AMENDMENT TO
THE DRAINAGE MASTER PLAN
FOR THE TRAILS
UNITS 1, 2, AND 3

April 2014

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FOR THE TRAILS
UNITS 1, 2, AND 3

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INTRODUCTION

This report serves as an amendment to the original Drainage Master Plan and two amendments to the DMP for the Trails development in northwest Albuquerque. The original Drainage Master Plan prepared by Bohannan-Huston, Inc. was named "Master Drainage Study for the Trails Subdivision" dated December of 2003. The two previous amendments to the Drainage Master Plan, prepared by Wilson and Company, were entitled "Amendment to The Trails Unit II Drainage Master Plan" dated August 22, 2007, and "Amendment to the Trails Unit III Drainage Master Plan" dated October, 30, 2007. The purpose of this amendment is to update the land use of the undeveloped parcels to match the density identified in the recently approved Volcano Trails Sector Development Plan (VTSDP) and to update the Developed Conditions Drainage Master Plan to adhere to the peak flow discharge from the previously approved Trails DMP.

The VTSDP identifies proposed zoning for all of the undeveloped properties within the Trails Units 1, 2, and 3. The zoning map, which identifies the different zones, is located at the end of the report. The proposed zones include: VTVC, Trails Village Center; VTUR, Trails Urban Residential; VTRD, Trails Residential Developing Area; VTSL, Trails Small Lot Residential; VTML, Trails Medium Lot Residential; and SU-2 RD, Residential and Related Uses Zone. The VTUR and VTVC have higher densities or are commercial zones, therefore the impervious percentage is 75%. The VTRD and SU-2 RD zones have the next highest density with an impervious percentage of 64 to 68%. The VTSL has an impervious percentage of 50%. And finally the VTML is the lowest density with an impervious percentage of 34%.

METHODOLOGY

The hydrologic and hydraulic criteria in Section 22 of the City of Albuquerque Development Process Manual (DPM), entitled "Drainage, Flood Control, and Erosion Control," was followed to perform the analyses given in this report. The design storm used for the developed conditions of the Trails area is the 100-year, 24-hour storm event for peak flow and volume computations. AHYMO models for the developed conditions were developed to analyze the existing and future drainage systems. Also, a hydraulic grade line (HGL) analysis following the DPM was completed to size the storm drain located in Universe Boulevard.

AHYMO MODEL DEVELOPMENT

DRAINAGE BASIN DELINEATION

Drainage basins were delineated for all developed areas by following the drainage reports prepared for each existing subdivision. For undeveloped areas the land use category boundaries shown in the Volcano Trails Sector Development Plan (VTSDP) was used to determine drainage basin boundaries for future subdivisions. For the developed subdivisions land treatments in the drainage reports were used for the model. The only subdivision that existing land treatments were not followed was Valle Vista. Land treatments for Valle Vista were determined using the density called out in the VTSDP. For all currently undeveloped properties land treatments were calculated using the densities shown in the VTSDP.

DEVELOPED CONDITIONS MODEL

The developed conditions model was constructed by first inputting all drainage improvements that have been built within the existing developed subdivisions. Information from all existing drainage reports and as-built plans were used to provide input to the AHYMO model (see Appendix A). Volumes from existing detention ponds, D, F, G, H, J, and K, were calculated from the as-built plans. All existing storm drains were input to the model.

Ponds D, G, H, J, and K were modeled as surge ponds. All storm water flows in the storm drain bypass the surge pond continuing to flow in the pipe until the hydraulic grade line (HGL) increases above the bottom elevation of the pond. When the HGL is above the bottom of the pond storm flows discharge into the pond. As the HGL increases the pond fills up with storm water. When the HGL starts to decrease the pond slowly discharges back to the storm drain system. Therefore, the surge ponds do not hold storm water in all storm events like a detention pond. Nuisance flows and low flows remain in the storm drain bypassing the surge pond. The bypass flow for each pond was determined by the capacity of the storm drain with an HGL equal to the bottom elevation of the pond. Orifice plates will be installed in the storm drains downstream of the surge ponds to assist in allowing the storm flows to surge into the detention ponds. Specific improvements to be constructed in the storm drain system will be determined later to match the hydraulic characteristics shown in this report. Once the bypass flow was calculated the inflow hydrograph was divided using the DIVIDE HYD command in AHYMO. The bypass flow was routed in the storm drain while the surge flow was routed through the surge pond. The bypass flow and the surge pond discharge was added together downstream of the surge pond.

For the undeveloped basins west of Rainbow Boulevard, a system of storm drains and detention/surge ponds were modeled to convey the flows east to the existing storm drain and detention pond system. East of Universe Boulevard a series of detention/surge ponds were modeled to detain the peak flows from eastern basins and as a final outfall for all of the Trails area.

Table 1 Developed Drainage Basin Characersitics

BASIN	AREA	LAND TREATMENT				Q	VOL
	ACRES	A	B	C	D	CFS	AC-FT
OFFSITE 1	127.87	100	0	0	0	37.00	4.426
A1	15.50	0	12.5	12.5	75	51.68	2.610
A2	8.52	0	33	33	34	23.43	0.960
A3	3.21	0	5	5	90	11.41	0.606
A4	7.59	0	7.5	7.5	85	26.39	1.381
A5	11.71	0	17	17	66	37.55	1.829
A6	16.97	0	19	19	62	53.44	2.558
A7	6.75	0	12.5	12.5	75	22.52	1.137
C	8.18	0	25	25	50	24.36	1.100
D1	11.62	0	19	19	62	36.60	1.752
D2	22.12	0	28.5	28.5	43	63.65	2.763
D3	3.71	0	5	5	90	13.18	0.701
D4	12.55	0	28.5	28.5	43	36.12	1.568
D5	8.75	0	23	23	54	26.55	1.224
D6	5.00	0	18	18	64	15.89	0.764
F1	14.13	0	21.7	21.8	56.5	43.39	2.025
F2	3.67	0	5	5	90	13.02	0.692
F3	22.80	0	21.7	21.8	56.5	70.02	3.267

BASIN	AREA	LAND TREATMENT				Q	VOL
	ACRES	A	B	C		ACRES	A
F4	24.91	0	25	25	50	74.16	3.349
F5	11.85	0	12.5	12.5	75	39.52	1.996
F7	7.02	0	7.5	7.5	85	24.42	1.278
F8	5.00	0	18	18	64	15.89	0.764
G1	16.20	0	25	25	50	48.23	2.178
G2	16.19	0	25	25	50	48.22	2.177
OFFSITE 2	51.52	100	0	0	0	13.87	1.783
B	12.79	0	34	34	32	34.80	1.407
E1.1	17.62	0	33	33	34	48.45	1.986
E1.2	3.76	0	33	33	34	10.36	0.424
E2	8.63	0	18	18	64	27.42	1.324
E3	7.66	0	25	25	50	22.82	1.030
E4	3.69	0	5	5	90	13.11	0.697
E5	28.17	0	29	29	42	80.67	3.482
E6	3.12	0	5	5	90	11.09	0.590
P	5.41	43	25	25	7	10.08	0.327
H1	11.68	0	16	16	68	37.78	1.856
H2	5.35	0	5	5	90	19.16	1.018
H3	7.62	0	20	20	60	23.79	1.128
J1	3.31	0	12.5	12.5	75	11.04	0.557
J2	10.92	0	12.5	12.5	75	36.40	1.839
J3	3.71	0	19	19	62	11.70	0.560
J4	6.44	0	12.5	12.5	75	21.47	1.084
J5	0.86	0	5	5	90	3.05	0.162
J6	2.70	0	5	5	90	9.59	0.510
J7	2.84	0	5	5	90	10.09	0.536
J8	5.78	0	70	30	0	12.31	0.355
J9	3.51	0	7.5	7.5	85	12.20	0.638
J10	4.02	0	5	5	90	14.27	0.759
J11	4.79	0	5	5	90	16.65	0.886
J12	9.08	100	0	0	0	10.65	0.314
K1	17.11	0	19	19	62	50.54	2.579
K2	9.51	0	15	15	70	29.39	1.537
K3	5.85	0	5	5	90	20.76	1.104
K4	8.58	0	70	30	0	18.28	0.527
K5	15.13	0	19	19	62	47.63	2.281
K6	1.41	0	5	5	90	5.01	0.266

DEVELOPED CONDITIONS DMP

Plates 1 and 2 show the Developed Conditions Drainage Master Plan (DMP). All parcels that have been developed are included in this DMP with the existing improvements shown on Plates 1 and 2 as existing. Future drainage improvements are also shown on the plates.

- Basin E5 includes storm drain and a surge pond that will detain developed runoff from Basins B, E1, E2, E3, E4, E5, and E6 and discharge the storm water to the existing storm drain system in the Valle Vista Subdivision.
- Basin D1 includes a surge pond to capture runoff upstream and discharge it to the storm drain system in Heritage Unit 1 and Unit 2 Subdivisions.
- Basins F5 and F7 includes storm drain and detention pond F5 to capture and convey flows from the basins northwest of Oakridge Street and discharge the flows to the 42 inch storm drain in Santa Fe Unit 3 storm drain.
- Runoff from Basin F8 will be collected in a 30-inch storm drain, which will discharge directly to the 42 inch Santa Fe Unit 3 storm drain.

All storm drains have been sized to convey the 100-year, 24-hour peak flows. Future development projects may have to increase the storm drains shown on the plates to accommodate 100-year, 6-hour peak flows. All detention/surge ponds have been sized to detain the 100-year, 24-hour storm flows.

Runoff from all twelve J Basins will be collected in storm drains in Universe Boulevard that will surge into Pond J, a surge pond, located just east of Universe Boulevard. A total of 26.34 CFS of the total peak flow of 167.52 CFS will continue to drain downstream toward Pond K in the proposed storm drain system. As the HGL in the storm drain increases flows greater than the 26.34 CFS bypass flow will discharge into Pond J, which is an existing pond. As the HGL in the storm drain in Universe Boulevard decreases storm water will discharge back into the Universe storm drain. The maximum flow discharging from Pond J is 6.05 CFS. Therefore the maximum flow in the Universe storm drain just downstream of Pond J is 32.39 CFS.

Runoff from Basins K5 and K6 will be collected by the storm drain system in Universe downstream of Pond J. Peak flows from the storm drain in Woodmont Ave. downstream of Pond G will discharge into the Universe storm drain. And peak flows from the 54-inch storm drain through Basin K2 will discharge to the Universe storm drain south of Pond K. At the south Trails boundary downstream of a manhole, the peak flows will be restricted to allow a total of 44.91 CFS of the total peak flow of 240.23 CFS to continue south in the Universe storm drain. As the peak flows increase above 44.91 CFS and the HGL increases the additional flows discharge into Pond K, which is an existing surge pond. The additional flows will be stored in Pond K until the HGL in the storm drain starts to decrease. As the HGL falls storm water will be discharged from Pond K. A maximum of 15.81 CFS will discharge from Pond K. Including the bypass flow of 44.91 CFS, the total flow in the Universe storm drain from the Trails Units 1, 2, 3, and 4 will be 60.72 CFS, which is less than the 62 CFS allowable in the previously approved Trails DMP as requested by Trails, LLC. When the Trails Unit 4 is developed, a maximum 20 CFS of the 62 CFS allowable The 60.72 CFS will be conveyed in the proposed Universe Storm Drain eventually reaching the Boca Negra Dam. Ponds J and K will be re-configured in the near future with the development of The Trails Unit 4 properties. Unit 4 will be allowed a maximum of 20 CFS of the 62 CFS total discharge from the Trails development.

The Universe and Paseo del Norte storm drains were sized based on a hydraulic grade line (HGL) analysis of the 100-year, 6-hour storm following the methodology in the DPM (see Appendix B). In Universe between Avenida de Jamito and Woodward is an existing storm drain ranging in size from 48 inches to 54 inches. The proposed storm drain between Woodmont and Treeline will be 48 inches in diameter. From Treeline north to a the proposed storm inlets just north of Oakridge the storm drain will be a 48 inch RCP. North of the storm inlets in Universe to Paseo del Norte and west in Paseo del Norte to the first set of storm inlets is a 30-inch storm drain. An additional set of storm inlets west of the first set on inlets in Paseo del Norte are required to keep the future inside driving lane dry during a 10-year storm.

Table 2 Developed Detention Pond Characersitics

POND	DRAIN AREA (ac)	Q100 IN (cfs)	Q100 OUT (cfs)	BYPASS Q (cfs)	MAX VOL (ac-ft)	V100 (ac-ft)	TOP ELEV	BOTTOM ELEV	WSEL
OFF 1	127.9	37.00	9.25		2.44	2.302	6	0	5.80
A5	166.8	118.48	15.56		4.61	4.004	5516	5511	5515.59
A6	191.4	84.06	15.81		4.72	3.146	5506	5500	5504.64
D1	209.8	65.02	13.40		6.06	5.111	5475	5471	5474.29
D	261.9	132.71	5.93	13.77	6.24	4.035	5436.9	5429.5	5435.03
F5	18.9	62.89	19.84		1.40	1.386	5426	5421	5425.97
F	359.4	255.74	17.66	6.20	11.76	10.383	5424.3	5415.08	5423.56
G	391.8	93.68	7.00	17.61	7.21	2.955	5422.5	5415.67	5419.84
OFF 2	51.5	13.87	4.43		1.08	0.813	5	0	4.19
B	12.8	34.80	3.36		0.99	0.930	5519	5515	5518.86
E	137.0	194.79	6.80	15.50	7.52	6.008	5448	5441.6	5447.02
H	167.0	89.07	5.20	21.60	3.02	2.870	5422	5418.65	5421.89
J	57.9	141.18	6.05	26.34	7.94	3.771	5417	5414	5415.66
K	672.6	195.32	15.81	44.91	14.84	8.391	5409	5404.85	5407.79

Table 3 Developed Analysis Point Peak Flows

ANALYSIS POINT	PEAK FLOW
AP-A5	15.56 CFS
AP-A6	15.81 CFS
AP-D1	13.41 CFS
AP-D	19.70 CFS
AP-F5	27.40 CFS
AP-F	23.86 CFS
AP-G	24.61 CFS
AP-E	22.30 CFS
AP-H	26.80 CFS
AP-J	32.39 CFS
AP-K	60.72 CFS

FUTURE IMPROVEMENTS TO EXISTING PONDS

Some of the existing ponds, especially the "Surge" ponds were not constructed in a manner consistent with the original DMP or this amended DMP. Existing ponds will need future modifications in order to operate per this amendment. This DMP amendment dictates the specific stage and outflow conditions that the existing ponds are required to operate at. This DMP amendment does not propose or recommend specific changes to the system. Future projects will be required to determine the necessary modifications and will include the actual modifications as a part of those projects. These improvements could include a combination of sluice gate or equivalent orifice plates, smaller diameter pipes, and overflow inlets to the downstream storm drains. Such improvements may be specifically identified on the Infrastructure List as a part of Preliminary Plat approval of future developments. In general, the first new project that is affected by or affects one of the existing deficient ponds will be required to include the necessary improvements so that the system operates as proposed in this amendment to the DMP. Below is a summary of the existing ponds and the future projects, by tract, that will be responsible for the required improvements.

Table 4 Responsible Tracts for Facility Improvements

FACILITY	TRACT RESPONSIBLE FOR FUTURE IMPROVEMENTS	FLOW CHARACTERISTICS (CFS)	FUTURE IMPROVEMENTS**
POND D	TRACT 1, UNIT 2 (North of Pond D)	Q_{IN}: 146.48 CFS Q_{BP}: 13.77 CFS Q_{Pin}: 132.71 CFS Q_{Pout}: 5.93 CFS Q_O: 19.70 CFS	Inlet And Outlet Improvements and Overflow Inlets
POND E	TRACT 9, UNIT 3A (North of Pond E)	Q_{IN}: 210.29 CFS Q_{BP}: 15.50 CFS Q_{Pin}: 194.79 CFS Q_{Pout}: 6.80 CFS Q_O: 22.30 CFS	Inlet And Outlet Improvements and Overflow Inlets
POND F	TRACT 9, UNIT 3A or TRACT 2, UNIT 2 or TRACT 3, UNIT 2*	Q_{IN}: 261.94 CFS Q_{BP}: 6.20 CFS Q_{Pin}: 255.74 CFS Q_{Pout}: 17.66 CFS Q_O: 23.86 CFS	Inlet And Outlet Improvements
POND G	TRACT 9, UNIT 3A or TRACT 2, UNIT 2 or TRACT 3, UNIT 2*	Q_{IN}: 111.29 CFS Q_{BP}: 17.61 CFS Q_{Pin}: 93.68 CFS Q_{Pout}: 7.00 CFS Q_O: 24.61 CFS	Inlet And Outlet Improvements and Overflow Inlets
POND H	TRACT 8, UNIT 2	Q_{IN}: 110.67 CFS Q_{BP}: 21.60 CFS Q_{Pin}: 89.07 CFS Q_{Pout}: 5.20 CFS Q_O: 26.80 CFS	Inlet And Outlet Improvements and Overflow Inlets
POND J	TRACTS 1-4, UNIT 4	Q_{IN}: 167.52 CFS Q_{BP}: 26.34 CFS Q_{Pin}: 141.18 CFS Q_{Pout}: 6.05 CFS Q_O: 32.39 CFS	Inlet And Outlet Improvements
ANALYSIS POINT J	TRACT 3, UNIT 2	Q_O: 32.39 CFS	Orifice Plate
POND K	TRACTS 1-4, UNIT 4	Q_{IN}: 240.23 CFS Q_{BP}: 44.91 CFS Q_{Pin}: 195.32 CFS Q_{Pout}: 15.81 CFS Q_O: 60.72 CFS	Inlet And Outlet Improvements

Q_{IN}: System Inflow
Q_{BP}: Bypass at Pond Bottom Elevation
Q_{Pin}: Pond Inflow (Surge) Rate (Q_{IN} - Q_{BP})
Q_{Pout}: Pond discharge (Routed Pond Surge Inflow)
Q_O: Orifice Controlled Discharge & Overflow Capacity ($Q_{BP} - Q_{Pout}$)

* The first Tract developed will be responsible for the improvements to the pond.

** Any pond which requires an outlet or orifice restriction which is less than 24" diameter equivalent area, will require a sluice gate type restriction plate or similar movable restriction to facilitate cleaning if the orifice becomes obstructed or clogged.

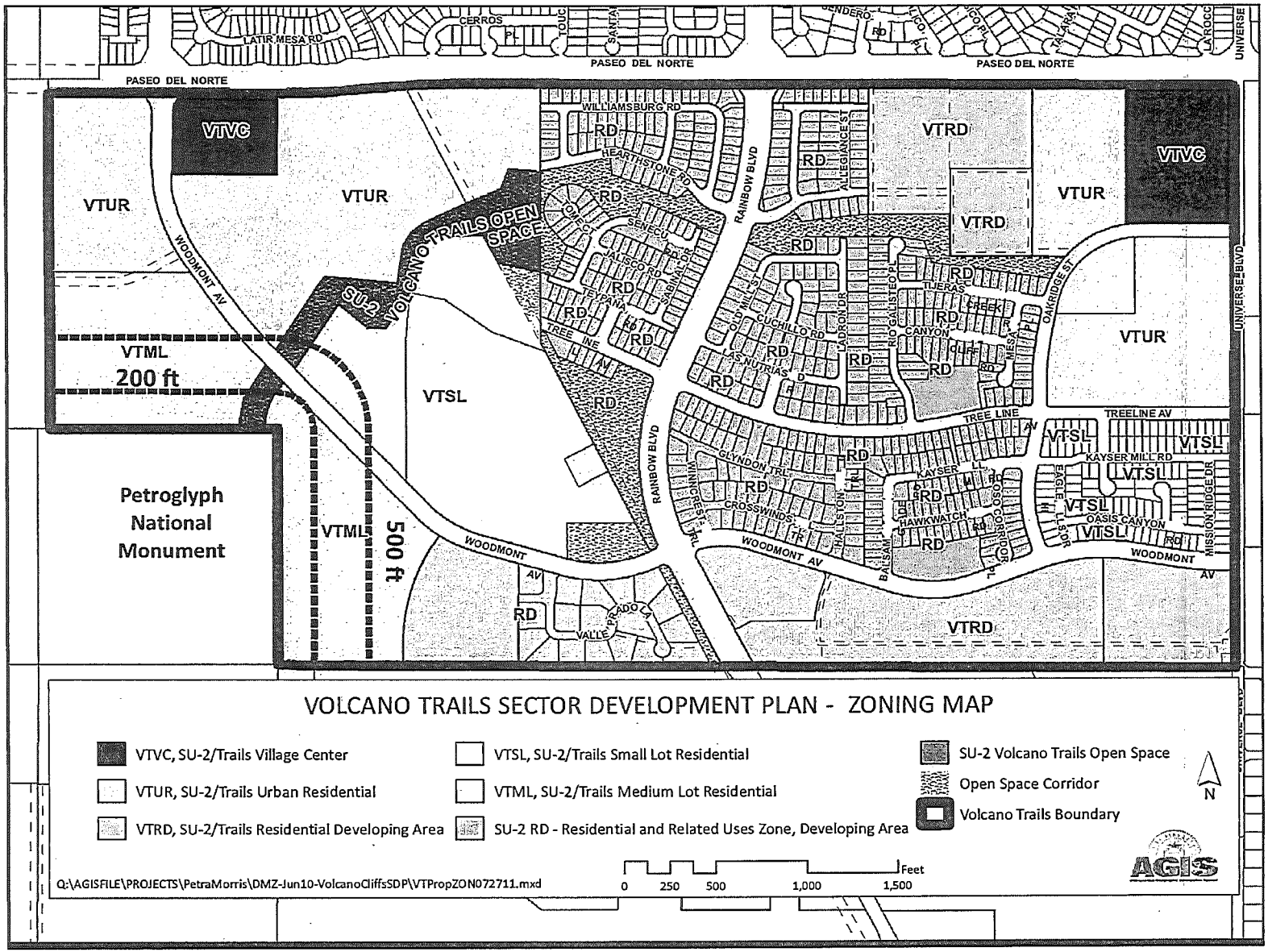

Exhibit 10, Zoning Established by the Volcano Trails Sector Development Plan

APPENDIX A
DEVELOPED CONDITIONS HYDROLOGIC MODEL

— AHYMO Input File
— AHYMO Summary File
— AHYMO Output Showing Pond Detention Time
— Offsite Basin Map

AHYMO INPUT FILE

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*
*                    TRAILS UNIT III DRAINAGE MASTER PLAN
*                  HYDROLOGIC MODEL--FULLY DEVELOPED CONDITIONS
*                              10 APRIL 2014
*
*
**************************************************************************
*
*       HYDROLOGIC MODEL FOR OFFSITE AND ONSITE BASINS
*       100-YEAR, 24-HOUR STORM:
*
*
*
*            PRECIPITATION:
*                  P60 =   1.84"
*                  P360 =  2.20"
*                  P1440 = 2.66"
*
*
*
**************************************************************************
*
START                TIME=0.0 HR  PUNCH CODE=0
*
*
*
RAINFALL             TYPE=2   RAIN QUARTER=0.0 IN
                     RAIN ONE=1.84 IN  RAIN SIX=2.20 IN
                     RAIN DAY=2.66 IN  DT=0.10  HRS
SEDIMENT BULK        CODE=1  FACTOR=1.0
*
*
*S************************************************************************
*S**********  COMPUTE ONSITE BASINS FROM THE TRAILS
*S**********
*
COMPUTE NM HYD       ID=50  HYD NO=OFFSITE1  DA=.1998 SQ MI
                     %A=100  %B=0  %C=0 %D=0
                     TP=-.66 HR  RAIN=-1
PRINT HYD            ID=50 CODE=10
*
ROUTE RESERVOIR      ID=53 HYD=OFF.POND.1  INFLOW ID=50 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0         0           0
                     3.85      0.037       1
                     5.44      0.218       2
                     6.66      0.610       3
                     7.69      1.150       4
                     8.60      1.759       5
                     9.42      2.439       6


PRINT HYD            ID=53 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.0176
                      DIA=2.0  N=0.013
ROUTE MCUNGE          ID=54 HYD=RTE.OFF.POND INFLOW ID=53
                      DT=0.0  L=740 NS=0  SLOPE=0.0176
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD             ID=54 CODE=0
*
COMPUTE NM HYD       ID=21  HYD NO=BASIN.A1  DA=.02422 SQ MI
```

```
                    %A=0  %B=12.5  %C=12.5 %D=75.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=21 CODE=10
*
COMPUTE NM HYD      ID=22  HYD NO=BASIN.A2  DA=.01331 SQ MI
                    %A=0  %B=33.0  %C=33.0 %D=34.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=22 CODE=10
*
*
COMPUTE NM HYD      ID=23  HYD NO=BASIN.A3  DA=.00502 SQ MI
                    %A=0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=23 CODE=10
*
*
COMPUTE NM HYD      ID=24  HYD NO=BASIN.A4  DA=.01186 SQ MI
                    %A=0  %B=7.5  %C=7.5 %D=85.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=24 CODE=10
*
*
COMPUTE NM HYD      ID=25  HYD NO=BASIN.A5  DA=.01830 SQ MI
                    %A=0  %B=17.0  %C=17.0 %D=66.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=25 CODE=10
*
*
COMPUTE NM HYD      ID=26  HYD NO=BASIN.A6  DA=.02652 SQ MI
                    %A=0  %B=19.0  %C=19.0 %D=62.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=26 CODE=10
*
*
COMPUTE NM HYD      ID=27  HYD NO=BASIN.A7  DA=.01055 SQ MI
                    %A=0  %B=12.5  %C=12.5 %D=75.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=26 CODE=10
*
ADD HYD             ID=55 HYD=O1.A2 ID I=54 II=22
PRINT HYD           ID=55 CODE=10
*
ADD HYD             ID=56 HYD=O1A2.A1 ID I=55 II=21
PRINT HYD           ID=56 CODE=10
*
*
ADD HYD             ID=57 HYD=O1A2A1.A3 ID I=56 II=23
PRINT HYD           ID=57 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                    DIA=4.0  N=0.013
ROUTE MCUNGE        ID=58 HYD=RTE.O1A2A1.A3 INFLOW ID=57
                    DT=0.0  L=1000 NS=0  SLOPE=0.007
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=58 CODE=0
*
*
ADD HYD             ID=59 HYD=A1TOA5 ID I=58 II=25
PRINT HYD           ID=59 CODE=10
*
*
************************************************************
```

```
*DIVIDE HYD          ID=59 Q=8.26 ID I=61  HYD NO=BYPASS.A5
                                  ID II=62 HYD NO=SURGE.A5
*PRINT HYD           ID=61 CODE=10
*PRINT HYD           ID=62 CODE=10
*************************************************************
*
*
ROUTE RESERVOIR      ID=60 HYD=POND.A5  INFLOW ID=59 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0.0       0.0         5511
                     2.13      0.35        5512
                     5.13      1.03        5513
                     8.82      1.94        5514
                     13.07     3.15        5515
                     17.32     4.61        5516


PRINT HYD            ID=60 CODE=10
*
*
*ADD HYD             ID=59 HYD=TOTALA5 ID I=61 II=60
*PRINT HYD           ID=59 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.013
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=61 HYD=RTE.A4 INFLOW ID=24
                     DT=0.0  L=900 NS=0  SLOPE=0.013
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=61 CODE=0
*
*
ADD HYD              ID=62 HYD=RTE.A4.A6 ID I=61 II=26
PRINT HYD            ID=62 CODE=10
*
*
ADD HYD              ID=63 HYD=RTEA4A6.PONDA5 ID I=62 II=60
PRINT HYD            ID=63 CODE=10
*
*
*************************************************************
*DIVIDE HYD          ID=63 Q=8.26 ID I=61  HYD NO=BYPASS.A6
                                  ID II=62 HYD NO=SURGE.A6
*PRINT HYD           ID=61 CODE=10
*PRINT HYD           ID=62 CODE=10
*************************************************************
*
*
ROUTE RESERVOIR      ID=64 HYD=POND.A6  INFLOW ID=63 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0         0           5500
                     2.13      0.30        5501
                     5.13      0.85        5502
                     8.82      1.57        5503
                     13.07     2.47        5504
                     17.32     3.52        5505
                     21.57     4.72        5506
                     100.00    6.06        5507
*
PRINT HYD            ID=64 CODE=10
*
*
*ADD HYD             ID=66 HYD=TOTALA6 ID I=61 II=64
```

```
*PRINT HYD          ID=66 CODE=10
*
*
ADD HYD             ID=65 HYD=PONDA6.A7 ID I=64 II=27
PRINT HYD           ID=65 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.021
                    DIA=2.0  N=0.013
ROUTE MCUNGE        ID=66 HYD=RTE.A6.A7 INFLOW ID=65
                    DT=0.0  L=520 NS=0  SLOPE=0.021
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=66 CODE=0
*
*
COMPUTE NM HYD      ID=25  HYD NO=BASIN.D1  DA=.01816 SQ MI
                    %A=0  %B=19.0  %C=19.0 %D=62.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=25 CODE=10
*
ADD HYD             ID=67 HYD=A6.A7.D1 ID I=66 II=25
PRINT HYD           ID=67 CODE=10
*
*
************************************************************
*DIVIDE HYD         ID=67 Q=11.07 ID I=61  HYD NO=BYPASS.AD1
                                  ID II=62 HYD NO=SURGE.D1
*PRINT HYD          ID=61 CODE=10
*PRINT HYD          ID=62 CODE=10
************************************************************
*
*
ROUTE RESERVOIR     ID=68 HYD=POND.D1  INFLOW ID=67 CODE=6.3
                    OUTFLOW   STORAGE     DEPTH
                    0         0           5471
                    2.83      2.47        5472
                    6.84      3.52        5473
                    11.75     4.72        5474
                    17.42     6.06        5475

PRINT HYD           ID=68 CODE=10
*
*
*ADD HYD            ID=67 HYD=TOTALD1 ID I=61 II=68
*PRINT HYD          ID=67 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.018
                    DIA=2.0  N=0.013
ROUTE MCUNGE        ID=69 HYD=RTE.D1 INFLOW ID=68
                    DT=0.0  L=1470 NS=0  SLOPE=0.018
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=69 CODE=0
*
*
****HERITAGE UNIT 1****
*
COMPUTE NM HYD      ID=25  HYD NO=BASIN.D2  DA=.03456 SQ MI
                    %A=0  %B=28.5  %C=28.5 %D=43.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=25 CODE=10
*
```

```
ADD HYD             ID=70 HYD=PONDD1.D2 ID I=69 II=25
PRINT HYD           ID=70 CODE=10
*
*
*****UNIVERSE BLVD*****
*
COMPUTE NM HYD      ID=26  HYD NO=BASIN.D3  DA=.00580 SQ MI
                    %A=0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=26 CODE=10
*
ADD HYD             ID=71 HYD=D1.D2.D3 ID I=70 II=26
PRINT HYD           ID=71 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.02
                     DIA=4.0  N=0.013
ROUTE MCUNGE         ID=72 HYD=RTE.D1 INFLOW ID=71
                     DT=0.0  L=1150 NS=0  SLOPE=0.02
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=72 CODE=0
*
*
****HERITAGE UNIT 2*****
*
COMPUTE NM HYD      ID=27  HYD NO=BASIN.D4  DA=.01961 SQ MI
                    %A=0  %B=28.5  %C=28.5 %D=43.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=27 CODE=10
*
*
ADD HYD             ID=73 HYD=D1D2D3.D4 ID I=72 II=27
PRINT HYD           ID=73 CODE=10
*
*
COMPUTE NM HYD      ID=28  HYD NO=BASIN.D5  DA=.01367 SQ MI
                    %A=0  %B=23.0  %C=23.0 %D=54.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=28 CODE=10
*
ADD HYD             ID=74 HYD=D1234.D5 ID I=73 II=28
PRINT HYD           ID=74 CODE=10
*
*
COMPUTE NM HYD      ID=25  HYD NO=BASIN.D6  DA=.00781 SQ MI
                    %A=0.0  %B=18.0  %C=18.0 %D=64.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=25 CODE=10
*
ADD HYD             ID=75 HYD=D12345.D6 ID I=74 II=25
PRINT HYD           ID=75 CODE=10
*
*S****** POND D INFLOW HYDROGRAPH
PUNCH HYD           ID=75
*
************************************************************
DIVIDE HYD          ID=75 Q=13.77 ID I=31  HYD NO=BYPASS.D
                                  ID II=32 HYD NO=SURGE.D
PRINT HYD           ID=31 CODE=10
PRINT HYD           ID=32 CODE=10
************************************************************
*
*
```

```
ROUTE RESERVOIR      ID=50 HYD=POND.D  INFLOW ID=32 CODE=6.3
                     OUTFLOW   STORAGE     DEPTH
                     0         0           5429.46
                     1.87      0.30        5431
                     2.97      1.01        5432
                     4.00      1.91        5433
                     4.98      2.91        5434
                     5.90      4.00        5435
                     6.79      5.17        5436
                     7.51      6.24        5436.85
                     130.0     7.80        5438
*
*
PRINT HYD            ID=50 CODE=10
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.0057
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=51 HYD=RTE.D INFLOW ID=50
                     DT=0.0  L=1530 NS=0  SLOPE=0.0057
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=51 CODE=0
*
*
ADD HYD              ID=75 HYD=BYPASS.RTE.D ID I=51 II=31
PRINT HYD            ID=75 CODE=10
*
*
COMPUTE NM HYD       ID=20  HYD NO=BASIN.C  DA=.01278 SQ MI
                     %A=0  %B=25.0  %C=25.0 %D=50.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=20 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.027
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=76 HYD=RTE.C INFLOW ID=20
                     DT=0.0  L=1020 NS=0  SLOPE=0.027
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=76 CODE=0
*
*
******SANTA FE UNIT 1*******
*
COMPUTE NM HYD       ID=20  HYD NO=BASIN.F1  DA=.02208 SQ MI
                     %A=0  %B=21.7  %C=21.8 %D=56.5
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=20 CODE=10
*
ADD HYD              ID=77 HYD=C.F1 ID I=76 II=20
PRINT HYD            ID=77 CODE=10
*
*
*****UNIVERSE BLVD******
*
COMPUTE NM HYD       ID=21  HYD NO=BASIN.F2  DA=.00573 SQ MI
                     %A=0  %B=5.0  %C=5.0 %D=90.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=21 CODE=10
*
ADD HYD              ID=78 HYD=CF1.F2 ID I=77 II=21
PRINT HYD            ID=78 CODE=10
*
```

```
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.023
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=79 HYD=RTE.CF1F2 INFLOW ID=78
                     DT=0.0  L=1560 NS=0  SLOPE=0.023
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=79 CODE=0
*
*
*****TAOS AT THE TRAILS****
*
COMPUTE NM HYD       ID=22  HYD NO=BASIN.F3  DA=.03563 SQ MI
                     %A=0  %B=21.7  %C=21.8 %D=56.5
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=22 CODE=10
*
ADD HYD              ID=70 HYD=CF1F2.F3 ID I=79 II=22
PRINT HYD            ID=70 CODE=10
*
*
******SANTA FE III********
*
COMPUTE NM HYD       ID=23  HYD NO=BASIN.F4  DA=.03892 SQ MI
                     %A=0  %B=25.0  %C=25.0 %D=50.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=23 CODE=10
*
*
ADD HYD              ID=71 HYD=CF1F2F3.F4 ID I=70 II=23
PRINT HYD            ID=71 CODE=10
*
ADD HYD              ID=70 HYD=CF1F2F3F4.D ID I=71 II=75
PRINT HYD            ID=70 CODE=10
*
*
*
COMPUTE NM HYD       ID=24  HYD NO=BASIN.F5  DA=.01852  SQ MI
                     %A=0  %B=12.5  %C=12.5 %D=75.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=24 CODE=10
*
*
COMPUTE NM HYD       ID=25  HYD NO=BASIN.J10  DA=.00628 SQ MI
                     %A=0  %B=5.0  %C=5.0 %D=90.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=25 CODE=10
*
*
COMPUTE NM HYD       ID=26  HYD NO=BASIN.J11  DA=.00733 SQ MI
                     %A=0  %B=5.0  %C=5.0 %D=90.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=26 CODE=10
*
ADD HYD              ID=23 HYD=J10.J11 ID I=25 II=26
PRINT HYD            ID=23 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.004
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=10 HYD=RTE.J10J11 INFLOW ID=23
                     DT=0.0  L=1450 NS=0  SLOPE=0.004
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
```

```
PRINT HYD             ID=10 CODE=0
*
*
*
COMPUTE NM HYD        ID=26  HYD NO=BASIN.F7  DA=.01097 SQ MI
                      %A=0.0  %B=7.5  %C=7.5 %D=85.0
                      TP=-.1333 HR  RAIN=-1
PRINT HYD             ID=26 CODE=10
*
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.004
                      DIA=3.5  N=0.013
ROUTE MCUNGE          ID=74 HYD=RTE.F7 INFLOW ID=26
                      DT=0.0  L=500 NS=0  SLOPE=0.004
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD             ID=74 CODE=0
*
*
ADD HYD               ID=75 HYD=F7.F5 ID I=74 II=24
PRINT HYD             ID=75 CODE=10
*
*
ROUTE RESERVOIR       ID=51 HYD=POND.F5  INFLOW ID=75 CODE=5
                      OUTFLOW   STORAGE     DEPTH
                      0         0           5421
                      3.00      0.1993      5422
                      7.00      0.4325      5423
                      11.00     0.7053      5424
                      15.00     1.0245      5425
                      20.00     1.3979      5426
                      50.00     1.8334      5427
*
*
PRINT HYD             ID=51 CODE=10
*
*
COMPUTE NM HYD        ID=27  HYD NO=BASIN.F8  DA=.00781 SQ MI
                      %A=0.0  %B=18.0  %C=18.0 %D=64.0
                      TP=-.1333 HR  RAIN=-1
PRINT HYD             ID=27 CODE=10
*
*
*
ADD HYD               ID=78 HYD=PONDF5.F8 ID I=51 II=27
PRINT HYD             ID=78 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.003
                      DIA=3.5  N=0.013
ROUTE MCUNGE          ID=77 HYD=RTE.PONDF5 INFLOW ID=78
                      DT=0.0  L=590 NS=0  SLOPE=0.004
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD             ID=77 CODE=0
*
*
ADD HYD               ID=78 HYD=F1TOF8 ID I=77 II=70
PRINT HYD             ID=78 CODE=10
*
**************************************************************
DIVIDE HYD            ID=78 Q=6.20 ID I=31  HYD NO=BYPASS.F
                                   ID II=32 HYD NO=SURGE.F
```

```
PRINT HYD            ID=31 CODE=10
PRINT HYD            ID=32 CODE=10
*************************************************************
*
*
ROUTE RESERVOIR      ID=52 HYD=POND.F  INFLOW ID=32 CODE=6.3
                     OUTFLOW   STORAGE     DEPTH
                     0         0           5415.08
                     3.80      0.25        5416.0
                     6.52      0.55        5417.0
                     8.74      1.69        5418.0
                     10.68     3.08        5419.0
                     12.41     4.54        5420.0
                     14.00     6.08        5421.0
                     15.47     7.70        5422.0
                     16.85     9.39        5423.0
                     18.29     11.16       5424.0
                     18.60     11.76       5424.33
                     100.00    13.02       5425.0
*
*
PRINT HYD            ID=52 CODE=10
*
*
ADD HYD              ID=53 HYD=BYPASSF.PONDF ID I=31 II=52
PRINT HYD            ID=53 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.004
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=77 HYD=RTE.PONDF INFLOW ID=53
                     DT=0.0  L=850 NS=0  SLOPE=0.004
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=77 CODE=0
*
*
*****RESERVE*****
*
COMPUTE NM HYD       ID=20  HYD NO=BASIN.G1  DA=.02531 SQ MI
                     %A=0  %B=25.0  %C=25.0 %D=50.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=20 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=78 HYD=RTE.G1 INFLOW ID=20
                     DT=0.0  L=580 NS=0  SLOPE=0.007
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=78 CODE=0
*
*
*****SANTA FE 2*****
*
COMPUTE NM HYD       ID=21  HYD NO=BASIN.G2  DA=.02530 SQ MI
                     %A=0  %B=25.0  %C=25.0 %D=50.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=21 CODE=10
*
*
ADD HYD              ID=30 HYD=G1.G2 ID I=78 II=21
PRINT HYD            ID=30 CODE=10
```

```
*
*
ADD HYD              ID=31 HYD=G1G2.PONDF ID I=30 II=77
PRINT HYD            ID=31 CODE=10
*
*
************************************************************
DIVIDE HYD           ID=31 Q=17.61 ID I=32  HYD NO=BYPASS.G
                                   ID II=33 HYD NO=SURGE.G
PRINT HYD            ID=32 CODE=10
PRINT HYD            ID=33 CODE=10
************************************************************
*
*
ROUTE RESERVOIR      ID=34 HYD=POND.G  INFLOW ID=33 CODE=6.3
                     OUTFLOW   STORAGE     DEPTH
                     0         0           5415.67
                     2.50      0.23        5417.0
                     4.20      0.84        5418.0
                     5.77      1.83        5419.0
                     7.24      3.17        5420.0
                     8.63      4.70        5421.0
                     9.95      6.34        5422.0
                     10.45     7.21        5422.5
                     100.00    8.10        5423.0
*
*
PRINT HYD            ID=24 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.006
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=78 HYD=RTE.PONDG INFLOW ID=34
                     DT=0.0  L=1440 NS=0  SLOPE=0.006
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=78 CODE=0
*
*
ADD HYD              ID=79 HYD=BYPASS.RTE.G ID I=78 II=32
PRINT HYD            ID=79 CODE=10
*
*
************************************************************************
*
************POND G DISCHARGES INTO POND K**************************
*
COMPUTE NM HYD       ID=55  HYD NO=OFFSITE2  DA=.0805 SQ MI
                     %A=100  %B=0.0  %C=0.0 %D=0.0
                     TP=-.66 HR  RAIN=-1
PRINT HYD            ID=55 CODE=10
*
*
ROUTE RESERVOIR      ID=50 HYD=OFFPOND2  INFLOW ID=55 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0         0           0
                     2.16      0.047       1
                     3.06      0.222       2
                     3.75      0.466       3
                     4.33      0.751       4
                     4.84      1.081       5
*
*
 PRINT HYD           ID=50 CODE=10
```

```
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.011
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=70 HYD=RTE.OFFPOND2 INFLOW ID=50
                     DT=0.0  L=900 NS=0  SLOPE=0.011
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=70 CODE=0
*
*
COMPUTE NM HYD       ID=30  HYD NO=BASIN.B  DA=.01998 SQ MI
                     %A=0  %B=34.0  %C=34.0 %D=32.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=30 CODE=10
*
*
ROUTE RESERVOIR      ID=51 HYD=POND.B  INFLOW ID=30 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0         0           5515
                     1.71      0.06        5516
                     2.42      0.24        5517
                     2.96      0.55        5518
                     3.42      0.99        5519
                     3.82      1.67        5520
*
*
PRINT HYD            ID=51 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.03
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=71 HYD=RTE.PONDB INFLOW ID=51
                     DT=0.0  L=1180 NS=0  SLOPE=0.03
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=71 CODE=0
*
*
*ADD HYD             ID=72 HYD=OFF.B ID I=71 II=70
*PRINT HYD           ID=72 CODE=10
*
*
COMPUTE NM HYD       ID=30  HYD NO=BASINE1.1  DA=.02753 SQ MI
                     %A=0.0  %B=33.0  %C=33.0 %D=34.0
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=30 CODE=10
*
*
ADD HYD              ID=73 HYD=OFF.E11 ID I=70 II=30
PRINT HYD            ID=73 CODE=10
*
*
COMPUTE NM HYD       ID=31  HYD NO=BASINE1.2  DA=.00588 SQ MI
                     %A=0.0  %B=33.0  %C=33.0 %D=34.0
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=31 CODE=10
*
*
COMPUTE NM HYD       ID=32  HYD NO=BASIN.E2  DA=.01348 SQ MI
                     %A=0.0  %B=18.0  %C=18.0 %D=64.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=32 CODE=10
*
```

```
*
ADD HYD              ID=72 HYD=E2.E12 ID I=31 II=32
PRINT HYD            ID=72 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.002
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=76 HYD=RTE.E12 INFLOW ID=72
                     DT=0.0  L=800 NS=0  SLOPE=0.01
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=76 CODE=0
*
*
COMPUTE NM HYD       ID=33  HYD NO=BASIN.E3  DA=.01197 SQ MI
                     %A=0.0  %B=25.0  %C=25.0 %D=50.0
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=33 CODE=10
*
*
COMPUTE NM HYD       ID=34  HYD NO=BASIN.E4  DA=.00577 SQ MI
                     %A=0.0  %B=5.0  %C=5.0 %D=90.0
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=34 CODE=10
*
*
ADD HYD              ID=74 HYD=E3.E4 ID I=33 II=34
PRINT HYD            ID=74 CODE=10
*
*
ADD HYD              ID=75 HYD=E3E4.PONDB ID I=74 II=71
PRINT HYD            ID=75 CODE=10
*
*
ADD HYD              ID=74 HYD=E3E4B.OFFE11 ID I=75 II=73
PRINT HYD            ID=74 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.026
                     DIA=4.0  N=0.013
ROUTE MCUNGE         ID=77 HYD=RTE.E1E4 INFLOW ID=74
                     DT=0.0  L=1210 NS=0  SLOPE=0.026
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=77 CODE=0
*
*
ADD HYD              ID=78 HYD=E1E4.E12 ID I=77 II=76
PRINT HYD            ID=78 CODE=10
*
*
COMPUTE NM HYD       ID=35  HYD NO=BASIN.E5  DA=.04402 SQ MI
                     %A=0.0  %B=29.0  %C=29.0 %D=42.0
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=35 CODE=10
*
*
ADD HYD              ID=80 HYD=E1E4.E5 ID I=78 II=35
PRINT HYD            ID=80 CODE=10
*
*
COMPUTE NM HYD       ID=36  HYD NO=BASIN.E6  DA=.00488 SQ MI
                     %A=0.0  %B=5.0  %C=5.0 %D=90.0
                     TP=-0.133 HR  RAIN=-1
```

```
PRINT HYD            ID=36 CODE=10
*
*
ADD HYD              ID=40 HYD=E1E6 ID I=80 II=36
PRINT HYD            ID=40 CODE=10
*
*
************************************************************
DIVIDE HYD           ID=40 Q=15.5 ID I=61  HYD NO=BYPASS.E
                                  ID II=62 HYD NO=SURGE.E
PRINT HYD            ID=61 CODE=10
PRINT HYD            ID=62 CODE=10
************************************************************
*
*
ROUTE RESERVOIR      ID=37 HYD=POND.E  INFLOW ID=62 CODE=6.3
                     OUTFLOW   STORAGE     DEPTH
                     0.0       0.00        5441.6
                     3.31      1.37        5444
                     4.53      2.73        5445
                     5.68      4.25        5446
                     6.77      5.97        5447
                     7.81      7.52        5448
                     50.0      9.07        5449
*
PRINT HYD            ID=37 CODE=10
*
*
ADD HYD              ID=40 HYD=TOTALE ID I=61 II=37
PRINT HYD            ID=40 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.022
                     DIA=2.5  N=0.013
ROUTE MCUNGE          ID=38 HYD=RTE.PONDE INFLOW ID=40
                      DT=0.0  L=1200 NS=0  SLOPE=0.022
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD             ID=38 CODE=0
*
*
*
***PARK***
*
COMPUTE NM HYD       ID=32  HYD NO=BASIN.P  DA=.00845 SQ MI
                     %A=43  %B=25  %C=25 %D=7
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=32 CODE=10
*
*
***VALLE VISTA***
*
COMPUTE NM HYD       ID=33  HYD NO=BASIN.H1  DA=.01825 SQ MI
                     %A=0.0  %B=16  %C=16 %D=68
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=33 CODE=10
*
*
ADD HYD              ID=43 HYD=PONDE.H1 ID I=38 II=33
PRINT HYD            ID=43 CODE=10
*
*
***RAINBOW BLVD PORTION***
*
```

```
COMPUTE NM HYD       ID=34  HYD NO=BASIN.H2  DA=.00836 SQ MI
                     %A=0.0  %B=0.0  %C=10.0 %D=90.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=34 CODE=10
*
*
ADD HYD              ID=44 HYD=P.H2 ID I=32 II=34
PRINT HYD            ID=44 CODE=10
*
*
ADD HYD              ID=45 HYD=PH2.H1 ID I=44 II=43
PRINT HYD            ID=45 CODE=10
*
*
*
COMPUTE NM HYD       ID=35  HYD NO=BASIN.H3  DA=.01191 SQ MI
                     %A=0.0  %B=20.0  %C=20.0 %D=60.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=35 CODE=10
*
*
ADD HYD              ID=46 HYD=PH1H3 ID I=45 II=35
PRINT HYD            ID=46 CODE=10
*
*
*
************************************************************
DIVIDE HYD           ID=46 Q=21.6 ID I=47  HYD NO=BYPASS.H
                                  ID II=48 HYD NO=SURGE.H
PRINT HYD            ID=47 CODE=10
PRINT HYD            ID=48 CODE=10
************************************************************
*
*
******
ROUTE RESERVOIR      ID=30 HYD=POND.H  INFLOW ID=48 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0.0       0.0         5418.65
                     2.31      0.57        5420
                     3.88      1.62        5421
                     5.36      3.02        5422
                     100.0     4.60        5423
*
PRINT HYD            ID=30 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.003
                      DIA=2.5  N=0.013
ROUTE MCUNGE          ID=49 HYD=RTE.PONDH INFLOW ID=30
                      DT=0.0  L=1600 NS=0  SLOPE=0.003
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD             ID=49 CODE=0
*
*
ADD HYD              ID=31 HYD=BYPASS.RTE.H ID I=49 II=47
PRINT HYD            ID=31 CODE=10
*
*
*****TIERRA VISTA******
*
COMPUTE NM HYD       ID=20  HYD NO=BASIN.K1  DA=.02673 SQ MI
                     %A=0.0  %B=19.0  %C=19.0 %D=62.0
                     TP=-.1715 HR  RAIN=-1
```

```
PRINT HYD            ID=20 CODE=10
*
*
ADD HYD              ID=32 HYD=PONDH.K1 ID I=31 II=20
PRINT HYD            ID=32 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.0088
                     DIA=4.5  N=0.013
ROUTE MCUNGE         ID=33 HYD=RTE.K1 INFLOW ID=32
                     DT=0.0  L=800 NS=0  SLOPE=0.0088
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=33 CODE=0
*
*
COMPUTE NM HYD       ID=21  HYD NO=BASIN.K2  DA=.01486 SQ MI
                     %A=0.0  %B=15.0  %C=15.0 %D=70.0
                     TP=-.1715 HR  RAIN=-1
PRINT HYD            ID=21 CODE=10
*
ADD HYD              ID=34 HYD=K1.K2 ID I=33 II=21
PRINT HYD            ID=34 CODE=10
*
*
COMPUTE NM HYD       ID=22  HYD NO=BASIN.K3  DA=.00914 SQ MI
                     %A=0  %B=5.0  %C=5.0 %D=90.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=22 CODE=10
*
*
ADD HYD              ID=24 HYD=PONDG.K3 ID I=79 II=22
PRINT HYD            ID=24 CODE=10
*
*
COMPUTE NM HYD       ID=23  HYD NO=BASIN.K4  DA=.0134 SQ MI
                     %A=0.0  %B=70.0  %C=30.0 %D=0.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=23 CODE=10
*
*
ADD HYD              ID=25 HYD=K3.K4 ID I=24 II=23
PRINT HYD            ID=25 CODE=10
*
*
********BASINS 2, B, E, H, L ARE LATER ROUTED THROUGH POND K***********
*
*
COMPUTE NM HYD       ID=81  HYD NO=BASIN.J1  DA=.00517 SQ MI
                     %A=0.0  %B=12.5  %C=12.5 %D=75.0
                     TP=-.1333 HR  RAIN=-1
PRINT HYD            ID=81 CODE=10
*
*****CANTATA*****
*
COMPUTE NM HYD       ID=82  HYD NO=BASIN.J2  DA=.01706 SQ MI
                     %A=0.0  %B=12.5  %C=12.5 %D=75.0
                     TP=-.1333 HR  RAIN=-1
PRINT HYD            ID=82 CODE=10
*
COMPUTE NM HYD       ID=83  HYD NO=BASIN.J3  DA=.00580 SQ MI
                     %A=0.0  %B=19.0  %C=19.0 %D=62.0
                     TP=-.1333 HR  RAIN=-1
PRINT HYD            ID=83 CODE=10
```

```
*
*****CANTATA*****
*
COMPUTE NM HYD      ID=84  HYD NO=BASIN.J4  DA=.01006 SQ MI
                    %A=0.0  %B=12.5  %C=12.5 %D=75.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=84 CODE=10
*
*
COMPUTE NM HYD      ID=85  HYD NO=BASIN.J5  DA=.00134 SQ MI
                    %A=0.0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=85 CODE=10
*
*
COMPUTE NM HYD      ID=86  HYD NO=BASIN.J6  DA=.00422 SQ MI
                    %A=0.0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=86 CODE=10
*
*
COMPUTE NM HYD      ID=87  HYD NO=BASIN.J7  DA=.00444 SQ MI
                    %A=0.0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=87 CODE=10
*
*
COMPUTE NM HYD      ID=88  HYD NO=BASIN.J8  DA=.00903 SQ MI
                    %A=0.0  %B=70.0  %C=30.0 %D=0.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=88 CODE=10
*
*
COMPUTE NM HYD      ID=89  HYD NO=BASIN.J9  DA=.00548 SQ MI
                    %A=0.0  %B=7.5  %C=7.5 %D=85.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=89 CODE=10
*
*
COMPUTE NM HYD      ID=12  HYD NO=BASIN.J12  DA=.01419 SQ MI
                    %A=100.0  %B=0.0  %C=0.0 %D=0.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=12 CODE=10
*
*
ADD HYD             ID=11 HYD=J10J11.J6 ID I=86 II=10
PRINT HYD           ID=11 CODE=10
*
*
ADD HYD             ID=95 HYD=J10J11J6.J9 ID I=11 II=89
PRINT HYD           ID=95 CODE=10
*
*
ADD HYD             ID=90 HYD=J10J11J6J9.J5 ID I=85 II=95
PRINT HYD           ID=90 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=91 HYD=RTE.J5J6 INFLOW ID=90
                     DT=0.0  L=350 NS=0  SLOPE=0.007
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=91 CODE=0
```

```
*
*
ADD HYD              ID=93 HYD=J1.J4 ID I=81 II=84
PRINT HYD            ID=93 CODE=10
*
ADD HYD              ID=94 HYD=J1J4.J5J6J9 ID I=91 II=93
PRINT HYD            ID=94 CODE=10
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                     DIA=3.5  N=0.013
ROUTE MCUNGE         ID=92 HYD=RTE.J14569 INFLOW ID=94
                     DT=0.0  L=650 NS=0  SLOPE=0.007
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=92 CODE=0
*
*
ADD HYD              ID=95 HYD=J2.J3 ID I=82 II=83
PRINT HYD            ID=95 CODE=10
*
*
ADD HYD              ID=94 HYD=J2J3.J7 ID I=95 II=87
PRINT HYD            ID=94 CODE=10
*
*
ADD HYD              ID=96 HYD=J145679.J237 ID I=94 II=92
PRINT HYD            ID=96 CODE=10
*
ADD HYD              ID=97 HYD=J1J7.J8 ID I=96 II=88
PRINT HYD            ID=97 CODE=10
*
*
ADD HYD              ID=98 HYD=J1J8.J12 ID I=97 II=12
PRINT HYD            ID=98 CODE=10
*
*
************************************************************
DIVIDE HYD           ID=98 Q=26.34 ID I=83  HYD NO=BYPASSJ
                                 ID II=84 HYD NO=SURGEJ
PRINT HYD            ID=83 CODE=10
PRINT HYD            ID=84 CODE=10
************************************************************
*
*
ROUTE RESERVOIR      ID=90 HYD=POND.J  INFLOW ID=84 CODE=10
                     OUTFLOW   STORAGE     DEPTH
                     0         0           5414
                     3.82      1.96        5415
                     7.20      4.70        5416
                     10.28     7.94        5417
                     100.0     11.56       5418
*
PRINT HYD            ID=90 CODE=0
*
*
ADD HYD              ID=97 HYD=BYPASS.SURGEPONDJ ID I=90 II=83
PRINT HYD            ID=97 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                     DIA=4.0  N=0.013
ROUTE MCUNGE         ID=91 HYD=RTE.J5J6 INFLOW ID=97
                     DT=0.0  L=1100 NS=0  SLOPE=0.007
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
```

```
*
PRINT HYD             ID=91 CODE=0
*
****TAOS******
*
COMPUTE NM HYD        ID=30  HYD NO=BASIN.K5  DA=.02364 SQ MI
                      %A=0.0  %B=19.0  %C=19.0 %D=62.0
                      TP=-.1333 HR  RAIN=-1
PRINT HYD             ID=30 CODE=10
*
*
COMPUTE NM HYD        ID=31  HYD NO=BASIN.K6  DA=.00220 SQ MI
                      %A=0.0  %B=5.0  %C=5.0 %D=90.0
                      TP=-.1333 HR  RAIN=-1
PRINT HYD             ID=31 CODE=10
*
*
ADD HYD               ID=41 HYD=K5.K6 ID I=30 II=31
PRINT HYD             ID=41 CODE=10
*
*
*ADD HYD              ID=83 HYD=1ADCFG.JK6 ID I=27 II=91
*PRINT HYD            ID=83 CODE=10
*
*
ADD HYD               ID=43 HYD=K5K6.PONDJ I=41 II=91
PRINT HYD             ID=43 CODE=10
*
*
ADD HYD               ID=44 HYD=K5K6PONDJ.K3K4 I=43 II=25
PRINT HYD             ID=44 CODE=10
*
*
ADD HYD               ID=96 HYD=PONDJK13.K1K4 ID I=34 II=44
PRINT HYD             ID=96 CODE=10
*
**********************************************************************
DIVIDE HYD            ID=96 Q=44.91 ID I=97  HYD NO=BYPASS.K
                                    ID II=98 HYD NO=SURGE.K
PRINT HYD             ID=97 CODE=10
PRINT HYD             ID=98 CODE=10
**********************************************************************
*
*
*
ROUTE RESERVOIR       ID=70 HYD=POND.K  INFLOW ID=98 CODE=5
                      OUTFLOW   STORAGE     DEPTH
                      0.00      0           5404.85
                      6.79      2.60        5406
                      12.04     5.29        5407
                      16.84     9.24        5408
                      21.30     14.84       5409
                      25.48     21.67       5410
*
PRINT HYD             ID=70 CODE=10
*
ADD HYD               ID=99 HYD=BYPASS.ROUTE.K ID I=70 II=97
PRINT HYD             ID=99 CODE=5
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.005
                      DIA=2.5  N=0.013
ROUTE MCUNGE          ID=1 HYD=RTE.PONDK INFLOW ID=99
                      DT=0.0  L=2000 NS=0  SLOPE=0.005
```

```
                        MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD               ID=1 CODE=0
*
*
COMPUTE NM HYD          ID=2  HYD NO=UNIVROWNORTH  DA=.007266 SQ MI
                        %A=0.0  %B=5.0  %C=5.0 %D=90.0
                        TP=-.1333 HR  RAIN=-1
PRINT HYD               ID=2 CODE=5
*
ADD HYD                 ID=3 HYD=UNIVN.PONDK ID I=1 II=2
PRINT HYD               ID=3 CODE=5
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.005
                        DIA=2.5  N=0.013
ROUTE MCUNGE            ID=4 HYD=RTE.UNIVN INFLOW ID=3
                        DT=0.0  L=2000 NS=0  SLOPE=0.005
                        MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD               ID=4 CODE=0
*
*
COMPUTE NM HYD          ID=5  HYD NO=UNIVROWSOUTH  DA=.007266 SQ MI
                        %A=0.0  %B=5.0  %C=5.0 %D=90.0
                        TP=-.1333 HR  RAIN=-1
PRINT HYD               ID=5 CODE=5
*
ADD HYD                 ID=6 HYD=UNIVNS.PONDK ID I=4 II=5
PRINT HYD               ID=6 CODE=5
*
*PUNCH HYD               ID=6
*
*S***************************************************************************
*
*S******END OF TRAILS DRAINAGE ANALYSIS
*
FINISH
```

AHYMO SUMMARY FILE

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02c RUN DATE (MON/DAY/YR) =04/10/2014
INPUT FILE = C:\Projects\LONGFO~1\REVDEV~1\TRAILS~1.TXT USER NO.= AHYMO-I-9702a01000K21-AH

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	
START										TIME=	.00
RAINFALL TYPE= 2										RAIN24=	2.660
SEDIMENT BULK										PK BF =	1.00
*S********** COMPUTE ONSITE BASINS FROM THE TRAILS											
COMPUTE NM HYD	OFFSITE1	-	50	.19980	37.00	4.426	.41534	2.000	.289	PER IMP=	.00
ROUTE RESERVOIR	OFF.POND.1	50	53	.19980	9.25	4.426	.41533	3.200	.072	AC-FT=	2.302
ROUTE MCUNGE	RTE.OFF.POND	53	54	.19980	9.26	4.426	.41537	3.200	.072	CCODE =	.2
COMPUTE NM HYD	BASIN.A1	-	21	.02422	51.68	2.610	2.02069	1.500	3.334	PER IMP=	75.00
COMPUTE NM HYD	BASIN.A2	-	22	.01331	23.43	.960	1.35259	1.500	2.750	PER IMP=	34.00
COMPUTE NM HYD	BASIN.A3	-	23	.00502	11.41	.606	2.26512	1.500	3.550	PER IMP=	90.00
COMPUTE NM HYD	BASIN.A4	-	24	.01186	26.39	1.381	2.18365	1.500	3.477	PER IMP=	85.00
COMPUTE NM HYD	BASIN.A5	-	25	.01830	37.55	1.829	1.87404	1.500	3.206	PER IMP=	66.00
COMPUTE NM HYD	BASIN.A6	-	26	.02652	53.44	2.558	1.80886	1.500	3.149	PER IMP=	62.00
COMPUTE NM HYD	BASIN.A7	-	27	.01055	22.52	1.137	2.02070	1.500	3.335	PER IMP=	75.00
ADD HYD	O1.A2	54&22	55	.21311	25.89	5.386	.47390	1.500	.190		
ADD HYD	O1A2.A1	55&21	56	.23733	77.57	7.996	.63175	1.500	.511		
ADD HYD	O1A2A1.A3	56&23	57	.24235	88.97	8.603	.66558	1.500	.574		
ROUTE MCUNGE	RTE.O1A2A1.A	57	58	.24235	80.93	8.569	.66299	1.500	.522	CCODE =	.1
ADD HYD	A1TOA5	58&25	59	.26065	118.48	10.398	.74801	1.500	.710		
ROUTE RESERVOIR	POND.A5	59	60	.26065	15.56	10.398	.74801	2.300	.093	AC-FT=	4.004
ROUTE MCUNGE	RTE.A4	24	61	.01186	24.62	1.372	2.16943	1.500	3.243	CCODE =	.1
ADD HYD	RTE.A4.A6	61&26	62	.03838	78.06	3.931	1.92024	1.500	3.178		
ADD HYD	RTEA4A6.POND	62&60	63	.29903	84.06	14.329	.89846	1.500	.439		
ROUTE RESERVOIR	POND.A6	63	64	.29903	15.81	14.329	.89845	3.100	.083	AC-FT=	3.146
ADD HYD	PONDA6.A7	64&27	65	.30958	28.42	15.466	.93669	1.500	.143		
ROUTE MCUNGE	RTE.A6.A7	65	66	.30958	28.42	15.466	.93669	1.500	.143	CCODE =	.0
COMPUTE NM HYD	BASIN.D1	-	25	.01816	36.60	1.752	1.80886	1.500	3.149	PER IMP=	62.00
ADD HYD	A6.A7.D1	66&25	67	.32774	65.02	17.218	.98501	1.500	.310		
ROUTE RESERVOIR	POND.D1	67	68	.32774	13.40	17.220	.98515	8.100	.064	AC-FT=	5.111
ROUTE MCUNGE	RTE.D1	68	69	.32774	13.40	17.219	.98510	8.100	.064	CCODE =	.0
COMPUTE NM HYD	BASIN.D2	-	25	.03456	63.65	2.763	1.49925	1.500	2.878	PER IMP=	43.00
ADD HYD	PONDD1.D2	69&25	70	.36230	64.70	19.903	1.03001	1.500	.279		
COMPUTE NM HYD	BASIN.D3	-	26	.00580	13.18	.701	2.26512	1.500	3.550	PER IMP=	90.00
ADD HYD	D1.D2.D3	70&26	71	.36810	77.88	20.603	1.04947	1.500	.331		
ROUTE MCUNGE	RTE.D1	71	72	.36810	74.07	20.583	1.04844	1.600	.314	CCODE =	.1
COMPUTE NM HYD	BASIN.D4	-	27	.01961	36.12	1.568	1.49925	1.500	2.878	PER IMP=	43.00
ADD HYD	D1D2D3.D4	72&27	73	.38771	104.03	22.151	1.07124	1.500	.419		
COMPUTE NM HYD	BASIN.D5	-	28	.01367	26.55	1.224	1.67850	1.500	3.035	PER IMP=	54.00
ADD HYD	D1234.D5	73&28	74	.40138	130.59	23.375	1.09192	1.500	.508		
COMPUTE NM HYD	BASIN.D6	-	25	.00781	15.89	.767	1.84145	1.500	3.178	PER IMP=	64.00
ADD HYD	D12345.D6	74&25	75	.40919	146.48	24.142	1.10623	1.500	.559		
*S****** POND D INFLOW HYDROGRAPH											
DIVIDE HYD	BYPASS.D	75	31	.33245	13.77	19.614	1.10623	1.300	.065		
	SURGE.D	and	32	.07674	132.71	4.527	1.10623	1.500	2.702		
ROUTE RESERVOIR	POND.D	32	50	.07674	5.93	4.527	1.10623	2.100	.121	AC-FT=	4.035
ROUTE MCUNGE	RTE.D	50	51	.07674	5.92	4.524	1.10535	2.400	.121	CCODE =	.1
ADD HYD	BYPASS.RTE.D	51&31	75	.40919	19.42	24.138	1.10605	2.200	.074		

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
COMPUTE NM HYD	BASIN.C	-	20	.01278	24.36	1.100	1.61332	1.500	2.978	PER IMP= 50.00
ROUTE MCUNGE	RTE.C	20	76	.01278	23.74	1.096	1.60827	1.600	2.902	CCODE = .1
COMPUTE NM HYD	BASIN.F1	-	20	.02208	43.39	2.025	1.71939	1.500	3.071	PER IMP= 56.50
ADD HYD	C.F1	76&20	77	.03486	64.42	3.121	1.67860	1.500	2.888	
COMPUTE NM HYD	BASIN.F2	-	21	.00573	13.02	.692	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	CF1.F2	77&21	78	.04059	77.44	3.813	1.76139	1.500	2.981	
ROUTE MCUNGE	RTE.CF1F2	78	79	.04059	76.94	3.816	1.76280	1.500	2.962	CCODE = .2
COMPUTE NM HYD	BASIN.F3	-	22	.03563	70.02	3.267	1.71938	1.500	3.070	PER IMP= 56.50
ADD HYD	CF1F2.F3	79&22	70	.07622	146.95	7.083	1.74248	1.500	3.012	
COMPUTE NM HYD	BASIN.F4	-	23	.03892	74.16	3.349	1.61331	1.500	2.977	PER IMP= 50.00
ADD HYD	CF1F2F3.F4	70&23	71	.11514	221.12	10.432	1.69882	1.500	3.001	
ADD HYD	CF1F2F3F4.D	71&75	70	.52433	235.03	34.570	1.23622	1.500	.700	
COMPUTE NM HYD	BASIN.F5	-	24	.01852	39.52	1.996	2.02070	1.500	3.334	PER IMP= 75.00
COMPUTE NM HYD	BASIN.J10	-	25	.00628	14.27	.759	2.26512	1.500	3.550	PER IMP= 90.00
COMPUTE NM HYD	BASIN.J11	-	26	.00733	16.65	.886	2.26512	1.500	3.549	PER IMP= 90.00
ADD HYD	J10.J11	25&26	23	.01361	30.92	1.644	2.26508	1.500	3.550	
ROUTE MCUNGE	RTE.J10J11	23	10	.01361	29.01	1.634	2.25104	1.500	3.330	CCODE = .1
COMPUTE NM HYD	BASIN.F7	-	26	.01097	24.42	1.278	2.18365	1.500	3.478	PER IMP= 85.00
ROUTE MCUNGE	RTE.F7	26	74	.01097	23.37	1.269	2.16910	1.500	3.328	CCODE = .1
ADD HYD	F7.F5	74&24	75	.02949	62.89	3.265	2.07585	1.500	3.332	
ROUTE RESERVOIR	POND.F5	75	51	.02949	19.84	3.265	2.07584	1.900	1.051	AC-FT= 1.386
COMPUTE NM HYD	BASIN.F8	-	27	.00781	15.89	.767	1.84145	1.500	3.178	PER IMP= 64.00
ADD HYD	PONDF5.F8	51&27	78	.03730	27.40	4.032	2.02672	1.500	1.148	
ROUTE MCUNGE	RTE.PONDF5	78	77	.03730	27.34	4.033	2.02709	1.600	1.145	CCODE = .2
ADD HYD	F1TOF8	77&70	78	.56163	261.94	38.602	1.28874	1.500	.729	
DIVIDE HYD	BYPASS.F	78	31	.19585	6.20	13.462	1.28874	1.200	.049	
	SURGE.F	and	32	.36578	255.74	25.141	1.28874	1.500	1.092	
ROUTE RESERVOIR	POND.F	32	52	.36578	17.66	25.124	1.28787	3.300	.075	AC-FT= 10.383
ADD HYD	BYPASSF.POND	31&52	53	.56163	23.86	38.585	1.28817	3.300	.066	
ROUTE MCUNGE	RTE.PONDF	53	77	.56163	23.81	38.556	1.28720	3.600	.066	CCODE = .2
COMPUTE NM HYD	BASIN.G1	-	20	.02531	48.23	2.178	1.61331	1.500	2.978	PER IMP= 50.00
ROUTE MCUNGE	RTE.G1	20	78	.02531	48.23	2.178	1.61330	1.500	2.978	CCODE = .0
COMPUTE NM HYD	BASIN.G2	-	21	.02530	48.22	2.177	1.61331	1.500	2.978	PER IMP= 50.00
ADD HYD	G1.G2	78&21	30	.05061	96.45	4.355	1.61330	1.500	2.978	
ADD HYD	G1G2.PONDF	30&77	31	.61224	111.29	42.911	1.31416	1.500	.284	
DIVIDE HYD	BYPASS.G	31	32	.47401	17.61	33.223	1.31416	1.300	.058	
	SURGE.G	and	33	.13823	93.68	9.688	1.31416	1.500	1.059	
ROUTE RESERVOIR	POND.G	33	34	.13823	7.00	9.689	1.31418	3.000	.079	AC-FT= 2.955
ROUTE MCUNGE	RTE.PONDG	34	78	.13823	7.00	9.684	1.31360	3.300	.079	CCODE = .1
ADD HYD	BYPASS.RTE.G	78&32	79	.61224	24.61	42.906	1.31402	3.300	.063	
COMPUTE NM HYD	OFFSITE2	-	55	.08050	13.87	1.783	.41534	2.000	.269	PER IMP= .00
ROUTE RESERVOIR	OFFPOND2	55	50	.08050	4.43	1.783	.41534	3.100	.086	AC-FT= .813
ROUTE MCUNGE	RTE.OFFPOND2	50	70	.08050	4.43	1.783	.41538	3.200	.086	CCODE = .2
COMPUTE NM HYD	BASIN.B	-	30	.01998	34.80	1.407	1.32000	1.500	2.721	PER IMP= 32.00
ROUTE RESERVOIR	POND.B	30	51	.01998	3.36	1.407	1.31999	2.100	.263	AC-FT= .930
ROUTE MCUNGE	RTE.PONDB	51	71	.01998	3.36	1.407	1.32010	2.100	.263	CCODE = .2
COMPUTE NM HYD	BASINE1.1	-	30	.02753	48.45	1.986	1.35259	1.500	2.750	PER IMP= 34.00
ADD HYD	OFF.E11	70&30	73	.10803	48.80	3.769	.65420	1.500	.706	
COMPUTE NM HYD	BASINE1.2	-	31	.00588	10.36	.424	1.35259	1.500	2.752	PER IMP= 34.00
COMPUTE NM HYD	BASIN.E2	-	32	.01348	27.42	1.324	1.84145	1.500	3.178	PER IMP= 64.00
ADD HYD	E2.E12	31&32	72	.01936	37.77	1.748	1.69294	1.500	3.049	
ROUTE MCUNGE	RTE.E12	72	76	.01936	31.30	1.684	1.63074	1.600	2.526	CCODE = .2

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
COMPUTE NM HYD	BASIN.E3	-	33	.01197	22.82	1.030	1.61331	1.500	2.978	PER IMP= 50.00
COMPUTE NM HYD	BASIN.E4	-	34	.00577	13.11	.697	2.26513	1.500	3.550	PER IMP= 90.00
ADD HYD	E3.E4	33&34	74	.01774	35.93	1.727	1.82529	1.500	3.164	
ADD HYD	E3E4.PONDB	74&71	75	.03772	38.54	3.134	1.55766	1.500	1.597	
ADD HYD	E3E4B.OFFE11	75&73	74	.14575	87.35	6.903	.88801	1.500	.936	
ROUTE MCUNGE	RTE.E1E4	74	77	.14575	87.35	6.903	.88801	1.500	.936	CCODE = .0
ADD HYD	E1E4.E12	77&76	78	.16511	118.54	8.587	.97509	1.500	1.122	
COMPUTE NM HYD	BASIN.E5	-	35	.04402	80.67	3.482	1.48295	1.500	2.863	PER IMP= 42.00
ADD HYD	E1E4.E5	78&35	80	.20913	199.20	12.068	1.08199	1.500	1.488	
COMPUTE NM HYD	BASIN.E6	-	36	.00488	11.09	.590	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	E1E6	80&36	40	.21401	210.29	12.658	1.10897	1.500	1.535	
DIVIDE HYD	BYPASS.E	40	61	.10387	15.50	6.143	1.10897	1.300	.233	
	SURGE.E	and	62	.11014	194.79	6.514	1.10897	1.500	2.763	
ROUTE RESERVOIR	POND.E	62	37	.11014	6.80	6.520	1.10998	2.100	.096	AC-FT= 6.008
ADD HYD	TOTALE	61&37	40	.21401	22.30	12.663	1.10945	2.100	.163	
ROUTE MCUNGE	RTE.PONDE	40	38	.21401	22.31	12.665	1.10965	2.100	.163	CCODE = .2
COMPUTE NM HYD	BASIN.P	-	32	.00845	10.08	.327	.72623	1.500	1.865	PER IMP= 7.00
COMPUTE NM HYD	BASIN.H1	-	33	.01825	37.78	1.856	1.90663	1.500	3.234	PER IMP= 68.00
ADD HYD	PONDE.H1	38&33	43	.23226	57.64	14.521	1.17226	1.500	.388	
COMPUTE NM HYD	BASIN.H2	-	34	.00836	19.16	1.018	2.28220	1.500	3.582	PER IMP= 90.00
ADD HYD	P.H2	32&34	44	.01681	29.25	1.345	1.50001	1.500	2.718	
ADD HYD	PH2.H1	44&43	45	.24907	86.88	15.866	1.19438	1.500	.545	
COMPUTE NM HYD	BASIN.H3	-	35	.01191	23.79	1.128	1.77627	1.500	3.121	PER IMP= 60.00
ADD HYD	PH1H3	45&35	46	.26098	110.67	16.994	1.22093	1.500	.663	
DIVIDE HYD	BYPASS.H	46	47	.21038	21.60	13.699	1.22093	1.300	.160	
	SURGE.H	and	48	.05060	89.07	3.295	1.22093	1.500	2.751	
ROUTE RESERVOIR	POND.H	48	30	.05060	5.20	3.295	1.22093	2.300	.161	AC-FT= 2.870
ROUTE MCUNGE	RTE.PONDH	30	49	.05060	5.20	3.295	1.22104	2.400	.161	CCODE = .2
ADD HYD	BYPASS.RTE.H	49&47	31	.26098	26.80	16.994	1.22095	2.400	.160	
COMPUTE NM HYD	BASIN.K1	-	20	.02673	50.54	2.579	1.80886	1.500	2.954	PER IMP= 62.00
ADD HYD	PONDH.K1	31&20	32	.28771	73.45	19.573	1.27557	1.500	.399	
ROUTE MCUNGE	RTE.K1	32	33	.28771	73.45	19.573	1.27557	1.500	.399	CCODE = .0
COMPUTE NM HYD	BASIN.K2	-	21	.01486	29.39	1.537	1.93922	1.500	3.090	PER IMP= 70.00
ADD HYD	K1.K2	33&21	34	.30257	102.84	21.110	1.30816	1.500	.531	
COMPUTE NM HYD	BASIN.K3	-	22	.00914	20.76	1.104	2.26513	1.500	3.549	PER IMP= 90.00
ADD HYD	PONDG.K3	79&22	24	.62138	38.61	44.011	1.32801	1.500	.097	
COMPUTE NM HYD	BASIN.K4	-	23	.01340	18.28	.527	.73726	1.500	2.132	PER IMP= .00
ADD HYD	K3.K4	24&23	25	.63478	56.89	44.538	1.31554	1.500	.140	
COMPUTE NM HYD	BASIN.J1	-	81	.00517	11.04	.557	2.02069	1.500	3.336	PER IMP= 75.00
COMPUTE NM HYD	BASIN.J2	-	82	.01706	36.40	1.839	2.02069	1.500	3.334	PER IMP= 75.00
COMPUTE NM HYD	BASIN.J3	-	83	.00580	11.70	.560	1.80886	1.500	3.151	PER IMP= 62.00
COMPUTE NM HYD	BASIN.J4	-	84	.01006	21.47	1.084	2.02069	1.500	3.335	PER IMP= 75.00
COMPUTE NM HYD	BASIN.J5	-	85	.00134	3.05	.162	2.26513	1.500	3.561	PER IMP= 90.00
COMPUTE NM HYD	BASIN.J6	-	86	.00422	9.59	.510	2.26512	1.500	3.551	PER IMP= 90.00
COMPUTE NM HYD	BASIN.J7	-	87	.00444	10.09	.536	2.26512	1.500	3.551	PER IMP= 90.00
COMPUTE NM HYD	BASIN.J8	-	88	.00903	12.31	.355	.73726	1.500	2.130	PER IMP= .00
COMPUTE NM HYD	BASIN.J9	-	89	.00548	12.20	.638	2.18365	1.500	3.479	PER IMP= 85.00
COMPUTE NM HYD	BASIN.J12	-	12	.01419	10.65	.314	.41534	1.500	1.173	PER IMP= .00
ADD HYD	J10J11.J6	86&10	11	.01783	38.60	2.144	2.25428	1.500	3.383	
ADD HYD	J10J11J6.J9	11&89	95	.02331	50.80	2.782	2.23766	1.500	3.405	
ADD HYD	J10J11J6J9.J	85&95	90	.02465	53.86	2.944	2.23914	1.500	3.414	
ROUTE MCUNGE	RTE.J5J6	90	91	.02465	53.86	2.944	2.23914	1.500	3.414	CCODE = .0

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	PAGE = 4 NOTATION
ADD HYD	J1.J4	81&84	93	.01523	32.51	1.641	2.02065	1.500	3.335	
ADD HYD	J1J4.J5J6J9	91&93	94	.03988	86.37	4.585	2.15570	1.500	3.384	
ROUTE MCUNGE	RTE.J14569	94	92	.03988	86.37	4.585	2.15570	1.500	3.384	CCODE = .0
ADD HYD	J2.J3	82&83	95	.02286	48.10	2.398	1.96692	1.500	3.288	
ADD HYD	J2J3.J7	95&87	94	.02730	58.19	2.934	2.01541	1.500	3.330	
ADD HYD	J145679.J237	94&92	96	.06718	144.56	7.519	2.09869	1.500	3.362	
ADD HYD	J1J7.J8	96&88	97	.07621	156.87	7.875	1.93737	1.500	3.216	
ADD HYD	J1J8.J12	97&12	98	.09040	167.52	8.189	1.69846	1.500	2.895	
DIVIDE HYD	BYPASSJ	98	83	.04558	26.34	4.129	1.69846	1.300	.903	
	SURGEJ	and	84	.04482	141.18	4.060	1.69846	1.500	4.922	
ROUTE RESERVOIR	POND.J	84	90	.04482	6.05	4.059	1.69831	2.100	.211	AC-FT= 3.771
ADD HYD	BYPASS.SURGE	90&83	97	.09040	32.39	8.188	1.69835	2.000	.560	
ROUTE MCUNGE	RTE.J5J6	97	91	.09040	32.34	8.180	1.69667	2.100	.559	CCODE = .1
COMPUTE NM HYD	BASIN.K5	-	30	.02364	47.63	2.281	1.80886	1.500	3.148	PER IMP= 62.00
COMPUTE NM HYD	BASIN.K6	-	31	.00220	5.01	.266	2.26512	1.500	3.555	PER IMP= 90.00
ADD HYD	K5.K6	30&31	41	.02584	52.64	2.546	1.84768	1.500	3.183	
ADD HYD	K5K6.PONDJ	41&91	43	.11624	80.50	10.726	1.73022	1.500	1.082	
ADD HYD	K5K6PONDJ.K3	43&25	44	.75102	137.38	55.264	1.37972	1.500	.286	
ADD HYD	PONDJK13.K1K	34&44	96	1.05359	240.23	76.374	1.35917	1.500	.356	
DIVIDE HYD	BYPASS.K	96	97	.89135	44.91	64.613	1.35917	1.300	.079	
	SURGE.K	and	98	.16224	195.32	11.761	1.35917	1.500	1.881	
ROUTE RESERVOIR	POND.K	98	70	.16224	15.81	11.761	1.35917	2.800	.152	AC-FT= 8.390
ADD HYD	BYPASS.ROUTE	70&97	99	1.05359	60.72	76.374	1.35917	2.800	.090	
ROUTE MCUNGE	RTE.PONDK	99	1	1.05359	60.52	76.121	1.35467	3.400	.090	CCODE = .2
COMPUTE NM HYD	UNIVROWNORTH	-	2	.00727	16.51	.878	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	UNIVN.PONDK	1& 2	3	1.06086	60.68	76.999	1.36091	3.400	.089	
ROUTE MCUNGE	RTE.UNIVN	3	4	1.06086	60.52	76.885	1.35890	3.900	.089	CCODE = .2
COMPUTE NM HYD	UNIVROWSOUTH	-	5	.00727	16.51	.878	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	UNIVNS.PONDK	4& 5	6	1.06812	60.65	77.763	1.36506	3.900	.089	

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*S******END OF TRAILS DRAINAGE ANALYSIS

FINISH

ATHYMO OUTPUT - DETENTION TIME FOR PONDS

ROUTE RESERVOIR ID=53 HYD=OFF.POND.1 INFLOW ID=50 CODE=5

OUTFLOW	STORAGE	DEPTH
0	0	0
3.85	0.037	1
5.44	0.218	2
6.66	0.610	3
7.69	1.150	4
8.60	1.759	5
9.42	2.439	6

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.50	.00	.00	.000	.00
1.00	.00	.00	.000	.00
1.50	8.58	.90	.033	3.46
2.00	37.00	3.55	.909	7.23
2.50	24.72	5.21	1.905	8.78
3.00	12.51	5.76	2.273	9.22
3.50	6.32	5.75	2.267	9.21
4.00	3.43	5.47	2.081	8.99
4.50	2.73	5.12	1.842	8.70
5.00	2.18	4.72	1.591	8.35
5.50	1.74	4.30	1.334	7.97
6.00	1.38	3.87	1.078	7.55
6.50	1.10	3.40	.827	7.07
7.00	.88	2.94	.585	6.58
7.50	.70	2.36	.360	5.88
8.00	.56	1.67	.158	4.92
8.50	.44	.43	.016	1.65
9.00	.35	.10	.004	.39
9.50	.28	.08	.003	.30
10.00	.22	.06	.002	.24
10.50	.18	.05	.002	.19
11.00	.14	.04	.001	.15
11.50	.11	.03	.001	.12
12.00	.09	.02	.001	.10
12.50	.07	.02	.001	.08
13.00	.06	.02	.001	.06
13.50	.05	.01	.000	.05
14.00	.04	.01	.000	.04
14.50	.03	.01	.000	.03
15.00	.02	.01	.000	.02
15.50	.02	.01	.000	.02
16.00	.01	.00	.000	.02
16.50	.01	.00	.000	.01
17.00	.01	.00	.000	.01
17.50	.01	.00	.000	.01
18.00	.01	.00	.000	.01
18.50	.00	.00	.000	.00

PEAK DISCHARGE = 9.254 CFS - PEAK OCCURS AT HOUR 3.20
MAXIMUM WATER SURFACE ELEVATION = 5.798
MAXIMUM STORAGE = 2.3016 AC-FT INCREMENTAL TIME= .100000HRS

ROUTE RESERVOIR ID=60 HYD=POND.A5 INFLOW ID=59 CODE=5

OUTFLOW	STORAGE	DEPTH
0.0	0.0	5511
2.13	0.35	5512
5.13	1.03	5513
8.82	1.94	5514
13.07	3.15	5515
17.32	4.61	5516

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5511.00	.000	.00
.50	.00	5511.00	.000	.00
1.00	.00	5511.00	.000	.00
1.50	118.48	5513.24	1.245	6.00
2.00	37.87	5515.40	3.733	14.77
2.50	13.22	5515.57	3.988	15.51
3.00	10.80	5515.47	3.839	15.08
3.50	10.21	5515.35	3.659	14.55
4.00	9.84	5515.23	3.482	14.04
4.50	9.52	5515.11	3.312	13.54
5.00	9.21	5515.00	3.150	13.07
5.50	8.88	5514.87	2.995	12.53
6.00	8.57	5514.75	2.849	12.01
6.50	8.14	5514.64	2.709	11.52
7.00	7.65	5514.52	2.569	11.03
7.50	6.94	5514.40	2.425	10.52
8.00	6.17	5514.28	2.274	9.99
8.50	4.41	5514.13	2.095	9.36
9.00	1.29	5513.86	1.815	8.31
9.50	1.13	5513.56	1.544	7.21
10.00	1.04	5513.31	1.310	6.27
10.50	.97	5513.09	1.110	5.45
11.00	.91	5512.87	.938	4.73
11.50	.85	5512.65	.793	4.08
12.00	.81	5512.47	.670	3.54
12.50	.77	5512.32	.566	3.08
13.00	.74	5512.19	.478	2.70
13.50	.71	5512.08	.404	2.37
14.00	.69	5511.97	.341	2.07
14.50	.67	5511.83	.290	1.76
15.00	.64	5511.71	.249	1.52
15.50	.63	5511.62	.217	1.32
16.00	.61	5511.55	.191	1.17
16.50	.60	5511.49	.171	1.04
17.00	.58	5511.44	.154	.94
17.50	.57	5511.40	.141	.86
18.00	.55	5511.37	.130	.79
18.50	.55	5511.35	.122	.74
19.00	.54	5511.33	.114	.70
19.50	.52	5511.31	.108	.66
20.00	.51	5511.29	.103	.63
20.50	.51	5511.28	.099	.60
21.00	.50	5511.27	.095	.58
21.50	.49	5511.26	.092	.56
22.00	.48	5511.26	.089	.54
22.50	.47	5511.25	.087	.53
23.00	.46	5511.24	.085	.52
23.50	.46	5511.24	.083	.50

24.00	.46	5511.23	.081	.49
24.50	.03	5511.20	.070	.42
25.00	.00	5511.16	.054	.33
25.50	.00	5511.12	.042	.26
26.00	.00	5511.09	.033	.20
26.50	.00	5511.07	.026	.16
27.00	.00	5511.06	.020	.12
27.50	.00	5511.04	.015	.09

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	.00	5511.03	.012	.07
28.50	.00	5511.03	.009	.06
29.00	.00	5511.02	.007	.04
29.50	.00	5511.02	.006	.03
30.00	.00	5511.01	.004	.03
30.50	.00	5511.01	.003	.02
31.00	.00	5511.01	.003	.02
31.50	.00	5511.01	.002	.01
32.00	.00	5511.00	.002	.01
32.50	.00	5511.00	.001	.01
33.00	.00	5511.00	.001	.01
33.50	.00	5511.00	.001	.00

PEAK DISCHARGE = 15.555 CFS - PEAK OCCURS AT HOUR 2.30
MAXIMUM WATER SURFACE ELEVATION = 5515.585
MAXIMUM STORAGE = 4.0037 AC-FT INCREMENTAL TIME= .100000HRS

ROUTE RESERVOIR ID=64 HYD=POND.A6 INFLOW ID=63 CODE=5

OUTFLOW	STORAGE	DEPTH
0	0	5500
2.13	0.30	5501
5.13	0.85	5502
8.82	1.57	5503
13.07	2.47	5504
17.32	3.52	5505
21.57	4.72	5506
100.00	6.06	5507

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5500.00	.000	.00
.50	.00	5500.00	.000	.00
1.00	.00	5500.00	.000	.00
1.50	84.06	5502.21	1.000	5.90
2.00	34.45	5504.25	2.736	14.15
2.50	18.33	5504.59	3.091	15.58
3.00	16.12	5504.64	3.145	15.80
3.50	15.19	5504.64	3.137	15.77
4.00	14.57	5504.60	3.102	15.63
4.50	14.05	5504.55	3.052	15.42
5.00	13.60	5504.50	2.991	15.18
5.50	13.09	5504.43	2.920	14.89
6.00	12.63	5504.35	2.843	14.58
6.50	12.17	5504.28	2.760	14.24
7.00	11.66	5504.19	2.671	13.88
7.50	11.14	5504.10	2.577	13.50
8.00	10.59	5504.01	2.476	13.09
8.50	9.94	5503.89	2.370	12.60
9.00	8.88	5503.76	2.251	12.03
9.50	7.76	5503.60	2.110	11.37
10.00	6.80	5503.43	1.955	10.64
10.50	5.97	5503.25	1.795	9.88
11.00	5.23	5503.07	1.633	9.12
11.50	4.57	5502.87	1.475	8.33
12.00	4.02	5502.66	1.324	7.56
12.50	3.55	5502.46	1.183	6.84
13.00	3.15	5502.28	1.053	6.17
13.50	2.81	5502.12	.934	5.56
14.00	2.51	5501.96	.826	5.00
14.50	2.19	5501.78	.727	4.46
15.00	1.93	5501.61	.638	3.97
15.50	1.73	5501.47	.559	3.54
16.00	1.57	5501.34	.488	3.16
16.50	1.43	5501.23	.427	2.82
17.00	1.33	5501.13	.373	2.53
17.50	1.24	5501.05	.327	2.28
18.00	1.16	5500.96	.287	2.04
18.50	1.11	5500.85	.255	1.81
19.00	1.06	5500.76	.229	1.62
19.50	1.01	5500.69	.207	1.47
20.00	.97	5500.63	.190	1.35
20.50	.94	5500.59	.176	1.25
21.00	.92	5500.55	.165	1.17
21.50	.89	5500.52	.155	1.10
22.00	.87	5500.49	.147	1.04
22.50	.85	5500.47	.140	1.00
23.00	.83	5500.45	.135	.96
23.50	.81	5500.43	.130	.92

24.00	.80	5500.42	.126	.89
24.50	.44	5500.38	.114	.81
25.00	.33	5500.33	.099	.70
25.50	.26	5500.28	.084	.60
26.00	.20	5500.24	.071	.50
26.50	.16	5500.20	.059	.42
27.00	.12	5500.16	.049	.35
27.50	.09	5500.13	.040	.29

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	.07	5500.11	.033	.23
28.50	.06	5500.09	.027	.19
29.00	.04	5500.07	.022	.16
29.50	.03	5500.06	.018	.13
30.00	.03	5500.05	.014	.10
30.50	.02	5500.04	.012	.08
31.00	.02	5500.03	.009	.07
31.50	.01	5500.02	.007	.05
32.00	.01	5500.02	.006	.04
32.50	.01	5500.02	.005	.03
33.00	.01	5500.01	.004	.03
33.50	.00	5500.01	.003	.02
34.00	.00	5500.01	.002	.02
34.50	.00	5500.01	.002	.01
35.00	.00	5500.00	.001	.01
35.50	.00	5500.00	.001	.01
36.00	.00	5500.00	.001	.01
36.50	.00	5500.00	.001	.01
37.00	.00	5500.00	.001	.00

PEAK DISCHARGE = 15.808 CFS - PEAK OCCURS AT HOUR 3.10
MAXIMUM WATER SURFACE ELEVATION = 5504.644
MAXIMUM STORAGE = 3.1463 AC-FT INCREMENTAL TIME= .100000HRS

ROUTE RESERVOIR ID=68 HYD=POND.D1 INFLOW ID=67 CODE=6.3

OUTFLOW	STORAGE	DEPTH
0	0	5471
2.83	2.47	5472
6.84	3.52	5473
11.75	4.72	5474
17.42	6.06	5475

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5471.00	.000	.00
.60	.00	5471.00	.000	.00
1.20	5.03	5471.01	.023	.03
1.80	33.07	5471.81	2.009	2.30
2.40	17.91	5472.53	3.025	4.95
3.00	16.52	5473.04	3.570	7.04
3.60	16.18	5473.39	3.986	8.75
4.20	15.92	5473.66	4.314	10.09
4.80	15.65	5473.88	4.570	11.14
5.40	15.36	5474.03	4.766	11.94
6.00	15.03	5474.14	4.911	12.56
6.60	14.64	5474.22	5.013	12.99
7.20	14.19	5474.27	5.077	13.26
7.80	13.70	5474.29	5.107	13.39
8.40	13.12	5474.29	5.108	13.39
9.00	12.44	5474.27	5.080	13.28
9.60	11.62	5474.23	5.024	13.04
10.20	10.72	5474.16	4.940	12.68
10.80	9.79	5474.08	4.831	12.22
11.40	8.85	5473.98	4.701	11.67
12.00	7.91	5473.86	4.552	11.06
12.60	7.03	5473.72	4.390	10.40
13.20	6.24	5473.58	4.220	9.70
13.80	5.54	5473.44	4.048	9.00
14.40	4.87	5473.30	3.877	8.30
15.00	4.27	5473.16	3.709	7.61
15.60	3.75	5473.02	3.547	6.95
16.20	3.30	5472.88	3.392	6.35
16.80	2.92	5472.74	3.245	5.79
17.40	2.60	5472.61	3.108	5.27
18.00	2.31	5472.49	2.981	4.78
18.60	2.03	5472.37	2.863	4.33
19.20	1.82	5472.27	2.754	3.91
19.80	1.65	5472.18	2.655	3.54
20.40	1.52	5472.09	2.566	3.20
21.00	1.41	5472.02	2.488	2.90
21.60	1.33	5471.98	2.416	2.77
22.20	1.26	5471.95	2.345	2.69
22.80	1.20	5471.92	2.274	2.61
23.40	1.15	5471.89	2.206	2.53
24.00	1.12	5471.87	2.138	2.45
24.60	.79	5471.84	2.064	2.36
25.20	.66	5471.80	1.985	2.27
25.80	.54	5471.77	1.904	2.18
26.40	.44	5471.74	1.822	2.09
27.00	.35	5471.70	1.740	1.99
27.60	.28	5471.67	1.659	1.90
28.20	.22	5471.64	1.579	1.81
28.80	.17	5471.61	1.501	1.72
29.40	.13	5471.58	1.426	1.63

30.00	.10	5471.55	1.352	1.55
30.60	.08	5471.52	1.282	1.47
31.20	.06	5471.49	1.215	1.39
31.80	.05	5471.47	1.150	1.32
32.40	.04	5471.44	1.088	1.25
33.00	.03	5471.42	1.030	1.18

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
33.60	.02	5471.39	.974	1.12
34.20	.02	5471.37	.921	1.06
34.80	.01	5471.35	.871	1.00
35.40	.01	5471.33	.823	.94
36.00	.01	5471.31	.778	.89
36.60	.00	5471.30	.735	.84
37.20	.00	5471.28	.695	.80
37.80	.00	5471.27	.657	.75
38.40	.00	5471.25	.621	.71
39.00	.00	5471.24	.586	.67
39.60	.00	5471.22	.554	.63
40.20	.00	5471.21	.523	.60
40.80	.00	5471.20	.495	.57
41.40	.00	5471.19	.467	.54
42.00	.00	5471.18	.441	.51
42.60	.00	5471.17	.417	.48
43.20	.00	5471.16	.394	.45
43.80	.00	5471.15	.372	.43
44.40	.00	5471.14	.352	.40
45.00	.00	5471.13	.332	.38
45.60	.00	5471.13	.314	.36
46.20	.00	5471.12	.297	.34
46.80	.00	5471.11	.280	.32
47.40	.00	5471.11	.265	.30
48.00	.00	5471.10	.250	.29
48.60	.00	5471.10	.236	.27
49.20	.00	5471.09	.223	.26
49.80	.00	5471.09	.211	.24
50.40	.00	5471.08	.199	.23
51.00	.00	5471.08	.188	.22
51.60	.00	5471.07	.178	.20
52.20	.00	5471.07	.168	.19
52.80	.00	5471.06	.159	.18
53.40	.00	5471.06	.150	.17
54.00	.00	5471.06	.142	.16
54.60	.00	5471.05	.134	.15
55.20	.00	5471.05	.126	.14
55.80	.00	5471.05	.119	.14
56.40	.00	5471.05	.113	.13
57.00	.00	5471.04	.107	.12
57.60	.00	5471.04	.101	.12
58.20	.00	5471.04	.095	.11
58.80	.00	5471.04	.090	.10
59.40	.00	5471.03	.085	.10
60.00	.00	5471.03	.080	.09
60.60	.00	5471.03	.076	.09
61.20	.00	5471.03	.072	.08
61.80	.00	5471.03	.068	.08
62.40	.00	5471.03	.064	.07
63.00	.00	5471.02	.060	.07
63.60	.00	5471.02	.057	.07
64.20	.00	5471.02	.054	.06
64.80	.00	5471.02	.051	.06
65.40	.00	5471.02	.048	.06

66.00	.00	5471.02	.045	.05
66.60	.00	5471.02	.043	.05

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
67.20	.00	5471.02	.041	.05
67.80	.00	5471.02	.038	.04
68.40	.00	5471.01	.036	.04
69.00	.00	5471.01	.034	.04
69.60	.00	5471.01	.032	.04
70.20	.00	5471.01	.031	.04
70.80	.00	5471.01	.029	.03
71.40	.00	5471.01	.027	.03
72.00	.00	5471.01	.026	.03
72.60	.00	5471.01	.024	.03
73.20	.00	5471.01	.023	.03
73.80	.00	5471.01	.022	.02
74.40	.00	5471.01	.021	.02
75.00	.00	5471.01	.019	.02
75.60	.00	5471.01	.018	.02
76.20	.00	5471.01	.017	.02
76.80	.00	5471.01	.016	.02
77.40	.00	5471.01	.015	.02
78.00	.00	5471.01	.015	.02
78.60	.00	5471.01	.014	.02
79.20	.00	5471.01	.013	.01
79.80	.00	5471.00	.012	.01
80.40	.00	5471.00	.012	.01
81.00	.00	5471.00	.011	.01
81.60	.00	5471.00	.010	.01
82.20	.00	5471.00	.010	.01
82.80	.00	5471.00	.009	.01
83.40	.00	5471.00	.009	.01
84.00	.00	5471.00	.008	.01
84.60	.00	5471.00	.008	.01
85.20	.00	5471.00	.007	.01
85.80	.00	5471.00	.007	.01
86.40	.00	5471.00	.007	.01
87.00	.00	5471.00	.006	.01
87.60	.00	5471.00	.006	.01
88.20	.00	5471.00	.006	.01
88.80	.00	5471.00	.005	.01
89.40	.00	5471.00	.005	.01
90.00	.00	5471.00	.005	.01
90.60	.00	5471.00	.004	.01
91.20	.00	5471.00	.004	.00
91.80	.00	5471.00	.004	.00
92.40	.00	5471.00	.004	.00
93.00	.00	5471.00	.004	.00
93.60	.00	5471.00	.003	.00
94.20	.00	5471.00	.003	.00
94.80	.00	5471.00	.003	.00
95.40	.00	5471.00	.003	.00
96.00	.00	5471.00	.003	.00
96.60	.00	5471.00	.003	.00
97.20	.00	5471.00	.002	.00
97.80	.00	5471.00	.002	.00
98.40	.00	5471.00	.002	.00
99.00	.00	5471.00	.002	.00
99.60	.00	5471.00	.002	.00
100.20	.00	5471.00	.002	.00

TIME	INFLOW	ELEV	VOLUME	OUTFLOW

(HRS)	(CFS)	(FEET)	(AC-FT)	(CFS)
100.80	.00	5471.00	.002	.00
101.40	.00	5471.00	.002	.00
102.00	.00	5471.00	.002	.00
102.60	.00	5471.00	.001	.00
103.20	.00	5471.00	.001	.00
103.80	.00	5471.00	.001	.00
104.40	.00	5471.00	.001	.00
105.00	.00	5471.00	.001	.00
105.60	.00	5471.00	.001	.00
106.20	.00	5471.00	.001	.00
106.80	.00	5471.00	.001	.00
107.40	.00	5471.00	.001	.00

PEAK DISCHARGE = 13.405 CFS - PEAK OCCURS AT HOUR 8.10
MAXIMUM WATER SURFACE ELEVATION = 5474.292
MAXIMUM STORAGE = 5.1110 AC-FT INCREMENTAL TIME= .300000HRS

ROUTE RESERVOIR ID=50 HYD=POND.D INFLOW ID=32 CODE=6.3

OUTFLOW	STORAGE	DEPTH
0	0	5429.46
1.87	0.30	5431
2.97	1.01	5432
4.00	1.91	5433
4.98	2.91	5434
5.90	4.00	5435
6.79	5.17	5436
7.51	6.24	5436.85
130.0	7.80	5438

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5429.46	.000	.00
.60	.00	5429.46	.000	.00
1.20	.00	5429.46	.000	.00
1.80	47.59	5434.50	3.453	5.44
2.40	.00	5434.99	3.985	5.89
3.00	.00	5434.72	3.699	5.65
3.60	.00	5434.47	3.425	5.41
4.20	.00	5434.23	3.162	5.19
4.80	.00	5434.00	2.910	4.98
5.40	.00	5433.76	2.669	4.74
6.00	.00	5433.53	2.439	4.52
6.60	.16	5433.31	2.223	4.31
7.20	.42	5433.12	2.029	4.12
7.80	.53	5432.94	1.853	3.94
8.40	.52	5432.75	1.690	3.75
9.00	.40	5432.58	1.531	3.57
9.60	.15	5432.40	1.373	3.39
10.20	.00	5432.22	1.211	3.20
10.80	.00	5432.05	1.057	3.02
11.40	.00	5431.86	.912	2.82
12.00	.00	5431.67	.777	2.61
12.60	.00	5431.50	.653	2.42
13.20	.00	5431.33	.538	2.24
13.80	.00	5431.18	.431	2.07
14.40	.00	5431.04	.332	1.92
15.00	.00	5430.72	.245	1.52
15.60	.00	5430.38	.179	1.12
16.20	.00	5430.14	.132	.82
16.80	.00	5429.96	.097	.60
17.40	.00	5429.82	.071	.44
18.00	.00	5429.73	.052	.32
18.60	.00	5429.66	.038	.24
19.20	.00	5429.60	.028	.18
19.80	.00	5429.57	.021	.13
20.40	.00	5429.54	.015	.09
21.00	.00	5429.52	.011	.07
21.60	.00	5429.50	.008	.05
22.20	.00	5429.49	.006	.04
22.80	.00	5429.48	.004	.03
23.40	.00	5429.48	.003	.02
24.00	.00	5429.47	.002	.01
24.60	.00	5429.47	.002	.01
25.20	.00	5429.47	.001	.01
25.80	.00	5429.46	.001	.01
26.40	.00	5429.46	.001	.00
27.00	.00	5429.46	.001	.00
27.60	.00	5429.46	.000	.00

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   28.20        .00   5429.46        .000        .00
   28.80        .00   5429.46        .000        .00
PEAK DISCHARGE =         5.927 CFS - PEAK OCCURS AT HOUR    2.10
MAXIMUM WATER SURFACE ELEVATION =     5435.030
MAXIMUM STORAGE =         4.0354 AC-FT      INCREMENTAL TIME=     .300000HRS
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ROUTE RESERVOIR ID=51 HYD=POND.F5 INFLOW ID=75 CODE=5

OUTFLOW	STORAGE	DEPTH
0	0	5421
3.00	0.1993	5422
7.00	0.4325	5423
11.00	0.7053	5424
15.00	1.0245	5425
20.00	1.3979	5426
50.00	1.8334	5427

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5421.00	.000	.00
.50	.00	5421.00	.000	.00
1.00	.00	5421.00	.000	.00
1.50	62.89	5424.13	.746	11.51
2.00	16.46	5425.93	1.373	19.67
2.50	2.33	5424.75	.946	14.01
3.00	.88	5423.40	.541	8.59
3.50	.55	5422.43	.299	4.71
4.00	.46	5421.87	.174	2.62
4.50	.45	5421.54	.107	1.61
5.00	.46	5421.36	.071	1.07
5.50	.50	5421.27	.053	.80
6.00	.54	5421.22	.045	.67
6.50	.57	5421.21	.041	.62
7.00	.56	5421.20	.039	.59
7.50	.54	5421.19	.038	.57
8.00	.52	5421.18	.037	.55
8.50	.51	5421.18	.035	.53
9.00	.49	5421.17	.034	.52
9.50	.48	5421.17	.033	.50
10.00	.47	5421.16	.032	.49
10.50	.45	5421.16	.031	.47
11.00	.44	5421.15	.031	.46
11.50	.43	5421.15	.030	.45
12.00	.42	5421.15	.029	.44
12.50	.41	5421.14	.028	.43
13.00	.40	5421.14	.028	.41
13.50	.39	5421.14	.027	.41
14.00	.38	5421.13	.026	.40
14.50	.37	5421.13	.026	.39
15.00	.36	5421.13	.025	.38
15.50	.36	5421.12	.025	.37
16.00	.35	5421.12	.024	.36
16.50	.34	5421.12	.024	.36
17.00	.34	5421.12	.023	.35
17.50	.33	5421.11	.023	.34
18.00	.32	5421.11	.022	.34
18.50	.32	5421.11	.022	.33
19.00	.31	5421.11	.021	.32
19.50	.31	5421.11	.021	.32
20.00	.30	5421.10	.021	.31
20.50	.30	5421.10	.020	.31
21.00	.29	5421.10	.020	.30
21.50	.29	5421.10	.020	.30
22.00	.28	5421.10	.019	.29
22.50	.28	5421.10	.019	.29
23.00	.27	5421.09	.019	.28
23.50	.27	5421.09	.019	.28
24.00	.27	5421.09	.018	.27

24.50	.01	5421.06	.012	.19
25.00	.00	5421.03	.007	.10
25.50	.00	5421.02	.004	.05
26.00	.00	5421.01	.002	.03
26.50	.00	5421.01	.001	.02
27.00	.00	5421.00	.001	.01
27.50	.00	5421.00	.000	.00

PEAK DISCHARGE = 19.842 CFS - PEAK OCCURS AT HOUR 1.90
MAXIMUM WATER SURFACE ELEVATION = 5425.968
MAXIMUM STORAGE = 1.3861 AC-FT INCREMENTAL TIME= .100000HRS

ROUTE RESERVOIR ID=52 HYD=POND.F INFLOW ID=32 CODE=6.3

OUTFLOW	STORAGE	DEPTH
0	0	5415.08
3.80	0.25	5416.0
6.52	0.55	5417.0
8.74	1.69	5418.0
10.68	3.08	5419.0
12.41	4.54	5420.0
14.00	6.08	5421.0
15.47	7.70	5422.0
16.85	9.39	5423.0
18.29	11.16	5424.0
18.60	11.76	5424.33
100.00	13.02	5425.0

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5415.08	.000	.00
.60	.00	5415.08	.000	.00
1.20	11.63	5415.25	.045	.69
1.80	116.85	5421.71	7.236	15.05
2.40	37.05	5423.30	9.924	17.28
3.00	19.80	5423.56	10.372	17.65
3.60	14.73	5423.53	10.332	17.62
4.20	13.34	5423.43	10.149	17.47
4.80	13.28	5423.31	9.944	17.30
5.40	13.62	5423.21	9.757	17.15
6.00	14.11	5423.12	9.598	17.02
6.60	14.27	5423.04	9.466	16.91
7.20	13.98	5422.96	9.330	16.80
7.80	13.71	5422.88	9.186	16.68
8.40	13.45	5422.79	9.035	16.56
9.00	13.19	5422.70	8.877	16.43
9.60	12.94	5422.60	8.713	16.30
10.20	12.47	5422.50	8.541	16.16
10.80	11.75	5422.38	8.344	16.00
11.40	10.95	5422.25	8.120	15.81
12.00	10.08	5422.10	7.862	15.60
12.60	9.14	5421.92	7.571	15.35
13.20	8.20	5421.72	7.248	15.06
13.80	7.27	5421.50	6.893	14.74
14.40	6.36	5421.26	6.508	14.39
15.00	5.38	5421.01	6.096	14.01
15.60	4.19	5420.72	5.650	13.56
16.20	3.19	5420.41	5.173	13.06
16.80	2.34	5420.09	4.674	12.55
17.40	1.57	5419.74	4.163	11.96
18.00	.90	5419.39	3.646	11.35
18.60	.31	5419.03	3.129	10.74
19.20	.00	5418.67	2.618	10.03
19.80	.00	5418.32	2.137	9.36
20.40	.00	5418.00	1.688	8.74
21.00	.00	5417.64	1.275	7.93
21.60	.00	5417.31	.900	7.20
22.20	.00	5417.01	.560	6.54
22.80	.00	5416.15	.296	4.22
23.40	.00	5415.60	.140	2.13
24.00	.00	5415.32	.066	1.00
24.60	.00	5415.19	.031	.47
25.20	.00	5415.13	.015	.22
25.80	.00	5415.11	.007	.10

26.40	.00	5415.09	.003	.05
27.00	.00	5415.09	.002	.02
27.60	.00	5415.08	.001	.01
28.20	.00	5415.08	.000	.01
28.80	.00	5415.08	.000	.00
29.40	.00	5415.08	.000	.00

PEAK DISCHARGE = 17.658 CFS - PEAK OCCURS AT HOUR 3.30
MAXIMUM WATER SURFACE ELEVATION = 5423.561
MAXIMUM STORAGE = 10.3834 AC-FT INCREMENTAL TIME= .300000HRS

ROUTE RESERVOIR ID=34 HYD=POND.G INFLOW ID=33 CODE=6.3

OUTFLOW	STORAGE	DEPTH
0	0	5415.67
2.50	0.23	5417.0
4.20	0.84	5418.0
5.77	1.83	5419.0
7.24	3.17	5420.0
8.63	4.70	5421.0
9.95	6.34	5422.0
10.45	7.21	5422.5
100.00	8.10	5423.0

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5415.67	.000	.00
.60	.00	5415.67	.000	.00
1.20	.00	5415.67	.000	.00
1.80	32.59	5419.42	2.388	6.38
2.40	8.75	5419.81	2.922	6.97
3.00	7.10	5419.84	2.955	7.00
3.60	6.79	5419.84	2.951	7.00
4.20	6.59	5419.83	2.936	6.98
4.80	6.44	5419.81	2.913	6.96
5.40	6.32	5419.79	2.885	6.93
6.00	6.24	5419.76	2.854	6.89
6.60	6.16	5419.74	2.821	6.86
7.20	6.02	5419.71	2.784	6.82
7.80	5.89	5419.68	2.743	6.77
8.40	5.75	5419.65	2.696	6.72
9.00	5.60	5419.61	2.646	6.66
9.60	5.45	5419.57	2.591	6.60
10.20	5.29	5419.52	2.531	6.54
10.80	5.12	5419.48	2.467	6.47
11.40	4.93	5419.42	2.397	6.39
12.00	4.72	5419.37	2.322	6.31
12.60	4.47	5419.31	2.239	6.22
13.20	4.17	5419.24	2.148	6.12
13.80	3.85	5419.16	2.046	6.01
14.40	3.50	5419.08	1.934	5.88
15.00	3.12	5418.98	1.810	5.74
15.60	2.68	5418.84	1.675	5.52
16.20	2.19	5418.69	1.528	5.29
16.80	1.68	5418.53	1.368	5.04
17.40	1.11	5418.36	1.194	4.76
18.00	.50	5418.17	1.005	4.46
18.60	.00	5417.94	.802	4.09
19.20	.00	5417.63	.612	3.57
19.80	.00	5417.36	.447	3.11
20.40	.00	5417.12	.303	2.70
21.00	.00	5416.73	.182	1.98
21.60	.00	5416.29	.106	1.16
22.20	.00	5416.03	.062	.67
22.80	.00	5415.88	.036	.39
23.40	.00	5415.79	.021	.23
24.00	.00	5415.74	.012	.13
24.60	.00	5415.71	.007	.08
25.20	.00	5415.69	.004	.05
25.80	.00	5415.68	.002	.03
26.40	.00	5415.68	.001	.02
27.00	.00	5415.67	.001	.01
27.60	.00	5415.67	.000	.01

28.20	.00	5415.67	.000	.00
28.80	.00	5415.67	.000	.00
29.40	.00	5415.67	.000	.00

PEAK DISCHARGE = 7.004 CFS - PEAK OCCURS AT HOUR 3.00
MAXIMUM WATER SURFACE ELEVATION = 5419.840
MAXIMUM STORAGE = 2.9552 AC-FT INCREMENTAL TIME= .300000HRS

ROUTE RESERVOIR ID=50 HYD=OFFPOND2 INFLOW ID=55 CODE=5

OUTFLOW	STORAGE	DEPTH
0	0	0
2.16	0.047	1
3.06	0.222	2
3.75	0.466	3
4.33	0.751	4
4.84	1.081	5

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.50	.00	.00	.000	.00
1.00	.00	.00	.000	.00
1.50	3.77	.41	.019	.88
2.00	13.87	2.49	.342	3.40
2.50	9.71	3.78	.689	4.20
3.00	5.22	4.18	.809	4.42
3.50	2.80	4.11	.787	4.39
4.00	1.50	3.80	.695	4.22
4.50	1.13	3.39	.579	3.98
5.00	.92	2.98	.461	3.74
5.50	.75	2.52	.348	3.42
6.00	.61	2.08	.241	3.11
6.50	.49	1.55	.144	2.66
7.00	.40	1.08	.061	2.23
7.50	.33	.34	.016	.73
8.00	.26	.16	.008	.35
8.50	.22	.12	.005	.25
9.00	.17	.09	.004	.20
9.50	.14	.07	.003	.16
10.00	.12	.06	.003	.13
10.50	.09	.05	.002	.11
11.00	.08	.04	.002	.09
11.50	.06	.03	.002	.07
12.00	.05	.03	.001	.06
12.50	.04	.02	.001	.05
13.00	.03	.02	.001	.04
13.50	.03	.01	.001	.03
14.00	.02	.01	.001	.02
14.50	.02	.01	.000	.02
15.00	.01	.01	.000	.02
15.50	.01	.01	.000	.01
16.00	.01	.00	.000	.01
16.50	.01	.00	.000	.01
17.00	.01	.00	.000	.01
17.50	.01	.00	.000	.01
18.00	.00	.00	.000	.00

PEAK DISCHARGE = 4.426 CFS - PEAK OCCURS AT HOUR 3.10
MAXIMUM WATER SURFACE ELEVATION = 4.188
MAXIMUM STORAGE = .8131 AC-FT INCREMENTAL TIME= .100000HRS

ROUTE RESERVOIR ID=51 HYD=POND.B INFLOW ID=30 CODE=5

OUTFLOW	STORAGE	DEPTH
0	0	5515
1.71	0.06	5516
2.42	0.24	5517
2.96	0.55	5518
3.42	0.99	5519
3.82	1.67	5520

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5515.00	.000	.00
.50	.00	5515.00	.000	.00
1.00	.00	5515.00	.000	.00
1.50	34.80	5517.54	.407	2.71
2.00	5.83	5518.84	.918	3.34
2.50	.93	5518.75	.880	3.31
3.00	.31	5518.50	.769	3.19
3.50	.17	5518.23	.649	3.06
4.00	.13	5517.94	.531	2.93
4.50	.12	5517.58	.419	2.73
5.00	.13	5517.24	.315	2.55
5.50	.14	5516.88	.219	2.34
6.00	.15	5516.42	.136	2.01
6.50	.16	5516.03	.065	1.73
7.00	.15	5515.40	.024	.68
7.50	.15	5515.18	.011	.31
8.00	.14	5515.11	.007	.20
8.50	.14	5515.09	.006	.16
9.00	.14	5515.08	.005	.14
9.50	.13	5515.08	.005	.14
10.00	.13	5515.08	.005	.13
10.50	.12	5515.07	.004	.13
11.00	.12	5515.07	.004	.12
11.50	.12	5515.07	.004	.12
12.00	.12	5515.07	.004	.12
12.50	.11	5515.07	.004	.11
13.00	.11	5515.07	.004	.11
13.50	.11	5515.06	.004	.11
14.00	.10	5515.06	.004	.11
14.50	.10	5515.06	.004	.10
15.00	.10	5515.06	.004	.10
15.50	.10	5515.06	.004	.10
16.00	.10	5515.06	.003	.10
16.50	.09	5515.06	.003	.10
17.00	.09	5515.06	.003	.09
17.50	.09	5515.05	.003	.09
18.00	.09	5515.05	.003	.09
18.50	.09	5515.05	.003	.09
19.00	.09	5515.05	.003	.09
19.50	.08	5515.05	.003	.09
20.00	.08	5515.05	.003	.08
20.50	.08	5515.05	.003	.08
21.00	.08	5515.05	.003	.08
21.50	.08	5515.05	.003	.08
22.00	.08	5515.05	.003	.08
22.50	.08	5515.05	.003	.08
23.00	.07	5515.04	.003	.08
23.50	.07	5515.04	.003	.08
24.00	.07	5515.04	.003	.07
24.50	.00	5515.02	.001	.03

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   25.00        .00   5515.01        .000        .01
   25.50        .00   5515.00        .000        .00
PEAK DISCHARGE =         3.357 CFS - PEAK OCCURS AT HOUR    2.10
MAXIMUM WATER SURFACE ELEVATION =     5518.863
MAXIMUM STORAGE =          .9296 AC-FT      INCREMENTAL TIME=     .100000HRS
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ROUTE RESERVOIR ID=37 HYD=POND.E INFLOW ID=62 CODE=6.3

OUTFLOW	STORAGE	DEPTH
0.0	0.00	5441.6
3.31	1.37	5444
4.53	2.73	5445
5.68	4.25	5446
6.77	5.97	5447
7.81	7.52	5448
50.0	9.07	5449

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5441.60	.000	.00
.60	.00	5441.60	.000	.00
1.20	.00	5441.60	.000	.00
1.80	60.68	5446.55	5.190	6.28
2.40	.35	5447.02	6.007	6.79
3.00	.00	5446.83	5.676	6.58
3.60	.00	5446.64	5.355	6.38
4.20	.00	5446.46	5.044	6.18
4.80	.00	5446.29	4.742	5.99
5.40	.00	5446.12	4.449	5.81
6.00	.00	5445.94	4.166	5.62
6.60	.00	5445.76	3.893	5.41
7.20	.00	5445.59	3.629	5.21
7.80	.00	5445.42	3.376	5.02
8.40	.00	5445.26	3.132	4.83
9.00	.00	5445.11	2.896	4.66
9.60	.00	5444.96	2.670	4.48
10.20	.00	5444.80	2.453	4.28
10.80	.00	5444.64	2.245	4.09
11.40	.00	5444.50	2.046	3.92
12.00	.00	5444.36	1.856	3.75
12.60	.00	5444.22	1.675	3.58
13.20	.00	5444.10	1.501	3.43
13.80	.00	5443.94	1.335	3.23
14.40	.00	5443.67	1.184	2.86
15.00	.00	5443.44	1.051	2.54
15.60	.00	5443.23	.932	2.25
16.20	.00	5443.05	.827	2.00
16.80	.00	5442.88	.733	1.77
17.40	.00	5442.74	.651	1.57
18.00	.00	5442.61	.577	1.39
18.60	.00	5442.50	.512	1.24
19.20	.00	5442.40	.454	1.10
19.80	.00	5442.31	.403	.97
20.40	.00	5442.23	.357	.86
21.00	.00	5442.16	.317	.77
21.60	.00	5442.09	.281	.68
22.20	.00	5442.04	.249	.60
22.80	.00	5441.99	.221	.53
23.40	.00	5441.94	.196	.47
24.00	.00	5441.91	.174	.42
24.60	.00	5441.87	.154	.37
25.20	.00	5441.84	.137	.33
25.80	.00	5441.81	.122	.29
26.40	.00	5441.79	.108	.26
27.00	.00	5441.77	.096	.23
27.60	.00	5441.75	.085	.21
28.20	.00	5441.73	.075	.18
28.80	.00	5441.72	.067	.16

29.40	.00	5441.70	.059	.14
30.00	.00	5441.69	.053	.13
30.60	.00	5441.68	.047	.11
31.20	.00	5441.67	.041	.10
31.80	.00	5441.66	.037	.09
32.40	.00	5441.66	.033	.08
33.00	.00	5441.65	.029	.07

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
33.60	.00	5441.65	.026	.06
34.20	.00	5441.64	.023	.05
34.80	.00	5441.64	.020	.05
35.40	.00	5441.63	.018	.04
36.00	.00	5441.63	.016	.04
36.60	.00	5441.62	.014	.03
37.20	.00	5441.62	.012	.03
37.80	.00	5441.62	.011	.03
38.40	.00	5441.62	.010	.02
39.00	.00	5441.62	.009	.02
39.60	.00	5441.61	.008	.02
40.20	.00	5441.61	.007	.02
40.80	.00	5441.61	.006	.01
41.40	.00	5441.61	.005	.01
42.00	.00	5441.61	.005	.01
42.60	.00	5441.61	.004	.01
43.20	.00	5441.61	.004	.01
43.80	.00	5441.61	.003	.01
44.40	.00	5441.61	.003	.01
45.00	.00	5441.60	.003	.01
45.60	.00	5441.60	.002	.01
46.20	.00	5441.60	.002	.00

PEAK DISCHARGE = 6.795 CFS - PEAK OCCURS AT HOUR 2.10
MAXIMUM WATER SURFACE ELEVATION = 5447.024
MAXIMUM STORAGE = 6.0076 AC-FT INCREMENTAL TIME= .300000HRS

ROUTE RESERVOIR ID=30 HYD=POND.H INFLOW ID=48 CODE=5

OUTFLOW	STORAGE	DEPTH
0.0	0.0	5418.65
2.31	0.57	5420
3.88	1.62	5421
5.36	3.02	5422
100.0	4.60	5423

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5418.65	.000	.00
.50	.00	5418.65	.000	.00
1.00	.00	5418.65	.000	.00
1.50	89.07	5420.54	1.141	3.16
2.00	20.36	5421.79	2.721	5.04
2.50	2.57	5421.88	2.854	5.18
3.00	.00	5421.74	2.656	4.98
3.50	.00	5421.60	2.455	4.76
4.00	.00	5421.46	2.262	4.56
4.50	.00	5421.33	2.078	4.36
5.00	.00	5421.20	1.901	4.18
5.50	.00	5421.08	1.732	4.00
6.00	.00	5420.95	1.571	3.81
6.50	.00	5420.81	1.418	3.58
7.00	.00	5420.67	1.275	3.36
7.50	.00	5420.54	1.140	3.16
8.00	.00	5420.42	1.013	2.97
8.50	.00	5420.31	.894	2.79
9.00	.00	5420.20	.782	2.63
9.50	.00	5420.10	.677	2.47
10.00	.00	5420.01	.578	2.32
10.50	.00	5419.81	.489	1.98
11.00	.00	5419.63	.414	1.68
11.50	.00	5419.48	.350	1.42
12.00	.00	5419.35	.296	1.20
12.50	.00	5419.24	.250	1.01
13.00	.00	5419.15	.212	.86
13.50	.00	5419.07	.179	.73
14.00	.00	5419.01	.151	.61
14.50	.00	5418.95	.128	.52
15.00	.00	5418.91	.108	.44
15.50	.00	5418.87	.092	.37
16.00	.00	5418.83	.077	.31
16.50	.00	5418.81	.066	.27
17.00	.00	5418.78	.055	.22
17.50	.00	5418.76	.047	.19
18.00	.00	5418.74	.040	.16
18.50	.00	5418.73	.034	.14
19.00	.00	5418.72	.028	.11
19.50	.00	5418.71	.024	.10
20.00	.00	5418.70	.020	.08
20.50	.00	5418.69	.017	.07
21.00	.00	5418.68	.015	.06
21.50	.00	5418.68	.012	.05
22.00	.00	5418.67	.010	.04
22.50	.00	5418.67	.009	.04
23.00	.00	5418.67	.007	.03
23.50	.00	5418.66	.006	.03
24.00	.00	5418.66	.005	.02
24.50	.00	5418.66	.004	.02
25.00	.00	5418.66	.004	.02

25.50	.00	5418.66	.003	.01
26.00	.00	5418.66	.003	.01
26.50	.00	5418.66	.002	.01
27.00	.00	5418.65	.002	.01
27.50	.00	5418.65	.002	.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	.00	5418.65	.001	.01
28.50	.00	5418.65	.001	.00

PEAK DISCHARGE = 5.201 CFS - PEAK OCCURS AT HOUR 2.30
MAXIMUM WATER SURFACE ELEVATION = 5421.893
MAXIMUM STORAGE = 2.8695 AC-FT INCREMENTAL TIME= .100000HRS

ROUTE RESERVOIR ID=90 HYD=POND.J INFLOW ID=84 CODE=10

OUTFLOW	STORAGE	DEPTH
0	0	5414
3.82	1.96	5415
7.20	4.70	5416
10.28	7.94	5417
100.0	11.56	5418

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5414.00	.000	.00
1.00	.00	5414.00	.000	.00
2.00	13.21	5415.66	3.767	6.05
3.00	.00	5415.50	3.341	5.52
4.00	.00	5415.35	2.907	4.99
5.00	.00	5415.20	2.515	4.50
6.00	.00	5415.07	2.161	4.07
7.00	.00	5414.94	1.843	3.59
8.00	.00	5414.80	1.569	3.06
9.00	.00	5414.68	1.335	2.60
10.00	.00	5414.58	1.137	2.22
11.00	.00	5414.49	.968	1.89
12.00	.00	5414.42	.824	1.61
13.00	.00	5414.36	.701	1.37
14.00	.00	5414.30	.597	1.16
15.00	.00	5414.26	.508	.99
16.00	.00	5414.22	.432	.84
17.00	.00	5414.19	.368	.72
18.00	.00	5414.16	.313	.61
19.00	.00	5414.14	.267	.52
20.00	.00	5414.12	.227	.44
21.00	.00	5414.10	.193	.38
22.00	.00	5414.08	.165	.32
23.00	.00	5414.07	.140	.27
24.00	.00	5414.06	.119	.23
25.00	.00	5414.05	.101	.20
26.00	.00	5414.04	.086	.17
27.00	.00	5414.04	.074	.14
28.00	.00	5414.03	.063	.12
29.00	.00	5414.03	.053	.10
30.00	.00	5414.02	.045	.09
31.00	.00	5414.02	.039	.08
32.00	.00	5414.02	.033	.06
33.00	.00	5414.01	.028	.05
34.00	.00	5414.01	.024	.05
35.00	.00	5414.01	.020	.04
36.00	.00	5414.01	.017	.03
37.00	.00	5414.01	.015	.03
38.00	.00	5414.01	.012	.02
39.00	.00	5414.01	.011	.02
40.00	.00	5414.00	.009	.02
41.00	.00	5414.00	.008	.02
42.00	.00	5414.00	.007	.01
43.00	.00	5414.00	.006	.01
44.00	.00	5414.00	.005	.01
45.00	.00	5414.00	.004	.01
46.00	.00	5414.00	.003	.01
47.00	.00	5414.00	.003	.01
48.00	.00	5414.00	.002	.00

PEAK DISCHARGE = 6.055 CFS - PEAK OCCURS AT HOUR 2.10
MAXIMUM WATER SURFACE ELEVATION = 5415.661

MAXIMUM STORAGE = 3.7714 AC-FT INCREMENTAL TIME= .100000HRS

ROUTE RESERVOIR ID=70 HYD=POND.K INFLOW ID=98 CODE=5

OUTFLOW	STORAGE	DEPTH
0.00	0	5404.85
6.79	2.60	5406
12.04	5.29	5407
16.84	9.24	5408
21.30	14.84	5409
25.48	21.67	5410

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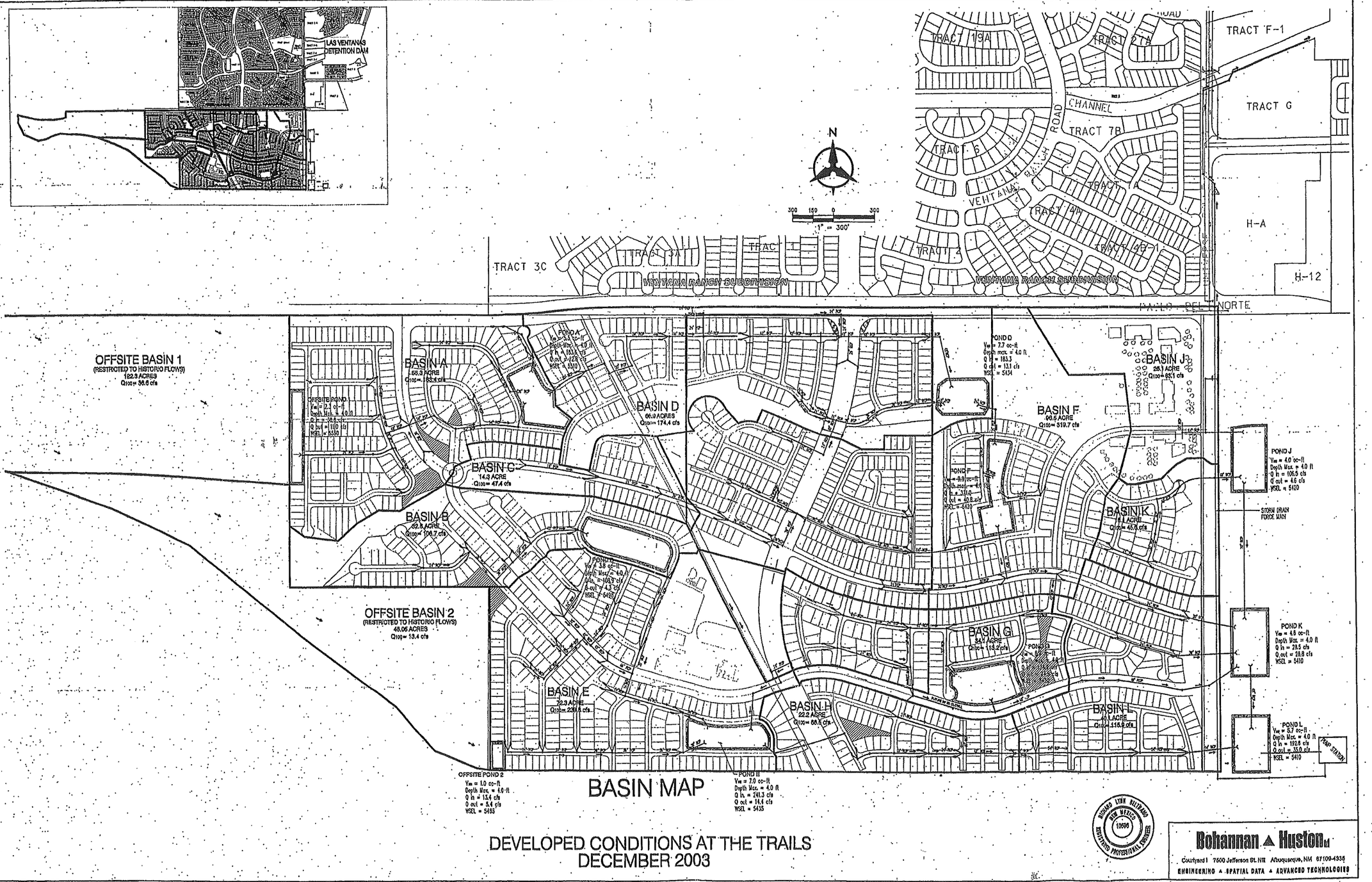
TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5404.85	.000	.00
.50	.00	5404.85	.000	.00
1.00	.00	5404.85	.000	.00
1.50	195.32	5405.91	2.393	6.25
2.00	77.68	5407.41	6.907	14.00
2.50	26.18	5407.75	8.250	15.64
3.00	12.84	5407.78	8.372	15.78
3.50	8.52	5407.72	8.151	15.52
4.00	6.62	5407.64	7.826	15.12
4.50	5.33	5407.55	7.456	14.67
5.00	4.42	5407.45	7.060	14.19
5.50	3.61	5407.34	6.649	13.69
6.00	2.74	5407.24	6.225	13.18
6.50	1.65	5407.13	5.786	12.64
7.00	.00	5407.00	5.302	12.05
7.50	.00	5406.83	4.823	11.13
8.00	.00	5406.66	4.381	10.27
8.50	.00	5406.51	3.974	9.47
9.00	.00	5406.37	3.598	8.74
9.50	.00	5406.24	3.251	8.06
10.00	.00	5406.12	2.931	7.44
10.50	.00	5406.01	2.636	6.86
11.00	.00	5405.90	2.366	6.18
11.50	.00	5405.79	2.124	5.55
12.00	.00	5405.69	1.907	4.98
12.50	.00	5405.61	1.712	4.47
13.00	.00	5405.53	1.537	4.01
13.50	.00	5405.46	1.379	3.60
14.00	.00	5405.40	1.238	3.23
14.50	.00	5405.34	1.112	2.90
15.00	.00	5405.29	.998	2.61
15.50	.00	5405.25	.896	2.34
16.00	.00	5405.21	.804	2.10
16.50	.00	5405.17	.722	1.89
17.00	.00	5405.14	.648	1.69
17.50	.00	5405.11	.582	1.52
18.00	.00	5405.08	.522	1.36
18.50	.00	5405.06	.469	1.22
19.00	.00	5405.04	.421	1.10
19.50	.00	5405.02	.378	.99
20.00	.00	5405.00	.339	.89
20.50	.00	5404.98	.304	.80
21.00	.00	5404.97	.273	.71
21.50	.00	5404.96	.245	.64
22.00	.00	5404.95	.220	.58
22.50	.00	5404.94	.198	.52
23.00	.00	5404.93	.177	.46
23.50	.00	5404.92	.159	.42
24.00	.00	5404.91	.143	.37
24.50	.00	5404.91	.128	.34

25.00	.00	5404.90	.115	.30
25.50	.00	5404.90	.103	.27
26.00	.00	5404.89	.093	.24
26.50	.00	5404.89	.083	.22
27.00	.00	5404.88	.075	.20
27.50	.00	5404.88	.067	.18

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	.00	5404.88	.060	.16
28.50	.00	5404.87	.054	.14
29.00	.00	5404.87	.049	.13
29.50	.00	5404.87	.044	.11
30.00	.00	5404.87	.039	.10
30.50	.00	5404.87	.035	.09
31.00	.00	5404.86	.032	.08
31.50	.00	5404.86	.028	.07
32.00	.00	5404.86	.025	.07
32.50	.00	5404.86	.023	.06
33.00	.00	5404.86	.021	.05
33.50	.00	5404.86	.018	.05
34.00	.00	5404.86	.017	.04
34.50	.00	5404.86	.015	.04
35.00	.00	5404.86	.013	.03
35.50	.00	5404.86	.012	.03
36.00	.00	5404.85	.011	.03
36.50	.00	5404.85	.010	.03
37.00	.00	5404.85	.009	.02
37.50	.00	5404.85	.008	.02
38.00	.00	5404.85	.007	.02
38.50	.00	5404.85	.006	.02
39.00	.00	5404.85	.006	.01
39.50	.00	5404.85	.005	.01
40.00	.00	5404.85	.005	.01
40.50	.00	5404.85	.004	.01
41.00	.00	5404.85	.004	.01
41.50	.00	5404.85	.003	.01
42.00	.00	5404.85	.003	.01
42.50	.00	5404.85	.003	.01
43.00	.00	5404.85	.002	.01
43.50	.00	5404.85	.002	.01
44.00	.00	5404.85	.002	.00

PEAK DISCHARGE = 15.808 CFS - PEAK OCCURS AT HOUR 2.80
MAXIMUM WATER SURFACE ELEVATION = 5407.785
MAXIMUM STORAGE = 8.3905 AC-FT INCREMENTAL TIME= .100000HRS



BASIN MAP

DEVELOPED CONDITIONS AT THE TRAILS
DECEMBER 2003

RICHARD LYNN BOHANNAN NEW MEXICO 10596 REGISTERED PROFESSIONAL ENGINEER

Bohannan ▲ Huston Inc.
Courtyard 1 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

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December 30, 2003 - 11:17am

OFFSITE BASINS

APPENDIX B
HYDRAULICS ANALYSIS AND BACKUP INFORMATION

— Sluice Gate Orifice Plate
— Trails Pond Characteristics
— Rating Curves for Riser Pipes
— Orifice Equation Results for Orifice Plates for Each Surge Pond
— Universe Boulevard Storm Drain HGL Analysis
— Record Volumes for Existing Ponds

AC-31 ALUMINUM CANAL GATE

SIZES 12" - 84"

- **A SUPERBLY ENGINEERED GATE EXPRESSLY SUITABLE FOR CORROSION-RESISTANT, RUST PROOF DEMANDS.**
- **RUGGED, HEAVY DUTY CONSTRUCTION - YET LIGHTWEIGHT AND EASY TO INSTALL.**
- **ALUMINUM GATE ELIMINATES ELECTROLYSIS USUALLY FOUND IN CAST IRON GATE TO ALUMINUM PIPE CONNECTIONS.**
- **MINIMAL LEAKAGE - TIGHT CLOSURE**
- **SPECIFY:**
  - **AC-31sb... for corrugated metal pipe mounting**
  - **AC-31-4... for PVC pipe**
  - **AC-31f... for wall mounting**
  - **AC-31ff... for flange or thimble mounting**
  - **AC-31-6... for HDPE pipe**

FEATURES:

SEATING HEADS TO 30 FEET

UNSEATING HEADS TO 20 FEET

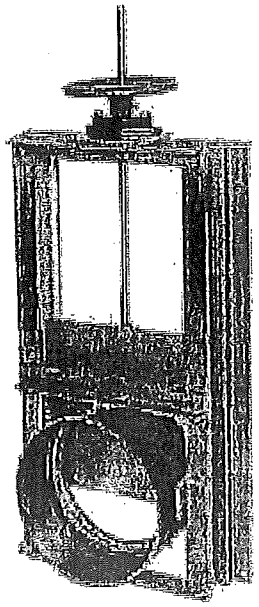
TAPERED SLIDE:
Provides wedge-type seating and low friction opening.

NEOPRENE J-BULB SEAL:
Virtual leakproof closure. Easily replaceable.

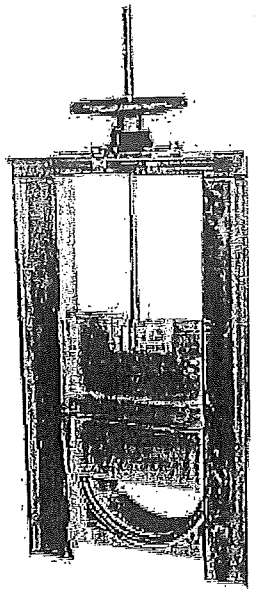
STAINLESS STEEL STEM & HARDWARE

BRONZE LIFT NUT

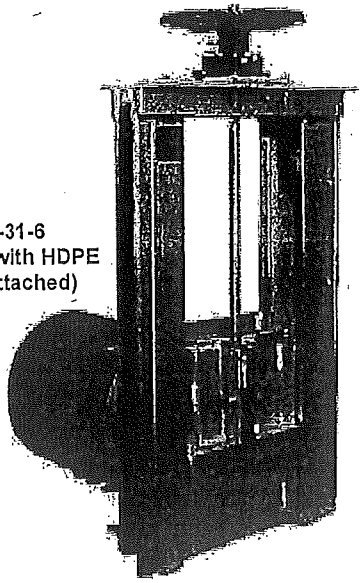
GUIDE INSERTS:
Reduced slide friction. Ultra high molecular weight (UHMW) polyethylene, dovetailed.



Back View
Showing Spigot
and Neoprene Seal



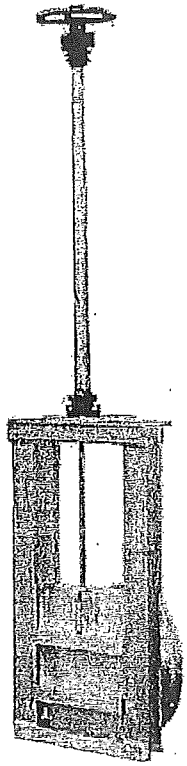
AC-31sb
FRONT VIEW



AC-31-6
(shown with HDPE
pipe attached)

Recommended Maximum Seating Heads*

8" - 30" ..... 30 Feet
36" - 42" .... 20 Feet
48" - 60" .... 15 Feet
66" - 84" .... 10 Feet



AC-31 Flatback
w/Torque Tube
(Rising Stem
Extension)

Waterman Industries

SLUICE GATE ORIFICE PLATE

TRAILS POND CHARACTERISTICS

POND	PIPE DIA	PIPE INV.	POND INV.	POND INV. - PIPE INV.	BYPASS Q	POND TOP	POND DEPTH	Q OUT	ORIFICE OPENING
D	24 INCH	5423.74	5429.46	5.72	13.77	5436.85	7.39	5.93	10 INCH
E	30 INCH	5436.11	5441.60	5.49	15.50	5448.00	6.40	6.80	10 INCH
F	48 INCH	5414.83	5415.08	0.25	6.20	5424.33	9.25	17.66	9 INCH
G	24 INCH	5410.76	5415.67	4.91	17.61	5422.50	6.83	7.00	13 INCH
H	30 INCH	5412.15	5418.65	6.50	21.60	5422.00	3.35	5.20	12 INCH
J	48 INCH	5410.20	5414.00	3.80	26.34	5417.00	3.00	6.05	14 INCH
K	48 INCH	5400.48	5404.85	4.37	44.91	5410.50	5.65	15.81	20 INCH

TRAILS DMP PONDS A5 & A6
RATING CURVE FOR RISER PIPE

Area for 1 - 3" dia. Hole 0.05

Area for 6 - 3" dia. Holes 0.29

Area for 9 - 3" dia. Holes 0.44

HEAD (feet)	Q level 1	Q level 2	Q level 3	Q level 4	Q level 5	Q level 6	Q level 7	Q level 8	Q level 9	Q level 10	TOTAL Q
0.00											0.00
0.25	1.06			9 -3" holes							1.06
0.50	1.50										1.50
0.75	1.84										1.84
1.00	2.13			9-3" holes							2.13
1.25	2.38	1.06									3.44
1.50	2.60	1.50									4.11
1.75	2.81	1.84									4.65
2.00	3.01	2.13									5.13
2.25	3.19	2.38	1.06								6.63
2.50	3.36	2.60	1.50								7.47
2.75	3.53	2.81	1.84								8.18
3.00	3.68	3.01	2.13								8.82
3.25	3.83	3.19	2.38	1.06							10.46
3.50	3.98	3.36	2.60	1.50							11.45
3.75	4.12	3.53	2.81	1.84							12.30
4.00	4.25	3.68	3.01	2.13							13.07
3.25	3.83	3.83	3.19	2.38	1.06						14.30
3.50	3.98	3.98	3.36	2.60	1.50						15.42
3.75	4.12	4.12	3.53	2.81	1.84						16.41
4.00	4.25	4.25	3.68	3.01	2.13						17.32

TRAILS DMP PONDS D1
RATING CURVE FOR RISER PIPE

Area for 1 - 3" dia. Hole 0.05

Area for 6 - 3" dia. Holes 0.29

Area for 12 - 3" dia. Holes 0.59

HEAD (feet)	Q level 1	Q level 2	Q level 3	Q level 4	Q level 5	Q level 6	Q level 7	Q level 8	Q level 9	Q level 10	TOTAL Q
0.00											0.00
0.25	1.42			12 -3" holes							1.42
0.50	2.00										2.00
0.75	2.46										2.46
1.00	2.83			12-3" holes							2.83
1.25	3.17	1.42									4.59
1.50	3.47	2.00									5.48
1.75	3.75	2.46									6.21
2.00	4.01	2.83									6.84
2.25	4.25	3.17	1.42								8.84
2.50	4.48	3.47	2.00								9.96
2.75	4.70	3.75	2.46								10.91
3.00	4.91	4.01	2.83								11.75
3.25	5.11	4.25	3.17	1.42							13.95
3.50	5.30	4.48	3.47	2.00							15.26
3.75	5.49	4.70	3.75	2.46							16.40
4.00	5.67	4.91	4.01	2.83							17.42
3.25	5.11	5.11	4.25	3.17	1.42						19.06
3.50	5.30	5.30	4.48	3.47	2.00						20.57
3.75	5.49	5.49	4.70	3.75	2.46						21.89
4.00	5.67	5.67	4.91	4.01	2.83						23.09

PIPE FLOW THROUGH ORIFICE PLATE USING THE ORIFICE EQUATION

POND D

PIPE DIAMETER = 24 INCHES

HEIGHT OF OPENING = 10 INCHES

CROSS-SECTION AREA = 1.24 SQ. FT.

HEIGHT (FT)	FLOW (CFS)	ELEV (FT)		
1	4.62	5424.74		
2	7.55	5425.74		
3	9.63	5426.74		
4	11.33	5427.74		
5	12.81	5428.74		
5.72	13.77	5429.46		BOTTOM
6.26	14.45	5430.00	0.68	
7.26	15.64	5431.00	1.87	
8.26	16.74	5432.00	2.97	
9.26	17.77	5433.00	4.00	
10.26	18.75	5434.00	4.98	
11.26	19.68	5435.00	5.90	
12.26	20.56	5436.00	6.79	
13.11	21.29	5436.85	7.51	SPILLWAY
13.26	21.41	5437.00	7.64	

PIPE FLOW THROUGH ORIFICE PLATE USING THE ORIFICE EQUATION

POND E

PIPE DIAMETER = 30 INCHES

HEIGHT OF OPENING = 10 INCHES ⇐ POND E ORIFICE

CROSS-SECTION AREA = 1.43 SQ. FT.

HEIGHT (FT)	FLOW (CFS)	
1	5.26	
2	8.66	
3	11.07	
4	13.03	
5	14.74	
5.49	15.51	
6	16.27	
6.89	17.52	2.01
7.89	18.82	3.31
8.89	20.04	4.53
9.89	21.19	5.68
10.89	22.28	6.77
11.89	23.32	7.81
12	23.43	
13	24.42	
14	25.38	

PIPE DIAMETER = 42 INCHES

HT X WI OF OPENING = 8 INCHES

CROSS-SECTION AREA = 1.28 SQ. FT.

HEIGHT (FT)	FLOW (CFS)	
1	5.03	
2	7.96	
3	10.06	
4	11.80	
5	13.31	
5.49	13.99	
6	14.67	
6.89	15.78	1.79
7.89	16.94	2.95
8.89	18.03	4.03
9.89	19.05	5.06
10.89	20.02	6.03
11.89	20.95	6.96
12	21.05	

POND F

PIPE DIAMETER =	48	INCHES
HEIGHT OF OPENING =	9	INCHES ⇐ ORIFICE
CROSS-SECTION AREA =	1.63	SQ. FT.
BYPASS FLOW=	6.20	CFS

HEIGHT (FT)	FLOW (CFS)	
1	6.20	
2	10.00	3.80
3	12.72	6.51
4	14.94	8.74
5	16.88	10.67
6	18.61	12.41
7	20.20	14.00
8	21.67	15.47
9	23.05	16.84
9.25	23.38	17.18
10	24.35	
11	25.58	

PIPE FLOW THROUGH ORIFICE PLATE USING THE ORIFICE EQUATION

POND G

PIPE DIAMETER = 24 INCHES

HEIGHT OF OPENING = 13 INCHES

CROSS-SECTION AREA = 1.75 SQ. FT.

HEIGHT (FT)	FLOW (CFS)	
1	5.71	
2	10.18	
3	13.22	
4	15.67	
4.91	17.61	
5	17.80	
6.24	20.12	2.50
7.24	21.81	4.20
8.24	23.38	5.77
9.24	24.85	7.24
10.24	26.24	8.63
11.24	27.56	9.95
11.63	28.06	10.45
12	28.52	
13	29.74	

PIPE FLOW THROUGH ORIFICE PLATE USING THE ORIFICE EQUATION

POND H

PIPE DIAMETER = 30 INCHES

HEIGHT OF OPENING = 12 INCHES ← ORIFICE

CROSS-SECTION AREA = 1.83 SQ. FT.

HEIGHT (FT)	FLOW (CFS)	
1	6.23	
2	10.79	
3	13.93	
4	16.48	
5	18.69	
6	20.66	
6.5	21.58	
6.85	22.20	0.62
7.85	23.89	2.31
8.85	25.46	3.88
9.85	26.94	5.36
10	27.16	
12	29.88	
13	31.15	
14	32.38	

PIPE DIAMETER = 42 INCHES

HT X WI OF OPENING = 8 INCHES

CROSS-SECTION AREA = 1.28 SQ. FT.

HEIGHT (FT)	FLOW (CFS)	
1	5.03	
2	7.96	
3	10.06	
4	11.80	
5	13.31	
5.49	13.99	
6	14.67	
6.89	15.78	1.79
7.89	16.94	2.95
8.89	18.03	4.03
9.89	19.05	5.06
10.89	20.02	6.03
11.89	20.95	6.96
12	21.05	

POND J

PIPE DIAMETER = 48 INCHES
HEIGHT OF OPENING = 14 INCHES
CROSS-SECTION AREA = 3.05 SQ. FT.

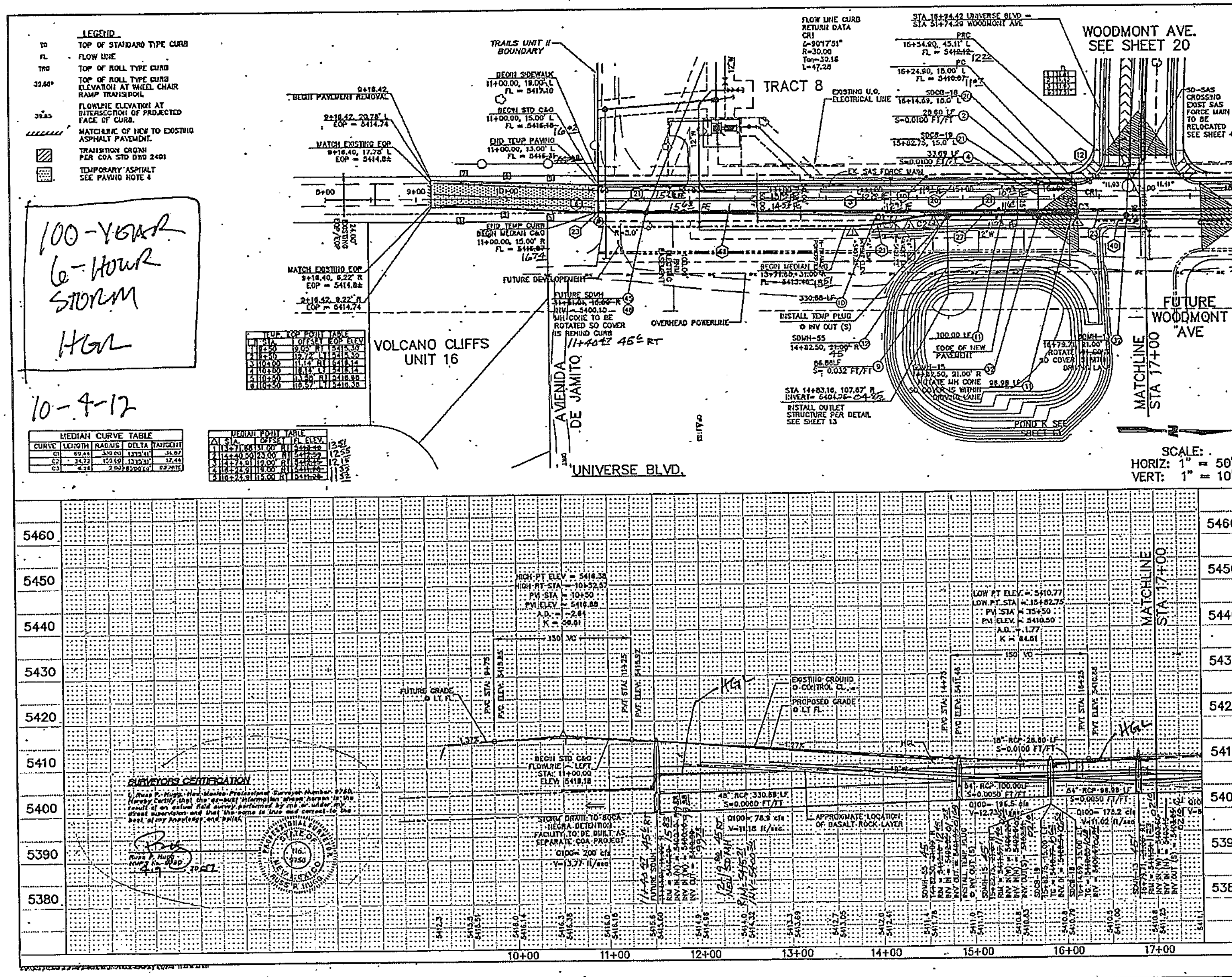
HEIGHT (FT)	FLOW (CFS)	
1	9.48	
2	17.48	
3	22.83	
3.8	26.34	
4	27.15	
4.8	30.16	3.82
5.8	33.54	7.20
6.8	36.62	10.28
7	37.20	
8	39.99	
9	42.61	
10	45.07	
11	47.40	
12	49.62	
13	51.75	
14	53.79	

POND K

PIPE DIAMETER = 48 INCHES
HEIGHT OF OPENING = 20 INCHES ← ORIFICE
CROSS-SECTION AREA = 4.96 SQ. FT.

HEIGHT (FT)	FLOW (CFS)	
1	9.75	
2	25.80	
3	35.15	
4	42.50	
4.37	44.91	
5	48.75	
5.52	51.70	6.79
6.52	56.95	12.04
7.52	61.76	16.84
8.52	66.21	21.30
9.52	70.39	25.48
10.02	72.39	27.47
11	76.15	
12	79.81	
13	83.30	
14	86.66	

UNIVERSE BLVD HGL



PAVING CONSTRUCTION NOTES

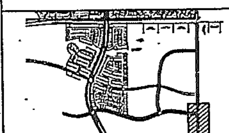
I.D.#	DESCRIPTION
3	BUILD ARTERIAL ASPHALT PAVING, PER TYPICAL SECTION. (SEE SHEET 5)
4	BUILD TEMPORARY ARTERIAL ASPHALT PAVING PER DETAIL (SEE SHEET 5)
10	BUILD 6' PCC SIDEWALK, PER COA STD. DTL. 2430
12	BUILD PCC WHEELCHAIR RAMP, PER COA STD. DETAIL 2441, CASE #2
20	INSTALL 8" PCC STD. CURB AND GUTTER, PER COA DETAIL 2415A
21	BUILD PCC MEDIAN CURB AND GUTTER, PER COA DETAIL 2415B
23	BUILD TEMP ASPHALT CURB TYPE C PER COA STD DWG 2415D
27	BUILD TEXTURED CONCRETE MEDIAN PAVEMENT, PER COA STD. DWG. 2408 & 2501
40	INSTALL TYPE III BARRICADES
41	REMOVE AND DISPOSE EXISTING ASPHALT PAVEMENT

STORM DRAIN CONSTRUCTION NOTES

I.D.#	DESCRIPTION
2	INSTALL 18" STORM DRAIN PIPE
4	INSTALL 24" STORM DRAIN PIPE
9	INSTALL 42" STORM DRAIN PIPE
10	INSTALL 48" STORM DRAIN PIPE
11	INSTALL 54" STORM DRAIN PIPE
20	INSTALL TYPE A CATCH-BASIN SINGLE GRATE SINGLE THROAT PER COA STD. DTL. 2201
21	INSTALL TYPE A CATCH BASIN SINGLE GRATE AND DOUBLE WING PER COA STD. DTL. 2201
32	INSTALL 8' DIA. MANHOLE PER COA STD. DTL. 2101
45	INSTALL 45" STORM DRAIN PLUG
46	INSTALL 54" STORM DRAIN PLUG

GENERAL NOTES

1. ALL CURB RETURNS HAVE 30' RADIUS AT THEORETICAL FACE OF CURB (FLOWLINE) PER COA STD DWG 2415A, UNLESS OTHER- WISE INDICATED
2. ALL STATIONS AND OFFSETS ARE TO THEORETICAL FACE OF CURB (FLOWLINE) PER COA STD DWG 2415A, UNLESS OTHER- WISE INDICATED
3. ALL CURB LAYOUT DATA IS AT THEORETICAL FACE OF CURB (FLOWLINE) PER COA STD DWG 2415A, UNLESS OTHER- WISE INDICATED. CURB LAYOUT THAT IS A DIRECT OFFSET OF PLATTED BASELINE IS NOT SHOWN
4. ADJUST ALL MANHOLE RIMS AND VALVE COVERS PER COA STD. DWG. 2460


INDEX MAP

WILSON & COMPANY 2100 THE AMERICAN ROAD S.E. SUITE 100 RIO RANCHO, NEW MEXICO 87124 (505) 898-8021

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

THE TRAILS UNIT II
PAVING AND STORM DRAIN PLAN & PROFILE
UNIVERSE BLVD.

APPROVED SEP 1 0 2005 DESIGN REVIEW COMMITTEE
CITY ENGINEER JAN 5 0 2006

City Project No. 730084 | Zone Map No. C-9-Z | Sheet 27 of 51

AS-BUILT INFORMATION
CONTRACTOR SURV TEK
WORK STARTED
WORK COMPLETED
INSPECTOR'S ACCEPTANCE BY SURV TEK
FIELD VERIFICATION BY SURV TEK
DRAFTED BY
MICRO-FILM INFORMATION

BENCH MARKS
ACS BRASS TABLET STAMPED "2-B10 1980"
Geographic Position (NAD 1927)
N.M. State Plane Coordinates (Central Zone)
X= 357,543.73 Y= 1,527,976.48
Ground-to-Grid Factor = 0.99966354
Δα = -0°16'30"
SLD 1929 Elevation = 5429.35

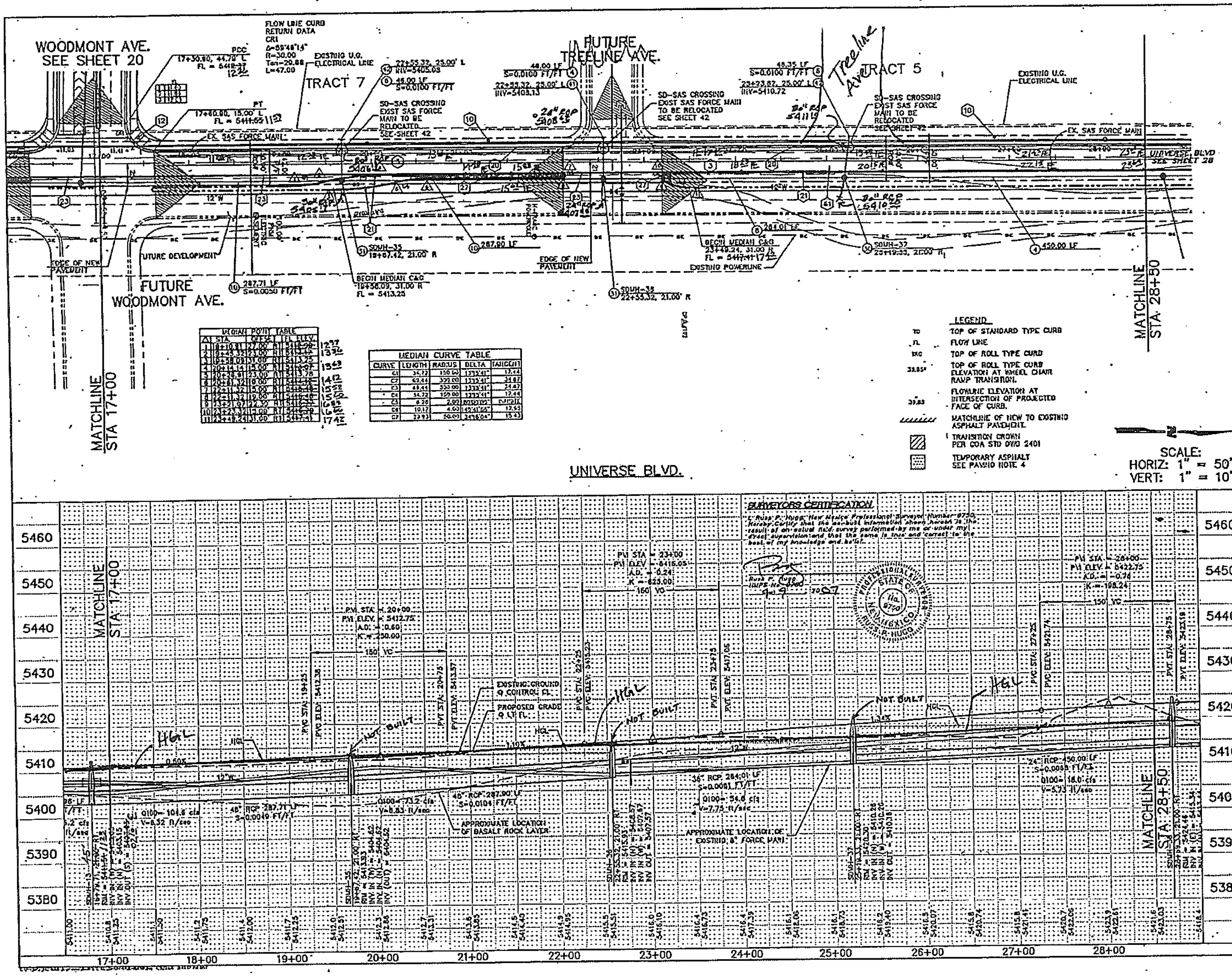
SURVEY INFORMATION
FIELD NOTES
NO. | -BY- | DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

REVISIONS
WILSON & COMPANY, ENGINEERS & ARCHITECTS

		DATE	
DESIGNED BY	DWD	DATE	JAN 05
DRAWN BY	DWD	DATE	JAN 05
CHECKED BY	SJS	DATE	JAN 05



PAVING CONSTRUCTION NOTES

I.D.#	DESCRIPTION
3	BUILD ARTERIAL ASPHALT PAVING, PER TYPICAL SECTION (SEE SHEET 5)
10	BUILD 6" PCC SIDEWALK, PER COA STD. DTL. 2430
12	BUILD PCC WHEELCHAIR RAMP, PER COA STD. DETAIL 2441, CASE #2
14	INSTALL 8" PCC VALLEY GUTTER, PER COA STD. DETAIL 2420
20	INSTALL 8" PCC STD. CURB AND GUTTER, PER COA DETAIL 2415A
21	BUILD PCC MEDIAN CURB AND GUTTER, PER COA DETAIL 2415D
23	BUILD TEMP ASPHALT CURB TYPE C PER COA STD DWG 2415B
27	BUILD TEXTURED CONCRETE MEDIAN PAVEMENT, PER COA STD. DWG. 2408 & 2501
50	BUILD 8' ASPHALT PEDESTRIAN TRAIL PER DETAIL SEE SHEET 7
61	REMOVE AND DISPOSE EXISTING ASPHALT PAVEMENT

STORM DRAIN CONSTRUCTION NOTES

I.D.#	DESCRIPTION
4	INSTALL 24" STORM DRAIN PIPE
5	INSTALL 30" STORM DRAIN PIPE
8	INSTALL 36" STORM DRAIN PIPE
10	INSTALL 48" STORM DRAIN PIPE
30	INSTALL 4' DIA. MANHOLE PER COA STD. DTL. 2101
31	INSTALL 6' DIA. MANHOLE PER COA STD. DTL. 2101
41	INSTALL 24" STORM DRAIN PLUG
42	INSTALL 30" STORM DRAIN PLUG

AS-BUILT INFORMATION
SURV TEK 12/06
SURV TEK 02/07
SURV TEK 02/07
MICRO-FILM INFORMATION

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SURVEY INFORMATION

NO.	FIELD NOTES BY	DATE

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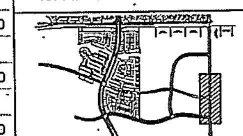
4. ADJUST ALL MANHOLE RIMS AND VALVE COVERS PER COA STD. DWG. 2460

ENGINEER'S SEAL


INDEX MAP

NO.	DATE	REMARKS	BY

REVISIONS

WILSON & COMPANY, ENGINEERS & ARCHITECTS
DESIGNED BY DND DATE JAN 05
DRAWN BY DND DATE JAN 05
CHECKED BY SJS DATE JAN 05

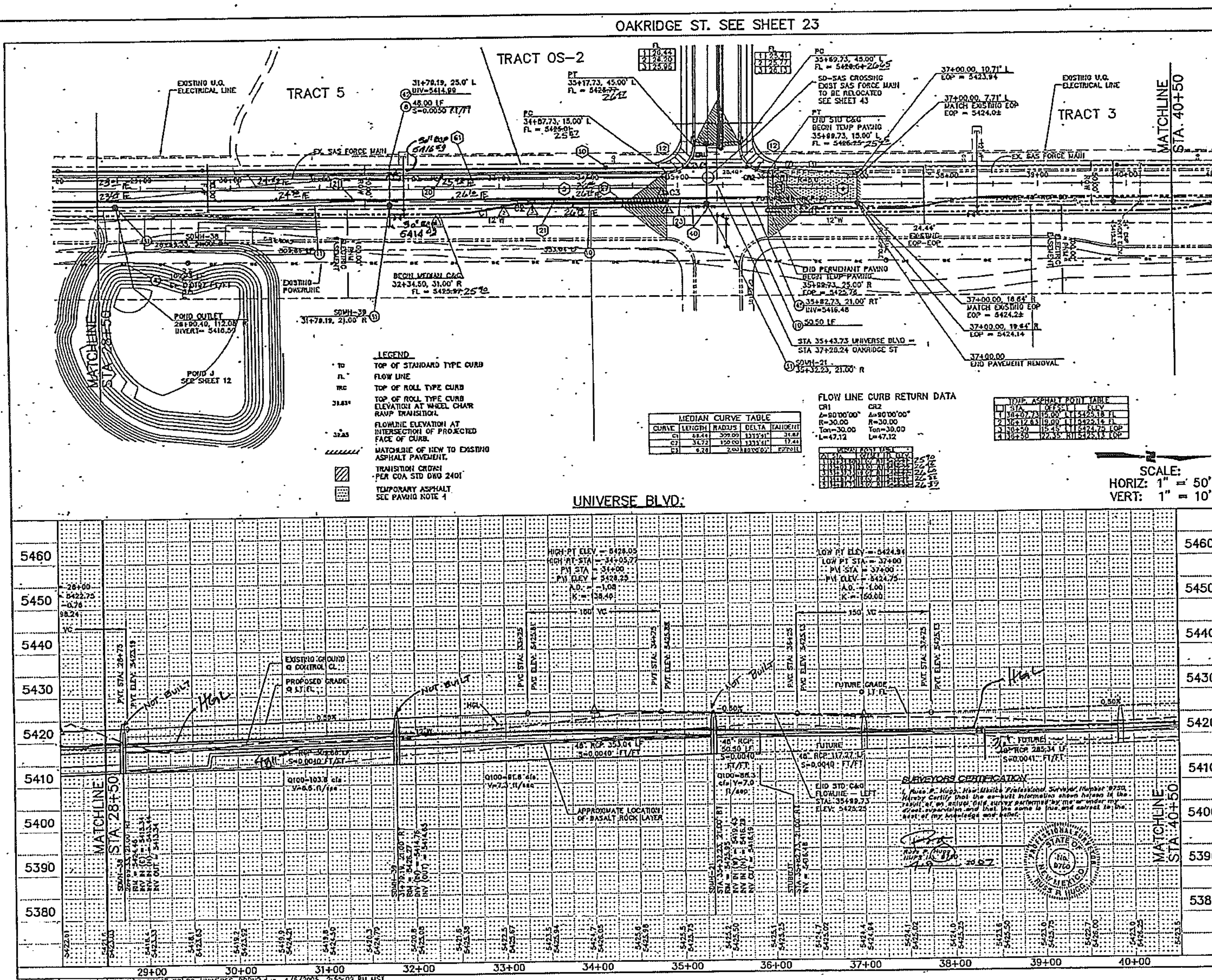
WILSON & COMPANY
2600 THE AMERICAN ROAD S.E. SUITE 100
RIO RANCHO, NEW MEXICO 87124
(505) 898-8021

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

THE TRAILS UNIT II
PAVING AND STORM DRAIN PLAN & PROFILE UNIVERSE BLVD.

APPROVED SEP 1 3 2005 DESIGN REVIEW COMMITTEE
City Engineer Approval APPROVED JAN 3 0 2006 CITY ENGINEER

City Project No. 730084
Zone Map No. C-9-Z
Sheet 28 of 51



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27	BUILD TEXTURED CONCRETE MEDIAN PAVEMENT, PER COA STD. DWG. 2406 & 2501
40	INSTALL TYPE III BARRICADES

STORM DRAIN CONSTRUCTION NOTES

I.D.#	DESCRIPTION
2	INSTALL 18" STORM DRAIN PIPE
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8	INSTALL 30" STORM DRAIN PIPE
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AS-BUILT INFORMATION: SURV TEK

BENCH MARKS: ACS BRASS TABLET STAMPED "2-B10 1980" Geographic Position (NAD 1927) N.M. State Plane Coordinates (Central Zone) X= 357,543.73 Y= 1,527,976.48 Ground-to-Grid Factor = 0.99966354 Δα = -00°16'30" SLD 1929 Elevation = 5429.35

SURVEY INFORMATION — FIELD NOTES | NO. | BY | DATE

ENGINEER'S SEAL

INDEX MAP

WILSON & COMPANY — 2600 THE AMERICAN ROAD S.E. SUITE 100 RIO RANCHO, NEW MEXICO 87124 (505) 898-8021

REVISIONS — NO. | DATE | REMARKS | BY

WILSON & COMPANY, ENGINEERS & ARCHITECTS
DESIGNED BY DJD DATE JAN 05
DRAWN BY DJD DATE JAN 05
CHECKED BY SJS DATE JAN 05

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

THE TRAILS UNIT II
PAVING AND STORM DRAIN PLAN & PROFILE UNIVERSE BLVD.

Design Review Committee: APPROVED SEP 16 2005 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVED JAN 30 2006 CITY ENGINEER

City Project No. 730084 | Zone Map No. C-9-Z | Sheet 29 of 51

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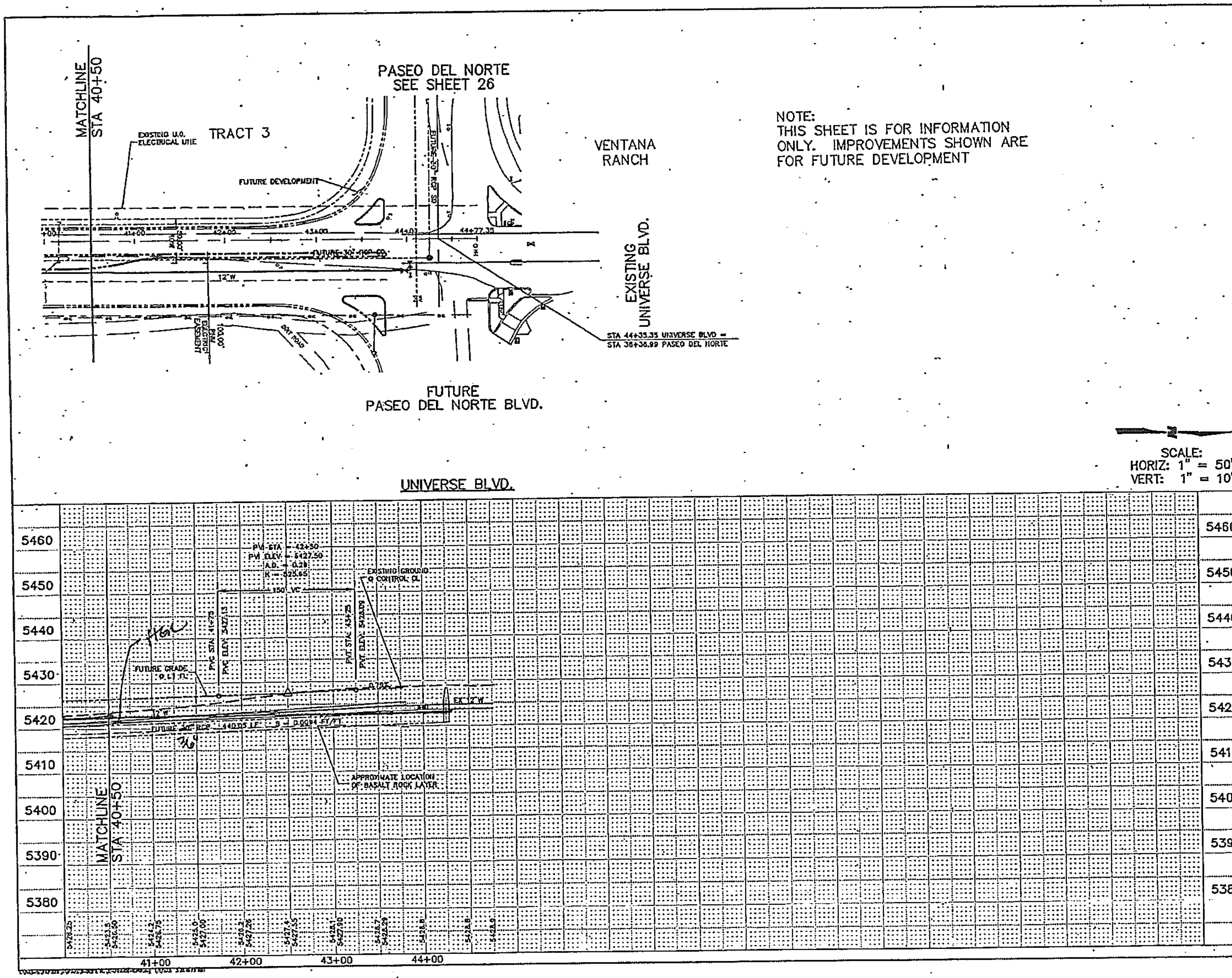

NOTE:
THIS SHEET IS FOR INFORMATION ONLY. IMPROVEMENTS SHOWN ARE FOR FUTURE DEVELOPMENT

LEGEND

TC	TOP OF STANDARD TYPE CURB
FL	FLOW LINE
TRC	TOP OF ROLL TYPE CURB
30.85±	TOP OF ROLL TYPE CURB ELEVATION AT WHEEL CHAIR RAMP TRANSITION.
31.83	FLOWLINE ELEVATION AT INTERSECTION OF PROJECTED FACE OF CURB.
	MATCHLINE OF NEW TO EXISTING ASPHALT PAVEMENT.
	TRANSITION CROWN PER COA STD DWG 2401

GENERAL NOTES

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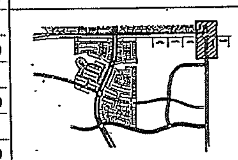

WILSON & COMPANY
2600 THE AMERICAN ROAD S.E. SUITE 100
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AS-BUILT INFORMATION

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MICRO-FILM INFORMATION

SURVEY INFORMATION
FIELD NOTES

NO.	- BY -	DATE

ENGINEER'S SEAL

REVISIONS

NO.	DATE	REMARKS	BY

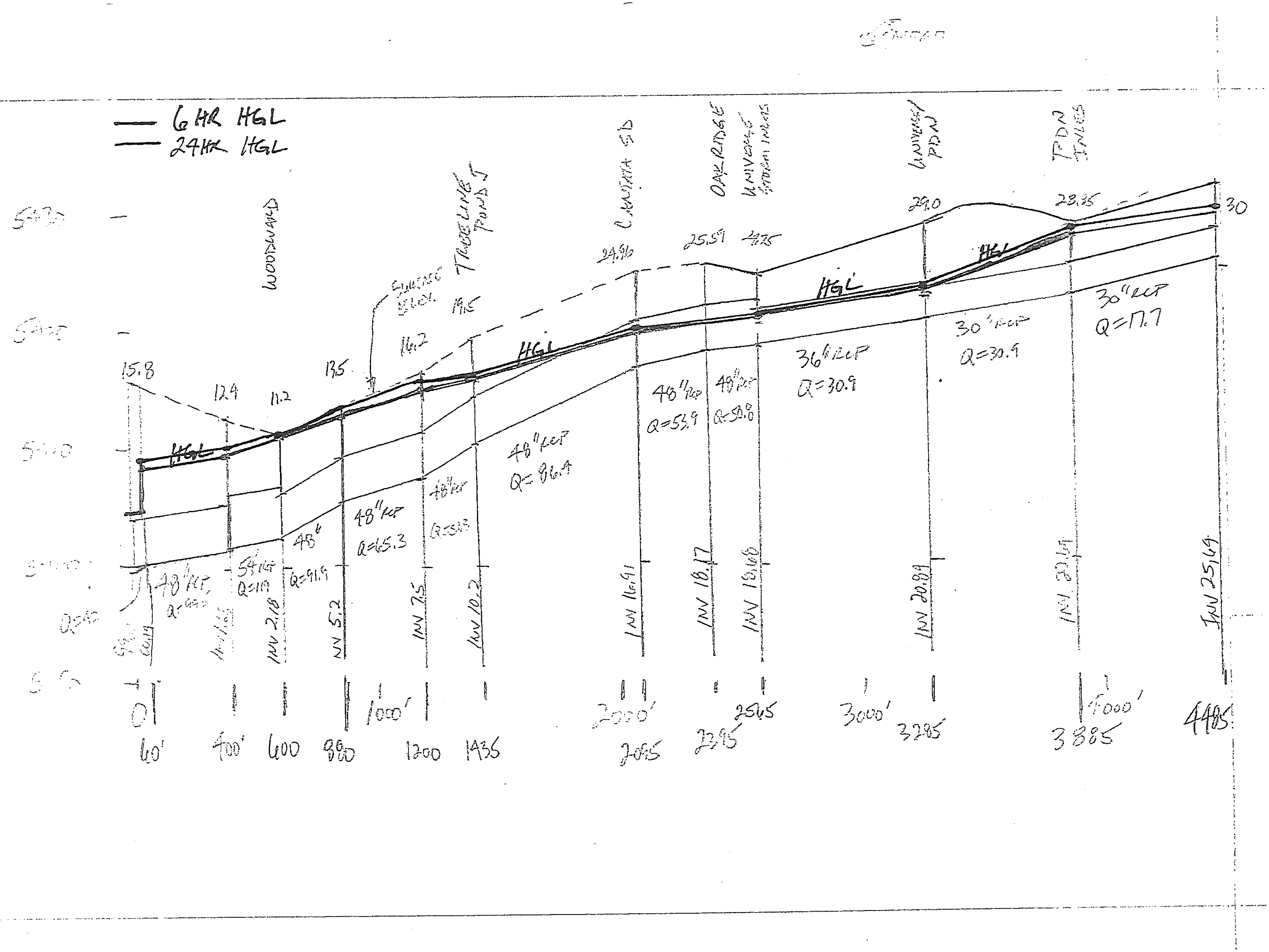
WILSON & COMPANY, ENGINEERS & ARCHITECTS
DESIGNED BY DND DATE JAN 05
DRAWN BY DND DATE JAN 05
CHECKED BY S.S DATE JAN 05

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

THE TRAILS UNIT II
PAVING AND STORM DRAIN PLAN & PROFILE
UNIVERSE BLVD.

DESIGN REVIEW COMMITTEE SEP 1 6 2005
CITY ENGINEER JAN 3 0 2006

City Project No.	Zone Map No.	Sheet	of
730084	C-9-Z	30	51



6HR HGL
24HR HGL
HGL
WOODWARD
TREELINE POND J
CAVANTA SD
OAK RIDGE
UNIVERSITY STORM INLETS
UNIVERSITY PDN
PDN INLETS
15.8
12.4
11.2
13.5
16.2
19.5
24.96
25.59
28.0
28.85
30
48" RCP Q=65.3
48" RCP Q=86.4
48" RCP Q=53.9
36" RCP Q=30.9
30" RCP Q=30.9
30" RCP Q=17.7
INV 2.18
INV 5.2
INV 7.5
INV 10.2
INV 16.91
INV 18.17
INV 19.66
INV 20.89
INV 20.54
INV 25.69
0
1000'
2000'
3000'
4000'
60'
400'
600
880
1200
1436
2055
2385
2565
3285
3885
4485

SUMMARY OF HYDRAULIC CALCULATIONS

CLOSED CONDUIT

BY: DBT

DATE: 9/24/12

SHEET: 1 of 1

PROJECT: UNIVERSE SD LINE: CANTATA

100 year

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Comment
										JUNCTION		LOSSES										
STATION	STRUCT	D	Q	A	V	K	Sf	L	DELTA	D	ANGLE	hf	hb	hj	hmh	ht	hmisc	SUM	E.G.	hv	H.G.	GROUND ELEV.
																					5415.25	
	OUTFALL												0.00				0.00	0.00	5415.98	0.73	5415.25	
		60	135	19.64	6.86	2606	0.0027	100				0.27						0.27	5416.25	0.73	5415.52	
TREELINE	MH								90	42	90		0.15	0.59	0.00	0.00		0.74	5416.99	0.76	5416.23	5419.50
		48	88	12.57	7.00	1437	0.0037	660				2.47						2.47	5419.46	0.76	5418.70	
CANTATA	MH									30	90		0.00	0.79	0.00	0.00		0.79	5420.26	0.36	5419.89	5424.96
		48	60.9	12.57	4.85	1437	0.0018	300				0.54						0.54	5420.80	0.36	5420.43	
OAKRIDGE	MH									24	90		0.00	0.08	0.00	0.00		0.08	5420.88	0.33	5420.55	5425.59
		48	57.5	12.57	4.58	1437	0.0016	170				0.27						0.27	5421.15	0.33	5420.82	
UNIV INLET	MH									30	90		0.00	0.31	0.00	0.00		0.31	5421.45	0.37	5421.09	5424.75
		36	34.3	7.07	4.85	667.3	0.0026	720				1.90						1.90	5423.36	0.37	5422.99	
UNIV/PDN	MH								90				0.15	0.00	0.04	0.08		0.27	5423.62	0.76	5422.87	5429.00
		30	34.3	4.91	6.99	410.3	0.0070	600				4.19						4.19	5427.82	0.76	5427.06	
PDN INLET										24	90		0.00	1.11	0.00	0.00		1.11	5428.93	0.20	5428.73	5428.85
		30	17.7	4.91	3.61	410.3	0.0019	580				1.08						1.08	5430.01	0.20	5429.81	
PDN INLET													0.00	0.00	0.00	-0.04		-0.04	5429.97	0.00	5429.97	5431.56

REMARKS: Manning's n: 0.013

TRAILS DMP POND VOLUMES
SEPTEMBER 6, 2012

POND D

ELEVATION	AREA (SF)	INC. VOLUME (CF)	CUM. VOLUME (CF)	CUM. VOLUME (AC-FT)
5430	2756	0	0	0
5431	23638	13197	13197	0.30
5432	37556	30597	43794	1.01
5433	41587	39571.5	83365.5	1.91
5434	45335	43461	126826.5	2.91
5435	49182	47258.5	174085	4.00
5436	53130	51156	225241	5.17
ES 5436.85	56589	46630.575	271871.575	6.24
5437	57199	8534.1	280405.675	6.44
5438	61378	59288.5	339694.175	7.80

POND F

ELEVATION	AREA (SF)	INC. VOLUME (CF)	CUM. VOLUME (CF)	CUM. VOLUME (AC-FT)
5416	6750	0	0	0
5417	40875	23812.5	23812.5	0.55
5418	58868	49871.5	73684	1.69
5419	62075	60471.5	134155.5	3.08
5420	65339	63707	197862.5	4.54
5421	68659	66999	264861.5	6.08
5422	72036	70347.5	335209	7.70
5423	75469	73752.5	408961.5	9.39
5424	78959	77214	486175.5	11.16
ES 5424.33	80155	26253.81	512429.31	11.76
5425	82547	54505.17	566934.48	13.02

POND G

ELEVATION	AREA (SF)	INC. VOLUME (CF)	CUM. VOLUME (CF)	CUM. VOLUME (AC-FT)
5416	1770	0	0	0
5417	18197	9983.5	9983.5	0.23
5418	35019	26608	36591.5	0.84
5419	51588	43303.5	79895	1.83
5420	64405	57996.5	137891.5	3.17
5421	69184	66794.5	204686	4.70
5422	74067	71625.5	276311.5	6.34
ES 5422.50	76539	37651.5	313963	7.21
5423	79010	76538.5	352850	8.10
5424	84095	81552.5	434402.5	9.97

TRAILS DMP POND VOLUMES
SEPTEMBER 6, 2012

POND H

ELEVATION	AREA (SF)	INC. VOLUME (CF)	CUM. VOLUME (CF)	CUM. VOLUME (AC-FT)
5419	14234	0	0	0
5420	35514	24874	24874	0.57
5421	55545	45529.5	70403.5	1.62
ES 5422	66534	61039.5	131443	3.02
5423	70916	68725	200168	4.60

POND J - AS-BUILT

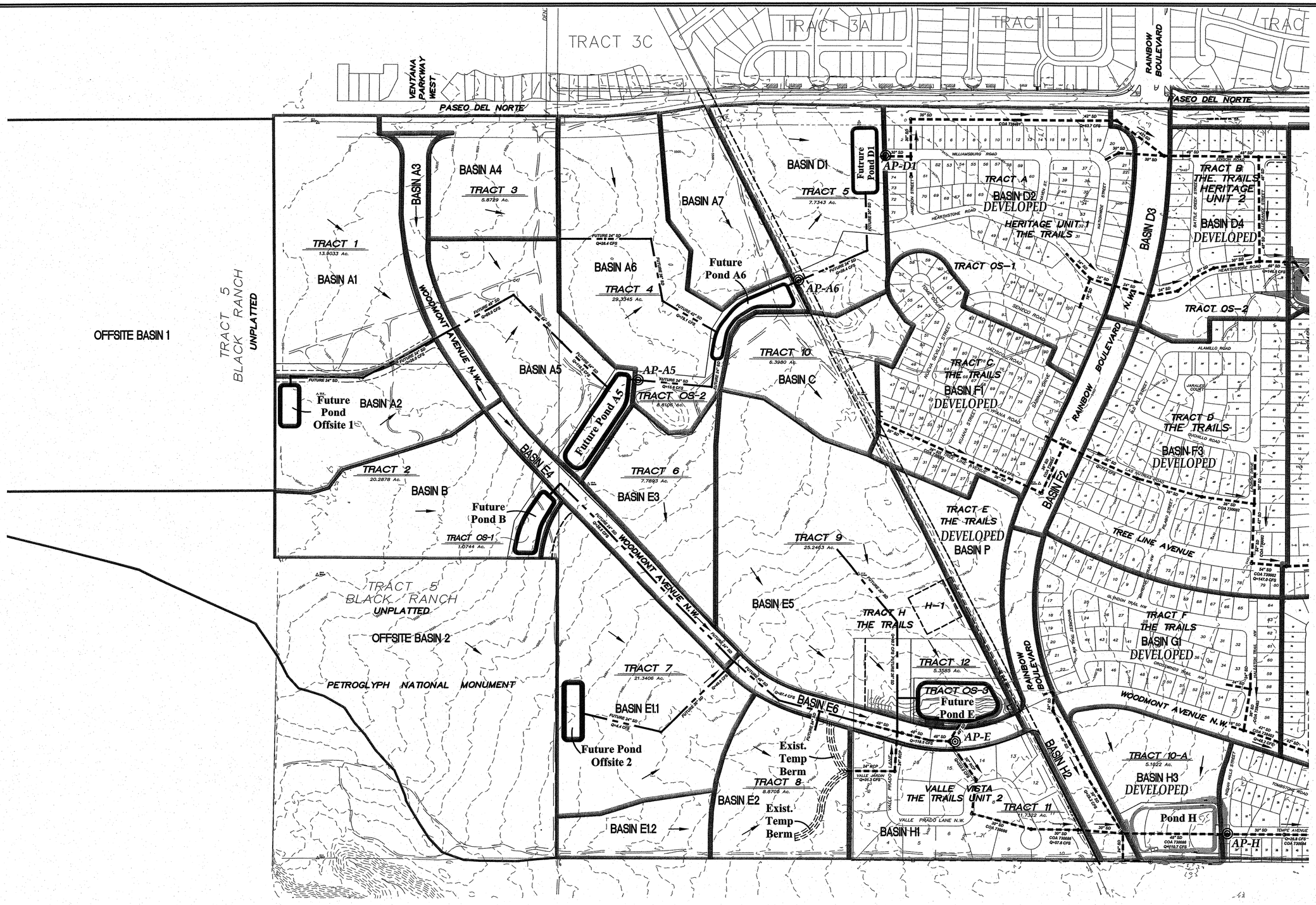
ELEVATION	AREA (SF)	INC. VOLUME (CF)	CUM. VOLUME (CF)	CUM. VOLUME (AC-FT)
5414	64648	0	0	0
5415	106394	85521	85521	1.96
5416	131917	119155.5	204676.5	4.70
5417	150216	141066.5	345743	7.94
5418	165320	157768	503511	11.56

POND K - AS-BUILT

ELEVATION	AREA (SF)	INC. VOLUME (CF)	CUM. VOLUME (CF)	CUM. VOLUME (AC-FT)
5404	10911	0	0	0
5405	59617	35264	35264	0.81
5406	95938	77777.5	113041.5	2.60
5407	139074	117506	230547.5	5.29
5408	204804	171939	402486.5	9.24
5409	283261	244032.5	646519	14.84
5410	311587	297424	943943	21.67

POND F5 - PROPOSED

ELEVATION	AREA (SF)	INC. VOLUME (CF)	CUM. VOLUME (CF)	CUM. VOLUME (AC-FT)
5421	8002	0	0	0.0000
5422	9361	8681.5	8681.5	0.1993
5423	10955	10158	18839.5	0.4325
5424	12815	11885	30724.5	0.7053
5425	14993	13904	44628.5	1.0245
5426	17537	16265	60893.5	1.3979
5427	20399	18968	79861.5	1.8334



NOTES:

1. *STORM DRAIN SIZES BASED ON 100-YR, 24-HR STORM FLOWS. FUTURE PROJECTS MAY BE REQUIRED TO INCREASE STORM DRAIN SIZE BASED ON 100-YR, 6-HR STORM FLOWS.*
2. *THE INTENDED FUTURE CONTRIBUTION FROM THE TRAILS UNIT 4 IS 20 CFS TO THE MAXIMUM DOWNSTREAM DISCHARGE OF 62 CFS IN UNIVERSE BLVD.*

LEGEND

- *ANALYSIS POINT*
- *EXISTING STORM DRAIN*
- *FLOW DIRECTION*
- *FUTURE DEVELOPED STORM DRAIN*

N

200' 100' 0 200' 400'

SCALE: 200'

DATUM NAVD 1929

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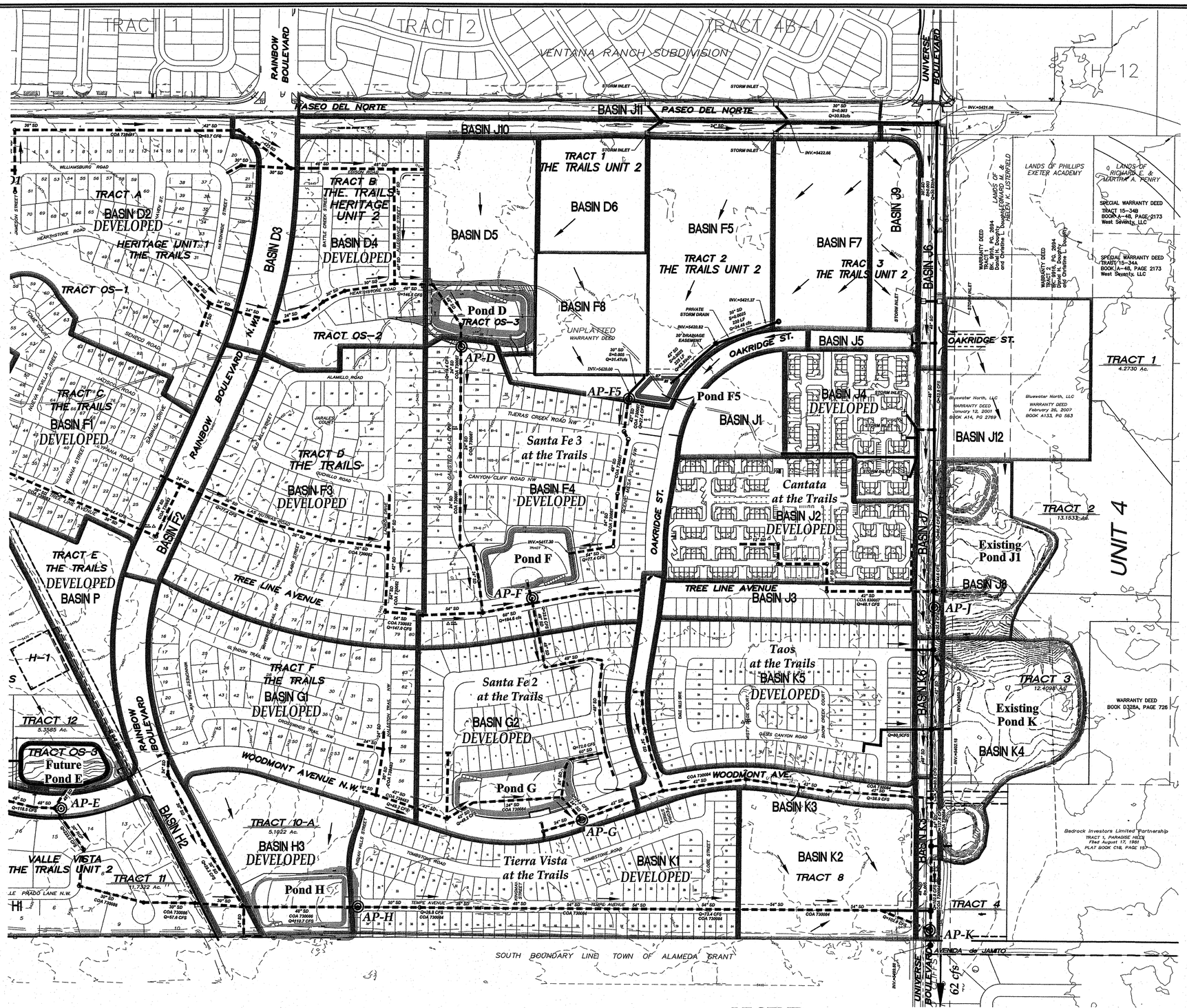
AMENDMENT TO DMP FOR THE TRAILS UNITS 1,2 AND 3

PLATE 1

DUNCAN C. THOMPSON
9677
4-14-14
NEW MEXICO PROFESSIONAL ENGINEER



DETENTION POND CHARACTERISTICS

POND	DRAIN AREA (AC)	Q100 IN (CFS)	Q100 OUT (CFS)	BYPASS Q (CFS)	MAX VOL (ac-ft)	V100 (ac-ft)	TOP ELEV	BOTTOM ELEV	WSEL
OFF 1	127.9	37.00	9.25		2.44	2.302	6	0	5.80
A5	166.8	110.22	15.56		4.61	4.004	5816	5511	5513.59
A6	191.4	81.87	15.81		4.72	3.114	5506	5500	5504.64
D1	209.8	60.24	13.41		6.06	5.111	5475	5471	5474.29
D	261.9	154.87	5.93	13.77	6.24	4.035	5436.9	5429.5	5435.03
F5	18.9	62.89	19.84		1.40	1.386	5426	5421	5425.97
F	359.4	255.89	17.66	6.20	11.76	10.383	5424.3	5415.08	5423.56
G	391.8	93.49	7.00	17.61	7.21	2.955	5422.5	5415.67	5419.84
OFF 2	51.5	13.87	4.43		1.08	0.813	5	0	4.19
B	12.8	54.80	3.36		0.99	0.930	5519	5515	5518.86
E	137.0	198.83	6.80	15.50	7.52	6.008	5448	5441.6	5447.02
H	167.0	89.12	5.20	21.60	3.02	2.870	5422	5418.65	5421.89
J	57.9	141.18	6.05	26.34	7.94	3.771	5417	5414	5415.66
K	672.6	189.53	15.81	44.91	14.84	8.391	5409	5404.85	5407.79

ANALYSIS POINT PEAK FLOWS

ANALYSIS POINT	PEAK FLOW
AP-A5	15.56 CFS
AP-A6	15.81 CFS
AP-D1	13.41 CFS
AP-D	19.70 CFS
AP-F5	27.40 CFS
AP-F	23.86 CFS
AP-G	24.61 CFS
AP-E	22.30 CFS
AP-H	26.80 CFS
AP-J	32.39 CFS
AP-K	60.72 CFS

DEVELOPED DRAINAGE BASIN CHARACTERISTICS

BASIN	AREA	LAND TREATMENT				Q	VOL
	ACRES	A	B	C	D	CFS	AC-FT
OFFSITE 1	127.87	100	0	0	0	37.00	4.426
A1	15.50	0	12.5	12.5	75	51.68	2.610
A2	8.52	0	33	33	34	23.43	0.960
A3	3.21	0	5	5	90	11.41	0.606
A4	7.59	0	7.5	7.5	85	26.39	1.381
A5	11.71	0	17	17	66	37.53	1.829
A6	16.97	0	19	19	62	53.44	2.558
A7	6.75	0	12.5	12.5	75	22.52	1.137
C	8.18	0	25	25	50	24.36	1.100
D1	11.62	0	19	19	62	36.60	1.752
D2	22.12	0	28.5	28.5	43	63.65	2.763
D3	5.71	0	5	5	90	13.18	0.701
D4	12.55	0	28.5	28.5	43	36.12	1.568
D5	8.75	0	23	23	54	26.55	1.224
D6	5.00	0	18	18	64	15.89	0.764
F1	14.13	0	21.7	21.8	56.5	43.39	2.025
F2	3.67	0	5	5	90	13.02	0.692
F3	22.80	0	21.7	21.8	56.5	70.02	3.267
F4	24.91	0	25	25	50	74.16	3.349
F5	11.85	0	12.5	12.5	75	39.52	1.996
F7	7.02	0	7.5	7.5	85	24.42	1.278
F8	5.00	0	18	18	64	15.89	0.764
G1	16.20	0	25	25	50	48.23	2.178
G2	16.19	0	25	25	50	48.22	2.177
OFFSITE 2	51.52	100	0	0	0	13.87	1.783
B	12.79	0	34	34	32	34.80	1.407
E1.1	17.62	0	33	33	34	48.45	1.986
E1.2	3.76	0	33	33	34	10.36	0.424
E2	8.63	0	18	18	64	27.42	1.324
E3	7.66	0	25	25	50	22.82	1.030
E4	3.69	0	5	5	90	13.11	0.697
E5	28.17	0	29	29	42	80.67	3.482
E6	3.12	0	5	5	90	11.09	0.590
P	5.41	43	25	25	7	10.08	0.327
H1	11.68	0	16	16	68	37.78	1.856
H2	5.35	0	5	5	90	19.16	1.018
H3	7.62	0	20	20	60	23.79	1.128
J1	3.31	0	12.5	12.5	75	11.04	0.557
J2	10.92	0	12.5	12.5	75	36.40	1.839
J3	3.71	0	19	19	62	11.70	0.560
J4	6.44	0	12.5	12.5	75	21.47	1.084
J5	0.86	0	5	5	90	3.03	0.162
J6	2.70	0	5	5	90	9.59	0.510
J7	2.84	0	5	5	90	10.09	0.536
J8	5.78	0	70	30	0	12.31	0.355
J9	3.51	0	7.5	7.5	85	12.20	0.638
J10	4.02	0	5	5	90	14.27	0.759
J11	4.79	0	5	5	90	16.65	0.886
J12	9.08	100	0	0	0	10.65	0.314
K1	17.11	0	19	19	62	50.54	2.579
K2	9.51	0	15	15	70	29.39	1.537
K3	5.85	0	5	5	90	20.76	1.104
K4	8.58	0	70	30	0	18.28	0.527
K5	15.13	0	19	19	62	47.63	2.281
K6	1.41	0	5	5	90	5.01	0.266

LEGEND

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DAVID M. THOMPSON 9677 REGISTERED PROFESSIONAL ENGINEER 4-14-14

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AMENDMENT TO DMP FOR THE TRAILS UNITS 1, 2 AND 3

PLATE 2