2.107	0.37
13.20	0.37	5409.01	2.107	0.37
13.36	0.36	5409.01	2.107	0.37
13.53	0.36	5409.01	2.107	0.36
13.69	0.36	5409.01	2.107	0.36
13.86	0.35	5409.01	2.107	0.36
14.02	0.35	5409.01	2.107	0.36
14.19	0.35	5409.01	2.107	0.35
14.35	0.35	5409.01	2.107	0.35
14.52	0.35	5409.01	2.107	0.35
14.68	0.34	5409.01	2.107	0.35
14.85	0.34	5409.01	2.107	0.34
15.02	0.34	5409.01	2.107	0.34
15.18	0.34	5409.01	2.107	0.34
15.35	0.34	5409.01	2.107	0.34

15.51	0.33	5409.01	2.107	0.33
15.68	0.33	5409.01	2.107	0.33
15.84	0.33	5409.01	2.106	0.33
16.00	0.32	5409.01	2.106	0.33
16.17	0.32	5409.01	2.106	0.33
16.33	0.32	5409.01	2.106	0.32
16.50	0.32	5409.01	2.106	0.32
16.66	0.32	5409.01	2.106	0.32
16.83	0.32	5409.01	2.106	0.32
17.00	0.31	5409.01	2.106	0.32
17.16	0.31	5409.01	2.106	0.31
17.33	0.31	5409.01	2.106	0.31
17.49	0.30	5409.01	2.106	0.31
17.66	0.31	5409.01	2.106	0.31
17.82	0.31	5409.01	2.106	0.31
17.99	0.30	5409.01	2.106	0.30
18.15	0.30	5409.01	2.106	0.30
18.32	0.30	5409.01	2.106	0.30

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
18.48	0.30	5409.01	2.106	0.30
18.65	0.29	5409.01	2.106	0.30
18.81	0.29	5409.01	2.106	0.30
18.98	0.29	5409.01	2.106	0.29
19.14	0.29	5409.01	2.106	0.29
19.31	0.29	5409.01	2.106	0.29
19.47	0.29	5409.01	2.106	0.29
19.64	0.29	5409.01	2.106	0.29
19.80	0.28	5409.01	2.106	0.28
19.97	0.28	5409.01	2.106	0.28
20.13	0.28	5409.01	2.106	0.28
20.30	0.28	5409.01	2.105	0.28
20.46	0.27	5409.01	2.105	0.28
20.62	0.28	5409.01	2.105	0.28
20.79	0.27	5409.01	2.105	0.28
20.95	0.27	5409.01	2.105	0.27
21.12	0.27	5409.01	2.105	0.27
21.28	0.27	5409.01	2.105	0.27
21.45	0.27	5409.01	2.105	0.27
21.61	0.27	5409.01	2.105	0.27
21.78	0.27	5409.01	2.105	0.27
21.94	0.26	5409.01	2.105	0.27
22.11	0.26	5409.01	2.105	0.26
22.27	0.26	5409.01	2.105	0.26
22.44	0.26	5409.01	2.105	0.26
22.60	0.26	5409.01	2.105	0.26

22.77	0.26	5409.01	2.105	0.26
22.93	0.25	5409.01	2.105	0.26
23.10	0.26	5409.01	2.105	0.26
23.26	0.25	5409.01	2.105	0.26
23.43	0.25	5409.01	2.105	0.25
23.59	0.25	5409.01	2.105	0.25
23.76	0.25	5409.01	2.105	0.25
23.92	0.25	5409.01	2.105	0.25
24.09	0.18	5409.01	2.105	0.24
24.25	0.04	5409.00	2.103	0.16
24.42	0.02	5409.00	2.102	0.10
24.58	0.01	5409.00	2.101	0.05
24.75	0.00	5409.00	2.100	0.03
24.91	0.00	5409.00	2.100	0.01
25.08	0.00	5409.00	2.100	0.01
25.24	0.00	5409.00	2.100	0.01
25.41	0.00	5409.00	2.100	0.01
25.58	0.00	5409.00	2.100	0.01
25.74	0.00	5409.00	2.100	0.01
25.91	0.00	5409.00	2.100	0.01
26.07	0.00	5409.00	2.100	0.01
26.24	0.00	5409.00	2.100	0.01
26.40	0.00	5409.00	2.100	0.01
26.57	0.00	5409.00	2.100	0.01
26.73	0.00	5409.00	2.100	0.01
26.90	0.00	5409.00	2.100	0.01
27.06	0.00	5409.00	2.100	0.01
27.23	0.00	5409.00	2.100	0.01
27.39	0.00	5409.00	2.100	0.01
27.56	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
27.72	0.00	5409.00	2.100	0.01
27.89	0.00	5409.00	2.100	0.01
28.05	0.00	5409.00	2.100	0.01
28.22	0.00	5409.00	2.100	0.01
28.38	0.00	5409.00	2.100	0.01
28.55	0.00	5409.00	2.100	0.01
28.71	0.00	5409.00	2.100	0.01
28.88	0.00	5409.00	2.100	0.01
29.04	0.00	5409.00	2.100	0.01
29.20	0.00	5409.00	2.100	0.01
29.37	0.00	5409.00	2.100	0.01
29.53	0.00	5409.00	2.100	0.01
29.70	0.00	5409.00	2.100	0.01
29.86	0.00	5409.00	2.100	0.01

30.03	0.00	5409.00	2.100	0.01
30.19	0.00	5409.00	2.100	0.01
30.36	0.00	5409.00	2.100	0.01
30.52	0.00	5409.00	2.100	0.01
30.69	0.00	5409.00	2.100	0.01
30.85	0.00	5409.00	2.100	0.01
31.02	0.00	5409.00	2.100	0.01
31.18	0.00	5409.00	2.100	0.01
31.35	0.00	5409.00	2.100	0.01
31.51	0.00	5409.00	2.100	0.01
31.68	0.00	5409.00	2.100	0.01
31.84	0.00	5409.00	2.100	0.01
32.01	0.00	5409.00	2.100	0.01
32.17	0.00	5409.00	2.100	0.01
32.34	0.00	5409.00	2.100	0.01
32.51	0.00	5409.00	2.100	0.01
32.67	0.00	5409.00	2.100	0.01
32.83	0.00	5409.00	2.100	0.01
33.00	0.00	5409.00	2.100	0.01
33.17	0.00	5409.00	2.100	0.01
33.33	0.00	5409.00	2.100	0.01
33.49	0.00	5409.00	2.100	0.01
33.66	0.00	5409.00	2.100	0.01
33.83	0.00	5409.00	2.100	0.01
33.99	0.00	5409.00	2.100	0.01
34.15	0.00	5409.00	2.100	0.01
34.32	0.00	5409.00	2.100	0.01
34.49	0.00	5409.00	2.100	0.01
34.65	0.00	5409.00	2.100	0.01
34.81	0.00	5409.00	2.100	0.01
34.98	0.00	5409.00	2.100	0.01
35.15	0.00	5409.00	2.100	0.01
35.31	0.00	5409.00	2.100	0.01
35.47	0.00	5409.00	2.100	0.01
35.64	0.00	5409.00	2.100	0.01
35.81	0.00	5409.00	2.100	0.01
35.97	0.00	5409.00	2.100	0.01
36.13	0.00	5409.00	2.100	0.01
36.30	0.00	5409.00	2.100	0.01
36.47	0.00	5409.00	2.100	0.01
36.63	0.00	5409.00	2.100	0.01
36.79	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
36.96	0.00	5409.00	2.100	0.01
37.12	0.00	5409.00	2.100	0.01

37.29	0.00	5409.00	2.100	0.01
37.45	0.00	5409.00	2.100	0.01
37.62	0.00	5409.00	2.100	0.01
37.78	0.00	5409.00	2.100	0.01
37.95	0.00	5409.00	2.100	0.01
38.12	0.00	5409.00	2.100	0.01
38.28	0.00	5409.00	2.100	0.01
38.44	0.00	5409.00	2.100	0.01
38.61	0.00	5409.00	2.100	0.01
38.78	0.00	5409.00	2.100	0.01
38.94	0.00	5409.00	2.100	0.01
39.10	0.00	5409.00	2.100	0.01
39.27	0.00	5409.00	2.100	0.01
39.44	0.00	5409.00	2.100	0.01
39.60	0.00	5409.00	2.100	0.01
39.76	0.00	5409.00	2.100	0.01
39.93	0.00	5409.00	2.100	0.01
40.10	0.00	5409.00	2.100	0.01
40.26	0.00	5409.00	2.100	0.01
40.42	0.00	5409.00	2.100	0.01
40.59	0.00	5409.00	2.100	0.01
40.76	0.00	5409.00	2.100	0.01
40.92	0.00	5409.00	2.100	0.01
41.08	0.00	5409.00	2.100	0.01
41.25	0.00	5409.00	2.100	0.01
41.42	0.00	5409.00	2.100	0.01
41.58	0.00	5409.00	2.100	0.01
41.74	0.00	5409.00	2.100	0.01
41.91	0.00	5409.00	2.100	0.01
42.08	0.00	5409.00	2.100	0.01
42.24	0.00	5409.00	2.100	0.01
42.40	0.00	5409.00	2.100	0.01
42.57	0.00	5409.00	2.100	0.01
42.74	0.00	5409.00	2.100	0.01
42.90	0.00	5409.00	2.100	0.01
43.06	0.00	5409.00	2.100	0.01
43.23	0.00	5409.00	2.100	0.01
43.40	0.00	5409.00	2.100	0.01
43.56	0.00	5409.00	2.100	0.01
43.72	0.00	5409.00	2.100	0.01
43.89	0.00	5409.00	2.100	0.01
44.06	0.00	5409.00	2.100	0.01
44.22	0.00	5409.00	2.100	0.01
44.38	0.00	5409.00	2.100	0.01
44.55	0.00	5409.00	2.100	0.01
44.72	0.00	5409.00	2.100	0.01
44.88	0.00	5409.00	2.100	0.01
45.04	0.00	5409.00	2.100	0.01

45.21	0.00	5409.00	2.100	0.01
45.38	0.00	5409.00	2.100	0.01
45.54	0.00	5409.00	2.100	0.01
45.70	0.00	5409.00	2.100	0.01
45.87	0.00	5409.00	2.100	0.01
46.03	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
46.20	0.00	5409.00	2.100	0.01
46.36	0.00	5409.00	2.100	0.01
46.53	0.00	5409.00	2.100	0.01
46.69	0.00	5409.00	2.100	0.01
46.86	0.00	5409.00	2.100	0.01
47.03	0.00	5409.00	2.100	0.01
47.19	0.00	5409.00	2.100	0.01
47.35	0.00	5409.00	2.100	0.01
47.52	0.00	5409.00	2.100	0.01
47.69	0.00	5409.00	2.100	0.01
47.85	0.00	5409.00	2.100	0.01
48.01	0.00	5409.00	2.100	0.01
48.18	0.00	5409.00	2.100	0.01
48.35	0.00	5409.00	2.100	0.01
48.51	0.00	5409.00	2.100	0.01
48.67	0.00	5409.00	2.100	0.01
48.84	0.00	5409.00	2.100	0.01
49.01	0.00	5409.00	2.100	0.01
49.17	0.00	5409.00	2.100	0.01
49.33	0.00	5409.00	2.100	0.01
49.50	0.00	5409.00	2.100	0.01
49.67	0.00	5409.00	2.100	0.01
49.83	0.00	5409.00	2.100	0.01
49.99	0.00	5409.00	2.100	0.01
50.16	0.00	5409.00	2.100	0.01
50.33	0.00	5409.00	2.100	0.01
50.49	0.00	5409.00	2.100	0.01
50.65	0.00	5409.00	2.100	0.01
50.82	0.00	5409.00	2.100	0.01
50.99	0.00	5409.00	2.100	0.01
51.15	0.00	5409.00	2.100	0.01
51.31	0.00	5409.00	2.100	0.01
51.48	0.00	5409.00	2.100	0.01
51.65	0.00	5409.00	2.100	0.01
51.81	0.00	5409.00	2.100	0.01
51.97	0.00	5409.00	2.100	0.01
52.14	0.00	5409.00	2.100	0.01
52.31	0.00	5409.00	2.100	0.01

52.47	0.00	5409.00	2.100	0.01
52.63	0.00	5409.00	2.100	0.01
52.80	0.00	5409.00	2.100	0.01
52.97	0.00	5409.00	2.100	0.01
53.13	0.00	5409.00	2.100	0.01
53.29	0.00	5409.00	2.100	0.01
53.46	0.00	5409.00	2.100	0.01
53.62	0.00	5409.00	2.100	0.01
53.79	0.00	5409.00	2.100	0.01
53.95	0.00	5409.00	2.100	0.01
54.12	0.00	5409.00	2.100	0.01
54.28	0.00	5409.00	2.100	0.01
54.45	0.00	5409.00	2.100	0.01
54.61	0.00	5409.00	2.100	0.01
54.78	0.00	5409.00	2.100	0.01
54.94	0.00	5409.00	2.100	0.01
55.11	0.00	5409.00	2.100	0.01
55.28	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
55.44	0.00	5409.00	2.100	0.01
55.60	0.00	5409.00	2.100	0.01
55.77	0.00	5409.00	2.100	0.01
55.94	0.00	5409.00	2.100	0.01
56.10	0.00	5409.00	2.100	0.01
56.26	0.00	5409.00	2.100	0.01
56.43	0.00	5409.00	2.100	0.01
56.60	0.00	5409.00	2.100	0.01
56.76	0.00	5409.00	2.100	0.01
56.92	0.00	5409.00	2.100	0.01
57.09	0.00	5409.00	2.100	0.01
57.26	0.00	5409.00	2.100	0.01
57.42	0.00	5409.00	2.100	0.01
57.58	0.00	5409.00	2.100	0.01
57.75	0.00	5409.00	2.100	0.01
57.92	0.00	5409.00	2.100	0.01
58.08	0.00	5409.00	2.100	0.01
58.24	0.00	5409.00	2.100	0.01
58.41	0.00	5409.00	2.100	0.01
58.58	0.00	5409.00	2.100	0.01
58.74	0.00	5409.00	2.100	0.01
58.90	0.00	5409.00	2.100	0.01
59.07	0.00	5409.00	2.100	0.01
59.24	0.00	5409.00	2.100	0.01
59.40	0.00	5409.00	2.100	0.01
59.56	0.00	5409.00	2.100	0.01

59.73	0.00	5409.00	2.100	0.01
59.90	0.00	5409.00	2.100	0.01
60.06	0.00	5409.00	2.100	0.01
60.22	0.00	5409.00	2.100	0.01
60.39	0.00	5409.00	2.100	0.01
60.56	0.00	5409.00	2.100	0.01
60.72	0.00	5409.00	2.100	0.01
60.88	0.00	5409.00	2.100	0.01
61.05	0.00	5409.00	2.100	0.01
61.22	0.00	5409.00	2.100	0.01
61.38	0.00	5409.00	2.100	0.01
61.54	0.00	5409.00	2.100	0.01
61.71	0.00	5409.00	2.100	0.01
61.88	0.00	5409.00	2.100	0.01
62.04	0.00	5409.00	2.100	0.01
62.20	0.00	5409.00	2.100	0.01
62.37	0.00	5409.00	2.100	0.01
62.53	0.00	5409.00	2.100	0.01
62.70	0.00	5409.00	2.100	0.01
62.86	0.00	5409.00	2.100	0.01
63.03	0.00	5409.00	2.100	0.01
63.19	0.00	5409.00	2.100	0.01
63.36	0.00	5409.00	2.100	0.01
63.53	0.00	5409.00	2.100	0.01
63.69	0.00	5409.00	2.100	0.01
63.85	0.00	5409.00	2.100	0.01
64.02	0.00	5409.00	2.100	0.01
64.18	0.00	5409.00	2.100	0.01
64.35	0.00	5409.00	2.100	0.01
64.51	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
64.68	0.00	5409.00	2.100	0.01
64.85	0.00	5409.00	2.100	0.01
65.01	0.00	5409.00	2.100	0.01
65.18	0.00	5409.00	2.100	0.01
65.34	0.00	5409.00	2.100	0.01
65.50	0.00	5409.00	2.100	0.01
65.67	0.00	5409.00	2.100	0.01
65.83	0.00	5409.00	2.100	0.01
66.00	0.00	5409.00	2.100	0.01
66.17	0.00	5409.00	2.100	0.01
66.33	0.00	5409.00	2.100	0.01
66.50	0.00	5409.00	2.100	0.01
66.66	0.00	5409.00	2.100	0.01
66.82	0.00	5409.00	2.100	0.01

66.99	0.00	5409.00	2.100	0.01
67.15	0.00	5409.00	2.100	0.01
67.32	0.00	5409.00	2.100	0.01
67.49	0.00	5409.00	2.100	0.01
67.65	0.00	5409.00	2.100	0.01
67.82	0.00	5409.00	2.100	0.01
67.98	0.00	5409.00	2.100	0.01
68.14	0.00	5409.00	2.100	0.01
68.31	0.00	5409.00	2.100	0.01
68.47	0.00	5409.00	2.100	0.01
68.64	0.00	5409.00	2.100	0.01
68.81	0.00	5409.00	2.100	0.01
68.97	0.00	5409.00	2.100	0.01
69.14	0.00	5409.00	2.100	0.01
69.30	0.00	5409.00	2.100	0.01
69.46	0.00	5409.00	2.100	0.01
69.63	0.00	5409.00	2.100	0.01
69.79	0.00	5409.00	2.100	0.01
69.96	0.00	5409.00	2.100	0.01
70.12	0.00	5409.00	2.100	0.01
70.29	0.00	5409.00	2.100	0.01
70.46	0.00	5409.00	2.100	0.01
70.62	0.00	5409.00	2.100	0.01
70.78	0.00	5409.00	2.100	0.01
70.95	0.00	5409.00	2.100	0.01
71.11	0.00	5409.00	2.100	0.01
71.28	0.00	5409.00	2.100	0.01
71.44	0.00	5409.00	2.100	0.01
71.61	0.00	5409.00	2.100	0.01
71.78	0.00	5409.00	2.100	0.01
71.94	0.00	5409.00	2.100	0.01
72.11	0.00	5409.00	2.100	0.01
72.27	0.00	5409.00	2.100	0.01
72.43	0.00	5409.00	2.100	0.01
72.60	0.00	5409.00	2.100	0.01
72.76	0.00	5409.00	2.100	0.01
72.93	0.00	5409.00	2.100	0.01
73.10	0.00	5409.00	2.100	0.01
73.26	0.00	5409.00	2.100	0.01
73.43	0.00	5409.00	2.100	0.01
73.59	0.00	5409.00	2.100	0.01
73.75	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
73.92	0.00	5409.00	2.100	0.01
74.08	0.00	5409.00	2.100	0.01

74.25	0.00	5409.00	2.100	0.01
74.42	0.00	5409.00	2.100	0.01
74.58	0.00	5409.00	2.100	0.01
74.75	0.00	5409.00	2.100	0.01
74.91	0.00	5409.00	2.100	0.01
75.07	0.00	5409.00	2.100	0.01
75.24	0.00	5409.00	2.100	0.01
75.40	0.00	5409.00	2.100	0.01
75.57	0.00	5409.00	2.100	0.01
75.74	0.00	5409.00	2.100	0.01
75.90	0.00	5409.00	2.100	0.01
76.07	0.00	5409.00	2.100	0.01
76.23	0.00	5409.00	2.100	0.01
76.39	0.00	5409.00	2.100	0.01
76.56	0.00	5409.00	2.100	0.01
76.72	0.00	5409.00	2.100	0.01
76.89	0.00	5409.00	2.100	0.01
77.06	0.00	5409.00	2.100	0.01
77.22	0.00	5409.00	2.100	0.01
77.39	0.00	5409.00	2.100	0.01
77.55	0.00	5409.00	2.100	0.01
77.71	0.00	5409.00	2.100	0.01
77.88	0.00	5409.00	2.100	0.01
78.04	0.00	5409.00	2.100	0.01
78.21	0.00	5409.00	2.100	0.01
78.38	0.00	5409.00	2.100	0.01
78.54	0.00	5409.00	2.100	0.01
78.71	0.00	5409.00	2.100	0.01
78.87	0.00	5409.00	2.100	0.01
79.03	0.00	5409.00	2.100	0.01
79.20	0.00	5409.00	2.100	0.01
79.36	0.00	5409.00	2.100	0.01
79.53	0.00	5409.00	2.100	0.01
79.69	0.00	5409.00	2.100	0.01
79.86	0.00	5409.00	2.100	0.01
80.03	0.00	5409.00	2.100	0.01
80.19	0.00	5409.00	2.100	0.01
80.36	0.00	5409.00	2.100	0.01
80.52	0.00	5409.00	2.100	0.01
80.68	0.00	5409.00	2.100	0.01
80.85	0.00	5409.00	2.100	0.01
81.01	0.00	5409.00	2.100	0.01
81.18	0.00	5409.00	2.100	0.01
81.35	0.00	5409.00	2.100	0.01
81.51	0.00	5409.00	2.100	0.01
81.68	0.00	5409.00	2.100	0.01
81.84	0.00	5409.00	2.100	0.01
82.00	0.00	5409.00	2.100	0.01

82.17	0.00	5409.00	2.100	0.01
82.33	0.00	5409.00	2.100	0.01
82.50	0.00	5409.00	2.100	0.01
82.67	0.00	5409.00	2.100	0.01
82.83	0.00	5409.00	2.100	0.01
83.00	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
83.16	0.00	5409.00	2.100	0.01
83.32	0.00	5409.00	2.100	0.01
83.49	0.00	5409.00	2.100	0.01
83.65	0.00	5409.00	2.100	0.01
83.82	0.00	5409.00	2.100	0.01
83.99	0.00	5409.00	2.100	0.01
84.15	0.00	5409.00	2.100	0.01
84.32	0.00	5409.00	2.100	0.01
84.48	0.00	5409.00	2.100	0.01
84.64	0.00	5409.00	2.100	0.01
84.81	0.00	5409.00	2.100	0.01
84.97	0.00	5409.00	2.100	0.01
85.14	0.00	5409.00	2.100	0.01
85.31	0.00	5409.00	2.100	0.01
85.47	0.00	5409.00	2.100	0.01
85.64	0.00	5409.00	2.100	0.01
85.80	0.00	5409.00	2.100	0.01
85.96	0.00	5409.00	2.100	0.01
86.13	0.00	5409.00	2.100	0.01
86.29	0.00	5409.00	2.100	0.01
86.46	0.00	5409.00	2.100	0.01
86.62	0.00	5409.00	2.100	0.01
86.79	0.00	5409.00	2.100	0.01
86.96	0.00	5409.00	2.100	0.01
87.12	0.00	5409.00	2.100	0.01
87.28	0.00	5409.00	2.100	0.01
87.45	0.00	5409.00	2.100	0.01
87.61	0.00	5409.00	2.100	0.01
87.78	0.00	5409.00	2.100	0.01
87.94	0.00	5409.00	2.100	0.01
88.11	0.00	5409.00	2.100	0.01
88.28	0.00	5409.00	2.100	0.01
88.44	0.00	5409.00	2.100	0.01
88.60	0.00	5409.00	2.100	0.01
88.77	0.00	5409.00	2.100	0.01
88.93	0.00	5409.00	2.100	0.01
89.10	0.00	5409.00	2.100	0.01
89.26	0.00	5409.00	2.100	0.01

89.43	0.00	5409.00	2.100	0.01
89.60	0.00	5409.00	2.100	0.01
89.76	0.00	5409.00	2.100	0.01
89.93	0.00	5409.00	2.100	0.01
90.09	0.00	5409.00	2.100	0.01
90.25	0.00	5409.00	2.100	0.01
90.42	0.00	5409.00	2.100	0.01
90.58	0.00	5409.00	2.100	0.01
90.75	0.00	5409.00	2.100	0.01
90.92	0.00	5409.00	2.100	0.01
91.08	0.00	5409.00	2.100	0.01
91.25	0.00	5409.00	2.100	0.01
91.41	0.00	5409.00	2.100	0.01
91.57	0.00	5409.00	2.100	0.01
91.74	0.00	5409.00	2.100	0.01
91.90	0.00	5409.00	2.100	0.01
92.07	0.00	5409.00	2.100	0.01
92.24	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
92.40	0.00	5409.00	2.100	0.01
92.57	0.00	5409.00	2.100	0.01
92.73	0.00	5409.00	2.100	0.01
92.89	0.00	5409.00	2.100	0.01
93.06	0.00	5409.00	2.100	0.01
93.22	0.00	5409.00	2.100	0.01
93.39	0.00	5409.00	2.100	0.01
93.56	0.00	5409.00	2.100	0.01
93.72	0.00	5409.00	2.100	0.01
93.89	0.00	5409.00	2.100	0.01
94.05	0.00	5409.00	2.100	0.01
94.21	0.00	5409.00	2.100	0.01
94.38	0.00	5409.00	2.100	0.01
94.54	0.00	5409.00	2.100	0.01
94.71	0.00	5409.00	2.100	0.01
94.88	0.00	5409.00	2.100	0.01
95.04	0.00	5409.00	2.100	0.01
95.21	0.00	5409.00	2.100	0.01
95.37	0.00	5409.00	2.100	0.01
95.53	0.00	5409.00	2.100	0.01
95.70	0.00	5409.00	2.100	0.01
95.86	0.00	5409.00	2.100	0.01
96.03	0.00	5409.00	2.100	0.01
96.19	0.00	5409.00	2.100	0.01
96.36	0.00	5409.00	2.100	0.01
96.53	0.00	5409.00	2.100	0.01

96.69	0.00	5409.00	2.100	0.01
96.85	0.00	5409.00	2.100	0.01
97.02	0.00	5409.00	2.100	0.01
97.18	0.00	5409.00	2.100	0.01
97.35	0.00	5409.00	2.100	0.01
97.51	0.00	5409.00	2.100	0.01
97.68	0.00	5409.00	2.100	0.01
97.85	0.00	5409.00	2.100	0.01
98.01	0.00	5409.00	2.100	0.01
98.18	0.00	5409.00	2.100	0.01
98.34	0.00	5409.00	2.100	0.01
98.50	0.00	5409.00	2.100	0.01
98.67	0.00	5409.00	2.100	0.01
98.83	0.00	5409.00	2.100	0.01
99.00	0.00	5409.00	2.100	0.01
99.17	0.00	5409.00	2.100	0.01
99.33	0.00	5409.00	2.100	0.01
99.50	0.00	5409.00	2.100	0.01
99.66	0.00	5409.00	2.100	0.01
99.82	0.00	5409.00	2.100	0.01
99.99	0.00	5409.00	2.100	0.01
100.15	0.00	5409.00	2.100	0.01
100.32	0.00	5409.00	2.100	0.01
100.49	0.00	5409.00	2.100	0.01
100.65	0.00	5409.00	2.100	0.01
100.82	0.00	5409.00	2.100	0.01
100.98	0.00	5409.00	2.100	0.01
101.14	0.00	5409.00	2.100	0.01
101.31	0.00	5409.00	2.100	0.01
101.47	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
101.64	0.00	5409.00	2.100	0.01
101.81	0.00	5409.00	2.100	0.01
101.97	0.00	5409.00	2.100	0.01
102.14	0.00	5409.00	2.100	0.01
102.30	0.00	5409.00	2.100	0.01
102.46	0.00	5409.00	2.100	0.01
102.63	0.00	5409.00	2.100	0.01
102.79	0.00	5409.00	2.100	0.01
102.96	0.00	5409.00	2.100	0.01
103.12	0.00	5409.00	2.100	0.01
103.29	0.00	5409.00	2.100	0.01
103.46	0.00	5409.00	2.100	0.01
103.62	0.00	5409.00	2.100	0.01
103.78	0.00	5409.00	2.100	0.01

103.95	0.00	5409.00	2.100	0.01
104.11	0.00	5409.00	2.100	0.01
104.28	0.00	5409.00	2.100	0.01
104.44	0.00	5409.00	2.100	0.01
104.61	0.00	5409.00	2.100	0.01
104.78	0.00	5409.00	2.100	0.01
104.94	0.00	5409.00	2.100	0.01
105.10	0.00	5409.00	2.100	0.01
105.27	0.00	5409.00	2.100	0.01
105.43	0.00	5409.00	2.100	0.01
105.60	0.00	5409.00	2.100	0.01
105.76	0.00	5409.00	2.100	0.01
105.93	0.00	5409.00	2.100	0.01
106.10	0.00	5409.00	2.100	0.01
106.26	0.00	5409.00	2.100	0.01
106.43	0.00	5409.00	2.100	0.01
106.59	0.00	5409.00	2.100	0.01
106.75	0.00	5409.00	2.100	0.01
106.92	0.00	5409.00	2.100	0.01
107.08	0.00	5409.00	2.100	0.01
107.25	0.00	5409.00	2.100	0.01
107.42	0.00	5409.00	2.100	0.01
107.58	0.00	5409.00	2.100	0.01
107.75	0.00	5409.00	2.100	0.01
107.91	0.00	5409.00	2.100	0.01
108.07	0.00	5409.00	2.100	0.01
108.24	0.00	5409.00	2.100	0.01
108.40	0.00	5409.00	2.100	0.01
108.57	0.00	5409.00	2.100	0.01
108.74	0.00	5409.00	2.100	0.01
108.90	0.00	5409.00	2.100	0.01
109.07	0.00	5409.00	2.100	0.01
109.23	0.00	5409.00	2.100	0.01
109.39	0.00	5409.00	2.100	0.01
109.56	0.00	5409.00	2.100	0.01
109.72	0.00	5409.00	2.100	0.01
109.89	0.00	5409.00	2.100	0.01
110.06	0.00	5409.00	2.100	0.01
110.22	0.00	5409.00	2.100	0.01
110.39	0.00	5409.00	2.100	0.01
110.55	0.00	5409.00	2.100	0.01
110.71	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
110.88	0.00	5409.00	2.100	0.01
111.04	0.00	5409.00	2.100	0.01

111.21	0.00	5409.00	2.100	0.01
111.38	0.00	5409.00	2.100	0.01
111.54	0.00	5409.00	2.100	0.01
111.71	0.00	5409.00	2.100	0.01
111.87	0.00	5409.00	2.100	0.01
112.03	0.00	5409.00	2.100	0.01
112.20	0.00	5409.00	2.100	0.01
112.36	0.00	5409.00	2.100	0.01
112.53	0.00	5409.00	2.100	0.01
112.69	0.00	5409.00	2.100	0.01
112.86	0.00	5409.00	2.100	0.01
113.03	0.00	5409.00	2.100	0.01
113.19	0.00	5409.00	2.100	0.01
113.35	0.00	5409.00	2.100	0.01
113.52	0.00	5409.00	2.100	0.01
113.68	0.00	5409.00	2.100	0.01
113.85	0.00	5409.00	2.100	0.01
114.01	0.00	5409.00	2.100	0.01
114.18	0.00	5409.00	2.100	0.01
114.35	0.00	5409.00	2.100	0.01
114.51	0.00	5409.00	2.100	0.01
114.68	0.00	5409.00	2.100	0.01
114.84	0.00	5409.00	2.100	0.01
115.00	0.00	5409.00	2.100	0.01
115.17	0.00	5409.00	2.100	0.01
115.33	0.00	5409.00	2.100	0.01
115.50	0.00	5409.00	2.100	0.01
115.67	0.00	5409.00	2.100	0.01
115.83	0.00	5409.00	2.100	0.01
116.00	0.00	5409.00	2.100	0.01
116.16	0.00	5409.00	2.100	0.01
116.32	0.00	5409.00	2.100	0.01
116.49	0.00	5409.00	2.100	0.01
116.65	0.00	5409.00	2.100	0.01
116.82	0.00	5409.00	2.100	0.01
116.99	0.00	5409.00	2.100	0.01
117.15	0.00	5409.00	2.100	0.01
117.32	0.00	5409.00	2.100	0.01
117.48	0.00	5409.00	2.100	0.01
117.64	0.00	5409.00	2.100	0.01
117.81	0.00	5409.00	2.100	0.01
117.97	0.00	5409.00	2.100	0.01
118.14	0.00	5409.00	2.100	0.01
118.31	0.00	5409.00	2.100	0.01
118.47	0.00	5409.00	2.100	0.01
118.64	0.00	5409.00	2.100	0.01
118.80	0.00	5409.00	2.100	0.01
118.96	0.00	5409.00	2.100	0.01

119.13	0.00	5409.00	2.100	0.01
119.29	0.00	5409.00	2.100	0.01
119.46	0.00	5409.00	2.100	0.01
119.62	0.00	5409.00	2.100	0.01
119.79	0.00	5409.00	2.100	0.01
119.96	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
120.12	0.00	5409.00	2.100	0.01
120.28	0.00	5409.00	2.100	0.01
120.45	0.00	5409.00	2.100	0.01
120.61	0.00	5409.00	2.100	0.01
120.78	0.00	5409.00	2.100	0.01
120.94	0.00	5409.00	2.100	0.01
121.11	0.00	5409.00	2.100	0.01
121.28	0.00	5409.00	2.100	0.01
121.44	0.00	5409.00	2.100	0.01
121.60	0.00	5409.00	2.100	0.01
121.77	0.00	5409.00	2.100	0.01
121.93	0.00	5409.00	2.100	0.01
122.10	0.00	5409.00	2.100	0.01
122.26	0.00	5409.00	2.100	0.01
122.43	0.00	5409.00	2.100	0.01
122.60	0.00	5409.00	2.100	0.01
122.76	0.00	5409.00	2.100	0.01
122.93	0.00	5409.00	2.100	0.01
123.09	0.00	5409.00	2.100	0.01
123.25	0.00	5409.00	2.100	0.01
123.42	0.00	5409.00	2.100	0.01
123.58	0.00	5409.00	2.100	0.01
123.75	0.00	5409.00	2.100	0.01
123.92	0.00	5409.00	2.100	0.01
124.08	0.00	5409.00	2.100	0.01
124.25	0.00	5409.00	2.100	0.01
124.41	0.00	5409.00	2.100	0.01
124.57	0.00	5409.00	2.100	0.01
124.74	0.00	5409.00	2.100	0.01
124.90	0.00	5409.00	2.100	0.01
125.07	0.00	5409.00	2.100	0.01
125.24	0.00	5409.00	2.100	0.01
125.40	0.00	5409.00	2.100	0.01
125.57	0.00	5409.00	2.100	0.01
125.73	0.00	5409.00	2.100	0.01
125.89	0.00	5409.00	2.100	0.01
126.06	0.00	5409.00	2.100	0.01
126.22	0.00	5409.00	2.100	0.01

126.39	0.00	5409.00	2.100	0.01
126.56	0.00	5409.00	2.100	0.01
126.72	0.00	5409.00	2.100	0.01
126.89	0.00	5409.00	2.100	0.01
127.05	0.00	5409.00	2.100	0.01
127.21	0.00	5409.00	2.100	0.01
127.38	0.00	5409.00	2.100	0.01
127.54	0.00	5409.00	2.100	0.01
127.71	0.00	5409.00	2.100	0.01
127.88	0.00	5409.00	2.100	0.01
128.04	0.00	5409.00	2.100	0.01
128.21	0.00	5409.00	2.100	0.01
128.37	0.00	5409.00	2.100	0.01
128.54	0.00	5409.00	2.100	0.01
128.70	0.00	5409.00	2.100	0.01
128.87	0.00	5409.00	2.100	0.01
129.03	0.00	5409.00	2.100	0.01
129.19	0.00	5409.00	2.100	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
129.36	0.00	5409.00	2.100	0.01
129.52	0.00	5409.00	2.100	0.01
129.69	0.00	5409.00	2.100	0.01
129.85	0.00	5409.00	2.100	0.01
130.02	0.00	5409.00	2.100	0.01
130.18	0.00	5409.00	2.100	0.01
130.35	0.00	5409.00	2.100	0.01
130.51	0.00	5409.00	2.100	0.01
130.68	0.00	5409.00	2.100	0.01
130.85	0.00	5409.00	2.100	0.01
131.01	0.00	5409.00	2.100	0.01
131.18	0.00	5409.00	2.100	0.01
131.34	0.00	5409.00	2.100	0.01
131.51	0.00	5409.00	2.100	0.01
131.67	0.00	5409.00	2.100	0.01
131.84	0.00	5409.00	2.100	0.01

PEAK DISCHARGE = 11.340 CFS - PEAK OCCURS AT HOUR 2.11
MAXIMUM WATER SURFACE ELEVATION = 5409.337
MAXIMUM STORAGE = 2.3294 AC-FT INCREMENTAL TIME= 0.033000HRS

*

PRINT HYD ID=50 CODE=10

HYDROGRAPH FROM AREA POND.A

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	26.400	0.0	52.800	0.0
79.200	0.0	105.600	0.0		
0.330	0.0	26.730	0.0	53.130	0.0
79.530	0.0	105.930	0.0		
0.660	0.0	27.060	0.0	53.460	0.0
79.860	0.0	106.260	0.0		
0.990	0.0	27.390	0.0	53.790	0.0
80.190	0.0	106.590	0.0		
1.320	0.0	27.720	0.0	54.120	0.0
80.520	0.0	106.920	0.0		
1.650	0.0	28.050	0.0	54.450	0.0
80.850	0.0	107.250	0.0		
1.980	9.0	28.380	0.0	54.780	0.0
81.180	0.0	107.580	0.0		
2.310	8.5	28.710	0.0	55.110	0.0
81.510	0.0	107.910	0.0		
2.640	4.0	29.040	0.0	55.440	0.0
81.840	0.0	108.240	0.0		
2.970	1.9	29.370	0.0	55.770	0.0
82.170	0.0	108.570	0.0		
3.300	1.0	29.700	0.0	56.100	0.0
82.500	0.0	108.900	0.0		
3.630	0.6	30.030	0.0	56.430	0.0
82.830	0.0	109.230	0.0		
3.960	0.5	30.360	0.0	56.760	0.0
83.160	0.0	109.560	0.0		
4.290	0.4	30.690	0.0	57.090	0.0
83.490	0.0	109.890	0.0		
4.620	0.4	31.020	0.0	57.420	0.0
83.820	0.0	110.220	0.0		
4.950	0.4	31.350	0.0	57.750	0.0
84.150	0.0	110.550	0.0		
5.280	0.4	31.680	0.0	58.080	0.0
84.480	0.0	110.880	0.0		
5.610	0.4	32.010	0.0	58.410	0.0
84.810	0.0	111.210	0.0		
5.940	0.4	32.340	0.0	58.740	0.0
85.140	0.0	111.540	0.0		
6.270	0.5	32.670	0.0	59.070	0.0
85.470	0.0	111.870	0.0		
6.600	0.5	33.000	0.0	59.400	0.0
85.800	0.0	112.200	0.0		

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         6.930       0.5          33.330       0.0          59.730       0.0
86.130       0.0        112.530       0.0
         7.260       0.5          33.660       0.0          60.060       0.0
86.460       0.0        112.860       0.0
         7.590       0.5          33.990       0.0          60.390       0.0
86.790       0.0        113.190       0.0
         7.920       0.5          34.320       0.0          60.720       0.0
87.120       0.0        113.520       0.0
         8.250       0.5          34.650       0.0          61.050       0.0
87.450       0.0        113.850       0.0
         8.580       0.5          34.980       0.0          61.380       0.0
87.780       0.0        114.180       0.0
         8.910       0.5          35.310       0.0          61.710       0.0
88.110       0.0        114.510       0.0
         9.240       0.5          35.640       0.0          62.040       0.0
88.440       0.0        114.840       0.0
         9.570       0.4          35.970       0.0          62.370       0.0
88.770       0.0        115.170       0.0
         9.900       0.4          36.300       0.0          62.700       0.0
89.100       0.0        115.500       0.0
        10.230       0.4          36.630       0.0          63.030       0.0
89.430       0.0        115.830       0.0
        10.560       0.4          36.960       0.0          63.360       0.0
89.760       0.0        116.160       0.0
        10.890       0.4          37.290       0.0          63.690       0.0
90.090       0.0        116.490       0.0
        11.220       0.4          37.620       0.0          64.020       0.0
90.420       0.0        116.820       0.0
        11.550       0.4          37.950       0.0          64.350       0.0
90.750       0.0        117.150       0.0
        11.880       0.4          38.280       0.0          64.680       0.0
91.080       0.0        117.480       0.0
        12.210       0.4          38.610       0.0          65.010       0.0
91.410       0.0        117.810       0.0
        12.540       0.4          38.940       0.0          65.340       0.0
91.740       0.0        118.140       0.0
        12.870       0.4          39.270       0.0          65.670       0.0
92.070       0.0        118.470       0.0
        13.200       0.4          39.600       0.0          66.000       0.0
92.400       0.0        118.800       0.0
        13.530       0.4          39.930       0.0          66.330       0.0
92.730       0.0        119.130       0.0
        13.860       0.4          40.260       0.0          66.660       0.0
93.060       0.0        119.460       0.0
        14.190       0.4          40.590       0.0          66.990       0.0
93.390       0.0        119.790       0.0
        14.520       0.3          40.920       0.0          67.320       0.0
93.720       0.0        120.120       0.0
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14.850	0.3	41.250	0.0	67.650	0.0
94.050	0.0	120.450	0.0		
15.180	0.3	41.580	0.0	67.980	0.0
94.380	0.0	120.780	0.0		
15.510	0.3	41.910	0.0	68.310	0.0
94.710	0.0	121.110	0.0		
15.840	0.3	42.240	0.0	68.640	0.0
95.040	0.0	121.440	0.0		
16.170	0.3	42.570	0.0	68.970	0.0
95.370	0.0	121.770	0.0		
16.500	0.3	42.900	0.0	69.300	0.0
95.700	0.0	122.100	0.0		
16.830	0.3	43.230	0.0	69.630	0.0
96.030	0.0	122.430	0.0		
17.160	0.3	43.560	0.0	69.960	0.0
96.360	0.0	122.760	0.0		
17.490	0.3	43.890	0.0	70.290	0.0
96.690	0.0	123.090	0.0		
17.820	0.3	44.220	0.0	70.620	0.0
97.020	0.0	123.421	0.0		
18.150	0.3	44.550	0.0	70.950	0.0
97.350	0.0	123.751	0.0		
18.480	0.3	44.880	0.0	71.280	0.0
97.680	0.0	124.081	0.0		
18.810	0.3	45.210	0.0	71.610	0.0
98.010	0.0	124.411	0.0		
19.140	0.3	45.540	0.0	71.940	0.0
98.340	0.0	124.741	0.0		
19.470	0.3	45.870	0.0	72.270	0.0
98.670	0.0	125.071	0.0		
19.800	0.3	46.200	0.0	72.600	0.0
99.000	0.0	125.401	0.0		
20.130	0.3	46.530	0.0	72.930	0.0
99.330	0.0	125.731	0.0		
20.460	0.3	46.860	0.0	73.260	0.0
99.660	0.0	126.061	0.0		
20.790	0.3	47.190	0.0	73.590	0.0
99.990	0.0	126.391	0.0		
21.120	0.3	47.520	0.0	73.920	0.0
100.320	0.0	126.721	0.0		
21.450	0.3	47.850	0.0	74.250	0.0
100.650	0.0	127.051	0.0		
21.780	0.3	48.180	0.0	74.580	0.0
100.980	0.0	127.381	0.0		
22.110	0.3	48.510	0.0	74.910	0.0
101.310	0.0	127.711	0.0		
22.440	0.3	48.840	0.0	75.240	0.0
101.640	0.0	128.041	0.0		

```
        22.770       0.3         49.170       0.0         75.570       0.0
101.970       0.0        128.371       0.0
        23.100       0.3         49.500       0.0         75.900       0.0
102.300       0.0        128.701       0.0
        23.430       0.3         49.830       0.0         76.230       0.0
102.630       0.0        129.031       0.0
        23.760       0.2         50.160       0.0         76.560       0.0
102.960       0.0        129.361       0.0
        24.090       0.2         50.490       0.0         76.890       0.0
103.290       0.0        129.691       0.0
        24.420       0.1         50.820       0.0         77.220       0.0
103.620       0.0        130.021       0.0
        24.750       0.0         51.150       0.0         77.550       0.0
103.950       0.0        130.351       0.0
        25.080       0.0         51.480       0.0         77.880       0.0
104.280       0.0        130.681       0.0
        25.410       0.0         51.810       0.0         78.210       0.0
104.610       0.0        131.011       0.0
        25.740       0.0         52.140       0.0         78.540       0.0
104.940       0.0        131.341       0.0
        26.070       0.0         52.470       0.0         78.870       0.0
105.270       0.0        131.671       0.0

        RUNOFF VOLUME =     0.61423 INCHES     =       1.3549 ACRE-FEET
        PEAK DISCHARGE RATE =      11.34 CFS  AT   2.112 HOURS   BASIN AREA =
0.0414 SQ. MI.




    FINISH


        NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 11:39:23
```

AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4) - Ver. S4.02a, Rel: 02a RUN DATE (MON/DAY/YR) =04/30/2020
INPUT FILE = G Tools\ahymo-s4-r2\ahymo-s4-r2\DISK1\program files\AHYMO-S4\04022 Input.HMI USER NO.= AHYMO-S4TempUser05901704

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
RAINFALL TYPE=13										RAIN24= 2.660
*S EXISTING CONDITIONS										
*S COMPUTE HYD EXISTING BASIN A										
COMPUTE NM HYD	101.00	-	1	0.00804	6.88	0.188	0.43934	1.518	1.336	PER IMP= 0.00
*S COMPUTE HYD EXISTING BASIN B										
COMPUTE NM HYD	102.00	-	2	0.01428	12.21	0.335	0.43934	1.518	1.336	PER IMP= 0.00
*S COMPUTE HYD EXISTING BASIN C										
COMPUTE NM HYD	103.00	-	3	0.03350	28.63	0.785	0.43934	1.518	1.335	PER IMP= 0.00
ADD HYD	101TO102	1& 2	4	0.02232	19.08	0.523	0.43933	1.518	1.336	
ADD HYD	COMBINED101-	3& 4	5	0.05582	47.71	1.308	0.43934	1.518	1.336	
*S PROPOSED CONDITIONS										
*S COMPUTE HYD PROPOSED BASIN A										
COMPUTE NM HYD	104.00	-	6	0.00764	19.52	0.857	2.10390	1.485	3.993	PER IMP= 80.00
*S COMPUTE HYD PROPOSED BASIN B										
COMPUTE NM HYD	105.00	-	7	0.00463	11.84	0.520	2.10390	1.485	3.995	PER IMP= 80.00
*S COMPUTE HYD PROPOSED BASIN C										
COMPUTE NM HYD	106.00	-	8	0.00640	16.36	0.718	2.10390	1.485	3.993	PER IMP= 80.00
ADD HYD	BTOA	6& 7	10	0.01227	31.36	1.377	2.10385	1.485	3.993	
ADD HYD	B-CTOA	8&10	11	0.01867	47.71	2.095	2.10385	1.485	3.993	
*S COMPUTE HYD PROPOSED BASIN D										
COMPUTE NM HYD	107.00	-	12	0.01564	16.38	0.532	0.63801	1.518	1.637	PER IMP= 10.00
*S COMPUTE HYD PROPOSED BASIN E										
COMPUTE NM HYD	108.00	-	13	0.00096	1.54	0.042	0.81538	1.518	2.503	PER IMP= 0.00
*S COMPUTE HYD PROPOSED BASIN F										
COMPUTE NM HYD	109.00	-	14	0.00054	0.94	0.028	0.97645	1.518	2.721	PER IMP= 10.00
ADD HYD	DTOF	12&14	15	0.01618	17.32	0.559	0.64835	1.518	1.673	
ADD HYD	ETOF-D	13&15	16	0.01714	18.86	0.601	0.65770	1.518	1.719	
*S COMPUTE HYD PROPOSED BASIN G										
COMPUTE NM HYD	110.00	-	17	0.00555	14.88	0.670	2.26496	1.485	4.190	PER IMP= 90.00
*S COMPUTE HYD PROPOSED BASIN H										
COMPUTE NM HYD	111.00	-	18	0.00107	2.88	0.129	2.26496	1.485	4.210	PER IMP= 90.00
*S COMPUTE HYD PROPOSED BASIN I										
COMPUTE NM HYD	112.00	-	19	0.00074	2.00	0.089	2.26496	1.485	4.220	PER IMP= 90.00
ADD HYD	HTOI	18&19	20	0.00181	4.88	0.219	2.26462	1.485	4.214	
ADD HYD	A-CTOG	11&17	21	0.02422	62.60	2.765	2.14076	1.485	4.038	
ADD HYD	D-FTOA-DTOG	16&21	22	0.04136	81.07	3.367	1.52616	1.518	3.063	
ROUTE RESERVOIR	POND.A	22	50	0.04136	11.34	1.355	0.61423	2.112	0.428	AC-FT= 2.329
FINISH										

APPENDIX B

HYDRAULIC CALCULATIONS

Manning Formula: Proposed 24" SD Max Flow

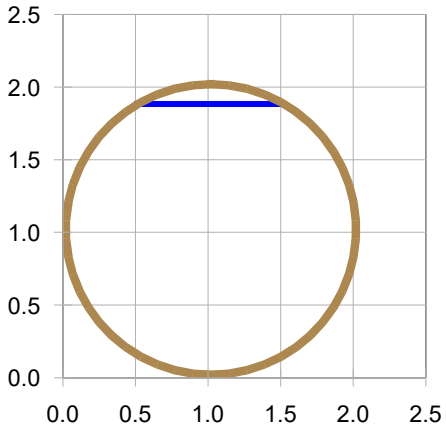
Circular Channel

Input

Flow	17.20 cfs
Slope	0.005 ft/ft
Manning's n	0.013
Diameter	24 in

Output

Depth	1.862 ft
Flow Area	3.05 sf
Velocity	5.65 fps
Velocity Head	0.495 ft
Top Width	1.01 ft
Froude Number	0.574
Critical Depth	1.495 ft
Critical Slope	0.00701 ft/ft



Manning Formula: Proposed 30" SD Max Flow

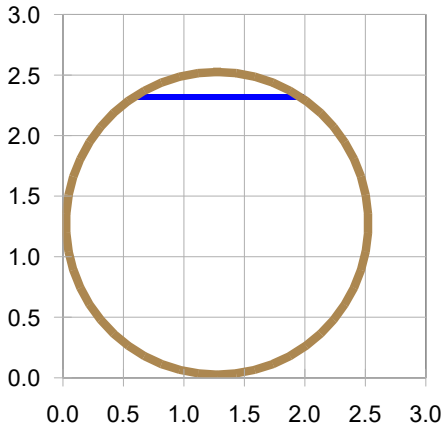
Circular Channel

Input

Flow	31.1 cfs
Slope	0.005 ft/ft
Manning's n	0.013
Diameter	30 in

Output

Depth	2.292 ft
Flow Area	4.71 sf
Velocity	6.60 fps
Velocity Head	0.677 ft
Top Width	1.38 ft
Froude Number	0.630
Critical Depth	1.900 ft
Critical Slope	0.00670 ft/ft



Manning Formula: Proposed 36" SD Max Flow

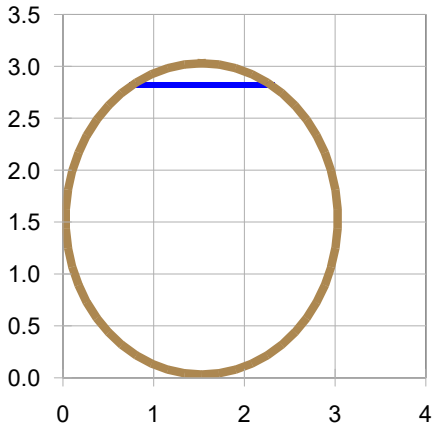
Circular Channel

Input

Flow	50.7 cfs
Slope	0.005 ft/ft
Manning's n	0.013
Diameter	36 in

Output

Depth	2.787 ft
Flow Area	6.85 sf
Velocity	7.41 fps
Velocity Head	0.852 ft
Top Width	1.54 ft
Froude Number	0.619
Critical Depth	2.317 ft
Critical Slope	0.00651 ft/ft



Manning Formula: Proposed 54" SD Max Flow

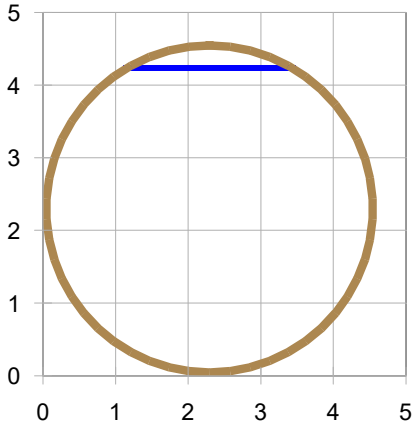
Circular Channel

Input

Flow	149.5 cfs
Slope	0.005 ft/ft
Manning's n	0.013
Diameter	54 in

Output

Depth	4.185 ft
Flow Area	15.4 sf
Velocity	9.70 fps
Velocity Head	1.46 ft
Top Width	2.30 ft
Froude Number	0.660
Critical Depth	3.588 ft
Critical Slope	0.00609 ft/ft



Manning Formula: Proposed 60" SD Max Flow

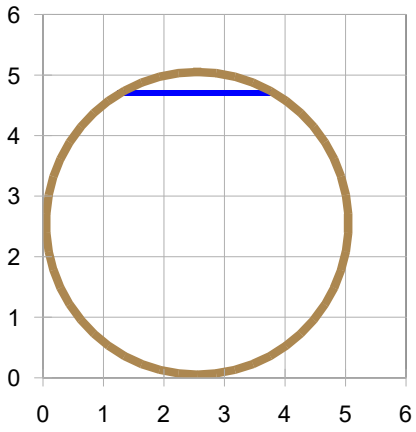
Circular Channel

Input

Flow	198.0 cfs
Slope	0.005 ft/ft
Manning's n	0.013
Diameter	60 in

Output

Depth	4.651 ft
Flow Area	19.0 sf
Velocity	10.4 fps
Velocity Head	1.68 ft
Top Width	2.55 ft
Froude Number	0.671
Critical Depth	4.019 ft
Critical Slope	0.00599 ft/ft



Basin A Type D Inlet Calculation

Orifice (Unknown Q)

Head Water Depth (h):	0.5	ft	User Enter Desired Value
Discharge Coeff. (C_d):	0.6		
Open Area (A):	4.6900	ft^2	
Gravity (g):	32.2	ft/s^2	

Flow (Q) = C · A · (2 · g · h) ^ (0.5)

Flow (Q) = 16.0 cfs

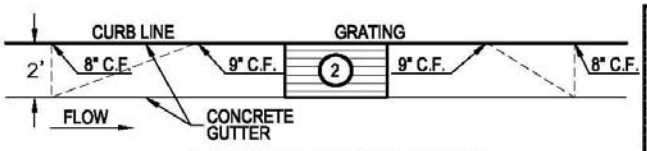
Weir (Unknown Q):

Discharge Coeff. (C_w):	3.367	
Length (L):	10.67	ft

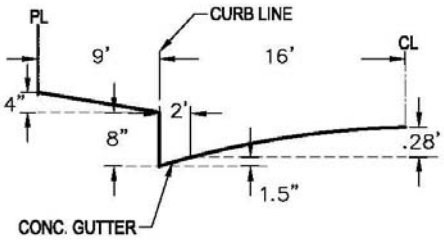
Flow (Q) = C_w · L · h ^ (1.5)

Flow (Q) = 12.7 cfs

GRATING CAPACITIES FOR TYPE "A", "C" AND "D"



GRATING & GUTTER PLAN



TYPICAL HALF STREET SECTION
(ABOVE BASIN)

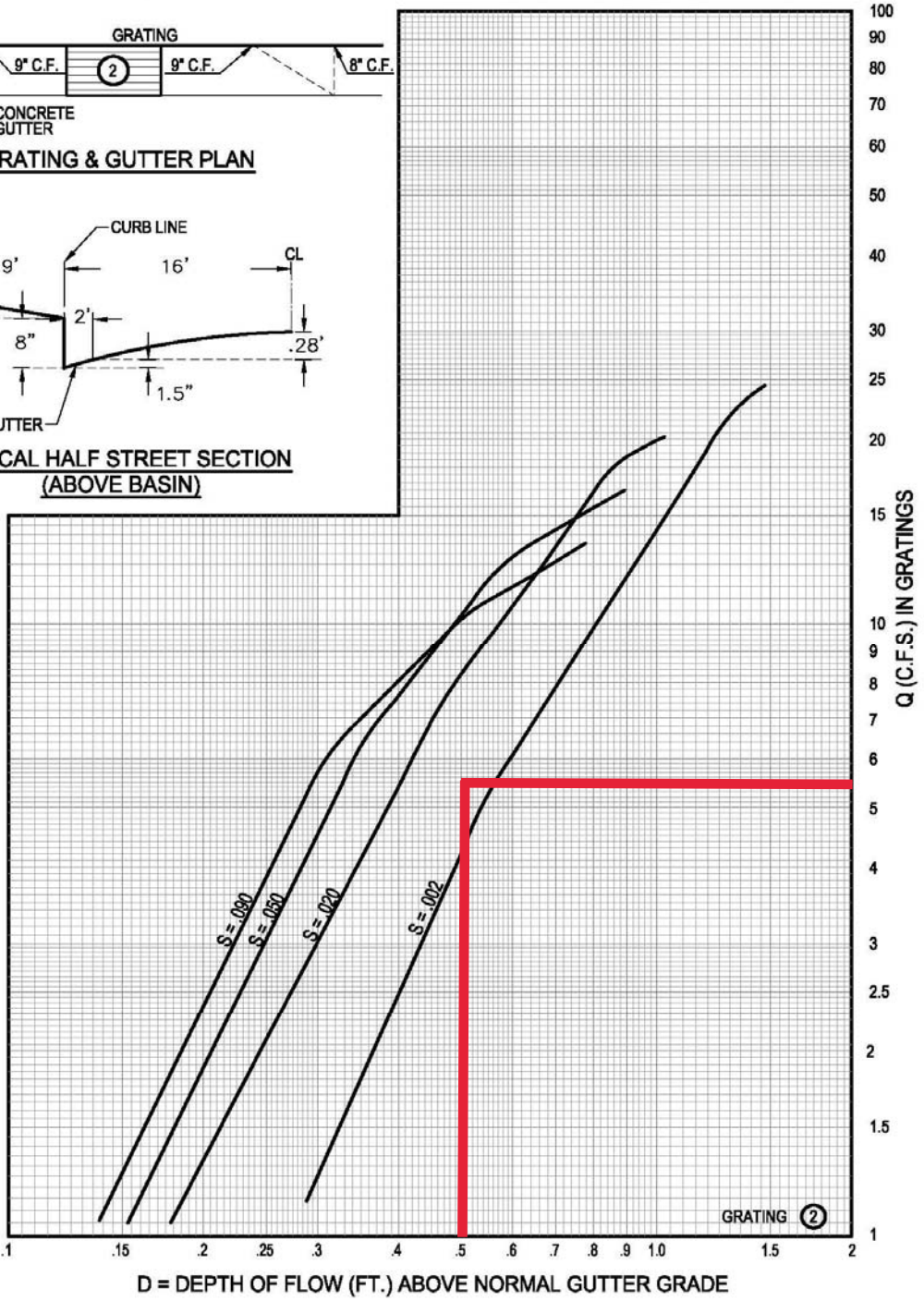


PLATE 22.3 D-5

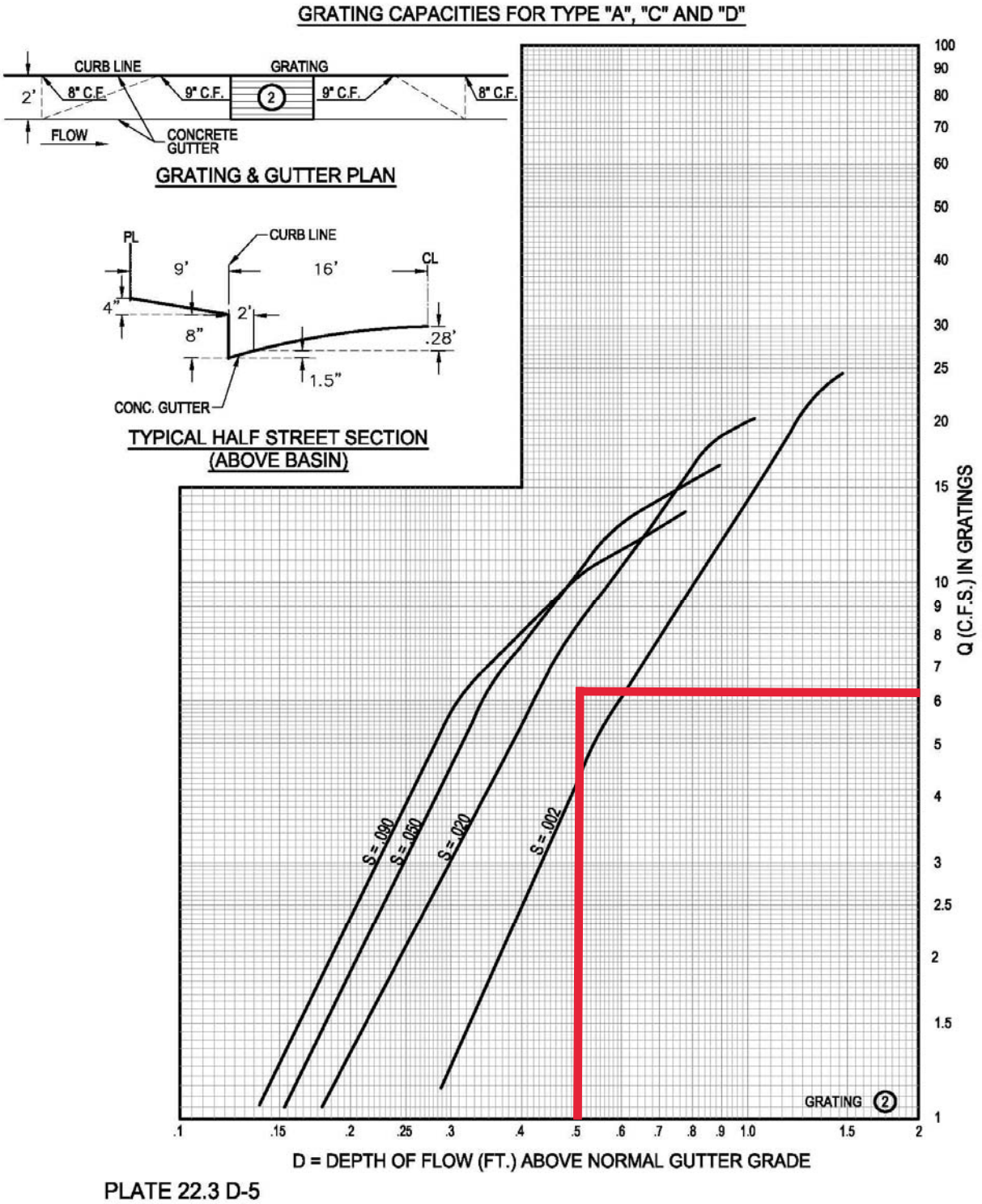
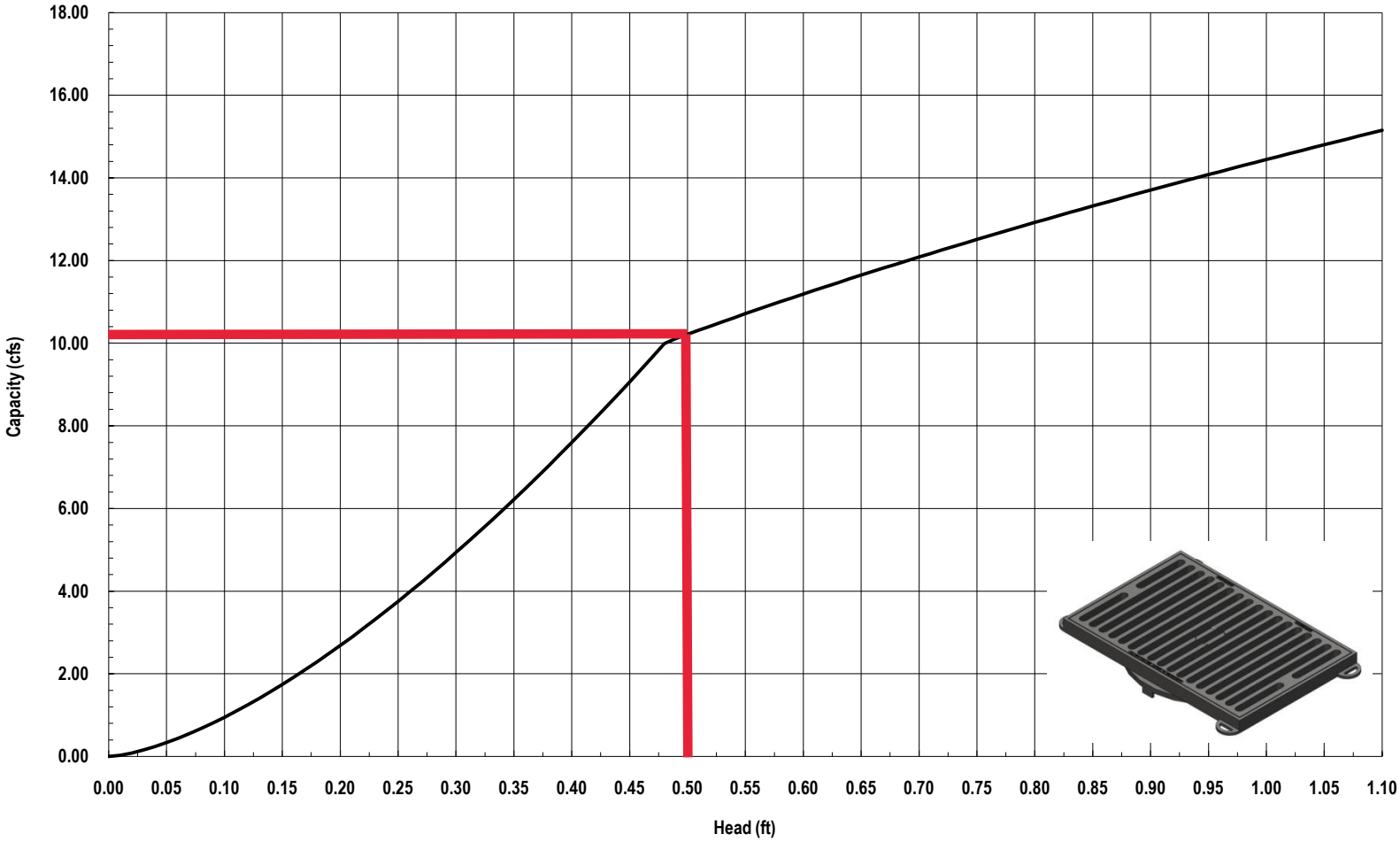

GRATING CAPACITIES FOR TYPE "A", "C" AND "D"
CURB LINE
GRATING
2'
8" C.F.
9" C.F.
2
9" C.F.
8" C.F.
FLOW
CONCRETE GUTTER
GRATING & GUTTER PLAN
PL
CURB LINE
9'
16'
CL
4"
2'
8"
.28'
1.5"
CONC. GUTTER
TYPICAL HALF STREET SECTION (ABOVE BASIN)
S=.090
S=.050
S=.020
S=.002
GRATING 2
Q (C.F.S.) IN GRATINGS
100
90
80
70
60
50
40
30
25
20
15
10
9
8
7
6
5
4
3
2.5
2
1.5
1
.1
.15
.2
.25
.3
.4
.5
.6
.7
.8
.9
1.0
1.5
2
D = DEPTH OF FLOW (FT.) ABOVE NORMAL GUTTER GRADE

PLATE 22.3 D-5

Nyloplast 2' x 3' Road & Highway Grate Inlet Capacity Chart



Nyloplast®
3130 Verona Avenue • Buford, GA 30518
(866) 888-8479 / (770) 932-2443 • Fax: (770) 932-2490

Manning Formula: Proposed Internal Roadway Max Flow

Irregular Section

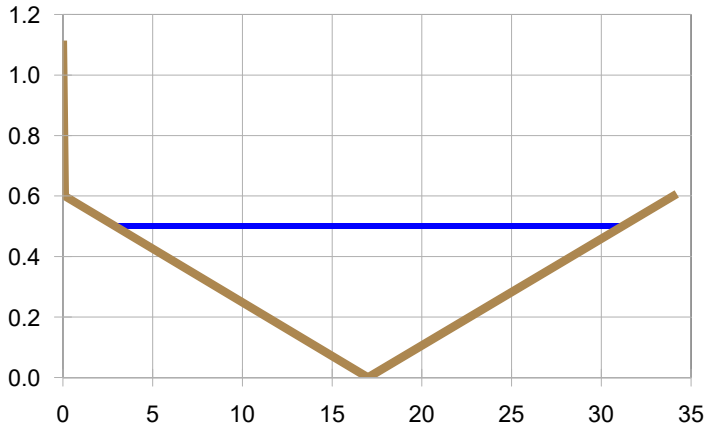
Input

Flow	17.3 cfs
Slope	0.005 ft/ft

Sta	Elev	n	Sta	Elev	n	Sta	Elev	n	Sta	Elev	n
0	1.1	0.017	0.1	0.6	0.017	17	0	0.017	34	0.6	0.017

Output

WSElev	0.500 ft
Flow Area	7.06 sf
Velocity	2.45 fps
Velocity Head	0.0934 ft
Top Width	28.2 ft
Froude Number	0.864
Critical WSElev	0.472 ft
Critical Slope	ft/ft



Public Pond A Weir Calculation

Head Water Depth (h):	1	ft	User Enter Desired Value

Weir (Unknown Q):

Discharge Coeff. (C_w):	3.33	
Length (L):	14.25	ft

Flow (Q) = $C_w \cdot L \cdot h \wedge (1.5)$

Flow (Q) = 47.5 cfs

Head Water Depth (h):	0.5	ft

Weir (Unknown Q):

Discharge Coeff. (C_w):	3.33	
Length (L):	14.25	ft

Flow (Q) = $C_w \cdot L \cdot h \wedge (1.5)$

Flow (Q) = 16.8 cfs