P10/D004A

June 14, 2004

MIDDLE RIO GRANDE CONSERVANCY DISTRICT

Mr. Jonathan Niski
Tierra West, LLC
8509 Jefferson NE
Albuquerque, NM 87113

REF.: DRAINAGE REPORT FOR THE WAL-MART SITE AT COORS & RIO BRAVO BOULEVARD

Dear Mr. Niski:

The District has reviewed the grading and drainage plan for the above referenced. The following comments must be addressed prior to construction:

1. The District may consider a license to discharge storm water at a rate not to exceed 5 cfs if the Isleta Drain is improved per specifications by AMAFCA & MRGCD under the new drainage study to be completed by AMAFCA & Bernalillo County. Construction plans are required for review and comment.

2. A water quality improvement structure is proposed on the Wal-Mart site prior to discharging into the Isleta Drain. Provide the manufactures information for maintenance of the structure and information for sizing.

3. Who will be responsible for maintaining the water quality structure?

4. A license to replace the existing Rio Bravo Boulevard road culvert crossing is required. Construction plans are required for review and comment.

5. Your plans show the encroachment of a portion of Loris Drive within the Isleta Drain Right-of-Way. A license will be required to allow the encroachment.

If you have any questions please feel free to contact Mr. Ray Gomez for more information at (505) 247-0234.

Sincerely,

Subhas K. Shah
Chief Executive Officer

xc: Leonard Utter, Assistant Engineer
Ray Gomez, Engineer 1
Lynn Mazur, AMAFCA
File

P.O. Box 581
87103-0581
1931 Second St. SW
Albuquerque, NM
87102-4515
505-247-0234
Fax # 505-243-7308

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 30, 2004

Ron Bohannan, PE
Tierra West LLC
8509 Jefferson NE
Albuquerque, NM 87113

Re: Wal-Mart South Drainage Report
Engineer Stamp date 2-25-04 (P10/D4)

Dear Mr. Bohannan,

Based on information provided in your submittal dated 2-27-04, the above referenced report cannot be approved for Building Permit until the following comments are addressed.

- Please provide written concurrence from MRGCD for the connection to the Isleta Drain. The plan should show the improvements for the channel even though it will be built by Work Order.
- A 0.25" diameter orifice will be incredibly hard to keep from getting clogged. I think these particular inlets should have a detail for removing debris away from the orifice.
- Since the plat is already filed and some of your ponds are accepting public water from the streets, public easements must be provided and an agreement and covenant will be necessary. Since your client is an out-of-town corporation, I would be willing to make this a condition of Certificate of Occupancy but please begin this process as soon as possible.
- Ponds 9, 15 and 19 must have a standpipe outlet with an overflow weir.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept
Development and Building Services

C: file

DRAINAGE AND TRANSPORTATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Wal-Mart South, Store #5430-00 ZONE MAP/DRG. FILE #: P-10
DRB #: EPC #: 03-EPC-01110 WORK ORDER #:

LEGAL DESCRIPTION: Tract 1-A-1, Lamonica and Wenk
CITY ADDRESS: Southeast corner of Coors Blvd. and Rio Bravo Blvd.

ENGINEERING FIRM:	Tierra West, LLC	CONTACT:	RONALD R. BOHANNAN OR JON NISKI
ADDRESS:	8509 Jefferson NE	PHONE:	(505) 858-3100
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87113
OWNER:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	
ARCHITECT:	Taylor Scott Architects	CONTACT:	Ryan Wilbanks
ADDRESS:	1437 South Boulder, Suite 800	PHONE:	(918) 587-8600
CITY, STATE:	Tulsa, OK	ZIP CODE:	74119-3609
SURVEYOR:	Precision Surveys	CONTACT:	Larry Medrano
ADDRESS:	8414-D Jefferson Street, NE	PHONE:	856-5700
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87113
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

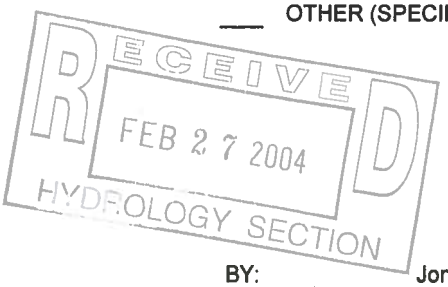
- X DRAINAGE REPORT
- X DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES TCL or equal***
- ___ DRAINAGE PLAN RESUBMITTAL
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ___ CLOMR/LOMR
- ___ TRAFFIC CIRCULATION LAYOUT (TCL)
- ___ ENGINEERS CERTIFICATION (TCL)
- ___ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ___ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SIA / FINANACIAL GUARANTEE RELEASE
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D. APPROVAL
- X S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY (PERM.)
- ___ CERTIFICATE OF OCCUPANCY (TEMP.)
- X GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ WORK ORDER APPROVAL
- ___ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ___ YES
- X NO
- ___ COPY PROVIDED



DATE SUBMITTED: 2/26/2003 BY: Jon Niski

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of sumbittal may be required based on the following:

1. **Conceptual Grading and Drainage Plans**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

TIERRA WEST, LLC

8509 Jefferson NE
Albuquerque, NM 87113

(505) 858-3100
fax (505) 858-1118

twllc@tierrawestllc.com
1-800-245-3102

June 17, 2004

File P10/D4A

Mr. Subhas K. Shah
Chief Executive Officer
Middle Rio Grande Conservancy District
P.O. Box 581
Albuquerque, NM 87103-0581

RE: DRAINAGE REPORT FOR THE WAL-MART, (ALBUQUERQUE SOUTH), COORS & RIO BRAVO BOULEVARD, STORE #5430-00

Dear Mr. Shah:

The following responses are to your comments from your letter dated June 14, 2004.

1. The District may consider a license to discharge storm water at a rate not to exceed 5 cfs if the Isleta Drain is improved per specifications byAMAFCA & MRGCD under the new drainage study to be completed by AMAFCA & Bernalillo County. Construction plans are required for review and comment.

   The channel will be designed and constructed based on comments received at the June 17, 2004 meeting with all agencies in attendance. Approval of the plans will be required by AMAFCA and MRGCD prior to the City of Albuquerque issuing a work order for the project.

2. A water quality improvement structure is proposed on the Wal-Mart site prior to discharging into the Isleta Drain. Provide the manufacturers information for maintenance of the structure and information for sizing.

   The information you requested is enclosed for your review.

3. Who will be responsible for maintaining the water quality structure?

   The Wal-Mart Supercenter will be responsible for the maintenance.

4. A license to replace the existing Rio Bravo Boulevard road culvert crossing is required. Construction plans are required for review and comment.

   A license agreement will be submitted once the design of the crossing is agreed upon by AMAFCA and MRGCD.

5. Your plans show the encroachment of a portion of Loris Drive within the Isleta Drain Right-of-Way. A license will be required to allow the encroachment.

   A license agreement for the roadway encroachment will be submitted within the next week.

If you have any questions or need additional information regarding this matter, please do not hesitate to call me.

Sincerely,

Jonathan D. Niski, E.I.

Enclosure/s

cc: Brad Bingham

JN: 220094
JDR/mjr

2002:220094SubhasShah06162004

TIERRA WEST, LLC

8509 Jefferson NE
Albuquerque, NM 87113

(505) 858-3100
fax (505) 858-1118

twllc@tierrawestllc.com
1-800-245-3102

File P10/D4A

March 23, 2005

Mr. Ray Gomez
MRGCD
1931 Second Street, NW
Albuquerque, NM 87102

RE: Wal-Mart #5430-00, Coors Boulevard and Rio Bravo Boulevard
Isleta Drain Improvements

Dear Mr. Gomez:

We are in receipt of the letter from Mr. Shah dated March 16, 2005 informing our office of the request to build a 12'x6' box culvert in light of the recent information that has surfaced regarding the overall South Valley Flood Damage Control project and the discovery of a 16" VHP gas line that is in conflict with a box culvert of that size. We therefore request that the size of the box culvert be revisited by the design engineer for the overall South Valley project. The original design flows that generated the 12'X6' box culvert were 560 cfs. The 12'x6' box culvert had a capacity for 600 cfs. We looked at a couple of alternate sizes based on the new information provided by Resource Technology, Inc. (RTI). The revised design flow is now 429 cfs and we have analyzed a box culvert that is 242 feet in length at a slope of 0.60%. These new criteria allow for either a 10'X4' box culvert or a 6'x6' box culvert to be placed instead of the 12'x6' box culvert originally called for when this project first started. I have enclosed our calculations supporting these alternatives and ask that you have RTI review the information and confirm that these sizes are adequate to handle the design flows for the overall south valley project.

The 10'x4' box culvert allows us to squeeze between the existing 16" VHP gas line and the existing 36" sanitary sewer line. If your agency or AMAFCA require a six foot high box culvert be built we ask that your agency contact PNM and have them relocate the 16" VHP gas line prior to our construction beginning. The cost of this relocation should not be at the expense of Wal-Mart.

We would also like to reiterate that if we build this portion of the channel to the current design being presented by RTI that this stretch of channel will act as a four to five foot deep desilting pond. This portion of the channel will continue to act as a desilting pond until such time the channel down stream is graded to match the design grades for the South Valley project.

Please review the information we have provided and consult with the South Valley project design engineer to see if one of these alternate box culvert sizes is acceptable. If you have any questions or need additional information regarding this matter, please do not hesitate to contact me

Sincerely,

Jonathan D. Niski, E.I.

Enclosure/s

cc: Lynn Mazur
Brad Bingham
Steve Dyer

JN: 220094
JDN/bgd

2002:22094 Ray Gomez 032205

TIERRA WEST, LLC

8509 Jefferson NE
Albuquerque, NM 87113

(505) 858-3100
fax (505) 858-1118

twllc@tierrawestllc.com
1-800-245-3102

March 2, 2005

File
P10 / D4A

Mr. Subhas K. Shah
Chief Executive Officer
Middle Rio Grande Conservancy District
PO Box 581
Albuquerque, NM 87103-0581
Attention: Ray Gomez

RE: ISLETA DRAIN IMPROVEMENTS

Dear Mr. Shah:

Over the past couple of weeks our office has been working on a redesign of the Rio Bravo Boulevard crossing for the Isleta Drain. This was due to an existing 16-inch, very high pressure, gas line along the north side of Rio Bravo that was previously not marked in the field. The position of the gas line makes if very difficult to construct a 12'x6' box culvert that was agreed to when our project first started. This design, as well as the channel design, was based on preliminary information from Resource Technology, Inc. (RTI) who is working on the South Valley Flood Damage Control project.

Since our initial design RTI has revised some of the design numbers. The design flow has dropped from 560 cfs to 429 cfs. This would allow us to place three 48-inch pipes at the existing 48-inch RCP Rio Bravo crossing to handle the design flows. We understand that MRGCD would like a box culvert placed as the Rio Bravo crossing, however the emergence of the 16-inch very high pressure gas line would prevent a box structure from being constructed in a cost effective and timely manner.

Not only does the 16" very high pressure gas line make it difficult to place a box culvert in the drain, RTI has determined that the channel (at this point) would need to be lowered to an elevation of 4913.30. This elevation is 4.2 feet lower than the existing channel bottom. If we were to construct our portion of the channel at this time the south end would essentially have a 4.2 foot grade break creating a desilting basin. For this portion of the channel to work MRGCD would have to dredge the channel from our southern property line to the outfall of the channel.

We feel this portion of the channel and the crossing should be constructed with the entire South Valley project. The improvements would not work as intended until the rest of the channel construction is complete. Thus, we would like to make a cash contribution in the amount of our portion of the channel improvements ($661,100.50) toward the overall South Valley project. This would allow the channel to be built in a manner that all of the portions of the channel would operate as intended in the design.

If you have any questions or need additional information regarding this matter, please do not hesitate to call me.

Sincerely,

Ronald R. Bohannan, PE

cc: John Kelly
Brad Bingham
Steve Dyer

JN: 220094
JDN/db

2002\220094SubhasShah030205

MIDDLE RIO GRANDE CONSERVANCY DISTRICT

March 16, 2005

Mr. Ronald R. Bohannan, PE
Tierra West, LLC
8509 Jefferson NE
Albuquerque, NM 87113

REF.: ISLETA DRAIN IMPROVEMENTS PER THE WAL-MART #5430-00 CONSTRUCTION PLANS

Dear Mr. Bohannan,

This is in response to your letter dated March 2, 2005 regarding the above referenced project. The District prefers that Wal-Mart be responsible for construction of 12' wide x 6' tall concrete box culvert and shotcrete lining. Per latest construction plan we see an existing 16" Ø gas line and 36" Ø sewer line have complicated the installation of the concrete box culvert. Coordination with AMAFCA and Bernalillo County is required to ensure that the concrete box culvert and shotcrete lining is installed correctly and does not interfere with existing utilities. We will review the plans you provided on Monday to us and advise you.

If you have any questions please feel free to contact Mr. Ray Gomez for more information at (505) 247-0234.

Sincerely,

Subhas K. Shah
Chief Executive Officer

xc: Leonard Utter, MRGCD Engineering
Ray Gomez, MRGCD Engineering
John Kelly, AMAFCA
Brad Bingham, City of Albuquerque
Roger Paul, Bernalillo County
File

P.O. Box 581
87103-0581
1931 Second St. SW
Albuquerque, NM
87102-4515
505·247·0234
Fax # 505·243·7308

DRAINAGE REPORT
FOR

Tract 1-A-1
Lands of Lamonica and Wenk
Albuquerque, NM

Prepared by:

Tierra West, LLC
8509 Jefferson NE
Albuquerque, New Mexico 87113

Prepared for:
Wal-Mart Stores, Inc.
2001 SE 10th Street
Bentonville, AR 72712

February 2004

I certify that this report was prepared under my supervision, and I am a registered professional engineer in the State of New Mexico in good standing.

RONALD RAY BOHANNAN REGISTERED NEW MEXICO 7868 PROFESSIONAL ENGINEER

2/25/04

Ronald R. Bohannan
PE NO. 7868

Job No 220094

TABLE OF CONTENTS

Section I

Report

Prelude

This report is being prepared at the request of the current owner, Wal-Mart Stores, Inc., who proposes to develop a commercial center.

Location

The subject site is located on the southeast corner of Coors Boulevard and Rio Bravo Boulevard and consists of Tract 1-A-1, Lands of Lamonica and Wenk. The exact location of the site is shown highlighted on the enclosed Zone Atlas page number P-10. The site will be built in one phase and contains 27.7381 acres more or less.

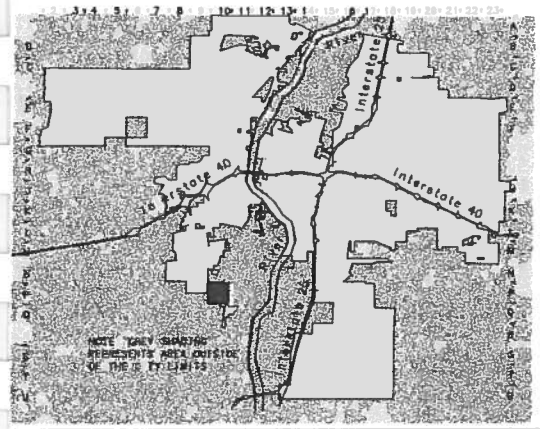
Existing Drainage Conditions

The site is currently undeveloped and is being used as an alfalfa field. It is bordered by Coors Boulevard on the west, Rio Bravo Boulevard on the north, the Isleta Drain on the east and a single residence and farm land on the south.

The site is laser leveled and is currently being irrigated to support the growth of alfalfa. The field is bordered on all sides by berms to facilitate the irrigation of the land. The irrigation is controlled by a culvert and gate under Rio Bravo Boulevard located at the northeast corner of the site. The overflow is controlled via a drain gate and culver located at the midpoint of the sites south property line. During a 100-yr, 6-hour storm event this site generates 33.91 cfs and 0.96 acre feet of potential runoff. Due to the laser leveling and berms surrounding the site, no flows leave the site during this storm event.

Flood Plain

The site is located on FIRM Map 35001C0339 D as shown on the attached excerpt. The map shows that the site lies within flood zone X.



GRAPHIC SCALE IN FEET

250 0 750 1000

CITY OF Albuquerque

Albuquerque Geographic Information System

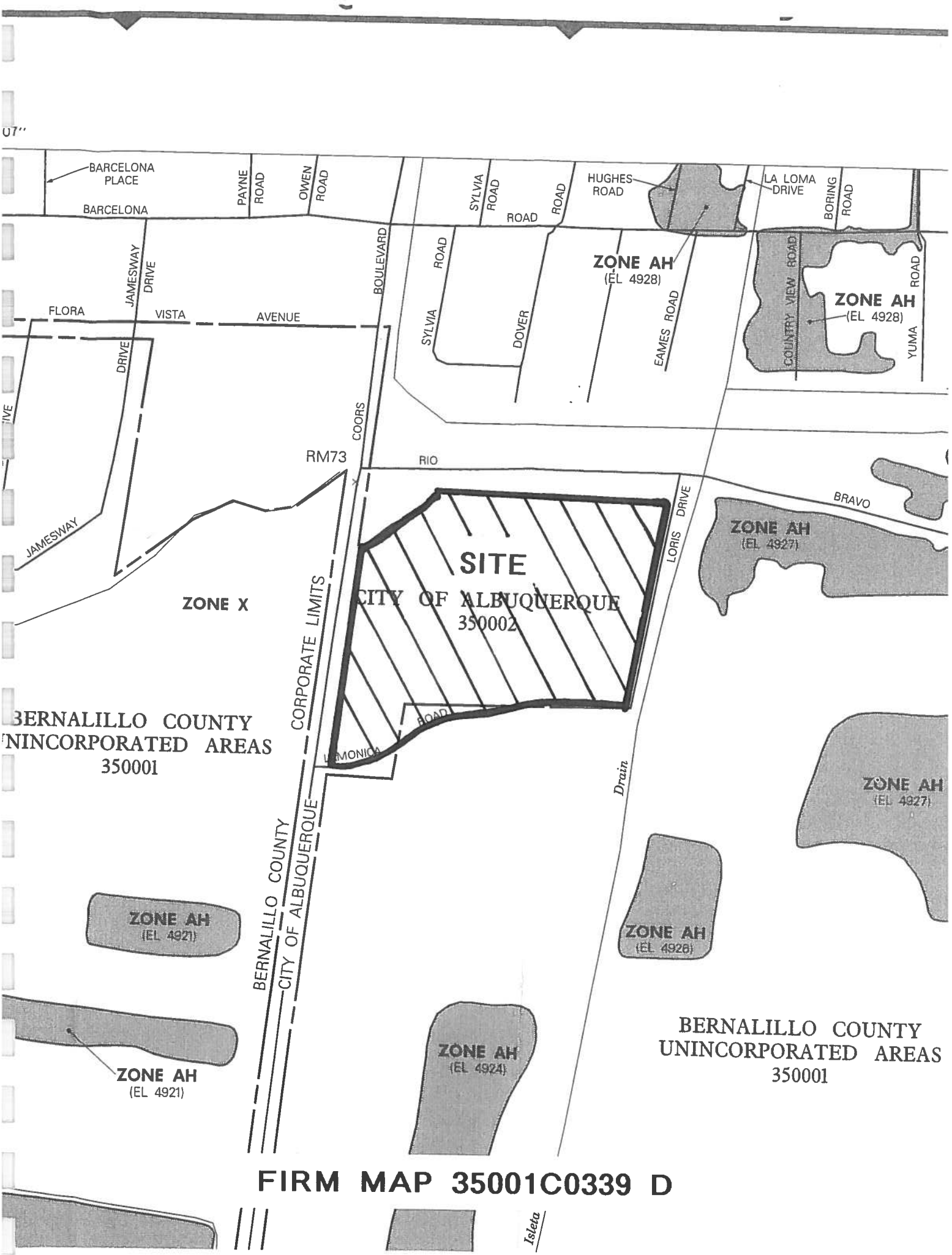
PLANNING DEPARTMENT

EXHIBIT A- VICINITY MAP

Zone Atlas Page

P-10-Z

Map Amended through July 18, 2001



FIRM MAP 35001C0339 D

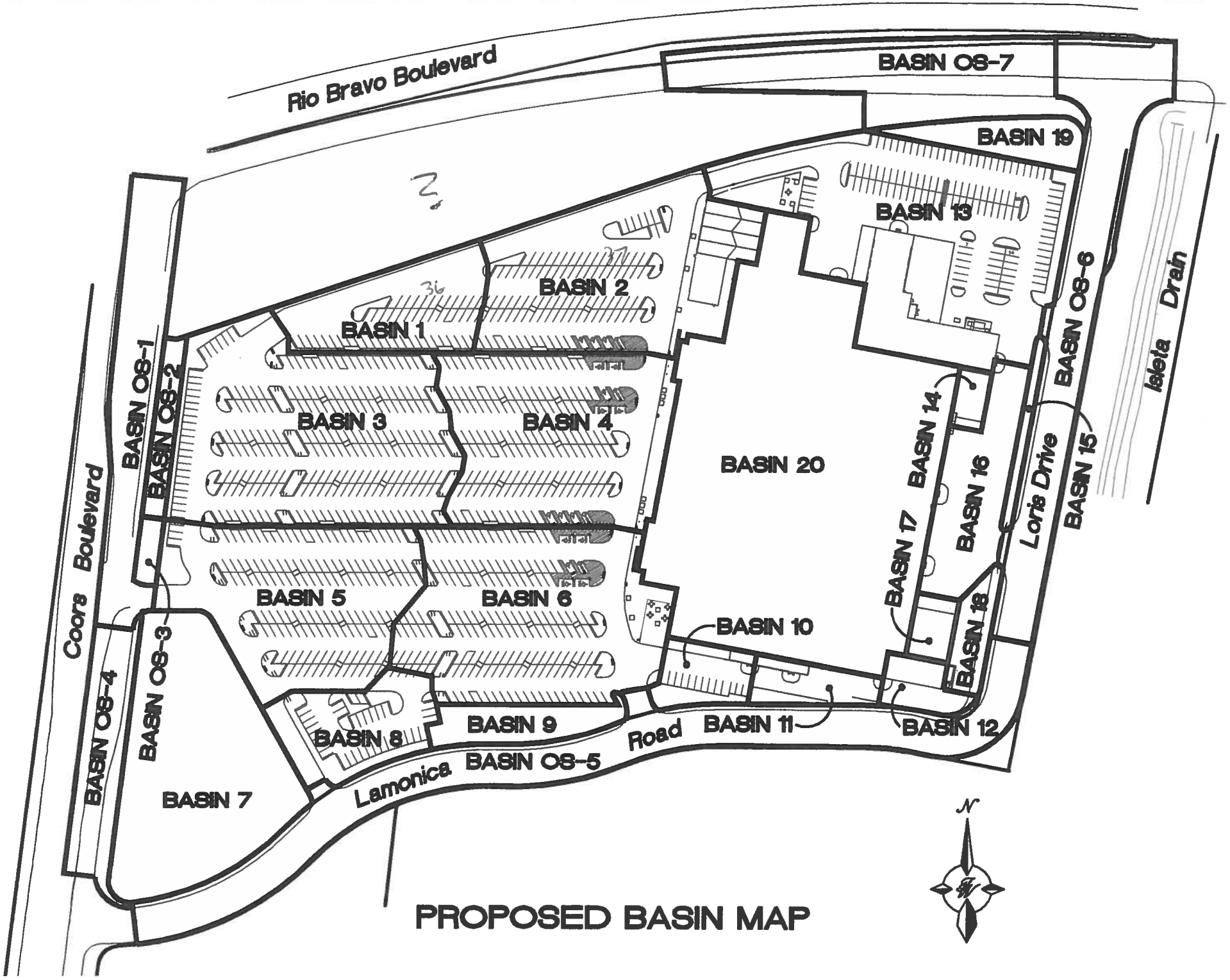
Proposed Drainage Management Plan

As shown on the attached exhibit, the proposed site is divided into 19 basins with the site draining to a number of retention ponds connected to a storm sewer system. The storm sewer system conveys the flows to the southeast corner of the site. At that point the water is discharged into the Isleta Drain via a water quality manhole with a discharge rate of 5.0 cfs.

As shown in Section II, the developed runoff flows for each basin was determined using the Weighted E Method. The site drainage will be controlled by creating 19 individual ponds located on the site. Each pond will drain to either an inlet or discharge pipe with an orifice plate located at each discharge point limiting the amount of flow from the ponds. The Grading and Drainage Plan includes a table of orifice plate sizes for each pond.

The on-site drainage system will accept public water from the adjoining streets and from the outlot located in the southwest corner of the site. The ponds are sized to contain these flows and discharge them at a limited rate.

The storm drain system was modeled using the routing command within AHYMO. The pond volumes and discharge rate calculations as well as the input and output AHYMO files are located in Section II. Based upon the model, the entire site will have a peak discharge of 4.95 cfs, which is below the 5.0 cfs restriction for the site. In the event of inlet clogging or a storm event greater than the predicted 100-year, 6-hour design storm, the site will continue to the pond the water overflowing to the adjacent ponding areas until such time the clog is cleared. At no time will the water pond to a point that it will enter the building.



PROPOSED BASIN MAP

Calculations

The weighted E method from the "City of Albuquerque Development Process Manual Volume 11 – Design Criteria, 1997 Revision" was used to calculate the runoff and volume for the site.

Summary

This site will discharge 4.95 cfs into the Isleta Drain via a water quality manhole as required by AMAFCA. This discharge rate is lower than the 5.0 cfs rate dictated by AMAFCA. The site accepts the offsite flow generated by the surrounding streets and allows the flows to pond onsite and be discharged at a limited rate.

The development of this site is consistent with the DPM, Chapter 22, Hydrology section. Since this site encompasses more than 1 acre, a NPDES permit will be required in addition to a Top Soil Disturbance Permit, prior to any construction activity.

Section II

Runoff Calculations

Weighted E Method

Developed Basins

Basin	Area (sf)	Area (acres)	Area (sq. mi.)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year			10-Year		
				%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
1	31,647	0.73	0.00114	0%	0	10%	0.07	0%	0.00	90%	0.65	1.840	0.111	3.00	1.138	0.069	1.94
2	76,028	1.75	0.00273	0%	0	6%	0.10	0%	0.00	94%	1.64	1.892	0.275	7.38	1.179	0.171	4.82
3	99,269	2.28	0.00356	0%	0	10%	0.23	0%	0.00	90%	2.05	1.840	0.349	9.43	1.138	0.216	6.10
4	74,550	1.71	0.00267	0%	0	2%	0.03	0%	0.00	98%	1.68	1.944	0.277	7.40	1.220	0.174	4.87
5	69,841	1.60	0.00251	0%	0	7%	0.11	0%	0.00	93%	1.49	1.879	0.251	6.74	1.169	0.156	4.39
6	84,285	1.93	0.00302	0%	0	4%	0.08	0%	0.00	96%	1.86	1.918	0.309	8.27	1.199	0.193	5.43
7	75,503	1.73	0.00271	0%	0	20%	0.35	0%	0.00	80%	1.39	1.710	0.247	6.76	1.036	0.150	4.27
8	26,205	0.60	0.00094	0%	0	25%	0.15	0%	0.00	75%	0.45	1.645	0.082	2.28	0.985	0.049	1.42
9	13,564	0.31	0.00049	0%	0	100%	0.31	0%	0.00	0%	0.00	0.670	0.017	0.63	0.220	0.006	0.24
10	11,176	0.26	0.00040	0%	0	22%	0.06	0%	0.00	78%	0.20	1.684	0.036	0.99	1.016	0.022	0.62
11	9,972	0.23	0.00036	0%	0	22%	0.05	0%	0.00	78%	0.18	1.684	0.032	0.88	1.016	0.019	0.55
12	7,479	0.17	0.00027	0%	0	5%	0.01	0%	0.00	95%	0.16	1.905	0.027	0.73	1.189	0.017	0.48
13	108,285	2.49	0.00388	0%	0	8%	0.20	0%	0.00	92%	2.29	1.866	0.387	10.40	1.158	0.240	6.76
14	3,785	0.09	0.00014	0%	0	0%	0.00	0%	0.00	100%	0.09	1.970	0.014	0.38	1.240	0.009	0.25
15	4,097	0.09	0.00015	0%	0	100%	0.09	0%	0.00	0%	0.00	0.670	0.005	0.19	0.220	0.002	0.07
16	27,524	0.63	0.00099	0%	0	0%	0.00	0%	0.00	100%	0.63	1.970	0.104	2.76	1.240	0.065	1.83
17	5,409	0.12	0.00019	0%	0	0%	0.00	0%	0.00	100%	0.12	1.970	0.020	0.54	1.240	0.013	0.36
18	8,467	0.19	0.00030	0%	0	32%	0.06	0%	0.00	68%	0.13	1.554	0.025	0.70	0.914	0.015	0.43
19	13,030	0.30	0.00047	0%	0	100%	0.30	0%	0.00	0%	0.00	0.670	0.017	0.61	0.220	0.005	0.23
20	189,985	4.36	0.00681	0%	0	0%	0.00	0%	0.00	100%	4.36	1.970	0.716	19.06	1.240	0.451	12.60
OS-1	37,304	0.86	0.00134	0%	0	0%	0.00	0%	0.00	100%	0.86	1.970	0.141	3.74	1.240	0.088	2.47
OS-2	7,896	0.18	0.00028	0%	0	90%	0.16	0%	0.00	10%	0.02	0.800	0.012	0.41	0.322	0.005	0.18
OS-3	2,990	0.07	0.00011	0%	0	90%	0.06	0%	0.00	10%	0.01	0.800	0.005	0.16	0.322	0.002	0.07
OS-4	23,374	0.54	0.00084	0%	0	16%	0.09	0%	0.00	84%	0.45	1.762	0.079	2.14	1.077	0.048	1.37
OS-5	84,933	1.95	0.00305	0%	0	0%	0.00	0%	0.00	100%	1.95	1.970	0.320	8.52	1.240	0.201	5.63
OS-6	63,832	1.47	0.00229	0%	0	0%	0.00	0%	0.00	100%	1.47	1.970	0.241	6.40	1.240	0.151	4.23
OS-7	49,830	1.14	0.00179	0%	0	22%	0.25	0%	0.00	78%	0.89	1.684	0.161	4.41	1.016	0.097	2.77
Totals	1,210,260	27.78											4.261	114.93		2.636	74.40

Equations:

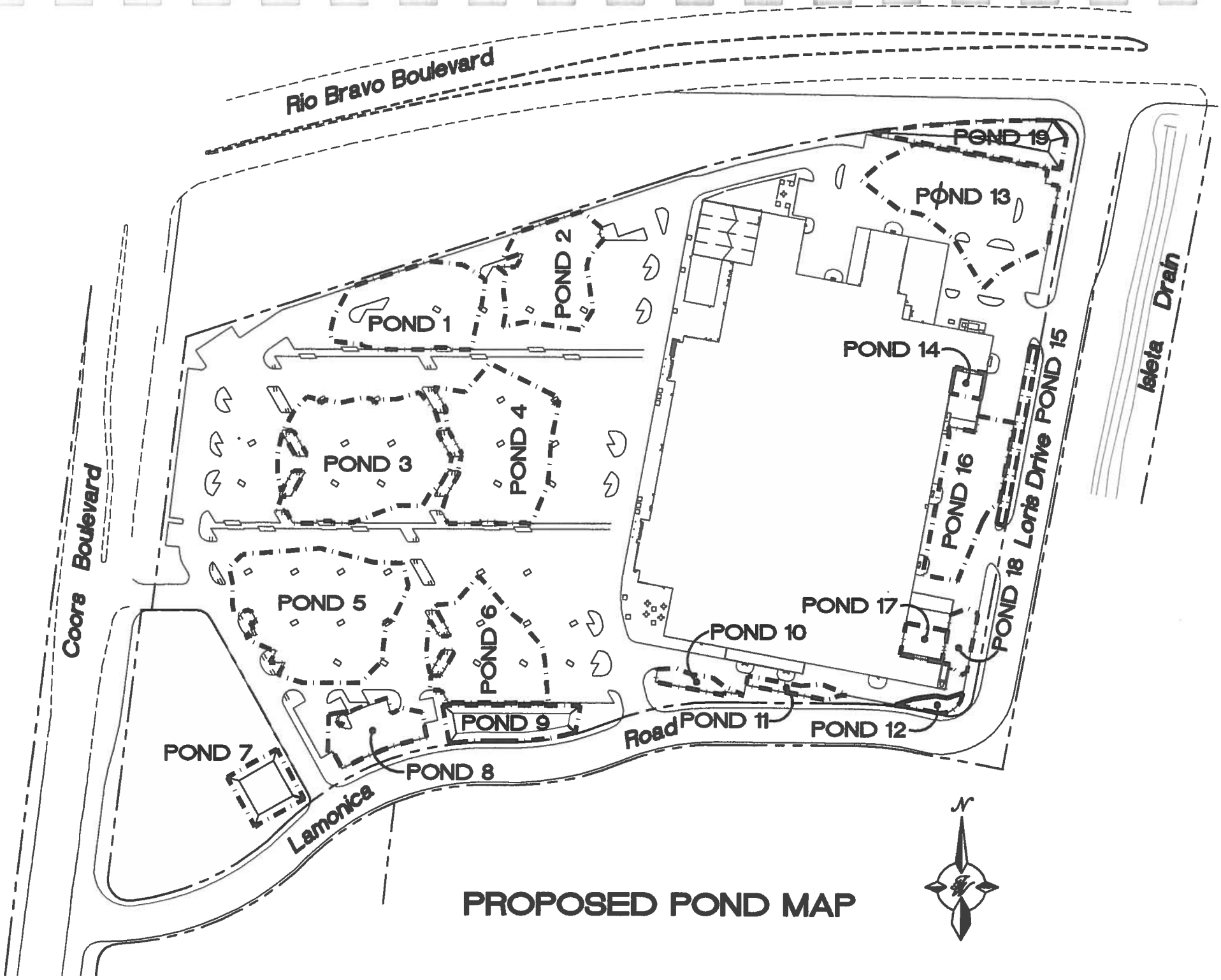
Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Excess Precipitation, E (inches)		
Zone 1	100-Year	10 - Year
E_a	0.44	0.08
E_b	0.67	0.22
E_c	0.99	0.44
E_d	1.97	1.24

Peak Discharge (cfs/acre)		
Zone 1	100-Year	10 - Year
Q_a	1.29	0.24
Q_b	2.03	0.76
Q_c	2.87	1.49
Q_d	4.37	2.89


Rio Bravo Boulevard
POND 19
POND 13
POND 2
POND 1
POND 14
Isleta Drain
Coors Boulevard
POND 3
POND 4
POND 16
POND 15
Lorie Drive
POND 18
POND 5
POND 6
POND 17
POND 10
POND 9
POND 11
POND 12
Road
POND 7
POND 8
Lamonica
N
PROPOSED POND MAP

VOLUME CALCULATIONS
POND 1

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	21,297.00
Dt =	1.00
C =	21290.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4925.79	0	0	0.0000
4927.96	2.17	0.0003	0.0024
4928.21	2.420	0.0157	0.0025
4928.46	2.670	0.0615	0.0027
4928.71	2.920	0.1379	0.0028
4928.96	3.170	0.2449	0.0029

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.25
Area (ft^2)=	0.000
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 2

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	17,427.00
Dt =	1.00
C =	17420.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4925.24	0	0	0.0000
4927.41	2.17	0.0003	0.5241
4927.66	2.420	0.0129	0.5556
4927.91	2.670	0.0504	0.5855
4928.16	2.920	0.1129	0.6140
4928.41	3.170	0.2005	0.6411

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	3.75
Area (ft^2)=	0.077
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 3

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	34,632.00
Dt =	1.00
C =	34625.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4925.04	0	0	0.0000
4927.21	2.17	0.0003	0.0024
4927.46	2.42	0.0252	0.0025
4927.71	2.67	0.0998	0.0027
4927.96	2.92	0.2240	0.0028
4928.21	3.17	0.3979	0.0029

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.25
Area (ft^2)=	0.000
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 4

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	28,040.00
Dt =	1.00
C =	28033.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4923.83	0	0	0.0000
4927.65	3.82	0.0006	0.0032
4927.90	4.070	0.0207	0.0033
4928.15	4.320	0.0811	0.0034
4928.40	4.570	0.1817	0.0035
4928.65	4.820	0.3225	0.0036

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.25
Area (ft^2)=	0.000
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 5

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	35,736.00
Dt =	1.00
C =	35729.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4924.20	0	0	0.0000
4926.37	2.17	0.0003	0.0216
4926.62	2.420	0.0260	0.0228
4926.87	2.670	0.1029	0.0240
4927.12	2.920	0.2311	0.0251
4927.37	3.170	0.4106	0.0262

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.75
Area (ft^2)=	0.003
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 6

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	20,894.00
Dt =	1.00
C =	20887.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4922.22	0	0	0.0000
4925.67	3.45	0.0005	0.5050
4925.92	3.700	0.0156	0.5237
4926.17	3.950	0.0606	0.5418
4926.42	4.200	0.1355	0.5592
4926.67	4.450	0.2404	0.5762

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	3.25
Area (ft^2)=	0.058
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 7

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	3,136.00
At =	6,400.00
Dt =	3.00
C =	1088.00

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4923.00	0	0	0.0000
4923.60	0.60	0.0432	0.1156
4924.20	1.20	0.0909	0.1718
4924.80	1.80	0.1476	0.2137
4925.40	2.40	0.2132	0.2487
4926.00	3.00	0.2879	0.2793

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	2.5
Area (ft^2)=	0.034
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 8

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	8,098.00
Dt =	1.00
C =	8091.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4922.28	0	0	0.0000
4925.67	3.39	0.0005	0.0030
4925.92	3.64	0.0064	0.0031
4926.17	3.89	0.0238	0.0032
4926.42	4.14	0.0529	0.0033
4926.67	4.39	0.0936	0.0034

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.25
Area (ft^2)=	0.000
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 9

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	4,001.00
At =	9,031.00
Dt =	3.41
C =	1475.07

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4921.52	0	0	0.0000
4921.93	0.41	0.0377	0.0041
4922.68	1.16	0.1161	0.0070
4923.43	1.91	0.2135	0.0090
4924.18	2.66	0.3300	0.0107
4924.93	3.41	0.4656	0.0121

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.5
Area (ft^2)=	0.001
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 10

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	2,082.00
Dt =	0.67
C =	3097.31

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4925.14	0	0	0.0000
4929.14	4.00	0.0006	0.2628
4929.31	4.17	0.0016	0.2683
4929.48	4.34	0.0047	0.2738
4929.64	4.50	0.0097	0.2792
4929.81	4.67	0.0167	0.2844

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	2.25
Area (ft^2)=	0.028
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 11

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	1,924.00
Dt =	0.62
C =	3092.26

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4925.62	0	0	0.0000
4929.62	4.00	0.0006	0.2079
4929.78	4.16	0.0015	0.2120
4929.93	4.31	0.0041	0.2160
4930.09	4.47	0.0084	0.2199
4930.24	4.62	0.0144	0.2237

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	2
Area (ft^2)=	0.022
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 12

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab	=	6.80
At	=	1,444.00
Dt	=	0.67
C	=	2145.07

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4926.00	0	0	0.0000
4930.00	4.00	0.0006	0.2079
4930.17	4.17	0.0013	0.2123
4930.34	4.34	0.0034	0.2166
4930.50	4.50	0.0069	0.2208
4930.67	4.67	0.0118	0.2250

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6	
Diameter (in)	2	
Area (ft^2)=	0.022	
g =	32.2	
H (Ft) =		Depth of water above center of orifice
Q (CFS)=		Flow

VOLUME CALCULATIONS
POND 13

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = Ab * D + 0.5 * C * D^2
C = (At - Ab) / Dt

Ab	=	6.80
At	=	30,131.00
Dt	=	1.00
C	=	30124.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4924.75	0	0	0.0000
4928.75	4.00	0.0006	0.2079
4929.00	4.25	0.0223	0.2144
4929.25	4.50	0.0871	0.2208
4929.50	4.75	0.1952	0.2269
4929.75	5.00	0.3466	0.2329

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6	
Diameter (in)	2	
Area (ft^2)=	0.022	
g =	32.2	
H (Ft) =		Depth of water above center of orifice
Q (CFS)=		Flow

VOLUME CALCULATIONS
POND 14

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	0.00
At =	1,617.00
Dt =	1.00
C =	1617.00

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4926.85	0	0	0.0000
4927.05	0.20	0.0000	0.0028
4927.25	0.40	0.0007	0.0040
4927.45	0.60	0.0030	0.0050
4927.65	0.80	0.0067	0.0058
4927.85	1.00	0.0119	0.0065

<u>Orifice Equation</u>
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.5
Area (ft^2)=	0.001
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 15

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = Ab * D + 0.5 * C * D^2
C = (At - Ab) / Dt

Ab =	2,625.00
At =	2,625.00
Dt =	3.00
C =	0.00

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4926.75	0	0	0.0000
4927.35	0.60	0.0362	0.2766
4927.95	1.20	0.0723	0.4271
4928.55	1.80	0.1085	0.5370
4929.15	2.40	0.1446	0.6279
4929.75	3.00	0.1808	0.7073

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	4
Area (ft^2)=	0.087
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 16

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	16,730.00
Dt =	1.00
C =	16723.20

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4925.51	0	0	0.0000
4929.51	4.00	0.0006	0.0033
4929.76	4.25	0.0127	0.0034
4930.01	4.50	0.0487	0.0035
4930.26	4.75	0.1087	0.0036
4930.51	5.00	0.1927	0.0037

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.25
Area (ft^2)=	0.000
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 17

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	0.00
At =	2,702.00
Dt =	1.25
C =	2161.60

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4926.85	0	0	0.0000
4927.10	0.25	0.0000	0.0120
4927.35	0.50	0.0016	0.0178
4927.60	0.75	0.0062	0.0221
4927.85	1.00	0.0140	0.0257
4928.10	1.25	0.0248	0.0289

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	1
Area (ft^2)=	0.005
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 18

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	6.80
At =	3,053.00
Dt =	0.84
C =	3626.43

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4925.30	0	0	0.00000
4929.30	4.00	0.0006	0.00328
4929.51	4.21	0.0025	0.00336
4929.72	4.42	0.0080	0.00345
4929.93	4.63	0.0172	0.00353
4930.14	4.84	0.0301	0.00361

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	0.25
Area (ft^2)=	0.000
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

VOLUME CALCULATIONS
POND 19

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$
C = (At - Ab) / Dt

Ab =	1,399.00
At =	10,577.00
Dt =	7.00
C =	1311.14

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
4923.00	0	0	0.0000
4924.40	1.40	0.0450	0.7167
4925.80	2.80	0.1194	1.0569
4927.20	4.20	0.2529	1.3117
4928.60	5.60	0.4453	1.5245
4930.00	7.00	0.6968	1.7110

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	5
Area (ft^2)=	0.136
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

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
										PAGE = 1
START										
RAINFALL TYPE= 1										TIME= .00
										RAIN6= 2.200
*S BASIN 1										
COMPUTE NM HYD	101.00	-	1	.00114	3.03	.112	1.83567	1.500	4.156	PER IMP= 90.00
*S BASIN 2										
COMPUTE NM HYD	102.00	-	2	.00273	7.40	.275	1.88760	1.500	4.237	PER IMP= 94.00
*S BASIN 3										
COMPUTE NM HYD	103.00	-	3	.00356	9.43	.349	1.83567	1.500	4.140	PER IMP= 90.00
*S BASIN 4										
COMPUTE NM HYD	104.00	-	4	.00267	7.40	.276	1.93952	1.500	4.332	PER IMP= 98.00
*S BASIN 5										
COMPUTE NM HYD	105.00	-	5	.00251	6.77	.251	1.87462	1.500	4.215	PER IMP= 93.00
*S BASIN 6										
COMPUTE NM HYD	106.00	-	6	.00302	8.28	.308	1.91356	1.500	4.283	PER IMP= 96.00
*S BASIN 7										
COMPUTE NM HYD	107.00	-	7	.00271	6.78	.247	1.70586	1.500	3.908	PER IMP= 80.00
*S BASIN 8										
COMPUTE NM HYD	108.00	-	8	.00094	2.29	.082	1.64096	1.500	3.806	PER IMP= 75.00
*S BASIN 9										
COMPUTE NM HYD	109.00	-	9	.00049	.64	.017	.66738	1.533	2.049	PER IMP= .00
*S BASIN 10										
COMPUTE NM HYD	110.00	-	10	.00040	1.00	.036	1.67990	1.500	3.916	PER IMP= 78.00
*S BASIN 11										
COMPUTE NM HYD	111.00	-	11	.00036	.90	.032	1.67990	1.500	3.919	PER IMP= 78.00
*S BASIN 12										
COMPUTE NM HYD	112.00	-	12	.00027	.75	.027	1.90058	1.500	4.314	PER IMP= 95.00
*S BASIN 13										
COMPUTE NM HYD	113.00	-	13	.00388	10.40	.385	1.86163	1.500	4.187	PER IMP= 92.00
*S BASIN 14										
COMPUTE NM HYD	114.00	-	14	.00010	.29	.010	1.96548	1.500	4.496	PER IMP= 100.00
*S BASIN 15										
COMPUTE NM HYD	115.00	-	15	.00015	.20	.005	.66738	1.533	2.102	PER IMP= .00
*S BASIN 16										
COMPUTE NM HYD	116.00	-	16	.00099	2.78	.104	1.96548	1.500	4.381	PER IMP= 100.00
*S BASIN 17										
COMPUTE NM HYD	117.00	-	17	.00019	.54	.020	1.96548	1.500	4.437	PER IMP= 100.00
*S BASIN 18										
COMPUTE NM HYD	118.00	-	18	.00030	.71	.025	1.55009	1.500	3.697	PER IMP= 68.00
*S BASIN 19										
COMPUTE NM HYD	119.00	-	19	.00047	.62	.017	.66738	1.533	2.051	PER IMP= .00
*S BASIN 20										
COMPUTE NM HYD	120.00	-	20	.00681	19.05	.714	1.96548	1.500	4.371	PER IMP= 100.00
*S BASIN OS-1										
COMPUTE NM HYD	121.00	-	21	.00134	3.75	.140	1.96548	1.500	4.378	PER IMP= 100.00
*S BASIN OS-2										
COMPUTE NM HYD	122.00	-	22	.00028	.42	.012	.79719	1.500	2.340	PER IMP= 10.00
*S BASIN OS-3										
COMPUTE NM HYD	123.00	-	23	.00011	.17	.005	.79719	1.500	2.412	PER IMP= 10.00
*S BASIN OS-4										

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	124.00	-	24	.00084	2.16	.079	1.75779	1.500	4.021	PER IMP=	84.00
*S BASIN OS-5											
COMPUTE NM HYD	125.00	-	25	.00305	8.54	.320	1.96548	1.500	4.373	PER IMP=	100.00
*S BASIN OS-6											
COMPUTE NM HYD	126.00	-	26	.00229	6.41	.240	1.96548	1.500	4.375	PER IMP=	100.00
*S BASIN OS-7											
COMPUTE NM HYD	127.00	-	27	.00179	4.43	.160	1.67990	1.500	3.865	PER IMP=	78.00
*S ADD BASINS 3 AND OS-2											
ADD HYD	151.00	3&22	28	.00384	9.85	.360	1.75916	1.500	4.009		
*S ADD BASINS 5, OS-1 AND OS-3											
ADD HYD	152.00	5&23	29	.00262	6.94	.256	1.82873	1.500	4.139		
ADD HYD	153.00	29&21	30	.00396	10.69	.396	1.87493	1.500	4.220		
*S ADD BASINS 7, AND OS-4											
ADD HYD	154.00	7&24	31	.00355	8.94	.325	1.71799	1.500	3.934		
*S ADD BASINS 9, AND OS-5											
ADD HYD	155.00	9&25	32	.00354	9.18	.337	1.78569	1.500	4.050		
*S ADD BASINS 15 AND OS-6											
ADD HYD	156.00	15&26	33	.00244	6.61	.245	1.88553	1.500	4.234		
*S ADD BASINS 19, 20 AND OS-7											
ADD HYD	157.00	19&20	34	.00728	19.66	.731	1.88163	1.500	4.221		
ADD HYD	158.00	34&27	35	.00907	24.09	.891	1.84179	1.500	4.150		
*S POND 1											
ROUTE RESERVOIR	201.00	1	36	.00114	.00	.004	.07031	6.299	.004	AC-FT=	.110
*S POND 2											
ROUTE RESERVOIR	202.00	2	37	.00273	.64	.275	1.88900	2.200	.367	AC-FT=	.198
*S POND 3											
ROUTE RESERVOIR	203.00	28	38	.00384	.00	.004	.02175	6.533	.001	AC-FT=	.359
*S POND 4											
ROUTE RESERVOIR	204.00	4	39	.00267	.00	.006	.03877	6.433	.002	AC-FT=	.275
*S POND 5											
ROUTE RESERVOIR	205.00	30	40	.00396	.03	.040	.19043	6.166	.010	AC-FT=	.385
*S POND 6											
ROUTE RESERVOIR	206.00	6	41	.00302	.57	.308	1.91409	2.266	.297	AC-FT=	.232
*S POND 7											
ROUTE RESERVOIR	207.00	31	42	.00355	.28	.299	1.58074	2.500	.122	AC-FT=	.282
*S POND 8											
ROUTE RESERVOIR	208.00	8	43	.00094	.00	.005	.10381	6.233	.006	AC-FT=	.081
*S POND 9											
ROUTE RESERVOIR	209.00	32	44	.00354	.01	.016	.08601	6.266	.005	AC-FT=	.333
*S POND 10											
ROUTE RESERVOIR	210.00	10	45	.00040	.28	.036	1.67920	1.900	1.104	AC-FT=	.014
*S POND 11											
ROUTE RESERVOIR	211.00	11	46	.00036	.22	.032	1.67920	1.966	.971	AC-FT=	.014
*S POND 12											
ROUTE RESERVOIR	212.00	12	47	.00027	.22	.027	1.89975	1.900	1.294	AC-FT=	.010
*S POND 13											
ROUTE RESERVOIR	213.00	13	48	.00388	.23	.351	1.69480	2.633	.094	AC-FT=	.336
*S POND 14											
ROUTE RESERVOIR	214.00	14	49	.00010	.01	.009	1.60356	2.500	.096	AC-FT=	.009
*S POND 15											
ROUTE RESERVOIR	215.00	33	50	.00244	.71	.245	1.88549	2.166	.453	AC-FT=	.181
*S POND 16											

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	
ROUTE RESERVOIR *S POND 17	216.00	16	51	.00099	.00	.006	.10513	6.266	.006	AC-FT=	.102
ROUTE RESERVOIR *S POND 18	217.00	17	52	.00019	.03	.020	1.96553	2.300	.218	AC-FT=	.016
ROUTE RESERVOIR *S POND 19	218.00	18	53	.00030	.00	.005	.34349	3.733	.019	AC-FT=	.023
ROUTE RESERVOIR	219.00	35	54	.00907	1.71	.891	1.84178	2.233	.294	AC-FT=	.694
ADD HYD	301.00	36&37	55	.00387	.64	.279	1.35327	2.200	.260		
ADD HYD	302.00	55&38	56	.00771	.65	.284	.69010	2.200	.131		
ADD HYD	303.00	56&39	57	.01038	.65	.289	.52256	2.200	.098		
ADD HYD	304.00	57&40	58	.01434	.68	.330	.43084	2.200	.074		
ADD HYD	305.00	58&41	59	.01736	1.25	.638	.68887	2.233	.113		
ADD HYD	306.00	42&43	60	.00449	.28	.304	1.27154	2.500	.098		
ADD HYD	307.00	60&44	61	.00803	.29	.321	.74890	2.500	.057		
ADD HYD	308.00	59&61	62	.02539	1.54	.959	.70786	2.300	.095		
ADD HYD	309.00	62&45	63	.02579	1.82	.994	.72292	2.233	.110		
ADD HYD	310.00	63&46	64	.02615	2.04	1.027	.73608	2.200	.122		
ADD HYD	311.00	64&47	65	.02642	2.26	1.054	.74797	2.166	.134		
ADD HYD	312.00	54&48	66	.01295	1.94	1.242	1.79766	2.233	.234		
ADD HYD	313.00	66&49	67	.01305	1.95	1.250	1.79617	2.233	.233		
ADD HYD	314.00	67&50	68	.01549	2.65	1.495	1.81009	2.200	.268		
ADD HYD	315.00	68&51	69	.01648	2.66	1.501	1.70766	2.200	.252		
ADD HYD	316.00	69&52	70	.01667	2.68	1.521	1.71060	2.200	.252		
ADD HYD	317.00	70&53	71	.01697	2.69	1.526	1.68644	2.200	.247		
ADD HYD	317.00	71&65	72	.04339	4.95	2.580	1.11501	2.200	.178		
FINISH											

```
**********************************************************************
*                                                                    *
*              WAL-MART SOUTH #5430-00 DRAINAGE ANALYSIS             *
*               COORS BLVD. AND RIO BRAVO BLVD. (220094)             *
*              PROPOSED CONDITIONS (100-YEAR, 6-HR STORM)            *
*                                                                    *
**********************************************************************
*
START                TIME=0.0 HR
RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                     RAIN DAY=2.66 IN DT=0.03333 HR
*
*S BASIN 1
*
COMPUTE NM HYD       ID=1 HYD NO=101 AREA=0.00114 SQ MI
                     PER A=0 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=1 CODE=1

*
*S BASIN 2
*
COMPUTE NM HYD       ID=2 HYD NO=102 AREA=0.00273 SQ MI
                     PER A=0 PER B=6.00 PER C=0.00 PER D=94.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=2 CODE=1

*
*S BASIN 3
*
COMPUTE NM HYD       ID=3 HYD NO=103 AREA=0.00356 SQ MI
                     PER A=0 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=3 CODE=1

*
*S BASIN 4
*
COMPUTE NM HYD       ID=4 HYD NO=104 AREA=0.00267 SQ MI
                     PER A=0 PER B=2.00 PER C=0.00 PER D=98.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=4 CODE=1

*
*S BASIN 5
*
COMPUTE NM HYD       ID=5 HYD NO=105 AREA=0.00251 SQ MI
                     PER A=0 PER B=7.00 PER C=0.00 PER D=93.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=5 CODE=1

*
*S BASIN 6
*
COMPUTE NM HYD       ID=6 HYD NO=106 AREA=0.00302 SQ MI
                     PER A=0 PER B=4.00 PER C=0.00 PER D=96.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=6 CODE=1

*
*S BASIN 7
*
```

```
COMPUTE NM HYD      ID=7 HYD NO=107 AREA=0.00271 SQ MI
                    PER A=0 PER B=20.00 PER C=0.00 PER D=80.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=7 CODE=1

*
*S BASIN 8
*
COMPUTE NM HYD      ID=8 HYD NO=108 AREA=0.00094 SQ MI
                    PER A=0 PER B=25.00 PER C=0.00 PER D=75.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=8 CODE=1

*
*S BASIN 9
*
COMPUTE NM HYD      ID=9 HYD NO=109 AREA=0.00049 SQ MI
                    PER A=0 PER B=100.00 PER C=0.00 PER D=0.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=9 CODE=1

*
*S BASIN 10
*
COMPUTE NM HYD      ID=10 HYD NO=110 AREA=0.00040 SQ MI
                    PER A=0 PER B=22.00 PER C=0.00 PER D=78.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=10 CODE=1

*
*S BASIN 11
*
COMPUTE NM HYD      ID=11 HYD NO=111 AREA=0.00036 SQ MI
                    PER A=0 PER B=22.00 PER C=0.00 PER D=78.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=11 CODE=1

*
*S BASIN 12
*
COMPUTE NM HYD      ID=12 HYD NO=112 AREA=0.00027 SQ MI
                    PER A=0 PER B=5.00 PER C=0.00 PER D=95.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=12 CODE=1

*
*S BASIN 13
*
COMPUTE NM HYD      ID=13 HYD NO=113 AREA=0.00388 SQ MI
                    PER A=0 PER B=8.00 PER C=0.00 PER D=92.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=13 CODE=1

*
*S BASIN 14
*
COMPUTE NM HYD      ID=14 HYD NO=114 AREA=0.00010 SQ MI
                    PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=14 CODE=1

*
*S BASIN 15
```

```
*
COMPUTE NM HYD      ID=15 HYD NO=115 AREA=0.00015 SQ MI
                    PER A=0 PER B=100.00 PER C=0.00 PER D=0.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=15 CODE=1

*
*S BASIN 16
*
COMPUTE NM HYD      ID=16 HYD NO=116 AREA=0.00099 SQ MI
                    PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=16 CODE=1

*
*S BASIN 17
*
COMPUTE NM HYD      ID=17 HYD NO=117 AREA=0.00019 SQ MI
                    PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=17 CODE=1

*
*S BASIN 18
*
COMPUTE NM HYD      ID=18 HYD NO=118 AREA=0.00030 SQ MI
                    PER A=0 PER B=32.00 PER C=0.00 PER D=68.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=18 CODE=1

*
*S BASIN 19
*
COMPUTE NM HYD      ID=19 HYD NO=119 AREA=0.00047 SQ MI
                    PER A=0 PER B=100.00 PER C=0.00 PER D=0.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=19 CODE=1

*
*S BASIN 20
*
COMPUTE NM HYD      ID=20 HYD NO=120 AREA=0.00681 SQ MI
                    PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=20 CODE=1

*
*S BASIN OS-1
*
COMPUTE NM HYD      ID=21 HYD NO=121 AREA=0.00134 SQ MI
                    PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=21 CODE=1

*
*S BASIN OS-2
*
COMPUTE NM HYD      ID=22 HYD NO=122 AREA=0.00028 SQ MI
                    PER A=0 PER B=90.00 PER C=0.00 PER D=10.00
                    TP=0 HR MASS RAINFALL=-1
PRINT HYD           ID=22 CODE=1

*
```

```
*S BASIN OS-3
*
COMPUTE NM HYD       ID=23 HYD NO=123 AREA=0.00011 SQ MI
                     PER A=0 PER B=90.00 PER C=0.00 PER D=10.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=23 CODE=1

*
*S BASIN OS-4
*
COMPUTE NM HYD       ID=24 HYD NO=124 AREA=0.00084 SQ MI
                     PER A=0 PER B=16.00 PER C=0.00 PER D=84.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=24 CODE=1

*
*S BASIN OS-5
*
COMPUTE NM HYD       ID=25 HYD NO=125 AREA=0.00305 SQ MI
                     PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=25 CODE=1

*
*S BASIN OS-6
*
COMPUTE NM HYD       ID=26 HYD NO=126 AREA=0.00229 SQ MI
                     PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=26 CODE=1

*S BASIN OS-7
*
COMPUTE NM HYD       ID=27 HYD NO=127 AREA=0.00179 SQ MI
                     PER A=0 PER B=22.00 PER C=0.00 PER D=78.00
                     TP=0 HR MASS RAINFALL=-1
PRINT HYD            ID=27 CODE=1

*
*S ADD BASINS 3 AND OS-2
*
ADD HYD              ID=28 HYD NO=151.00 ID=3  ID=22
PRINT HYD            ID=28 CODE=1

*
*S ADD BASINS 5, OS-1 AND OS-3
*
ADD HYD              ID=29 HYD NO=152.00 ID=5 ID=23
ADD HYD              ID=30 HYD NO=153.00 ID=29 ID=21
PRINT HYD            ID=30 CODE=1

*
*S ADD BASINS 7, AND OS-4
*
ADD HYD              ID=31 HYD NO=154.00 ID=7 ID=24
PRINT HYD            ID=31 CODE=1

*
*S ADD BASINS 9, AND OS-5
*
ADD HYD              ID=32 HYD NO=155.00 ID=9 ID=25
PRINT HYD            ID=32 CODE=1
```

```
*
*S ADD BASINS 15 AND OS-6
*
ADD HYD            ID=33 HYD NO=156.00 ID=15 ID=26
PRINT HYD          ID=33 CODE=1

*
*S ADD BASINS 19, 20 AND OS-7
*
ADD HYD            ID=34 HYD NO=157.00 ID=19 ID=20
ADD HYD            ID=35 HYD NO=158.00 ID=34 ID=27
PRINT HYD          ID=35 CODE=1

*
*S POND 1
*
ROUTE RESERVOIR    ID=36 HYD NO=201.00 INFLOW ID=1 CODE=24
                   OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                       0.0000            0.0000          4925.79
                       0.0024            0.0003          4927.96
                       0.0025            0.0157          4928.21
                       0.0027            0.0615          4928.46
                       0.0028            0.1379          4928.71
                       0.0029            0.2449          4928.96

PRINT HYD          ID=36 CODE=1
*

*S POND 2
*
ROUTE RESERVOIR    ID=37 HYD NO=202.00 INFLOW ID=2 CODE=25
                   OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                       0.0000            0.0000          4925.24
                       0.5242            0.0003          4927.41
                       0.5556            0.0129          4927.66
                       0.5855            0.0504          4927.91
                       0.6140            0.1129          4928.16
                       0.6411            0.2005          4928.41

PRINT HYD          ID=37 CODE=1
*

*S POND 3
*
ROUTE RESERVOIR    ID=38 HYD NO=203.00 INFLOW ID=28 CODE=24
                   OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                       0.0000            0.0000          4925.04
                       0.0024            0.0003          4927.21
                       0.0025            0.0252          4927.46
                       0.0027            0.0998          4927.71
                       0.0028            0.2240          4927.96
                       0.0029            0.3979          4928.21

PRINT HYD          ID=38 CODE=1
*

*S POND 4
*
ROUTE RESERVOIR    ID=39 HYD NO=204.00 INFLOW ID=4 CODE=24
                   OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                       0.0000            0.0000          4923.83
                       0.0032            0.0006          4927.65
                       0.0033            0.0207          4927.90
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```
                    0.0034          0.0811          4928.15
                    0.0035          0.1817          4928.40
                    0.0036          0.3225          4928.65

PRINT HYD           ID=39 CODE=1
*

*S POND 5
*
ROUTE RESERVOIR     ID=40 HYD NO=205.00 INFLOW ID=30 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.0000          0.0000          4924.20
                        0.0216          0.0003          4926.37
                        0.0228          0.0260          4926.62
                        0.0240          0.1029          4926.87
                        0.0251          0.2311          4927.12
                        0.0262          0.4106          4927.37
PRINT HYD           ID=40 CODE=1
*

*S POND 6
*
ROUTE RESERVOIR     ID=41 HYD NO=206.00 INFLOW ID=6 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.0000          0.0000          4922.22
                        0.5050          0.0005          4925.67
                        0.5237          0.0156          4925.92
                        0.5418          0.0606          4926.17
                        0.5592          0.1355          4926.42
                        0.5762          0.2404          4926.67

PRINT HYD           ID=41 CODE=1
*

*S POND 7
*
ROUTE RESERVOIR     ID=42 HYD NO=207.00 INFLOW ID=31 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.0000          0.0000          4923.00
                        0.1156          0.0432          4923.60
                        0.1718          0.0909          4924.20
                        0.2137          0.1476          4924.80
                        0.2487          0.2132          4925.40
                        0.2793          0.2879          4926.00

PRINT HYD           ID=42 CODE=1
*

*S POND 8
*
ROUTE RESERVOIR     ID=43 HYD NO=208.00 INFLOW ID=8 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.0000          0.0000          4922.28
                        0.0030          0.0005          4925.67
                        0.0031          0.0064          4925.92
                        0.0032          0.0238          4926.17
                        0.0033          0.0529          4926.42
                        0.0034          0.0936          4926.67

PRINT HYD           ID=43 CODE=1
*

*S POND 9
```

```
*
ROUTE RESERVOIR      ID=44 HYD NO=209.00 INFLOW ID=32 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                         0.0000            0.0000         4921.52
                         0.0041            0.0377         4921.93
                         0.0070            0.1161         4922.68
                         0.0090            0.2135         4923.43
                         0.0107            0.3300         4924.18
                         0.0121            0.4656         4924.93

PRINT HYD            ID=44 CODE=1
*

*S POND 10
*
ROUTE RESERVOIR      ID=45 HYD NO=210.00 INFLOW ID=10 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                         0.0000            0.0000         4925.14
                         0.2628            0.0006         4929.14
                         0.2683            0.0016         4929.31
                         0.2738            0.0047         4929.48
                         0.2792            0.0097         4929.64
                         0.2844            0.0167         4929.81

PRINT HYD            ID=45 CODE=1
*

*S POND 11
*
ROUTE RESERVOIR      ID=46 HYD NO=211.00 INFLOW ID=11 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                         0.0000            0.0000         4925.62
                         0.2079            0.0006         4929.62
                         0.2120            0.0015         4929.78
                         0.2160            0.0041         4929.93
                         0.2199            0.0084         4930.09
                         0.2237            0.0144         4930.24

PRINT HYD            ID=46 CODE=1
*

*S POND 12
*
ROUTE RESERVOIR      ID=47 HYD NO=212.00 INFLOW ID=12 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                         0.0000            0.0000         4926.00
                         0.2079            0.0006         4930.00
                         0.2123            0.0013         4930.17
                         0.2166            0.0034         4930.34
                         0.2208            0.0069         4930.50
                         0.2250            0.0118         4930.67

PRINT HYD            ID=47 CODE=1
*

*S POND 13
*
ROUTE RESERVOIR      ID=48 HYD NO=213.00 INFLOW ID=13 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                         0.0000            0.0000         4924.75
                         0.2079            0.0006         4928.75
                         0.2144            0.0223         4929.00
                         0.2208            0.0871         4929.25
```

```
                0.2269          0.1952          4929.50
                0.2329          0.3466          4929.75

PRINT HYD       ID=48 CODE=1
*

*S POND 14
*
ROUTE RESERVOIR ID=49 HYD NO=214.00 INFLOW ID=14 CODE=24
                OUTFLOW(CFS)    STORAGE(AC-FT)  ELEVATION(FT)
                    0.0000          0.0000          4926.85
                    0.0028          0.0000          4927.05
                    0.0040          0.0007          4927.25
                    0.0050          0.0030          4927.45
                    0.0058          0.0067          4927.65
                    0.0065          0.0119          4927.85

PRINT HYD       ID=49 CODE=1
*

*S POND 15
*
ROUTE RESERVOIR ID=50 HYD NO=215.00 INFLOW ID=33 CODE=24
                OUTFLOW(CFS)    STORAGE(AC-FT)  ELEVATION(FT)
                    0.0000          0.0000          4926.75
                    0.2766          0.0362          4927.35
                    0.4271          0.0723          4927.95
                    0.5370          0.1085          4928.55
                    0.6279          0.1446          4929.15
                    0.7073          0.1808          4929.75

PRINT HYD       ID=50 CODE=1
*
*S POND 16
*
ROUTE RESERVOIR ID=51 HYD NO=216.00 INFLOW ID=16 CODE=24
                OUTFLOW(CFS)    STORAGE(AC-FT)  ELEVATION(FT)
                    0.0000          0.0000          4925.51
                    0.0033          0.0006          4929.51
                    0.0034          0.0127          4929.76
                    0.0035          0.0487          4930.01
                    0.0036          0.1087          4930.26
                    0.0037          0.1927          4930.51

PRINT HYD       ID=51 CODE=1
*
*S POND 17
*
ROUTE RESERVOIR ID=52 HYD NO=217.00 INFLOW ID=17 CODE=24
                OUTFLOW(CFS)    STORAGE(AC-FT)  ELEVATION(FT)
                    0.0000          0.0000          4926.85
                    0.0120          0.0000          4927.10
                    0.0178          0.0016          4927.35
                    0.0221          0.0062          4927.60
                    0.0259          0.0140          4927.85
                    0.0289          0.0248          4928.10

PRINT HYD       ID=52 CODE=1
*
*S POND 18
*
ROUTE RESERVOIR ID=53 HYD NO=218.00 INFLOW ID=18 CODE=24
                OUTFLOW(CFS)    STORAGE(AC-FT)  ELEVATION(FT)
```

```
                    0.00000          0.0000          4925.30
                    0.00328          0.0006          4929.30
                    0.00336          0.0025          4929.51
                    0.00345          0.0080          4929.72
                    0.00353          0.0172          4929.93
                    0.00361          0.0301          4930.14

PRINT HYD           ID=53 CODE=1
*
*S POND 19
*
ROUTE RESERVOIR     ID=54 HYD NO=219.00 INFLOW ID=35 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.0000          0.0000          4923.00
                        0.7167          0.0450          4924.40
                        1.0569          0.1194          4925.80
                        1.3117          0.2529          4927.20
                        1.5245          0.4453          4928.60
                        1.7110          0.6968          4930.00

PRINT HYD           ID=54 CODE=1
*
*ADD PONDS 1 THRU 19
*
ADD HYD             ID=55 HYD NO=301.00 ID=36 ID=37
ADD HYD             ID=56 HYD NO=302.00 ID=55 ID=38
ADD HYD             ID=57 HYD NO=303.00 ID=56 ID=39
ADD HYD             ID=58 HYD NO=304.00 ID=57 ID=40
ADD HYD             ID=59 HYD NO=305.00 ID=58 ID=41
ADD HYD             ID=60 HYD NO=306.00 ID=42 ID=43
ADD HYD             ID=61 HYD NO=307.00 ID=60 ID=44
ADD HYD             ID=62 HYD NO=308.00 ID=59 ID=61
ADD HYD             ID=63 HYD NO=309.00 ID=62 ID=45
ADD HYD             ID=64 HYD NO=310.00 ID=63 ID=46
ADD HYD             ID=65 HYD NO=311.00 ID=64 ID=47
ADD HYD             ID=66 HYD NO=312.00 ID=54 ID=48
ADD HYD             ID=67 HYD NO=313.00 ID=66 ID=49
ADD HYD             ID=68 HYD NO=314.00 ID=67 ID=50
ADD HYD             ID=69 HYD NO=315.00 ID=68 ID=51
ADD HYD             ID=70 HYD NO=316.00 ID=69 ID=52
ADD HYD             ID=71 HYD NO=317.00 ID=70 ID=53
ADD HYD             ID=72 HYD NO=317.00 ID=71 ID=65

PRINT HYD                 ID=72 CODE=1

*
FINISH
```

```
         AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02d
              RUN DATE (MON/DAY/YR) = 02/12/2004
              START TIME (HR:MIN:SEC) = 16:22:03      USER NO.= AHYMO-S-
9702d1TierraW-AH
              INPUT FILE = C:\AHYMOW~1\220094~1.TXT

     ************************************************************
     *                                                          *
     *             WAL-MART SOUTH #5430-00 DRAINAGE ANALYSIS    *
     *              COORS BLVD. AND RIO BRAVO BLVD. (220094)    *
     *             PROPOSED CONDITIONS (100-YEAR, 6-HR STORM)   *
     *                                                          *
     ************************************************************
     *
     START                TIME=0.0 HR
     RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                          RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                          RAIN DAY=2.66 IN DT=0.03333 HR

                     COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
- PEAK AT 1.40 HR.
                     DT =     .033330 HOURS       END TIME =     5.999400 HOURS
                        .0000   .0016   .0033   .0050   .0067   .0085   .0103
                        .0122   .0141   .0160   .0180   .0201   .0222   .0243
                        .0266   .0289   .0312   .0337   .0362   .0388   .0415
                        .0443   .0472   .0502   .0534   .0567   .0601   .0637
                        .0675   .0715   .0758   .0809   .0865   .0924   .1050
                        .1334   .1771   .2398   .3254   .4379   .5814   .7600
                        .9780  1.1804  1.2649  1.3363  1.3997  1.4575  1.5106
                       1.5600  1.6061  1.6493  1.6900  1.7284  1.7646  1.7989
                       1.8314  1.8623  1.8915  1.9193  1.9456  1.9518  1.9576
                       1.9630  1.9682  1.9732  1.9780  1.9825  1.9869  1.9912
                       1.9953  1.9993  2.0031  2.0068  2.0104  2.0140  2.0174
                       2.0207  2.0240  2.0272  2.0303  2.0333  2.0363  2.0392
                       2.0420  2.0448  2.0475  2.0502  2.0528  2.0554  2.0580
                       2.0605  2.0629  2.0653  2.0677  2.0700  2.0723  2.0746
                       2.0768  2.0790  2.0812  2.0833  2.0855  2.0875  2.0896
                       2.0916  2.0936  2.0956  2.0976  2.0995  2.1014  2.1033
                       2.1051  2.1070  2.1088  2.1106  2.1124  2.1141  2.1159
                       2.1176  2.1193  2.1210  2.1227  2.1244  2.1260  2.1276
                       2.1292  2.1308  2.1324  2.1340  2.1355  2.1371  2.1386
                       2.1401  2.1416  2.1431  2.1446  2.1460  2.1475  2.1489
                       2.1504  2.1518  2.1532  2.1546  2.1560  2.1573  2.1587
                       2.1600  2.1614  2.1627  2.1640  2.1654  2.1667  2.1680
                       2.1692  2.1705  2.1718  2.1731  2.1743  2.1756  2.1768
                       2.1780  2.1792  2.1804  2.1817  2.1829  2.1840  2.1852
                       2.1864  2.1876  2.1887  2.1899  2.1910  2.1922  2.1933
                       2.1944  2.1956  2.1967  2.1978  2.1989  2.2000

     *
     *S BASIN 1
     *
     COMPUTE NM HYD       ID=1 HYD NO=101 AREA=0.00114 SQ MI
                          PER A=0 PER B=10.00 PER C=0.00 PER D=90.00
                          TP=0 HR MASS RAINFALL=-1
```

```
          *****Warning*****A value for the Time to Peak was not previously
computed; use Tp=0.133333 hrs.

          TIME TO PEAK (hrs)=    .1333

          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    4.0497     CFS    UNIT VOLUME =     .9965       B =
526.28       P60 = 1.8700
          AREA =       .001026 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .27966     CFS    UNIT VOLUME =     .9499       B =
327.09       P60 = 1.8700
          AREA =       .000114 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=1 CODE=1

                                        PARTIAL HYDROGRAPH    101.00


          RUNOFF VOLUME =      1.83567 INCHES      =         .1116 ACRE-FEET
          PEAK DISCHARGE RATE =        3.03 CFS  AT    1.500 HOURS    BASIN AREA =
.0011 SQ. MI.



     *
     *S BASIN 2
     *
     COMPUTE NM HYD       ID=2 HYD NO=102 AREA=0.00273 SQ MI
                          PER A=0 PER B=6.00 PER C=0.00 PER D=94.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                            A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    10.129     CFS    UNIT VOLUME =     .9982       B =
526.28       P60 = 1.8700
          AREA =       .002566 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330
```

```
          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .40183     CFS    UNIT VOLUME =     .9673        B =
327.09       P60 = 1.8700
          AREA =       .000164 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=2 CODE=1

                                          PARTIAL HYDROGRAPH    102.00


          RUNOFF VOLUME =      1.88760 INCHES      =          .2748 ACRE-FEET
          PEAK DISCHARGE RATE =        7.40 CFS  AT    1.500 HOURS    BASIN AREA =
.0027 SQ. MI.




     *
     *S BASIN 3
     *
     COMPUTE NM HYD       ID=3 HYD NO=103 AREA=0.00356 SQ MI
                          PER A=0 PER B=10.00 PER C=0.00 PER D=90.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                            A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    12.646     CFS    UNIT VOLUME =     .9985        B =
526.28       P60 = 1.8700
          AREA =       .003204 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .87333     CFS    UNIT VOLUME =     .9849        B =
327.09       P60 = 1.8700
          AREA =       .000356 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=3 CODE=1

                                          PARTIAL HYDROGRAPH    103.00
```

```
          RUNOFF VOLUME =      1.83567 INCHES      =         .3485 ACRE-FEET
          PEAK DISCHARGE RATE =        9.43 CFS  AT    1.500 HOURS    BASIN AREA =
.0036 SQ. MI.



     *
     *S BASIN 4
     *
     COMPUTE NM HYD       ID=4 HYD NO=104 AREA=0.00267 SQ MI
                          PER A=0 PER B=2.00 PER C=0.00 PER D=98.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                            A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    10.328     CFS    UNIT VOLUME =     .9982        B =
526.28       P60 = 1.8700
          AREA =       .002617 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .13100     CFS    UNIT VOLUME =     .8921        B =
327.09       P60 = 1.8700
          AREA =       .000053 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=4 CODE=1

                                        PARTIAL HYDROGRAPH    104.00


          RUNOFF VOLUME =      1.93952 INCHES      =         .2762 ACRE-FEET
          PEAK DISCHARGE RATE =        7.40 CFS  AT    1.500 HOURS    BASIN AREA =
.0027 SQ. MI.



     *
     *S BASIN 5
     *
     COMPUTE NM HYD       ID=5 HYD NO=105 AREA=0.00251 SQ MI
                          PER A=0 PER B=7.00 PER C=0.00 PER D=93.00
                          TP=0 HR MASS RAINFALL=-1
```

```
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                              A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    9.2137     CFS    UNIT VOLUME =     .9980        B =
526.28       P60 = 1.8700
          AREA =       .002334 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .43102     CFS    UNIT VOLUME =     .9673        B =
327.09       P60 = 1.8700
          AREA =       .000176 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=5 CODE=1

                                          PARTIAL HYDROGRAPH    105.00


         RUNOFF VOLUME =      1.87462 INCHES      =         .2509 ACRE-FEET
         PEAK DISCHARGE RATE =        6.77 CFS   AT    1.500 HOURS    BASIN AREA =
.0025 SQ. MI.



     *
     *S BASIN 6
     *
     COMPUTE NM HYD       ID=6 HYD NO=106 AREA=0.00302 SQ MI
                          PER A=0 PER B=4.00 PER C=0.00 PER D=96.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                              A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    11.443     CFS    UNIT VOLUME =     .9984        B =
526.28       P60 = 1.8700
          AREA =       .002899 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330
```

```
          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .29634     CFS    UNIT VOLUME =     .9540        B =
327.09       P60 = 1.8700
          AREA =       .000121 SQ MI     IA =     .50000 INCHES     INF =   1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=6 CODE=1

                                        PARTIAL HYDROGRAPH    106.00


        RUNOFF VOLUME =      1.91356 INCHES      =         .3082 ACRE-FEET
        PEAK DISCHARGE RATE =        8.28 CFS  AT    1.500 HOURS    BASIN AREA =
.0030 SQ. MI.



     *
     *S BASIN 7
     *
     COMPUTE NM HYD      ID=7 HYD NO=107 AREA=0.00271 SQ MI
                         PER A=0 PER B=20.00 PER C=0.00 PER D=80.00
                         TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                           A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    8.5573     CFS    UNIT VOLUME =     .9980        B =
526.28       P60 = 1.8700
          AREA =       .002168 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    1.3296     CFS    UNIT VOLUME =     .9903        B =
327.09       P60 = 1.8700
          AREA =       .000542 SQ MI     IA =     .50000 INCHES     INF =   1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=7 CODE=1

                                        PARTIAL HYDROGRAPH    107.00
```

```
          RUNOFF VOLUME =      1.70586 INCHES      =          .2466 ACRE-FEET
          PEAK DISCHARGE RATE =        6.78 CFS  AT    1.500 HOURS    BASIN AREA =
.0027 SQ. MI.



     *
     *S BASIN 8
     *
     COMPUTE NM HYD       ID=8 HYD NO=108 AREA=0.00094 SQ MI
                          PER A=0 PER B=25.00 PER C=0.00 PER D=75.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                             A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    2.7827     CFS    UNIT VOLUME =     .9955        B =
526.28       P60 = 1.8700
          AREA =       .000705 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .57649     CFS    UNIT VOLUME =     .9768        B =
327.09       P60 = 1.8700
          AREA =       .000235 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=8 CODE=1

                                          PARTIAL HYDROGRAPH    108.00


          RUNOFF VOLUME =      1.64096 INCHES      =          .0823 ACRE-FEET
          PEAK DISCHARGE RATE =        2.29 CFS  AT    1.500 HOURS    BASIN AREA =
.0009 SQ. MI.



     *
     *S BASIN 9
     *
     COMPUTE NM HYD       ID=9 HYD NO=109 AREA=0.00049 SQ MI
                          PER A=0 PER B=100.00 PER C=0.00 PER D=0.00
```

```
                        TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                           A new Tp value should be computed.


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    1.2020     CFS    UNIT VOLUME =     .9894        B =
327.09       P60 = 1.8700
          AREA =       .000490 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=9 CODE=1

                                          PARTIAL HYDROGRAPH    109.00


         RUNOFF VOLUME =       .66738 INCHES      =         .0174 ACRE-FEET
         PEAK DISCHARGE RATE =         .64 CFS   AT    1.533 HOURS    BASIN AREA =
.0005 SQ. MI.



     *
     *S BASIN 10
     *
     COMPUTE NM HYD       ID=10 HYD NO=110 AREA=0.00040 SQ MI
                          PER A=0 PER B=22.00 PER C=0.00 PER D=78.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                           A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    1.2315     CFS    UNIT VOLUME =     .9897        B =
526.28       P60 = 1.8700
          AREA =       .000312 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .21588     CFS    UNIT VOLUME =     .9353        B =
327.09       P60 = 1.8700
          AREA =       .000088 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
```

```
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=10 CODE=1

                                          PARTIAL HYDROGRAPH    110.00


          RUNOFF VOLUME =      1.67990 INCHES      =         .0358 ACRE-FEET
          PEAK DISCHARGE RATE =        1.00 CFS  AT    1.500 HOURS    BASIN AREA =
.0004 SQ. MI.



     *
     *S BASIN 11
     *
     COMPUTE NM HYD       ID=11 HYD NO=111 AREA=0.00036 SQ MI
                          PER A=0 PER B=22.00 PER C=0.00 PER D=78.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                            A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    1.1083     CFS    UNIT VOLUME =     .9897        B =
526.28       P60 = 1.8700
          AREA =       .000281 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .19429     CFS    UNIT VOLUME =     .9295        B =
327.09       P60 = 1.8700
          AREA =       .000079 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=11 CODE=1

                                          PARTIAL HYDROGRAPH    111.00


          RUNOFF VOLUME =      1.67990 INCHES      =         .0323 ACRE-FEET
          PEAK DISCHARGE RATE =         .90 CFS  AT    1.500 HOURS    BASIN AREA =
.0004 SQ. MI.
```

```
      *
      *S BASIN 12
      *
      COMPUTE NM HYD       ID=12 HYD NO=112 AREA=0.00027 SQ MI
                           PER A=0 PER B=5.00 PER C=0.00 PER D=95.00
                           TP=0 HR MASS RAINFALL=-1
           TIME TO PEAK (hrs)=    .1333
           *****Warning*****This Tp value was used for a previously computed
hydrograph.
                              A new Tp value should be computed.


           K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
           UNIT PEAK =    1.0124     CFS    UNIT VOLUME =     .9881        B =
526.28       P60 = 1.8700
           AREA =       .000257 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
           RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


           K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
           UNIT PEAK =    .33118E-01CFS    UNIT VOLUME =     .8721        B =
327.09       P60 = 1.8700
           AREA =       .000014 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
           RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

      PRINT HYD            ID=12 CODE=1

                                          PARTIAL HYDROGRAPH    112.00


          RUNOFF VOLUME =      1.90058 INCHES      =         .0274 ACRE-FEET
          PEAK DISCHARGE RATE =         .75 CFS  AT    1.500 HOURS    BASIN AREA =
.0003 SQ. MI.



      *
      *S BASIN 13
      *
      COMPUTE NM HYD       ID=13 HYD NO=113 AREA=0.00388 SQ MI
                           PER A=0 PER B=8.00 PER C=0.00 PER D=92.00
                           TP=0 HR MASS RAINFALL=-1
           TIME TO PEAK (hrs)=    .1333
           *****Warning*****This Tp value was used for a previously computed
hydrograph.
                              A new Tp value should be computed.
```

```
          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =   14.089     CFS   UNIT VOLUME =     .9985       B =
526.28       P60 = 1.8700
          AREA =       .003570 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .76146     CFS   UNIT VOLUME =     .9821       B =
327.09       P60 = 1.8700
          AREA =       .000310 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=13 CODE=1

                                        PARTIAL HYDROGRAPH   113.00


          RUNOFF VOLUME =     1.86163 INCHES      =         .3852 ACRE-FEET
          PEAK DISCHARGE RATE =      10.40 CFS  AT   1.500 HOURS   BASIN AREA =
.0039 SQ. MI.



     *
     *S BASIN 14
     *
     COMPUTE NM HYD      ID=14 HYD NO=114 AREA=0.00010 SQ MI
                         PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                         TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                           A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    .39471     CFS   UNIT VOLUME =     .9711       B =
526.28       P60 = 1.8700
          AREA =       .000100 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=14 CODE=1

                                        PARTIAL HYDROGRAPH   114.00
```

```
          RUNOFF VOLUME =      1.96548 INCHES      =         .0105 ACRE-FEET
          PEAK DISCHARGE RATE =         .29 CFS  AT    1.500 HOURS    BASIN AREA =
 .0001 SQ. MI.



      *
      *S BASIN 15
      *
      COMPUTE NM HYD       ID=15 HYD NO=115 AREA=0.00015 SQ MI
                           PER A=0 PER B=100.00 PER C=0.00 PER D=0.00
                           TP=0 HR MASS RAINFALL=-1
           TIME TO PEAK (hrs)=    .1333
           *****Warning*****This Tp value was used for a previously computed
hydrograph.
                             A new Tp value should be computed.


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .36797     CFS    UNIT VOLUME =     .9644        B =
327.09       P60 = 1.8700
          AREA =       .000150 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

      PRINT HYD            ID=15 CODE=1

                                          PARTIAL HYDROGRAPH    115.00


          RUNOFF VOLUME =       .66738 INCHES      =         .0053 ACRE-FEET
          PEAK DISCHARGE RATE =         .20 CFS  AT    1.533 HOURS    BASIN AREA =
.0002 SQ. MI.



      *
      *S BASIN 16
      *
      COMPUTE NM HYD       ID=16 HYD NO=116 AREA=0.00099 SQ MI
                           PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                           TP=0 HR MASS RAINFALL=-1
           TIME TO PEAK (hrs)=    .1333
           *****Warning*****This Tp value was used for a previously computed
hydrograph.
                             A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    3.9076     CFS    UNIT VOLUME =     .9965        B =
526.28       P60 = 1.8700
```

```
          AREA =       .000990 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=16 CODE=1

                                        PARTIAL HYDROGRAPH   116.00


         RUNOFF VOLUME =      1.96548 INCHES      =         .1038 ACRE-FEET
         PEAK DISCHARGE RATE =       2.78 CFS  AT    1.500 HOURS   BASIN AREA =
.0010 SQ. MI.



     *
     *S BASIN 17
     *
     COMPUTE NM HYD      ID=17 HYD NO=117 AREA=0.00019 SQ MI
                         PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                         TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                           A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    .74994     CFS   UNIT VOLUME =     .9840       B =
526.28       P60 = 1.8700
          AREA =       .000190 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=17 CODE=1

                                        PARTIAL HYDROGRAPH   117.00


         RUNOFF VOLUME =      1.96548 INCHES      =         .0199 ACRE-FEET
         PEAK DISCHARGE RATE =        .54 CFS  AT    1.500 HOURS   BASIN AREA =
.0002 SQ. MI.



     *
     *S BASIN 18
     *
     COMPUTE NM HYD      ID=18 HYD NO=118 AREA=0.00030 SQ MI
                         PER A=0 PER B=32.00 PER C=0.00 PER D=68.00
                         TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
```

```
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                              A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    .80520     CFS    UNIT VOLUME =     .9862        B =
526.28       P60 = 1.8700
          AREA =       .000204 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .23550     CFS    UNIT VOLUME =     .9406        B =
327.09       P60 = 1.8700
          AREA =       .000096 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=18 CODE=1

                                          PARTIAL HYDROGRAPH    118.00


          RUNOFF VOLUME =      1.55009 INCHES      =         .0248 ACRE-FEET
          PEAK DISCHARGE RATE =         .71 CFS  AT    1.500 HOURS    BASIN AREA =
.0003 SQ. MI.



     *
     *S BASIN 19
     *
     COMPUTE NM HYD       ID=19 HYD NO=119 AREA=0.00047 SQ MI
                          PER A=0 PER B=100.00 PER C=0.00 PER D=0.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                              A new Tp value should be computed.


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    1.1530     CFS    UNIT VOLUME =     .9884        B =
327.09       P60 = 1.8700
          AREA =       .000470 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330
```

```
 PRINT HYD            ID=19 CODE=1

                                        PARTIAL HYDROGRAPH    119.00


      RUNOFF VOLUME =       .66738 INCHES      =         .0167 ACRE-FEET
      PEAK DISCHARGE RATE =         .62 CFS  AT    1.533 HOURS    BASIN AREA =
.0005 SQ. MI.



 *
 *S BASIN 20
 *
 COMPUTE NM HYD       ID=20 HYD NO=120 AREA=0.00681 SQ MI
                      PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                      TP=0 HR MASS RAINFALL=-1
      TIME TO PEAK (hrs)=    .1333
      *****Warning*****This Tp value was used for a previously computed
hydrograph.
                        A new Tp value should be computed.


      K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
      UNIT PEAK =    26.880     CFS    UNIT VOLUME =     .9989        B =
526.28       P60 = 1.8700
      AREA =       .006810 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

 PRINT HYD            ID=20 CODE=1

                                        PARTIAL HYDROGRAPH    120.00


      RUNOFF VOLUME =      1.96548 INCHES      =         .7139 ACRE-FEET
      PEAK DISCHARGE RATE =       19.05 CFS  AT    1.500 HOURS    BASIN AREA =
.0068 SQ. MI.



 *
 *S BASIN OS-1
 *
 COMPUTE NM HYD       ID=21 HYD NO=121 AREA=0.00134 SQ MI
                      PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                      TP=0 HR MASS RAINFALL=-1
      TIME TO PEAK (hrs)=    .1333
      *****Warning*****This Tp value was used for a previously computed
hydrograph.
                        A new Tp value should be computed.
```

```
          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    5.2891     CFS    UNIT VOLUME =     .9973        B =
526.28       P60 = 1.8700
          AREA =       .001340 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=21 CODE=1

                                        PARTIAL HYDROGRAPH    121.00


         RUNOFF VOLUME =      1.96548 INCHES      =         .1405 ACRE-FEET
         PEAK DISCHARGE RATE =        3.75 CFS   AT   1.500 HOURS    BASIN AREA =
.0013 SQ. MI.



     *
     *S BASIN OS-2
     *
     COMPUTE NM HYD       ID=22 HYD NO=122 AREA=0.00028 SQ MI
                          PER A=0 PER B=90.00 PER C=0.00 PER D=10.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                            A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    .11052     CFS    UNIT VOLUME =     .9032        B =
526.28       P60 = 1.8700
          AREA =       .000028 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .61820     CFS    UNIT VOLUME =     .9787        B =
327.09       P60 = 1.8700
          AREA =       .000252 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=22 CODE=1

                                        PARTIAL HYDROGRAPH    122.00
```

```
          RUNOFF VOLUME =       .79719 INCHES      =         .0119 ACRE-FEET
          PEAK DISCHARGE RATE =         .42 CFS  AT    1.500 HOURS    BASIN AREA =
.0003 SQ. MI.



     *
     *S BASIN OS-3
     *
     COMPUTE NM HYD       ID=23 HYD NO=123 AREA=0.00011 SQ MI
                          PER A=0 PER B=90.00 PER C=0.00 PER D=10.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                            A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    .43418E-01CFS    UNIT VOLUME =     .8873        B =
526.28       P60 = 1.8700
          AREA =       .000011 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .24286     CFS    UNIT VOLUME =     .9454        B =
327.09       P60 = 1.8700
          AREA =       .000099 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=23 CODE=1

                                          PARTIAL HYDROGRAPH    123.00


          RUNOFF VOLUME =       .79719 INCHES      =         .0047 ACRE-FEET
          PEAK DISCHARGE RATE =         .17 CFS  AT    1.500 HOURS    BASIN AREA =
.0001 SQ. MI.



     *
     *S BASIN OS-4
     *
     COMPUTE NM HYD       ID=24 HYD NO=124 AREA=0.00084 SQ MI
                          PER A=0 PER B=16.00 PER C=0.00 PER D=84.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
```

```
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                              A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    2.7851     CFS    UNIT VOLUME =     .9955        B =
526.28       P60 = 1.8700
          AREA =       .000706 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .32971     CFS    UNIT VOLUME =     .9578        B =
327.09       P60 = 1.8700
          AREA =       .000134 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=24 CODE=1

                                          PARTIAL HYDROGRAPH    124.00


          RUNOFF VOLUME =      1.75779 INCHES      =         .0787 ACRE-FEET
          PEAK DISCHARGE RATE =        2.16 CFS  AT    1.500 HOURS    BASIN AREA =
.0008 SQ. MI.



     *
     *S BASIN OS-5
     *
     COMPUTE NM HYD       ID=25 HYD NO=125 AREA=0.00305 SQ MI
                          PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                              A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    12.039     CFS    UNIT VOLUME =     .9984        B =
526.28       P60 = 1.8700
          AREA =       .003050 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330
```

```
     PRINT HYD            ID=25 CODE=1

                                          PARTIAL HYDROGRAPH    125.00


          RUNOFF VOLUME =      1.96548 INCHES      =         .3197 ACRE-FEET
          PEAK DISCHARGE RATE =        8.54 CFS  AT    1.500 HOURS    BASIN AREA =
.0031 SQ. MI.



     *
     *S BASIN OS-6
     *
     COMPUTE NM HYD       ID=26 HYD NO=126 AREA=0.00229 SQ MI
                          PER A=0 PER B=0.00 PER C=0.00 PER D=100.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                            A new Tp value should be computed.


          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    9.0388     CFS    UNIT VOLUME =     .9980        B =
526.28       P60 = 1.8700
          AREA =       .002290 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD            ID=26 CODE=1

                                          PARTIAL HYDROGRAPH    126.00


          RUNOFF VOLUME =      1.96548 INCHES      =         .2400 ACRE-FEET
          PEAK DISCHARGE RATE =        6.41 CFS  AT    1.500 HOURS    BASIN AREA =
.0023 SQ. MI.



     *S BASIN OS-7
     *
     COMPUTE NM HYD       ID=27 HYD NO=127 AREA=0.00179 SQ MI
                          PER A=0 PER B=22.00 PER C=0.00 PER D=78.00
                          TP=0 HR MASS RAINFALL=-1
          TIME TO PEAK (hrs)=    .1333
          *****Warning*****This Tp value was used for a previously computed
hydrograph.
                            A new Tp value should be computed.
```

```
          K =    .072666HR     TP =    .133333HR     K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    5.5109     CFS    UNIT VOLUME =     .9973        B =
526.28       P60 = 1.8700
          AREA =       .001396 SQ MI     IA =     .10000 INCHES     INF =     .04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330


          K =    .131024HR     TP =    .133333HR     K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593454
          UNIT PEAK =    .96606     CFS    UNIT VOLUME =     .9862        B =
327.09       P60 = 1.8700
          AREA =       .000394 SQ MI     IA =     .50000 INCHES     INF =    1.25000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330

     PRINT HYD           ID=27 CODE=1

                                        PARTIAL HYDROGRAPH    127.00


          RUNOFF VOLUME =      1.67990 INCHES      =         .1604 ACRE-FEET
          PEAK DISCHARGE RATE =        4.43 CFS  AT    1.500 HOURS    BASIN AREA =
.0018 SQ. MI.



     *
     *S ADD BASINS 3 AND OS-2
     *
     ADD HYD                    ID=28 HYD NO=151.00 ID=3  ID=22
     PRINT HYD             ID=28 CODE=1

                                       PARTIAL HYDROGRAPH    151.00


          RUNOFF VOLUME =      1.75916 INCHES      =         .3603 ACRE-FEET
          PEAK DISCHARGE RATE =        9.85 CFS  AT    1.500 HOURS    BASIN AREA =
.0038 SQ. MI.



     *
     *S ADD BASINS 5, OS-1 AND OS-3
     *
     ADD HYD                    ID=29 HYD NO=152.00 ID=5 ID=23
     ADD HYD                    ID=30 HYD NO=153.00 ID=29 ID=21
     PRINT HYD             ID=30 CODE=1

                                       PARTIAL HYDROGRAPH    153.00
```

```
          RUNOFF VOLUME =      1.87493 INCHES      =         .3960 ACRE-FEET
          PEAK DISCHARGE RATE =       10.69 CFS  AT    1.500 HOURS    BASIN AREA =
.0040 SQ. MI.



     *
     *S ADD BASINS 7, AND OS-4
     *
     ADD HYD                     ID=31 HYD NO=154.00 ID=7 ID=24
     PRINT HYD              ID=31 CODE=1

                                        PARTIAL HYDROGRAPH    154.00


          RUNOFF VOLUME =      1.71799 INCHES      =         .3253 ACRE-FEET
          PEAK DISCHARGE RATE =        8.94 CFS  AT    1.500 HOURS    BASIN AREA =
.0036 SQ. MI.



     *
     *S ADD BASINS 9, AND OS-5
     *
     ADD HYD                     ID=32 HYD NO=155.00 ID=9 ID=25
     PRINT HYD              ID=32 CODE=1

                                        PARTIAL HYDROGRAPH    155.00


          RUNOFF VOLUME =      1.78569 INCHES      =         .3371 ACRE-FEET
          PEAK DISCHARGE RATE =        9.18 CFS  AT    1.500 HOURS    BASIN AREA =
.0035 SQ. MI.



     *
     *S ADD BASINS 15 AND OS-6
     *
     ADD HYD                     ID=33 HYD NO=156.00 ID=15 ID=26
     PRINT HYD              ID=33 CODE=1

                                        PARTIAL HYDROGRAPH    156.00


          RUNOFF VOLUME =      1.88553 INCHES      =         .2454 ACRE-FEET
          PEAK DISCHARGE RATE =        6.61 CFS  AT    1.500 HOURS    BASIN AREA =
.0024 SQ. MI.



     *
     *S ADD BASINS 19, 20 AND OS-7
```

```
*
ADD HYD                    ID=34 HYD NO=157.00 ID=19 ID=20
ADD HYD                    ID=35 HYD NO=158.00 ID=34 ID=27
PRINT HYD             ID=35 CODE=1

                                    PARTIAL HYDROGRAPH   158.00


     RUNOFF VOLUME =     1.84179 INCHES     =        .8909 ACRE-FEET
     PEAK DISCHARGE RATE =      24.09 CFS  AT   1.500 HOURS   BASIN AREA =
.0091 SQ. MI.



*
*S POND 1
*
ROUTE RESERVOIR     ID=36 HYD NO=201.00 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.0000           0.0000         4925.79
                        0.0024           0.0003         4927.96
                        0.0025           0.0157         4928.21
                        0.0027           0.0615         4928.46
                        0.0028           0.1379         4928.71
                        0.0029           0.2449         4928.96


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

     TIME      INFLOW    ELEV      VOLUME    OUTFLOW
     (HRS)     (CFS)     (FEET)    (AC-FT)   (CFS)

       .00       .00   4925.79       .000       .00
       .80       .00   4925.79       .000       .00
      1.60      2.09   4928.42       .054       .00
      2.40       .12   4928.60       .103       .00
      3.20       .02   4928.61       .107       .00
      4.00       .02   4928.61       .108       .00
      4.80       .02   4928.61       .109       .00
      5.60       .02   4928.62       .110       .00
 PEAK DISCHARGE =         .003 CFS - PEAK OCCURS AT HOUR    6.30
 MAXIMUM WATER SURFACE ELEVATION =     4928.620
 MAXIMUM STORAGE =          .1104 AC-FT      INCREMENTAL TIME=
.033330HRS

PRINT HYD           ID=36 CODE=1

                                    PARTIAL HYDROGRAPH   201.00


     RUNOFF VOLUME =      .07031 INCHES     =        .0043 ACRE-FEET
     PEAK DISCHARGE RATE =        .00 CFS  AT   6.299 HOURS   BASIN AREA =
.0011 SQ. MI.
```

```
*
*S POND 2
*
ROUTE RESERVOIR     ID=37 HYD NO=202.00 INFLOW ID=2 CODE=25
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.0000           0.0000         4925.24
                        0.5242           0.0003         4927.41
                        0.5556           0.0129         4927.66
                        0.5855           0.0504         4927.91
                        0.6140           0.1129         4928.16
                        0.6411           0.2005         4928.41


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

    TIME       INFLOW     ELEV       VOLUME     OUTFLOW
    (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

      .00         .00    4925.24        .000        .00
      .80         .00    4925.24        .000        .00
     1.60        5.09    4928.16        .114        .61
     2.40         .31    4928.39        .195        .64
     3.20         .06    4928.30        .162        .63
     4.00         .04    4928.19        .124        .62
     4.80         .04    4928.05        .086        .60
     5.60         .05    4927.91        .050        .59
     6.40         .00    4927.67        .015        .56
 PEAK DISCHARGE =          .640 CFS - PEAK OCCURS AT HOUR    2.20
 MAXIMUM WATER SURFACE ELEVATION =     4928.403
 MAXIMUM STORAGE =          .1981 AC-FT      INCREMENTAL TIME=
.033330HRS

PRINT HYD           ID=37 CODE=1

                                    PARTIAL HYDROGRAPH   202.00


    RUNOFF VOLUME =     1.88900 INCHES     =         .2750 ACRE-FEET
    PEAK DISCHARGE RATE =         .64 CFS  AT   2.200 HOURS   BASIN AREA =
.0027 SQ. MI.


*

*S POND 3
*
ROUTE RESERVOIR     ID=38 HYD NO=203.00 INFLOW ID=28 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.0000           0.0000         4925.04
                        0.0024           0.0003         4927.21
                        0.0025           0.0252         4927.46
                        0.0027           0.0998         4927.71
                        0.0028           0.2240         4927.96
                        0.0029           0.3979         4928.21
```

```
 * * * * * * * * * * * * * * * * * *

  TIME      INFLOW     ELEV      VOLUME     OUTFLOW
  (HRS)     (CFS)      (FEET)    (AC-FT)    (CFS)

   .00        .00    4925.04       .000        .00
   .80        .00    4925.04       .000        .00
  1.60       6.83    4927.86       .174        .00
  2.40        .41    4928.12       .334        .00
  3.20        .08    4928.13       .346        .00
  4.00        .05    4928.14       .350        .00
  4.80        .05    4928.15       .353        .00
  5.60        .06    4928.15       .356        .00
  6.40        .01    4928.15       .359        .00
 PEAK DISCHARGE =          .003 CFS - PEAK OCCURS AT HOUR    6.53
 MAXIMUM WATER SURFACE ELEVATION =     4928.154
 MAXIMUM STORAGE =          .3590 AC-FT      INCREMENTAL TIME=
.033330HRS

 PRINT HYD           ID=38 CODE=1

                                      PARTIAL HYDROGRAPH   203.00

    RUNOFF VOLUME =       .02175 INCHES      =        .0045 ACRE-FEET
    PEAK DISCHARGE RATE =         .00 CFS  AT   6.533 HOURS   BASIN AREA =
.0038 SQ. MI.


 *

 *S POND 4
 *
 ROUTE RESERVOIR     ID=39 HYD NO=204.00 INFLOW ID=4 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                         0.0000            0.0000         4923.83
                         0.0032            0.0006         4927.65
                         0.0033            0.0207         4927.90
                         0.0034            0.0811         4928.15
                         0.0035            0.1817         4928.40
                         0.0036            0.3225         4928.65


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

  TIME      INFLOW     ELEV      VOLUME     OUTFLOW
  (HRS)     (CFS)      (FEET)    (AC-FT)    (CFS)

   .00        .00    4923.83       .000        .00
   .80        .00    4923.83       .000        .00
  1.60       5.07    4928.28       .132        .00
  2.40        .31    4928.53       .255        .00
  3.20        .06    4928.55       .264        .00
  4.00        .04    4928.55       .267        .00
  4.80        .04    4928.56       .270        .00
```

```
          5.60        .05   4928.56        .272        .00
          6.40        .00   4928.56        .275        .00
      PEAK DISCHARGE =          .004 CFS - PEAK OCCURS AT HOUR    6.43
      MAXIMUM WATER SURFACE ELEVATION =     4928.565
      MAXIMUM STORAGE =          .2746 AC-FT      INCREMENTAL TIME=
.033330HRS

     PRINT HYD           ID=39 CODE=1

                                        PARTIAL HYDROGRAPH   204.00


        RUNOFF VOLUME =       .03877 INCHES     =         .0055 ACRE-FEET
        PEAK DISCHARGE RATE =         .00 CFS  AT   6.433 HOURS   BASIN AREA =
.0027 SQ. MI.


     *

     *S POND 5
     *
     ROUTE RESERVOIR      ID=40 HYD NO=205.00 INFLOW ID=30 CODE=24
                          OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                              0.0000           0.0000         4924.20
                              0.0216           0.0003         4926.37
                              0.0228           0.0260         4926.62
                              0.0240           0.1029         4926.87
                              0.0251           0.2311         4927.12
                              0.0262           0.4106         4927.37

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

         TIME       INFLOW     ELEV       VOLUME     OUTFLOW
         (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

          .00         .00    4924.20        .000        .00
          .80         .00    4924.20        .000        .00
         1.60        7.36    4927.04        .190        .02
         2.40         .44    4927.31        .365        .03
         3.20         .09    4927.32        .376        .03
         4.00         .06    4927.33        .378        .03
         4.80         .06    4927.33        .381        .03
         5.60         .07    4927.33        .383        .03
         6.40         .01    4927.33        .385        .03
         7.20         .00    4927.33        .383        .03
         8.00         .00    4927.33        .381        .03
         8.80         .00    4927.33        .380        .03
         9.60         .00    4927.32        .378        .03
        10.40         .00    4927.32        .376        .03
        11.20         .00    4927.32        .375        .03
        12.00         .00    4927.32        .373        .03
        12.80         .00    4927.31        .371        .03
        13.60         .00    4927.31        .369        .03
        14.40         .00    4927.31        .368        .03
        15.20         .00    4927.31        .366        .03
        16.00         .00    4927.31        .364        .03
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        16.80        .00   4927.30        .363        .03
        17.60        .00   4927.30        .361        .03
        18.40        .00   4927.30        .359        .03
        19.20        .00   4927.30        .357        .03
     PEAK DISCHARGE =          .026 CFS - PEAK OCCURS AT HOUR    6.17
     MAXIMUM WATER SURFACE ELEVATION =     4927.334
     MAXIMUM STORAGE =          .3851 AC-FT      INCREMENTAL TIME=
.033330HRS

     PRINT HYD           ID=40 CODE=1

                                        PARTIAL HYDROGRAPH   205.00


        RUNOFF VOLUME =       .19043 INCHES     =        .0402 ACRE-FEET
        PEAK DISCHARGE RATE =         .03 CFS  AT  6.166 HOURS   BASIN AREA =
.0040 SQ. MI.



     *

     *S POND 6
     *
     ROUTE RESERVOIR     ID=41 HYD NO=206.00 INFLOW ID=6 CODE=24
                         OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                             0.0000           0.0000         4922.22
                             0.5050           0.0005         4925.67
                             0.5237           0.0156         4925.92
                             0.5418           0.0606         4926.17
                             0.5592           0.1355         4926.42
                             0.5762           0.2404         4926.67


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

        TIME      INFLOW    ELEV      VOLUME    OUTFLOW
        (HRS)     (CFS)     (FEET)    (AC-FT)   (CFS)

          .00        .00   4922.22        .000        .00
          .80        .00   4922.22        .000        .00
         1.60       5.68   4926.41        .131        .56
         2.40        .35   4926.65        .231        .57
         3.20        .07   4926.58        .203        .57
         4.00        .05   4926.50        .169        .56
         4.80        .05   4926.42        .135        .56
         5.60        .05   4926.31        .102        .55
         6.40        .00   4926.20        .068        .54
         7.20        .00   4926.02        .033        .53
     PEAK DISCHARGE =          .575 CFS - PEAK OCCURS AT HOUR    2.27
     MAXIMUM WATER SURFACE ELEVATION =     4926.651
     MAXIMUM STORAGE =          .2325 AC-FT      INCREMENTAL TIME=
.033330HRS

     PRINT HYD           ID=41 CODE=1

                                        PARTIAL HYDROGRAPH   206.00
```

RUNOFF VOLUME = 1.91409 INCHES = .3083 ACRE-FEET
PEAK DISCHARGE RATE = .57 CFS AT 2.266 HOURS BASIN AREA = .0030 SQ. MI.

*

*S POND 7
*
ROUTE RESERVOIR ID=42 HYD NO=207.00 INFLOW ID=31 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.0000	0.0000	4923.00
0.1156	0.0432	4923.60
0.1718	0.0909	4924.20
0.2137	0.1476	4924.80
0.2487	0.2132	4925.40
0.2793	0.2879	4926.00

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	4923.00	.000	.00
.80	.00	4923.00	.000	.00
1.60	6.22	4924.86	.154	.22
2.40	.36	4925.95	.282	.28
3.20	.07	4925.89	.274	.27
4.00	.05	4925.77	.260	.27
4.80	.05	4925.66	.245	.26
5.60	.05	4925.55	.231	.26
6.40	.00	4925.43	.217	.25
7.20	.00	4925.29	.201	.24
8.00	.00	4925.15	.185	.23
8.80	.00	4925.01	.170	.23
9.60	.00	4924.87	.155	.22
10.40	.00	4924.73	.141	.21
11.20	.00	4924.59	.128	.20
12.00	.00	4924.46	.115	.19
12.80	.00	4924.33	.103	.18
13.60	.00	4924.20	.091	.17
14.40	.00	4924.07	.080	.16
15.20	.00	4923.94	.070	.15
16.00	.00	4923.82	.061	.14
16.80	.00	4923.71	.052	.13
17.60	.00	4923.61	.044	.12
18.40	.00	4923.51	.037	.10
19.20	.00	4923.43	.031	.08

PEAK DISCHARGE = .277 CFS - PEAK OCCURS AT HOUR 2.50
MAXIMUM WATER SURFACE ELEVATION = 4925.954
MAXIMUM STORAGE = .2821 AC-FT INCREMENTAL TIME= .033330HRS

```
 PRINT HYD          ID=42 CODE=1

                                        PARTIAL HYDROGRAPH   207.00


     RUNOFF VOLUME =     1.58074 INCHES      =        .2993 ACRE-FEET
     PEAK DISCHARGE RATE =        .28 CFS  AT   2.500 HOURS   BASIN AREA =
.0036 SQ. MI.


 *

 *S POND 8
 *
 ROUTE RESERVOIR     ID=43 HYD NO=208.00 INFLOW ID=8 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                         0.0000            0.0000         4922.28
                         0.0030            0.0005         4925.67
                         0.0031            0.0064         4925.92
                         0.0032            0.0238         4926.17
                         0.0033            0.0529         4926.42
                         0.0034            0.0936         4926.67

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

     TIME      INFLOW    ELEV      VOLUME    OUTFLOW
     (HRS)     (CFS)     (FEET)    (AC-FT)   (CFS)

       .00       .00   4922.28       .000       .00
       .80       .00   4922.28       .000       .00
      1.60      1.60   4926.31       .040       .00
      2.40       .09   4926.56       .076       .00
      3.20       .02   4926.58       .079       .00
      4.00       .01   4926.58       .079       .00
      4.80       .01   4926.58       .080       .00
      5.60       .01   4926.59       .080       .00
  PEAK DISCHARGE =          .003 CFS - PEAK OCCURS AT HOUR    6.23
  MAXIMUM WATER SURFACE ELEVATION =     4926.592
  MAXIMUM STORAGE =          .0808 AC-FT      INCREMENTAL TIME=
.033330HRS

 PRINT HYD          ID=43 CODE=1

                                        PARTIAL HYDROGRAPH   208.00


     RUNOFF VOLUME =      .10381 INCHES      =        .0052 ACRE-FEET
     PEAK DISCHARGE RATE =        .00 CFS  AT   6.233 HOURS   BASIN AREA =
.0009 SQ. MI.


 *

 *S POND 9
```

```
*
ROUTE RESERVOIR      ID=44 HYD NO=209.00 INFLOW ID=32 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)   ELEVATION(FT)
                          0.0000            0.0000          4921.52
                          0.0041            0.0377          4921.93
                          0.0070            0.1161          4922.68
                          0.0090            0.2135          4923.43
                          0.0107            0.3300          4924.18
                          0.0121            0.4656          4924.93

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

    TIME       INFLOW     ELEV       VOLUME     OUTFLOW
    (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

      .00         .00    4921.52        .000        .00
      .80         .00    4921.52        .000        .00
     1.60        6.35    4923.03        .162        .01
     2.40         .38    4924.06        .312        .01
     3.20         .07    4924.13        .322        .01
     4.00         .05    4924.15        .325        .01
     4.80         .05    4924.17        .328        .01
     5.60         .06    4924.18        .331        .01
     6.40         .01    4924.20        .333        .01
     7.20         .00    4924.19        .332        .01
     8.00         .00    4924.19        .331        .01
     8.80         .00    4924.18        .331        .01
     9.60         .00    4924.18        .330        .01
    10.40         .00    4924.18        .329        .01
    11.20         .00    4924.17        .329        .01
    12.00         .00    4924.17        .328        .01
    12.80         .00    4924.16        .327        .01
    13.60         .00    4924.16        .326        .01
    14.40         .00    4924.15        .326        .01
    15.20         .00    4924.15        .325        .01
    16.00         .00    4924.14        .324        .01
    16.80         .00    4924.14        .324        .01
    17.60         .00    4924.13        .323        .01
    18.40         .00    4924.13        .322        .01
    19.20         .00    4924.13        .322        .01
 PEAK DISCHARGE =          .011 CFS - PEAK OCCURS AT HOUR    6.27
 MAXIMUM WATER SURFACE ELEVATION =     4924.196
 MAXIMUM STORAGE =          .3328 AC-FT      INCREMENTAL TIME=
.033330HRS

  PRINT HYD           ID=44 CODE=1

                                    PARTIAL HYDROGRAPH   209.00

    RUNOFF VOLUME =       .08601 INCHES     =         .0162 ACRE-FEET
    PEAK DISCHARGE RATE =          .01 CFS  AT   6.266 HOURS   BASIN AREA =
.0035 SQ. MI.
```

```
      *
      *S POND 10
      *
      ROUTE RESERVOIR     ID=45 HYD NO=210.00 INFLOW ID=10 CODE=24
                          OUTFLOW(CFS)      STORAGE(AC-FT)   ELEVATION(FT)
                              0.0000          0.0000          4925.14
                              0.2628          0.0006          4929.14
                              0.2683          0.0016          4929.31
                              0.2738          0.0047          4929.48
                              0.2792          0.0097          4929.64
                              0.2844          0.0167          4929.81

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

         TIME       INFLOW     ELEV       VOLUME     OUTFLOW
         (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

           .00         .00   4925.14         .000         .00
           .80         .00   4925.14         .000         .00
          1.60         .70   4929.67         .011         .28
          2.40         .03   4929.59         .008         .28
          3.20         .01   4925.25         .000         .01
          4.00         .01   4925.22         .000         .01
          4.80         .01   4925.22         .000         .01
          5.60         .01   4925.23         .000         .01
       PEAK DISCHARGE =          .283 CFS - PEAK OCCURS AT HOUR    1.90
       MAXIMUM WATER SURFACE ELEVATION =     4929.749
       MAXIMUM STORAGE =          .0142 AC-FT      INCREMENTAL TIME=
.033330HRS

      PRINT HYD           ID=45 CODE=1

                                        PARTIAL HYDROGRAPH   210.00


          RUNOFF VOLUME =     1.67920 INCHES     =         .0358 ACRE-FEET
          PEAK DISCHARGE RATE =         .28 CFS  AT   1.900 HOURS   BASIN AREA =
.0004 SQ. MI.


      *
      *S POND 11
      *
      ROUTE RESERVOIR     ID=46 HYD NO=211.00 INFLOW ID=11 CODE=24
                          OUTFLOW(CFS)      STORAGE(AC-FT)   ELEVATION(FT)
                              0.0000          0.0000          4925.62
                              0.2079          0.0006          4929.62
                              0.2120          0.0015          4929.78
                              0.2160          0.0041          4929.93
                              0.2199          0.0084          4930.09
                              0.2237          0.0144          4930.24
```

```
  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

    TIME        INFLOW      ELEV        VOLUME      OUTFLOW
    (HRS)       (CFS)       (FEET)      (AC-FT)     (CFS)

     .00          .00     4925.62         .000         .00
     .80          .00     4925.62         .000         .00
    1.60          .63     4930.14         .010         .22
    2.40          .03     4930.13         .010         .22
    3.20          .01     4925.75         .000         .01
    4.00          .00     4925.71         .000         .00
  PEAK DISCHARGE =          .224 CFS - PEAK OCCURS AT HOUR    1.97
  MAXIMUM WATER SURFACE ELEVATION =     4930.238
  MAXIMUM STORAGE =           .0143 AC-FT       INCREMENTAL TIME=
.033330HRS

  PRINT HYD           ID=46 CODE=1

                                      PARTIAL HYDROGRAPH   211.00


    RUNOFF VOLUME =     1.67920 INCHES      =         .0322 ACRE-FEET
    PEAK DISCHARGE RATE =         .22 CFS  AT   1.966 HOURS   BASIN AREA =
.0004 SQ. MI.


  *

  *S POND 12
  *
  ROUTE RESERVOIR     ID=47 HYD NO=212.00 INFLOW ID=12 CODE=24
                      OUTFLOW(CFS)      STORAGE(AC-FT)   ELEVATION(FT)
                          0.0000            0.0000          4926.00
                          0.2079            0.0006          4930.00
                          0.2123            0.0013          4930.17
                          0.2166            0.0034          4930.34
                          0.2208            0.0069          4930.50
                          0.2250            0.0118          4930.67


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

    TIME        INFLOW      ELEV        VOLUME      OUTFLOW
    (HRS)       (CFS)       (FEET)      (AC-FT)     (CFS)

     .00          .00     4926.00         .000         .00
     .80          .00     4926.00         .000         .00
    1.60          .51     4930.54         .008         .22
    2.40          .03     4930.43         .005         .22
    3.20          .01     4926.12         .000         .01
    4.00          .00     4926.08         .000         .00
  PEAK DISCHARGE =          .224 CFS - PEAK OCCURS AT HOUR    1.90
  MAXIMUM WATER SURFACE ELEVATION =     4930.616
  MAXIMUM STORAGE =           .0103 AC-FT       INCREMENTAL TIME=
.033330HRS
```

PRINT HYD ID=47 CODE=1

PARTIAL HYDROGRAPH 212.00

RUNOFF VOLUME = 1.89975 INCHES = .0274 ACRE-FEET
PEAK DISCHARGE RATE = .22 CFS AT 1.900 HOURS BASIN AREA = .0003 SQ. MI.

*

*S POND 13
*
ROUTE RESERVOIR ID=48 HYD NO=213.00 INFLOW ID=13 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.0000	0.0000	4924.75
0.2079	0.0006	4928.75
0.2144	0.0223	4929.00
0.2208	0.0871	4929.25
0.2269	0.1952	4929.50
0.2329	0.3466	4929.75

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	4924.75	.000	.00
.80	.00	4924.75	.000	.00
1.60	7.16	4929.46	.178	.23
2.40	.44	4929.73	.334	.23
3.20	.09	4929.73	.332	.23
4.00	.06	4929.71	.321	.23
4.80	.06	4929.69	.309	.23
5.60	.07	4929.67	.298	.23
6.40	.01	4929.65	.286	.23
7.20	.00	4929.63	.271	.23
8.00	.00	4929.60	.256	.23
8.80	.00	4929.58	.241	.23
9.60	.00	4929.55	.226	.23
10.40	.00	4929.53	.211	.23
11.20	.00	4929.50	.196	.23
12.00	.00	4929.47	.181	.23
12.80	.00	4929.43	.166	.23
13.60	.00	4929.40	.151	.22
14.40	.00	4929.36	.136	.22
15.20	.00	4929.33	.121	.22
16.00	.00	4929.29	.107	.22
16.80	.00	4929.26	.092	.22
17.60	.00	4929.21	.077	.22
18.40	.00	4929.16	.063	.22
19.20	.00	4929.10	.049	.22

PEAK DISCHARGE = .232 CFS - PEAK OCCURS AT HOUR 2.63
MAXIMUM WATER SURFACE ELEVATION = 4929.733

MAXIMUM STORAGE = .3361 AC-FT INCREMENTAL TIME= .033330HRS

PRINT HYD ID=48 CODE=1

PARTIAL HYDROGRAPH 213.00

RUNOFF VOLUME = 1.69480 INCHES = .3507 ACRE-FEET
PEAK DISCHARGE RATE = .23 CFS AT 2.633 HOURS BASIN AREA = .0039 SQ. MI.

*

*S POND 14
*
ROUTE RESERVOIR ID=49 HYD NO=214.00 INFLOW ID=14 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.0000	0.0000	4926.85
0.0028	0.0000	4927.05
0.0040	0.0007	4927.25
0.0050	0.0030	4927.45
0.0058	0.0067	4927.65
0.0065	0.0119	4927.85

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	4926.85	.000	.00
.80	.00	4926.85	.000	.00
1.60	.20	4927.56	.005	.01
2.40	.01	4927.75	.009	.01
3.20	.00	4927.74	.009	.01
4.00	.00	4927.73	.009	.01
4.80	.00	4927.72	.009	.01
5.60	.00	4927.71	.008	.01
6.40	.00	4927.70	.008	.01
7.20	.00	4927.68	.008	.01
8.00	.00	4927.67	.007	.01
8.80	.00	4927.65	.007	.01
9.60	.00	4927.63	.006	.01
10.40	.00	4927.61	.006	.01
11.20	.00	4927.59	.006	.01
12.00	.00	4927.57	.005	.01
12.80	.00	4927.55	.005	.01
13.60	.00	4927.53	.005	.01
14.40	.00	4927.52	.004	.01
15.20	.00	4927.50	.004	.01
16.00	.00	4927.48	.004	.01
16.80	.00	4927.46	.003	.01
17.60	.00	4927.44	.003	.00

PEAK DISCHARGE = .006 CFS - PEAK OCCURS AT HOUR 2.50

```
      MAXIMUM WATER SURFACE ELEVATION =      4927.748
      MAXIMUM STORAGE =          .0093 AC-FT       INCREMENTAL TIME=
.033330HRS

     PRINT HYD           ID=49 CODE=1

                                        PARTIAL HYDROGRAPH    214.00


        RUNOFF VOLUME =      1.60356 INCHES      =         .0086 ACRE-FEET
        PEAK DISCHARGE RATE =         .01 CFS  AT    2.500 HOURS    BASIN AREA =
.0001 SQ. MI.



     *

     *S POND 15
     *
     ROUTE RESERVOIR     ID=50 HYD NO=215.00 INFLOW ID=33 CODE=24
                         OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                              0.0000           0.0000          4926.75
                              0.2766           0.0362          4927.35
                              0.4271           0.0723          4927.95
                              0.5370           0.1085          4928.55
                              0.6279           0.1446          4929.15
                              0.7073           0.1808          4929.75


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

         TIME       INFLOW     ELEV       VOLUME     OUTFLOW
         (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

           .00         .00    4926.75        .000        .00
           .80         .00    4926.75        .000        .00
          1.60        4.55    4928.58        .110        .54
          2.40         .28    4929.66        .176        .70
          3.20         .05    4929.07        .140        .62
          4.00         .04    4928.50        .105        .53
          4.80         .04    4928.01        .076        .44
          5.60         .04    4927.62        .053        .34
          6.40         .00    4927.32        .034        .26
          7.20         .00    4927.10        .021        .16
          8.00         .00    4926.96        .013        .10
          8.80         .00    4926.88        .008        .06
          9.60         .00    4926.83        .005        .03
         10.40         .00    4926.80        .003        .02
         11.20         .00    4926.78        .002        .01
         12.00         .00    4926.77        .001        .01
         12.80         .00    4926.76        .001        .00
      PEAK DISCHARGE =          .707 CFS - PEAK OCCURS AT HOUR     2.17
      MAXIMUM WATER SURFACE ELEVATION =      4929.750
      MAXIMUM STORAGE =          .1808 AC-FT       INCREMENTAL TIME=
.033330HRS

     PRINT HYD           ID=50 CODE=1
```

```
                                        PARTIAL HYDROGRAPH    215.00

          RUNOFF VOLUME =      1.88549 INCHES      =         .2454 ACRE-FEET
          PEAK DISCHARGE RATE =         .71 CFS   AT    2.166 HOURS    BASIN AREA =
.0024 SQ. MI.



      *
      *S POND 16
      *
      ROUTE RESERVOIR      ID=51 HYD NO=216.00 INFLOW ID=16 CODE=24
                           OUTFLOW(CFS)       STORAGE(AC-FT)   ELEVATION(FT)
                               0.0000            0.0000          4925.51
                               0.0033            0.0006          4929.51
                               0.0034            0.0127          4929.76
                               0.0035            0.0487          4930.01
                               0.0036            0.1087          4930.26
                               0.0037            0.1927          4930.51


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

          TIME       INFLOW     ELEV       VOLUME     OUTFLOW
          (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

            .00         .00    4925.51        .000        .00
            .80         .00    4925.51        .000        .00
           1.60        1.90    4930.01        .050        .00
           2.40         .12    4930.21        .096        .00
           3.20         .02    4930.22        .099        .00
           4.00         .02    4930.22        .100        .00
           4.80         .02    4930.23        .101        .00
           5.60         .02    4930.23        .102        .00
       PEAK DISCHARGE =          .004 CFS - PEAK OCCURS AT HOUR     6.27
       MAXIMUM WATER SURFACE ELEVATION =      4930.233
       MAXIMUM STORAGE =          .1022 AC-FT       INCREMENTAL TIME=
.033330HRS

      PRINT HYD            ID=51 CODE=1

                                        PARTIAL HYDROGRAPH    216.00

          RUNOFF VOLUME =       .10513 INCHES      =         .0056 ACRE-FEET
          PEAK DISCHARGE RATE =         .00 CFS   AT    6.266 HOURS    BASIN AREA =
.0010 SQ. MI.



      *
      *S POND 17
      *
      ROUTE RESERVOIR      ID=52 HYD NO=217.00 INFLOW ID=17 CODE=24
                           OUTFLOW(CFS)       STORAGE(AC-FT)   ELEVATION(FT)
```

```
                          0.0000          0.0000          4926.85
                          0.0120          0.0000          4927.10
                          0.0178          0.0016          4927.35
                          0.0221          0.0062          4927.60
                          0.0259          0.0140          4927.85
                          0.0289          0.0248          4928.10

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

       TIME       INFLOW     ELEV       VOLUME     OUTFLOW
       (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

        .00         .00    4926.85        .000        .00
        .80         .00    4926.85        .000        .00
       1.60         .37    4927.69        .009        .02
       2.40         .02    4927.90        .016        .03
       3.20         .00    4927.87        .015        .03
       4.00         .00    4927.84        .014        .03
       4.80         .00    4927.79        .012        .02
       5.60         .00    4927.74        .011        .02
       6.40         .00    4927.70        .009        .02
       7.20         .00    4927.65        .008        .02
       8.00         .00    4927.60        .006        .02
       8.80         .00    4927.52        .005        .02
       9.60         .00    4927.45        .003        .02
      10.40         .00    4927.38        .002        .02
      11.20         .00    4927.27        .001        .02
      12.00         .00    4927.12        .000        .01
    PEAK DISCHARGE =          .027 CFS - PEAK OCCURS AT HOUR     2.30
    MAXIMUM WATER SURFACE ELEVATION =      4927.903
    MAXIMUM STORAGE =          .0163 AC-FT      INCREMENTAL TIME=
.033330HRS

    PRINT HYD           ID=52 CODE=1

                                        PARTIAL HYDROGRAPH   217.00

       RUNOFF VOLUME =     1.96553 INCHES     =         .0199 ACRE-FEET
       PEAK DISCHARGE RATE =         .03 CFS  AT    2.300 HOURS   BASIN AREA =
.0002 SQ. MI.


    *
    *S POND 18
    *
    ROUTE RESERVOIR     ID=53 HYD NO=218.00 INFLOW ID=18 CODE=24
                        OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                            0.00000           0.0000          4925.30
                            0.00328           0.0006          4929.30
                            0.00336           0.0025          4929.51
                            0.00345           0.0080          4929.72
                            0.00353           0.0172          4929.93
                            0.00361           0.0301          4930.14
```

```
 * * * * * * * * * * * * * * * * *

  TIME      INFLOW    ELEV      VOLUME    OUTFLOW
  (HRS)     (CFS)     (FEET)    (AC-FT)   (CFS)

   .00        .00   4925.30       .000       .00
   .80        .00   4925.30       .000       .00
  1.60        .50   4929.82       .012       .00
  2.40        .02   4930.02       .023       .00
  3.20        .00   4930.03       .023       .00
 PEAK DISCHARGE =          .004 CFS - PEAK OCCURS AT HOUR    3.73
 MAXIMUM WATER SURFACE ELEVATION =     4930.031
 MAXIMUM STORAGE =          .0234 AC-FT      INCREMENTAL TIME=
.033330HRS

 PRINT HYD          ID=53 CODE=1

                                    PARTIAL HYDROGRAPH   218.00


   RUNOFF VOLUME =      .34349 INCHES     =        .0055 ACRE-FEET
   PEAK DISCHARGE RATE =         .00 CFS  AT   3.733 HOURS   BASIN AREA =
.0003 SQ. MI.


 *
 *S POND 19
 *
 ROUTE RESERVOIR     ID=54 HYD NO=219.00 INFLOW ID=35 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                         0.0000            0.0000         4923.00
                         0.7167            0.0450         4924.40
                         1.0569            0.1194         4925.80
                         1.3117            0.2529         4927.20
                         1.5245            0.4453         4928.60
                         1.7110            0.6968         4930.00


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

  TIME      INFLOW    ELEV      VOLUME    OUTFLOW
  (HRS)     (CFS)     (FEET)    (AC-FT)   (CFS)

   .00        .00   4923.00       .000       .00
   .80        .00   4923.00       .000       .00
  1.60      16.62   4928.28       .401      1.48
  2.40       1.01   4929.96       .689      1.71
  3.20        .20   4929.50       .608      1.64
  4.00        .13   4928.97       .512      1.57
  4.80        .13   4928.41       .419      1.50
  5.60        .15   4927.78       .332      1.40
  6.40        .01   4927.18       .251      1.31
  7.20        .00   4926.33       .170      1.15
  8.00        .00   4925.41       .099       .96
  8.80        .00   4924.36       .044       .70
```

```
          9.60        .00   4923.47        .015        .24
         10.40        .00   4923.17        .005        .08
         11.20        .00   4923.06        .002        .03
         12.00        .00   4923.02        .001        .01
         12.80        .00   4923.01        .000        .00
      PEAK DISCHARGE =         1.709 CFS - PEAK OCCURS AT HOUR     2.23
      MAXIMUM WATER SURFACE ELEVATION =      4929.984
      MAXIMUM STORAGE =          .6940 AC-FT      INCREMENTAL TIME=
.033330HRS

     PRINT HYD           ID=54 CODE=1

                                        PARTIAL HYDROGRAPH   219.00

        RUNOFF VOLUME =     1.84178 INCHES      = .       .8909 ACRE-FEET
        PEAK DISCHARGE RATE =       1.71 CFS  AT   2.233 HOURS   BASIN AREA =
.0091 SQ. MI.



     *
     *ADD PONDS 1 THRU 19
     *
     ADD HYD                    ID=55 HYD NO=301.00 ID=36 ID=37
     ADD HYD                    ID=56 HYD NO=302.00 ID=55 ID=38
     ADD HYD                    ID=57 HYD NO=303.00 ID=56 ID=39
     ADD HYD                    ID=58 HYD NO=304.00 ID=57 ID=40
     ADD HYD                    ID=59 HYD NO=305.00 ID=58 ID=41
     ADD HYD                    ID=60 HYD NO=306.00 ID=42 ID=43
     ADD HYD                    ID=61 HYD NO=307.00 ID=60 ID=44
     ADD HYD                    ID=62 HYD NO=308.00 ID=59 ID=61
     ADD HYD                    ID=63 HYD NO=309.00 ID=62 ID=45
     ADD HYD                    ID=64 HYD NO=310.00 ID=63 ID=46
     ADD HYD                    ID=65 HYD NO=311.00 ID=64 ID=47
     ADD HYD                    ID=66 HYD NO=312.00 ID=54 ID=48
     ADD HYD                    ID=67 HYD NO=313.00 ID=66 ID=49
     ADD HYD                    ID=68 HYD NO=314.00 ID=67 ID=50
     ADD HYD                    ID=69 HYD NO=315.00 ID=68 ID=51
     ADD HYD                    ID=70 HYD NO=316.00 ID=69 ID=52
     ADD HYD                    ID=71 HYD NO=317.00 ID=70 ID=53
     ADD HYD                    ID=72 HYD NO=317.00 ID=71 ID=65

     PRINT HYD                  ID=72 CODE=1

                                          HYDROGRAPH FROM AREA   317.00

        RUNOFF VOLUME =     1.11501 INCHES      =       2.5803 ACRE-FEET
        PEAK DISCHARGE RATE =       4.95 CFS  AT   2.200 HOURS   BASIN AREA =
.0434 SQ. MI.



     *
     FINISH
```

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 16:22:03

Map Pocket

Grading and Drainage Plan

File WaLMart / Rio Bravo

P-16/D004A

FEASIBILITY DESIGN
FOR
REPLCEMENT CULVERTS
ARENAL MAIN CANAL/RIO BRAVO BOULEVARD
CROSSING AT ISLETA DRAIN

Prepared For:

Albuquerque Metropolitan Arroyo
Flood Control Authority
2600 Prospect, NE
Albuquerque, NM 87107

Prepared By:

Resource Technology, Inc.

5501 Jefferson Blvd., NE, Suite 200 Albuquerque, NM 87109
Phone: (505) 243-7300 Fax: (505) 243-7400 E-mail: rti@nm.net

February 2004

INTRODUCTION

This report describes a feasibility design for the proposed replacement culverts which pass under the Arenal Main Canal and Rio Bravo Boulevard (linking drain segments Isleta 15 to Isleta 16) initiated by the Walmart proposal to cover approximately 300 feet of the Isleta Drain downstream (south) of Rio Bravo. See Figure 1. This proposal has significantly altered the recommended improvements for this location in the Southwest Valley Feasibility Study, which were two 6'x10' box culverts approximately 400 feet in length.

HYDRAULIC DESIGN

The recommended improvement to pass the design flow of 560 cfs was based upon the results of K-ROUTE modeling. A number of iterations were performed to determine the water surface elevations within the Isleta Drain and the optimum culverts to pass the required flow without overtopping the drain. The K-ROUTE model input includes a culvert outflow rating curve derived from the New Mexico State Highway and Transportation Department (NMSHTD) nomographs contained within "Drainage Manual-Volume II, Hydraulics, Sedimentation and Erosion." Initial iterations showed that the 6' high culvert outlet would be submerged. Therefore, Chart 15, page A-21 of Volume II, for concrete box culverts flowing full along with a submerged outlet was selected. Using 1-foot of differential head, based upon previous assumptions from the Southwest Valley study, Chart 15 indicated that a minimum of two 6'x10' box culverts would be required, and they will discharge 320 cfs per box, or a total of 640 cfs. See Figure 2.

The Walmart proposal of covering approximately 300 additional feet of the Isleta Drain will extend the required length of the culverts by this same amount. By extending the length of the culverts, the head losses are increased and the recommended improvement of two 6'x10' box culverts is no longer adequate to pass the design flow of 560 cfs.

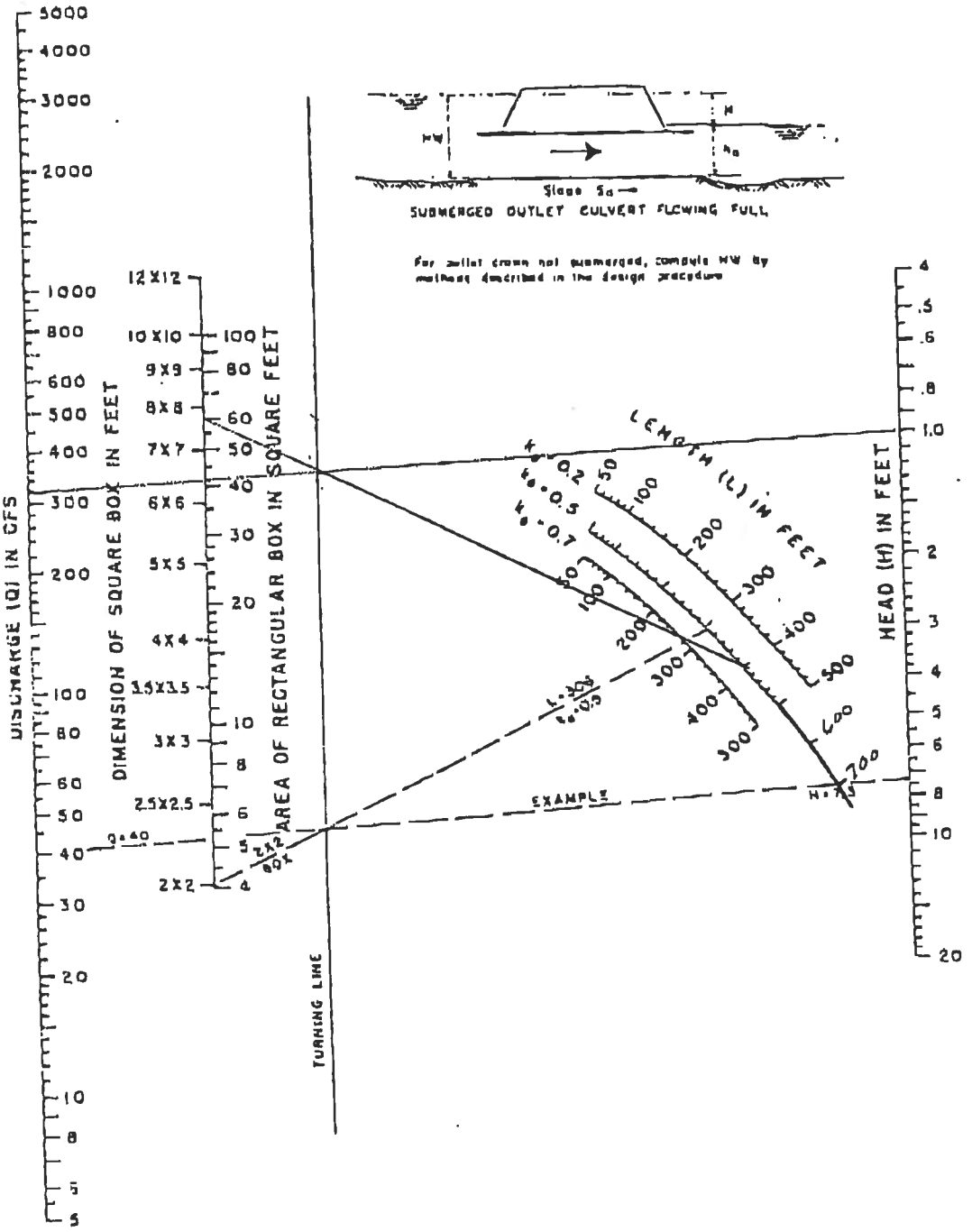
An initial review indicated that increasing the size of the culverts would prove to be very complex and cost prohibitive; therefore, an alternative design was investigated. It was determined that lowering the outlet and thereby increasing the differential head would reduce the size of the culverts. Although this would increase the amount of earthwork needed, a cost savings will be realized by reducing the required amount of concrete.

The Walmart site will replace the existing farm land with their buildings and parking facilities. This will eliminate the need for the lateral crossing that is currently serving this farming operation. Therefore, this portion of the Isleta Drain can be lowered from 4920 feet to 4916 feet, the existing drain bottom elevation downstream of the lateral crossing. This will increase the available differential head to 4 feet. Using 4 feet of differential head, Chart 15 indicated that two 6'x 6' box culverts would be sufficient, and they will discharge 300 cfs each, or a total of 600 cfs. See Figure 3.

COST ESTIMATE

The City of Albuquerque 1998 unit costs were used to determine the total projected cost of the improvements. The amount of concrete required by the box culverts was determined from NMSHTD Serial CB-32. See Table 1 for the item numbers and associated cost. Please note that the unit costs are 6 years old now and should be updated as necessary.

CHART 15



HEAD FOR
CONCRETE BOX CULVERTS
FLOWING FULL
n = 0.012

BU OF PUBLIC ROADS JAN 1963

FIGURE 2

Post-it® Fax Note 7671	Date 3-9	# of pages ▶ 9
To BRAD BINGHAM	From LYNN MAZUR	
Co./Dept. HYDROLOGY	Co. AMAFCA	
Phone #	Phone #	
Fax #	Fax #	

FA

AMAFCA
2600 Prospect Av. NE
Albuquerque, NM 87107
Ph: (505) 884-2215
Fax: (505) 884-0214

To: Jon Niski **Of:** Tierra West, LLC

Fax #: 858-1118 **Pages:** 9, incl. cover sheet

From: Lynn Mazur, P.E. **Date:** March 8, 2004
Development Review Engineer

Subject: Wal-Mart @ Rio Bravo/Coors

COMMENTS:

Here is the report we had RTI prepare for the Rio Bravo crossing of Isleta Drain. You were copied on a letter from MRGCD that stated that they will not approve a double box culvert. Therefore, you need to put a single 12' x 6' CBC on the Infrastructure List. You may come up with an alternate design for final, but we will need to meet with MRGCD to coordinate.

MIDDLE RIO GRANDE CONSERVANCY DISTRICT

March 8, 2004

Mr. Elvidio Diniz
Resource Technology, Inc.
5501 Jefferson Blvd. NE, Suite 200
Albuquerque, NM 87109

REF.: RIO BRAVO ROAD CULVERT REPLACEMENT ACROSS THE ISLETA DRAIN RIGHT-OF-WAY

Dear Mr. Diniz:

The District has reviewed your feasibility design for the above referenced. The District recommends the existing road culvert pipe be replaced with a single barrel concrete box culvert or a trapezoidal concrete box culvert.

If you have any questions please feel free to contact Mr. Ray Gomez for more information at (505) 247-0234.

Sincerely,

Subhas K. Shah
Chief Executive Officer

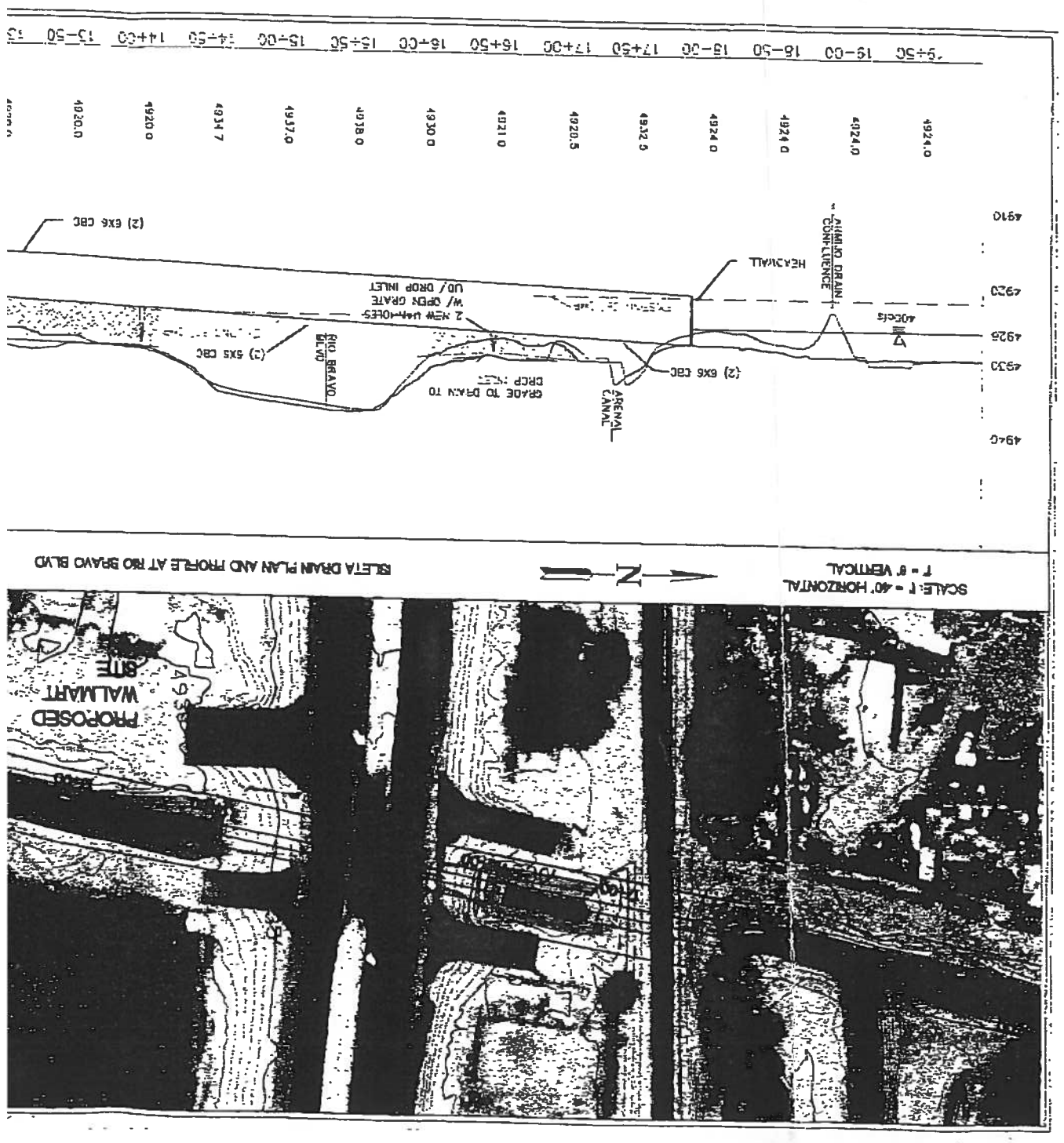
xc: Leonard Utter, Assistant Engineer
Ray Gomez, Engineer 1
Lynn Mazur, AMAFCA
Jonathan Niski, Tierra West, LLC
File

P.O. Box 581
87103-0581
1931 Second St. SW
Albuquerque, NM
87102-4515
505-247-0234
Fax # 505-243-7308

Drain reach to be dredged 2' to Lakeview.
1-12'x6' CBC -or- equivalent

****
*** DOC. MEMORY LIST ***
****

TX/RX NO	MODE	CONNECTION TEL/ID	PGS.	SET TIME	ST. TIME	SENDER NAME
8750	MEMORY RX		3	03/09 08:37	-----	


ESLETA DRAIN PLAN AND PROFILE AT RIO BRAVO BLVD
SCALE: 1" = 40' HORIZONTAL
1" = 8' VERTICAL
PROPOSED
WALMART
SITE
(2) 6X6 CBC
RIO BRAVO BLVD
2 NEW HAY-HOLES
W/ OPEN GRATE
U.D./ DROP INLET
GRADE TO DRAIN TO
DROP INLET
ARENAL CANNAL
HEADWALL
ANIMAS DRAIN CONFLUENCE
4924.0
4923.0
4922.5
4921.0
4930.0
4938.0
4937.0
4934.7
4920.0
4920.0
4910
4920
4925
4930
4940

Current DRC
Project Number:_____

FIGURE 12

FY1

Date Submitted:_____
Date Site Plan Approved:_____
Date Preliminary Plat Approved:_____
Date Preliminary Plat Expires:_____
DRB Project No.:_____
DRB Application No.:_____

INFRASTRUCTURE LIST

EXHIBIT "A"
TO SUBDIVISION IMPROVEMENTS AGREEMENT
DEVELOPMENT REVIEW BOARD (D.R.B.) REQUIRED INFRASTRUCTURE LIST

Wal-Mart #5430-00 (Coors Blvd. & Rio Bravo Blvd.
PROPOSED NAME OF PLAT AND/OR SITE DEVELOPMENT PLAN

Tract 1-A-1, Lamonica and Wenk
EXISTING LEGAL DESCRIPTION PRIOR TO PLATTING ACTION

Following is a summary of PUBLIC/PRIVATE Infrastructure required to be constructed or financially guaranteed for the above development. This Listing is not necessarily a complete listing. During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee. Likewise, if the DRC Chair determines that appurtenant or non-essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees. All such revisions require approval by the DRC Chair, the User Department and agent/owner. If such approvals are obtained, these revisions to the listing will be incorporated administratively. In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of project acceptance and close out by the City.

SIA Sequence #	COA DRC Project #	Size	Type of Improvement	Location	From	To	Private Inspector	City Inspector	City Cnst Engineer
		48' F-F	Arterial Paving Curb and Gutter 6' Sidewalk (North Side)	Lamonica Road	Coors Blvd.	Loris Drive	/	/	/
		48' F-F	Arterial Paving Curb and Gutter 6' Sidewalk (West Side)	Loris Drive	Lamonica Road	Rio Bravo Blvd.	/	/	/
		12'	Right Turn Lane Curb and Gutter	Rio Bravo Blvd. and Loris Dr. Intersection	Eastbound Rio Bravo Blvd.	Loris Drive	/	/	/
		12'	Dual Left Turn Lanes* Curb and Gutter	Rio Bravo Blvd. and Loris Dr. Intersection	Westbound Rio Bravo Blvd.	Loris Drive	/	/	/
		12'	Acceleration Lane Curb and Gutter	Rio Bravo Blvd	Loris Drive	680' East of Loris Dr.	/	/	/
			Median Improvements for Intersection	Rio Bravo Blvd. and Loris Dr. Intersection	200' West of Loris Dr.	200' East of Loris Dr.	/	/	/
		12'	Right Turn Lane Curb and Gutter	Coors Blvd. and Lamonica Road	Northbound Coors Blvd.	Lamonica Road	/	/	/
		12'	Dual Left Turn Lanes* Curb and Gutter	Coors Blvd. and Lamonica Road	Southbound Coors Blvd.	Lamonica Road	/	/	/
		12'	Right Turn Lane Curb and Gutter	Coors Blvd.	Lamonica Road	Private Entrance	/	/	/
		12'	Right/Thru Lane Curb and Gutter	Rio Bravo Blvd. and Coors Blvd. Intersecion	Eastbound Rio Bravo Blvd.	Coors Blvd.	/	/	/
		12'	Restripe Additional Left Turn Lane	Rio Bravo Blvd. and Coors Blvd. Intersecion	Westbound Rio Bravo Blvd.	Coors Blvd.	/	/	/

		12'	Restripe Additional Left Turn Lane	Rio Bravo Blvd. and Coors Blvd. Intersecion	Southbound Coors Blvd.	Rio Bravo Blvd.	/	/ /
			Bus Bay w/ Shelter	Coors Blvd.			/	/ /
			Traffic Signal	Lamonica Road and Coors Blvd. Intersecion			/	/ /
			Traffic Signal	Loris Drive and Rio Bravo Blvd. Intersection			/	/ /
		6'	Sidewalk	Rio Bravo Blvd.	Coors Blvd.	Loris Drive	/	/ /
		6'	Sidewalk	Coors Blvd.	Rio Bravo Blvd.	Lamonica Road	/	/ /
		8"	SAS Gravity Line	Lamonica Road	Coors Blvd.	800' West of Coors	/	/ /
		10"	Water PVC Line	Lamonica Road	Coors Blvd.	Loris Drive	/	/ /
		10"	Water PVC Line	Loris Drive	Lamonica Road	350' North of Lamoncia	/	/ /
		2	Sidewalk Culverts	Loris Drive			/	/ /
		24"	RCP Storm Sewer	Lamonica Road			/	/ /
		8"	PVC Storm Sewer	Loris Drive	Loris Drive	Isleta Drain	/	/ /
			Drainage Crossing Structure	Rio Bravo Blvd. and Isleta Drain	North side of Rio Bravo Blvd	South side of Rio Bravo Blvd.	/	/ /
		Water Infrastructure to inlcude Valves, Fittings, Valve Boxes, and Fire Hydrants as required.					/	/ /
		Sanitary Sewer to include Manholes, and Service Connections as required.					/	/ /
		*One Left Turn Lane will be blocked out with striping until needed.					/	/ /
		Catch Basins and RCP connections included with Storm Sewer					/	/ /
		Residential Street Lights per DPM					/	/ /
		Certified Grading and Drainage with Private Walls and Private Drainage (Non- work order item) Required for SIA/Financial Guarantee Release.					/	/ /

NOTES

1 _____

_____

2 _____

_____

3 _____

_____

AGENT / OWNER	DEVELOPMENT REVIEW BOARD MEMBER APPROVALS	
NAME (print)	DRB CHAIR - date	PARKS & GENERAL SERVICES - date
FIRM	TRANSPORTATION DEVELOPMENT - date	AMAFCA - date
SIGNATURE - date	UTILITY DEVELOPMENT - date	_____ - date
MAXIMUM TIME ALLOWED TO CONSTRUCT THE IMPROVEMENTS WITHOUT A DRB EXTENSION: _____	CITY ENGINEER - date	_____ - date

DESIGN REVIEW COMMITTEE REVISIONS

REVISION	DATE	DRC CHAIR	USER DEPARTMENT	AGENT /OWNER