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

December 7, 2000

Ronald R. Bohannan, P.E.
Tierra West.
8509 Jefferson NE
Albuquerque, NM 87113

RE: CARL'S Jr. @ NORTH RENAISSANCE, TRACT 3A2-1.(f16-d21). ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY APPROVAL. ENGINEER'S STAMP DATED OCTOBER 5, 2000.

Dear Mr. Bohannan:

Based on the information provided on your October 5, 2000 submittal, the above referenced project is approved for Certificate of Occupancy.

A second 30-day Temporary C.O. had been issued on November 6, 2000. Your letter of October 5, 2000 had requested the initial 30-day Temp C.O. It was determined that the G & D Plan asbuilt data was complete in itself and a further submittal would not be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: Whitney Reierson
File

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE INFORMATION SHEET

PROJECT TITLE: *Carl's Jr. at Renaissance* ZONE ATLAS/DRNG. FILE #: *F-16/D-20*

DRB #: *98-227* EPC #: _____ WORK ORDER #: *N/A*

LEGAL DESCRIPTION: *Tract 3A2-1 North Renaissance*

CITY ADDRESS: *1401 Renaissance*

ENGINEERING FIRM: *TIERRA WEST, LLC* CONTACT: *RONALD R. BOHANNAN*

ADDRESS: *8509 Jefferson NE, ABQ, NM 87113* PHONE: *(505) 858-3100*

OWNER: *Devericks Family Partnership* CONTACT: *Richard Devericks*

ADDRESS: *P. O. Box 14903 Albuquerque, NM 87191* PHONE: *(805) 987-6921*

ARCHITECT: *SLNB Architects* CONTACT: *Jim Lewis*

ADDRESS: *1620 Central Avenue 87109* PHONE: _____

SURVEYOR: *Sandia Land Surveying* CONTACT: *Andrew Medina, P. S.*

ADDRESS: *6705 Gisele, NE, Albuq. 87109* PHONE: *(505) 828-0858*

CONTRACTOR: *Summit Construction* CONTACT: *Tony Tomas*

ADDRESS: *900 Hazeldine St.* PHONE: *(505) 842-8113*

TYPE OF SUBMITTAL:

_____ DRAINAGE REPORT
_____ DRAINAGE PLAN
_____ CONCEPTUAL GRADING & DRAINAGE PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
X ENGINEER'S CERTIFICATION
X OTHER (G & D As-builts)

PRE-DESIGN MEETING:

_____ YES
X NO
_____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

_____ SKETCH PLAN APPROVAL
_____ PRELIMINARY PLAT APPROVAL
_____ S. DEV. PLAN FOR SUB'D. APPROVAL
_____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
_____ SECTOR PLAN APPROVAL
_____ FINAL PLAT APPROVAL
_____ FOUNDATION PERMIT APPROVAL
_____ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY APPROVAL
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ S. A. D. DRAINAGE REPORT
_____ DRAINAGE REQUIREMENTS
_____ *OTHER (Release of Financial Guarantees)*

DATE SUBMITTED *October 5, 2000*

BY: *RONALD R. BOHANNAN*

RECEIVED
OCT 05 2000
HYDROLOGY SECTION

SIERRA WEST, LLC

8509 Jefferson NE
Albuquerque, NM 87113

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

e-mail: twdms@aol.com
1-800-245-3102

October 5, 2000

Mr. Bradley L. Bingham, PE
Albuquerque Public Works Department
P.O. Box 1293
Albuquerque, New Mexico 87103

RE: 30-Day Temporary Certification of Drainage for Certificate of Occupancy
Carl's Jr. at North Renaissance, 1401 Renaissance Boulevard, NE.
Tract 3A2-1 North Renaissance, (F16/D21)

Dear Bradley:

Enclosed please find one copy of the as-built Grading and Drainage Plan and information sheet for the Carl's Jr. Restaurant located in North Renaissance. Summit Construction has completed the on-site paving and curb and gutter. Landscaping for the site is underway. The outfall for the site is existing and is place and functional. All work is in substantial compliance with the approved plans. As-built information was supplied by Sandia Land Surveying. The retaining walls, located along the west property line, were removed by the owner and replaced with rock plate slope stabilization. This still meets the drainage concept originally approved by the City and is a slight deviation from the site plan. Landscaping meeting the City's landscape ordinance is being installed in this area in the rock plate. The existing monument sign is scheduled to be relocated next week. We are, therefore, requesting 30-day temporary Certification of Drainage for Certificate of Occupancy.

Should you have any questions, please do not hesitate to contact our office.

Sincerely,

Ronald R. Bohannan, P. E.

Enclosure

cc: Tony Tomas
James K. Trump, Jr.
Richard Deverick

JN: 990063
RRB/rw

RECEIVED
OCT 05 2000
HYDROLOGY SECTION

990063 H2oTemp

New 30-day

1401 Ros Blvd
11/6

12/5

CO

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

February 8, 2000

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

Re: Tract 3A2-1 Carl's JR Grading and Drainage Plan
Engineer's Stamp dated 12-28-99 (F16/D21)

Dear Mr. Bohannan,

Based upon the information provided in your submittal dated 12-28-99, the above referenced plan is approved for Site Development Plan for Building Permit, Building Permit and Grading Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions about my comments, you can contact me at 924-3986

Sincerely,

Bradley L. Bingham

Bradley L. Bingham, PE
Hydrology Review Engineer

C: file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE INFORMATION SHEET

PROJECT TITLE: *Carl's Jr.* ZONE ATLAS/DRNG. FILE #: *F-16/D20* D021

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: *Tract 3A2-1 North Renaissance Center*

CITY ADDRESS: *Southwest corner of Renaissance and Alexander*

ENGINEERING FIRM: *TIERRA WEST, LLC* CONTACT: *RONALD R. BOHANNAN OR SARA LAVY*

ADDRESS: *4421 McCleod Rd. NE Suite D, 87109* PHONE: *(505) 883-7592*

OWNER: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: *Precision Surveys* CONTACT: *Larry Medrano*

ADDRESS: *8414-D Jefferson Street, NE* PHONE: *(505)856-5700*

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

X DRAINAGE REPORT
_____ DRAINAGE PLAN
_____ CONCEPTUAL GRADING & DRAINAGE PLAN
X GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERTIFICATION
_____ OTHER

PRE-DESIGN MEETING:

_____ YES
X NO
_____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

_____ SKETCH PLAN APPROVAL
_____ 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 APPROVAL
X GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ S. A. D. DRAINAGE REPORT
_____ DRAINAGE REQUIREMENTS
_____ *OTHER*

RECEIVED
DEC 28 1999
HYDROLOGY SECTION

DATE SUBMITTED: *12/27/99*

BY: *Sara Lavy*

DRAINAGE REPORT
FOR

TRACT 3 OF RENAISSANCE CENTER

OFFICE / WAREHOUSE

Prepared by:

Tierra West, LLC
4421 McLeod Rd., NE, Suite D
Albuquerque, New Mexico 87109

March, 1998
(Revised June 25, 1998)

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
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER

Ronald R. Bohannan
PE NO. 7868

Job No 980055

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(Ponding calculations under proposed conditions, 100-year, 24-hr Storm, Routes A & B)

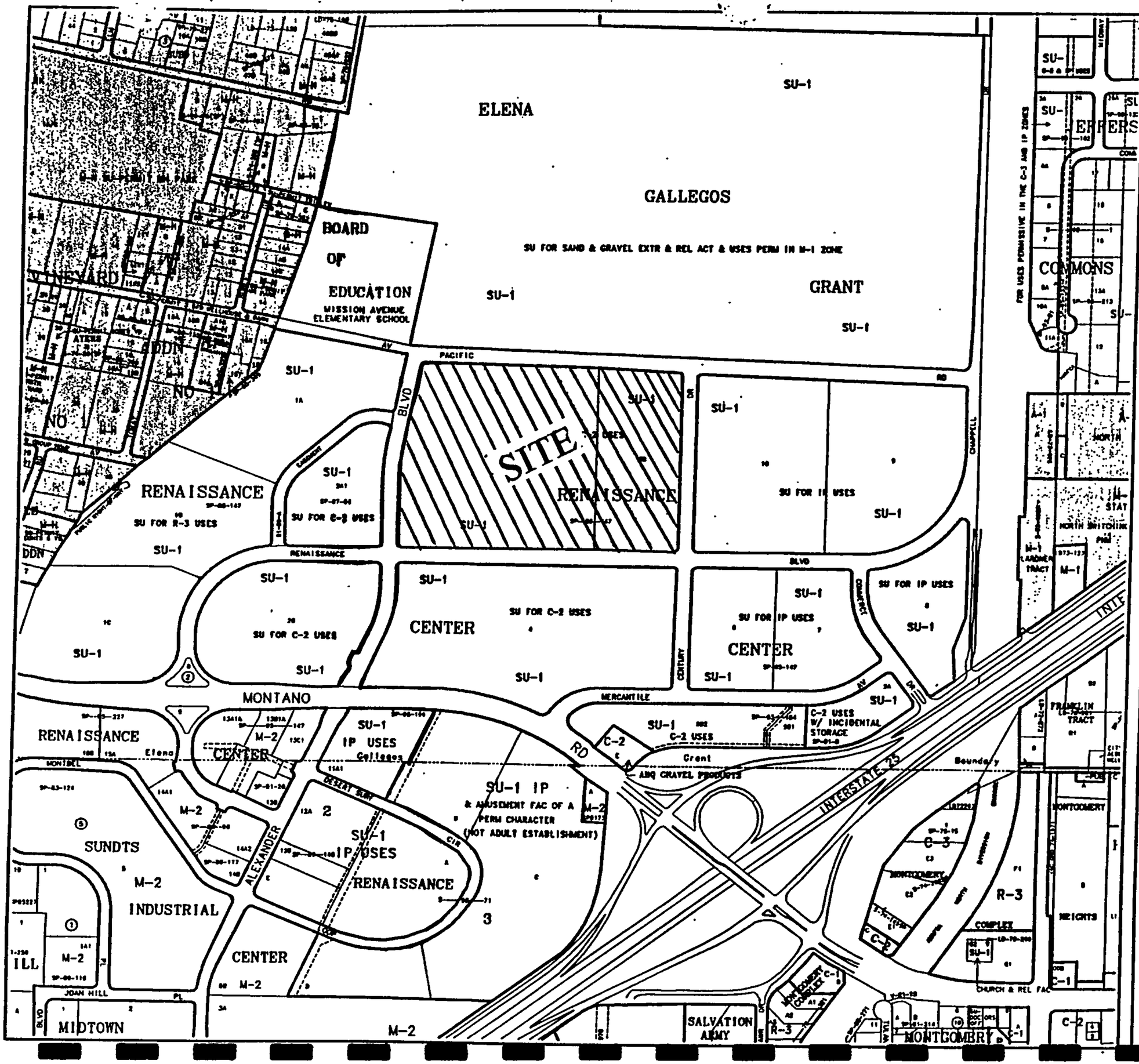
AHYMO INPUT FILE
AHYMO SUMMARY OUTPUT
AHYMO OUTPUT FILE

MAP POCKET

Grading And Drainage Plan
Proposed Basin Layout

Section I

Report



GRAPHIC SCALE IN FEET

250 0 500 1000

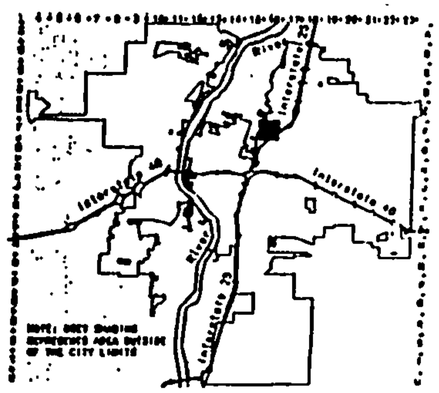
CITY OF Albuquerque

AGIS

PLANNING DEPARTMENT

©Copyright 1995

Map Amended through November 06, 1995



LEGAL DESCRIPTION

T11N

R3E

SEC 34

UNIFORM PROPERTY CODE

1-016-001

F-16-Z

Location

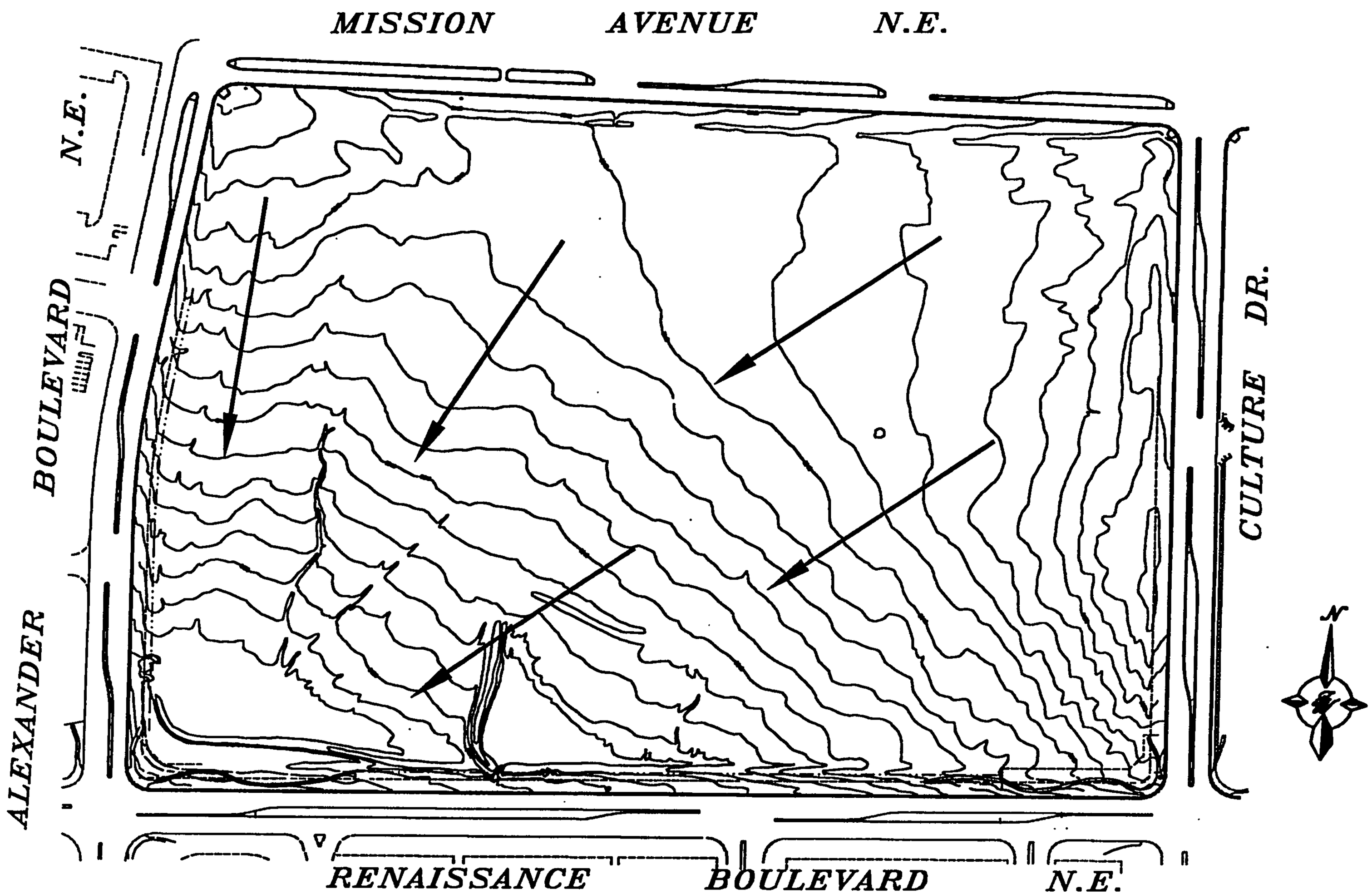
Tract 3, of the Renaissance Center, is located at the northeast corner of Alexander Boulevard and Renaissance Boulevard. See attached Zone Atlas page number F-16 for exact location. The owners are proposing to develop several office and warehouse buildings.

Purpose

The purpose of this drainage report is to present a grading and drainage solution for the proposed sites. We are requesting rough grading approval, site development plan for subdivision purposes, site development plan for building permit, final plat approval and building permit.

Existing Drainage Conditions

The site falls within the Renaissance Drainage Master Plan, and it is currently undeveloped. No offsite runoff enters this site. All offsite runoff to the north and south are intercepted by Mission Avenue and Renaissance Boulevard. The offsite runoff to the east and west are intercepted by Culture Drive and Alexander Boulevard. The entire runoff from Tract 3 drains to the southwest corner of the site, at a flow rate of 75.82 cfs, to an existing desilting pond and then overflows to the west and south to Alexander Boulevard and Renaissance Boulevard.



EXISTING BASIN LAYOUT

Flood Plain and Soil Condition

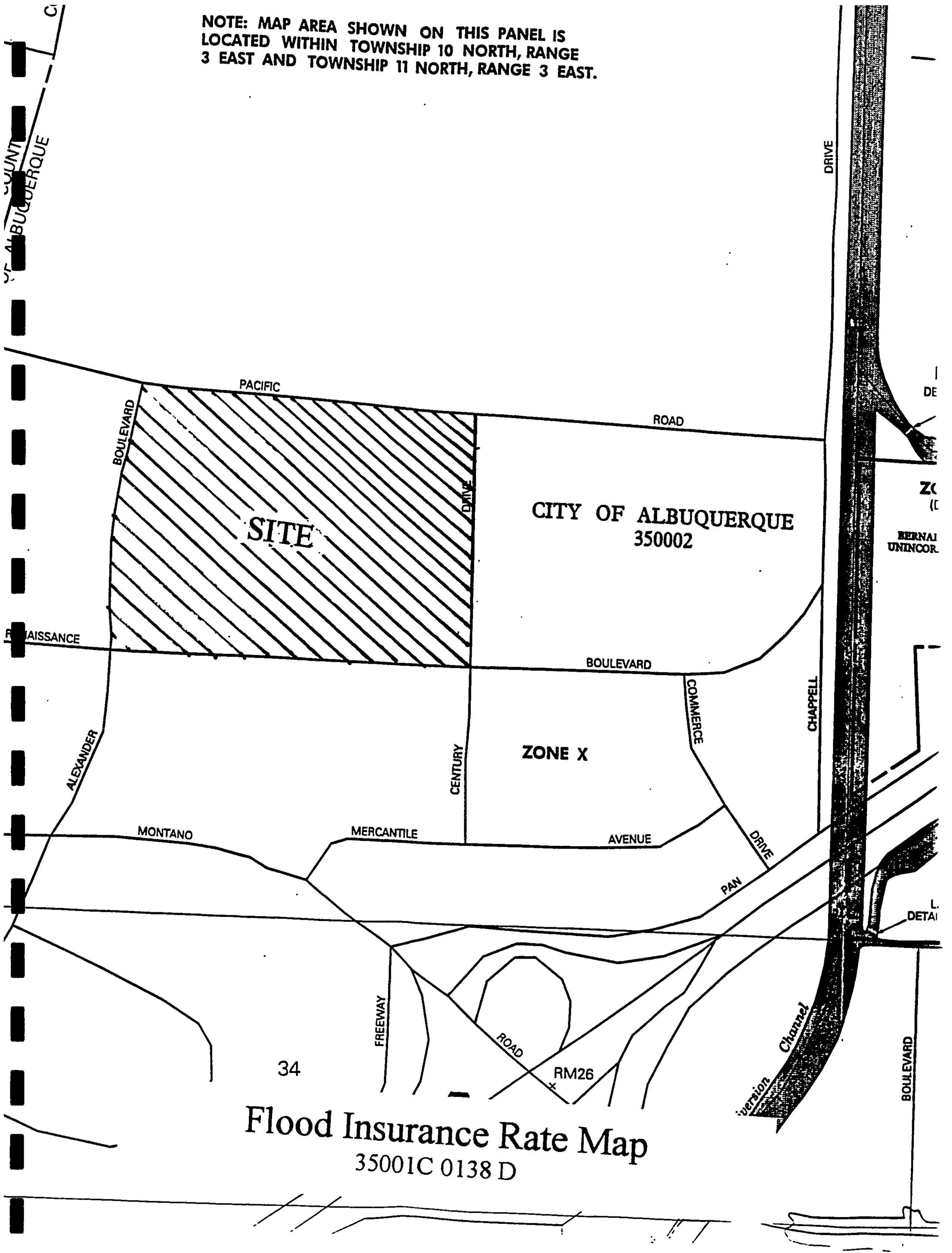
The site is located on FEMA Map No. 35001C 0138-D, as shown on the attached excerpt. The map shows that the site does not lie within any 100 year flood plains.

The site contains two soil types Bluepoint-Kokan association (BKD) and Wink-Embudo complex (WeB) as indicated on the Soil Map (sheet # 21) from the Soil Conservation Service Survey of Bernalillo County. The Bluepoint-Kokan association is a Bluepoint loamy fine sand that has slow runoff, rapid permeability, and moderate to severe hazard of water erosion. Wink-Embudo complex consist of deep, well drained soils that formed in old unconsolidated alluvium modified by wind on piedmonts. This soil has a thin layer of loamy sand. It is used for range, watershed, wildlife habitat, and community development. See attached soil map for site location.

Proposed Conditions and On-Site Drainage Management Plan

This site was designed and submitted to City Hydrology under drainage number F16/D5. Since that submittal the site layout has been modified and the entire site will be graded under one phase. Future parking lot ponding areas will be used as desilting ponds, and all the disturbed areas will be re-seeded. The site is designed to pond the runoff in several parking lot ponding areas and then discharge at a flow rate of less than or equal to 0.1 cfs/acre

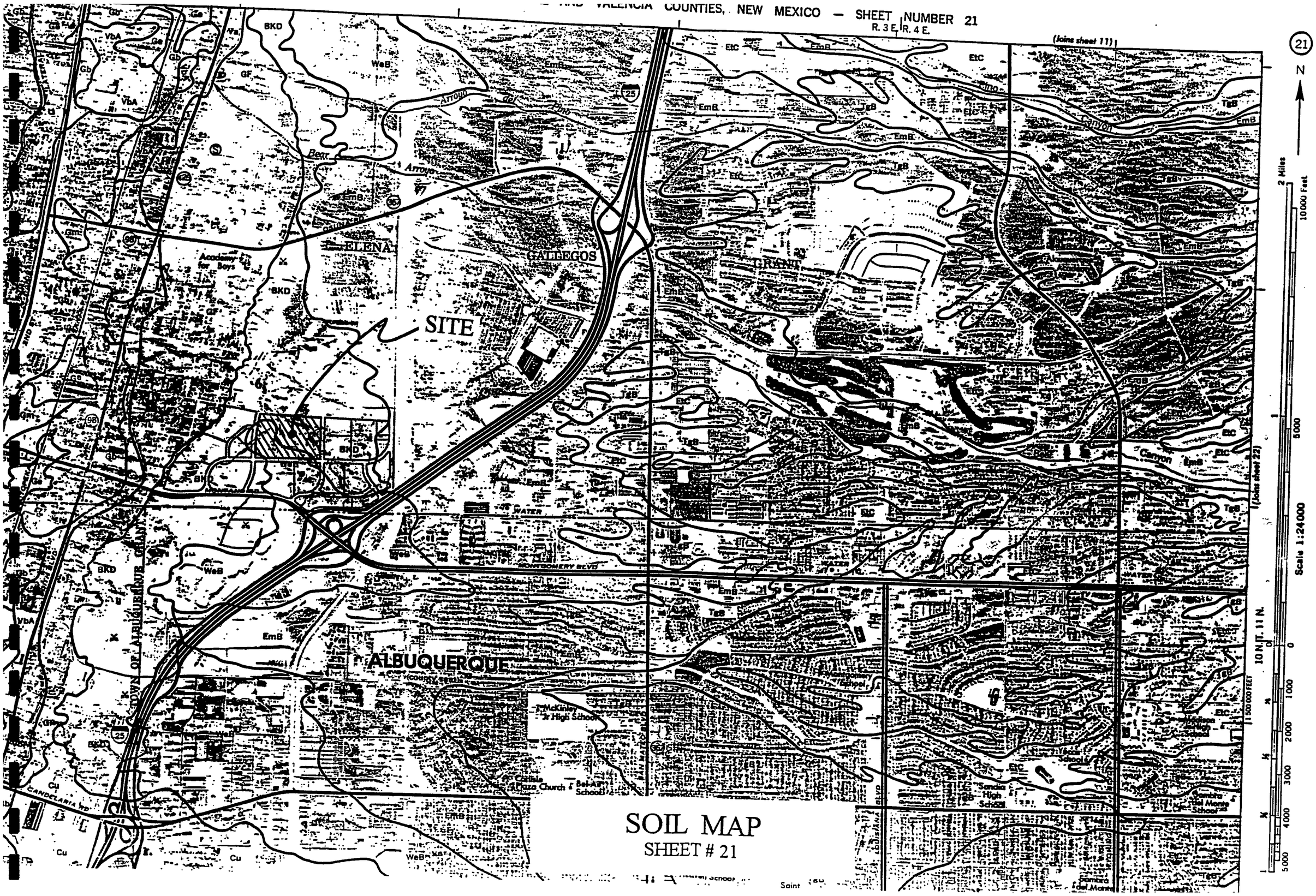
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 10 NORTH, RANGE 3 EAST AND TOWNSHIP 11 NORTH, RANGE 3 EAST.



34

Flood Insurance Rate Map

35001C 0138 D



SOIL MAP

SHEET # 21

(3.33 cfs) per the Renaissance Master Drainage Plan. The site has been analyzed under two runoff routings, A and B. Route A consists of basins 1 through 9 and discharges to Route A and then from there to an existing inlet in Renaissance Boulevard at a flow rate of 3.29 cfs. Route B consists of basins 10 through 14 and along with Route A discharges to an existing inlet in Renaissance Boulevard at a flow rate of 3.29 cfs. The total discharge from routing A and B is 3.29 cfs is less than allowable discharge of 3.33 cfs. See Proposed Basin layout for runoff routing plan and discharge details.

Emergency Conditions

In the case of an emergency the runoff will overflow the parking lot pondings to the south to Renaissance Boulevard.

Summary

The project will be graded under one phase. The future parking lot ponding will be used as desilting ponds. The site drains at a total runoff rate of 3.29 cfs less than the allowable discharge of 3.33 cfs via drainage routings A and B.

Calculations

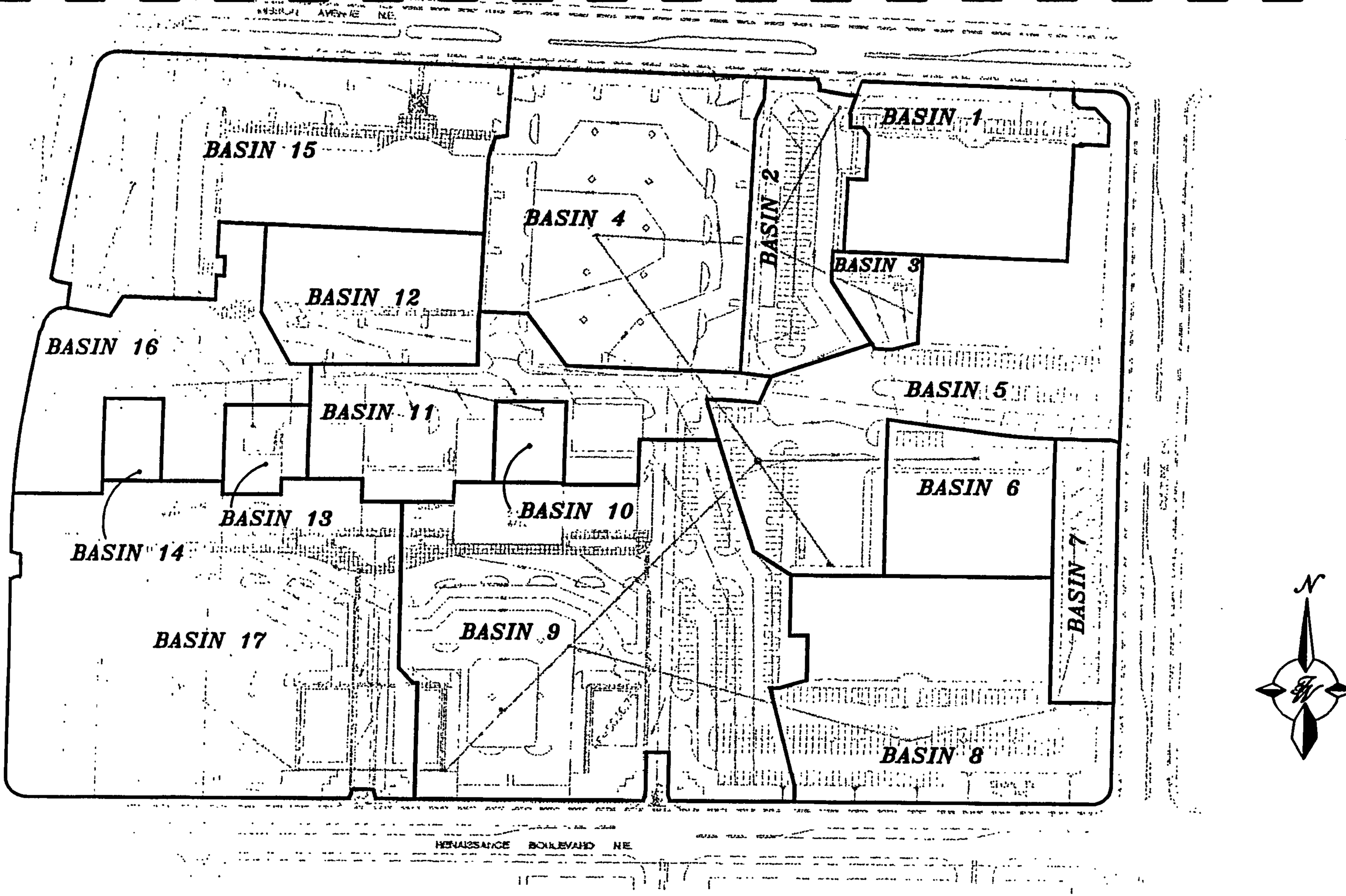
City of Albuquerque, Development Process Manuel, Section 22.2, Hydrology Section, revised January, 1993, was used for runoff calculations. See section II of this report for Summary Table for runoff results. See also Sections IV, V, and VI of this report for AHYMO input and output files for runoff and ponding calculations.

Infrastructure List

All work will be performed under building permit outside of any public right of way, and therefore there is no need for an infrastructure list.

Section II

Runoff Calculations



BASIN LAYOUT

RUNOFF SUMMARY TABLE

PROPOSED

DRAINAGE BASINS			
SUB-BASIN	AREA (SF)	AREA (AC)	AREA (MI^2)
1	68709.70	1.5774	0.002465
2	52090.39	1.1958	0.001868
3	12376.71	0.2841	0.000444
4	134963.07	3.0983	0.004841
5	139583.98	3.2044	0.005007
6	44077.77	1.0119	0.001581
7	29638.62	0.6804	0.001063
8	116757.45	2.6804	0.004188
9	219085.21	5.0295	0.007859
10	10450.00	0.2399	0.000375
11	82711.97	1.8988	0.002967
12	53114.37	1.2193	0.001905
13	13230.46	0.3037	0.000475
14	8888.78	0.2041	0.000319
15	154050.73	3.5365	0.005526
16	77467.85	1.7784	0.002779
17	227926.25	5.2325	0.008176

BASINS RUNOFF CALCULATION RESULTS UNDER PROPOSED CONDITIONS

BASIN	Q-100 CFS	Q-10 CFS
1	7.05	4.56
2	5.35	3.46
3	1.28	0.83
4	0.99	0.64
5	14.30	9.26
6	4.53	2.93
7	3.05	1.97
8	11.96	7.74
9	22.43	14.53
10	1.09	0.70
11	8.48	5.49
12	5.45	3.53
13	1.37	0.89
14	0.93	0.60
15	15.78	10.22
16	7.94	5.14
17	23.34	15.11

EXISTING

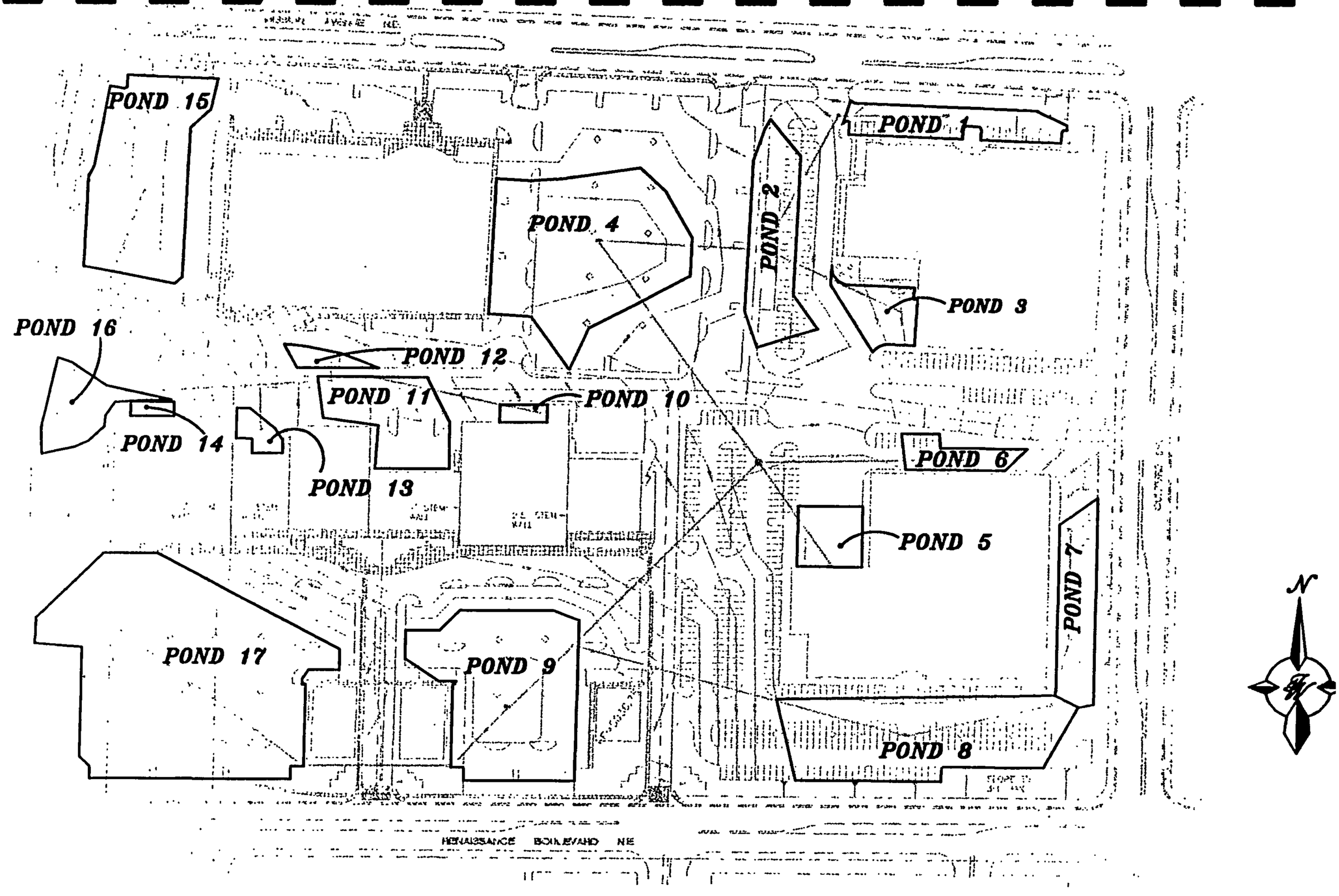
DRAINAGE BASINS			
BASIN	AREA (SF)	AREA (AC)	AREA (MI^2)
1	1449973.80	33.2868	0.052011

BASIN RUNOFF CALCULATION RESULTS UNDER PROPOSED CONDITIONS

BASIN	Q-100 CFS	Q-10 CFS
1	75.82	31.11

Section III

Ponding Calculations



PONDING LOCATIONS

POND #1

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF	
At =	11,691.40	SF	
Dt =	1.30	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	6	IN	
Radius =	3	IN	
C =	8988.05	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5043.00
1.25	1.25	0.00020	0.95	5044.25
2.50	2.50	0.00040	1.42	5045.50
2.80	0.30	0.00973	1.51	5045.80
3.10	0.60	0.03763	1.60	5046.10
3.40	0.90	0.08411	1.68	5046.40
3.80	1.30	0.17496	1.78	5046.80

POND #2

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF
At =	18,964.80	SF
Dt =	1.50	FT
Dia =	8	IN
Radius =	4	IN
C =	12638.57	FT / LF-DEPTH

(Ponding depth from top of the inlet to maximum ponding depth)

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5040.00
1.25	1.25	0.00020	1.61	5041.25
2.50	2.50	0.00040	2.47	5042.50
2.90	0.40	0.02367	2.69	5042.90
3.30	0.80	0.09337	2.89	5043.30
3.70	1.20	0.20949	3.08	5043.70
4.00	1.50	0.32705	3.22	5044.00

POND #3

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF
At =	7,349.30	SF
Dt =	2.60	FT
Dia =	10	IN
Radius =	5	IN
C =	2823.98	FT / LF-DEPTH

(Ponding depth from top of the inlet to maximum ponding depth)

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5040.90
1.25	1.25	0.00020	2.40	5042.15
2.50	2.50	0.00040	3.79	5043.40
2.90	0.40	0.00565	4.14	5043.80
3.30	0.80	0.02127	4.46	5044.20
3.70	1.20	0.04727	4.76	5044.60
4.10	1.60	0.08364	5.04	5045.00
4.50	2.00	0.13038	5.31	5045.40
5.10	2.60	0.21994	5.68	5046.00

POND #4

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$Volume = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF	
At =	51,171.40	SF	
Dt =	1.50	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	2	IN	
Radius =	1	IN	
C =	34109.64	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5038.50
1.25	1.25	0.00020	0.11	5039.75
2.50	2.50	0.00040	0.16	5041.00
2.90	0.40	0.06311	0.18	5041.40
3.30	0.80	0.25110	0.19	5041.80
3.70	1.20	0.56439	0.20	5042.20
4.00	1.50	0.88157	0.21	5042.50

POND #5

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$

C = (At - Ab) / Dt

Ab =	6.94	SF
At =	7,274.82	SF
Dt =	1.50	FT
Dia =	12	IN
Radius =	6	IN
C =	4845.25	FT / LF-DEPTH

(Ponding depth from top of the inlet to maximum

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5038.50
1.25	1.25	0.00020	3.28	5039.75
2.50	2.50	0.00040	5.35	5041.00
2.90	0.40	0.00936	5.86	5041.40
3.30	0.80	0.03612	6.33	5041.80
3.50	1.00	0.05617	6.55	5042.00
4.00	1.50	0.12577	7.07	5042.50

POND #6

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF	
At =	5,478.83	SF	
Dt =	1.50	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	8	IN	
Radius =	4	IN	
C =	3647.93	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5040.00
1.25	1.25	0.00020	1.61	5041.25
2.50	2.50	0.00040	2.47	5042.50
2.90	0.40	0.00716	2.69	5042.90
3.30	0.80	0.02732	2.89	5043.30
3.70	1.20	0.06089	3.08	5043.70
4.00	1.50	0.09485	3.22	5044.00

POND #7

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =3.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF	
At =	13,292.87	SF	
Dt =	0.60	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	6	IN	
Radius =	3	IN	
C =	22143.22	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5039.90
1.25	1.25	0.00020	0.95	5041.15
3.50	3.50	0.00056	1.70	5043.40
3.70	0.20	0.01076	1.76	5043.60
3.90	0.40	0.04129	1.81	5043.80
4.10	0.60	0.09215	1.86	5044.00

POND #8

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =4.92'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF	
At =	40,390.46	SF	
Dt =	1.00	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	4	IN	
Radius =	2	IN	
C =	40383.52	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5038.08
1.25	1.25	0.00020	0.44	5039.33
4.92	4.92	0.00078	0.92	5043.00
5.32	0.40	0.07501	0.95	5043.40
5.72	0.80	0.29758	0.99	5043.80
5.92	1.00	0.46448	1.01	5044.00

POND #9

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF
At =	43,998.22	SF
Dt =	2.00	FT
Dia =	7.375	IN
Radius =	3.6875	IN
C =	21995.64	FT / LF-DEPTH

(Ponding depth from top of the inlet to maximum ponding depth)

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5031.50
1.25	1.25	0.00020	1.39	5032.75
2.50	2.50	0.00040	2.12	5034.00
2.90	0.40	0.04086	2.30	5034.40
3.30	0.80	0.16211	2.47	5034.80
3.70	1.20	0.36415	2.63	5035.20
4.10	1.60	0.64699	2.78	5035.60
4.50	2.00	1.01062	2.92	5036.00

POND #10

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF	
At =	1,625.00	SF	
Dt =	4.00	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	10	IN	
Radius =	5	IN	
C =	404.52	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5033.50
1.25	1.25	0.00020	2.40	5034.75
2.50	2.50	0.00040	3.79	5036.00
2.90	0.40	0.00120	4.14	5036.40
3.30	0.80	0.00350	4.46	5036.80
3.70	1.20	0.00728	4.76	5037.20
4.10	1.60	0.01254	5.04	5037.60
4.50	2.00	0.01929	5.31	5038.00

POND #11

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =8.48'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$Volume = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF	
At =	16,631.20	SF	
Dt =	1.00	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	10	IN	
Radius =	5	IN	
C =	16624.26	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5029.02
4.24	4.24	0.00068	5.14	5033.26
8.48	8.48	0.00135	7.46	5037.50
8.88	0.40	0.03195	7.64	5037.90
9.28	0.80	0.12360	7.82	5038.30
9.48	1.00	0.19233	7.91	5038.50

POND #12

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$Volume = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF
At =	2,344.96	SF
Dt =	0.70	FT
Dia =	10	IN
Radius =	5	IN
C =	3340.03	FT / LF-DEPTH

(Ponding depth from top of the inlet to maximum ponding depth)

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5036.80
1.25	1.25	0.00020	2.40	5038.05
2.50	2.50	0.00040	3.79	5039.30
2.70	0.20	0.00196	3.97	5039.50
2.90	0.40	0.00660	4.14	5039.70
3.20	0.70	0.01930	4.38	5040.00

POND #13

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$

C = (At - Ab) / Dt

Ab =	6.94	SF	
At =	2,672.51	SF	
Dt =	2.00	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	8	IN	
Radius =	4	IN	
C =	1332.79	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5033.50
1.25	1.25	0.00020	1.61	5034.75
2.50	2.50	0.00040	2.47	5036.00
2.90	0.40	0.00291	2.69	5036.40
3.30	0.80	0.01032	2.89	5036.80
3.70	1.20	0.02262	3.08	5037.20
4.10	1.60	0.03982	3.26	5037.60
4.50	2.00	0.06191	3.43	5038.00

POND #14

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF
At =	1,200.00	SF
Dt =	2.00	FT
Dia =	4	IN
Radius =	2	IN
C =	596.53	FT / LF-DEPTH

(Ponding depth from top of the inlet to maximum ponding depth)

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5028.00
1.25	1.25	0.00020	0.44	5029.25
2.50	2.50	0.00040	0.64	5030.50
2.90	0.40	0.00156	0.69	5030.90
3.30	0.80	0.00491	0.74	5031.30
3.70	1.20	0.01045	0.79	5031.70
4.10	1.60	0.01818	0.83	5032.10
4.50	2.00	0.02811	0.87	5032.50

POND #15

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =2.50'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$\text{Volume} = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF
At =	37,496.58	SF
Dt =	1.50	FT
Dia =	4	IN
Radius =	2	IN
C =	24993.09	FT / LF-DEPTH

(Ponding depth from top of the inlet to maximum ponding depth)

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5037.00
1.25	1.25	0.00020	0.44	5038.25
2.50	2.50	0.00040	0.64	5039.50
2.90	0.40	0.04636	0.69	5039.90
3.30	0.80	0.18413	0.74	5040.30
3.70	1.20	0.41370	0.79	5040.70
4.00	1.50	0.64612	0.82	5041.00

POND #16

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =6.63'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

$$Volume = Ab * D + 0.5 * C * D^2$$

$$C = (At - Ab) / Dt$$

Ab =	6.94	SF	
At =	11,421.52	SF	
Dt =	1.00	FT	(Ponding depth from top of the inlet to maximum ponding depth)
Dia =	12	IN	
Radius =	6	IN	
C =	11414.58	FT / LF-DEPTH	

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5026.37
3.32	3.32	0.00053	6.34	5029.69
6.63	6.63	0.00106	9.36	5033.00
7.03	0.40	0.02208	9.66	5033.40
7.43	0.80	0.08504	9.96	5033.80
7.63	1.00	0.13224	10.10	5034.00

Tierra West, LLC

December 28, 1999

Ms. Susan Calongne
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Carl's Jr. at Tract 3 Renaissance (F16-D20)

Dear Ms. Calongne:

We are working at a project located within Tract 3 of the Renaissance Center. It is identified as Tract 3A2-1 and is located on the corner of Renaissance Boulevard and Alexander Avenue. There was a master drainage plan previously approved for Tract 3 under F16-D20. We are requesting approval of the grading plan for site plan for building permit and grading permit.

We are not planning any changes to the Master Plan. The Carl's Jr. site falls within Basin 17 of the Master Plan. Basin 17 drains to an existing drop inlet and then to Renaissance Boulevard. Carl's Jr. will not change the land treatment that was used to calculated the developed flow in Basin 17. We are not changing any of the drainage patterns from the Master Plan. Basin 17 has a developed flow of 23.34 cfs. This flow is ponded in the parking lot and released at a controlled rate of 3.29 cfs.

The grading and drainage plan for Carl's Jr. is enclosed for your review and approval. I have also included the drainage report for Tract 3 which is the master plan for this area.

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

Sincerely,

Sara Lavy

Sara Lavy

cc: James K Trump, Jr.

JN: 990063
scl

990063· 9963hyd-submittal ltr

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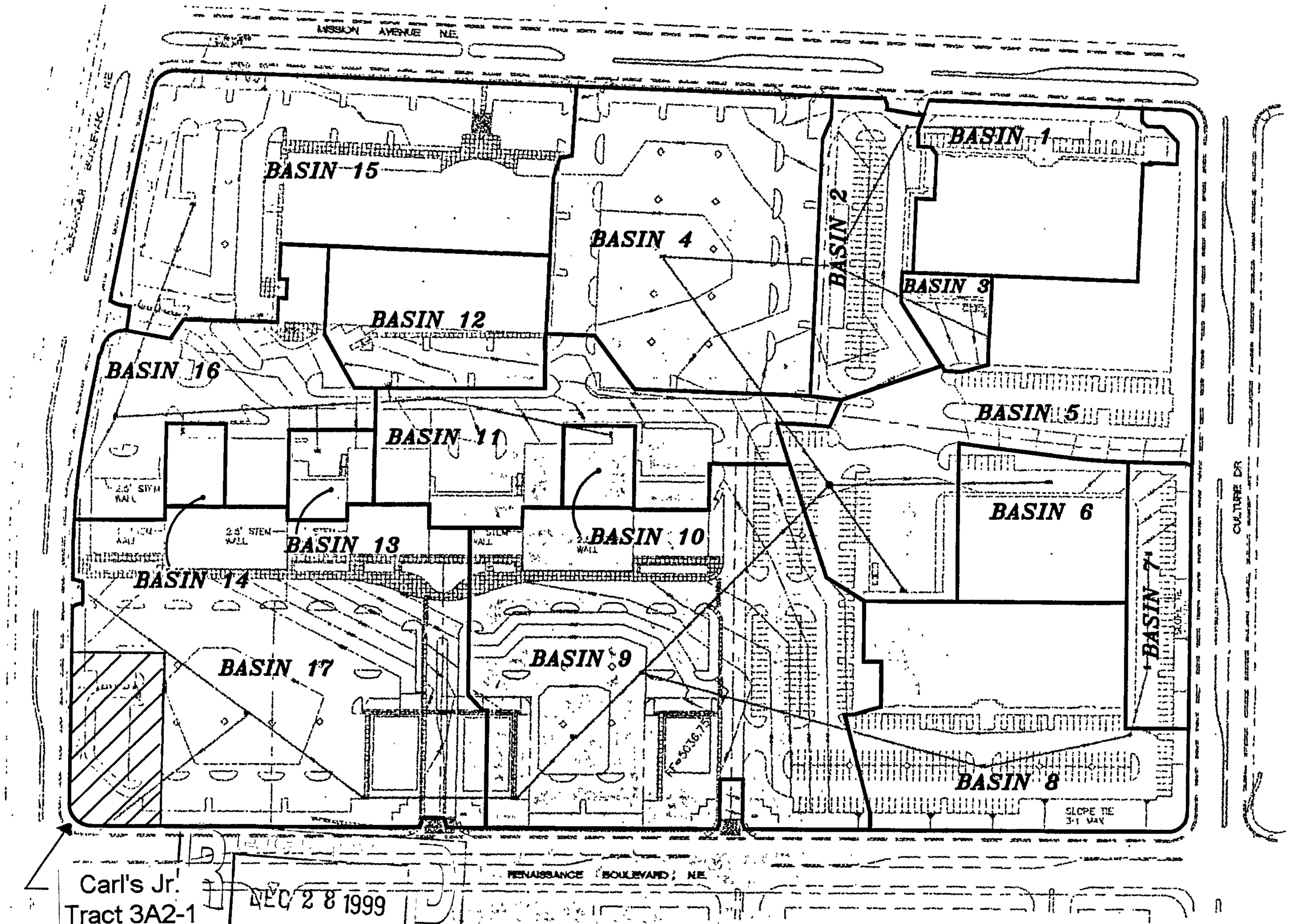

Carl's Jr.
Tract 3A2-1

DEC 2 8 1999

HYDROLOGY SECTION

BASIN LAYOUT

POND #17

Volume = 6.94 * D (from bottom of the inlet to the top of inlet)

Inlet Depth =7.85'

Ab - Bottom Of The Pond Surface Area (Top of the inlet)
At - Top Of The Pond Surface Area
D - Water Depth (From top of inlet)
Dt - Total Pond Depth (From top of inlet to maximum water detph)
C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$

C = (At - Ab) / Dt

Ab =	6.94	SF
At =	92,091.47	SF
Dt =	2.00	FT
Dia =	6.375	IN
Radius =	3.1875	IN
C =	46042.27	FT / LF-DEPTH

(Ponding depth from top of the inlet to maximum ponding depth)

H (FT)	D (FT)	VOLUME (AC-FT)	Q (CFS)	FULL ELEV.
0.00	0.00	0.00000	0.00	5023.15
3.93	3.93	0.00063	2.04	5027.08
7.85	7.85	0.00125	2.94	5031.00
8.25	0.40	0.08587	3.02	5031.40
8.65	0.80	0.33961	3.09	5031.80
9.05	1.20	0.76247	3.16	5032.20
9.45	1.60	1.35445	3.23	5032.60
9.85	2.00	2.11554	3.30	5033.00

Section IV

AHYMO FILES (Under Existing Conditions, 100-year, 10-year Storm)

```
*****************************************************************
*                    RENAISSANCE  TRACT  3                      *
*****************************************************************
*        100-YEAR,  6-HR STORM (UNDER EXISTING CONDITIONS)       *
*****************************************************************
START                   TIME=0.0
*
RAINFALL                TYPE=1 RAIN QUARTER=0.0 IN
                        RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                        RAIN DAY=2.75 IN DT=0.03333 HR
*-----------------------------------------------------------------BASIN 1
COMPUTE NM HYD          ID=1 HYD NO=101.0 AREA=0.052011 SQ MI
                        PER A=0.00 PER B=100.00 PER C=0.00 PER D=0.00
                        TP=-0.1333 HR MASS RAINFALL=-1
*
*****************************************************************
*        10-YEAR,  6-HR STORM (UNDER EXISTING CONDITIONS)        *
*****************************************************************
START                   TIME=0.0
*
RAINFALL                TYPE=1 RAIN QUARTER=0.0 IN
                        RAIN ONE=1.34 IN RAIN SIX=1.57 IN
                        RAIN DAY=1.83 IN DT=0.03333 HR
*-----------------------------------------------------------------BASIN 1
COMPUTE NM HYD          ID=1 HYD NO=111.0 AREA=0.052011 SQ MI
                        PER A=0.00 PER B=100.00 PER C=0.00 PER D=0.00
                        TP=-0.1333 HR MASS RAINFALL=-1

*
FINISH
```

```
*****************************************************************
*                RENAISSANCE  TRACT  3                          *
*****************************************************************
*       100-YEAR, 24-HR STORM (UNDER PROPOSED CONDITIONS)       *
*****************************************************************
START                TIME=0.0

RAINFALL             TYPE=2 RAIN QUARTER=0.0 IN
                     RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                     RAIN DAY=2.75 IN DT=0.03333 HR
*-------------------------------------------------------------BASIN 1
COMPUTE NM HYD       ID=1 HYD NO=101.0 AREA=0.002465 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 2
COMPUTE NM HYD       ID=2 HYD NO=102.0 AREA=0.001868 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 3
COMPUTE NM HYD       ID=1 HYD NO=103.0 AREA=0.000444 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 4
COMPUTE NM HYD       ID=2 HYD NO=104.0 AREA=0.000341 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 5
COMPUTE NM HYD       ID=1 HYD NO=105.0 AREA=0.005007 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 6
COMPUTE NM HYD       ID=2 HYD NO=106.0 AREA=0.001581 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 7
COMPUTE NM HYD       ID=1 HYD NO=107.0 AREA=0.001063 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 8
COMPUTE NM HYD       ID=1 HYD NO=108.0 AREA=0.004188 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 9
COMPUTE NM HYD       ID=2 HYD NO=109.0 AREA=0.007859 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*------------------------------------------------------------BASIN 10
COMPUTE NM HYD       ID=1 HYD NO=110.0 AREA=0.000375 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*------------------------------------------------------------BASIN 11
COMPUTE NM HYD       ID=2 HYD NO=111.0 AREA=0.002967 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*------------------------------------------------------------BASIN 12
COMPUTE NM HYD       ID=1 HYD NO=112.0 AREA=0.001905 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1
*------------------------------------------------------------BASIN 13
COMPUTE NM HYD       ID=2 HYD NO=113.0 AREA=0.000475 SQ MI
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```
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
-----------------------------------------------------------BASIN 14
COMPUTE NM HYD      ID=1 HYD NO=114.0 AREA=0.000319 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
-----------------------------------------------------------BASIN 15
COMPUTE NM HYD      ID=1 HYD NO=115.0 AREA=0.005526 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*----------------------------------------------------------BASIN 16
COMPUTE NM HYD      ID=1 HYD NO=116.0 AREA=0.002779 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*----------------------------------------------------------BASIN 17
COMPUTE NM HYD      ID=2 HYD NO=117.0 AREA=0.008176 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*******************************************************************
        10-YEAR, 24-HR STORM (UNDER PROPOSED CONDITIONS)          *
*******************************************************************
START               TIME=0.0

RAINFALL            TYPE=2 RAIN QUARTER=0.0 IN
                    RAIN ONE=1.34 IN RAIN SIX=1.57 IN
                    RAIN DAY=1.83 IN DT=0.03333 HR
-----------------------------------------------------------BASIN 1
COMPUTE NM HYD      ID=1 HYD NO=101.10 AREA=0.002465 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*----------------------------------------------------------BASIN 2
COMPUTE NM HYD      ID=2 HYD NO=102.10 AREA=0.001868 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*----------------------------------------------------------BASIN 3
COMPUTE NM HYD      ID=1 HYD NO=103.10 AREA=0.000444 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
-----------------------------------------------------------BASIN 4
COMPUTE NM HYD      ID=2 HYD NO=104.10 AREA=0.000341 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
-----------------------------------------------------------BASIN 5
COMPUTE NM HYD      ID=1 HYD NO=105.10 AREA=0.005007 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
-----------------------------------------------------------BASIN 6
COMPUTE NM HYD      ID=2 HYD NO=106.10 AREA=0.001581 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*----------------------------------------------------------BASIN 7
COMPUTE NM HYD      ID=1 HYD NO=107.10 AREA=0.001063 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*----------------------------------------------------------BASIN 8
COMPUTE NM HYD      ID=1 HYD NO=108.10 AREA=0.004188 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
-----------------------------------------------------------BASIN 9
COMPUTE NM HYD      ID=2 HYD NO=109.10 AREA=0.007859 SQ MI
```

```
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 10
COMPUTE NM HYD      ID=1 HYD NO=110.10 AREA=0.000375 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 11
COMPUTE NM HYD      ID=2 HYD NO=111.10 AREA=0.002967 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 12
COMPUTE NM HYD      ID=1 HYD NO=112.10 AREA=0.001905 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 13
COMPUTE NM HYD      ID=2 HYD NO=113.10 AREA=0.000475 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 14
COMPUTE NM HYD      ID=1 HYD NO=114.10 AREA=0.000319 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 15
COMPUTE NM HYD      ID=1 HYD NO=115.10 AREA=0.005526 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 16
COMPUTE NM HYD      ID=1 HYD NO=116.10 AREA=0.002779 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*-------------------------------------------------------------BASIN 17
COMPUTE NM HYD      ID=2 HYD NO=117.10 AREA=0.008176 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*
FINISH
```

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =06/24/1998

INPUT FILE = 9855a USER NO.= R_BOHANN.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
START										
RAINFALL TYPE= 2										TIME= .00
										RAIN24= 2.750
COMPUTE NM HYD	101.00	-	1	.00247	7.05	.300	2.27930	1.500	4.468	PER IMP= 90.00
COMPUTE NM HYD	102.00	-	2	.00187	5.35	.227	2.27930	1.500	4.472	PER IMP= 90.00
COMPUTE NM HYD	103.00	-	1	.00044	1.28	.054	2.27938	1.500	4.521	PER IMP= 90.00
COMPUTE NM HYD	104.00	-	2	.00034	.99	.041	2.27941	1.500	4.532	PER IMP= 90.00
COMPUTE NM HYD	105.00	-	1	.00501	14.30	.609	2.27928	1.500	4.462	PER IMP= 90.00
COMPUTE NM HYD	106.00	-	2	.00158	4.53	.192	2.27931	1.500	4.475	PER IMP= 90.00
COMPUTE NM HYD	107.00	-	1	.00106	3.05	.129	2.27932	1.500	4.481	PER IMP= 90.00
COMPUTE NM HYD	108.00	-	1	.00419	11.96	.509	2.27928	1.500	4.463	PER IMP= 90.00
COMPUTE NM HYD	109.00	-	2	.00786	22.43	.955	2.27928	1.500	4.460	PER IMP= 90.00
COMPUTE NM HYD	110.00	-	1	.00038	1.09	.046	2.27939	1.500	4.526	PER IMP= 90.00
COMPUTE NM HYD	111.00	-	2	.00297	8.48	.361	2.27929	1.500	4.466	PER IMP= 90.00
COMPUTE NM HYD	112.00	-	1	.00191	5.45	.232	2.27930	1.500	4.471	PER IMP= 90.00
COMPUTE NM HYD	113.00	-	2	.00048	1.37	.058	2.27938	1.500	4.518	PER IMP= 90.00
COMPUTE NM HYD	114.00	-	1	.00032	.93	.039	2.27941	1.500	4.532	PER IMP= 90.00
COMPUTE NM HYD	115.00	-	1	.00553	15.78	.672	2.27928	1.500	4.462	PER IMP= 90.00
COMPUTE NM HYD	116.00	-	1	.00278	7.94	.338	2.27929	1.500	4.467	PER IMP= 90.00
COMPUTE NM HYD	117.00	-	2	.00818	23.34	.994	2.27928	1.500	4.460	PER IMP= 90.00
START										
RAINFALL TYPE= 2										TIME= .00
										RAIN24= 1.830
COMPUTE NM HYD	101.10	-	1	.00247	4.56	.187	1.42510	1.500	2.892	PER IMP= 90.00
COMPUTE NM HYD	102.10	-	2	.00187	3.46	.142	1.42511	1.500	2.894	PER IMP= 90.00
COMPUTE NM HYD	103.10	-	1	.00044	.83	.034	1.42515	1.500	2.920	PER IMP= 90.00
COMPUTE NM HYD	104.10	-	2	.00034	.64	.026	1.42517	1.500	2.927	PER IMP= 90.00
COMPUTE NM HYD	105.10	-	1	.00501	9.26	.381	1.42509	1.500	2.889	PER IMP= 90.00
COMPUTE NM HYD	106.10	-	2	.00158	2.93	.120	1.42511	1.500	2.896	PER IMP= 90.00
COMPUTE NM HYD	107.10	-	1	.00106	1.97	.081	1.42512	1.500	2.900	PER IMP= 90.00
COMPUTE NM HYD	108.10	-	1	.00419	7.74	.318	1.42509	1.500	2.889	PER IMP= 90.00
COMPUTE NM HYD	109.10	-	2	.00786	14.53	.597	1.42509	1.500	2.888	PER IMP= 90.00
COMPUTE NM HYD	110.10	-	1	.00038	.70	.029	1.42516	1.500	2.923	PER IMP= 90.00
COMPUTE NM HYD	111.10	-	2	.00297	5.49	.226	1.42510	1.500	2.891	PER IMP= 90.00
COMPUTE NM HYD	112.10	-	1	.00191	3.53	.145	1.42510	1.500	2.894	PER IMP= 90.00
COMPUTE NM HYD	113.10	-	2	.00048	.89	.036	1.42515	1.500	2.920	PER IMP= 90.00
COMPUTE NM HYD	114.10	-	1	.00032	.60	.024	1.42517	1.500	2.927	PER IMP= 90.00
COMPUTE NM HYD	115.10	-	1	.00553	10.22	.420	1.42509	1.500	2.889	PER IMP= 90.00
COMPUTE NM HYD	116.10	-	1	.00278	5.14	.211	1.42510	1.500	2.891	PER IMP= 90.00
COMPUTE NM HYD	117.10	-	2	.00818	15.11	.621	1.42509	1.500	2.888	PER IMP= 90.00
FINISH										

Section VI

AHYMO FILES (Ponding Calculations For Routes A & B Under Proposed Conditions, 100-Year, 24-hr Storm)

```
*****************************************************************
*                  RENAISSANCE  TRACT  3                        *
*****************************************************************
*        100-YEAR, 24-HR STORM (UNDER PROPOSED CONDITIONS)      *
*****************************************************************
ART                 TIME=0.0
*
RAINFALL            TYPE=2 RAIN QUARTER=0.0 IN
                    RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                    RAIN DAY=2.75 IN DT=0.03333 HR
*---------------------------------------------------------------
ROUTE A
---------------------------------------------------------------
*
*---------------------------------------------------------BASIN 1
MPUTE NM HYD        ID=1 HYD NO=101.0 AREA=0.002465 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1

UTE RESERVOIR       ID=2 HYD NO=501.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000        5043.00
                        0.95              0.00020        5044.25
                        1.42              0.00040        5045.50
                        1.51              0.00973        5045.80
                        1.60              0.03763        5046.10
                        1.68              0.08411        5046.40
                        1.78              0.17496        5046.80
---------------------------------------------------------BASIN 3
MPUTE NM HYD        ID=1 HYD NO=103.0 AREA=0.000444 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1

ROUTE RESERVOIR     ID=3 HYD NO=503.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000        5040.90
                        2.40              0.00020        5042.15
                        3.79              0.00040        5043.40
                        4.14              0.04994        5043.80
                        4.46              0.19844        5044.20
                        4.76              0.44590        5044.60
                        5.04              0.69643        5045.00
                        5.31              0.13038        5045.40
                        5.68              0.21994        5046.00

D HYD               ID=1 HYD NO=103.1 ID=2 ID=3

*---------------------------------------------------------BASIN 2
MPUTE NM HYD        ID=2 HYD NO=102.0 AREA=0.001868 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1

D HYD               ID=3 HYD NO=102.1 ID=1 ID=2
*
ROUTE RESERVOIR     ID=1 HYD NO=502.0 INFLOW ID=3 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000        5040.00
                        1.61              0.00020        5041.25
                        2.47              0.00040        5042.50
                        2.69              0.02367        5042.90
```

```
                    2.89                0.09337       5043.30
                    3.08                0.20949       5043.70
                    3.22                0.32705       5044.00
*-------------------------------------------------------------BASIN 4
COMPUTE NM HYD      ID=2 HYD NO=104.0 AREA=0.000341 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*
ADD HYD             ID=3 HYD NO=104.1 ID=1 ID=2

ROUTE RESERVOIR     ID=5 HYD NO=504.0 INFLOW ID=3 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5038.50
                        0.11              0.00020       5039.75
                        0.16              0.00040       5041.00
                        0.18              0.06311       5041.40
                        0.19              0.25110       5041.80
                        0.20              0.56439       5042.20
                        0.21              0.88157       5042.50
*-------------------------------------------------------------BASIN 5
COMPUTE NM HYD      ID=1 HYD NO=105.0 AREA=0.005007 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*
ROUTE RESERVOIR     ID=2 HYD NO=505.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5038.50
                        3.28              0.00020       5039.75
                        5.35              0.00040       5041.00
                        5.86              0.00936       5041.40
                        6.33              0.03612       5041.80
                        6.55              0.05617       5042.00
                        7.07              0.12577       5042.50
*
ADD HYD             ID=1 HYD NO=105.1 ID=2 ID=5

*-------------------------------------------------------------BASIN 6
COMPUTE NM HYD      ID=2 HYD NO=106.0 AREA=0.001581 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*
ROUTE RESERVOIR     ID=3 HYD NO=506.0 INFLOW ID=2 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5040.00
                        1.61              0.00020       5041.25
                        2.47              0.00040       5042.50
                        2.69              0.00716       5042.90
                        2.89              0.02732       5043.30
                        3.08              0.06089       5043.70
                        3.22              0.09485       5044.00
*
ADD HYD             ID=6 HYD NO=106.1 ID=1 ID=3

*-------------------------------------------------------------BASIN 7
COMPUTE NM HYD      ID=1 HYD NO=107.0 AREA=0.001063 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*
ROUTE RESERVOIR     ID=2 HYD NO=507.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
```

0.00	0.00000	5039.90
0.95	0.00020	5041.15
1.70	0.00056	5043.40
1.76	0.01076	5043.60
1.81	0.04129	5043.80
1.86	0.09215	5044.00

*----------BASIN 8

COMPUTE NM HYD ID=1 HYD NO=108.0 AREA=0.004188 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1
*

ADD HYD ID=3 HYD NO=108.1 ID=1 ID=2

ROUTE RESERVOIR ID=1 HYD NO=508.0 INFLOW ID=3 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5038.08
0.44	0.00020	5039.33
0.92	0.00078	5043.00
0.95	0.07501	5043.40
0.99	0.29758	5043.80
1.01	0.46448	5044.00

ADD HYD ID=1 HYD NO=108.2 ID=1 ID=6
*

*----------BASIN 9

COMPUTE NM HYD ID=2 HYD NO=109.0 AREA=0.007859 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1

ADD HYD ID=3 HYD NO=109.1 ID=1 ID=3
*

ROUTE RESERVOIR ID=9 HYD NO=509.0 INFLOW ID=3 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5031.50
1.39	0.00020	5032.75
2.12	0.00040	5034.00
2.30	0.04086	5034.40
2.47	0.16211	5034.80
2.63	0.36415	5035.20
2.78	0.64699	5035.60
2.92	1.01062	5036.00

*----------

* ROUTE B

*----------

*----------BASIN 10

COMPUTE NM HYD ID=1 HYD NO=110.0 AREA=0.000375 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1
*

ROUTE RESERVOIR ID=2 HYD NO=510.0 INFLOW ID=1 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5033.50
2.40	0.00020	5034.75
3.79	0.00040	5036.00
4.14	0.00120	5036.40
4.46	0.00350	5036.80
4.76	0.00728	5037.20
5.04	0.01254	5037.60

```
                    5.31                0.01929       5038.00

-----------------------------------------------------------BASIN 12
COMPUTE NM HYD      ID=1 HYD NO=112.0 AREA=0.001905 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1

ROUTE RESERVOIR     ID=3 HYD NO=512.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5036.80
                        2.40              0.00020       5038.05
                        3.79              0.00040       5039.30
                        3.97              0.00196       5039.50
                        4.14              0.00660       5039.70
                        4.38              0.01930       5040.00

ADD HYD             ID=1 HYD NO=112.1 ID=2 ID=3
*
-----------------------------------------------------------BASIN 11
COMPUTE NM HYD      ID=2 HYD NO=111.0 AREA=0.002967 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1

ADD HYD             ID=3 HYD NO=111.1 ID=1 ID=2
*
ROUTE RESERVOIR     ID=1 HYD NO=511.0 INFLOW ID=3 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5029.02
                        5.14              0.00068       5033.26
                        7.46              0.00135       5037.50
                        7.64              0.03195       5037.90
                        7.82              0.12360       5038.30
                        7.91              0.19233       5038.50
*-----------------------------------------------------------BASIN 13
COMPUTE NM HYD      ID=2 HYD NO=113.0 AREA=0.000475 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*
ROUTE RESERVOIR     ID=3 HYD NO=513.0 INFLOW ID=2 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5033.50
                        1.61              0.00020       5034.75
                        2.47              0.00040       5036.00
                        2.69              0.00291       5036.40
                        2.89              0.01032       5036.80
                        3.08              0.02262       5037.20
                        3.26              0.03982       5037.60
                        3.43              0.06191       5038.00

ADD HYD             ID=2 HYD NO=113.1 ID=1 ID=3
*
-----------------------------------------------------------BASIN 14
COMPUTE NM HYD      ID=1 HYD NO=114.0 AREA=0.000319 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1

ROUTE RESERVOIR     ID=3 HYD NO=514.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5028.00
                        0.44              0.00020       5029.25
```

```
                    0.64              0.00040      5030.50
                    0.69              0.00156      5030.90
                    0.74              0.00491      5031.30
                    0.79              0.01045      5031.70
                    0.83              0.01818      5032.10
                    0.87              0.02811      5032.50

ADD HYD             ID=1 HYD NO=114.1 ID=2 ID=3

-----------------------------------------------------------BASIN 15
COMPUTE NM HYD      ID=2 HYD NO=115.0 AREA=0.005526 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*
ROUTE RESERVOIR     ID=3 HYD NO=515.0 INFLOW ID=2 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5037.00
                        0.44              0.00020       5038.25
                        0.64              0.00040       5039.50
                        0.69              0.04636       5039.90
                        0.74              0.18413       5040.30
                        0.79              0.41370       5040.70
                        0.82              0.64612       5041.00
*
ADD HYD             ID=2 HYD NO=115.1 ID=1 ID=3

-----------------------------------------------------------BASIN 16
COMPUTE NM HYD      ID=1 HYD NO=116.0 AREA=0.002779 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
*
ADD HYD             ID=3 HYD NO=116.1 ID=1 ID=2

ROUTE RESERVOIR     ID=1 HYD NO=516.0 INFLOW ID=3 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5026.37
                        6.34              0.00053       5029.69
                        9.36              0.00106       5033.00
                        9.66              0.02208       5033.40
                        9.96              0.08504       5033.80
                       10.10              0.13224       5034.00
-----------------------------------------------------------BASIN 17
COMPUTE NM HYD      ID=2 HYD NO=117.0 AREA=0.008176 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1

ADD HYD             ID=3 HYD NO=117.1 ID=1 ID=2
*
ADD HYD             ID=1 HYD NO=117.2 ID=3 ID=9

ROUTE RESERVOIR     ID=2 HYD NO=517.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5023.15
                        2.04              0.00063       5027.08
                        2.94              0.00125       5031.00
                        3.02              0.08587       5031.40
                        3.09              0.33961       5031.80
                        3.16              0.76247       5032.20
                        3.23              1.35445       5032.60
                        3.30              2.11554       5033.00
```

*

NISH

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =06/24/1998

INPUT FILE = 9855 USER NO.= R_BOHANN.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION	
START											
RAINFALL TYPE= 2										TIME=	.00
										RAIN24=	2.750
COMPUTE NM HYD	101.00	-	1	.00247	7.05	.300	2.27930	1.500	4.468	PER IMP=	90.00
ROUTE RESERVOIR	501.00	1	2	.00247	1.71	.300	2.28371	2.000	1.086	AC-FT=	.115
COMPUTE NM HYD	103.00	-	1	.00044	1.28	.054	2.27938	1.500	4.521	PER IMP=	90.00
ROUTE RESERVOIR	503.00	1	3	.00044	1.28	.054	2.27936	1.500	4.518	AC-FT=	.000
ADD HYD	103.10	2& 3	1	.00291	2.90	.354	2.28304	1.500	1.555		
COMPUTE NM HYD	102.00	-	2	.00187	5.35	.227	2.27930	1.500	4.472	PER IMP=	90.00
ADD HYD	102.10	1& 2	3	.00478	8.24	.581	2.28158	1.500	2.696		
ROUTE RESERVOIR	502.00	3	1	.00478	2.95	.584	2.29182	2.100	.965	AC-FT=	.130
COMPUTE NM HYD	104.00	-	2	.00034	.99	.041	2.27941	1.500	4.532	PER IMP=	90.00
ADD HYD	104.10	1& 2	3	.00512	3.75	.625	2.29100	1.500	1.143		
ROUTE RESERVOIR	504.00	3	5	.00512	.20	.302	1.10493	3.366	.060	AC-FT=	.490
COMPUTE NM HYD	105.00	-	1	.00501	14.30	.609	2.27928	1.500	4.462	PER IMP=	90.00
ROUTE RESERVOIR	505.00	1	2	.00501	6.94	.609	2.27927	1.667	2.164	AC-FT=	.108
ADD HYD	105.10	2& 5	1	.01013	7.12	.910	1.68566	1.667	1.098		
COMPUTE NM HYD	106.00	-	2	.00158	4.53	.192	2.27931	1.500	4.475	PER IMP=	90.00
ROUTE RESERVOIR	506.00	2	3	.00158	2.81	.192	2.27928	1.633	2.781	AC-FT=	.020
ADD HYD	106.10	1& 3	6	.01171	9.92	1.102	1.76583	1.667	1.325		
COMPUTE NM HYD	107.00	-	1	.00106	3.05	.129	2.27932	1.500	4.481	PER IMP=	90.00
ROUTE RESERVOIR	507.00	1	2	.00106	1.77	.129	2.27928	1.633	2.597	AC-FT=	.015
COMPUTE NM HYD	108.00	-	1	.00419	11.96	.509	2.27928	1.500	4.463	PER IMP=	90.00
ADD HYD	108.10	1& 2	3	.00525	13.70	.638	2.27928	1.500	4.077		
ROUTE RESERVOIR	508.00	3	1	.00525	1.00	.638	2.27986	2.266	.299	AC-FT=	.421
ADD HYD	108.20	1& 6	1	.01696	10.91	1.741	1.92501	1.667	1.005		
COMPUTE NM HYD	109.00	-	2	.00786	22.43	.955	2.27928	1.500	4.460	PER IMP=	90.00
ADD HYD	109.10	1& 3	3	.02221	24.05	2.379	2.00878	1.500	1.692		
ROUTE RESERVOIR	509.00	3	9	.02221	2.92	2.380	2.00933	2.333	.205	AC-FT=	1.008
COMPUTE NM HYD	110.00	-	1	.00038	1.09	.046	2.27939	1.500	4.526	PER IMP=	90.00
ROUTE RESERVOIR	510.00	1	2	.00038	1.09	.046	2.27937	1.500	4.523	AC-FT=	.000
COMPUTE NM HYD	112.00	-	1	.00191	5.45	.232	2.27930	1.500	4.471	PER IMP=	90.00
ROUTE RESERVOIR	512.00	1	3	.00191	4.22	.232	2.27929	1.567	3.459	AC-FT=	.011
ADD HYD	112.10	2& 3	1	.00228	5.22	.277	2.27930	1.533	3.579		
COMPUTE NM HYD	111.00	-	2	.00297	8.48	.361	2.27929	1.500	4.466	PER IMP=	90.00
ADD HYD	111.10	1& 2	3	.00525	13.67	.638	2.27929	1.500	4.071		
ROUTE RESERVOIR	511.00	3	1	.00525	7.75	.638	2.28020	1.700	2.309	AC-FT=	.090
COMPUTE NM HYD	113.00	-	2	.00048	1.37	.058	2.27938	1.500	4.518	PER IMP=	90.00
ROUTE RESERVOIR	513.00	2	3	.00048	1.37	.058	2.27935	1.500	4.513	AC-FT=	.000
ADD HYD	113.10	1& 3	2	.00572	9.02	.696	2.28013	1.500	2.463		
COMPUTE NM HYD	114.00	-	1	.00032	.93	.039	2.27941	1.500	4.532	PER IMP=	90.00
ROUTE RESERVOIR	514.00	1	3	.00032	.70	.039	2.27932	1.600	3.432	AC-FT=	.002
ADD HYD	114.10	2& 3	1	.00604	9.70	.735	2.28009	1.500	2.509		
COMPUTE NM HYD	115.00	-	2	.00553	15.78	.672	2.27928	1.500	4.462	PER IMP=	90.00
ROUTE RESERVOIR	515.00	2	3	.00553	.80	.672	2.27919	2.333	.225	AC-FT=	.467
ADD HYD	115.10	1& 3	2	.01157	10.43	1.406	2.27966	1.533	1.409		
COMPUTE NM HYD	116.00	-	1	.00278	7.94	.338	2.27929	1.500	4.467	PER IMP=	90.00
ADD HYD	116.10	1& 2	3	.01435	18.37	1.744	2.27959	1.500	2.001		
ROUTE RESERVOIR	516.00	3	1	.01435	12.21	1.748	2.28516	1.800	1.330	AC-FT=	.843
COMPUTE NM HYD	117.00	-	2	.00818	23.34	.994	2.27928	1.500	4.460	PER IMP=	90.00

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
ADD HYD	117.10	1& 2	3	.02252	33.21	2.742	2.28302	1.500	2.304	
ADD HYD	117.20	3& 9	1	.04473	35.76	5.122	2.14714	1.500	1.249	
ROUTE RESERVOIR	517.00	1	2	.04473	3.29	5.011	2.10033	10.032	.115	AC-FT= 2.043
FINISH										

```
    AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
         RUN DATE (MON/DAY/YR) = 06/24/1998
         START TIME (HR:MIN:SEC) = 16:22:13     USER NO.= R_BOHANN.I01
         INPUT FILE = 9855

*****************************************************************
*                  RENAISSANCE  TRACT  3                        *
*****************************************************************
*        100-YEAR, 24-HR STORM (UNDER PROPOSED CONDITIONS)      *
*****************************************************************
START                TIME=0.0
*
RAINFALL             TYPE=2 RAIN QUARTER=0.0 IN
     RAIN ONE=2.01 IN RAIN SIX=2.35 IN
     RAIN DAY=2.75 IN DT=0.03333 HR

COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT =    .033330 HOURS       END TIME =    19.964670 HOURS
   .0000   .0016   .0033   .0049   .0066   .0084   .0102
   .0120   .0139   .0158   .0178   .0199   .0219   .0241
   .0263   .0286   .0309   .0333   .0358   .0384   .0411
   .0439   .0467   .0497   .0529   .0561   .0596   .0631
   .0669   .0709   .0751   .0807   .0866   .0930   .1066
   .1371   .1840   .2514   .3434   .4644   .6186   .8106
  1.0449  1.2624  1.3533  1.4300  1.4982  1.5602  1.6174
  1.6704  1.7200  1.7664  1.8102  1.8514  1.8904  1.9273
  1.9622  1.9953  2.0268  2.0566  2.0850  2.0915  2.0976
  2.1033  2.1088  2.1140  2.1191  2.1239  2.1285  2.1329
  2.1373  2.1414  2.1454  2.1494  2.1531  2.1568  2.1604
  2.1639  2.1673  2.1706  2.1739  2.1771  2.1802  2.1832
  2.1862  2.1891  2.1919  2.1947  2.1975  2.2002  2.2028
  2.2054  2.2080  2.2105  2.2130  2.2154  2.2178  2.2202
  2.2225  2.2248  2.2270  2.2293  2.2315  2.2336  2.2358
  2.2379  2.2399  2.2420  2.2440  2.2460  2.2480  2.2500
  2.2519  2.2538  2.2557  2.2576  2.2594  2.2612  2.2631
  2.2648  2.2666  2.2684  2.2701  2.2718  2.2735  2.2752
  2.2769  2.2785  2.2802  2.2818  2.2834  2.2850  2.2866
  2.2881  2.2897  2.2912  2.2928  2.2943  2.2958  2.2973
  2.2987  2.3002  2.3017  2.3031  2.3045  2.3060  2.3074
  2.3088  2.3102  2.3115  2.3129  2.3143  2.3156  2.3169
  2.3183  2.3196  2.3209  2.3222  2.3235  2.3248  2.3261
  2.3273  2.3286  2.3298  2.3311  2.3323  2.3335  2.3348
  2.3360  2.3372  2.3384  2.3396  2.3408  2.3419  2.3431
  2.3443  2.3454  2.3466  2.3477  2.3488  2.3500  2.3511
  2.3523  2.3534  2.3546  2.3557  2.3568  2.3580  2.3591
  2.3602  2.3613  2.3625  2.3636  2.3647  2.3658  2.3669
  2.3680  2.3691  2.3702  2.3713  2.3724  2.3735  2.3746
  2.3757  2.3768  2.3779  2.3790  2.3801  2.3811  2.3822
  2.3833  2.3844  2.3854  2.3865  2.3876  2.3886  2.3897
  2.3907  2.3918  2.3928  2.3939  2.3949  2.3960  2.3970
  2.3981  2.3991  2.4001  2.4012  2.4022  2.4032  2.4043
  2.4053  2.4063  2.4073  2.4083  2.4094  2.4104  2.4114
  2.4124  2.4134  2.4144  2.4154  2.4164  2.4174  2.4184
  2.4194  2.4204  2.4214  2.4224  2.4233  2.4243  2.4253
  2.4263  2.4273  2.4282  2.4292  2.4302  2.4312  2.4321
  2.4331  2.4341  2.4350  2.4360  2.4369  2.4379  2.4388
  2.4398  2.4408  2.4417  2.4426  2.4436  2.4445  2.4455
  2.4464  2.4474  2.4483  2.4492  2.4502  2.4511  2.4520
  2.4529  2.4539  2.4548  2.4557  2.4566  2.4575  2.4585
```

2.4594	2.4603	2.4612	2.4621	2.4630	2.4639	2.4648
2.4657	2.4666	2.4675	2.4684	2.4693	2.4702	2.4711
2.4720	2.4729	2.4738	2.4747	2.4756	2.4764	2.4773
2.4782	2.4791	2.4799	2.4808	2.4817	2.4826	2.4834
2.4843	2.4852	2.4860	2.4869	2.4878	2.4886	2.4895
2.4903	2.4912	2.4921	2.4929	2.4938	2.4946	2.4955
2.4963	2.4971	2.4980	2.4988	2.4997	2.5005	2.5014
2.5022	2.5030	2.5039	2.5047	2.5055	2.5064	2.5072
2.5080	2.5088	2.5097	2.5105	2.5113	2.5121	2.5129
2.5138	2.5146	2.5154	2.5162	2.5170	2.5178	2.5186
2.5194	2.5203	2.5211	2.5219	2.5227	2.5235	2.5243
2.5251	2.5259	2.5267	2.5274	2.5282	2.5290	2.5298
2.5306	2.5314	2.5322	2.5330	2.5338	2.5345	2.5353
2.5361	2.5369	2.5377	2.5384	2.5392	2.5400	2.5408
2.5415	2.5423	2.5431	2.5438	2.5446	2.5454	2.5461
2.5469	2.5477	2.5484	2.5492	2.5500	2.5507	2.5515
2.5522	2.5530	2.5537	2.5545	2.5552	2.5560	2.5567
2.5575	2.5582	2.5590	2.5597	2.5605	2.5612	2.5619
2.5627	2.5634	2.5642	2.5649	2.5656	2.5664	2.5671
2.5678	2.5686	2.5693	2.5700	2.5707	2.5715	2.5722
2.5729	2.5736	2.5744	2.5751	2.5758	2.5765	2.5773
2.5780	2.5787	2.5794	2.5801	2.5808	2.5815	2.5823
2.5830	2.5837	2.5844	2.5851	2.5858	2.5865	2.5872
2.5879	2.5886	2.5893	2.5900	2.5907	2.5914	2.5921
2.5928	2.5935	2.5942	2.5949	2.5956	2.5963	2.5970
2.5976	2.5983	2.5990	2.5997	2.6004	2.6011	2.6018
2.6024	2.6031	2.6038	2.6045	2.6052	2.6058	2.6065
2.6072	2.6079	2.6085	2.6092	2.6099	2.6106	2.6112
2.6119	2.6126	2.6132	2.6139	2.6146	2.6152	2.6159
2.6166	2.6172	2.6179	2.6186	2.6192	2.6199	2.6205
2.6212	2.6219	2.6225	2.6232	2.6238	2.6245	2.6251
2.6258	2.6264	2.6271	2.6277	2.6284	2.6290	2.6297
2.6303	2.6310	2.6316	2.6322	2.6329	2.6335	2.6342
2.6348	2.6355	2.6361	2.6367	2.6374	2.6380	2.6386
2.6393	2.6399	2.6405	2.6412	2.6418	2.6424	2.6431
2.6437	2.6443	2.6449	2.6456	2.6462	2.6468	2.6474
2.6481	2.6487	2.6493	2.6499	2.6506	2.6512	2.6518
2.6524	2.6530	2.6536	2.6543	2.6549	2.6555	2.6561
2.6567	2.6573	2.6579	2.6586	2.6592	2.6598	2.6604
2.6610	2.6616	2.6622	2.6628	2.6634	2.6640	2.6646
2.6652	2.6658	2.6664	2.6670	2.6676	2.6682	2.6688
2.6694	2.6700	2.6706	2.6712	2.6718	2.6724	2.6730
2.6736	2.6742	2.6748	2.6754	2.6760	2.6765	2.6771
2.6777	2.6783	2.6789	2.6795	2.6801	2.6807	2.6812
2.6818	2.6824	2.6830	2.6836	2.6841		

```
*-----------------------------------------------------------------
* ROUTE A
*-----------------------------------------------------------------
*
*-----------------------------------------------------------------
COMPUTE NM HYD        ID=1 HYD NO=101.0 AREA=0.002465 SQ MI      -----BASIN 1
                      PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                      TP=-0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   8.7588   CFS   UNIT VOLUME =    .9981      B =   526.28      P60 = 2.0100
    AREA =      .002219 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330
```

K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N = 3.563124
UNIT PEAK = .60082 CFS UNIT VOLUME = .9782 B = 324.91 P60 = 2.0100
AREA = .000247 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

*

ROUTE RESERVOIR ID=2 HYD NO=501.0 INFLOW ID=1 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5043.00
0.95	0.00020	5044.25
1.42	0.00040	5045.50
1.51	0.00973	5045.80
1.60	0.03763	5046.10
1.68	0.08411	5046.40
1.78	0.17496	5046.80

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5043.00	.000	.00
.80	.00	5043.00	.000	.00
1.60	4.87	5046.38	.082	1.68
2.40	.30	5046.41	.085	1.68
3.20	.06	5043.03	.000	.02
4.00	.04	5043.05	.000	.04
4.80	.04	5043.05	.000	.04
5.60	.04	5043.06	.000	.04
6.40	.05	5043.06	.000	.05
7.20	.05	5043.06	.000	.05
8.00	.04	5043.06	.000	.04
8.80	.04	5043.05	.000	.04
9.60	.04	5043.05	.000	.04
10.40	.04	5043.05	.000	.04
11.20	.04	5043.05	.000	.04
12.00	.04	5043.05	.000	.04
12.80	.03	5043.04	.000	.03
13.60	.03	5043.04	.000	.03
14.40	.03	5043.04	.000	.03
15.20	.03	5043.04	.000	.03
16.00	.03	5043.04	.000	.03
16.80	.03	5043.04	.000	.03
17.60	.03	5043.04	.000	.03
18.40	.03	5043.04	.000	.03
19.20	.03	5043.03	.000	.03

PEAK DISCHARGE = 1.714 CFS - PEAK OCCURS AT HOUR 2.00
MAXIMUM WATER SURFACE ELEVATION = 5046.536
MAXIMUM STORAGE = .1149 AC-FT INCREMENTAL TIME= .033330HRS

*----------BASIN 3

COMPUTE NM HYD ID=1 HYD NO=103.0 AREA=0.000444 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 1.5776 CFS UNIT VOLUME = .9922 B = 526.28 P60 = 2.0100
AREA = .000400 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

```
K =   .132088HR    TP =   .133300HR    K/TP RATIO =   .990905    SHAPE CONSTANT, N =  3.563124
UNIT PEAK =   .10822    CFS   UNIT VOLUME =    .8709       B =   324.91      P60 = 2.0100
AREA =      .000044 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

*
ROUTE RESERVOIR     ID=3 HYD NO=503.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000       5040.90
                        2.40              0.00020       5042.15
                        3.79              0.00040       5043.40
                        4.14              0.04994       5043.80
                        4.46              0.19844       5044.20
                        4.76              0.44590       5044.60
                        5.04              0.69643       5045.00
                        5.31              0.13038       5045.40
                        5.68              0.21994       5046.00

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

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

   .00        .00    5040.90      .000       .00
   .80        .00    5040.90      .000       .00
  1.60        .89    5041.37      .000       .89
  2.40        .05    5040.92      .000       .05
  3.20        .01    5040.91      .000       .01
  4.00        .01    5040.90      .000       .01
  4.80        .01    5040.90      .000       .01
  5.60        .01    5040.90      .000       .01
  6.40        .01    5040.90      .000       .01
  7.20        .01    5040.90      .000       .01
  8.00        .01    5040.90      .000       .01
  8.80        .01    5040.90      .000       .01
  9.60        .01    5040.90      .000       .01
 10.40        .01    5040.90      .000       .01
 11.20        .01    5040.90      .000       .01
 12.00        .01    5040.90      .000       .01
 12.80        .01    5040.90      .000       .01
 13.60        .01    5040.90      .000       .01
 14.40        .01    5040.90      .000       .01
 15.20        .01    5040.90      .000       .01
 16.00        .01    5040.90      .000       .01
 16.80        .01    5040.90      .000       .01
 17.60        .00    5040.90      .000       .00
PEAK DISCHARGE =        1.284 CFS - PEAK OCCURS AT HOUR    1.50
MAXIMUM WATER SURFACE ELEVATION =     5041.569
MAXIMUM STORAGE =          .0001 AC-FT      INCREMENTAL TIME=     .033330HRS

*
ADD HYD             ID=1 HYD NO=103.1 ID=2 ID=3
*
*-------------------------------------------------------------BASIN 2
COMPUTE NM HYD      ID=2 HYD NO=102.0 AREA=0.001868 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1
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```
K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000    SHAPE CONSTANT, N =  7.106420
UNIT PEAK =   6.6375    CFS   UNIT VOLUME =    .9976       B =   526.28      P60 = 2.0100
AREA =       .001681 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330


K =   .132088HR    TP =   .133300HR    K/TP RATIO =   .990905    SHAPE CONSTANT, N =  3.563124
UNIT PEAK =   .45531    CFS   UNIT VOLUME =    .9694       B =   324.91      P60 = 2.0100
AREA =       .000187 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

*
ADD HYD              ID=3 HYD NO=102.1 ID=1 ID=2
*
ROUTE RESERVOIR      ID=1 HYD NO=502.0 INFLOW ID=3 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000        5040.00
                        1.61              0.00020        5041.25
                        2.47              0.00040        5042.50
                        2.69              0.02367        5042.90
                        2.89              0.09337        5043.30
                        3.08              0.20949        5043.70
                        3.22              0.32705        5044.00

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

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

    .00        .00   5040.00      .000       .00
    .80        .00   5040.00      .000       .00
   1.60       6.26   5043.25      .085      2.87
   2.40       1.95   5043.37      .113      2.92
   3.20        .08   5042.92      .028      2.70
   4.00        .08   5040.06      .000       .08
   4.80        .07   5040.06      .000       .07
   5.60        .08   5040.06      .000       .08
   6.40        .09   5040.07      .000       .09
   7.20        .09   5040.07      .000       .09
   8.00        .08   5040.07      .000       .08
   8.80        .08   5040.06      .000       .08
   9.60        .08   5040.06      .000       .08
  10.40        .07   5040.06      .000       .07
  11.20        .07   5040.05      .000       .07
  12.00        .07   5040.05      .000       .07
  12.80        .06   5040.05      .000       .06
  13.60        .06   5040.05      .000       .06
  14.40        .06   5040.05      .000       .06
  15.20        .06   5040.05      .000       .06
  16.00        .06   5040.04      .000       .06
  16.80        .05   5040.04      .000       .05
  17.60        .05   5040.04      .000       .05
  18.40        .05   5040.04      .000       .05
  19.20        .05   5040.04      .000       .05
 PEAK DISCHARGE =        2.951 CFS - PEAK OCCURS AT HOUR    2.10
 MAXIMUM WATER SURFACE ELEVATION =     5043.427
 MAXIMUM STORAGE =         .1304 AC-FT      INCREMENTAL TIME=     .033330HRS

*-------------------------------------------------------------BASIN 4
COMPUTE NM HYD       ID=2 HYD NO=104.0 AREA=0.000341 SQ MI
```

PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 1.2117 CFS UNIT VOLUME = .9897 B = 526.28 P60 = 2.0100
AREA = .000307 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N = 3.563124
UNIT PEAK = .83116E-01CFS UNIT VOLUME = .8709 B = 324.91 P60 = 2.0100
AREA = .000034 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

*

ADD HYD ID=3 HYD NO=104.1 ID=1 ID=2
*
ROUTE RESERVOIR ID=5 HYD NO=504.0 INFLOW ID=3 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5038.50
0.11	0.00020	5039.75
0.16	0.00040	5041.00
0.18	0.06311	5041.40
0.19	0.25110	5041.80
0.20	0.56439	5042.20
0.21	0.88157	5042.50

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5038.50	.000	.00
.80	.00	5038.50	.000	.00
1.60	3.55	5041.45	.088	.18
2.40	2.96	5041.84	.286	.19
3.20	2.71	5042.07	.461	.20
4.00	.09	5042.10	.485	.20
4.80	.08	5042.09	.477	.20
5.60	.09	5042.08	.469	.20
6.40	.10	5042.07	.463	.20
7.20	.10	5042.06	.456	.20
8.00	.09	5042.05	.449	.20
8.80	.09	5042.04	.442	.20
9.60	.08	5042.03	.435	.20
10.40	.08	5042.02	.427	.20
11.20	.08	5042.02	.419	.20
12.00	.07	5042.00	.411	.20
12.80	.07	5041.99	.403	.19
13.60	.07	5041.98	.395	.19
14.40	.06	5041.97	.386	.19
15.20	.06	5041.96	.378	.19
16.00	.06	5041.95	.369	.19
16.80	.06	5041.94	.360	.19
17.60	.06	5041.93	.351	.19
18.40	.06	5041.92	.342	.19
19.20	.05	5041.90	.333	.19

PEAK DISCHARGE = .198 CFS - PEAK OCCURS AT HOUR 3.37
MAXIMUM WATER SURFACE ELEVATION = 5042.105
MAXIMUM STORAGE = .4904 AC-FT INCREMENTAL TIME= .033330HRS

```
*-------------------------------------------------------------BASIN 5
COMPUTE NM HYD        ID=1 HYD NO=105.0 AREA=0.005007 SQ MI
                      PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                      TP=-0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   17.791    CFS   UNIT VOLUME =    .9988      B =   526.28      P60 = 2.0100
    AREA =      .004506 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330


    K =   .132088HR    TP =   .133300HR    K/TP RATIO =   .990905    SHAPE CONSTANT, N =  3.563124
    UNIT PEAK =   1.2204    CFS   UNIT VOLUME =    .9891      B =   324.91      P60 = 2.0100
    AREA =      .000501 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330
*
ROUTE RESERVOIR       ID=2 HYD NO=505.0 INFLOW ID=1 CODE=24
                      OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                          0.00              0.00000        5038.50
                          3.28              0.00020        5039.75
                          5.35              0.00040        5041.00
                          5.86              0.00936        5041.40
                          6.33              0.03612        5041.80
                          6.55              0.05617        5042.00
                          7.07              0.12577        5042.50

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

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

     .00         .00   5038.50      .000       .00
     .80         .00   5038.50      .000       .00
    1.60        9.87   5042.31      .099      6.87
    2.40         .60   5038.82      .000       .84
    3.20         .12   5038.56      .000       .15
    4.00         .08   5038.53      .000       .08
    4.80         .08   5038.53      .000       .08
    5.60         .09   5038.53      .000       .09
    6.40         .10   5038.54      .000       .10
    7.20         .09   5038.54      .000       .09
    8.00         .09   5038.53      .000       .09
    8.80         .08   5038.53      .000       .08
    9.60         .08   5038.53      .000       .08
   10.40         .08   5038.53      .000       .08
   11.20         .07   5038.53      .000       .07
   12.00         .07   5038.53      .000       .07
   12.80         .07   5038.53      .000       .07
   13.60         .07   5038.52      .000       .07
   14.40         .06   5038.52      .000       .06
   15.20         .06   5038.52      .000       .06
   16.00         .06   5038.52      .000       .06
   16.80         .06   5038.52      .000       .06
   17.60         .06   5038.52      .000       .06
   18.40         .05   5038.52      .000       .05
   19.20         .05   5038.52      .000       .05
PEAK DISCHARGE =        6.936 CFS - PEAK OCCURS AT HOUR    1.67
MAXIMUM WATER SURFACE ELEVATION =     5042.371
```

MAXIMUM STORAGE = .1078 AC-FT INCREMENTAL TIME= .033330HRS

*

ADD HYD ID=1 HYD NO=105.1 ID=2 ID=5

*

*----------BASIN 6

COMPUTE NM HYD ID=2 HYD NO=106.0 AREA=0.001581 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 5.6177 CFS UNIT VOLUME = .9973 B = 526.28 P60 = 2.0100
AREA = .001423 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N = 3.563124
UNIT PEAK = .38536 CFS UNIT VOLUME = .9637 B = 324.91 P60 = 2.0100
AREA = .000158 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

*

ROUTE RESERVOIR ID=3 HYD NO=506.0 INFLOW ID=2 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5040.00
1.61	0.00020	5041.25
2.47	0.00040	5042.50
2.69	0.00716	5042.90
2.89	0.02732	5043.30
3.08	0.06089	5043.70
3.22	0.09485	5044.00

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5040.00	.000	.00
.80	.00	5040.00	.000	.00
1.60	3.13	5043.14	.019	2.81
2.40	.19	5040.11	.000	.14
3.20	.04	5040.03	.000	.04
4.00	.03	5040.02	.000	.03
4.80	.02	5040.02	.000	.02
5.60	.03	5040.02	.000	.03
6.40	.03	5040.02	.000	.03
7.20	.03	5040.02	.000	.03
8.00	.03	5040.02	.000	.03
8.80	.03	5040.02	.000	.03
9.60	.03	5040.02	.000	.03
10.40	.02	5040.02	.000	.02
11.20	.02	5040.02	.000	.02
12.00	.02	5040.02	.000	.02
12.80	.02	5040.02	.000	.02
13.60	.02	5040.02	.000	.02
14.40	.02	5040.02	.000	.02
15.20	.02	5040.02	.000	.02
16.00	.02	5040.01	.000	.02
16.80	.02	5040.01	.000	.02
17.60	.02	5040.01	.000	.02

18.40	.02	5040.01	.000	.02
19.20	.02	5040.01	.000	.02

PEAK DISCHARGE = 2.814 CFS - PEAK OCCURS AT HOUR 1.63
MAXIMUM WATER SURFACE ELEVATION = 5043.148
MAXIMUM STORAGE = .0197 AC-FT INCREMENTAL TIME= .033330HRS

```
*
ADD HYD            ID=6 HYD NO=106.1 ID=1 ID=3
*
*-------------------------------------------------------------BASIN 7
COMPUTE NM HYD     ID=1 HYD NO=107.0 AREA=0.001063 SQ MI
                   PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                   TP=-0.1333 HR MASS RAINFALL=-1
```

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 3.7771 CFS UNIT VOLUME = .9965 B = 526.28 P60 = 2.0100
AREA = .000957 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N = 3.563124
UNIT PEAK = .25910 CFS UNIT VOLUME = .9490 B = 324.91 P60 = 2.0100
AREA = .000106 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

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*
ROUTE RESERVOIR    ID=2 HYD NO=507.0 INFLOW ID=1 CODE=24
```

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5039.90
0.95	0.00020	5041.15
1.70	0.00056	5043.40
1.76	0.01076	5043.60
1.81	0.04129	5043.80
1.86	0.09215	5044.00

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5039.90	.000	.00
.80	.00	5039.90	.000	.00
1.60	2.11	5043.62	.014	1.77
2.40	.12	5040.07	.000	.13
3.20	.02	5039.93	.000	.02
4.00	.02	5039.92	.000	.02
4.80	.02	5039.92	.000	.02
5.60	.02	5039.92	.000	.02
6.40	.02	5039.93	.000	.02
7.20	.02	5039.93	.000	.02
8.00	.02	5039.92	.000	.02
8.80	.02	5039.92	.000	.02
9.60	.02	5039.92	.000	.02
10.40	.02	5039.92	.000	.02
11.20	.02	5039.92	.000	.02
12.00	.02	5039.92	.000	.02
12.80	.01	5039.92	.000	.01
13.60	.01	5039.92	.000	.01
14.40	.01	5039.92	.000	.01
15.20	.01	5039.92	.000	.01

16.00	.01	5039.92	.000	.01
16.80	.01	5039.92	.000	.01
17.60	.01	5039.92	.000	.01
18.40	.01	5039.92	.000	.01
19.20	.01	5039.91	.000	.01

PEAK DISCHARGE = 1.767 CFS - PEAK OCCURS AT HOUR 1.63
MAXIMUM WATER SURFACE ELEVATION = 5043.627
MAXIMUM STORAGE = .0150 AC-FT INCREMENTAL TIME= .033330HRS

*----------BASIN 8

COMPUTE NM HYD ID=1 HYD NO=108.0 AREA=0.004188 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 14.881 CFS UNIT VOLUME = .9987 B = 526.28 P60 = 2.0100
AREA = .003769 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N = 3.563124
UNIT PEAK = 1.0208 CFS UNIT VOLUME = .9870 B = 324.91 P60 = 2.0100
AREA = .000419 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

*
ADD HYD ID=3 HYD NO=108.1 ID=1 ID=2
*
ROUTE RESERVOIR ID=1 HYD NO=508.0 INFLOW ID=3 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5038.08
0.44	0.00020	5039.33
0.92	0.00078	5043.00
0.95	0.07501	5043.40
0.99	0.29758	5043.80
1.01	0.46448	5044.00

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5038.08	.000	.00
.80	.00	5038.08	.000	.00
1.60	10.03	5043.67	.223	.98
2.40	.63	5043.95	.419	1.00
3.20	.13	5043.89	.371	1.00
4.00	.08	5043.82	.311	.99
4.80	.08	5043.72	.252	.98
5.60	.09	5043.61	.193	.97
6.40	.10	5043.51	.135	.96
7.20	.10	5043.41	.079	.95
8.00	.09	5043.12	.023	.93
8.80	.09	5038.33	.000	.09
9.60	.08	5038.32	.000	.08
10.40	.08	5038.31	.000	.08
11.20	.08	5038.30	.000	.08
12.00	.07	5038.29	.000	.07
12.80	.07	5038.28	.000	.07
13.60	.07	5038.28	.000	.07

14.40	.07	5038.27	.000	.07
15.20	.06	5038.26	.000	.06
16.00	.06	5038.26	.000	.06
16.80	.06	5038.25	.000	.06
17.60	.06	5038.25	.000	.06
18.40	.06	5038.24	.000	.06
19.20	.05	5038.24	.000	.05

PEAK DISCHARGE = 1.005 CFS - PEAK OCCURS AT HOUR 2.27
MAXIMUM WATER SURFACE ELEVATION = 5043.948
MAXIMUM STORAGE = .4213 AC-FT INCREMENTAL TIME= .033330HRS

```
*
ADD HYD            ID=1 HYD NO=108.2 ID=1 ID=6
*
*-------------------------------------------------------BASIN 9
COMPUTE NM HYD     ID=2 HYD NO=109.0 AREA=0.007859 SQ MI
                   PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                   TP=-0.1333 HR MASS RAINFALL=-1
```

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 27.925 CFS UNIT VOLUME = .9990 B = 526.28 P60 = 2.0100
AREA = .007073 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N = 3.563124
UNIT PEAK = 1.9156 CFS UNIT VOLUME = .9929 B = 324.91 P60 = 2.0100
AREA = .000786 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

```
*
ADD HYD            ID=3 HYD NO=109.1 ID=1 ID=3
*
ROUTE RESERVOIR    ID=9 HYD NO=509.0 INFLOW ID=3 CODE=24
```

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5031.50
1.39	0.00020	5032.75
2.12	0.00040	5034.00
2.30	0.04086	5034.40
2.47	0.16211	5034.80
2.63	0.36415	5035.20
2.78	0.64699	5035.60
2.92	1.01062	5036.00

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5031.50	.000	.00
.80	.00	5031.50	.000	.00
1.60	20.87	5035.29	.425	2.66
2.40	2.81	5036.00	1.007	2.92
3.20	1.51	5035.92	.935	2.89
4.00	1.38	5035.81	.839	2.85
4.80	1.36	5035.70	.742	2.82
5.60	1.37	5035.60	.647	2.78
6.40	1.39	5035.47	.556	2.73
7.20	1.37	5035.35	.469	2.69
8.00	1.33	5035.23	.382	2.64

8.80	.48	5035.00	.265	2.55
9.60	.47	5034.70	.132	2.43
10.40	.46	5034.08	.009	2.16
11.20	.45	5031.91	.000	.45
12.00	.44	5031.89	.000	.44
12.80	.43	5031.88	.000	.43
13.60	.42	5031.88	.000	.42
14.40	.41	5031.87	.000	.41
15.20	.40	5031.86	.000	.40
16.00	.39	5031.85	.000	.39
16.80	.39	5031.85	.000	.39
17.60	.38	5031.84	.000	.38
18.40	.38	5031.84	.000	.38
19.20	.37	5031.83	.000	.37

PEAK DISCHARGE = 2.919 CFS - PEAK OCCURS AT HOUR 2.33
MAXIMUM WATER SURFACE ELEVATION = 5035.997
MAXIMUM STORAGE = 1.0079 AC-FT INCREMENTAL TIME= .033330HRS

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*
*-------------------------------------------------------------
* ROUTE B
*-------------------------------------------------------------
*
*-------------------------------------------------------------BASIN 10
COMPUTE NM HYD      ID=1 HYD NO=110.0 AREA=0.000375 SQ MI
                    PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                    TP=-0.1333 HR MASS RAINFALL=-1

   K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000    SHAPE CONSTANT, N =  7.106420
   UNIT PEAK =   1.3325    CFS   UNIT VOLUME =    .9911       B =   526.28      P60 = 2.0100
   AREA =      .000338 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
   RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

   K =   .132088HR    TP =   .133300HR    K/TP RATIO =   .990905    SHAPE CONSTANT, N =  3.563124
   UNIT PEAK =   .91403E-01CFS   UNIT VOLUME =    .8709       B =   324.91      P60 = 2.0100
   AREA =      .000038 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
   RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

*
ROUTE RESERVOIR     ID=2 HYD NO=510.0 INFLOW ID=1 CODE=24
                    OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000        5033.50
                        2.40              0.00020        5034.75
                        3.79              0.00040        5036.00
                        4.14              0.00120        5036.40
                        4.46              0.00350        5036.80
                        4.76              0.00728        5037.20
                        5.04              0.01254        5037.60
                        5.31              0.01929        5038.00

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5033.50	.000	.00
.80	.00	5033.50	.000	.00
1.60	.75	5033.89	.000	.76

2.40	.04	5033.52	.000	.04
3.20	.01	5033.50	.000	.01
4.00	.01	5033.50	.000	.01
4.80	.01	5033.50	.000	.01
5.60	.01	5033.50	.000	.01
6.40	.01	5033.50	.000	.01
7.20	.01	5033.50	.000	.01
8.00	.01	5033.50	.000	.01
8.80	.01	5033.50	.000	.01
9.60	.01	5033.50	.000	.01
10.40	.01	5033.50	.000	.01
11.20	.01	5033.50	.000	.01
12.00	.01	5033.50	.000	.01
12.80	.01	5033.50	.000	.01
13.60	.00	5033.50	.000	.00

PEAK DISCHARGE = 1.086 CFS - PEAK OCCURS AT HOUR 1.50
MAXIMUM WATER SURFACE ELEVATION = 5034.065
MAXIMUM STORAGE = .0001 AC-FT INCREMENTAL TIME= .033330HRS

*----------BASIN 12

COMPUTE NM HYD ID=1 HYD NO=112.0 AREA=0.001905 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 6.7689 CFS UNIT VOLUME = .9976 B = 526.28 P60 = 2.0100
AREA = .001715 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N = 3.563124
UNIT PEAK = .46433 CFS UNIT VOLUME = .9719 B = 324.91 P60 = 2.0100
AREA = .000191 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

*

ROUTE RESERVOIR ID=3 HYD NO=512.0 INFLOW ID=1 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5036.80
2.40	0.00020	5038.05
3.79	0.00040	5039.30
3.97	0.00196	5039.50
4.14	0.00660	5039.70
4.38	0.01930	5040.00

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5036.80	.000	.00
.80	.00	5036.80	.000	.00
1.60	3.77	5039.79	.010	4.21
2.40	.23	5036.90	.000	.19
3.20	.04	5036.82	.000	.04
4.00	.03	5036.82	.000	.03
4.80	.03	5036.81	.000	.03
5.60	.03	5036.82	.000	.03
6.40	.04	5036.82	.000	.04
7.20	.04	5036.82	.000	.04

8.00	.03	5036.82	.000	.03
8.80	.03	5036.82	.000	.03
9.60	.03	5036.82	.000	.03
10.40	.03	5036.81	.000	.03
11.20	.03	5036.81	.000	.03
12.00	.03	5036.81	.000	.03
12.80	.03	5036.81	.000	.03
13.60	.02	5036.81	.000	.02
14.40	.02	5036.81	.000	.02
15.20	.02	5036.81	.000	.02
16.00	.02	5036.81	.000	.02
16.80	.02	5036.81	.000	.02
17.60	.02	5036.81	.000	.02
18.40	.02	5036.81	.000	.02
19.20	.02	5036.81	.000	.02

PEAK DISCHARGE = 4.217 CFS - PEAK OCCURS AT HOUR 1.57
MAXIMUM WATER SURFACE ELEVATION = 5039.796
MAXIMUM STORAGE = .0107 AC-FT INCREMENTAL TIME= .033330HRS

```
*
ADD HYD            ID=1 HYD NO=112.1 ID=2 ID=3
*
*-------------------------------------------------------------BASIN 11
COMPUTE NM HYD     ID=2 HYD NO=111.0 AREA=0.002967 SQ MI
                   PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                   TP=-0.1333 HR MASS RAINFALL=-1

   K =  .072649HR   TP =  .133300HR   K/TP RATIO =  .545000   SHAPE CONSTANT, N =  7.106420
   UNIT PEAK =  10.542   CFS   UNIT VOLUME =  .9982      B =  526.28      P60 = 2.0100
   AREA =      .002670 SQ MI   IA =  .10000 INCHES   INF =  .04000 INCHES PER HOUR
   RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  .033330


   K =  .132088HR   TP =  .133300HR   K/TP RATIO =  .990905   SHAPE CONSTANT, N =  3.563124
   UNIT PEAK =  .72318   CFS   UNIT VOLUME =  .9816      B =  324.91      P60 = 2.0100
   AREA =      .000297 SQ MI   IA =  .50000 INCHES   INF =  1.25000 INCHES PER HOUR
   RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  .033330

*
ADD HYD            ID=3 HYD NO=111.1 ID=1 ID=2
*
ROUTE RESERVOIR    ID=1 HYD NO=511.0 INFLOW ID=3 CODE=24
                   OUTFLOW(CFS)     STORAGE(AC-FT)  ELEVATION(FT)
                       0.00             0.00000        5029.02
                       5.14             0.00068        5033.26
                       7.46             0.00135        5037.50
                       7.64             0.03195        5037.90
                       7.82             0.12360        5038.30
                       7.91             0.19233        5038.50

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5029.02	.000	.00
.80	.00	5029.02	.000	.00
1.60	10.82	5038.09	.076	7.73
2.40	.58	5029.91	.000	1.08
3.20	.12	5029.13	.000	.13

4.00	.08	5029.09	.000	.08
4.80	.08	5029.09	.000	.08
5.60	.09	5029.10	.000	.09
6.40	.10	5029.10	.000	.10
7.20	.10	5029.10	.000	.10
8.00	.09	5029.10	.000	.09
8.80	.09	5029.09	.000	.09
9.60	.08	5029.09	.000	.08
10.40	.08	5029.09	.000	.08
11.20	.08	5029.08	.000	.08
12.00	.07	5029.08	.000	.07
12.80	.07	5029.08	.000	.07
13.60	.07	5029.08	.000	.07
14.40	.07	5029.08	.000	.07
15.20	.06	5029.07	.000	.06
16.00	.06	5029.07	.000	.06
16.80	.06	5029.07	.000	.06
17.60	.06	5029.07	.000	.06
18.40	.06	5029.07	.000	.06
19.20	.05	5029.07	.000	.05

PEAK DISCHARGE = 7.754 CFS - PEAK OCCURS AT HOUR 1.70
MAXIMUM WATER SURFACE ELEVATION = 5038.153
MAXIMUM STORAGE = .0901 AC-FT INCREMENTAL TIME= .033330HRS

*----------BASIN 13

COMPUTE NM HYD ID=2 HYD NO=113.0 AREA=0.000475 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=-0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 1.6878 CFS UNIT VOLUME = .9922 B = 526.28 P60 = 2.0100
AREA = .000428 SQ.MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N = 3.563124
UNIT PEAK = .11578 CFS UNIT VOLUME = .8814 B = 324.91 P60 = 2.0100
AREA = .000048 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

*

ROUTE RESERVOIR ID=3 HYD NO=513.0 INFLOW ID=2 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5033.50
1.61	0.00020	5034.75
2.47	0.00040	5036.00
2.69	0.00291	5036.40
2.89	0.01032	5036.80
3.08	0.02262	5037.20
3.26	0.03982	5037.60
3.43	0.06191	5038.00

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5033.50	.000	.00
.80	.00	5033.50	.000	.00
1.60	.95	5034.24	.000	.96

2.40	.05	5033.54	.000	.05
3.20	.01	5033.51	.000	.01
4.00	.01	5033.51	.000	.01
4.80	.01	5033.51	.000	.01
5.60	.01	5033.51	.000	.01
6.40	.01	5033.51	.000	.01
7.20	.01	5033.51	.000	.01
8.00	.01	5033.51	.000	.01
8.80	.01	5033.51	.000	.01
9.60	.01	5033.51	.000	.01
10.40	.01	5033.51	.000	.01
11.20	.01	5033.51	.000	.01
12.00	.01	5033.51	.000	.01
12.80	.01	5033.50	.000	.01
13.60	.01	5033.50	.000	.01
14.40	.01	5033.50	.000	.01
15.20	.01	5033.50	.000	.01
16.00	.01	5033.50	.000	.01
16.80	.01	5033.50	.000	.01
17.60	.01	5033.50	.000	.01
18.40	.01	5033.50	.000	.01
19.20	.00	5033.50	.000	.00

PEAK DISCHARGE = 1.372 CFS - PEAK OCCURS AT HOUR 1.50
MAXIMUM WATER SURFACE ELEVATION = 5034.565
MAXIMUM STORAGE = .0002 AC-FT INCREMENTAL TIME= .033330HRS

```
*
ADD HYD            ID=2 HYD NO=113.1 ID=1 ID=3
*
*-------------------------------------------------------------BASIN 14
COMPUTE NM HYD     ID=1 HYD NO=114.0 AREA=0.000319 SQ MI
                   PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                   TP=-0.1333 HR MASS RAINFALL=-1

    K =  .072649HR   TP =  .133300HR   K/TP RATIO =  .545000   SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =  1.1335   CFS   UNIT VOLUME =   .9897      B =  526.28      P60 = 2.0100
    AREA =      .000287 SQ MI   IA =   .10000 INCHES   INF =   .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330


    K =  .132088HR   TP =  .133300HR   K/TP RATIO =  .990905   SHAPE CONSTANT, N =  3.563124
    UNIT PEAK =  .77754E-01CFS   UNIT VOLUME =   .8709      B =  324.91      P60 = 2.0100
    AREA =      .000032 SQ MI   IA =   .50000 INCHES   INF =  1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

*
ROUTE RESERVOIR    ID=3 HYD NO=514.0 INFLOW ID=1 CODE=24
```

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5028.00
0.44	0.00020	5029.25
0.64	0.00040	5030.50
0.69	0.00156	5030.90
0.74	0.00491	5031.30
0.79	0.01045	5031.70
0.83	0.01818	5032.10
0.87	0.02811	5032.50

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TIME	INFLOW	ELEV	VOLUME	OUTFLOW

(HRS)	(CFS)	(FEET)	(AC-FT)	(CFS)
.00	.00	5028.00	.000	.00
.80	.00	5028.00	.000	.00
1.60	.64	5030.99	.002	.70
2.40	.03	5028.09	.000	.03
3.20	.01	5028.02	.000	.01
4.00	.01	5028.01	.000	.01
4.80	.00	5028.01	.000	.00
5.60	.01	5028.02	.000	.01
6.40	.01	5028.02	.000	.01
7.20	.01	5028.02	.000	.01
8.00	.01	5028.02	.000	.01
8.80	.01	5028.02	.000	.01
9.60	.01	5028.01	.000	.01
10.40	.00	5028.01	.000	.00

PEAK DISCHARGE = .701 CFS - PEAK OCCURS AT HOUR 1.60
MAXIMUM WATER SURFACE ELEVATION = 5030.986
MAXIMUM STORAGE = .0023 AC-FT INCREMENTAL TIME= .033330HRS

```
*
ADD HYD            ID=1 HYD NO=114.1 ID=2 ID=3
*
*-------------------------------------------------------------BASIN 15
COMPUTE NM HYD     ID=2 HYD NO=115.0 AREA=0.005526 SQ MI
                   PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                   TP=-0.1333 HR MASS RAINFALL=-1

   K =  .072649HR   TP =  .133300HR   K/TP RATIO =  .545000   SHAPE CONSTANT, N =  7.106420
   UNIT PEAK =  19.635   CFS   UNIT VOLUME =  .9988   B =  526.28   P60 = 2.0100
   AREA =  .004973 SQ MI   IA =  .10000 INCHES   INF =  .04000 INCHES PER HOUR
   RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  .033330

   K =  .132088HR   TP =  .133300HR   K/TP RATIO =  .990905   SHAPE CONSTANT, N =  3.563124
   UNIT PEAK =  1.3469   CFS   UNIT VOLUME =  .9900   B =  324.91   P60 = 2.0100
   AREA =  .000553 SQ MI   IA =  .50000 INCHES   INF =  1.25000 INCHES PER HOUR
   RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  .033330

*
ROUTE RESERVOIR    ID=3 HYD NO=515.0 INFLOW ID=2 CODE=24
                   OUTFLOW(CFS)   STORAGE(AC-FT)  ELEVATION(FT)
                       0.00          0.00000        5037.00
                       0.44          0.00020        5038.25
                       0.64          0.00040        5039.50
                       0.69          0.04636        5039.90
                       0.74          0.18413        5040.30
                       0.79          0.41370        5040.70
                       0.82          0.64612        5041.00
```

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5037.00	.000	.00
.80	.00	5037.00	.000	.00
1.60	10.90	5040.43	.258	.76
2.40	.66	5040.77	.466	.80
3.20	.13	5040.73	.433	.79

4.00	.09	5040.66	.388	.78
4.80	.09	5040.58	.342	.77
5.60	.10	5040.50	.297	.76
6.40	.11	5040.42	.254	.76
7.20	.10	5040.35	.211	.75
8.00	.10	5040.26	.169	.73
8.80	.09	5040.13	.127	.72
9.60	.09	5040.02	.086	.70
10.40	.08	5039.89	.046	.69
11.20	.08	5039.56	.007	.65
12.00	.08	5037.22	.000	.08
12.80	.07	5037.21	.000	.07
13.60	.07	5037.21	.000	.07
14.40	.07	5037.20	.000	.07
15.20	.07	5037.19	.000	.07
16.00	.06	5037.18	.000	.06
16.80	.06	5037.18	.000	.06
17.60	.06	5037.17	.000	.06
18.40	.06	5037.17	.000	.06
19.20	.06	5037.16	.000	.06

PEAK DISCHARGE = .797 CFS - PEAK OCCURS AT HOUR 2.33
MAXIMUM WATER SURFACE ELEVATION = 5040.769
MAXIMUM STORAGE = .4667 AC-FT INCREMENTAL TIME= .033330HRS

```
*
ADD HYD              ID=2 HYD NO=115.1 ID=1 ID=3
*
*-------------------------------------------------------------BASIN 16
COMPUTE NM HYD       ID=1 HYD NO=116.0 AREA=0.002779 SQ MI
                     PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                     TP=-0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   9.8745    CFS   UNIT VOLUME =    .9982       B =   526.28      P60 = 2.0100
    AREA =      .002501 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330


    K =   .132088HR    TP =   .133300HR    K/TP RATIO =   .990905    SHAPE CONSTANT, N =  3.563124
    UNIT PEAK =   .67736    CFS   UNIT VOLUME =    .9800       B =   324.91      P60 = 2.0100
    AREA =      .000278 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330
*
ADD HYD              ID=3 HYD NO=116.1 ID=1 ID=2
*
ROUTE RESERVOIR      ID=1 HYD NO=516.0 INFLOW ID=3 CODE=24
                     OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                        0.00              0.00000        5026.37
                        6.34              0.00053        5029.69
                        9.36              0.00106        5033.00
                        9.66              0.02208        5033.40
                        9.96              0.08504        5033.80
                       10.10              0.13224        5034.00
STORAGE-DISCHARGE TABLE EXCEEDED.

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

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

.00	.00	5026.37	.000	.00
.80	.00	5026.37	.000	.00
1.60	15.63	5033.98	.127	10.09
2.40	2.29	5028.19	.000	3.48
3.20	1.01	5026.91	.000	1.03
4.00	.92	5026.85	.000	.93
4.80	.91	5026.85	.000	.91
5.60	.92	5026.85	.000	.92
6.40	.93	5026.86	.000	.93
7.20	.91	5026.85	.000	.91
8.00	.89	5026.84	.000	.89
8.80	.87	5026.82	.000	.87
9.60	.85	5026.81	.000	.85
10.40	.82	5026.80	.000	.82
11.20	.78	5026.78	.000	.78
12.00	.20	5026.48	.000	.20
12.80	.19	5026.47	.000	.19
13.60	.19	5026.47	.000	.19
14.40	.18	5026.47	.000	.18
15.20	.18	5026.46	.000	.18
16.00	.17	5026.46	.000	.17
16.80	.16	5026.46	.000	.16
17.60	.16	5026.45	.000	.16
18.40	.16	5026.45	.000	.16
19.20	.15	5026.45	.000	.15

```
***WARNING - OUTFLOW EXCEEDS RESERVOIR CAPACITY***
    PEAK DISCHARGE =        12.207 CFS - PEAK OCCURS AT HOUR    1.80
    MAXIMUM WATER SURFACE ELEVATION =     5037.013
    MAXIMUM STORAGE =          .8425 AC-FT      INCREMENTAL TIME=     .033330HRS

*-------------------------------------------------------------BASIN 17
COMPUTE NM HYD        ID=2 HYD NO=117.0 AREA=0.008176 SQ MI
                      PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
                      TP=-0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   29.051    CFS   UNIT VOLUME =    .9990       B =   526.28      P60 = 2.0100
    AREA =       .007358 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330


    K =   .132088HR    TP =   .133300HR    K/TP RATIO =   .990905     SHAPE CONSTANT, N =  3.563124
    UNIT PEAK =   1.9928    CFS   UNIT VOLUME =    .9935       B =   324.91      P60 = 2.0100
    AREA =       .000818 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033330

*
ADD HYD               ID=3 HYD NO=117.1 ID=1 ID=2
*
ADD HYD               ID=1 HYD NO=117.2 ID=3 ID=9
*
ROUTE RESERVOIR       ID=2 HYD NO=517.0 INFLOW ID=1 CODE=24
                      OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                          0.00              0.00000        5023.15
                          2.04              0.00063        5027.08
                          2.94              0.00125        5031.00
                          3.02              0.08587        5031.40
                          3.09              0.33961        5031.80
                          3.16              0.76247        5032.20
```

3.23	1.35445	5032.60
3.30	2.11554	5033.00

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5023.15	.000	.00
.80	.00	5023.15	.000	.00
1.60	28.86	5032.09	.647	3.14
2.40	7.39	5032.78	1.696	3.26
3.20	4.12	5032.83	1.785	3.27
4.00	3.91	5032.85	1.831	3.27
4.80	3.85	5032.87	1.871	3.28
5.60	3.84	5032.89	1.908	3.28
6.40	3.82	5032.91	1.945	3.28
7.20	3.75	5032.93	1.978	3.29
8.00	3.67	5032.94	2.006	3.29
8.80	3.56	5032.95	2.028	3.29
9.60	3.41	5032.96	2.041	3.29
10.40	3.11	5032.96	2.040	3.29
11.20	1.35	5032.90	1.924	3.28
12.00	.76	5032.82	1.765	3.27
12.80	.73	5032.73	1.598	3.25
13.60	.71	5032.64	1.432	3.24
14.40	.70	5032.54	1.265	3.22
15.20	.68	5032.43	1.098	3.20
16.00	.66	5032.31	.931	3.18
16.80	.64	5032.20	.765	3.16
17.60	.63	5032.05	.599	3.13
18.40	.62	5031.89	.434	3.11
19.20	.61	5031.69	.270	3.07

PEAK DISCHARGE = 3.293 CFS - PEAK OCCURS AT HOUR 10.03
MAXIMUM WATER SURFACE ELEVATION = 5032.962
MAXIMUM STORAGE = 2.0427 AC-FT INCREMENTAL TIME= .033330HRS

*

FINISH

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