CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director

Mayor Timothy M. Keller

September 9, 2019

Don Briggs, P.E.
Don Briggs Engineering, LLC
5324 Oakledge Ct NW
Albuquerque, NM 87120

RE: **Sunset Villa Subdivision Temporary Pond Recovery**
Grading Plan
Engineer's Stamp Date: 9/9/19
Hydrology File: K12D003

Dear Mr. Briggs,

Based on the submittal received on 8/28/19, the Grading Plan is approved for Grading Permit and Flood Plain Development Permit.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Prior to Building Permit (For Information):

1. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision*, will be required to ensure the ponds remained intact following home construction.

2. New Flood Plain Development Permits are required for the homes proposed to be constructed in the flood plain (Lots 46-P1, 47-P1, & 49A). These lots will be subject to the following criteria of the flood plain development permit:

   A portion of the proposed Building is located in a SFHA and the project includes storm drain improvements and/or channel modifications that will change the flood plain location so:
   - *An Approved Grading and Drainage Plan is required prior to issuing a Flood Plain Development Permit and a Grading Permit and/or a Work Order.*
   - *The improvements must be constructed and an Approved Engineer's Certification and an Approved LOMR Request must be approved by Hydrology prior to approval of the LOMR application to FEMA.*
   - *The Floodplain must be removed by a LOMR from FEMA prior to issuance of a Building Permit.*

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Sunset Villa Temp Pond Recovery Building Permit #: _____ Hydrology File #: K12D003

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Lots 16A, 23A, 45A, 49A, and 59A Sunset Villa Subdivision

City Address: 508 Twilight Vista Lane SW

Applicant: Don Briggs Engineering LLC Contact: Don Briiggs

Address: 5324 Oakledge Ct. NW, Albuquerque, NM 17120

Phone#: 505-249-4843 Fax#: _____ E-mail: donbriggsengineering@gmail.com

Owner: Mr. Joe Hahn Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL: ____ PLAT (___# OF LOTS) ____ RESIDENCE ____ DRB SITE X ADMIN SITE

IS THIS A RESUBMITTAL?: X Yes _____ No

DEPARTMENT: ____ TRAFFIC/ TRANSPORTATION X HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ DRAINAGE MASTER PLAN
____ DRAINAGE REPORT
X FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY
____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
____ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL
____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
X GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 8/27/2019 By: Don Briggs

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

DON BRIGGS
Engineering LLC

8/26/2019

Mr. Dana Peterson PE CFM
Senior Engineer
Planning Department
600 2nd St. NW
Albuquerque, NM 87102

RE:
Sunset Villa Subdivision Temporary Pond Recovery Grading Plan
Engineer's Stamp Date: 12/20/18
Hydrology File: K12D003

Dear Mr. Peterson,
The following is our response to your comments from January 25, 2019 on the final phase of construction of the Sunset Villa Subdivision.

1. The site must demonstrate adequate downstream capacity per § 14-5-2-12(G) of the Albuquerque Code of Ordinances. The DAR prepared by Wilson and Co. does not adequately provide proof of this capacity: *Wilson & Company has rerun the AHYMO model (attached) using the appropriate version and rainfall table. I have reviewed the new model and agree with the results. The model shows there is adequate capacity in the County Pond for the discharge from the subdivision. The County has this pond in their maintenance inventory and maintains the pond, wet well, pump and appurtenances. Vector control is the responsibility of Bernalillo County Consumer Health Department and is performed at the public's request.*
2. Provide written concurrence from the County allowing this site to discharge to the pond. *The approval notice for PWDN2019-0002 is attached.*
3. The Floodplain Permit cannot be issued until the drainage analysis demonstrates no rise to the BFE. i.e., the above items are corrected. Also prior to issuing the Floodplain Permit, draft elevation certificates will need to be submitted and approved by Hydrology. Prior to Certificate of Occupancy, final elevation certificates will need to be submitted and approved by Hydrology. At the owners option the elevation certificates may be submitted to FEMA to obtain a LOMA. *The Floodplain Permit has been applied for.*

At this time we are asking for your approval for Grading Permit to fill in the temporary ponds.

Please call if you have any questions or comments.

Sincerely

Don Briggs

Don Briggs PE CFM
Don Briggs Engineering LLC

5324 Oakledge Ct. NW, Albuquerque, NM 87120 - 505-249-4843 - donbriggsengineering@gmail.com

County of Bernalillo
State of New Mexico
Technical Services Department
2400 Broadway SE, Building N
Albuquerque, New Mexico 87102
Office: (505) 848-1500 Fax: (505) 848-1510
www.bernco.gov

Date: August 21, 2019

Subject: GRADING AND DRAINAGE PLAN APPROVAL

Case No.: PWDN2019-0002

Zone Map No: K-12

Street Address: 1750 Sunset Gardens Rd SW

Name of Applicant: Sunset Villa LLC

Dear Applicant:

This letter is to notify you that Bernalillo County Public Works Division has reviewed and approved the above referenced plan. Maintenance of storm drainage facilities remains with developer up to point of outfall into the County pond, as documented in the drainage covenant (to be finalized by the developer). Compliance with MS4 Permit obligations that the City of Albuquerque may choose to impose within its jurisdiction, is required. Additional conditions associated with this approval are given in the attached case comments and approval form.

Bernalillo County Public Works requests electronic copies (pdf) of final reports, maps, plans and as-builts. Electronic copies can be submitted on CD or by e-mail. Please call 848-1520 for instructions on where to email final documents.

Thank You
Bernalillo County Public Works Division

BERNALILLO COUNTY
PUBLIC WORKS

Date: 21-Aug-2019

TO BE FILLED OUT BY BERNALILLO COUNTY PUBLIC WORKS DIVISION ONLY

Your:
- ____ submittal of drainage information
- x resubmittal of drainage information

is:
- ____ approved.
- x approved with comments/conditions.
- ____ disapproved.
- ____ deferred to County Floodplain Administrator.

Case review comments are:
- x attached.
- ____ not attached.

Resubmittal is:
- x not required.
- ____ required. When resubmitting, please use Resubmittal Form.

Please submit:
- ____ grading/drainage plan with revisions.
- ____ as-constructed grading/drainage plan.
- ____ other: ____

It is required that:
- ____ Bernalillo County Public Works Division inspects improvements prior to final sign-off of plat.
- ____ Bernalillo County Public Works Division signature line be placed on plat.

Remarks: The Conditions of Approval must be submitted to BCPWD.

T. Trujillo

Timothy Trujillo, P.E.
Development Review
Bernalillo County Public Works Division

Cc:
- x Owner: Sunset Villa LLC
- x Agent: Don Brigges Engineering LLC
- x Case File PWDN2019-0002
- ____ Other: ____

County of Bernalillo
Case Comments Report

Permit: PWDN2019-0002

Department: PW Development Review

Activity: Engineering Review

Action: Approved w/Conditions

Note Date: 07/24/2019

Comment: Tim Trujillo

Comments
Based on the information provided on the inlet plan, with engineer's seal dated 7/9/2019, this plan appears to meet the requirements established for this project and is therefore acceptable.

Development of this structure must conform to this plan. Any proposed changes will require a revision to the plan prior to initiating the proposed change.

Inspection required, applicant required to obtain permits from Bernalillo County Public Works Division. Phone (505)848-1520.

CONDITIONS OF APPROVAL:
1) As constructed drawings and certification by the engineer that the constructed improvements are in substantial compliance with this plan are required prior to final inspection.
2) Bernalillo County Public Works is requesting electronic copies (pdf) of final plans. Electronic copies can be submitted on CD or by e-mail.
3)Please inform DR of the construction schedule of the bar screen at least 2 weeks prior to beginning.

Department: PW Natural Resources

Activity: Natural Resources Storm Water Review

Action: Corrections Needed

Note Date: 07/24/2019

Comment: Stormwater quality volume must be retained on site. Per discussion to upgrade the County Sunset Gardens/Five Points regional pond in order to accept stormwater flow from the Sunset Villa project, the trash rack is beneficial to address floatables, but it does not address the retention of the stormwater quality volume for the development. As the County pond cannot retain the stormwater quality volume due to groundwater intrusion, and this pond discharges to the Isleta Drain (no further options to address stormwater quality), then the stormwater quality volume must be retained on the project site.

County of Bernalillo
Case Comments Report

Permit: PWDN2019-0002

Action: Approved w/Conditions

Note Date: 08/20/2019

Comment: Applicant has provided July 26, 2006 letter to Bill Kramer from County's Ray Orona. Letter is sufficient evidence to justify a request for grandfathering under 38-414 (c)(2)(a and b).

Conditions of approval

Maintenance for the stormwater system up to the point of the outfall to the County pond will remain the responsibility of the Developer and is to be outlined in a drainage covenant to be approved by Development Review.

Acceptance of discharge to the pond is subject to compliance with any requirements the City may choose to impose within its MS4 permit jurisdictional area.

Applicant shall submit a request for infeasibility determination citing to the above listed portion of the County code allowing for grandfathering based on prior entitlements and prior approval for use of County facilities.

The grading and drainage permit approval letter shall provide the following (or similar) language regarding the exemption from MS4 provisions:

The requested grading and drainage plan pertains to planned residential development that occurs and collects stormwater from within the MS4 permit jurisdiction of the City of Albuquerque. The County has determined that County jurisdiction for stormwater discharged from the subject subdivision initiates at the point of outfall into the subject County facility. The County has determined, based on the July 25, 2006 letter to Bill Kramer from Ray Orona, that such discharges at the point of outfall are grandfathered from the Countys MS4 permit requirements as allowed under provisions of County Ordinance Ch 38-414 (c)(2)(a and b). Accordingly, the County will accept such stormwater discharges from City jurisdiction subject to any requirements that the City may impose upon the development to ensure the Citys compliance with its MS4 Permit requirements for new development. Enforcement of such requirements within the Citys jurisdiction remains with the City.

County of Bernalillo
State of New Mexico

PUBLIC WORKS
2400 BROADWAY, SE
ALBUQUERQUE, NEW MEXICO 87102
(505) 848-1500 • FAX (505) 848-1510

July 25, 2006

Mr. Bill Kraemer
Garcia, Kraemer and Associates
200 Lomas Boulevard NW Suite 1111
Albuquerque, NM 87102

SUBJECT: Five Points Road Project, Phase II, Drainage Pond

Dear Mr. Kraemer:

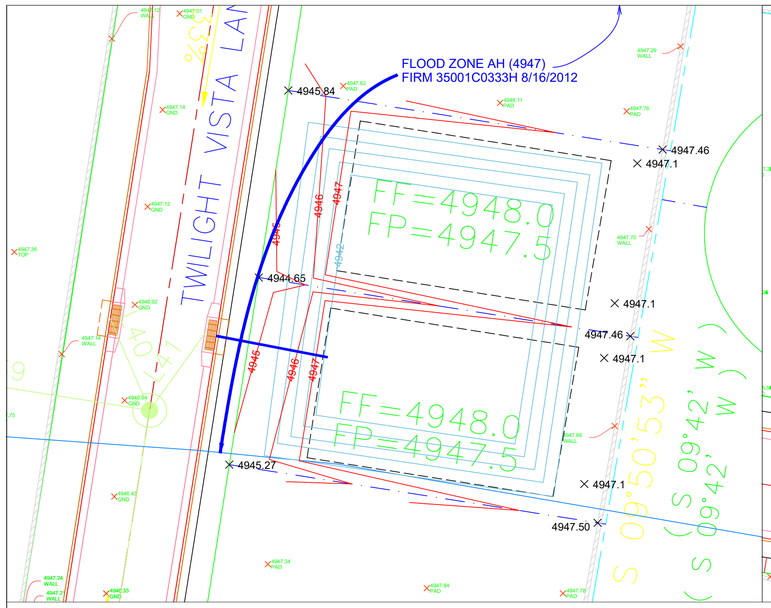
As a follow-up to the Sunset Villa drainage pond discussions held at the July 12, 2006 City of Albuquerque Design Review Board, a site plan showing the proposed County pond location is provided for your review. The County's consultant has attempted to locate this approximately two-acre pond to minimize the impacts to your Sunset Villa development plan. This site plan has been coordinated with Brad Bingham, City of Albuquerque Hydrologist. We would like to meet with you on Friday, July ~~12~~ 28, 2006, 9:00 am, at Public Works, 2400 Broadway SE, to discuss the proposed pond site.

This drainage pond is needed to support two planned drainage projects in the area and has been sized to include runoff from the Sunset Villa property. Due to the topography and development in the area, we do not have viable alternatives in the vicinity to accommodate the pond. We are hopeful that we can work with you to develop a satisfactory solution.

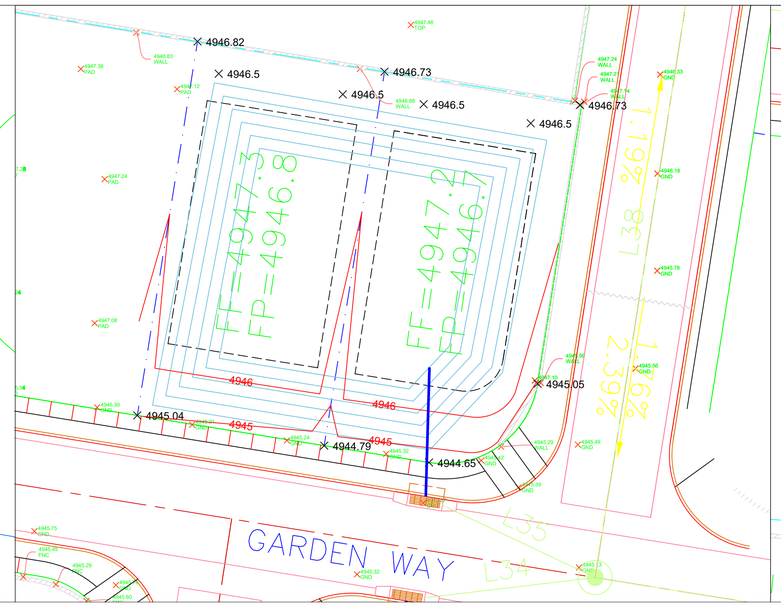
For additional information, contact me at 848-1545 or Frank Williams, 848-1572.

Sincerely,

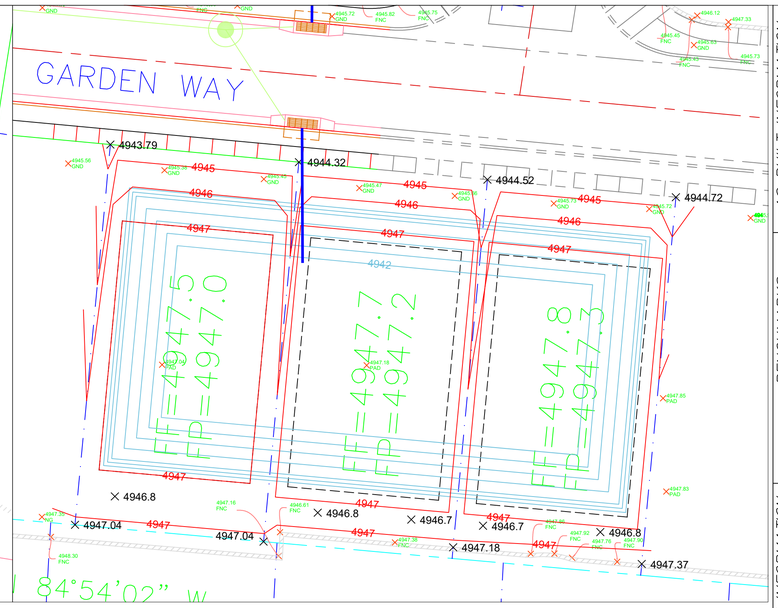
Raymond Orona
Right of Way Manager



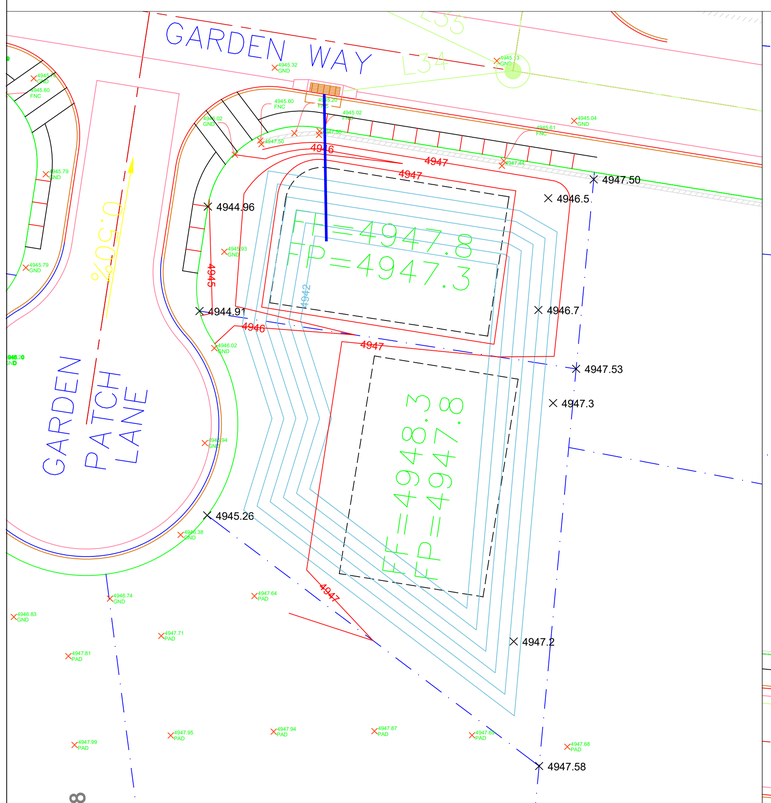
LOT 49A



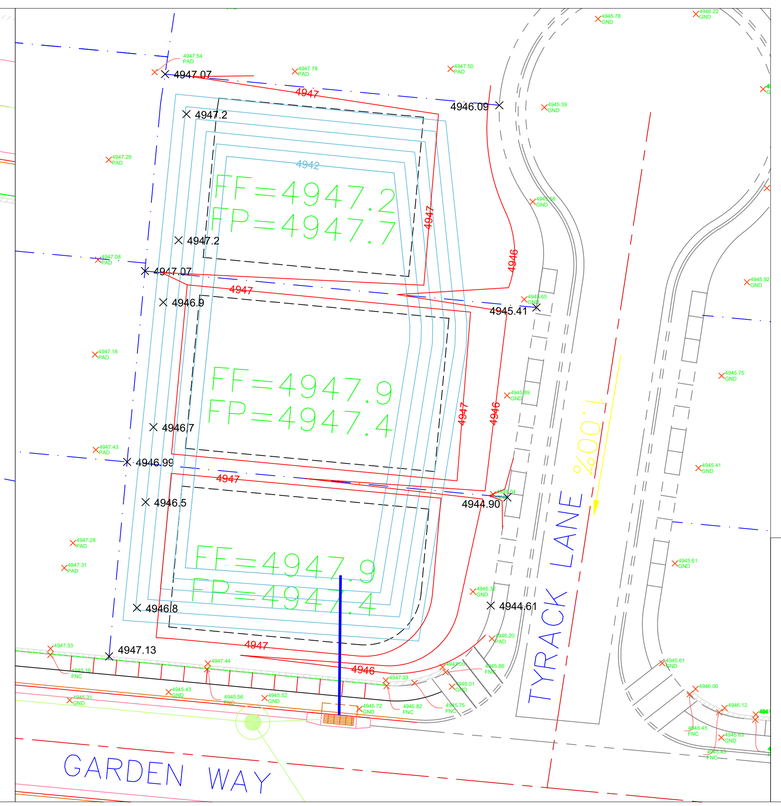
LOT 45A



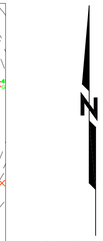
LOT 16A



LOT 23A

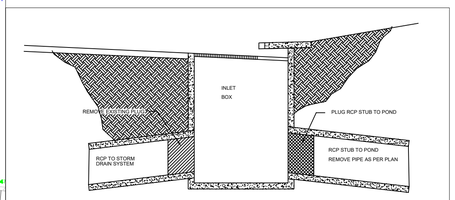


LOT 59A



SCALE 1" = 20'

4947.58	DESIGN ELEVATION
4947.31 PAD	EXISTING ELEVATION
4947	DESIGN CONTOUR
4942	EXISTING CONTOUR
	EXISTING SD STUB



WORK TO BE COMPLETED AT EACH STORM DRAIN INLET BOX

Sunset Villa Subdivision
Temporary Pond Recovery Project

The Sunset Villa Subdivision is an existing subdivision located in the South Valley area of the City of Albuquerque. During the permitting process 12 of the lots were dedicated to temporary ponding of storm water as downstream storage capacity was not yet in place. That downstream storage capacity is now available so this plan is presented to support a rough grading permit to recover the temporary ponds as lots. This will require filling in the five temporary ponds to the design pad elevation, opening the existing storm sewer inlets to allow storm water to enter the system and subdividing the five temporary pond lots into multiple residential lots.

The approved subdivision application included a hydrology report and design (K12D003) for the constructed storm sewer, roads and lot grading. This plan is submitted as a revision to that report and completes the strategy presented in that report.

HYDROLOGY
The approved hydrology report included the runoff from the temporary pond lots so it is still valid with the ponds being filled in. The storm drain system was also designed assuming runoff from these lots. A copy of the report is attached.

CONSTRUCTION
Prior to filling in the ponds, each of the five storm water inlets must be opened up to the storm sewer system and closed off to the temporary ponds. Once this is done the ponds can be filled and compacted per this plan and the geotechnical report. Lots are to be graded to drain to the street. The following lists the work required for each lot:

LOT 16A Remove 32' RCP stub to back of inlet box. Remove storm drain pipe plug and plug stub out opening in inlet box. Backfill pond and grade per this plan. Follow geotechnical report for compaction requirements.

LOT 23A Remove 26' RCP stub to back of perimeter wall. Remove storm drain pipe plug and plug stub out opening in inlet box. Backfill pond and grade per this plan. Follow geotechnical report for compaction requirements.

LOT 45A Remove 30' RCP stub to back of inlet box. Remove storm drain pipe plug and plug stub out opening in inlet box. Backfill pond and grade per this plan. Follow geotechnical report for compaction requirements.

LOT 49A Remove 30' RCP stub to back of inlet box. Remove storm drain pipe plug and plug stub out opening in inlet box. Backfill pond and grade per this plan. Follow geotechnical report for compaction requirements. Building Permit applications will require the submittal of an Elevation Certificate.

LOT 59A Remove 24' RCP stub to back of perimeter wall. Remove storm drain pipe plug and plug stub out opening in inlet box. Backfill pond and grade per this plan. Follow geotechnical report for compaction requirements.

WATER QUALITY
Bernalillo County has required that the Water Quality Volume from the subdivision be contained within the regional pond A plan to provide that volume has been submitted to Bernalillo County for approval.

CONTRACTOR NOTES

The contractor is responsible for determining the location of all utilities.

Sediment and erosion controls must be in place prior to any site disturbance. Contractor is responsible for any sediment leaving the site. A SWPPP is required for this project.

NOTE: Where design elevations conflict with existing flatwork, tie to flatwork elevation.

AS BUILT INFORMATION
CONTRACTOR
WORK STARTED BY — DATE
INSPECTORS ACCEPTANCE BY — DATE
VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
RECORDING INFORMATION
RECORDED BY — DATE
NO.

BENCHMARKS

SURVEY INFORMATION
FIELD NOTES BY — DATE

ENGINEER'S SEAL
DONALD R. BRIGGS
NEW MEXICO
14912
REGISTERED PROFESSIONAL ENGINEER
9-7-18

NO.	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1	12/20/2018	DB	DB	

REVISIONS
1 — 12/20/2018 — Add RCP Stubs & Contours — DB

DESIGN
DATE 11/18/2018
DATE 11/18/2018
DATE

DON BRIGGS Engineering LLC
505-249-4843
donbriggsengineering@gmail.com
5324 Oakledge Ct. NW, Albuquerque, NM 87120

TITLE:
SUNSET VILLA SUBDIVISION
TEMPORARY POND RECOVERY PROJECT

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.

City Project No. K12D003 | Zone Map No. | Sheet | Of

City of Albuquerque

Planning Department

Floodplain Development Permit

Project Title Sunset Villa Sub - Temp Pond Recovery Project

Project Location (Major Cross Streets/Arroyo or address)
Subset Gardens & Twilight Vista SW

Property Owner: (Note: If applying for a Building Permit, the "Company" or "Owner" name on this form must match the "Owner" name on the Building Permit.)

Company Name or Owner Name: Joe Hahn

Responsible Person: (Note: Name below may be the same as Owner Name above if there is no Company Name)

Name: Joe Hahn

Phone Number: 977-3645

E-mail: NA

Site Contact: (if different than Property Owner info above.)

Name: Don Briggs

Phone: 249-4843

e-mail: donbriggsengineering@gmail.com

For City personnel use only:

City Personnel Signature: _____ Date 9/10/19

Description of Work Grading & Pad Certs

Check all that apply:

X Final Elevation Certificate required prior to Certificate of Occupancy

X No Building Permits will be allowed until FEMA issues a LOMR removing the SFHA.

X A LOMR must be obtained from FEMA prior to release of Financial Guarantees.

(Rev March 2018)

DON BRIGGS
Engineering LLC

August 27, 2019

Mr. Rudy Rael
Floodplain Administrator
Planning Department
600 2nd. St. NW
Albuquerque, NM 87102

RE: K12D003 Floodplain Development Permit Application.

Dear Mr. Real
Attached is a Floodplain Development Permit Application associated with the final construction phase of the Sunset Villa Subdivision. The work covered by this permit request consists of filling a temporary pond subdividing the lot into two lots and grading the two lots to 0.5' above the BFE indicated on FIRM 35001C0333H.

This particular lot (508 Twilight Vista) is one of five temporary pond lots that will be filled with this project but is encumbered by a FEMA designated flood zone AH (4947). This particular floodzone has been physically removed by the construction of the Sunset Gardens storm drain system completed by Bernalillo County Public Works. The LOMR has not been completed.

If the LOMR removing this floodzone has not been completed by the time of building permit request, all floodplain development requirements will be followed for construction of the homes on this lot.

Sincerely

Don Briggs

Don Briggs PE CFM
Don Briggs Engineering LLC

5324 Oakledge Ct. NW, Albuquerque, NM 87120 - 505-249-4843 - donbriggsengineering@gmail.com

Floodplain Development Permit Application

Planning Dept., City of Albuquerque

Section 1: General Provisions (Applicant to read and sign)

1. No work of any kind may start in a Special Flood Hazard Area, SFHA, until a permit is issued.
2. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal regulatory requirements.
3. Applicant hereby gives consent to the Floodplain Administrator and his/her representative to make reasonable inspections required to verify compliance.
4. Applicant must provide a Critical Habitat for Threatened & Endangered Species report prior to any work in a SFHA.
5. Applicant must provide the Base Flood Elevation, BFE, and must provide engineering calculations demonstrating that the development will not increase the BFE or result in increased flood risk on any neighboring property.
6. If this application is for a building the floodplain must be removed by first constructing any required storm drain and/or channel modifications and second acquiring a Letter of Map Revision, LOMR, from FEMA before a building permit will be issued. If storm drain and channel modifications are not involved then a draft Elevation Certificate must be submitted prior to Building Permit and a Final Elevation Certificate must be submitted prior to Certificate of Occupancy.
7. A Conditional Letter of Map Revision, CLOMR, is required prior to any work in the FLOODWAY, if applicable.
8. The applicant certifies that all statements herein and in attachments to this application are, to the best of my knowledge, true and accurate.

RECEIVED
AUG 28 2019
LAND DEVELOPMENT SECTION

Applicant Signature Doug Briggs Date 8-26-19

Applicant Printed Name Doug Briggs Phone #: 505-249-4843

X Owner Signature Joe R. Hahn Date

Owner Printed Name Joe Hahn Phone #: 977 3645 n/c 271-1030

Applicant is (check one): Owner ____ Builder ____ Engineer/Architect X

Section 2: Proposed Development in Special Flood Hazard Area (to be completed by Applicant)

Project address/Legal Disc/Location: 508 Twilight Vista Ln SW

Section 2 (Cont.) - Description of Work in Special Flood Hazard Area (SFHA):

A. Building Development and Building Type

ACTIVITY	STRUCTURE TYPE
____New Building	____Residential (1-4 Family)
____Addition	____ Residential (More than 4 Family)
____Alteration	____Non Residential (Flood-proofing? ____Yes)
____Relocation	____Combined Use (Residential & Commercial)
___ Demolition	____Manufactured Home (In Mobile Home Park?____Yes)
____Replacement	

If an addition or alteration:

Estimated Cost of Project $_____

Estimated Value of structure before addition/alteration. $_____

Percent of value (new construction /existing value) _____%

B. Other Development Activities

____Clearing __X__ Grading ____ Utilities ____Paving

____Watercourse Alteration (Bridge or Channel Modification)

____Drainage Improvements (Storm drain or culverts)

____ Road, Street or Bridge Construction

____ Subdivision

____ Walls or Fences

____ Storage of Materials/Equipment for more than a year. (Materials Volume (cu. Ft.) _____)

Other (Please Specify) Filling Temporary Pond

Is there a Grading & Drainage Plan associated with this work? Yes X No ____

Drainage file Number: K 12 D003

RECEIVED
AUG 28 2019
LAND DEVELOPMENT SECTION

Section 3: Floodplain Determination (Completed by the Floodplain Administrator)

X The proposed development is located on FIRM Panel: 35001C0333H

____The proposed development is located in Zone X and NO FLOODPLAIN DEVELOPMENT PERMIT IS REQUIRED.

X A portion of the proposed development is located in a SFHA but not any buildings so an approved G&D Plan is required (Engineer's Stamp Date 9/9/2019) prior to issuance of a Floodplain Development Permit and no Building Permit will be issued for this construction.

____A portion of the proposed Building is located in a SFHA but the project does not include any storm drain improvements and/or channel modifications so:

1. Approved G&D Plan is required (Engineer's Stamp Date_____) prior to issuance of a Floodplain Development Permit,
2. Draft Elevation Certificate (Date_____) is required prior to issuance of a Building Permit, and
3. Final Elevation Certificate and Engineer's Certification is required prior to Certificate of Occupancy.

e BP →

____A portion of the proposed Building is located in a SFHA and the project includes storm drain improvements and/or channel modifications that will change the floodplain location so

1. An Approved Grading and Drainage Plan is required (Engineer's Stamp Date_____) prior to issuing a Flood Plain Development Permit and a Grading Permit and/or a Work Order.
2. The improvements must be constructed and an Approved Engineer's Certification (Engineer's Stamp Date_____) and an Approved LOMR Request (Engineer's Stamp Date_____) must be approved by Hydrology prior to approval of the LOMR application to FEMA.
3. The Floodplain must be removed by a LOMR from FEMA (Date_____) prior to issuance of a Building Permit.

____A portion of the proposed development is located in a FLOODWAY so:

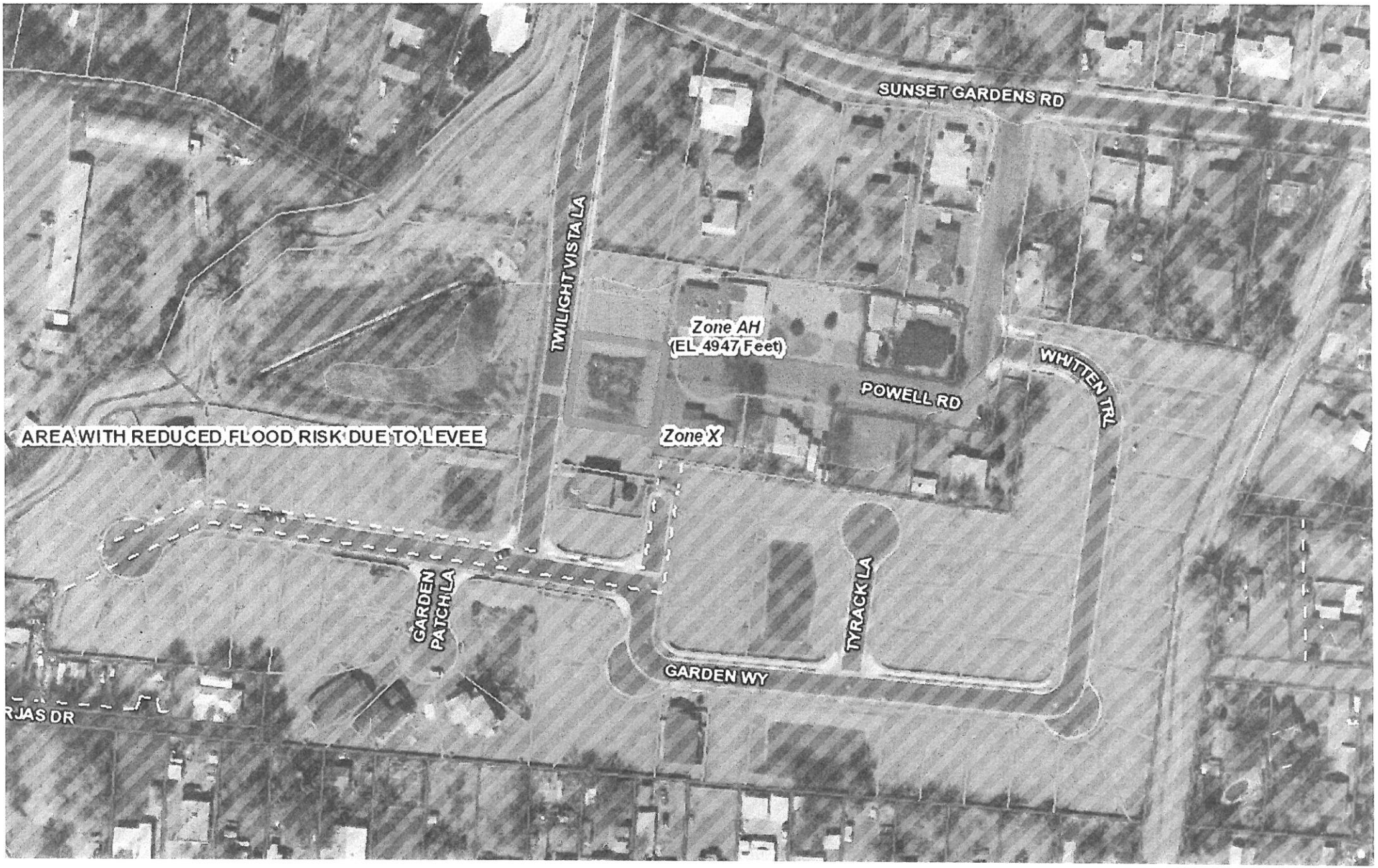
1. Approved G&D Plan (Engineer's Stamp Date_____) and an Approved CLOMR Request (Date_____) is required prior to approval of the application to FEMA, and
2. CLOMR from FEMA (Date_____) is required prior to issuance of a Floodplain Development Permit, a Grading Permit, and/or a Work Order.
3. The improvements must be constructed and an Approved Engineer's Certification (Engineer's Stamp Date_____) and an Approved LOMR Request (Engineer's Stamp Date_____) must be approved by Hydrology prior to approval of the LOMR application to FEMA (Date_____).
4. The Floodplain must be removed by a LOMR from FEMA (Date_____) prior to issuance of a Building Permit.

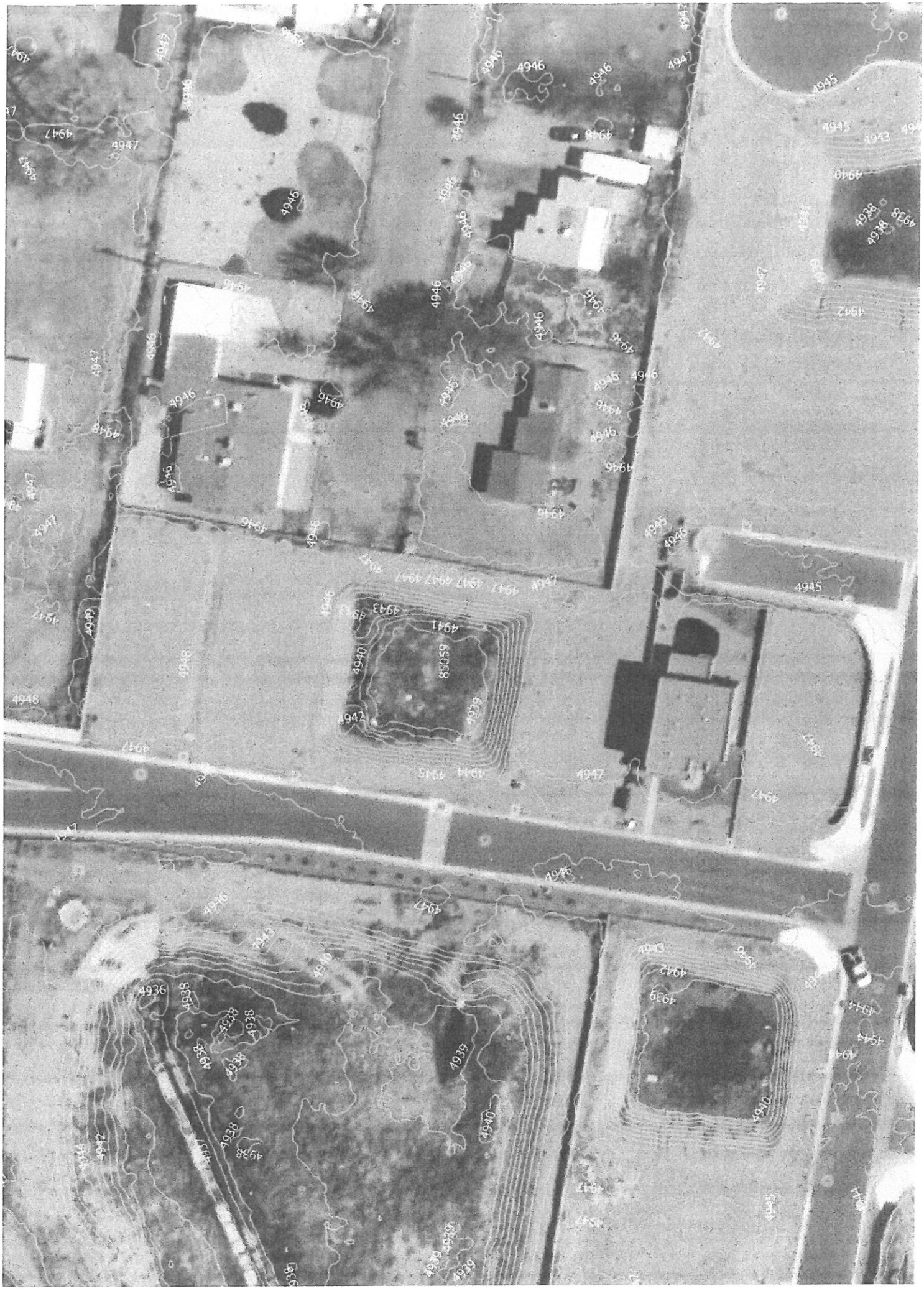
Drainage File Number: K12D003 Floodplain Permit Number: K12F003

Signed: [signature] Date: 8/29/19

Printed Name: Rudy E. Rael

Rev. March 2018


SUNSET GARDENS RD
TWILIGHT VISTA LA
Zone AH
(EL 4947 Feet)
WHITTEN TRL
POWELL RD
AREA WITH REDUCED FLOOD RISK DUE TO LEVEE
Zone X
GARDEN PATCH LA
TYRACK LA
GARDEN WY
RJAS DR



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*(s16.66H**********

      AHYMO PROGRAM (AHYMO-S4)                - Version: S4.01a - Rel: 01a
         RUN DATE (MON/DAY/YR) = 03/29/2019
         START TIME (HR:MIN:SEC) = 11:11:44     USER NO.=
AHYMO_Temp_User:20122010
         INPUT FILE = C:\Users\mdgiahi\Desktop\Updated\SG-5P.txt

   START              0.0 HRS  PUNCH CODE=0  PRINT LINES=-1
   LOCATION           BERNALILLO COUNTY
      Bernalillo County soil infiltration values (LAND FACTORS) used for computations.
      Land Treatment     Initial Abstr.(in)    Unif. Infilt.(in/hour)
           A              0.65                  1.67
           B              0.50                  1.25
           C              0.35                  0.83
           D              0.10                  0.04

   *S*
   *S*              PROJECT NAME:   SUNSET GARDENS/FIVE POINTS - REVISED
   *S*     WCEA PROJECT: X4210030/07-600-033-00
   *S*     DATE:        APRIL 21, 2009
   *S*     FILE:        SG-5P.IN
   *S*     NOTES:
   *S*       1. REVISED SUNSET GARDENS AND FIVE POINTS DRAINAGE ANALYSIS TO
ACCOUNT
   *S*              AT TERRAIN USING LAND FACTORS COMMAND.  THIS METHOD IS
BASED
   *S*               "ANALYSIS OF THE AHYMO PROGRAM FOR FLAT AREAS" BY BHI-1995.
   *S*       2. ALSO MODIFIED THE LAND TREATMENT PERCENTAGES FROM THE
ORIGINAL
   *S*                    FIVE POINTS DRAINAGE REPORT.
   *S*       3. ADDED BASINS 202, 203 AND 205 FROM SMITH ENG. SOUTH VALLEY DMP
   *S*          AREAS 1 AND 2.
   *S*       4. ALSO ADDED ATRSICO ROADWAY BASINS FOR TOTAL DISCHARGE INTO
THE
   *S*          ISLETA DRAIN
   *S*
   *
   *S*****100 YEAR 6 HOUR RAINFALL TABLE FROM NOAA ATLAS 14**********************
   *S*****RAINFALL DATA UPDATED FROM NOAA ATLAS 2 TO NOAA ATLAS 14
   RAINFALL           TYPE=2     RAIN QUARTER=1.05 IN
                      RAIN ONE=1.76 IN    RAIN SIX=2.21 IN
                      RAIN DAY=2.51 IN    DT=0.05 HRS

                24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE
AREAS (NM & AZ) - D1
                DT =   0.050000 HOURS       END TIME =    24.000002 HOURS
                  0.0000  0.0030  0.0061  0.0094  0.0130  0.0167  0.0209
                  0.0268  0.0360  0.0460  0.0564  0.0677  0.0791  0.0909
                  0.1031  0.1155  0.1292  0.1435  0.1591  0.1812  0.2067
                  0.2408  0.2794  0.3271  0.3908  0.4625  0.5861  0.7784
                  1.1080  1.3396  1.5222  1.6140  1.6945  1.7523  1.7983
                  1.8383  1.8677  1.8946  1.9168  1.9340  1.9486  1.9616
                  1.9739  1.9846  1.9949  2.0048  2.0144  2.0224  2.0269
                  2.0313  2.0356  2.0397  2.0437  2.0477  2.0515  2.0553
```

2.0589 2.0625 2.0660 2.0694 2.0728 2.0761 2.0793
2.0824 2.0855 2.0886 2.0915 2.0944 2.0973 2.1001
2.1029 2.1056 2.1083 2.1110 2.1137 2.1163 2.1189
2.1214 2.1240 2.1264 2.1289 2.1314 2.1338 2.1362
2.1385 2.1409 2.1432 2.1454 2.1477 2.1499 2.1522
2.1543 2.1565 2.1587 2.1608 2.1629 2.1650 2.1671
2.1691 2.1711 2.1732 2.1752 2.1771 2.1791 2.1810
2.1830 2.1849 2.1868 2.1886 2.1905 2.1923 2.1942
2.1960 2.1978 2.1996 2.2013 2.2031 2.2048 2.2066
2.2083 2.2100 2.2108 2.2117 2.2125 2.2133 2.2142
2.2150 2.2158 2.2167 2.2175 2.2183 2.2192 2.2200
2.2208 2.2217 2.2225 2.2233 2.2242 2.2250 2.2258
2.2267 2.2275 2.2283 2.2292 2.2300 2.2308 2.2317
2.2325 2.2333 2.2342 2.2350 2.2358 2.2367 2.2375
2.2383 2.2392 2.2400 2.2408 2.2417 2.2425 2.2433
2.2442 2.2450 2.2458 2.2467 2.2475 2.2483 2.2492
2.2500 2.2508 2.2517 2.2525 2.2533 2.2542 2.2550
2.2558 2.2567 2.2575 2.2583 2.2592 2.2600 2.2608
2.2617 2.2625 2.2633 2.2642 2.2650 2.2658 2.2667
2.2675 2.2683 2.2692 2.2700 2.2708 2.2717 2.2725
2.2733 2.2742 2.2750 2.2758 2.2767 2.2775 2.2783
2.2792 2.2800 2.2808 2.2817 2.2825 2.2833 2.2842
2.2850 2.2858 2.2867 2.2875 2.2883 2.2892 2.2900
2.2908 2.2917 2.2925 2.2933 2.2942 2.2950 2.2958
2.2967 2.2975 2.2983 2.2992 2.3000 2.3008 2.3017
2.3025 2.3033 2.3042 2.3050 2.3058 2.3067 2.3075
2.3083 2.3092 2.3100 2.3108 2.3117 2.3125 2.3133
2.3142 2.3150 2.3158 2.3167 2.3175 2.3183 2.3192
2.3200 2.3208 2.3217 2.3225 2.3233 2.3242 2.3250
2.3258 2.3267 2.3275 2.3283 2.3292 2.3300 2.3308
2.3317 2.3325 2.3333 2.3342 2.3350 2.3358 2.3367
2.3375 2.3383 2.3392 2.3400 2.3408 2.3417 2.3425
2.3433 2.3442 2.3450 2.3458 2.3467 2.3475 2.3483
2.3492 2.3500 2.3508 2.3517 2.3525 2.3533 2.3542
2.3550 2.3558 2.3567 2.3575 2.3583 2.3592 2.3600
2.3608 2.3617 2.3625 2.3633 2.3642 2.3650 2.3658
2.3667 2.3675 2.3683 2.3692 2.3700 2.3708 2.3717
2.3725 2.3733 2.3742 2.3750 2.3758 2.3767 2.3775
2.3783 2.3792 2.3800 2.3808 2.3817 2.3825 2.3833
2.3842 2.3850 2.3858 2.3867 2.3875 2.3883 2.3892
2.3900 2.3908 2.3917 2.3925 2.3933 2.3942 2.3950
2.3958 2.3967 2.3975 2.3983 2.3992 2.4000 2.4008
2.4017 2.4025 2.4033 2.4042 2.4050 2.4058 2.4067
2.4075 2.4083 2.4092 2.4100 2.4108 2.4117 2.4125
2.4133 2.4142 2.4150 2.4158 2.4167 2.4175 2.4183
2.4192 2.4200 2.4208 2.4217 2.4225 2.4233 2.4242
2.4250 2.4258 2.4267 2.4275 2.4283 2.4292 2.4300
2.4308 2.4317 2.4325 2.4333 2.4342 2.4350 2.4358
2.4367 2.4375 2.4383 2.4392 2.4400 2.4408 2.4416
2.4425 2.4433 2.4441 2.4450 2.4458 2.4466 2.4475
2.4483 2.4491 2.4500 2.4508 2.4516 2.4525 2.4533
2.4541 2.4550 2.4558 2.4566 2.4575 2.4583 2.4591
2.4600 2.4608 2.4616 2.4625 2.4633 2.4641 2.4650
2.4658 2.4666 2.4675 2.4683 2.4691 2.4700 2.4708
2.4716 2.4725 2.4733 2.4741 2.4750 2.4758 2.4766
2.4775 2.4783 2.4791 2.4800 2.4808 2.4816 2.4825
2.4833 2.4841 2.4850 2.4858 2.4866 2.4875 2.4883

```
              2.4891  2.4900  2.4908  2.4916  2.4925  2.4933  2.4941
              2.4950  2.4958  2.4966  2.4975  2.4983  2.4991  2.5000
              2.5008  2.5016  2.5025  2.5033  2.5041  2.5050  2.5058
              2.5066  2.5075  2.5083  2.5091  2.5100

  *
  LAND FACTORS        TYPE=1
                TREATMENT A IA=1.20 INF=1.67
                TREATMENT B IA=1.05 INF=1.25
                TREATMENT C IA=0.90 INF=0.83
                TREATMENT D IA=0.40 INF=0.04
  *
  *LAND FACTORS        TYPE=0  (RESTORES DEFAULT LAND FACTORS)
  *
  *S**************************************************************************
  *S*****FIVE POINTS BASIN 2 (SADORA)*****************************************
  *
  *COMPUTE LT TP       LCODE=1    NK=2    ISLOPE=-1
  *                LENGTH=320 FT    SLOPE=0.013   K=1.0
  *                     LENGTH=2500 FT   SLOPE=0.0012  K=3.0
  COMPUTE NM HYD      ID=2 HYD=101  AREA=0.0005 SQ MI
                PER A=0 PER B=0 PER C=40 PER D=60
                TP=0.0 HR  MASS RAIN=-1
      *****Warning*****A value for the Time to Peak was not previously computed; use
Tp=0.133333 hrs.

      TIME TO PEAK (hrs)=  0.1333

      K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   1.1841    CFS   UNIT VOLUME =   0.9911      B =   526.28      P60 =
1.7600
      AREA =     0.000300 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.119326HR    TP =  0.133333HR    K/TP RATIO =  0.894946     SHAPE
CONSTANT, N =  3.961379
      UNIT PEAK =  0.52889    CFS   UNIT VOLUME =   0.9771      B =   352.59      P60 =
1.7600
      AREA =     0.000200 SQ MI    IA =   0.90000 INCHES    INF =   0.83000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

  PRINT HYD          ID=2  CODE=10

                        PARTIAL HYDROGRAPH   101.00

      TIME     FLOW         TIME     FLOW         TIME     FLOW         TIME     FLOW
TIME     FLOW
       HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
HRS      CFS
      0.000      0.0        5.000      0.0       10.000      0.0       15.000      0.0       20.000
0.0
```

```
      0.500    0.0     5.500    0.0     10.500   0.0     15.500   0.0     20.500
0.0
      1.000    0.0     6.000    0.0     11.000   0.0     16.000   0.0     21.000
0.0
      1.500    1.0     6.500    0.0     11.500   0.0     16.500   0.0     21.500
0.0
      2.000    0.1     7.000    0.0     12.000   0.0     17.000   0.0     22.000
0.0
      2.500    0.0     7.500    0.0     12.500   0.0     17.500   0.0     22.500
0.0
      3.000    0.0     8.000    0.0     13.000   0.0     18.000   0.0     23.000
0.0
      3.500    0.0     8.500    0.0     13.500   0.0     18.500   0.0     23.500
0.0
      4.000    0.0     9.000    0.0     14.000   0.0     19.000   0.0     24.000
0.0
      4.500    0.0     9.500    0.0     14.500   0.0     19.500   0.0

      RUNOFF VOLUME =     1.43778 INCHES     =       0.0383 ACRE-FEET
      PEAK DISCHARGE RATE =       1.01 CFS  AT    1.500 HOURS   BASIN AREA =  0.0005
SQ. MI.



   *
****
   *S*****FIVE POINTS BASIN 3*********************************************************
   *
   *
   *COMPUTE LT TP        LCODE=1    NK=3    ISLOPE=-1
   *                 LENGTH=150 FT    SLOPE=0.0075   K=1.0
   *                      LENGTH=150 FT    SLOPE=0.0075   K=2.0
   *                      LENGTH=1300 FT    SLOPE=0.0025   K=3.0
   COMPUTE NM HYD       ID=3 HYD=102  AREA=0.00875 SQ MI
                    PER A=0 PER B=20 PER C=53 PER D=27
                    TP=0.0 HR  MASS RAIN=-1
      TIME TO PEAK (hrs)=  0.1333
      *****Warning*****This Tp value was used for a previously computed hydrograph.
                       A new Tp value should be computed.


      K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   9.3250    CFS   UNIT VOLUME =   0.9981       B =   526.28      P60 =
1.7600
      AREA =     0.002363 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.129320HR    TP =  0.133333HR    K/TP RATIO =  0.969901     SHAPE
CONSTANT, N =  3.641749
      UNIT PEAK =   15.835    CFS   UNIT VOLUME =    1.000       B =   330.54      P60 =
1.7600
      AREA =     0.006388 SQ MI    IA =   0.94110 INCHES    INF =   0.94507 INCHES PER
HOUR
```

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=3 CODE=10

PARTIAL HYDROGRAPH 102.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.1	11.000	0.0	16.000	0.0	21.000	0.0
1.500	11.9	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	1.6	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.4	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.1	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.500	0.1	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0	24.500	0.0

RUNOFF VOLUME = 0.93708 INCHES = 0.4373 ACRE-FEET
PEAK DISCHARGE RATE = 12.77 CFS AT 1.550 HOURS BASIN AREA = 0.0088 SQ. MI.

*
*S*****FIVE POINTS BASIN 4**********
*
*******Reduced Basin 4 area by 2.02 ac. due to overlap with Smith basin 202
*
COMPUTE LT TP LCODE=1 NK=3 ISLOPE=-1
LENGTH=150 FT SLOPE=0.005 K=0.7
LENGTH=200 FT SLOPE=0.005 K=2.0
LENGTH=400 FT SLOPE=0.001 K=3.0

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	150.0	0.005000	0.7000
SHALLOW FLOW PORTION	200.0	0.005000	2.0000
CHANNEL FLOW PORTION	400.0	0.001000	3.0000
TOTAL BASIN	750.0	0.002867	1.6173

TIME OF CONCENTRATION (HRS)= 0.2406 TIME TO PEAK (HRS)= 0.1604 LAG TIME (HRS)= 0.1804

COMPUTE NM HYD ID=4 HYD=103 AREA=0.004219 SQ MI
PER A=0 PER B=20 PER C=42.5 PER D=37.5
TP=0.0 HR MASS RAIN=-1
TIME TO PEAK (hrs)= 0.1604

K = 0.087412HR TP = 0.160390HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 5.1913 CFS UNIT VOLUME = 0.9970 B = 526.28 P60 = 1.7600
AREA = 0.001582 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.157582HR TP = 0.160390HR K/TP RATIO = 0.982493 SHAPE CONSTANT, N = 3.594015
UNIT PEAK = 5.3782 CFS UNIT VOLUME = 0.9982 B = 327.13 P60 = 1.7600
AREA = 0.002637 SQ MI IA = 0.94800 INCHES INF = 0.96440 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=4 CODE=10

PARTIAL HYDROGRAPH 103.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.500	5.4	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	1.0	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.3	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.1	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0	24.500	0.0

RUNOFF VOLUME = 1.08021 INCHES = 0.2431 ACRE-FEET
PEAK DISCHARGE RATE = 6.22 CFS AT 1.550 HOURS BASIN AREA = 0.0042 SQ. MI.

*
*S*****FIVE POINTS BASIN 5**********
*
COMPUTE NM HYD ID=5 HYD=104 AREA=0.001734 SQ MI
PER A=0 PER B=20 PER C=31 PER D=49
TP=0.0 HR MASS RAIN=-1
TIME TO PEAK (hrs)= 0.1604
*****Warning*****This Tp value was used for a previously computed hydrograph.
A new Tp value should be computed.

K = 0.087412HR TP = 0.160390HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 2.7879 CFS UNIT VOLUME = 0.9947 B = 526.28 P60 = 1.7600
AREA = 0.000850 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.160748HR TP = 0.160390HR K/TP RATIO = 1.002234 SHAPE CONSTANT, N = 3.522200
UNIT PEAK = 1.7751 CFS UNIT VOLUME = 0.9927 B = 321.95 P60 = 1.7600
AREA = 0.000884 SQ MI IA = 0.95882 INCHES INF = 0.99471 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=5 CODE=10

PARTIAL HYDROGRAPH 104.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.500	2.5	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	0.5	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.1	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.0	8.000	0.0	13.000	0.0	18.000	0.0	23.000	

```
0.0
      3.500      0.0        8.500      0.0        13.500     0.0        18.500     0.0        23.500
0.0
      4.000      0.0        9.000      0.0        14.000     0.0        19.000     0.0        24.000
0.0
      4.500      0.0        9.500      0.0        14.500     0.0        19.500     0.0

      RUNOFF VOLUME =     1.23701 INCHES     =       0.1144 ACRE-FEET
      PEAK DISCHARGE RATE =       2.85 CFS  AT    1.550 HOURS   BASIN AREA =  0.0017
SQ. MI.



  *
  *
  *S*****FIVE POINTS BASIN 6****************************************************
  *
  COMPUTE NM HYD       ID=6 HYD=105  AREA=0.001234 SQ MI
                  PER A=0 PER B=20 PER C=30 PER D=50
                  TP=0.0 HR  MASS RAIN=-1
      TIME TO PEAK (hrs)=  0.1604
      *****Warning*****This Tp value was used for a previously computed hydrograph.
                  A new Tp value should be computed.


      K =  0.087412HR    TP =  0.160390HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   2.0245    CFS   UNIT VOLUME =   0.9938      B =   526.28      P60 =
1.7600
      AREA =     0.000617 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.161092HR    TP =  0.160390HR    K/TP RATIO =  1.004380     SHAPE
CONSTANT, N =  3.514607
      UNIT PEAK =   1.2364    CFS   UNIT VOLUME =   0.9897      B =   321.40      P60 =
1.7600
      AREA =     0.000617 SQ MI    IA =   0.96000 INCHES    INF =   0.99800 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

  PRINT HYD          ID=6  CODE=10

                           PARTIAL HYDROGRAPH   105.00

      TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
       HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS
HRS       CFS
      0.000      0.0        5.000      0.0        10.000     0.0        15.000     0.0        20.000
0.0
      0.500      0.0        5.500      0.0        10.500     0.0        15.500     0.0        20.500
0.0
      1.000      0.0        6.000      0.0        11.000     0.0        16.000     0.0        21.000
```

0.0

1.500	1.8	6.500	0.0	11.500	0.0	16.500	0.0	21.500
0.0								
2.000	0.4	7.000	0.0	12.000	0.0	17.000	0.0	22.000
0.0								
2.500	0.1	7.500	0.0	12.500	0.0	17.500	0.0	22.500
0.0								
3.000	0.0	8.000	0.0	13.000	0.0	18.000	0.0	23.000
0.0								
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500
0.0								
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000
0.0								
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0	

RUNOFF VOLUME = 1.25064 INCHES = 0.0823 ACRE-FEET
PEAK DISCHARGE RATE = 2.05 CFS AT 1.550 HOURS BASIN AREA = 0.0012 SQ. MI.

*
*
*S*****FIVE POINTS BASIN 7**********
*
COMPUTE LT TP LCODE=1 NK=3 ISLOPE=-1
LENGTH=150 FT SLOPE=0.005 K=0.7
LENGTH=200 FT SLOPE=0.005 K=2.0
LENGTH=850 FT SLOPE=0.001 K=3.0

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	150.0	0.005000	0.7000
SHALLOW FLOW PORTION	200.0	0.005000	2.0000
CHANNEL FLOW PORTION	850.0	0.001000	3.0000
TOTAL BASIN	1200.0	0.002167	1.9233

TIME OF CONCENTRATION (HRS)= 0.3723 TIME TO PEAK (HRS)= 0.2482 LAG TIME (HRS)= 0.2793

*
COMPUTE NM HYD ID=7 HYD=106 AREA=0.008469 SQ MI
PER A=0 PER B=20 PER C=27 PER D=53
TP=0.0 HR MASS RAIN=-1
TIME TO PEAK (hrs)= 0.2482

K = 0.135286HR TP = 0.248231HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 9.5162 CFS UNIT VOLUME = 0.9989 B = 526.28 P60 = 1.7600
AREA = 0.004489 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.251052HR TP = 0.248231HR K/TP RATIO = 1.011365 SHAPE CONSTANT, N = 3.490170
UNIT PEAK = 5.1251 CFS UNIT VOLUME = 0.9974 B = 319.62 P60 = 1.7600
AREA = 0.003980 SQ MI IA = 0.96383 INCHES INF = 1.00872 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=7 CODE=10

PARTIAL HYDROGRAPH 106.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.500	0.1	11.000	0.0	16.500	0.0	22.000	0.0
0.500	0.0	6.000	0.1	11.500	0.0	17.000	0.0	22.500	0.0
1.000	0.0	6.500	0.1	12.000	0.0	17.500	0.0	23.000	0.0
1.500	6.2	7.000	0.1	12.500	0.0	18.000	0.0	23.500	0.0
2.000	3.8	7.500	0.0	13.000	0.0	18.500	0.0	24.000	0.0
2.500	1.0	8.000	0.0	13.500	0.0	19.000	0.0	24.500	0.0
3.000	0.4	8.500	0.0	14.000	0.0	19.500	0.0	25.000	0.0
3.500	0.2	9.000	0.0	14.500	0.0	20.000	0.0		
4.000	0.1	9.500	0.0	15.000	0.0	20.500	0.0		
4.500	0.1	10.000	0.0	15.500	0.0	21.000	0.0		
5.000	0.1	10.500	0.0	16.000	0.0	21.500	0.0		

RUNOFF VOLUME = 1.29156 INCHES = 0.5834 ACRE-FEET
PEAK DISCHARGE RATE = 11.36 CFS AT 1.650 HOURS BASIN AREA = 0.0085 SQ. MI.

*
*
*S*****FIVE POINTS BASIN 8**********
*
COMPUTE LT TP LCODE=1 NK=3 ISLOPE=-1
LENGTH=250 FT SLOPE=0.005 K=0.7
LENGTH=200 FT SLOPE=0.005 K=2.0
LENGTH=900 FT SLOPE=0.001 K=3.0

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS
LENGTH (FT) SLOPE (FT/FT) COMPOSITE K

SHEET FLOW PORTION 250.0 0.005000 0.7000
SHALLOW FLOW PORTION 200.0 0.005000 2.0000
CHANNEL FLOW PORTION 900.0 0.001000 3.0000
TOTAL BASIN 1350.0 0.002333 1.7520

TIME OF CONCENTRATION (HRS)= 0.4431 TIME TO PEAK (HRS)= 0.2954 LAG TIME (HRS)= 0.3323

*
COMPUTE NM HYD ID=8 HYD=107 AREA=0.01553 SQ MI
PER A=0 PER B=20 PER C=49 PER D=31
TP=0.0 HR MASS RAIN=-1
TIME TO PEAK (hrs)= 0.2954

K = 0.160995HR TP = 0.295404HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 8.5769 CFS UNIT VOLUME = 0.9986 B = 526.28 P60 = 1.7600
AREA = 0.004814 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.287796HR TP = 0.295404HR K/TP RATIO = 0.974246 SHAPE CONSTANT, N = 3.625102
UNIT PEAK = 11.947 CFS UNIT VOLUME = 0.9988 B = 329.35 P60 = 1.7600
AREA = 0.010716 SQ MI IA = 0.94348 INCHES INF = 0.95174 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=8 CODE=10

PARTIAL HYDROGRAPH 107.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.500	0.1	11.000	0.1	16.500	0.1	22.000	0.1
0.500	0.0	6.000	0.1	11.500	0.1	17.000	0.1	22.500	0.1
1.000	0.0	6.500	0.1	12.000	0.1	17.500	0.1	23.000	0.1
1.500	5.5	7.000	0.1	12.500	0.1	18.000	0.1	23.500	0.1
2.000	7.0	7.500	0.1	13.000	0.1	18.500	0.1	24.000	0.1
2.500	1.7	8.000	0.1	13.500	0.1	19.000	0.1	24.500	0.0
3.000	0.7	8.500	0.1	14.000	0.1	19.500	0.1	25.000	0.0
3.500	0.4	9.000	0.1	14.500	0.1	20.000	0.1	25.500	

```
0.0
      4.000      0.2        9.500      0.1        15.000      0.1        20.500      0.1
      4.500      0.1        10.000     0.1        15.500      0.1        21.000      0.1
      5.000      0.1        10.500     0.1        16.000      0.1        21.500      0.1

     RUNOFF VOLUME =     0.99160 INCHES     =      0.8213 ACRE-FEET
     PEAK DISCHARGE RATE =      14.81 CFS  AT   1.700 HOURS   BASIN AREA =  0.0155
SQ. MI.



  *
  *S*****FIVE POINTS BASIN 9*****************************************************
  *
  COMPUTE NM HYD       ID=9 HYD=108  AREA=0.001969 SQ MI
                       PER A=0 PER B=20 PER C=59 PER D=21
                       TP=0.0 HR  MASS RAIN=-1
      TIME TO PEAK (hrs)=  0.2954
      *****Warning*****This Tp value was used for a previously computed hydrograph.
                       A new Tp value should be computed.


      K =  0.160995HR    TP =  0.295404HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =  0.73665    CFS   UNIT VOLUME =   0.9844       B =   526.28      P60 =
1.7600
      AREA =     0.000413 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.284831HR    TP =  0.295404HR    K/TP RATIO =  0.964208     SHAPE
CONSTANT, N =  3.663843
      UNIT PEAK =   1.7488    CFS   UNIT VOLUME =   0.9918       B =   332.10      P60 =
1.7600
      AREA =     0.001556 SQ MI    IA =   0.93797 INCHES    INF =   0.93633 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

  PRINT HYD           ID=9  CODE=10

                          PARTIAL HYDROGRAPH   108.00

      TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
       HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
      0.000      0.0        5.000      0.0        10.000      0.0        15.000      0.0        20.000
0.0
      0.500      0.0        5.500      0.0        10.500      0.0        15.500      0.0        20.500
0.0
      1.000      0.0        6.000      0.0        11.000      0.0        16.000      0.0        21.000
0.0
      1.500      0.6        6.500      0.0        11.500      0.0        16.500      0.0        21.500
0.0
```

```
      2.000     0.8       7.000     0.0       12.000    0.0       17.000    0.0       22.000
0.0
      2.500     0.2       7.500     0.0       12.500    0.0       17.500    0.0       22.500
0.0
      3.000     0.1       8.000     0.0       13.000    0.0       18.000    0.0       23.000
0.0
      3.500     0.0       8.500     0.0       13.500    0.0       18.500    0.0       23.500
0.0
      4.000     0.0       9.000     0.0       14.000    0.0       19.000    0.0       24.000
0.0
      4.500     0.0       9.500     0.0       14.500    0.0       19.500    0.0

      RUNOFF VOLUME =     0.85530 INCHES     =      0.0898 ACRE-FEET
      PEAK DISCHARGE RATE =       1.67 CFS  AT   1.700 HOURS   BASIN AREA =  0.0020
SQ. MI.



   *
   *S*****FIVE POINTS BASIN 10*****************************************************
   *
   COMPUTE NM HYD       ID=10 HYD=109  AREA=0.001953 SQ MI
                        PER A=0 PER B=20 PER C=41 PER D=39
                        TP=0.0 HR  MASS RAIN=-1
      TIME TO PEAK (hrs)=  0.2954
      *****Warning*****This Tp value was used for a previously computed hydrograph.
                        A new Tp value should be computed.


      K =  0.160995HR    TP =  0.295404HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   1.3570    CFS   UNIT VOLUME =   0.9917      B =   526.28      P60 =
1.7600
      AREA =     0.000762 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.290868HR    TP =  0.295404HR    K/TP RATIO =  0.984646     SHAPE
CONSTANT, N =  3.586007
      UNIT PEAK =   1.3170    CFS   UNIT VOLUME =   0.9895      B =   326.56      P60 =
1.7600
      AREA =     0.001191 SQ MI    IA =   0.94918 INCHES    INF =   0.96770 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

   PRINT HYD           ID=10  CODE=10

                           PARTIAL HYDROGRAPH   109.00

      TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
       HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
      0.000     0.0       5.000     0.0       10.000    0.0       15.000    0.0       20.000
```

0.0

0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500
0.0								
1.000	0.0	6.000	0.0	11.000	0.0	16.000	0.0	21.000
0.0								
1.500	0.8	6.500	0.0	11.500	0.0	16.500	0.0	21.500
0.0								
2.000	1.0	7.000	0.0	12.000	0.0	17.000	0.0	22.000
0.0								
2.500	0.2	7.500	0.0	12.500	0.0	17.500	0.0	22.500
0.0								
3.000	0.1	8.000	0.0	13.000	0.0	18.000	0.0	23.000
0.0								
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500
0.0								
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000
0.0								
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0	24.500
0.0								

RUNOFF VOLUME = 1.10065 INCHES = 0.1146 ACRE-FEET
PEAK DISCHARGE RATE = 2.06 CFS AT 1.700 HOURS BASIN AREA = 0.0020 SQ. MI.

*
*
*S*****FIVE POINTS BASIN 14**********
*
COMPUTE NM HYD ID=14 HYD=110 AREA=0.001531 SQ MI
PER A=0 PER B=0 PER C=0 PER D=100
TP=0.0 HR MASS RAIN=-1
TIME TO PEAK (hrs)= 0.2954
*****Warning*****This Tp value was used for a previously computed hydrograph.
A new Tp value should be computed.

K = 0.160995HR TP = 0.295404HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 2.7275 CFS UNIT VOLUME = 0.9956 B = 526.28 P60 = 1.7600
AREA = 0.001531 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=14 CODE=10

PARTIAL HYDROGRAPH 110.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.500	0.0	11.000	0.0	16.500	0.0	22.000	0.0

```
      0.500    0.0      6.000    0.0      11.500   0.0      17.000   0.0      22.500
0.0
      1.000    0.0      6.500    0.0      12.000   0.0      17.500   0.0      23.000
0.0
      1.500    1.2      7.000    0.0      12.500   0.0      18.000   0.0      23.500
0.0
      2.000    1.2      7.500    0.0      13.000   0.0      18.500   0.0      24.000
0.0
      2.500    0.3      8.000    0.0      13.500   0.0      19.000   0.0      24.500
0.0
      3.000    0.1      8.500    0.0      14.000   0.0      19.500   0.0      25.000
0.0
      3.500    0.1      9.000    0.0      14.500   0.0      20.000   0.0
      4.000    0.0      9.500    0.0      15.000   0.0      20.500   0.0
      4.500    0.0      10.000   0.0      15.500   0.0      21.000   0.0
      5.000    0.0      10.500   0.0      16.000   0.0      21.500   0.0

     RUNOFF VOLUME =     1.98089 INCHES     =      0.1617 ACRE-FEET
     PEAK DISCHARGE RATE =       2.78 CFS  AT   1.700 HOURS   BASIN AREA =  0.0015
SQ. MI.



  *
  *S*****FIVE POINTS BASIN 16*****************************************************
  *
  COMPUTE LT TP         LCODE=1    NK=3    ISLOPE=-1
                LENGTH=150 FT    SLOPE=0.005   K=0.7
                      LENGTH=200 FT    SLOPE=0.005   K=2.0
                      LENGTH=1050 FT    SLOPE=0.001   K=3.0

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                         LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION            150.0          0.005000            0.7000
     SHALLOW FLOW PORTION          200.0          0.005000            2.0000
     CHANNEL FLOW PORTION         1050.0          0.001000            3.0000
     TOTAL BASIN                  1400.0          0.002000            2.0180


     TIME OF CONCENTRATION (HRS)=  0.4309     TIME TO PEAK (HRS)=  0.2873     LAG
TIME (HRS)=  0.3232

  *
  COMPUTE NM HYD       ID=16 HYD=111  AREA=0.009922 SQ MI
                PER A=0 PER B=20 PER C=33.5 PER D=46.5
                TP=0.0 HR  MASS RAIN=-1
     TIME TO PEAK (hrs)=  0.2873

     K =  0.156563HR    TP =  0.287271HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
     UNIT PEAK =   8.4523    CFS   UNIT VOLUME =   0.9988       B =   526.28      P60 =
1.7600
     AREA =     0.004614 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
```

DT = 0.050000

K = 0.286473HR TP = 0.287271HR K/TP RATIO = 0.997221 SHAPE CONSTANT, N = 3.540100
UNIT PEAK = 5.9731 CFS UNIT VOLUME = 0.9978 B = 323.25 P60 = 1.7600
AREA = 0.005308 SQ MI IA = 0.95607 INCHES INF = 0.98701 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=16 CODE=10

PARTIAL HYDROGRAPH 111.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.500	0.1	11.000	0.0	16.500	0.0	22.000	0.0
0.500	0.0	6.000	0.1	11.500	0.0	17.000	0.0	22.500	0.0
1.000	0.0	6.500	0.1	12.000	0.0	17.500	0.0	23.000	0.0
1.500	4.7	7.000	0.1	12.500	0.0	18.000	0.0	23.500	0.0
2.000	5.0	7.500	0.1	13.000	0.0	18.500	0.0	24.000	0.0
2.500	1.3	8.000	0.0	13.500	0.0	19.000	0.0	24.500	0.0
3.000	0.5	8.500	0.0	14.000	0.0	19.500	0.0	25.000	0.0
3.500	0.2	9.000	0.0	14.500	0.0	20.000	0.0	25.500	0.0
4.000	0.1	9.500	0.0	15.000	0.0	20.500	0.0		
4.500	0.1	10.000	0.0	15.500	0.0	21.000	0.0		
5.000	0.1	10.500	0.0	16.000	0.0	21.500	0.0		

RUNOFF VOLUME = 1.20291 INCHES = 0.6365 ACRE-FEET
PEAK DISCHARGE RATE = 11.39 CFS AT 1.700 HOURS BASIN AREA = 0.0099 SQ. MI.

*
*S**********
*S*****Smith Eng. Basins**********
*
*S*****Change initial abstraction values back to defaults
*S*****Smith Eng. has reduced percent D to account for flat terrain
*
LAND FACTORS TYPE=0 (RESTORES DEFAULT LAND FACTORS)
DEFAULT VALUES OF IA & INF RESTORED

*

COMPUTE NM HYD ID=23 HYD NO=202.0 DA=0.01501 SQ MI
PER A=40 PER B=40 PER C=10 PER D=10
TP=0.28 HOURS MASS RAIN=-1

K = 0.152600HR TP = 0.280000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 2.8212 CFS UNIT VOLUME = 0.9954 B = 526.28 P60 = 1.7600
AREA = 0.001501 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.341260HR TP = 0.280000HR K/TP RATIO = 1.218785 SHAPE CONSTANT, N = 2.919366
UNIT PEAK = 13.277 CFS UNIT VOLUME = 0.9988 B = 275.19 P60 = 1.7600
AREA = 0.013509 SQ MI IA = 0.55000 INCHES INF = 1.39000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=23 CODE=10

PARTIAL HYDROGRAPH 202.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.1	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.1	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.1	6.000	0.1	11.000	0.0	16.000	0.0	21.000	0.0
1.500	7.2	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	5.6	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	1.4	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.7	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.500	0.4	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
4.000	0.2	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.500	0.2	9.500	0.0	14.500	0.0	19.500	0.0	24.500	0.0

RUNOFF VOLUME = 0.86249 INCHES = 0.6905 ACRE-FEET
PEAK DISCHARGE RATE = 11.90 CFS AT 1.650 HOURS BASIN AREA = 0.0150 SQ. MI.

*S
COMPUTE NM HYD ID=25 HYD NO=203.0 DA=0.01718 SQ MI
PER A=40 PER B=40 PER C=10 PER D=10
TP=0.28 HOURS MASS RAIN=-1

K = 0.152600HR TP = 0.280000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 3.2291 CFS UNIT VOLUME = 0.9959 B = 526.28 P60 = 1.7600
AREA = 0.001718 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.341260HR TP = 0.280000HR K/TP RATIO = 1.218785 SHAPE CONSTANT, N = 2.919366
UNIT PEAK = 15.196 CFS UNIT VOLUME = 0.9989 B = 275.19 P60 = 1.7600
AREA = 0.015462 SQ MI IA = 0.55000 INCHES INF = 1.39000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=25 CODE=10

PARTIAL HYDROGRAPH 203.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.500	0.1	11.000	0.0	16.500	0.0	22.000	0.0
0.500	0.0	6.000	0.1	11.500	0.0	17.000	0.0	22.500	0.0
1.000	0.1	6.500	0.0	12.000	0.0	17.500	0.0	23.000	0.0
1.500	8.2	7.000	0.0	12.500	0.0	18.000	0.0	23.500	0.0
2.000	6.4	7.500	0.0	13.000	0.0	18.500	0.0	24.000	0.0
2.500	1.6	8.000	0.0	13.500	0.0	19.000	0.0	24.500	0.0
3.000	0.8	8.500	0.0	14.000	0.0	19.500	0.0	25.000	0.0
3.500	0.5	9.000	0.0	14.500	0.0	20.000	0.0		
4.000	0.3	9.500	0.0	15.000	0.0	20.500	0.0		
4.500	0.2	10.000	0.0	15.500	0.0	21.000	0.0		
5.000	0.1	10.500	0.0	16.000	0.0	21.500	0.0		

RUNOFF VOLUME = 0.86249 INCHES = 0.7903 ACRE-FEET
PEAK DISCHARGE RATE = 13.62 CFS AT 1.650 HOURS BASIN AREA = 0.0172 SQ. MI.

*S
COMPUTE NM HYD ID=27 HYD NO=205.0 DA=0.00716 SQ MI
PER A=40 PER B=40 PER C=10 PER D=10
TP=0.54 HOURS MASS RAIN=-1

K = 0.294300HR TP = 0.540000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.69780 CFS UNIT VOLUME = 0.9818 B = 526.28 P60 = 1.7600
AREA = 0.000716 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.658144HR TP = 0.540000HR K/TP RATIO = 1.218785 SHAPE CONSTANT, N = 2.919366
UNIT PEAK = 3.2839 CFS UNIT VOLUME = 0.9954 B = 275.19 P60 = 1.7600
AREA = 0.006444 SQ MI IA = 0.55000 INCHES INF = 1.39000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=27 CODE=10

PARTIAL HYDROGRAPH 205.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.500	0.1	11.000	0.0	16.500	0.0	22.000	0.0
0.500	0.0	6.000	0.1	11.500	0.0	17.000	0.0	22.500	0.0
1.000	0.0	6.500	0.1	12.000	0.0	17.500	0.0	23.000	0.0
1.500	0.9	7.000	0.0	12.500	0.0	18.000	0.0	23.500	0.0
2.000	3.2	7.500	0.0	13.000	0.0	18.500	0.0	24.000	0.0
2.500	1.6	8.000	0.0	13.500	0.0	19.000	0.0	24.500	0.0
3.000	0.7	8.500	0.0	14.000	0.0	19.500	0.0	25.000	0.0
3.500	0.3	9.000	0.0	14.500	0.0	20.000	0.0		
4.000	0.2	9.500	0.0	15.000	0.0	20.500	0.0		
4.500	0.2	10.000	0.0	15.500	0.0	21.000	0.0		
5.000	0.1	10.500	0.0	16.000	0.0	21.500	0.0		

RUNOFF VOLUME = 0.86249 INCHES = 0.3294 ACRE-FEET
PEAK DISCHARGE RATE = 3.26 CFS AT 1.950 HOURS BASIN AREA = 0.0072 SQ. MI.

```
  *S
  *S**************************************************************************
  *S**************************************************************************
  *S
  *S*****SUNSET VILLA BASIN*************************************************************
  *
  COMPUTE LT TP         LCODE=1    NK=3    ISLOPE=-1
                  LENGTH=150 FT    SLOPE=0.0075   K=1.0
                       LENGTH=150 FT    SLOPE=0.0075   K=2.0
                       LENGTH=1300 FT    SLOPE=0.0025   K=3.0

      Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

      SCS UPLAND METHOD FACTORS
                           LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
      SHEET FLOW PORTION            150.0          0.007500            1.0000
      SHALLOW FLOW PORTION          150.0          0.007500            2.0000
      CHANNEL FLOW PORTION         1300.0          0.002500            3.0000
      TOTAL BASIN                  1600.0          0.003437            2.4226


      TIME OF CONCENTRATION (HRS)=  0.3129     TIME TO PEAK (HRS)=  0.2086     LAG
TIME (HRS)=  0.2347

  COMPUTE NM HYD       ID=50 HYD=102  AREA=0.01919 SQ MI
                  PER A=0 PER B=20 PER C=20 PER D=60
                  TP=0.0 HR  MASS RAIN=-1
      TIME TO PEAK (hrs)=  0.2086

      K =  0.113690HR    TP =  0.208606HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   29.048    CFS   UNIT VOLUME =   0.9996      B =   526.28      P60 =
1.7600
      AREA =     0.011514 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.215227HR    TP =  0.208606HR    K/TP RATIO =  1.031738     SHAPE
CONSTANT, N =  3.421253
      UNIT PEAK =   11.574    CFS   UNIT VOLUME =   0.9991      B =   314.54      P60 =
1.7600
      AREA =     0.007676 SQ MI    IA =   0.42500 INCHES    INF =   1.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

  PRINT HYD          ID=50  CODE=5

                          PARTIAL HYDROGRAPH   102.00

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

0.000	0.0	5.250	0.2	10.500	0.1	15.750	0.1	21.000
0.1								
0.250	0.0	5.500	0.2	10.750	0.1	16.000	0.1	21.250
0.1								
0.500	0.0	5.750	0.2	11.000	0.1	16.250	0.1	21.500
0.1								
0.750	0.0	6.000	0.2	11.250	0.1	16.500	0.1	21.750
0.1								
1.000	1.3	6.250	0.2	11.500	0.1	16.750	0.1	22.000
0.1								
1.250	4.3	6.500	0.1	11.750	0.1	17.000	0.1	22.250
0.1								
1.500	27.4	6.750	0.1	12.000	0.1	17.250	0.1	22.500
0.1								
1.750	22.8	7.000	0.1	12.250	0.1	17.500	0.1	22.750
0.1								
2.000	8.6	7.250	0.1	12.500	0.1	17.750	0.1	23.000
0.1								
2.250	4.1	7.500	0.1	12.750	0.1	18.000	0.1	23.250
0.1								
2.500	2.4	7.750	0.1	13.000	0.1	18.250	0.1	23.500
0.1								
2.750	1.2	8.000	0.1	13.250	0.1	18.500	0.1	23.750
0.1								
3.000	0.8	8.250	0.1	13.500	0.1	18.750	0.1	24.000
0.1								
3.250	0.5	8.500	0.1	13.750	0.1	19.000	0.1	24.250
0.1								
3.500	0.4	8.750	0.1	14.000	0.1	19.250	0.1	24.500
0.0								
3.750	0.3	9.000	0.1	14.250	0.1	19.500	0.1	24.750
0.0								
4.000	0.2	9.250	0.1	14.500	0.1	19.750	0.1	25.000
0.0								
4.250	0.2	9.500	0.1	14.750	0.1	20.000	0.1	25.250
0.0								
4.500	0.2	9.750	0.1	15.000	0.1	20.250	0.1	
4.750	0.2	10.000	0.1	15.250	0.1	20.500	0.1	
5.000	0.2	10.250	0.1	15.500	0.1	20.750	0.1	

RUNOFF VOLUME = 1.70972 INCHES = 1.7498 ACRE-FEET
PEAK DISCHARGE RATE = 34.86 CFS AT 1.600 HOURS BASIN AREA = 0.0192 SQ. MI.

*
*S*****ROUTING AND ADD HYD COMMANDS**********
*
*S*****ROUTE BASIN 2**********
*
COMPUTE RATING CURVE CID=1 VS NO=1 CODE=-1 SLP=0.001
DIA=3.0 FT N=0.013

RATING CURVE PIPE SECTION 1.0

WATER SURFACE	FLOW AREA	FLOW RATE	MAX WIDTH

ELEV	SQ FT	CFS	FT
0.00	0.00	0.00	0.00
0.16	0.14	0.11	1.33
0.31	0.39	0.48	1.83
0.47	0.71	1.12	2.18
0.63	1.07	2.01	2.44
0.78	1.46	3.14	2.63
0.94	1.89	4.47	2.78
1.09	2.33	5.99	2.89
1.25	2.79	7.66	2.96
1.41	3.26	9.45	2.99
1.56	3.72	11.31	3.00
1.72	4.19	13.20	3.00
1.88	4.65	15.08	3.00
2.03	5.10	16.90	3.00
2.19	5.53	18.61	3.00
2.35	5.93	20.14	3.00
2.50	6.30	21.41	3.00
2.66	6.62	22.32	3.00
2.81	6.89	22.69	3.00
3.00	7.07	22.69	3.00

*

ROUTE MCUNGE ID=20 HYD=102 INFLOW ID=2
DT=0.033333 HR LENGTH=800 FT
NS=0 SLOPE=0.001

INFLOW END= 484 TABLE PTS= 19
DT= 0.033333 QMED= 0.51 CKMED= 2.0196
WIDTH MED= 1.85 NREACH= 5 DX= 160.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck	VEL (FPS)	C (FPS)	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
0.00	0.0	0.0	0.384	0.0	1.33	0.37	1.000	0.000	1.000	0.000	0.000	0.0	1.000	0.000	0.000
0.16	0.1	0.1	0.282	1.3	1.30	0.79	0.972	0.400	0.663	0.157	0.181	0.0	0.947	0.025	0.028
0.31	0.4	0.5	0.181	1.8	1.79	1.23	1.341	0.916	0.438	0.386	0.176	0.3	0.500	0.290	0.210
0.47	0.7	1.1	0.140	2.2	2.26	1.58	1.698	1.415	0.312	0.514	0.174	0.8	0.360	0.460	0.180
0.63	1.1	2.0	0.118	2.4	2.67	1.88	1.999	1.932	0.216	0.594	0.189	1.5	0.257	0.559	0.184
0.78	1.5	3.1	0.104	2.6	3.01	2.14	2.255	2.475	0.136	0.651	0.213	2.5	0.173	0.626	0.202
0.94	1.9	4.5	0.094	2.8	3.30	2.37	2.473	3.049	0.065	0.693	0.242	3.8	0.099	0.674	0.227
1.09	2.3	6.0	0.086	2.9	3.54	2.57	2.656	3.663	-0.001	0.727	0.274	5.2	0.032	0.711	0.257
1.25	2.8	7.7	0.081	3.0	3.74	2.75	2.806	4.328	-0.064	0.754	0.310	6.8	-0.032	0.740	0.292
1.41	3.3	9.4	0.077	3.0	3.90	2.90	2.924	5.058	-0.126	0.777	0.349	8.5	-0.095	0.766	0.329
1.56	3.7	11.3	0.073	3.0	4.01	3.04	3.005	5.878	-0.189	0.798	0.392	10.4	-0.158	0.787	0.370
1.72	4.2	13.2	0.071	3.0	4.03	3.15	3.025	6.818	-0.258	0.816	0.442	12.2	-0.223	0.807	0.417

```
      1.88    4.7     15.1   0.069    3.0     3.96   3.24    2.968  7.939 -0.333  0.832  0.501     14.1
-0.295  0.824  0.472
      2.03    5.1     16.9   0.067    3.0     3.77   3.32    2.828  9.340 -0.419  0.848  0.571     16.0
-0.376  0.840  0.536
      2.19    5.5     18.6   0.066    3.0     3.46   3.37    2.592 11.218 -0.515  0.865  0.650     17.8
-0.467  0.857  0.610
      2.35    5.9     20.1   0.065    3.0     2.99   3.40    2.242 14.030 -0.625  0.884  0.740     19.4
-0.570  0.875  0.695
      2.50    6.3     21.4   0.065    3.0     2.33   3.40    1.746 19.157 -0.749  0.909  0.841     20.8
-0.687  0.896  0.791
      2.66    6.6     22.3   0.066    3.0     1.36   3.37    1.023 34.095 -0.888  0.945  0.943     21.9
-0.819  0.927  0.892
      2.81    6.9     22.7   0.067    3.0     0.78   3.29    0.583 60.827 -0.949  0.968  0.981     22.5
-0.919  0.956  0.963
       Hydrograph incermental time change from DT=  0.050000 hours to DT=  0.033333 hours
   MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   2 OCCURRED      56 TIMES.
AVERAGE NUMBER ITERATIONS =  1.0028
   Equations solved using the Ponce correction to C2
       Hydrograph incermental time change from DT=  0.033333 hours to DT=  0.050000 hours
   *
   *
   *S*****ADD BASINS 2 & 3*************************************************************
   *
   ADD HYD             ID=30  HYD=102.3 ID I=20  ID II=3
   *
   PRINT HYD           ID=30  CODE=10

                              PARTIAL HYDROGRAPH   102.30

       TIME     FLOW          TIME     FLOW          TIME     FLOW          TIME     FLOW
TIME     FLOW
        HRS      CFS           HRS      CFS           HRS      CFS           HRS      CFS
HRS      CFS
       0.000      0.0         5.000      0.0        10.000      0.0        15.000      0.0        20.000
0.0
       0.500      0.0         5.500      0.1        10.500      0.0        15.500      0.0        20.500
0.0
       1.000      0.0         6.000      0.1        11.000      0.0        16.000      0.0        21.000
0.0
       1.500     12.2         6.500      0.0        11.500      0.0        16.500      0.0        21.500
0.0
       2.000      1.8         7.000      0.0        12.000      0.0        17.000      0.0        22.000
0.0
       2.500      0.4         7.500      0.0        12.500      0.0        17.500      0.0        22.500
0.0
       3.000      0.1         8.000      0.0        13.000      0.0        18.000      0.0        23.000
0.0
       3.500      0.1         8.500      0.0        13.500      0.0        18.500      0.0        23.500
0.0
       4.000      0.0         9.000      0.0        14.000      0.0        19.000      0.0        24.000
0.0
       4.500      0.0         9.500      0.0        14.500      0.0        19.500      0.0        24.500
0.0

      RUNOFF VOLUME =     0.96289 INCHES     =       0.4750 ACRE-FEET
      PEAK DISCHARGE RATE =      13.39 CFS  AT    1.550 HOURS   BASIN AREA =  0.0093
SQ. MI.
```

```
   *
****
   *S*****ADD BASINS 202,203*************************************************************
   *
   ADD HYD             ID=26  HYD=105 ID I=23  ID II=25
   *
   PRINT HYD           ID=26  CODE=10

                              PARTIAL HYDROGRAPH   105.00

       TIME     FLOW          TIME     FLOW          TIME     FLOW          TIME     FLOW
TIME     FLOW
        HRS      CFS           HRS      CFS           HRS      CFS           HRS      CFS
HRS      CFS
       0.000     0.0          5.500     0.2         11.000     0.0         16.500     0.0         22.000
0.0
       0.500     0.0          6.000     0.1         11.500     0.0         17.000     0.0         22.500
0.0
       1.000     0.2          6.500     0.1         12.000     0.0         17.500     0.0         23.000
0.0
       1.500    15.5          7.000     0.1         12.500     0.0         18.000     0.0         23.500
0.0
       2.000    12.0          7.500     0.0         13.000     0.0         18.500     0.0         24.000
0.0
       2.500     2.9          8.000     0.0         13.500     0.0         19.000     0.0         24.500
0.0
       3.000     1.5          8.500     0.0         14.000     0.0         19.500     0.0         25.000
0.0
       3.500     0.9          9.000     0.0         14.500     0.0         20.000     0.0
       4.000     0.5          9.500     0.0         15.000     0.0         20.500     0.0
       4.500     0.3         10.000     0.0         15.500     0.0         21.000     0.0
       5.000     0.2         10.500     0.0         16.000     0.0         21.500     0.0

      RUNOFF VOLUME =     0.86246 INCHES     =       1.4807 ACRE-FEET
      PEAK DISCHARGE RATE =      25.52 CFS  AT    1.650 HOURS   BASIN AREA =  0.0322
SQ. MI.



   *
****
   *S*****ADD BASINS 202,203,4*******************************************************
   *
   ADD HYD             ID=40  HYD=106 ID I=26  ID II=4
   *
   PRINT HYD           ID=40  CODE=10

                              PARTIAL HYDROGRAPH   106.00

       TIME     FLOW          TIME     FLOW          TIME     FLOW          TIME     FLOW
TIME     FLOW
        HRS      CFS           HRS      CFS           HRS      CFS           HRS      CFS
HRS      CFS
       0.000     0.0          5.500     0.2         11.000     0.1         16.500     0.1         22.000
```

```
0.1
      0.500     0.0       6.000     0.2       11.500    0.1       17.000    0.1       22.500
0.1
      1.000     0.2       6.500     0.1       12.000    0.1       17.500    0.1       23.000
0.1
      1.500    20.8       7.000     0.1       12.500    0.1       18.000    0.1       23.500
0.1
      2.000    13.0       7.500     0.1       13.000    0.1       18.500    0.1       24.000
0.1
      2.500     3.2       8.000     0.1       13.500    0.1       19.000    0.1       24.500
0.0
      3.000     1.5       8.500     0.1       14.000    0.1       19.500    0.1       25.000
0.0
      3.500     0.9       9.000     0.1       14.500    0.1       20.000    0.1
      4.000     0.5       9.500     0.1       15.000    0.1       20.500    0.1
      4.500     0.4      10.000     0.1       15.500    0.1       21.000    0.1
      5.000     0.3      10.500     0.1       16.000    0.1       21.500    0.1

      RUNOFF VOLUME =     0.88768 INCHES     =       1.7237 ACRE-FEET
      PEAK DISCHARGE RATE =      30.55 CFS  AT   1.650 HOURS   BASIN AREA =  0.0364
SQ. MI.



   *
****
   *S*****ADD BASINS 2,3,4(202,203)************************************************
   *
   ADD HYD             ID=31  HYD=102.3.4  ID I=30  ID II=40
   *
   PRINT HYD           ID=31  CODE=10

                                HYDROGRAPH FROM AREA 102.3.4

      TIME     FLOW         TIME     FLOW         TIME     FLOW         TIME     FLOW
TIME     FLOW
       HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
HRS      CFS
      0.000     0.0       5.500     0.2       11.000    0.1       16.500    0.1       22.000
0.1
      0.500     0.0       6.000     0.2       11.500    0.1       17.000    0.1       22.500
0.1
      1.000     0.2       6.500     0.1       12.000    0.1       17.500    0.1       23.000
0.1
      1.500    33.0       7.000     0.1       12.500    0.1       18.000    0.1       23.500
0.1
      2.000    14.9       7.500     0.1       13.000    0.1       18.500    0.1       24.000
0.1
      2.500     3.6       8.000     0.1       13.500    0.1       19.000    0.1       24.500
0.0
      3.000     1.7       8.500     0.1       14.000    0.1       19.500    0.1       25.000
0.0
      3.500     1.0       9.000     0.1       14.500    0.1       20.000    0.1
      4.000     0.6       9.500     0.1       15.000    0.1       20.500    0.1
      4.500     0.4      10.000     0.1       15.500    0.1       21.000    0.1
      5.000     0.3      10.500     0.1       16.000    0.1       21.500    0.1
```

RUNOFF VOLUME = 0.90292 INCHES = 2.1987 ACRE-FEET
PEAK DISCHARGE RATE = 42.05 CFS AT 1.600 HOURS BASIN AREA = 0.0457 SQ. MI.

*
****
*S*****ADD BASINS 5,205**********
*
ADD HYD ID=41 HYD=107 ID I=5 ID II=27
*
PRINT HYD ID=41 CODE=5

PARTIAL HYDROGRAPH 107.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.250	0.1	10.500	0.0	15.750	0.0	21.000	0.0
0.250	0.0	5.500	0.1	10.750	0.0	16.000	0.0	21.250	0.0
0.500	0.0	5.750	0.1	11.000	0.0	16.250	0.0	21.500	0.0
0.750	0.0	6.000	0.1	11.250	0.0	16.500	0.0	21.750	0.0
1.000	0.0	6.250	0.1	11.500	0.0	16.750	0.0	22.000	0.0
1.250	0.1	6.500	0.1	11.750	0.0	17.000	0.0	22.250	0.0
1.500	3.4	6.750	0.1	12.000	0.0	17.250	0.0	22.500	0.0
1.750	4.2	7.000	0.1	12.250	0.0	17.500	0.0	22.750	0.0
2.000	3.7	7.250	0.1	12.500	0.0	17.750	0.0	23.000	0.0
2.250	2.6	7.500	0.0	12.750	0.0	18.000	0.0	23.250	0.0
2.500	1.7	7.750	0.0	13.000	0.0	18.250	0.0	23.500	0.0
2.750	1.1	8.000	0.0	13.250	0.0	18.500	0.0	23.750	0.0
3.000	0.7	8.250	0.0	13.500	0.0	18.750	0.0	24.000	0.0
3.250	0.5	8.500	0.0	13.750	0.0	19.000	0.0	24.250	0.0
3.500	0.3	8.750	0.0	14.000	0.0	19.250	0.0	24.500	0.0
3.750	0.3	9.000	0.0	14.250	0.0	19.500	0.0	24.750	0.0
4.000	0.2	9.250	0.0	14.500	0.0	19.750	0.0	25.000	0.0
4.250	0.2	9.500	0.0	14.750	0.0	20.000	0.0		
4.500	0.2	9.750	0.0	15.000	0.0	20.250	0.0		
4.750	0.2	10.000	0.0	15.250	0.0	20.500	0.0		

```
      5.000      0.1        10.250      0.0        15.500      0.0        20.750      0.0

      RUNOFF VOLUME =     0.93536 INCHES     =       0.4437 ACRE-FEET
      PEAK DISCHARGE RATE =       4.38 CFS  AT    1.600 HOURS   BASIN AREA =  0.0089
SQ. MI.



   *
****
   *S*****ADD BASINS 2,3,4,5*********************************************************
   *
   ADD HYD             ID=32  HYD=102.3.4.5  ID I=31  ID II=41
   *
   PRINT HYD           ID=32  CODE=10

                                HYDROGRAPH FROM AREA 102.3.4.5

      TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
       HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
      0.000      0.0         5.500      0.4        11.000      0.1        16.500      0.1        22.000
0.1
      0.500      0.0         6.000      0.3        11.500      0.1        17.000      0.1        22.500
0.1
      1.000      0.2         6.500      0.2        12.000      0.1        17.500      0.1        23.000
0.1
      1.500     36.4         7.000      0.2        12.500      0.1        18.000      0.1        23.500
0.1
      2.000     18.6         7.500      0.1        13.000      0.1        18.500      0.1        24.000
0.1
      2.500      5.3         8.000      0.1        13.500      0.1        19.000      0.1        24.500
0.0
      3.000      2.4         8.500      0.1        14.000      0.1        19.500      0.1        25.000
0.0
      3.500      1.3         9.000      0.1        14.500      0.1        20.000      0.1
      4.000      0.8         9.500      0.1        15.000      0.1        20.500      0.1
      4.500      0.6        10.000      0.1        15.500      0.1        21.000      0.1
      5.000      0.4        10.500      0.1        16.000      0.1        21.500      0.1

      RUNOFF VOLUME =     0.90821 INCHES     =       2.6424 ACRE-FEET
      PEAK DISCHARGE RATE =      46.43 CFS  AT    1.600 HOURS   BASIN AREA =  0.0546
SQ. MI.



   *
****
   *S*****ROUTE BASIN 2,3,4,5********************************************************
   *
   COMPUTE RATING CURVE  CID=1  VS NO=1  CODE=-1  SLP=0.001
                         DIA=4.0 FT  N=0.013

                                  RATING CURVE PIPE SECTION  1.0
                                     WATER       FLOW        FLOW        MAX
                                    SURFACE      AREA        RATE        WIDTH
```

ELEV	SQ FT	CFS	FT
0.00	0.00	0.00	0.00
0.21	0.25	0.24	1.78
0.42	0.69	1.03	2.44
0.63	1.25	2.40	2.91
0.83	1.90	4.32	3.25
1.04	2.60	6.75	3.51
1.25	3.36	9.63	3.71
1.46	4.15	12.91	3.85
1.67	4.96	16.50	3.94
1.88	5.79	20.34	3.99
2.08	6.62	24.35	4.00
2.29	7.45	28.43	4.00
2.50	8.27	32.48	4.00
2.71	9.06	36.40	4.00
2.92	9.82	40.08	4.00
3.13	10.54	43.37	4.00
3.34	11.20	46.10	4.00
3.54	11.77	48.06	4.00
3.75	12.24	48.86	4.00
4.00	12.57	48.86	4.00

*

ROUTE MCUNGE ID=21 HYD=102.345 INFLOW ID=32
DT=0.033333 HR LENGTH=500 FT
NS=0 SLOPE=0.001

INFLOW END= 504 TABLE PTS= 19
DT= 0.033333 QMED= 23.21 CKMED= 4.8044
WIDTH MED= 4.00 NREACH= 1 DX= 500.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck	VEL (FPS)	C (FPS)	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
0.00	0.0	0.0	0.198	0.0	4.17	0.45	1.000	0.000	1.000	0.000	0.000	0.0	1.000	0.000	0.000
0.21	0.2	0.2	0.146	1.8	3.88	0.95	0.931	0.069	0.931	0.000	0.069	0.0	0.989	0.000	0.011
0.42	0.7	1.0	0.093	2.4	2.99	1.49	0.717	0.283	0.717	0.000	0.283	0.6	0.842	0.000	0.158
0.63	1.3	2.4	0.072	2.9	2.74	1.92	0.658	0.604	0.466	0.116	0.418	1.7	0.517	0.045	0.438
0.83	1.9	4.3	0.061	3.2	3.23	2.28	0.775	0.824	0.366	0.231	0.404	3.3	0.410	0.179	0.411
1.04	2.6	6.8	0.054	3.5	3.64	2.59	0.874	1.056	0.279	0.317	0.403	5.5	0.319	0.278	0.403
1.25	3.4	9.6	0.048	3.7	3.99	2.87	0.958	1.301	0.202	0.386	0.412	8.2	0.239	0.354	0.407
1.46	4.1	12.9	0.045	3.9	4.29	3.11	1.029	1.563	0.130	0.443	0.427	11.2	0.165	0.417	0.418
1.67	5.0	16.5	0.042	3.9	4.53	3.33	1.088	1.846	0.061	0.492	0.447	14.7	0.096	0.469	0.435
1.88	5.8	20.3	0.040	4.0	4.72	3.52	1.133	2.158	-0.006	0.534	0.472	18.4	0.029	0.514	0.458
2.08	6.6	24.3	0.038	4.0	4.85	3.68	1.165	2.508	-0.073	0.572	0.501	22.3	-0.039	0.553	0.486
2.29	7.5	28.4	0.036	4.0	4.89	3.82	1.173	2.909	-0.145	0.606	0.539	26.4	-0.109	0.589	0.520

```
      2.50    8.3    32.5   0.035    4.0     4.79   3.93    1.151  3.387 -0.223  0.639  0.584     30.4
-0.184  0.623  0.561
      2.71    9.1    36.4   0.035    4.0     4.57   4.02    1.096  3.985 -0.311  0.671  0.639     34.4
-0.267  0.655  0.612
      2.92    9.8    40.1   0.034    4.0     4.19   4.08    1.005  4.787 -0.410  0.706  0.704     38.2
-0.360  0.688  0.672
      3.13   10.5    43.4   0.034    4.0     3.62   4.11    0.869  5.986 -0.524  0.745  0.779     41.7
-0.467  0.725  0.741
      3.34   11.2    46.1   0.034    4.0     2.82   4.12    0.677  8.173 -0.660  0.797  0.863     44.7
-0.592  0.771  0.821
      3.54   11.8    48.1   0.034    4.0     1.65   4.08    0.396 14.547 -0.825  0.875  0.950     47.1
-0.743  0.836  0.907
      3.75   12.2    48.9   0.035    4.0     0.94   3.99    0.226 25.947 -0.910  0.926  0.983     48.5
-0.868  0.901  0.967
       Hydrograph incermental time change from DT=  0.050000 hours to DT=  0.033333 hours
   MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =    3 OCCURRED       9 TIMES.
AVERAGE NUMBER ITERATIONS =  1.0211
   Equations solved using the Ponce correction to C2
       Hydrograph incermental time change from DT=  0.033333 hours to DT=  0.050000 hours
   *
   *
****
   *S*****ADD BASINS 2,3,4,5,6*****************************************************
   *
   ADD HYD             ID=33  HYD=102.345.6  ID I=21  ID II=6
   *
   PRINT HYD           ID=33  CODE=10

                                HYDROGRAPH FROM AREA 102.345.6

       TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
        HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
       0.000      0.0          5.500      0.4         11.000      0.1         16.500      0.1         22.000
0.1
       0.500      0.0          6.000      0.3         11.500      0.1         17.000      0.1         22.500
0.1
       1.000      0.2          6.500      0.2         12.000      0.1         17.500      0.1         23.000
0.1
       1.500     31.0          7.000      0.2         12.500      0.1         18.000      0.1         23.500
0.1
       2.000     20.7          7.500      0.2         13.000      0.1         18.500      0.1         24.000
0.1
       2.500      6.0          8.000      0.1         13.500      0.1         19.000      0.1         24.500
0.0
       3.000      2.6          8.500      0.1         14.000      0.1         19.500      0.1         25.000
0.0
       3.500      1.4          9.000      0.1         14.500      0.1         20.000      0.1
       4.000      0.9          9.500      0.1         15.000      0.1         20.500      0.1
       4.500      0.6         10.000      0.1         15.500      0.1         21.000      0.1
       5.000      0.5         10.500      0.1         16.000      0.1         21.500      0.1

      RUNOFF VOLUME =     0.89914 INCHES     =       2.6752 ACRE-FEET
      PEAK DISCHARGE RATE =      43.51 CFS  AT    1.600 HOURS   BASIN AREA =  0.0558
SQ. MI.
```

```
   *
****
   *S*****ADD BASINS 2,3,4,5,6,8**************************************************
   *
   ADD HYD             ID=34  HYD=102345.6.8  ID I=33  ID II=8
   *
   PRINT HYD           ID=34  CODE=10

                              HYDROGRAPH FROM AREA 102345.6.8

       TIME     FLOW         TIME     FLOW         TIME     FLOW         TIME     FLOW
TIME     FLOW
        HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
HRS      CFS
       0.000     0.0         5.500     0.5         11.000    0.2         16.500    0.2         22.000
0.2
       0.500     0.0         6.000     0.4         11.500    0.2         17.000    0.2         22.500
0.2
       1.000     0.2         6.500     0.3         12.000    0.2         17.500    0.2         23.000
0.2
       1.500    36.6          7.000    0.2          12.500    0.2          18.000    0.2          23.500
0.2
       2.000    27.7          7.500    0.2          13.000    0.2          18.500    0.2          24.000
0.2
       2.500     7.6          8.000    0.2          13.500    0.2          19.000    0.2          24.500
0.0
       3.000     3.3          8.500    0.2          14.000    0.2          19.500    0.2          25.000
0.0
       3.500     1.8          9.000    0.2          14.500    0.2          20.000    0.2          25.500
0.0
       4.000     1.1          9.500    0.2          15.000    0.2          20.500    0.2
       4.500     0.7         10.000     0.2          15.500    0.2          21.000    0.2
       5.000     0.6         10.500     0.2          16.000    0.2          21.500    0.2

      RUNOFF VOLUME =     0.91926 INCHES     =      3.4965 ACRE-FEET
      PEAK DISCHARGE RATE =      57.50 CFS  AT    1.650 HOURS   BASIN AREA =  0.0713
SQ. MI.



   *
****
   *S*****ADD BASINS 2,3,4,5,6,7,8*************************************************
   *
   ADD HYD             ID=35  HYD=102345.6.7.8  ID I=34  ID II=7
   *
   PRINT HYD           ID=35  CODE=10

                              HYDROGRAPH FROM AREA 102345.6.7.8

       TIME     FLOW         TIME     FLOW         TIME     FLOW         TIME     FLOW
TIME     FLOW
        HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
HRS      CFS
       0.000     0.0         5.500     0.6         11.000    0.2         16.500    0.2         22.000
```

0.2

0.500	0.0	6.000	0.5	11.500	0.2	17.000	0.2	22.500
0.2								
1.000	0.2	6.500	0.3	12.000	0.2	17.500	0.2	23.000
0.2								
1.500	42.8	7.000	0.3	12.500	0.2	18.000	0.2	23.500
0.2								
2.000	31.5	7.500	0.3	13.000	0.2	18.500	0.2	24.000
0.2								
2.500	8.7	8.000	0.2	13.500	0.2	19.000	0.2	24.500
0.0								
3.000	3.6	8.500	0.2	14.000	0.2	19.500	0.2	25.000
0.0								
3.500	1.9	9.000	0.2	14.500	0.2	20.000	0.2	25.500
0.0								
4.000	1.2	9.500	0.2	15.000	0.2	20.500	0.2	
4.500	0.8	10.000	0.2	15.500	0.2	21.000	0.2	
5.000	0.7	10.500	0.2	16.000	0.2	21.500	0.2	

RUNOFF VOLUME = 0.95877 INCHES = 4.0798 ACRE-FEET
PEAK DISCHARGE RATE = 68.87 CFS AT 1.650 HOURS BASIN AREA = 0.0798 SQ. MI.

*
****
*S*****ROUTE BASIN 2,3,4,5,6,7,8**********
*
COMPUTE RATING CURVE CID=1 VS NO=1 CODE=-1 SLP=0.001
DIA=5.5 FT N=0.013

RATING CURVE PIPE SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	MAX WIDTH FT
0.00	0.00	0.00	0.00
0.29	0.47	0.56	2.44
0.57	1.31	2.42	3.36
0.86	2.37	5.62	3.99
1.15	3.59	10.11	4.47
1.43	4.92	15.79	4.83
1.72	6.35	22.52	5.10
2.01	7.84	30.18	5.30
2.29	9.38	38.58	5.42
2.58	10.94	47.56	5.49
2.87	12.52	56.92	5.50
3.15	14.09	66.45	5.50
3.44	15.63	75.93	5.50
3.73	17.13	85.10	5.50
4.01	18.57	93.69	5.50
4.30	19.92	101.38	5.50
4.59	21.17	107.77	5.50
4.87	22.26	112.35	5.50
5.16	23.15	114.23	5.50
5.50	23.76	114.23	5.50

*

```
   ROUTE MCUNGE          ID=22  HYD=102.345678   INFLOW ID=35
                         DT=0.033333 HR  LENGTH=500 FT
                         NS=0  SLOPE=0.001

       INFLOW END= 512           TABLE PTS= 19
       DT= 0.033333              QMED=      34.43  CKMED=      5.4666
       WIDTH MED=        5.36     NREACH=  1        DX=      500.00

     DEPTH   AREA      Q    TRAVEL  WIDTH     ck      VEL      C       D      C1     C2     C3     Q-
M      C1-M   C2-M   C3-M
      (FT)  (SQ FT)  (CFS)  TIME(HR) (FT)     (FPS)   (FPS)                              (CFS)
       0.00    0.0      0.0   0.160    0.0     4.17   0.56    1.000  0.000  1.000  0.000  0.000      0.0
1.000  0.000  0.000
       0.29    0.5      0.6   0.118    2.4     3.65   1.18    0.875  0.125  0.875  0.000  0.125      0.1
0.980  0.000  0.020
       0.57    1.3      2.4   0.075    3.4     2.68   1.84    0.643  0.537  0.507  0.083  0.410      1.3
0.722  0.034  0.244
       0.86    2.4      5.6   0.059    4.0     3.39   2.37    0.814  0.830  0.372  0.244  0.384      3.9
0.426  0.175  0.399
       1.15    3.6     10.1   0.049    4.5     3.99   2.82    0.958  1.134  0.267  0.353  0.380      7.7
0.312  0.305  0.383
       1.43    4.9     15.8   0.043    4.8     4.50   3.21    1.081  1.452  0.178  0.434  0.388     12.8
0.219  0.397  0.384
       1.72    6.3     22.5   0.039    5.1     4.94   3.55    1.185  1.789  0.100  0.497  0.404     19.1
0.137  0.468  0.395
       2.01    7.8     30.2   0.036    5.3     5.30   3.85    1.273  2.149  0.028  0.548  0.424     26.3
0.063  0.524  0.413
       2.29    9.4     38.6   0.034    5.4     5.60   4.11    1.345  2.539 -0.040  0.590  0.449     34.3
-0.005  0.569  0.437
       2.58   10.9     47.6   0.032    5.5     5.84   4.35    1.401  2.968 -0.105  0.627  0.478     43.0
-0.072  0.609  0.463
       2.87   12.5     56.9   0.031    5.5     6.00   4.55    1.441  3.448 -0.171  0.660  0.511     52.2
-0.138  0.644  0.494
       3.15   14.1     66.5   0.029    5.5     6.04   4.72    1.450  4.000 -0.240  0.690  0.550     61.6
-0.205  0.675  0.530
       3.44   15.6     75.9   0.029    5.5     5.93   4.86    1.423  4.657 -0.316  0.718  0.598     71.2
-0.278  0.704  0.574
       3.73   17.1     85.1   0.028    5.5     5.65   4.97    1.355  5.479 -0.399  0.745  0.654     80.5
-0.357  0.731  0.626
       4.01   18.6     93.7   0.028    5.5     5.18   5.05    1.242  6.582 -0.492  0.773  0.718     89.4
-0.445  0.759  0.686
       4.30   19.9    101.4   0.027    5.5     4.48   5.09    1.075  8.231 -0.597  0.806  0.791     97.5
-0.545  0.790  0.755
       4.59   21.2    107.8   0.027    5.5     3.49   5.09    0.837 11.238 -0.719  0.847  0.872
104.6  -0.658  0.827  0.832
       4.87   22.3    112.4   0.028    5.5     2.04   5.05    0.490 20.003 -0.861  0.907  0.954
110.1  -0.791  0.877  0.913
       5.16   23.1    114.2   0.028    5.5     1.16   4.93    0.279 35.681 -0.931  0.946  0.985
113.3  -0.897  0.927  0.970
        Hydrograph incermental time change from DT=  0.050000 hours to DT=  0.033333 hours
    MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   3 OCCURRED       5 TIMES.
AVERAGE NUMBER ITERATIONS =  1.0201
    Equations solved using the Ponce correction to C2
        Hydrograph incermental time change from DT=  0.033333 hours to DT=  0.050000 hours
    *
****
    *S*****ADD BASINS 2,3,4,5,6,7,8,9***********************************************
```

```
   *
   ADD HYD            ID=36  HYD=102.345678.9  ID I=22  ID II=9
   *
   PRINT HYD          ID=36  CODE=10

                              HYDROGRAPH FROM AREA 102.345678.9

      TIME     FLOW        TIME     FLOW        TIME     FLOW        TIME     FLOW
TIME     FLOW
       HRS      CFS         HRS      CFS         HRS      CFS         HRS      CFS
HRS      CFS
      0.000     0.0        5.500     0.6       11.000     0.2       16.500     0.2       22.000
0.2
      0.500     0.0        6.000     0.5       11.500     0.2       17.000     0.2       22.500
0.2
      1.000     0.1        6.500     0.4       12.000     0.2       17.500     0.2       23.000
0.2
      1.500    34.5        7.000     0.3       12.500     0.2       18.000     0.2       23.500
0.2
      2.000    35.1        7.500     0.3       13.000     0.2       18.500     0.2       24.000
0.2
      2.500     9.6        8.000     0.2       13.500     0.2       19.000     0.2       24.500
0.0
      3.000     4.0        8.500     0.2       14.000     0.2       19.500     0.2       25.000
0.0
      3.500     2.1        9.000     0.2       14.500     0.2       20.000     0.2       25.500
0.0
      4.000     1.2        9.500     0.2       15.000     0.2       20.500     0.2
      4.500     0.9       10.000     0.2       15.500     0.2       21.000     0.2
      5.000     0.7       10.500     0.2       16.000     0.2       21.500     0.2

      RUNOFF VOLUME =     0.95107 INCHES     =      4.1469 ACRE-FEET
      PEAK DISCHARGE RATE =      67.66 CFS  AT    1.700 HOURS   BASIN AREA =  0.0818
SQ. MI.



   *
****
   *S*****ADD BASINS 2,3,4,6,7,8,9,10**********************************************
   *
   ADD HYD            ID=37  HYD=102.345678.9.10  ID I=36  ID II=10
   *
   PRINT HYD          ID=37  CODE=10

                              HYDROGRAPH FROM AREA 102.345678.9.10

      TIME     FLOW        TIME     FLOW        TIME     FLOW        TIME     FLOW
TIME     FLOW
       HRS      CFS         HRS      CFS         HRS      CFS         HRS      CFS
HRS      CFS
      0.000     0.0        5.500     0.6       11.000     0.2       16.500     0.2       22.000
0.2
      0.500     0.0        6.000     0.6       11.500     0.2       17.000     0.2       22.500
0.2
      1.000     0.1        6.500     0.4       12.000     0.2       17.500     0.2       23.000
0.2
```

```
      1.500    35.2      7.000    0.3      12.500    0.2      18.000    0.2      23.500
0.2
      2.000    36.0      7.500    0.3      13.000    0.2      18.500    0.2      24.000
0.2
      2.500     9.9      8.000    0.2      13.500    0.2      19.000    0.2      24.500
0.0
      3.000     4.1      8.500    0.2      14.000    0.2      19.500    0.2      25.000
0.0
      3.500     2.1      9.000    0.2      14.500    0.2      20.000    0.2      25.500
0.0
      4.000     1.3      9.500    0.2      15.000    0.2      20.500    0.2
      4.500     0.9     10.000    0.2      15.500    0.2      21.000    0.2
      5.000     0.7     10.500    0.2      16.000    0.2      21.500    0.2

     RUNOFF VOLUME =     0.95455 INCHES     =      4.2615 ACRE-FEET
     PEAK DISCHARGE RATE =      69.72 CFS  AT   1.700 HOURS   BASIN AREA =  0.0837
SQ. MI.



  *
****
  *S*****ADD BASINS 2,3,4,5,6,7,8,9,10,16****************************************
  *
  ADD HYD            ID=38  HYD=102.345678.9.10.16  ID I=37  ID II=16
  *
  PRINT HYD          ID=38  CODE=10

                              HYDROGRAPH FROM AREA 102.345678.9.10.16

     TIME     FLOW        TIME     FLOW        TIME     FLOW        TIME     FLOW
TIME     FLOW
      HRS      CFS         HRS      CFS         HRS      CFS         HRS      CFS
HRS      CFS
      0.000    0.0       5.500    0.7       11.000    0.3       16.500    0.3       22.000
0.3
      0.500    0.0       6.000    0.7       11.500    0.3       17.000    0.3       22.500
0.3
      1.000    0.1       6.500    0.4       12.000    0.3       17.500    0.3       23.000
0.3
      1.500   40.0       7.000    0.3       12.500    0.3       18.000    0.3       23.500
0.3
      2.000   41.0       7.500    0.3       13.000    0.3       18.500    0.3       24.000
0.3
      2.500   11.1       8.000    0.3       13.500    0.3       19.000    0.3       24.500
0.1
      3.000    4.5       8.500    0.3       14.000    0.3       19.500    0.3       25.000
0.0
      3.500    2.4       9.000    0.3       14.500    0.3       20.000    0.3       25.500
0.0
      4.000    1.4       9.500    0.3       15.000    0.3       20.500    0.3
      4.500    1.0      10.000    0.3       15.500    0.3       21.000    0.3
      5.000    0.8      10.500    0.3       16.000    0.3       21.500    0.3

     RUNOFF VOLUME =     0.98086 INCHES     =      4.8980 ACRE-FEET
     PEAK DISCHARGE RATE =      81.11 CFS  AT   1.700 HOURS   BASIN AREA =  0.0936
SQ. MI.
```

```
   *
****
   *S*****ROUTE BASIN 2,3,4,5,6,7,8,9,10,16****************************************
   *
   COMPUTE RATING CURVE  CID=1  VS NO=1  CODE=-1  SLP=0.001
                         DIA=6.0 FT  N=0.013

                                  RATING CURVE PIPE SECTION  1.0
                                     WATER       FLOW        FLOW        MAX
                                    SURFACE      AREA        RATE        WIDTH
                                     ELEV        SQ FT       CFS         FT
                                      0.00        0.00        0.00        0.00
                                      0.31        0.56        0.70        2.67
                                      0.63        1.56        3.05        3.67
                                      0.94        2.82        7.09        4.36
                                      1.25        4.27       12.75        4.87
                                      1.56        5.86       19.91        5.27
                                      1.88        7.55       28.41        5.56
                                      2.19        9.33       38.06        5.78
                                      2.50       11.16       48.66        5.92
                                      2.81       13.02       59.98        5.99
                                      3.13       14.90       71.79        6.00
                                      3.44       16.76       83.81        6.00
                                      3.75       18.60       95.76        6.00
                                      4.06       20.39      107.33        6.00
                                      4.38       22.10      118.16        6.00
                                      4.69       23.71      127.85        6.00
                                      5.00       25.19      135.92        6.00
                                      5.32       26.49      141.69        6.00
                                      5.63       27.55      144.06        6.00
                                      6.00       28.27      144.06        6.00
   *
   ROUTE MCUNGE          ID=23  HYD=10234567891016   INFLOW ID=38
                         DT=0.033333 HR  LENGTH=250 FT
                         NS=0  SLOPE=0.001

      INFLOW END= 512           TABLE PTS= 19
      DT= 0.033333              QMED=      40.55  CKMED=      5.7931
      WIDTH MED=        5.81     NREACH=  1         DX=      250.00

    DEPTH   AREA      Q    TRAVEL  WIDTH     ck      VEL      C       D      C1     C2     C3     Q-
M      C1-M   C2-M   C3-M
     (FT)  (SQ FT)  (CFS)  TIME(HR) (FT)     (FPS)   (FPS)                              (CFS)
      0.00    0.0      0.0   0.076    0.0     2.08   0.59    1.000  0.000  1.000  0.000  0.000      0.0
1.000  0.000  0.000
      0.31    0.6      0.7   0.056    2.7     2.06   1.25    0.987  0.512  0.590  0.200  0.210      0.1
0.935  0.031  0.033
      0.63    1.6      3.0   0.036    3.7     2.84   1.95    1.362  1.172  0.337  0.434  0.229      1.7
0.405  0.340  0.255
      0.94    2.8      7.1   0.028    4.4     3.59   2.51    1.725  1.811  0.202  0.559  0.239      4.9
0.252  0.507  0.240
      1.25    4.3     12.8   0.023    4.9     4.23   2.99    2.031  2.473  0.101  0.637  0.262      9.8
0.143  0.603  0.253
      1.56    5.9     19.9   0.020    5.3     4.77   3.40    2.291  3.168  0.019  0.690  0.291     16.2
```

```
0.056  0.666  0.277
      1.88    7.6     28.4   0.018    5.6     5.23   3.76    2.512  3.903 -0.053  0.730  0.322     24.0
-0.016  0.710  0.306
      2.19    9.3     38.1   0.017    5.8     5.62   4.08    2.698  4.689 -0.118  0.762  0.357     33.1
-0.085  0.746  0.339
      2.50   11.2     48.7   0.016    5.9     5.94   4.36    2.851  5.539 -0.180  0.787  0.393     43.3
-0.148  0.774  0.374
      2.81   13.0     60.0   0.015    6.0     6.19   4.61    2.970  6.475 -0.240  0.809  0.431     54.2
-0.209  0.798  0.412
      3.13   14.9     71.8   0.014    6.0     6.36   4.82    3.053  7.523 -0.300  0.827  0.473     65.8
-0.269  0.818  0.452
      3.44   16.8     83.8   0.014    6.0     6.40   5.00    3.073  8.727 -0.364  0.844  0.520     77.7
-0.331  0.835  0.496
      3.75   18.6     95.8   0.013    6.0     6.28   5.15    3.015 10.162 -0.434  0.859  0.575     89.7
-0.398  0.851  0.547
      4.06   20.4    107.3   0.013    6.0     5.99   5.26    2.873 11.955 -0.511  0.874  0.637
101.5  -0.472  0.866  0.606
      4.38   22.1    118.2   0.013    6.0     5.49   5.35    2.633 14.359 -0.596  0.889  0.707
112.7  -0.553  0.881  0.672
      4.69   23.7    127.9   0.013    6.0     4.75   5.39    2.278 17.959 -0.691  0.906  0.785
123.0  -0.644  0.897  0.746
      5.00   25.2    135.9   0.013    6.0     3.70   5.40    1.774 24.521 -0.797  0.927  0.870
131.9  -0.744  0.916  0.828
      5.32   26.5    141.7   0.013    6.0     2.16   5.35    1.039 43.641 -0.911  0.956  0.955
138.8  -0.854  0.942  0.913
      5.63   27.5    144.1   0.013    6.0     1.23   5.23    0.592 77.848 -0.960  0.975  0.985
142.9  -0.936  0.966  0.970
       Hydrograph incermental time change from DT=  0.050000 hours to DT=  0.033333 hours
   MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   3 OCCURRED       5 TIMES.
AVERAGE NUMBER ITERATIONS =  1.0191
   Equations solved using the Ponce correction to C2
       Hydrograph incermental time change from DT=  0.033333 hours to DT=  0.050000 hours
   *
****
   *S*****ADD BASINS 2,4,3,5,6,7,8,9,10,16,14************************************
   *
   ADD HYD             ID=39  HYD=10234567891016.14  ID I=23  ID II=14
   *
   PRINT HYD           ID=39  CODE=10

                                HYDROGRAPH FROM AREA ****$*****t**ك|$I***:**

       TIME     FLOW         TIME     FLOW         TIME     FLOW         TIME     FLOW
TIME     FLOW
        HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
HRS      CFS
       0.000      0.0        5.500      0.7       11.000      0.3       16.500      0.3       22.000
0.3
       0.500      0.0        6.000      0.7       11.500      0.3       17.000      0.3       22.500
0.3
       1.000      0.1        6.500      0.5       12.000      0.3       17.500      0.3       23.000
0.3
       1.500     36.4        7.000      0.4       12.500      0.3       18.000      0.3       23.500
0.3
       2.000     44.0        7.500      0.3       13.000      0.3       18.500      0.3       24.000
0.3
       2.500     12.0        8.000      0.3       13.500      0.3       19.000      0.3       24.500
```

```
0.1
      3.000     4.8       8.500     0.3       14.000    0.3       19.500    0.3       25.000
0.0
      3.500     2.5       9.000     0.3       14.500    0.3       20.000    0.3       25.500
0.0
      4.000     1.5       9.500     0.3       15.000    0.3       20.500    0.3
      4.500     1.0       10.000    0.3       15.500    0.3       21.000    0.3
      5.000     0.8       10.500    0.3       16.000    0.3       21.500    0.3

      RUNOFF VOLUME =     0.99466 INCHES     =       5.0481 ACRE-FEET
      PEAK DISCHARGE RATE =      82.43 CFS  AT   1.700 HOURS   BASIN AREA =  0.0952
SQ. MI.



   *
   *
   *S**************************************************************************
   *S**************************************************************************
   *
****
   *S*****SUNSET GARDENS BASINS*****************************************************
   *
   *****CHANGE LAND FACTORS BACK TO HIGHER INITAL ABSTRACTION
VALUES*************
   *
   LAND FACTORS        TYPE=1
                TREATMENT A IA=1.20 INF=1.67
                TREATMENT B IA=1.05 INF=1.25
                TREATMENT C IA=0.90 INF=0.83
                TREATMENT D IA=0.40 INF=0.04
   *
   *
   *S**************************************************************************
   *S     BASIN B1 (WEST BASIN)                                    *
   *S**************************************************************************
   *

   COMPUTE LT TP       LCODE=1    NK=2    ISLOPE=-1
                LENGTH=400 FT    SLOPE=0.00500   K=1.0
                LENGTH=400 FT    SLOPE=0.00500   K=2.0

      Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

      SCS UPLAND METHOD FACTORS
                        LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
      SHEET FLOW PORTION           400.0          0.005000           1.0000
      SHALLOW FLOW PORTION         400.0          0.005000           2.0000
      CHANNEL FLOW PORTION           0.0          0.000000           0.0000
      TOTAL BASIN                  800.0          0.005000           1.3333


      TIME OF CONCENTRATION (HRS)=  0.2357     TIME TO PEAK (HRS)=  0.1571     LAG
TIME (HRS)=  0.1768

   COMPUTE NM HYD       ID=1 HYD=B1  DA=0.005153 SQ MI
                PER A=10 PER B=27 PER C=27 PER D=36
```

TP=0.0 RAIN=-1
TIME TO PEAK (hrs)= 0.1571

K = 0.085638HR TP = 0.157135HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 6.2130 CFS UNIT VOLUME = 0.9980 B = 526.28 P60 = 1.7600
AREA = 0.001855 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.169936HR TP = 0.157135HR K/TP RATIO = 1.081467 SHAPE CONSTANT, N = 3.266559
UNIT PEAK = 6.3569 CFS UNIT VOLUME = 0.9977 B = 302.89 P60 = 1.7600
AREA = 0.003298 SQ MI IA = 1.01016 INCHES INF = 1.13844 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=1 CODE=10

HYDROGRAPH FROM AREA B1

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.500	6.1	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	1.2	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.3	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.1	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0	24.500	0.0

RUNOFF VOLUME = 0.99513 INCHES = 0.2735 ACRE-FEET
PEAK DISCHARGE RATE = 6.94 CFS AT 1.550 HOURS BASIN AREA = 0.0052 SQ. MI.

```
*
*S**************************************************************************
*S     BASIN B2 (EAST OF WEST BASIN B1)                                    *
*S**************************************************************************
*

   COMPUTE LT TP       LCODE=1    NK=2    ISLOPE=-1
                       LENGTH=400 FT    SLOPE=0.00500   K=1.0
                       LENGTH=400 FT    SLOPE=0.00500   K=2.0

      Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

      SCS UPLAND METHOD FACTORS
                          LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
      SHEET FLOW PORTION           400.0          0.005000            1.0000
      SHALLOW FLOW PORTION         400.0          0.005000            2.0000
      CHANNEL FLOW PORTION           0.0          0.000000            0.0000
      TOTAL BASIN                  800.0          0.005000            1.3333


      TIME OF CONCENTRATION (HRS)=  0.2357     TIME TO PEAK (HRS)=  0.1571     LAG
TIME (HRS)=  0.1768

   COMPUTE NM HYD      ID=2 HYD=B2  DA=0.010417 SQ MI
                       PER A=10 PER B=27 PER C=27 PER D=36
                       TP=0.0  RAIN=-1
      TIME TO PEAK (hrs)=  0.1571

      K =  0.085638HR    TP =  0.157135HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   12.560    CFS   UNIT VOLUME =   0.9990      B =   526.28      P60 =
1.7600
      AREA =     0.003750 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.169936HR    TP =  0.157135HR    K/TP RATIO =  1.081467     SHAPE
CONSTANT, N =  3.266559
      UNIT PEAK =   12.851    CFS   UNIT VOLUME =   0.9990      B =   302.89      P60 =
1.7600
      AREA =     0.006667 SQ MI    IA =   1.01016 INCHES    INF =   1.13844 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

   PRINT HYD           ID=2  CODE=10

                              HYDROGRAPH FROM AREA B2

      TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
       HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
      0.000       0.0         5.000       0.1        10.000       0.0        15.000       0.0        20.000
0.0
```

```
      0.500      0.0        5.500      0.1        10.500     0.0        15.500     0.0        20.500
0.0
      1.000      0.0        6.000      0.1        11.000     0.0        16.000     0.0        21.000
0.0
      1.500     12.3        6.500      0.0        11.500     0.0        16.500     0.0        21.500
0.0
      2.000      2.4        7.000      0.0        12.000     0.0        17.000     0.0        22.000
0.0
      2.500      0.6        7.500      0.0        12.500     0.0        17.500     0.0        22.500
0.0
      3.000      0.2        8.000      0.0        13.000     0.0        18.000     0.0        23.000
0.0
      3.500      0.1        8.500      0.0        13.500     0.0        18.500     0.0        23.500
0.0
      4.000      0.1        9.000      0.0        14.000     0.0        19.000     0.0        24.000
0.0
      4.500      0.1        9.500      0.0        14.500     0.0        19.500     0.0        24.500
0.0

      RUNOFF VOLUME =     0.99513 INCHES     =       0.5529 ACRE-FEET
      PEAK DISCHARGE RATE =      14.01 CFS  AT   1.550 HOURS   BASIN AREA =  0.0104
SQ. MI.



  *
  *S**************************************************************************
  *S     BASIN B3 (SUNSET GARDENS ROAD WEST BASIN)                            *
  *S**************************************************************************
  *
  COMPUTE NM HYD       ID=3 HYD=B3  DA=0.00057 SQ MI
                       PER A=0 PER B=0 PER C=0 PER D=100
                       TP=0.1333  RAIN=-1

      K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   2.2504    CFS   UNIT VOLUME =   0.9941      B =   526.28      P60 =
1.7600
      AREA =     0.000570 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

  PRINT HYD            ID=3  CODE=10

                              HYDROGRAPH FROM AREA B3

      TIME      FLOW         TIME      FLOW         TIME      FLOW         TIME      FLOW
TIME      FLOW
       HRS      CFS           HRS      CFS           HRS      CFS           HRS      CFS
HRS       CFS
      0.000      0.0        5.000      0.0        10.000     0.0        15.000     0.0        20.000
0.0
      0.500      0.0        5.500      0.0        10.500     0.0        15.500     0.0        20.500
0.0
      1.000      0.0        6.000      0.0        11.000     0.0        16.000     0.0        21.000
0.0
```

```
      1.500      1.5        6.500      0.0        11.500     0.0        16.500     0.0        21.500
0.0
      2.000      0.2        7.000      0.0        12.000     0.0        17.000     0.0        22.000
0.0
      2.500      0.0        7.500      0.0        12.500     0.0        17.500     0.0        22.500
0.0
      3.000      0.0        8.000      0.0        13.000     0.0        18.000     0.0        23.000
0.0
      3.500      0.0        8.500      0.0        13.500     0.0        18.500     0.0        23.500
0.0
      4.000      0.0        9.000      0.0        14.000     0.0        19.000     0.0        24.000
0.0
      4.500      0.0        9.500      0.0        14.500     0.0        19.500     0.0

      RUNOFF VOLUME =     1.98089 INCHES     =       0.0602 ACRE-FEET
      PEAK DISCHARGE RATE =       1.51 CFS  AT    1.500 HOURS   BASIN AREA =  0.0006
SQ. MI.



  *
  *S**************************************************************************
  *S     BASIN B4 (SUNSET GARDENS ROAD - EAST OF BASIN B3)                    *
  *S**************************************************************************
  *
  COMPUTE NM HYD       ID=4 HYD=B4  DA=0.00096 SQ MI
                       PER A=0 PER B=0 PER C=0 PER D=100
                       TP=0.1333  RAIN=-1

      K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   3.7901    CFS   UNIT VOLUME =   0.9966      B =   526.28      P60 =
1.7600
      AREA =     0.000960 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

  PRINT HYD            ID=4  CODE=10

                                HYDROGRAPH FROM AREA B4

      TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
       HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS
HRS       CFS
      0.000      0.0        5.000      0.0        10.000     0.0        15.000     0.0        20.000
0.0
      0.500      0.0        5.500      0.0        10.500     0.0        15.500     0.0        20.500
0.0
      1.000      0.0        6.000      0.0        11.000     0.0        16.000     0.0        21.000
0.0
      1.500      2.5        6.500      0.0        11.500     0.0        16.500     0.0        21.500
0.0
      2.000      0.4        7.000      0.0        12.000     0.0        17.000     0.0        22.000
0.0
      2.500      0.1        7.500      0.0        12.500     0.0        17.500     0.0        22.500
```

```
0.0
      3.000      0.0       8.000      0.0       13.000      0.0       18.000      0.0       23.000
0.0
      3.500      0.0       8.500      0.0       13.500      0.0       18.500      0.0       23.500
0.0
      4.000      0.0       9.000      0.0       14.000      0.0       19.000      0.0       24.000
0.0
      4.500      0.0       9.500      0.0       14.500      0.0       19.500      0.0

      RUNOFF VOLUME =     1.98089 INCHES     =       0.1014 ACRE-FEET
      PEAK DISCHARGE RATE =       2.54 CFS  AT    1.500 HOURS   BASIN AREA =  0.0010
SQ. MI.



  *
  *S**************************************************************************
  *S     BASIN B5 (EAST BASIN NORTH - SCHOOL)                                  *
  *S**************************************************************************
  *
  COMPUTE NM HYD       ID=5 HYD=B5  DA=0.00811 SQ MI
                       PER A=8 PER B=6 PER C=37 PER D=49
                       TP=0.1333  RAIN=-1

      K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   15.689    CFS   UNIT VOLUME =   0.9985      B =   526.28      P60 =
1.7600
      AREA =     0.003974 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.133102HR    TP =  0.133300HR    K/TP RATIO =  0.998514     SHAPE
CONSTANT, N =  3.535462
      UNIT PEAK =   10.020    CFS   UNIT VOLUME =   0.9997      B =   322.91      P60 =
1.7600
      AREA =     0.004136 SQ MI    IA =   0.96471 INCHES    INF =   1.01118 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

  PRINT HYD           ID=5  CODE=10

                              HYDROGRAPH FROM AREA B5

      TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
       HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS
HRS       CFS
      0.000      0.0        5.000      0.1       10.000      0.0       15.000      0.0       20.000
0.0
      0.500      0.0        5.500      0.1       10.500      0.0       15.500      0.0       20.500
0.0
      1.000      0.0        6.000      0.1       11.000      0.0       16.000      0.0       21.000
0.0
```

```
      1.500     13.9       6.500     0.0       11.500     0.0       16.500     0.0       21.500
0.0
      2.000     2.0        7.000     0.0       12.000     0.0       17.000     0.0       22.000
0.0
      2.500     0.4        7.500     0.0       12.500     0.0       17.500     0.0       22.500
0.0
      3.000     0.1        8.000     0.0       13.000     0.0       18.000     0.0       23.000
0.0
      3.500     0.1        8.500     0.0       13.500     0.0       18.500     0.0       23.500
0.0
      4.000     0.1        9.000     0.0       14.000     0.0       19.000     0.0       24.000
0.0
      4.500     0.1        9.500     0.0       14.500     0.0       19.500     0.0       24.500
0.0

     RUNOFF VOLUME =     1.23218 INCHES     =       0.5330 ACRE-FEET
     PEAK DISCHARGE RATE =      14.08 CFS  AT    1.550 HOURS   BASIN AREA =  0.0081
SQ. MI.



  *
  *S**************************************************************************
  *S     BASIN B6 (EAST BASIN SOUTH-POWELL RD)                                 *
  *S**************************************************************************
  *
  COMPUTE LT TP       LCODE=1    NK=2    ISLOPE=-1
                LENGTH=100 FT    SLOPE=0.00500   K=1.0
                LENGTH=700 FT    SLOPE=0.00500   K=2.0

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                       LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION           100.0          0.005000           1.0000
     SHALLOW FLOW PORTION         700.0          0.005000           2.0000
     CHANNEL FLOW PORTION           0.0          0.000000           0.0000
     TOTAL BASIN                  800.0          0.005000           1.7778


     TIME OF CONCENTRATION (HRS)=  0.1768     TIME TO PEAK (HRS)=  0.1179     LAG
TIME (HRS)=  0.1326



     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=  0.2000     TIME TO PEAK
(HRS)=  0.1333     LAG TIME (HRS)=  0.1500

  COMPUTE NM HYD       ID=6 HYD=B6  DA=0.01010 SQ MI
                PER A=10 PER B=27 PER C=27 PER D=36
                TP=0.0  RAIN=-1
     TIME TO PEAK (hrs)=  0.1333

     K =  0.072666HR    TP =  0.133333HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
     UNIT PEAK =   14.352    CFS   UNIT VOLUME =   0.9983      B =   526.28      P60 =
```

1.7600
AREA = 0.003636 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.144195HR TP = 0.133333HR K/TP RATIO = 1.081467 SHAPE CONSTANT, N = 3.266559
UNIT PEAK = 14.684 CFS UNIT VOLUME = 0.9991 B = 302.89 P60 = 1.7600
AREA = 0.006464 SQ MI IA = 1.01016 INCHES INF = 1.13844 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=6 CODE=10

HYDROGRAPH FROM AREA B6

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.1	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.1	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.1	11.000	0.0	16.000	0.0	21.000	0.0
1.500	13.9	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	2.0	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.5	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.1	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.500	0.1	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
4.000	0.1	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.500	0.1	9.500	0.0	14.500	0.0	19.500	0.0	24.500	0.0

RUNOFF VOLUME = 0.99513 INCHES = 0.5360 ACRE-FEET
PEAK DISCHARGE RATE = 14.54 CFS AT 1.550 HOURS BASIN AREA = 0.0101 SQ. MI.

*
*S**********
*S BASIN B7 (WEST BASIN SOUTH-DRAINS TO ATRISCO) *
*S**********
*
COMPUTE LT TP LCODE=1 NK=2 ISLOPE=-1

LENGTH=400 FT SLOPE=0.00500 K=1.0
LENGTH=800 FT SLOPE=0.00500 K=2.0

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	400.0	0.005000	1.0000
SHALLOW FLOW PORTION	800.0	0.005000	2.0000
CHANNEL FLOW PORTION	0.0	0.000000	0.0000
TOTAL BASIN	1200.0	0.005000	1.5000

TIME OF CONCENTRATION (HRS)= 0.3143 TIME TO PEAK (HRS)= 0.2095 LAG TIME (HRS)= 0.2357

COMPUTE NM HYD ID=7 HYD=B7 DA=0.01328 SQ MI
PER A=10 PER B=27 PER C=27 PER D=36
TP=0.0 RAIN=-1
TIME TO PEAK (hrs)= 0.2095

K = 0.114185HR TP = 0.209513HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 12.009 CFS UNIT VOLUME = 0.9991 B = 526.28 P60 = 1.7600
AREA = 0.004781 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.226581HR TP = 0.209513HR K/TP RATIO = 1.081467 SHAPE CONSTANT, N = 3.266559
UNIT PEAK = 12.287 CFS UNIT VOLUME = 0.9988 B = 302.89 P60 = 1.7600
AREA = 0.008499 SQ MI IA = 1.01016 INCHES INF = 1.13844 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=7 CODE=10

HYDROGRAPH FROM AREA B7

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.500	0.1	11.000	0.1	16.500	0.1	22.000	0.1
0.500	0.0	6.000	0.1	11.500	0.1	17.000	0.1	22.500	0.1
1.000	0.0	6.500	0.1	12.000	0.1	17.500	0.1	23.000	0.1
1.500	10.3	7.000	0.1	12.500	0.1	18.000	0.1	23.500	0.1
2.000	4.1	7.500	0.1	13.000	0.1	18.500	0.1	24.000	

```
0.1
      2.500     1.1       8.000     0.1       13.500    0.1       19.000    0.1       24.500
0.0
      3.000     0.4       8.500     0.1       14.000    0.1       19.500    0.1       25.000
0.0
      3.500     0.2       9.000     0.1       14.500    0.1       20.000    0.1
      4.000     0.1       9.500     0.1       15.000    0.1       20.500    0.1
      4.500     0.1       10.000    0.1       15.500    0.1       21.000    0.1
      5.000     0.1       10.500    0.1       16.000    0.1       21.500    0.1

     RUNOFF VOLUME =     0.99513 INCHES     =      0.7048 ACRE-FEET
     PEAK DISCHARGE RATE =      15.27 CFS  AT   1.600 HOURS   BASIN AREA =  0.0133
SQ. MI.



  *
  *S**************************************************************************
  *S     BASIN B8 (WEST OF EAST BASIN NORTH - SCHOOL B5)                    *
  *S**************************************************************************
  *
  COMPUTE LT TP       LCODE=1    NK=2    ISLOPE=-1
                LENGTH=400 FT    SLOPE=0.00500   K=1.0
                LENGTH=100 FT    SLOPE=0.00500   K=2.0

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                       LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION           400.0          0.005000           1.0000
     SHALLOW FLOW PORTION          100.0          0.005000           2.0000
     CHANNEL FLOW PORTION           0.0          0.000000           0.0000
     TOTAL BASIN                  500.0          0.005000           1.1111


     TIME OF CONCENTRATION (HRS)=  0.1768     TIME TO PEAK (HRS)=  0.1179     LAG
TIME (HRS)=  0.1326



     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=  0.2000     TIME TO PEAK
(HRS)=  0.1333     LAG TIME (HRS)=  0.1500

  COMPUTE NM HYD       ID=8 HYD=B8  DA=0.00370 SQ MI
                PER A=10 PER B=27 PER C=27 PER D=36
                TP=0.1333  RAIN=-1

     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
     UNIT PEAK =   5.2588    CFS   UNIT VOLUME =   0.9971      B =   526.28      P60 =
1.7600
     AREA =     0.001332 SQ MI    IA =   0.40000 INCHES    INF =   0.04000 INCHES PER
HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000
```

K = 0.144159HR TP = 0.133300HR K/TP RATIO = 1.081467 SHAPE CONSTANT, N = 3.266559
UNIT PEAK = 5.3806 CFS UNIT VOLUME = 0.9976 B = 302.89 P60 = 1.7600
AREA = 0.002368 SQ MI IA = 1.01016 INCHES INF = 1.13844 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=8 CODE=10

HYDROGRAPH FROM AREA B8

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.500	5.1	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	0.7	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.2	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.0	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0		

RUNOFF VOLUME = 0.99513 INCHES = 0.1964 ACRE-FEET
PEAK DISCHARGE RATE = 5.33 CFS AT 1.550 HOURS BASIN AREA = 0.0037 SQ. MI.

*
*S**********
*S BASIN B9 (SUNSET GARDENS ROAD EAST BASIN) *
*S**********
*
COMPUTE NM HYD ID=9 HYD=B9 DA=0.00110 SQ MI
PER A=0 PER B=0 PER C=0 PER D=100
TP=0.1333 RAIN=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 4.3429 CFS UNIT VOLUME = 0.9966 B = 526.28 P60 = 1.7600

AREA = 0.001100 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=9 CODE=10

HYDROGRAPH FROM AREA B9

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.500	2.9	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	0.4	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.1	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.0	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0		

RUNOFF VOLUME = 1.98089 INCHES = 0.1162 ACRE-FEET
PEAK DISCHARGE RATE = 2.91 CFS AT 1.500 HOURS BASIN AREA = 0.0011 SQ. MI.

*
*S**********
*S BASIN B10 (SUNSET GARDENS ROAD - EAST OF EAST BASIN B9) *
*S**********
*
COMPUTE NM HYD ID=10 HYD=B10 DA=0.00060 SQ MI
PER A=0 PER B=0 PER C=0 PER D=100
TP=0.1333 RAIN=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 2.3688 CFS UNIT VOLUME = 0.9951 B = 526.28 P60 = 1.7600
AREA = 0.000600 SQ MI IA = 0.40000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=10 CODE=10

HYDROGRAPH FROM AREA B10

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.500	1.6	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	0.2	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.0	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
3.000	0.0	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0		

RUNOFF VOLUME = 1.98089 INCHES = 0.0634 ACRE-FEET
PEAK DISCHARGE RATE = 1.59 CFS AT 1.500 HOURS BASIN AREA = 0.0006 SQ. MI.

*
****
*
ADD HYD ID=20 HYD=B10.8 ID I=8 II=10
PRINT HYD ID=20 CODE=10

HYDROGRAPH FROM AREA B10.8

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
1.000	0.0	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.500	6.7	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
2.000	1.0	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.500	0.2	7.500	0.0	12.500	0.0	17.500	0.0	22.500	

0.0
3.000 0.1 8.000 0.0 13.000 0.0 18.000 0.0 23.000
0.0
3.500 0.0 8.500 0.0 13.500 0.0 18.500 0.0 23.500
0.0
4.000 0.0 9.000 0.0 14.000 0.0 19.000 0.0 24.000
0.0
4.500 0.0 9.500 0.0 14.500 0.0 19.500 0.0

RUNOFF VOLUME = 1.13254 INCHES = 0.2597 ACRE-FEET
PEAK DISCHARGE RATE = 6.84 CFS AT 1.550 HOURS BASIN AREA = 0.0043 SQ. MI.

*
ADD HYD ID=21 HYD=B5.9 ID I=5 II=9
PRINT HYD ID=21 CODE=10

HYDROGRAPH FROM AREA B5.9

TIME FLOW TIME FLOW TIME FLOW TIME FLOW TIME FLOW
HRS CFS HRS CFS HRS CFS HRS CFS HRS CFS
0.000 0.0 5.000 0.1 10.000 0.1 15.000 0.1 20.000 0.1
0.500 0.0 5.500 0.1 10.500 0.1 15.500 0.1 20.500 0.1
1.000 0.0 6.000 0.1 11.000 0.1 16.000 0.1 21.000 0.1
1.500 16.8 6.500 0.1 11.500 0.1 16.500 0.1 21.500 0.1
2.000 2.4 7.000 0.1 12.000 0.1 17.000 0.1 22.000 0.1
2.500 0.5 7.500 0.1 12.500 0.1 17.500 0.1 22.500 0.1
3.000 0.1 8.000 0.1 13.000 0.1 18.000 0.1 23.000 0.1
3.500 0.1 8.500 0.1 13.500 0.1 18.500 0.1 23.500 0.1
4.000 0.1 9.000 0.1 14.000 0.1 19.000 0.1 24.000 0.1
4.500 0.1 9.500 0.1 14.500 0.1 19.500 0.1 24.500 0.0

RUNOFF VOLUME = 1.32153 INCHES = 0.6491 ACRE-FEET
PEAK DISCHARGE RATE = 16.85 CFS AT 1.550 HOURS BASIN AREA = 0.0092 SQ. MI.

*
ADD HYD ID=22 HYD=B8.10.5.9 ID I=20 II=21
PRINT HYD ID=22 CODE=10

HYDROGRAPH FROM AREA B8.10.5.9

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	5.000	0.1	10.000	0.1	15.000	0.1	20.000	0.1
0.500	0.0	5.500	0.1	10.500	0.1	15.500	0.1	20.500	0.1
1.000	0.0	6.000	0.2	11.000	0.1	16.000	0.1	21.000	0.1
1.500	23.5	6.500	0.1	11.500	0.1	16.500	0.1	21.500	0.1
2.000	3.4	7.000	0.1	12.000	0.1	17.000	0.1	22.000	0.1
2.500	0.7	7.500	0.1	12.500	0.1	17.500	0.1	22.500	0.1
3.000	0.2	8.000	0.1	13.000	0.1	18.000	0.1	23.000	0.1
3.500	0.1	8.500	0.1	13.500	0.1	18.500	0.1	23.500	0.1
4.000	0.1	9.000	0.1	14.000	0.1	19.000	0.1	24.000	0.1
4.500	0.1	9.500	0.1	14.500	0.1	19.500	0.1	24.500	0.0

RUNOFF VOLUME = 1.26138 INCHES = 0.9089 ACRE-FEET
PEAK DISCHARGE RATE = 23.69 CFS AT 1.550 HOURS BASIN AREA = 0.0135 SQ. MI.

```
*
ADD HYD            ID=23 HYD=B6.22  ID I=6 II=22
PRINT HYD          ID=23 CODE=10
```

HYDROGRAPH FROM AREA B6.22

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	5.000	0.2	10.000	0.1	15.000	0.1	20.000	0.1
0.500	0.0	5.500	0.2	10.500	0.1	15.500	0.1	20.500	0.1
1.000	0.0	6.000	0.2	11.000	0.1	16.000	0.1	21.000	0.1
1.500	37.4	6.500	0.1	11.500	0.1	16.500	0.1	21.500	0.1
2.000	5.4	7.000	0.1	12.000	0.1	17.000	0.1	22.000	0.1
2.500	1.2	7.500	0.1	12.500	0.1	17.500	0.1	22.500	0.1
3.000	0.3	8.000	0.1	13.000	0.1	18.000	0.1	23.000	0.1
3.500	0.2	8.500	0.1	13.500	0.1	18.500	0.1	23.500	

0.1
4.000 0.2 9.000 0.1 14.000 0.1 19.000 0.1 24.000
0.1
4.500 0.2 9.500 0.1 14.500 0.1 19.500 0.1 24.500
0.0

RUNOFF VOLUME = 1.14747 INCHES = 1.4449 ACRE-FEET
PEAK DISCHARGE RATE = 38.23 CFS AT 1.550 HOURS BASIN AREA = 0.0236 SQ. MI.

*
ADD HYD ID=24 HYD=B1.3 ID I=1 II=3
PRINT HYD ID=24 CODE=10

HYDROGRAPH FROM AREA B1.3

TIME FLOW TIME FLOW TIME FLOW TIME FLOW TIME FLOW
HRS CFS HRS CFS HRS CFS HRS CFS HRS CFS
0.000 0.0 5.000 0.0 10.000 0.0 15.000 0.0 20.000
0.0
0.500 0.0 5.500 0.0 10.500 0.0 15.500 0.0 20.500
0.0
1.000 0.0 6.000 0.1 11.000 0.0 16.000 0.0 21.000
0.0
1.500 7.6 6.500 0.0 11.500 0.0 16.500 0.0 21.500
0.0
2.000 1.4 7.000 0.0 12.000 0.0 17.000 0.0 22.000
0.0
2.500 0.3 7.500 0.0 12.500 0.0 17.500 0.0 22.500
0.0
3.000 0.1 8.000 0.0 13.000 0.0 18.000 0.0 23.000
0.0
3.500 0.1 8.500 0.0 13.500 0.0 18.500 0.0 23.500
0.0
4.000 0.0 9.000 0.0 14.000 0.0 19.000 0.0 24.000
0.0
4.500 0.0 9.500 0.0 14.500 0.0 19.500 0.0 24.500
0.0

RUNOFF VOLUME = 1.09320 INCHES = 0.3337 ACRE-FEET
PEAK DISCHARGE RATE = 8.38 CFS AT 1.550 HOURS BASIN AREA = 0.0057 SQ. MI.

*
ADD HYD ID=25 HYD=B2.4 ID I=2 II=4
PRINT HYD ID=25 CODE=10

HYDROGRAPH FROM AREA B2.4

TIME FLOW TIME FLOW TIME FLOW TIME FLOW TIME FLOW

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.1	10.000	0.1	15.000	0.1	20.000	0.1
0.500	0.0	5.500	0.1	10.500	0.1	15.500	0.1	20.500	0.1
1.000	0.0	6.000	0.1	11.000	0.1	16.000	0.1	21.000	0.1
1.500	14.8	6.500	0.1	11.500	0.1	16.500	0.1	21.500	0.1
2.000	2.7	7.000	0.1	12.000	0.1	17.000	0.1	22.000	0.1
2.500	0.7	7.500	0.1	12.500	0.1	17.500	0.1	22.500	0.1
3.000	0.2	8.000	0.1	13.000	0.1	18.000	0.1	23.000	0.1
3.500	0.1	8.500	0.1	13.500	0.1	18.500	0.1	23.500	0.1
4.000	0.1	9.000	0.1	14.000	0.1	19.000	0.1	24.000	0.1
4.500	0.1	9.500	0.1	14.500	0.1	19.500	0.1	24.500	0.0

RUNOFF VOLUME = 1.07826 INCHES = 0.6543 ACRE-FEET
PEAK DISCHARGE RATE = 16.43 CFS AT 1.550 HOURS BASIN AREA = 0.0114 SQ. MI.

```
*
ADD HYD            ID=26 HYD=24.25  ID I=24 II=25
PRINT HYD          ID=26 CODE=10
```

OUTFLOW HYDROGRAPH REACH 24.25

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.1	10.000	0.1	15.000	0.1	20.000	0.1
0.500	0.0	5.500	0.1	10.500	0.1	15.500	0.1	20.500	0.1
1.000	0.0	6.000	0.2	11.000	0.1	16.000	0.1	21.000	0.1
1.500	22.4	6.500	0.1	11.500	0.1	16.500	0.1	21.500	0.1
2.000	4.1	7.000	0.1	12.000	0.1	17.000	0.1	22.000	0.1
2.500	1.0	7.500	0.1	12.500	0.1	17.500	0.1	22.500	0.1
3.000	0.3	8.000	0.1	13.000	0.1	18.000	0.1	23.000	0.1
3.500	0.2	8.500	0.1	13.500	0.1	18.500	0.1	23.500	0.1
4.000	0.1	9.000	0.1	14.000	0.1	19.000	0.1	24.000	0.1

```
      4.500      0.1        9.500      0.1        14.500      0.1        19.500      0.1        24.500
0.0

      RUNOFF VOLUME =     1.08326 INCHES     =       0.9879 ACRE-FEET
      PEAK DISCHARGE RATE =      24.80 CFS  AT   1.550 HOURS   BASIN AREA =  0.0171
SQ. MI.



   *
   ADD HYD            ID=27 HYD=TOTAL  ID I=23 II=26
   PRINT HYD          ID=27 CODE=10

                              HYDROGRAPH FROM AREA TOTAL

      TIME      FLOW         TIME      FLOW         TIME      FLOW         TIME      FLOW
TIME      FLOW
       HRS       CFS          HRS       CFS          HRS       CFS          HRS       CFS
HRS       CFS
      0.000      0.0        5.000      0.3        10.000      0.2        15.000      0.2        20.000
0.2
      0.500      0.0        5.500      0.3        10.500      0.2        15.500      0.2        20.500
0.2
      1.000      0.0        6.000      0.4        11.000      0.2        16.000      0.2        21.000
0.2
      1.500     59.8        6.500      0.2        11.500      0.2        16.500      0.2        21.500
0.2
      2.000      9.5        7.000      0.2        12.000      0.2        17.000      0.2        22.000
0.2
      2.500      2.2        7.500      0.2        12.500      0.2        17.500      0.2        22.500
0.2
      3.000      0.7        8.000      0.2        13.000      0.2        18.000      0.2        23.000
0.2
      3.500      0.4        8.500      0.2        13.500      0.2        18.500      0.2        23.500
0.2
      4.000      0.3        9.000      0.2        14.000      0.2        19.000      0.2        24.000
0.2
      4.500      0.3        9.500      0.2        14.500      0.2        19.500      0.2        24.500
0.0

      RUNOFF VOLUME =     1.12050 INCHES     =       2.4328 ACRE-FEET
      PEAK DISCHARGE RATE =      63.03 CFS  AT   1.550 HOURS   BASIN AREA =  0.0407
SQ. MI.



   *
   *
   *S*************************************************************************
   *S*************************************************************************
   *
   *****ADD SUNSET GARDENS BASINS TO FIVE POINTS BASINS************************
   *
   ADD HYD            ID=40 HYD=TOTAL  ID I=27 II=39
   PRINT HYD          ID=40 CODE=10

                              HYDROGRAPH FROM AREA TOTAL
```

```
      TIME     FLOW         TIME     FLOW         TIME     FLOW         TIME     FLOW
TIME     FLOW
       HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
HRS      CFS
      0.000     0.0         5.500     1.1        11.000     0.5        16.500     0.5        22.000
0.5
      0.500     0.0         6.000     1.1        11.500     0.5        17.000     0.5        22.500
0.5
      1.000     0.1         6.500     0.7        12.000     0.5        17.500     0.5        23.000
0.5
      1.500    96.2         7.000     0.6        12.500     0.5        18.000     0.5        23.500
0.5
      2.000    53.4         7.500     0.5        13.000     0.5        18.500     0.5        24.000
0.5
      2.500    14.1         8.000     0.5        13.500     0.5        19.000     0.5        24.500
0.1
      3.000     5.5         8.500     0.5        14.000     0.5        19.500     0.5        25.000
0.0
      3.500     2.9         9.000     0.5        14.500     0.5        20.000     0.5        25.500
0.0
      4.000     1.8         9.500     0.5        15.000     0.5        20.500     0.5
      4.500     1.3        10.000     0.5        15.500     0.5        21.000     0.5
      5.000     1.1        10.500     0.5        16.000     0.5        21.500     0.5

     RUNOFF VOLUME =     1.03236 INCHES     =      7.4809 ACRE-FEET
     PEAK DISCHARGE RATE =     126.93 CFS  AT    1.600 HOURS   BASIN AREA =  0.1359
SQ. MI.



  *
  *S**************************************************************************
  *****ADD SUNSET VILLA*************************************************************
  *
  ADD HYD            ID=28 HYD=TOTAL  ID I=50 II=40
  PRINT HYD          ID=28 CODE=10

                              HYDROGRAPH FROM AREA TOTAL

      TIME     FLOW         TIME     FLOW         TIME     FLOW         TIME     FLOW
TIME     FLOW
       HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
HRS      CFS
      0.000     0.0         5.500     1.3        11.000     0.6        16.500     0.6        22.000
0.6
      0.500     0.0         6.000     1.3        11.500     0.6        17.000     0.6        22.500
0.6
      1.000     1.4         6.500     0.8        12.000     0.6        17.500     0.6        23.000
0.6
      1.500   123.6         7.000     0.7        12.500     0.6        18.000     0.6        23.500
0.6
      2.000    62.0         7.500     0.7        13.000     0.6        18.500     0.6        24.000
0.6
      2.500    16.5         8.000     0.6        13.500     0.6        19.000     0.6        24.500
0.1
      3.000     6.2         8.500     0.6        14.000     0.6        19.500     0.6        25.000
```

```
0.0
      3.500     3.2       9.000     0.6       14.500    0.6       20.000    0.6       25.500
0.0
      4.000     2.0       9.500     0.6       15.000    0.6       20.500    0.6
      4.500     1.5       10.000    0.6       15.500    0.6       21.000    0.6
      5.000     1.3       10.500    0.6       16.000    0.6       21.500    0.6

      RUNOFF VOLUME =     1.11619 INCHES     =      9.2307 ACRE-FEET
      PEAK DISCHARGE RATE =     161.79 CFS  AT   1.600 HOURS   BASIN AREA =  0.1551
SQ. MI.



  *
  *S**************************************************************************
  *
****
  *S*****ROUTE RESERVOIR*********************************************************
  *
  ROUTE RESERVOIR      ID=8  HYD=108  INFLOW ID=28  CODE=5
                    OUTFLOW (CFS) STORAGE (AC FT)    ELEV (FT)
                 0   0.0    34
                     6.86   0.02    35
                     7.26   0.23    36
                     7.65   0.90    37
                     8.05   1.80    38
                     8.44   2.76    39
                     8.84   3.78    40
                     9.15   4.86    41
                     9.45   6.00    42
                     9.76   7.21    43
                     9.82   8.48    44

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

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

     0.00      0.00     34.00     0.000     0.00
     0.25      0.00     34.00     0.000     0.00
     0.50      0.00     34.00     0.000     0.00
     0.75      0.03     34.00     0.000     0.01
     1.00      1.45     34.17     0.003     1.20
     1.25      5.30     34.64     0.013     4.37
     1.50    123.58     36.82     0.781     7.58
     1.75    129.75     39.90     3.678     8.80
     2.00     62.03     41.49     5.417     9.30
     2.25     30.30     42.11     6.127     9.48
     2.50     16.48     42.33     6.401     9.55
     2.75      9.45     42.38     6.461     9.57
     3.00      6.24     42.35     6.423     9.56
     3.25      4.41     42.28     6.334     9.54
     3.50      3.24     42.18     6.215     9.51
     3.75      2.46     42.06     6.078     9.47
     4.00      2.00     41.94     5.928     9.43
     4.25      1.70     41.80     5.772     9.39
     4.50      1.51     41.66     5.611     9.35
```

4.75	1.39	41.52	5.448	9.30
5.00	1.32	41.37	5.285	9.26
5.25	1.29	41.23	5.121	9.22
5.50	1.28	41.09	4.957	9.18
5.75	1.29	40.94	4.794	9.13
6.00	1.32	40.79	4.633	9.08
6.25	1.03	40.64	4.471	9.04
6.50	0.80	40.48	4.303	8.99
6.75	0.72	40.33	4.134	8.94
7.00	0.69	40.17	3.964	8.89
7.25	0.67	40.01	3.795	8.84
7.50	0.65	39.85	3.626	8.78
7.75	0.63	39.68	3.459	8.71
8.00	0.63	39.52	3.292	8.65
8.25	0.62	39.36	3.127	8.58
8.50	0.62	39.20	2.963	8.52
8.75	0.62	39.04	2.801	8.46
9.00	0.61	38.87	2.639	8.39
9.25	0.61	38.71	2.479	8.33
9.50	0.61	38.54	2.320	8.26
9.75	0.61	38.38	2.163	8.20
10.00	0.60	38.22	2.007	8.13
10.25	0.61	38.05	1.852	8.07
10.50	0.60	37.89	1.698	8.00
10.75	0.60	37.72	1.546	7.94
11.00	0.60	37.55	1.395	7.87
11.25	0.60	37.38	1.245	7.80
11.50	0.60	37.22	1.097	7.74
11.75	0.60	37.06	0.950	7.67
12.00	0.60	36.86	0.805	7.59
12.25	0.60	36.64	0.661	7.51
12.50	0.60	36.43	0.519	7.43
12.75	0.60	36.22	0.379	7.35
13.00	0.60	36.02	0.240	7.27
13.25	0.60	35.40	0.105	7.02
13.50	0.60	34.14	0.003	0.99
13.75	0.60	34.09	0.002	0.60

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
14.00	0.60	34.09	0.002	0.60
14.25	0.60	34.09	0.002	0.60
14.50	0.60	34.09	0.002	0.60
14.75	0.60	34.09	0.002	0.60
15.00	0.60	34.09	0.002	0.60
15.25	0.60	34.09	0.002	0.60
15.50	0.60	34.09	0.002	0.60
15.75	0.60	34.09	0.002	0.60
16.00	0.60	34.09	0.002	0.60
16.25	0.60	34.09	0.002	0.60
16.50	0.60	34.09	0.002	0.60
16.75	0.60	34.09	0.002	0.60
17.00	0.60	34.09	0.002	0.60
17.25	0.60	34.09	0.002	0.60
17.50	0.60	34.09	0.002	0.60
17.75	0.60	34.09	0.002	0.60

18.00	0.60	34.09	0.002	0.60
18.25	0.60	34.09	0.002	0.60
18.50	0.60	34.09	0.002	0.60
18.75	0.60	34.09	0.002	0.60
19.00	0.60	34.09	0.002	0.60
19.25	0.60	34.09	0.002	0.60
19.50	0.60	34.09	0.002	0.60
19.75	0.60	34.09	0.002	0.60
20.00	0.59	34.09	0.002	0.59
20.25	0.59	34.09	0.002	0.60
20.50	0.60	34.09	0.002	0.60
20.75	0.60	34.09	0.002	0.60
21.00	0.60	34.09	0.002	0.60
21.25	0.60	34.09	0.002	0.60
21.50	0.60	34.09	0.002	0.60
21.75	0.60	34.09	0.002	0.60
22.00	0.60	34.09	0.002	0.60
22.25	0.60	34.09	0.002	0.60
22.50	0.60	34.09	0.002	0.60
22.75	0.60	34.09	0.002	0.60
23.00	0.60	34.09	0.002	0.60
23.25	0.60	34.09	0.002	0.60
23.50	0.60	34.09	0.002	0.60
23.75	0.60	34.09	0.002	0.60
24.00	0.60	34.09	0.002	0.60
24.25	0.31	34.05	0.001	0.36
24.50	0.09	34.02	0.000	0.11
24.75	0.04	34.01	0.000	0.04
25.00	0.02	34.00	0.000	0.02
25.25	0.01	34.00	0.000	0.01
25.50	0.00	34.00	0.000	0.00

PEAK DISCHARGE = 9.568 CFS - PEAK OCCURS AT HOUR 2.75
MAXIMUM WATER SURFACE ELEVATION = 42.381
MAXIMUM STORAGE = 6.4615 AC-FT INCREMENTAL TIME= 0.050000HRS

*

PRINT HYD ID=8 CODE=10

PARTIAL HYDROGRAPH 108.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.500	9.2	11.000	7.9	16.500	0.6	22.000	0.6
0.500	0.0	6.000	9.1	11.500	7.7	17.000	0.6	22.500	0.6
1.000	1.2	6.500	9.0	12.000	7.6	17.500	0.6	23.000	0.6
1.500	7.6	7.000	8.9	12.500	7.4	18.000	0.6	23.500	0.6
2.000	9.3	7.500	8.8	13.000	7.3	18.500	0.6	24.000	0.6
2.500	9.6	8.000	8.6	13.500	1.0	19.000	0.6	24.500	0.1
3.000	9.6	8.500	8.5	14.000	0.6	19.500	0.6	25.000	

```
0.0
      3.500      9.5        9.000      8.4        14.500     0.6        20.000     0.6        25.500
0.0
      4.000      9.4        9.500      8.3        15.000     0.6        20.500     0.6
      4.500      9.3       10.000      8.1        15.500     0.6        21.000     0.6
      5.000      9.3       10.500      8.0        16.000     0.6        21.500     0.6

      RUNOFF VOLUME =     1.11619 INCHES     =       9.2307 ACRE-FEET
      PEAK DISCHARGE RATE =       9.57 CFS  AT   2.750 HOURS   BASIN AREA =  0.1551
SQ. MI.



   *
****
   ********************************************************************************
****
   *S*****ADD ATRISCO BASIN*****************************************************
****
   ******BASED ON ATRISCO FINAL SCOPING REPORT 6/20/1997 COA#5337-
01***************
   *
   LAND FACTORS        TYPE=0  (RESTORES DEFAULT LAND FACTORS)
               DEFAULT VALUES OF IA & INF RESTORED

   *
   *AREA = 2.32 AC
   COMPUTE NM HYD      ID=9 HYD=ATRISCO  DA=0.003625 SQ MI
                       PER A=0 PER B=0 PER C=10 PER D=90
                       TP=0.1333  RAIN=-1

      K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
      UNIT PEAK =   12.881    CFS   UNIT VOLUME =   0.9983      B =   526.28      P60 =
1.7600
      AREA =     0.003263 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


      K =  0.119296HR    TP =  0.133300HR    K/TP RATIO =  0.894946     SHAPE
CONSTANT, N =  3.961379
      UNIT PEAK =  0.95885    CFS   UNIT VOLUME =   0.9874      B =   352.59      P60 =
1.7600
      AREA =     0.000363 SQ MI    IA =   0.35000 INCHES    INF =   0.83000 INCHES PER
HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

   PRINT HYD           ID=9  CODE=10

                              HYDROGRAPH FROM AREA ATRISCO

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

HRS	CFS								
	0.000	0.0	5.000	0.1	10.000	0.0	15.000	0.0	20.000
0.0									
	0.500	0.0	5.500	0.1	10.500	0.0	15.500	0.0	20.500
0.0									
	1.000	0.6	6.000	0.1	11.000	0.0	16.000	0.0	21.000
0.0									
	1.500	9.4	6.500	0.0	11.500	0.0	16.500	0.0	21.500
0.0									
	2.000	1.4	7.000	0.0	12.000	0.0	17.000	0.0	22.000
0.0									
	2.500	0.3	7.500	0.0	12.500	0.0	17.500	0.0	22.500
0.0									
	3.000	0.1	8.000	0.0	13.000	0.0	18.000	0.0	23.000
0.0									
	3.500	0.1	8.500	0.0	13.500	0.0	18.500	0.0	23.500
0.0									
	4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000
0.0									
	4.500	0.1	9.500	0.0	14.500	0.0	19.500	0.0	24.500
0.0									

RUNOFF VOLUME = 2.13479 INCHES = 0.4127 ACRE-FEET
PEAK DISCHARGE RATE = 9.45 CFS AT 1.500 HOURS BASIN AREA = 0.0036 SQ. MI.

```
*
ADD HYD            ID=10 HYD=ISLETA  ID I=9 II=8
PRINT HYD          ID=10 CODE=10
```

HYDROGRAPH FROM AREA ISLETA

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	5.500	9.2	11.000	7.9	16.500	0.6	22.000	0.6
0.500	0.0	6.000	9.2	11.500	7.8	17.000	0.6	22.500	0.6
1.000	1.8	6.500	9.0	12.000	7.6	17.500	0.6	23.000	0.6
1.500	17.0	7.000	8.9	12.500	7.5	18.000	0.6	23.500	0.6
2.000	10.7	7.500	8.8	13.000	7.3	18.500	0.6	24.000	0.6
2.500	9.8	8.000	8.7	13.500	1.0	19.000	0.6	24.500	0.1
3.000	9.6	8.500	8.6	14.000	0.6	19.500	0.6	25.000	0.0
3.500	9.6	9.000	8.4	14.500	0.6	20.000	0.6	25.500	0.0
4.000	9.5	9.500	8.3	15.000	0.6	20.500	0.6		
4.500	9.4	10.000	8.2	15.500	0.6	21.000	0.6		
5.000	9.3	10.500	8.0	16.000	0.6	21.500	0.6		

RUNOFF VOLUME = 1.13946 INCHES = 9.6434 ACRE-FEET
PEAK DISCHARGE RATE = 17.03 CFS AT 1.500 HOURS BASIN AREA = 0.1587 SQ. MI.

*

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 11:11:44

*(s10H**********