CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services Section

August 19, 2009

Jason R. Woodruff, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: Longfellow Elementary School, 400 Edith Blvd. NE,
Approval of Permanent Certificate of Occupancy (C.O.)
Engineer's Stamp dated 08/18/09 (K-14/D010)

Dear Mr. Woodruff,

The TCL / Letter of Certification submitted on August 18, 2009 is sufficient for acceptance by this office for a Final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

If you have any questions, please call me at 924-3630.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer,Planning Dept.
Development and Building Services

C: Hydrology file
CO Clerk
Engineer

348-4072

Jason Woodruff
K-14/D010

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: Longfellow ES ZONE MAP/DRG. FILE#: K-14-Z / D010

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

LEGAL DESCRIPTION: SEE exhibits in attached Report

CITY ADDRESS: 400 Edith Rd

ENGINEERING FIRM:	Wilson & Company	CONTACT:	Jason Woodruff, PE
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
OWNER:	APS	CONTACT:	Frank Shaw
ADDRESS:	915 Oak Street	PHONE:	505-975-6248
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE:	87106
ARCHITECT:	Wilson & Company	CONTACT:	See Engineer Above
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuquerque, NM	ZIP CODE:	
SURVEYING FIRM:	Wilson & Company	LICENSED SURVEYOR:	Ben Aragon
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4067
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT - RESUBMITTAL
___ DRAINAGE PLAN 1st SUBMITTAL
___ DRAINAGE PLAN RESUBMITTAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERT (HYDROLOGY)
___ CLOMR\LOMR
X TRAFFIC CIRCULTAION LAYOUT
___ ENGINEER/ARCHITECT CERT (TCL)
___ ENGINEER/ARCHITECT CERT (DRB S. P.)
___ ENGINEER/ARCHITECT CERT (AA)
___ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:

___ SIA / FINANCIAL GUARANTEE RELEASE
___ PRELIMINARY PLAT APPROVAL
___ S. DEV. PLAN FOR SUB'D. APPROVAL
___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY (PERM.)
___ CERTIFICATE OF OCCUPANCY (TEMP)
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ WORK ORDER APPROVAL
___ OTHER (SPECIFY TCL#9)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
x NO
_____ COPY PROVIDED

RECEIVED
AUG 18 2009
HYDROLOGY SECTION

Submitted By: Jason Woodruff DATE: 08/17/09

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

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

CITY OF ALBUQUERQUE

August 17, 2009

Jason R. Woodruff, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: Longfellow Elementary School, 400 Edith Rd NE,
(K-14/D010), Approval of Permanent Certificate of Occupancy,
Engineer's Stamp Dated: 06-04-09
Engineer's Certification Date: 8-05-09

Dear Mr. Woodruff,

Based upon the information provided on 08/17/09, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Timothy E. Sims
Plan Checker—Hydrology, Planning Dept
Development and Building Services

C: CO Clerk—Katrina Sigala
file

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: Longfellow ES ZONE MAP/DRG. FILE#: ~~K-14Z~~ K-14/D010

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

LEGAL DESCRIPTION: SEE exhibits in attached Report

CITY ADDRESS: 400 Edith Rd

ENGINEERING FIRM:	Wilson & Company	CONTACT:	Jason Woodruff, PE
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuqueruqe, NM	ZIP CODE:	87109
OWNER:	APS	CONTACT:	Frank Shaw
ADDRESS:	915 Oak Street	PHONE:	505-975-6248
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE:	87106
ARCHITECT:	Wilson & Company	CONTACT:	See Engineer Above
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuquerque, NM	ZIP CODE:	
SURVEYING FIRM:	Wilson & Company	LICENSED SURVEYOR:	Ben Aragon
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4067
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT - RESUBMITTAL
___ DRAINAGE PLAN 1st SUBMITTAL
_X_ DRAINAGE PLAN RESUBMITTAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
_X_ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERT (HYDROLOGY)
___ CLOMR\LOMR
___ TRAFFIC CIRCULTAION LAYOUT
___ ENGINEER/ARCHITECT CERT (TCL)
___ ENGINEER/ARCHITECT CERT (DRB S. P.)
___ ENGINEER/ARCHITECT CERT (AA)
___ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:

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___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ BUILDING PERMIT APPROVAL
_X_ CERTIFICATE OF OCCUPANCY (PERM.)
___ CERTIFICATE OF OCCUPANCY (TEMP)
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ WORK ORDER APPROVAL
___ OTHER (SPECIFY) SO #19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
_x_ NO
_____ COPY PROVIDED

RECEIVED
AUG 17 2009
HYDROLOGY SECTION

Submitted By: Jason Woodruff DATE: 08/17/09

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

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

CITY OF ALBUQUERQUE

August 6, 2009

Jason R. Woodruff, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: Longfellow Elementary School, 400 Edith Blvd. NE,
Approval of 90-Day Certificate of Occupancy (C.O.)
Engineer's Stamp dated 6/04/09 (K-14/D010)
Certification dated 08-05-09

Dear Mr. Woodruff,

Based upon the information provided in your submittal received 8-06-09, the above referenced certification is approved for release of a 90 Day Temporary Certificate of Occupancy by Hydrology.

Prior to Permanent Certificate of Occupancy, an Engineer's Certification per the DPM is required.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Timothy E. Sims
Plan Checker—Hydrology,
Development and Building Services

C: CO Clerk—Katrina Sigala
File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

CITY OF ALBUQUERQUE

June 5, 2009

Jason Woodruff, P.E.
Wilson & Company
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: APS Longfellow Elementary School Building Addition / Bus Drop Off,
400 Edith Road NE, Traffic Circulation Layout
Engineer's Stamp dated 06-04-09 (K14-D010)

Dear Mr. Woodruff,

The TCL submittal received 06-05-09 is approved for Building Permit. The plan is stamped and signed as approved. A copy of this plan will be needed for each of the building permit plans. Please keep the original to be used for certification of the site for final C.O. for Transportation. **Public infrastructure or work done within City Right-of-Way shown on these plans is for information only and is not part of approval. A separate DRC and/or other appropriate permits are required to construct these items.**

If a temporary CO is needed, a copy of the original TCL that was stamped as approved by the City will be needed. This plan must include a statement that identifies the outstanding items that need to be constructed or the items that have not been built in "substantial compliance," as well as the signed and dated stamp of a NM registered architect or engineer. Submit this TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

When the site is completed and a final C.O. is requested, use the original City stamped approved TCL for certification. A NM registered architect or engineer must stamp, sign, and date the certification TCL along with indicating that the development was built in "substantial compliance" with the TCL. Submit this certification TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

Once verification of certification is completed and approved, notification will be made to Building Safety to issue Final C.O. To confirm that a final C.O. has been issued, call Building Safety at 924-3306.

Sincerely,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

C: File

Longfellow
Elementary
School

K-14/D010

400 EDITH NE

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: Longfellow ES ZONE MAP/DRG. FILE#: K-14-Z

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

LEGAL DESCRIPTION: SEE exhibits in attached Report

CITY ADDRESS: 400 Edith Rd

ENGINEERING FIRM:	Wilson & Company	CONTACT:	Jason Woodruff, PE
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuqueruqe, NM	ZIP CODE:	87109
OWNER:	APS	CONTACT:	Frank Shaw
ADDRESS:	915 Oak Street	PHONE:	505-975-6248
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE:	87106
ARCHITECT:	Wilson & Company	CONTACT:	See Engineer Above
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuquerque, NM	ZIP CODE:	
SURVEYING FIRM:	Wilson & Company	LICENSED SURVEYOR:	Ben Aragon
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4067
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT - RESUBMITTAL
___ DRAINAGE PLAN 1st SUBMITTAL
___ DRAINAGE PLAN RESUBMITTAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERT (HYDROLOGY)
___ CLOMR\LOMR
_X_ TRAFFIC CIRCULTAION LAYOUT
___ ENGINEER/ARCHITECT CERT (TCL)
___ ENGINEER/ARCHITECT CERT (DRB S. P.)
___ ENGINEER/ARCHITECT CERT (AA)
___ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:

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___ S. DEV. PLAN FOR SUB'D. APPROVAL
___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY (PERM.)
___ CERTIFICATE OF OCCUPANCY (TEMP)
_X_ GRADING PERMIT APPROVAL
_X_ PAVING PERMIT APPROVAL
_X_ WORK ORDER APPROVAL
_X_ OTHER (SPECIFY) SO #19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
_x_ NO
_____ COPY PROVIDED

RECEIVED
JUN 05 2009
HYDROLOGY SECTION

Submitted By: Jason Woodruff DATE: 06/04/09

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

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

WILSON
&COMPANY

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000
505-348-4072 Fax

June 6, 2009

City of Albuquerque
Development and Building Services
Transportation Development Section
600 2nd Street NW
Albuquerque, NM 87102

Re: Longfellow TCL – Response letter

Dear Kristol,

The following is a response to the various issues outlined in your letter dated May 26, 2009.

1. Item 1 – Revised site geometry to address needs
2. Item 2 – Property line added
3. Item 3 – Two copies added
4. Item 4 – Copies provided
5. Item 5 – C&G and striping within the City ROW will be done under a separate submittal.
6. Item 6 – Detail provided
7. Item 7 – Wheel chair ramp on north side of north entrance will not be needed due to the fact that a city project is underway to redesign the existing park north of Longfellow. As part of the planned design, pedestrian access from Longfellow will be made through the proposed 6' magnate outlined in this submittal.
8. Item 8 – All sidewalks dimensioned

Please let us know if a meeting is scheduled among the interested parties and we will attend. If you should have any questions or comments concerning this project, please call at your convenience at cell no. 715-2541 or office no. 348-4059.

WILSON & COMPANY

Jason Woodruff, PE
Civil Engineer

cc: file, KC, APS Staff Architect

CITY OF ALBUQUERQUE

May 26, 2009

Jason Woodruff, P.E.
Wilson & Company
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: APS Longfellow Elementary School Building Addition / Bus Drop Off, 400 Edith Road NE, Traffic Circulation Layout Engineer's Stamp dated 05-13-09 (K14-D010)

Dear Mr. Woodruff,

Based upon the information provided in your submittal received 05-21-09, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. For passenger vehicles, the minimum end island radius is 15 feet.
2. Clarify the location of the property line.
3. Please include two copies of the traffic circulation layout at the next submittal.
4. Provide a copy of detail sheet C-502.
5. Additional information must be provided regarding the perpendicular parking spaces shown as "future" along Walter Street.
   - Any addition of striped parking on a public roadway requires approval from Traffic Operations. A copy of this approval must be provided prior to the approval of any plan showing these spaces.
   - Additional geometric information (space width/length, aisle width, etc.) must be provided.
   - This plan indicates that the new curb and gutter associated with the perpendicular parking spaces is a part of this project (based upon build notes as shown). Please change this.
6. Build notes must be provided for the entrances. Are these modified drivepads? They do not appear to match City of Albuquerque Standard Specifications. Please provide more detail.
7. A wheelchair ramp must be built on both sides of the northernmost entrance.
8. Define width of all sidewalk, existing and proposed.

If you have any questions, you can contact me at [illegible]-3991.

Sincerely,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

RECEIVED
JUN 05 2009
HYDROLOGY SECTION

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

CITY OF ALBUQUERQUE

July 13, 2006

Mario G. Juarez-Infante, P.E.
Wilson & Company, LLC
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: Longfellow Elementary, 400 Edith Blvd NE
Grading and Drainage Plan
Engineer's Stamp dated 5-12-06 (K14-D10)

Dear Mr. Juarez-Infante,

Based upon the information provided in your submittal received 7-03-06, the above referenced plan is approved for Building Permit and Grading Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Also, prior to Certificate of Occupancy release, Engineer Certification of the grading plan per the DPM checklist will be required.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. If you have any questions regarding this permit please feel free to call the DMD Storm Drainage Design section at 768-3654 (Charles Caruso).

Sincerely,

Rudy E. Rael, Associate Engineer
Planning Department.
Building and Development Services

C: Charles Caruso
CC: file

P.O. Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

ALBUQUERQUE PUBLIC SCHOOLS
Facilities & Support Operations
Expect Great Things!

Brad Winter
EXECUTIVE DIRECTOR

M. Elizabeth Everitt, Ph.D.
SUPERINTENDENT

K14 / D10

February 13, 2008

To: Brad Bingham, Hydrology Planning Director
Richard Duarte, City Engineer

From: Brad Winter, Executive Director
Facilities Support & Operations

Re: Building Permit – Longfellow Elementary School (400 Edith NE, 87102)

This memo serves as a request that the City of Albuquerque release the building permit for Longfellow Elementary immediately. APS is committed to perform and secure the following approval concurrently with the construction of the new building.

a. Administrative Amendment for Site Plan showing parking off Walter Street
b. Revised Landscape Plan to marry with present Sites Southwest Landscape Plan (Camino Real Landscape Plan)
c. Revise Traffic Circulation Layout (TCL) and resubmit for building permit
d. Revise Grading & Drainage Plan (G&D) and resubmit for building permit
e. Submit Design Review Committee (DRC) Plan for public infrastructure within Walter Street

Thank you for your consideration in this matter. If you have any questions, I can be reached at 764-9726 or by cell phone at 489-0327.

Cc: Karen Alarid

WILSON & COMPANY

4900 Lang Avenue NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 348-4000
FAX (505) 348-4072

TRANSMITTAL

Date:	February 15, 2008
Job No.:	
Longfellow Elementary School	

To: City of Albuquerque
600 2nd Street NW
Albuquerque, NM 87102
(505) 924-3986

Attn: **Bradley L. Bingham**

WE ARE SENDING YOU ☑ Attached ☐ Under Separate Cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☑ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

Copies	Date	Pages/Sheets	Description
1	2/15/08		Building Permit

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ For approval/signature ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☑ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Return _____ copies ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____, 20___ ☐ PRINTS ON LOAN – RETURN TO WC*EA* AFTER BID

Remarks: _____

COPY TO: File.

RECEIVED
FEB 15 2008
HYDROLOGY SECTION

SIGNED: Mario Juarez-Infante

RECEIVED BY: _____

DATE: 2/15/08

CITY OF ALBUQUERQUE

May 26, 2009

Jason Woodruff, P.E.
Wilson & Company
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: APS Longfellow Elementary School Building Addition / Bus Drop Off, 400 Edith Road NE, Traffic Circulation Layout Engineer's Stamp dated 05-13-09 (K14-D010)

Dear Mr. Woodruff,

Based upon the information provided in your submittal received 05-21-09, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. For passenger vehicles, the minimum end island radius is 15 feet.
2. Clarify the location of the property line.
3. Please include two copies of the traffic circulation layout at the next submittal.
4. Provide a copy of detail sheet C-502.
5. Additional information must be provided regarding the perpendicular parking spaces shown as "future" along Walter Street.
   - Any addition of striped parking on a public roadway requires approval from Traffic Operations. A copy of this approval must be provided prior to the approval of any plan showing these spaces.
   - Additional geometric information (space width/length, aisle width, etc.) must be provided.
   - This plan indicates that the new curb and gutter associated with the perpendicular parking spaces is a part of this project (based upon build notes as shown). Please change this.
6. Build notes must be provided for the entrances. Are these modified drivepads? They do not appear to match City of Albuquerque Standard Specifications. Please provide more detail.
7. A wheelchair ramp must be built on both sides of the northernmost entrance.
8. Define width of all sidewalk, existing and proposed.

If you have any questions, you can contact me at 924-3991.

Sincerely,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

CITY OF ALBUQUERQUE

June 4, 2009

Jason Woodruff, P.E.
Wilson & Co
4900 Lang Ave NE
Albuquerque, NM 87109

Re: Longfellow Elem. Sch. Grading and Drainage Plan
Engineer's Stamp dated 6-4-09 (K14/D10)

Dear Mr. Woodruff,

Based upon the information provided in your submittal dated 6-4-09, the above referenced plan is approved for Grading and Paving Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Upon completion of the project, please submit an Engineer's Certification for our files.

If you have any questions, feel free to contact me at 924-3986.

Sincerely

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

C:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

CITY OF ALBUQUERQUE

June 26, 2006

Mario G. Juarez-Infante, P.E.
Wilson & Company, LLC
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: Longfellow Elementary, 400 Edith Blvd NE
Grading and Drainage Plan
Engineer's Stamp dated 6-23-06 (K14-D10)

Dear Mr. Juarez-Infante,

Based upon the information provided in your submittal received 5-19-06, the above referenced plan cannot be approved for Building Permit and Grading Permit until the following comments are addressed:

1. Please add pipe sizes and inverts at all appropriate locations for the intended infrastructure.
2. Please add dimensions for the drop inlets or reference COA Standards.
3. Add all build notes for infiltration gallery and outlets.
4. Are weep holes at grade? Why are you installing weep holes?

This plan needs to be constructible. If I have these types of questions so will the contractor. It is not prudent to make the contractor guess or figure out in the field what would be appropriate. If you have any questions, you can contact me at 924-3986.

Sincerely,

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

C: file

P.O. Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Longfellow Elementary School ZONE MAP/DRG. FILE#: K-14 / D10

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

LEGAL DESCRIPTION: 7/Longfellow Elementary School, 7, Belvidire Addition

CITY ADDRESS: 400 Edith Blvd, NE, Albuquerque NM 87102

ENGINEERING FIRM: Wilson & Company Inc., E&A CONTACT: Jesse Dickson
ADDRESS: 4900 Lang Ave. NW PHONE: (505) 348-4136
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: Albuquerque Public Schools CONTACT: Karen Alarid
ADDRESS: 915 Oak Street SE PHONE: (505) 848-8810
CITY, STATE: Albuquerque, NM ZIP CODE: 87106

ARCHITECT: Design Plus CONTACT: Rupal Engineer
ADDRESS: 2415 Princeton, Suite G-2 PHONE: (505) 843-7587
CITY, STATE: Albuquerque, NM ZIP CODE: 87107

SURVEYOR: N/A CONTACT: N/A
ADDRESS: N/A PHONE: N/A
CITY, STATE: N/A ZIP CODE: N/A

CONTRACTOR: N/A. CONTACT: N/A.
ADDRESS: N/A. PHONE: N/A.
CITY, STATE: N/A. ZIP CODE: N/A.

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
_✓_ DRAINAGE PLAN 1st SUBMITTAL, REQUIRES TCL OR EQUAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEERS CERTIFICATION (HYDROLOGY)
___ CLOMR\LOMR
_✓_ TRAFFIC CIRCULTAION LAYOUT (TCL)
___ ENGINEERS CERTIFICATION (TCL)
___ ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)
___ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
_✓_ NO

RECEIVED
MAY 19 2006
HYDROLOGY SECTION

Date Submitted: May 19, 2006 By: Jesse Dickson

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

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

WILSON
&COMPANY

4900 Lang Avenue, NE
Albuquerque, New Mexico 87109
(505) 348-4066
FAX (505) 348-4072

TRANSMITTAL

Date:	05/19/05
Job No.:	X4218064
Re:	Longfellow Elementary School

To: City of Albuquerque
Public Works – One Stop
Plaza Del Sol

Attn: _____

WE ARE SENDING YOU ☑ Attached ☐ Under Separate Cover via hand-deliver the following items:

☐ Shop Drawings ☑ Prints ☐ Correspondance ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐

Copies	Date	Pages/Sheets	Description
2	05/19/06	1	Grading & Drainage Plan
2	5/19/09	1	Traffic Circulation Layout
1	5/19/06	1	Drainage & Transportation Information Sheet

THESE ARE TRANSMITTED AS CHECKED BELOW:

☑ For approval/signature ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your File ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Return _____ copies ☐ Return _____ corrected prints
☑ For review and comment ☐ _____
☐ FOR BIDS DUE _____, 20___ ☐ PRINTS ON LOAN – RETURN TO WC*EA* AFTER BID

Remarks: If you have any questions or comments, please contact me.

COPY TO: File.
Bob Becker, APS

SIGNED: Jesse Dickson

RECEIVED BY: _____

DATE: _____

CITY OF ALBUQUERQUE

August 16, 2006

Mario Juarez-Infante, P.E.
Wilson & Company
4900 Lang Ave NW
Albuquerque, NM 87109

Re: 400 Edith Blvd NE, Longfellow Elementary School, Traffic Circulation Layout Engineer's Stamp dated 05-19-06 (K14-D10r)

Dear Mr. Infante,

Based upon the information provided in your submittal received 08-14-06, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. It is our understanding that APS is seeking additional parking off site. As well as, some issues with getting building approval.
2. This TCL will need to be submitted with the Lovelace Site Plan.

If you have any questions, you can contact me at 924-3991.

Sincerely,

Wilfred Gallegos, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services
C: file

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Longfellow Elementary School ZONE MAP/DRG. FILE#: K-14/D102

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

LEGAL DESCRIPTION: 7/Longfellow Elementary School, 7, Belvidire Addition

CITY ADDRESS: 400 Edith Blvd, NE, Albuquerque NM 87102

ENGINEERING FIRM: Wilson & Company Inc., E&A CONTACT: Jesse Dickson
ADDRESS: 4900 Lang Ave. NW PHONE: (505) 348-4136
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: Albuquerque Public Schools CONTACT: Karen Alarid
ADDRESS: 915 Oak Street SE PHONE: (505) 848-8810
CITY, STATE: Albuquerque, NM ZIP CODE: 87106

ARCHITECT: Design Plus CONTACT: Rupal Engineer
ADDRESS: 2415 Princeton, Suite G-2 PHONE: (505) 843-7587
CITY, STATE: Albuquerque, NM ZIP CODE: 87107

SURVEYOR: N/A CONTACT: N/A
ADDRESS: N/A PHONE: N/A
CITY, STATE: N/A ZIP CODE: N/A

CONTRACTOR: N/A. CONTACT: N/A.
ADDRESS: N/A. PHONE: N/A.
CITY, STATE: N/A. ZIP CODE: N/A.

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
___ DRAINAGE PLAN 1st SUBMITTAL, REQUIRES TCL OR EQUAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEERS CERTIFICATION (HYDROLOGY)
___ CLOMR\LOMR
_✓_ TRAFFIC CIRCULTAION LAYOUT (TCL)
___ ENGINEERS CERTIFICATION (TCL)
___ ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)
_✓_ OTHER: Resubmittal addressing comments dated 05/29/06

CHECK TYPE OF APPROVAL SOUGHT:

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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
_✓_ NO
_____

RECEIVED
AUG 14 2006
HYDROLOGY SECTION

Date Submitted: August 14, 2006 By: Mario Juarez-Infante

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

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2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

NEIGHBOR HO is intrusted / APS HELD up for Build
& understanding addit. PRK is elsewhere.

★ TCL done w/ LOVELACE SITEPLAN.

CITY OF ALBUQUERQUE

May 29, 2006

Mario Juarez-Infante, P.E.
Wilson & Company
4900 Lang Ave NW
Albuquerque, NM 87109

Re: 400 Edith Blvd NE, Longfellow Elementary School, Traffic Circulation Layout Engineer's Stamp dated 05-19-06 (K14-D10)

Dear Mr. Infante,

Based upon the information provided in your submittal received 02-17-06, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. Label the drive-pads as existing or proposed.
2. Please, refer to all appropriate City Standards; the drawing number should be included in this reference.
3. Provide the width for the sidewalk along Walter Street.
4. Include a vicinity map of site.
5. Provide Solid Waste approval.
6. Include pedestrian access to the site.
7. Label the queuing for the gates.
8. Clarify the degree of parking; see attached plan.
9. See attached plan for additional comments.

If you have any questions, you can contact me at 924-3630.

Sincerely,

Nilo Salgado-Fernandez, P.E.
Senior Engineer, Planning Dept.
Development and Building Services
C: file

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

RECEIVED
AUG 14 2006
HYDROLOGY SECTION

WILSON &COMPANY

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000
505-348-4055 Fax

August 12, 2006

Wilfred A. Gallegos, PE
Traffic Engineer, Planning Department
Plaza del Sol at 600 2nd St NW
Albuquerque, NM 87106

RE: 400 Edith Blvd. NE, Longfellow Elementary School, Traffic Circulation Layout Engineer's Stamp dated 05-19-06 (K14-D10)

Dear Mr. Gallegos:

Please accept this revised submittal in response to your comments dated May 19, 2006. Attached is a copy of the comments received from your department. Our response to each comment is as follows:

1. Existing drive-pads are labeled.
2. Where applicable, all City Standards are referenced.
3. Width of sidewalk along Walter Street is provided.
4. Vicinity Map is included.
5. Solid Waste Approval is Provided.
6. Pedestrian Access to the site from the parking lot is provided.
7. Queing length at gates are provided.
8. Degree of parking is clarified (i.e. revised degree symbol as "o".
9. Original plan with comments returned.

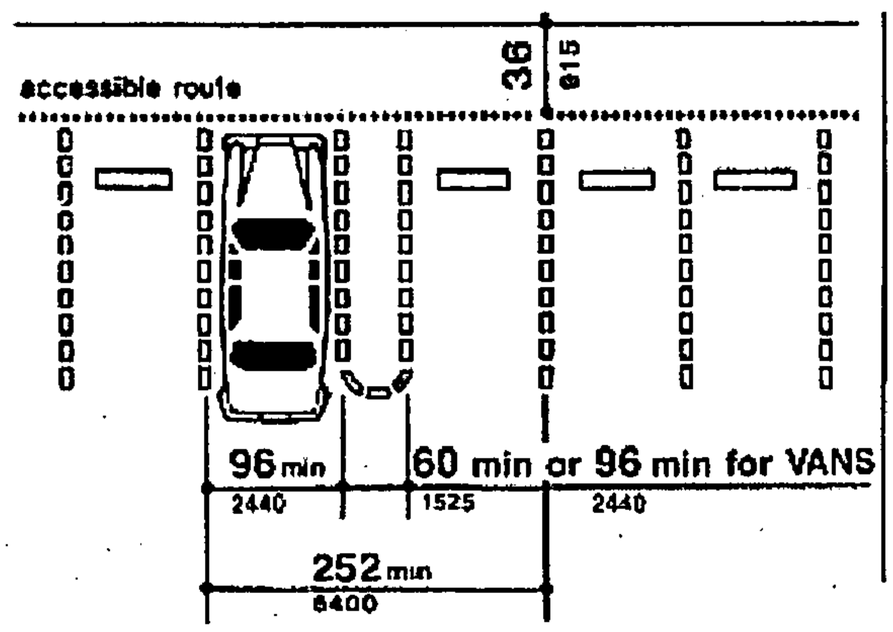

Figure 1: 4.6.3* Parking Spaces, title III of the Americans with Disabilities Act of 1990

Additionally, a question was raised about "*where are the additional parking spaces?*" This site cannot physically accommodate additional parking nor does this project address it. I default the answer or further discussion to Mr. Bob Becker, AIA, APS Staff Architect. Mr. Becker may be reached at 848-8835. Finally, a comment was made concerning accessible van. The layout complies with Van ADA guidelines, however, signage is added to designate.

If you have any questions, please do not hesitate to call me at mobile no. 715-2541. Thank you.

WILSON & COMPANY

Mario Juarez-Infante, PE, CFM
Project Manager

Enclosures: *COA letter dated May 29, 2006*

LONGFELLOW ELEMENTARY SCHOOL
AHYMO FILES

JUNE 2006

Prepared for:
Design Plus Architects
2415 Princeton NE, Suite G-2
Albuquerque, NM 87107

Prepared by:
Wilson & Company
4900 Lang Ave. NW
Albuquerque, NM 87109

LONGFELLOW ELEMENTARY SCHOOL
AHYMO FILES

JUNE 2006

Prepared for:
Design Plus Architects
2415 Princeton NE, Suite G-2
Albuquerque, NM 87107

Prepared by:
Wilson & Company
4900 Lang Ave. NW
Albuquerque, NM 87109

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

John A. Tellez
NMPE No. 16671

7-3-06
Date

```
* WMHS.DAT
*S EXISTING & PROPOSED CONDITION MODELS FOR WMHS DRAINAGE IMPROVEMENTS
*S BASINS AREAS DO NOT CHANGE FROM THE EXISTING TO PROPOSED CONDITION
*S PONDS ARE NAMED FOR THE BASINS IN WHICH THEY ARE LOCATED
START                TIME=0.0  PUNCH CODE=0 PRINT CODE=0
LOCATION             BERNALILLO COUNTY
*
* RAINFALL FROM NOAA COA DEVELOPMENT PROCESS MANUAL
*
*S*****************************************************************
*S 100 YEAR 24HR STORM
RAINFALL             TYPE=2   ONE DAY RAINFALL, NOAA ATLAS TWO
                     QUARTER=0.00 IN
                     HOUR=   1.87 IN
                     SIX HR= 2.20 IN
                     DAY=    2.66 IN   DT=0.05
* *S 10 YEAR 24HR STORM EXISTING CONDITION
*RAINFALL            TYPE=2   0.0  1.08   1.41  1.78      DT=0.1
*S
*S BASINS CONTRIBUTING TO POND 108
* **** SUB-BASIN 101 ****
* NW CORNER OF PARKING LOT @ NW CORNER OF SITE
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=381 FT  SLOPE=0.003  K=2.0
                     KN=0.021   CENTROID DIST=153 FT
COMPUTE NM HYD       ID=1   HYD NO=101   DA=0.0011 SQ MI
                     PER A=5 PER B=0  PER C=0  PER D=95
                     TP=0.0   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*
* **** SUB-BASIN 102 ****
* PARKING LOT @ NW CORNER OF SITE
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=955 FT  SLOPE=0.005  K=2.0
                     KN=0.021   CENTROID DIST=377 FT
COMPUTE NM HYD       ID=2   HYD NO=102   DA=0.01 SQ MI
                     PER A=5 PER B=10  PER C=0  PER D=85
                     TP=0.0   MASSRAIN=-1
PRINT HYD            ID=2   CODE=1
*
* ADD 101 TO 102 TO GET 102.1
ADD HYD              ID=3  HYD NO=102.1  ID I=1   ID II=2
PRINT HYD            ID=3   CODE=1
*
* ROUTE 102.1 THRU 108 IN V-DITCH TO 108.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5096     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.030           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100      10  5096
                        20  5100
ROUTE MCUNGE         ID=4   HYD NO=108.1  INFLOW ID=3
                     DT=0.0   L=570 FT   NS=0   SLOPE=0.005
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD            ID=4   CODE=1
*
* **** SUB-BASIN 108 ****
* WEST BASEBALL FIELD
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
```

```
                                                WMHS.DAT
                        LENGTH=423 FT  SLOPE=0.004  K=2.0
                        KN=0.021   CENTROID DIST=220 FT
COMPUTE NM HYD          ID=1   HYD NO=108   DA=0.0035 SQ MI
                        PER A=70 PER B=25  PER C=0  PER D=5
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=1   CODE=1
*
* ADD 108.1 TO 108 TO GET 108.2
ADD HYD                 ID=2  HYD NO=108.2  ID I=1   ID II=4
PRINT HYD               ID=2   CODE=1
*
*
*
*S BASINS CONTRIBUTING TO POND 111
* **** SUB-BASIN 111 ****
* EAST BASEBALL FIELD
COMPUTE LT TP           LCODE=1   UPLAND/LAG TIME METHOD
                        NK=1   ISLOPE=0
                        LENGTH=382 FT  SLOPE=0.012  K=2.0
                        KN=0.021   CENTROID DIST=209 FT
COMPUTE NM HYD          ID=1   HYD NO=111   DA=.0034 SQ MI
                        PER A=75 PER B=15  PER C=5  PER D=5
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=1   CODE=1
*
*
*
*S BASINS CONTRIBUTING TO POND 107
* **** SUB-BASIN 107 ****
* MAIN BLDG
COMPUTE LT TP           LCODE=1   UPLAND/LAG TIME METHOD
                        NK=1   ISLOPE=0
                        LENGTH=373 FT  SLOPE=0.01  K=2.0
                        KN=0.021   CENTROID DIST=237 FT
COMPUTE NM HYD          ID=1   HYD NO=107   DA=.004 SQ MI
                        PER A=35 PER B=15  PER C=5  PER D=45
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=1   CODE=1
*
*
*
*
*S BASINS CONTRIBUTING TO POND 110
* **** SUB-BASIN 103 ****
* SW CORNER OF SITE
COMPUTE LT TP           LCODE=1   UPLAND/LAG TIME METHOD
                        NK=1   ISLOPE=0
                        LENGTH=1667 FT  SLOPE=0.004  K=2.0
                        KN=0.021   CENTROID DIST=337 FT
COMPUTE NM HYD          ID=3   HYD NO=103   DA=0.0099 SQ MI
                        PER A=5 PER B=10  PER C=0  PER D=85
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=3   CODE=1
*
* **** SUB-BASIN 104 ****
* COURTYARD AREA
COMPUTE LT TP           LCODE=1   UPLAND/LAG TIME METHOD
                        NK=1   ISLOPE=0
                        LENGTH=282 FT  SLOPE=0.007  K=2.0
                        KN=0.021   CENTROID DIST=146 FT
COMPUTE NM HYD          ID=1   HYD NO=104   DA=0.0015 SQ MI
                        PER A=0 PER B=45  PER C=10  PER D=55
                        TP=0.0   MASSRAIN=-1
```

```
PRINT HYD              ID=1   CODE=1
*
* ROUTE 104 THRU 105 IN OPEN CHANNEL TO 105.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5097     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.015           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100       0  5099
                        10  5097      20  5099
                        20  5100
ROUTE MCUNGE          ID=2   HYD NO=105.1  INFLOW ID=1
                      DT=0.0   L=270 FT   NS=0   SLOPE=0.005
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD             ID=2   CODE=1
*
* **** SUB-BASIN 105 ****
* FRONT YARD AND PARKING AREA
COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
                      NK=1   ISLOPE=0
                      LENGTH=430 FT  SLOPE=0.007  K=2.0
                      KN=0.021   CENTROID DIST=220 FT
COMPUTE NM HYD        ID=4   HYD NO=105   DA=0.0018 SQ MI
                      PER A=15 PER B=0  PER C=0  PER D=85
                      TP=0.0   MASSRAIN=-1
PRINT HYD             ID=4   CODE=1
*
* ADD 103 TO 105 TO GET 105.2
ADD HYD               ID=1  HYD NO=105.2  ID I=3   ID II=4
PRINT HYD             ID=1   CODE=1
*
* ADD 105.1 TO 105.2 TO GET 105.3
ADD HYD               ID=3  HYD NO=105.3  ID I=1   ID II=2
PRINT HYD             ID=3   CODE=1
*
* ROUTE 104 THRU 105 IN OPEN CHANNEL TO 105.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5097     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.015           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100       0  5099
                        10  5097      20  5099
                        20  5100
ROUTE MCUNGE          ID=4   HYD NO=110.1  INFLOW ID=3
                      DT=0.0   L=500 FT   NS=0   SLOPE=0.005
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD             ID=4   CODE=1
*
* **** SUB-BASIN 110 ****
* SOUTH HALF OF SOCCER FIELD
COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
                      NK=1   ISLOPE=0
                      LENGTH=497 FT  SLOPE=0.008  K=2.0
                      KN=0.021   CENTROID DIST=301 FT
COMPUTE NM HYD        ID=5   HYD NO=110   DA=0.005 SQ MI
                      PER A=90 PER B=0  PER C=5  PER D=5
                      TP=0.0   MASSRAIN=-1
PRINT HYD             ID=5   CODE=1
*
* **** SUB-BASIN 112 ****
* WEST SIDE OF TRACK & FIELD
COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
```

```
                    NK=1   ISLOPE=0
                    LENGTH=318 FT  SLOPE=0.006  K=2.0
                    KN=0.021   CENTROID DIST=266 FT
COMPUTE NM HYD      ID=1   HYD NO=112   DA=0.002 SQ MI
                    PER A=95 PER B=0  PER C=0  PER D=5
                    TP=0.0   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*
* **** SUB-BASIN 113 ****
* EAST SIDE OF TRACK & FIELD
COMPUTE LT TP       LCODE=1   UPLAND/LAG TIME METHOD
                    NK=1   ISLOPE=0
                    LENGTH=315 FT  SLOPE=0.006  K=2.0
                    KN=0.021   CENTROID DIST=273 FT
COMPUTE NM HYD      ID=2   HYD NO=113   DA=0.0023 SQ MI
                    PER A=95 PER B=0  PER C=0  PER D=5
                    TP=0.0   MASSRAIN=-1
PRINT HYD           ID=2   CODE=1
*
* ADD 112 TO 113 TO GET 110.2
ADD HYD             ID=3  HYD NO=113.1  ID I=1   ID II=2
PRINT HYD           ID=3   CODE=1
*
* ADD 110.1 TO 110.2 TO GET 110.3
ADD HYD             ID=1  HYD NO=110.3  ID I=3   ID II=4
PRINT HYD           ID=1   CODE=1
*
* ADD 110 TO 110.3 TO GET 110.4
ADD HYD             ID=2  HYD NO=110.4  ID I=1   ID II=5
PRINT HYD           ID=2   CODE=1
*
*
*
*
*S BASINS CONTRIBUTING TO POND 109
* **** SUB-BASIN 106 ****
* TENNIS & BASKETBALL COURTS
COMPUTE LT TP       LCODE=1   UPLAND/LAG TIME METHOD
                    NK=1   ISLOPE=0
                    LENGTH=863 FT  SLOPE=0.005  K=2.0
                    KN=0.021   CENTROID DIST=492 FT
COMPUTE NM HYD      ID=1   HYD NO=106   DA=0.0076 SQ MI
                    PER A=35 PER B=15  PER C=5  PER D=45
                    TP=0.0   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*
* ROUTE 106 THRU 109 IN OPEN CHANNEL TO 109.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5096     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.035           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100      10  5096
                        20  5100
ROUTE MCUNGE        ID=2   HYD NO=109.1  INFLOW ID=1
                    DT=0.0   L=680 FT   NS=0   SLOPE=0.005
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD           ID=2   CODE=1
*
* **** SUB-BASIN 109 ****
* NORTH HALF OF SOCCER FIELD
COMPUTE LT TP       LCODE=1   UPLAND/LAG TIME METHOD
                    NK=1   ISLOPE=0
```

```
                                                WMHS.DAT
                        LENGTH=689 FT  SLOPE=0.006  K=2.0
                        KN=0.021   CENTROID DIST=321 FT
COMPUTE NM HYD          ID=3   HYD NO=109   DA=0.0058 SQ MI
                        PER A=75 PER B=15  PER C=5  PER D=5
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=3   CODE=1
*
* ADD 109.1 TO 109 TO GET 109.2
ADD HYD                 ID=1  HYD NO=109.2  ID I=2   ID II=3
PRINT HYD               ID=1   CODE=1
*
FINISH
```

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02c RUN DATE (MON/DAY/YR) =06/30/2006
INPUT FILE = WMHS.DAT USER NO.= AHYMO-C-9803c01UNMLIB-AH

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION	
*S EXISTING & PROPOSED CONDITION MODELS FOR WMHS DRAINAGE IMPROVEMENTS											
*S BASINS AREAS DO NOT CHANGE FROM THE EXISTING TO PROPOSED CONDITION											
*S PONDS ARE NAMED FOR THE BASINS IN WHICH THEY ARE LOCATED											
START										TIME=	.00
LOCATION	BERNALILLO COUNTY										
*S**********											
*S 100 YEAR 24HR STORM											
RAINFALL TYPE= 2										RAIN24=	2.660
*S											
*S BASINS CONTRIBUTING TO POND 108											
COMPUTE NM HYD	101.00	-	1	.00110	2.93	.137	2.32785	1.500	4.166	PER IMP=	95.00
COMPUTE NM HYD	102.00	-	2	.01000	25.06	1.147	2.15031	1.500	3.915	PER IMP=	85.00
ADD HYD	102.10	1& 2	3	.01110	27.99	1.283	2.16785	1.500	3.940		
ROUTE MCUNGE	108.10	3	4	.01110	27.33	1.283	2.16734	1.550	3.847	CCODE =	.2
COMPUTE NM HYD	108.00	-	1	.00350	3.58	.110	.58809	1.500	1.600	PER IMP=	5.00
ADD HYD	108.20	1& 4	2	.01460	30.75	1.393	1.78869	1.550	3.291		
*S BASINS CONTRIBUTING TO POND 111											
COMPUTE NM HYD	111.00	-	1	.00340	3.48	.107	.58809	1.500	1.598	PER IMP=	5.00
*S BASINS CONTRIBUTING TO POND 107											
COMPUTE NM HYD	107.00	-	1	.00400	7.19	.295	1.38474	1.500	2.807	PER IMP=	45.00
*S BASINS CONTRIBUTING TO POND 110											
COMPUTE NM HYD	103.00	-	3	.00990	18.50	1.135	2.15031	1.600	2.919	PER IMP=	85.00
COMPUTE NM HYD	104.00	-	1	.00150	3.11	.126	1.57240	1.500	3.244	PER IMP=	50.00
ROUTE MCUNGE	105.10	1	2	.00150	3.02	.126	1.57267	1.500	3.141	CCODE =	.2
COMPUTE NM HYD	105.00	-	4	.00180	4.44	.204	2.12906	1.500	3.856	PER IMP=	85.00
ADD HYD	105.20	3& 4	1	.01170	21.51	1.340	2.14697	1.600	2.873		
ADD HYD	105.30	1& 2	3	.01320	23.97	1.465	2.08165	1.600	2.838		
ROUTE MCUNGE	110.10	3	4	.01320	23.86	1.464	2.07963	1.600	2.824	CCODE =	.1
COMPUTE NM HYD	110.00	-	5	.00500	4.80	.149	.55707	1.500	1.499	PER IMP=	5.00
COMPUTE NM HYD	112.00	-	1	.00200	1.85	.057	.53875	1.500	1.446	PER IMP=	5.00
COMPUTE NM HYD	113.00	-	2	.00230	2.13	.066	.53875	1.500	1.445	PER IMP=	5.00
ADD HYD	113.10	1& 2	3	.00430	3.98	.124	.53867	1.500	1.445		
ADD HYD	110.30	3& 4	1	.01750	26.97	1.588	1.70095	1.600	2.408		
ADD HYD	110.40	1& 5	2	.02250	30.72	1.736	1.44675	1.600	2.133		
*S BASINS CONTRIBUTING TO POND 109											
COMPUTE NM HYD	106.00	-	1	.00760	13.64	.561	1.38474	1.500	2.804	PER IMP=	45.00
ROUTE MCUNGE	109.10	1	2	.00760	13.04	.561	1.38383	1.550	2.680	CCODE =	.2
COMPUTE NM HYD	109.00	-	3	.00580	5.92	.182	.58809	1.500	1.595	PER IMP=	5.00
ADD HYD	109.20	2& 3	1	.01340	18.69	.743	1.03933	1.550	2.180		
FINISH											

```
    AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02c
         RUN DATE (MON/DAY/YR) = 06/30/2006
         START TIME (HR:MIN:SEC) = 14:52:20     USER NO.= AHYMO-C-9803c01UNMLIB-AH
         INPUT FILE = WMHS.DAT

* WMHS.DAT
*S EXISTING & PROPOSED CONDITION MODELS FOR WMHS DRAINAGE IMPROVEMENTS
*S BASINS AREAS DO NOT CHANGE FROM THE EXISTING TO PROPOSED CONDITION
*S PONDS ARE NAMED FOR THE BASINS IN WHICH THEY ARE LOCATED
START                TIME=0.0  PUNCH CODE=0 PRINT CODE=0
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

*
* RAINFALL FROM NOAA COA DEVELOPMENT PROCESS MANUAL
*
*S**************************************************************************
*S 100 YEAR 24HR STORM
RAINFALL             TYPE=2   ONE DAY RAINFALL, NOAA ATLAS TWO
                     QUARTER=0.00 IN
                     HOUR=   1.87 IN
                     SIX HR= 2.20 IN
                     DAY=    2.66 IN   DT=0.05

COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT =     .050000 HOURS          END TIME =    24.000000 HOURS
   .0000   .0025   .0050   .0076   .0103   .0131   .0160
   .0190   .0222   .0254   .0289   .0324   .0362   .0401
   .0443   .0487   .0534   .0584   .0637   .0695   .0758
   .0837   .0924   .1176   .1773   .2798   .4384   .6668
   .9790  1.2253  1.3366  1.4295  1.5109  1.5836  1.6495
  1.7096  1.7648  1.8156  1.8624  1.9057  1.9458  1.9548
  1.9631  1.9708  1.9780  1.9848  1.9912  1.9973  2.0031
  2.0087  2.0140  2.0191  2.0240  2.0287  2.0333  2.0377
  2.0420  2.0462  2.0502  2.0542  2.0580  2.0617  2.0653
  2.0689  2.0724  2.0757  2.0791  2.0823  2.0855  2.0886
  2.0916  2.0946  2.0976  2.1005  2.1033  2.1061  2.1088
  2.1115  2.1142  2.1168  2.1193  2.1219  2.1244  2.1268
  2.1293  2.1316  2.1340  2.1363  2.1386  2.1409  2.1431
  2.1453  2.1475  2.1497  2.1518  2.1539  2.1560  2.1580
  2.1601  2.1621  2.1641  2.1660  2.1680  2.1699  2.1718
  2.1737  2.1756  2.1774  2.1793  2.1811  2.1829  2.1847
  2.1864  2.1882  2.1899  2.1916  2.1933  2.1950  2.1967
  2.1984  2.2000  2.2020  2.2039  2.2059  2.2078  2.2097
  2.2117  2.2136  2.2155  2.2174  2.2193  2.2212  2.2231
  2.2249  2.2268  2.2287  2.2305  2.2324  2.2342  2.2361
  2.2379  2.2398  2.2416  2.2434  2.2452  2.2470  2.2488
  2.2506  2.2524  2.2542  2.2559  2.2577  2.2595  2.2612
  2.2630  2.2647  2.2665  2.2682  2.2700  2.2717  2.2734
  2.2751  2.2768  2.2785  2.2802  2.2819  2.2836  2.2853
  2.2870  2.2887  2.2903  2.2920  2.2937  2.2953  2.2970
  2.2986  2.3002  2.3019  2.3035  2.3051  2.3068  2.3084
  2.3100  2.3116  2.3132  2.3148  2.3164  2.3180  2.3196
  2.3212  2.3227  2.3243  2.3259  2.3274  2.3290  2.3305
  2.3321  2.3336  2.3352  2.3367  2.3383  2.3398  2.3413
  2.3428  2.3444  2.3459  2.3474  2.3489  2.3504  2.3519
  2.3534  2.3549  2.3563  2.3578  2.3593  2.3608  2.3622
  2.3637  2.3652  2.3666  2.3681  2.3695  2.3710  2.3724
  2.3739  2.3753  2.3767  2.3782  2.3796  2.3810  2.3824
  2.3839  2.3853  2.3867  2.3881  2.3895  2.3909  2.3923
  2.3937  2.3951  2.3965  2.3978  2.3992  2.4006  2.4020
  2.4033  2.4047  2.4061  2.4074  2.4088  2.4101  2.4115
  2.4128  2.4142  2.4155  2.4168  2.4182  2.4195  2.4208
  2.4222  2.4235  2.4248  2.4261  2.4274  2.4287  2.4300
  2.4314  2.4327  2.4340  2.4352  2.4365  2.4378  2.4391
  2.4404  2.4417  2.4430  2.4442  2.4455  2.4468  2.4480
  2.4493  2.4506  2.4518  2.4531  2.4543  2.4556  2.4568
  2.4581  2.4593  2.4606  2.4618  2.4630  2.4643  2.4655
  2.4667  2.4680  2.4692  2.4704  2.4716  2.4728  2.4740
  2.4753  2.4765  2.4777  2.4789  2.4801  2.4813  2.4825
  2.4837  2.4849  2.4860  2.4872  2.4884  2.4896  2.4908
  2.4919  2.4931  2.4943  2.4955  2.4966  2.4978  2.4990
  2.5001  2.5013  2.5024  2.5036  2.5047  2.5059  2.5070
  2.5082  2.5093  2.5105  2.5116  2.5127  2.5139  2.5150
  2.5161  2.5172  2.5184  2.5195  2.5206  2.5217  2.5229
  2.5240  2.5251  2.5262  2.5273  2.5284  2.5295  2.5306
  2.5317  2.5328  2.5339  2.5350  2.5361  2.5372  2.5383
  2.5394  2.5404  2.5415  2.5426  2.5437  2.5448  2.5458
  2.5469  2.5480  2.5490  2.5501  2.5512  2.5522  2.5533
  2.5544  2.5554  2.5565  2.5575  2.5586  2.5596  2.5607
  2.5617  2.5628  2.5638  2.5649  2.5659  2.5669  2.5680
  2.5690  2.5700  2.5711  2.5721  2.5731  2.5741  2.5752
  2.5762  2.5772  2.5782  2.5792  2.5803  2.5813  2.5823
  2.5833  2.5843  2.5853  2.5863  2.5873  2.5883  2.5893
  2.5903  2.5913  2.5923  2.5933  2.5943  2.5953  2.5963
  2.5973  2.5982  2.5992  2.6002  2.6012  2.6022  2.6031
  2.6041  2.6051  2.6061  2.6070  2.6080  2.6090  2.6099
```

```
                2.6109  2.6119  2.6128  2.6138  2.6148  2.6157  2.6167
                2.6176  2.6186  2.6195  2.6205  2.6214  2.6224  2.6233
                2.6243  2.6252  2.6261  2.6271  2.6280  2.6290  2.6299
                2.6308  2.6318  2.6327  2.6336  2.6346  2.6355  2.6364
                2.6373  2.6383  2.6392  2.6401  2.6410  2.6419  2.6428
                2.6438  2.6447  2.6456  2.6465  2.6474  2.6483  2.6492
                2.6501  2.6510  2.6519  2.6528  2.6537  2.6546  2.6555
                2.6564  2.6573  2.6582  2.6591  2.6600

* *S 10 YEAR 24HR STORM EXISTING CONDITION
*RAINFALL            TYPE=2   0.0  1.08   1.41  1.78     DT=0.1
*S
*S BASINS CONTRIBUTING TO POND 108
* **** SUB-BASIN 101 ****
* NW CORNER OF PARKING LOT @ NW CORNER OF SITE
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=381 FT  SLOPE=0.003  K=2.0
                     KN=0.021   CENTROID DIST=153 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                                LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION               .0           .000000             .0000
     SHALLOW FLOW PORTION           381.0           .003000            2.0000
     CHANNEL FLOW PORTION             .0           .000000             .0000
     TOTAL BASIN                    381.0           .003000            2.0000


     TIME OF CONCENTRATION (HRS)=   .0966     TIME TO PEAK (HRS)=   .0644     LAG TIME (HRS)=   .0725


     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

COMPUTE NM HYD       ID=1   HYD NO=101   DA=0.0011 SQ MI
                     PER A=5 PER B=0  PER C=0  PER D=95
                     TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .1333

     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.1247    CFS   UNIT VOLUME =    .9966       B =   526.28      P60 = 1.8700
     AREA =      .001045 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .163724HR    TP =   .133333HR    K/TP RATIO =  1.227936     SHAPE CONSTANT, N =  2.899764
     UNIT PEAK =   .11284    CFS   UNIT VOLUME =    .8676       B =   273.54      P60 = 1.8700
     AREA =      .000055 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD            ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   101.00


    RUNOFF VOLUME =     2.32785 INCHES     =        .1366 ACRE-FEET
    PEAK DISCHARGE RATE =       2.93 CFS  AT   1.500 HOURS   BASIN AREA =   .0011 SQ. MI.


     *
     * **** SUB-BASIN 102 ****
     * PARKING LOT @ NW CORNER OF SITE
     COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                          NK=1   ISLOPE=0
                          LENGTH=955 FT  SLOPE=0.005  K=2.0
                          KN=0.021   CENTROID DIST=377 FT

          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                     LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION               .0           .000000             .0000
          SHALLOW FLOW PORTION           955.0           .005000            2.0000
          CHANNEL FLOW PORTION             .0           .000000             .0000
          TOTAL BASIN                    955.0           .005000            2.0000


          TIME OF CONCENTRATION (HRS)=   .1876     TIME TO PEAK (HRS)=   .1251     LAG TIME (HRS)=   .1407


          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

     COMPUTE NM HYD       ID=2   HYD NO=102   DA=0.01 SQ MI
                          PER A=5 PER B=10  PER C=0  PER D=85
                          TP=0.0   MASSRAIN=-1
```

```
      TIME TO PEAK (hrs)=   .1333

      K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
      UNIT PEAK =   33.550    CFS   UNIT VOLUME =    .9988       B =   526.28      P60 = 1.8700
      AREA =      .008500 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


      K =   .141924HR    TP =   .133333HR    K/TP RATIO =  1.064435     SHAPE CONSTANT, N =  3.317659
      UNIT PEAK =   3.4512    CFS   UNIT VOLUME =    .9960       B =   306.77      P60 = 1.8700
      AREA =      .001500 SQ MI    IA =    .55000 INCHES    INF =   1.39000 INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD            ID=2   CODE=1

                                 PARTIAL HYDROGRAPH   102.00


    RUNOFF VOLUME =     2.15031 INCHES     =       1.1468 ACRE-FEET
    PEAK DISCHARGE RATE =      25.06 CFS  AT   1.500 HOURS   BASIN AREA =   .0100 SQ. MI.


*
* ADD 101 TO 102 TO GET 102.1
ADD HYD              ID=3  HYD NO=102.1  ID I=1   ID II=2
PRINT HYD            ID=3   CODE=1

                                 PARTIAL HYDROGRAPH   102.10


    RUNOFF VOLUME =     2.16785 INCHES     =       1.2834 ACRE-FEET
    PEAK DISCHARGE RATE =      27.99 CFS  AT   1.500 HOURS   BASIN AREA =   .0111 SQ. MI.


*
* ROUTE 102.1 THRU 108 IN V-DITCH TO 108.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5096     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.030           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100      10  5096
                        20  5100

                                 RATING CURVE VALLEY SECTION  1.0
                                    WATER        FLOW         FLOW         TOP
                                   SURFACE       AREA         RATE        WIDTH
                                    ELEV        SQ FT         CFS         FT
                                  5096.00         .00          .00          .00
                                  5096.21         .11          .08         1.05
                                  5096.42         .44          .52         2.10
                                  5096.63        1.00         1.54         3.16
                                  5096.84        1.77         3.32         4.21
                                  5097.05        2.77         6.01         5.26
                                  5097.26        3.99         9.78         6.31
                                  5097.47        5.43        14.75         7.37
                                  5097.68        7.09        21.06         8.42
                                  5097.89        8.97        28.83         9.47
                                  5098.10       11.07        38.18        10.52
                                  5098.31       13.40        49.23        11.57
                                  5098.53       15.94        62.09        12.63
                                  5098.74       18.71        76.86        13.68
                                  5098.95       21.70        93.66        14.73
                                  5099.16       24.91       112.58        15.78
                                  5099.37       28.34       133.72        16.84
                                  5099.58       32.00       157.18        17.89
                                  5099.79       35.87       183.06        18.94
                                  5100.00       39.97       211.46        19.99
ROUTE MCUNGE         ID=4   HYD NO=108.1  INFLOW ID=3
                     DT=0.0   L=570 FT   NS=0   SLOPE=0.005
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

      INFLOW END= 497              TABLE PTS= 20
      DT=  .050000                 QMED=       13.99  CKMED=      3.4541
      WIDTH MED=        7.21       NREACH=  2         DX=       285.00

      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)
        .00      .0      .0      .292     .0     1.58     .34   1.000    .000   1.000    .000    .000      .0   1.000
.000   .000
        .21      .1      .1      .213    1.1     1.53     .74    .964    .036    .964    .000    .036      .0    .994
.000   .006
        .42      .4      .5      .134    2.1     1.64    1.18   1.036    .106    .901    .066    .033      .2    .941
.025   .035
        .63     1.0     1.5      .102    3.2     2.11    1.55   1.330    .163    .870    .198   -.067     1.0    .877
.126  -.003
        .84     1.8     3.3      .085    4.2     2.53    1.87   1.597    .219    .845    .290   -.134     2.3    .851
.241  -.092
       1.05     2.8     6.0      .073    5.3     2.92    2.17   1.846    .274    .824    .359   -.183     4.6    .830
.323  -.153
```

1.26	4.0	9.8	.065	6.3	3.29	2.45	2.079	.330	.806	.413	-.220	7.8	.811
.385	-.197												
1.47	5.4	14.8	.058	7.4	3.64	2.72	2.301	.386	.791	.457	-.248	12.2	.795
.435	-.230												
1.68	7.1	21.1	.053	8.4	3.98	2.97	2.512	.441	.777	.494	-.271	17.8	.781
.475	-.257												
1.89	9.0	28.8	.049	9.5	4.30	3.21	2.716	.497	.764	.525	-.289	24.8	.768
.509	-.278												
2.10	11.1	38.2	.046	10.5	4.61	3.45	2.912	.552	.753	.552	-.305	33.4	.756
.538	-.295												
2.31	13.4	49.2	.043	11.6	4.91	3.67	3.101	.608	.742	.575	-.317	43.6	.745
.563	-.309												
2.53	15.9	62.1	.041	12.6	5.20	3.89	3.286	.663	.732	.596	-.328	55.5	.735
.585	-.321												
2.74	18.7	76.9	.039	13.7	5.49	4.11	3.465	.719	.723	.614	-.337	69.3	.726
.605	-.331												
2.95	21.7	93.7	.037	14.7	5.76	4.32	3.640	.774	.714	.631	-.345	85.1	.717
.622	-.339												
3.16	24.9	112.6	.035	15.8	6.03	4.52	3.810	.830	.706	.645	-.351	103.0	.709
.638	-.347												
3.37	28.3	133.7	.034	16.8	6.30	4.72	3.977	.885	.698	.659	-.357	123.0	.701
.652	-.353												
3.58	32.0	157.2	.032	17.9	6.56	4.91	4.141	.941	.691	.671	-.362	145.3	.693
.665	-.358												
3.79	35.9	183.1	.031	18.9	6.81	5.10	4.301	.996	.684	.682	-.366	170.0	.686
.677	-.363												
4.00	40.0	211.5	.030	20.0	6.91	5.29	4.364	1.074	.666	.689	-.356	197.1	.680
.688	-.367												

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 12 TIMES. AVERAGE NUMBER ITERATIONS = 1.0607
Equations solved using the Ponce correction to C2
PRINT HYD ID=4 CODE=1

PARTIAL HYDROGRAPH 108.10

RUNOFF VOLUME = 2.16734 INCHES = 1.2831 ACRE-FEET
PEAK DISCHARGE RATE = 27.33 CFS AT 1.550 HOURS BASIN AREA = .0111 SQ. MI.

*
* **** SUB-BASIN 108 ****
* WEST BASEBALL FIELD
COMPUTE LT TP LCODE=1 UPLAND/LAG TIME METHOD
NK=1 ISLOPE=0
LENGTH=423 FT SLOPE=0.004 K=2.0
KN=0.021 CENTROID DIST=220 FT

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	.0	.000000	.0000
SHALLOW FLOW PORTION	423.0	.004000	2.0000
CHANNEL FLOW PORTION	.0	.000000	.0000
TOTAL BASIN	423.0	.004000	2.0000

TIME OF CONCENTRATION (HRS)= .0929 TIME TO PEAK (HRS)= .0619 LAG TIME (HRS)= .0697

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

COMPUTE NM HYD ID=1 HYD NO=108 DA=0.0035 SQ MI
PER A=70 PER B=25 PER C=0 PER D=5
TP=0.0 MASSRAIN=-1
TIME TO PEAK (hrs)= .1333

K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = .69074 CFS UNIT VOLUME = .9832 B = 526.28 P60 = 1.8700
AREA = .000175 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .155119HR TP = .133333HR K/TP RATIO = 1.163396 SHAPE CONSTANT, N = 3.047301
UNIT PEAK = 7.1236 CFS UNIT VOLUME = .9974 B = 285.66 P60 = 1.8700
AREA = .003325 SQ MI IA = .61053 INCHES INF = 1.55947 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 108.00

RUNOFF VOLUME = .58809 INCHES = .1098 ACRE-FEET
PEAK DISCHARGE RATE = 3.58 CFS AT 1.500 HOURS BASIN AREA = .0035 SQ. MI.

*

```
* ADD 108.1 TO 108 TO GET 108.2
ADD HYD              ID=2  HYD NO=108.2  ID I=1   ID II=4
PRINT HYD            ID=2   CODE=1

                                   PARTIAL HYDROGRAPH   108.20


    RUNOFF VOLUME =     1.78869 INCHES     =       1.3928 ACRE-FEET
    PEAK DISCHARGE RATE =      30.75 CFS  AT   1.550 HOURS   BASIN AREA =   .0146 SQ. MI.



*
*
*
*S BASINS CONTRIBUTING TO POND 111
* **** SUB-BASIN 111 ****
* EAST BASEBALL FIELD
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=382 FT  SLOPE=0.012  K=2.0
                     KN=0.021   CENTROID DIST=209 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION              .0          .000000             .0000
     SHALLOW FLOW PORTION          382.0          .012000            2.0000
     CHANNEL FLOW PORTION            .0          .000000             .0000
     TOTAL BASIN                   382.0          .012000            2.0000


     TIME OF CONCENTRATION (HRS)=   .0484     TIME TO PEAK (HRS)=   .0323     LAG TIME (HRS)=   .0363


     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

  COMPUTE NM HYD       ID=1   HYD NO=111   DA=.0034 SQ MI
                       PER A=75 PER B=15  PER C=5  PER D=5
                       TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .1333

     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   .67100    CFS   UNIT VOLUME =    .9832       B =   526.28      P60 = 1.8700
     AREA =      .000170 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .155517HR    TP =   .133333HR    K/TP RATIO =  1.166384     SHAPE CONSTANT, N =  3.040026
     UNIT PEAK =   6.9058    CFS   UNIT VOLUME =    .9971       B =   285.07      P60 = 1.8700
     AREA =      .003230 SQ MI    IA =    .61053 INCHES    INF =   1.55947 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

  PRINT HYD            ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   111.00


     RUNOFF VOLUME =      .58809 INCHES     =        .1066 ACRE-FEET
     PEAK DISCHARGE RATE =       3.48 CFS  AT   1.500 HOURS   BASIN AREA =   .0034 SQ. MI.

*
*
*
*S BASINS CONTRIBUTING TO POND 107
* **** SUB-BASIN 107 ****
* MAIN BLDG
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=373 FT  SLOPE=0.01  K=2.0
                     KN=0.021   CENTROID DIST=237 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION              .0          .000000             .0000
     SHALLOW FLOW PORTION          373.0          .010000            2.0000
     CHANNEL FLOW PORTION            .0          .000000             .0000
     TOTAL BASIN                   373.0          .010000            2.0000


     TIME OF CONCENTRATION (HRS)=   .0518     TIME TO PEAK (HRS)=   .0345     LAG TIME (HRS)=   .0389


     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
```

```
        REVISED VALUES: TIME OF CONCENTRATION (HRS)=    .2000     TIME TO PEAK (HRS)=    .1333     LAG TIME (HRS)=
.1500

    COMPUTE NM HYD       ID=1   HYD NO=107   DA=.004 SQ MI
                         PER A=35 PER B=15  PER C=5  PER D=45
                         TP=0.0   MASSRAIN=-1
        TIME TO PEAK (hrs)=   .1333

        K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
        UNIT PEAK =   7.1047    CFS   UNIT VOLUME =    .9975       B =   526.28      P60 = 1.8700
        AREA =      .001800 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
        RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


        K =   .149549HR    TP =   .133333HR    K/TP RATIO =  1.121619     SHAPE CONSTANT, N =  3.154190
        UNIT PEAK =   4.8537    CFS   UNIT VOLUME =    .9968       B =   294.16      P60 = 1.8700
        AREA =      .002200 SQ MI    IA =    .58182 INCHES    INF =   1.47909 INCHES PER HOUR
        RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

    PRINT HYD            ID=1   CODE=1

                                    PARTIAL HYDROGRAPH   107.00


      RUNOFF VOLUME =     1.38474 INCHES     =        .2954 ACRE-FEET
      PEAK DISCHARGE RATE =       7.19 CFS  AT   1.500 HOURS   BASIN AREA =   .0040 SQ. MI.

*
*
*
*
*S BASINS CONTRIBUTING TO POND 110
* **** SUB-BASIN 103 ****
* SW CORNER OF SITE
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=1667 FT  SLOPE=0.004  K=2.0
                     KN=0.021   CENTROID DIST=337 FT

     TC AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0          .000000             .0000
     SHALLOW FLOW PORTION        1667.0          .004000            2.0000
     CHANNEL FLOW PORTION           .0          .000000             .0000
     TOTAL BASIN                 1667.0          .004000            2.0000


     TIME OF CONCENTRATION (HRS)=   .3661     TIME TO PEAK (HRS)=    .2441     LAG TIME (HRS)=    .2746

COMPUTE NM HYD       ID=3   HYD NO=103   DA=0.0099 SQ MI
                     PER A=5 PER B=10  PER C=0  PER D=85
                     TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .2441

     K =   .133008HR    TP =   .244052HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   18.146    CFS   UNIT VOLUME =    .9992       B =   526.28      P60 = 1.8700
     AREA =      .008415 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .259777HR    TP =   .244052HR    K/TP RATIO =  1.064435     SHAPE CONSTANT, N =  3.317659
     UNIT PEAK =   1.8666    CFS   UNIT VOLUME =    .9926       B =   306.77      P60 = 1.8700
     AREA =      .001485 SQ MI    IA =    .55000 INCHES    INF =   1.39000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD            ID=3   CODE=1

                                PARTIAL HYDROGRAPH   103.00


    RUNOFF VOLUME =     2.15031 INCHES     =        1.1354 ACRE-FEET
    PEAK DISCHARGE RATE =      18.50 CFS  AT   1.600 HOURS   BASIN AREA =   .0099 SQ. MI.



*
* **** SUB-BASIN 104 ****
* COURTYARD AREA
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=282 FT  SLOPE=0.007  K=2.0
                     KN=0.021   CENTROID DIST=146 FT

     TC AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0          .000000             .0000
     SHALLOW FLOW PORTION         282.0          .007000            2.0000
```

CHANNEL FLOW PORTION .0 .000000 .0000
TOTAL BASIN 282.0 .007000 2.0000

TIME OF CONCENTRATION (HRS)= .0468 TIME TO PEAK (HRS)= .0312 LAG TIME (HRS)= .0351

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

COMPUTE NM HYD ID=1 HYD NO=104 DA=0.0015 SQ MI
PER A=0 PER B=45 PER C=10 PER D=55
TP=0.0 MASSRAIN=-1
TIME TO PEAK (hrs)= .1333
*****WARNING***** SUM OF TREATMENT TYPES DOES NOT EQUAL 100 PERCENT OR TOTAL AREA

K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 2.9603 CFS UNIT VOLUME = .9959 B = 526.28 P60 = 1.8700
AREA = .000750 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .126455HR TP = .133333HR K/TP RATIO = .948415 SHAPE CONSTANT, N = 3.727038
UNIT PEAK = 1.8930 CFS UNIT VOLUME = .9947 B = 336.54 P60 = 1.8700
AREA = .000750 SQ MI IA = .47273 INCHES INF = 1.17364 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 104.00

RUNOFF VOLUME = 1.57240 INCHES = .1258 ACRE-FEET
PEAK DISCHARGE RATE = 3.11 CFS AT 1.500 HOURS BASIN AREA = .0015 SQ. MI.

*
* ROUTE 104 THRU 105 IN OPEN CHANNEL TO 105.1
COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1
MIN ELEV=5097 MAX ELEV=5100
CH SLOPE=0.005 FP SLOPE=0.005
N=0.015 DIST=20

DIST	ELEV
0	5100
10	5097
20	5100

DIST	ELEV
0	5099
20	5099

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
5097.00	.00	.00	.00
5097.16	.12	.16	1.58
5097.32	.50	1.00	3.15
5097.47	1.12	2.96	4.73
5097.63	1.99	6.38	6.31
5097.79	3.11	11.56	7.89
5097.95	4.48	18.80	9.46
5098.10	6.09	28.35	11.04
5098.26	7.96	40.48	12.62
5098.42	10.07	55.42	14.19
5098.58	12.44	73.40	15.77
5098.73	15.05	94.64	17.35
5098.89	17.91	119.35	18.93
5099.05	21.01	149.82	20.00
5099.21	24.16	188.20	20.00
5099.37	27.31	229.73	20.00
5099.52	30.47	274.24	20.00
5099.68	33.62	321.56	20.00
5099.84	36.78	371.55	20.00
5100.00	39.93	424.06	20.00

ROUTE MCUNGE ID=2 HYD NO=105.1 INFLOW ID=1
DT=0.0 L=270 FT NS=0 SLOPE=0.005
MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

INFLOW END= 487 TABLE PTS= 20
DT= .050000 QMED= 1.56 CKMED= 3.1458
WIDTH MED= 3.60 NREACH= 1 DX= 270.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.081	.0	1.50	.58	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.16	.1	.2	.059	1.6	1.77	1.27	1.182	.042	.962	.101	-.063	.0	.994	.016	-.010
.32	.5	1.0	.037	3.2	2.81	2.02	1.872	.084	.943	.323	-.266	.5	.947	.210	-.157
.47	1.1	3.0	.028	4.7	3.60	2.64	2.402	.129	.927	.434	-.361	1.8	.930		

.372	-.302													
	.63	2.0	6.4	.023	6.3	4.33	3.20	2.885	.173	.915	.507	-.422	4.5	.917
.467	-.385													
	.79	3.1	11.6	.020	7.9	5.00	3.72	3.334	.217	.905	.561	-.465	8.8	.907
.532	-.439													
	.95	4.5	18.8	.018	9.5	5.63	4.20	3.756	.261	.896	.601	-.497	15.0	.898
.580	-.478													
	1.10	6.1	28.4	.016	11.0	6.23	4.65	4.156	.305	.888	.634	-.522	23.4	.890
.617	-.507													
	1.26	8.0	40.5	.015	12.6	6.81	5.09	4.538	.349	.881	.660	-.542	34.2	.883
.646	-.530													
	1.42	10.1	55.4	.014	14.2	7.36	5.50	4.905	.393	.875	.682	-.558	47.7	.877
.671	-.548													
	1.58	12.4	73.4	.013	15.8	7.89	5.90	5.260	.437	.869	.701	-.571	64.2	.871
.692	-.563													
	1.73	15.0	94.6	.012	17.3	8.40	6.29	5.602	.481	.864	.718	-.582	83.8	.866
.709	-.575													
	1.89	17.9	119.4	.011	18.9	9.21	6.66	6.143	.507	.867	.739	-.606	106.7	.861
.725	-.585													
	2.05	21.0	149.8	.011	20.0	10.85	7.13	7.232	.512	.883	.771	-.654	134.3	.873
.754	-.627													
	2.21	24.2	188.2	.010	20.0	12.68	7.79	8.452	.550	.890	.800	-.690	168.6	.893
.792	-.686													
	2.37	27.3	229.7	.009	20.0	13.65	8.41	9.100	.623	.884	.813	-.697	208.6	.887
.807	-.694													
	2.52	30.5	274.2	.008	20.0	14.56	9.00	9.710	.697	.878	.825	-.702	251.6	.881
.819	-.700													
	2.68	33.6	321.6	.008	20.0	15.43	9.56	10.288	.772	.872	.834	-.706	297.5	.875
.830	-.704													
	2.84	36.8	371.5	.007	20.0	16.25	10.10	10.836	.847	.867	.842	-.709	346.2	.869
.838	-.708													
	3.00	39.9	424.1	.007	20.0	17.04	10.62	11.362	.922	.861	.849	-.711	397.5	.864
.846	-.710													

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 2 OCCURRED 21 TIMES. AVERAGE NUMBER ITERATIONS = 1.0364
Equations solved using the Ponce correction to C2
PRINT HYD ID=2 CODE=1

PARTIAL HYDROGRAPH 105.10

RUNOFF VOLUME = 1.57267 INCHES = .1258 ACRE-FEET
PEAK DISCHARGE RATE = 3.02 CFS AT 1.500 HOURS BASIN AREA = .0015 SQ. MI.

*
* **** SUB-BASIN 105 ****
* FRONT YARD AND PARKING AREA
COMPUTE LT TP LCODE=1 UPLAND/LAG TIME METHOD
NK=1 ISLOPE=0
LENGTH=430 FT SLOPE=0.007 K=2.0
KN=0.021 CENTROID DIST=220 FT

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	.0	.000000	.0000
SHALLOW FLOW PORTION	430.0	.007000	2.0000
CHANNEL FLOW PORTION	.0	.000000	.0000
TOTAL BASIN	430.0	.007000	2.0000

TIME OF CONCENTRATION (HRS)= .0714 TIME TO PEAK (HRS)= .0476 LAG TIME (HRS)= .0535

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

COMPUTE NM HYD ID=4 HYD NO=105 DA=0.0018 SQ MI
PER A=15 PER B=0 PER C=0 PER D=85
TP=0.0 MASSRAIN=-1
TIME TO PEAK (hrs)= .1333

K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 6.0390 CFS UNIT VOLUME = .9975 B = 526.28 P60 = 1.8700
AREA = .001530 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .163724HR TP = .133333HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899764
UNIT PEAK = .55393 CFS UNIT VOLUME = .9727 B = 273.54 P60 = 1.8700
AREA = .000270 SQ MI IA = .65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=4 CODE=1

PARTIAL HYDROGRAPH 105.00

RUNOFF VOLUME = 2.12906 INCHES = .2044 ACRE-FEET

PEAK DISCHARGE RATE = 4.44 CFS AT 1.500 HOURS BASIN AREA = .0018 SQ. MI.

*
* ADD 103 TO 105 TO GET 105.2
ADD HYD ID=1 HYD NO=105.2 ID I=3 ID II=4
PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 105.20

RUNOFF VOLUME = 2.14697 INCHES = 1.3397 ACRE-FEET
PEAK DISCHARGE RATE = 21.51 CFS AT 1.600 HOURS BASIN AREA = .0117 SQ. MI.

*
* ADD 105.1 TO 105.2 TO GET 105.3
ADD HYD ID=3 HYD NO=105.3 ID I=1 ID II=2
PRINT HYD ID=3 CODE=1

PARTIAL HYDROGRAPH 105.30

RUNOFF VOLUME = 2.08165 INCHES = 1.4655 ACRE-FEET
PEAK DISCHARGE RATE = 23.97 CFS AT 1.600 HOURS BASIN AREA = .0132 SQ. MI.

*
* ROUTE 104 THRU 105 IN OPEN CHANNEL TO 105.1
COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1
MIN ELEV=5097 MAX ELEV=5100
CH SLOPE=0.005 FP SLOPE=0.005
N=0.015 DIST=20

DIST	ELEV	DIST	ELEV
0	5100	0	5099
10	5097	20	5099
20	5100		

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
5097.00	.00	.00	.00
5097.16	.12	.16	1.58
5097.32	.50	1.00	3.15
5097.47	1.12	2.96	4.73
5097.63	1.99	6.38	6.31
5097.79	3.11	11.56	7.89
5097.95	4.48	18.80	9.46
5098.10	6.09	28.35	11.04
5098.26	7.96	40.48	12.62
5098.42	10.07	55.42	14.19
5098.58	12.44	73.40	15.77
5098.73	15.05	94.64	17.35
5098.89	17.91	119.35	18.93
5099.05	21.01	149.82	20.00
5099.21	24.16	188.20	20.00
5099.37	27.31	229.73	20.00
5099.52	30.47	274.24	20.00
5099.68	33.62	321.56	20.00
5099.84	36.78	371.55	20.00
5100.00	39.93	424.06	20.00

ROUTE MCUNGE ID=4 HYD NO=110.1 INFLOW ID=3
DT=0.0 L=500 FT NS=0 SLOPE=0.005
MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

INFLOW END= 511 TABLE PTS= 20
DT= .050000 QMED= 11.99 CKMED= 5.2902
WIDTH MED= 7.98 NREACH= 1 DX= 500.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.150	.0	2.78	.58	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.16	.1	.2	.109	1.6	2.74	1.27	.985	.015	.985	.000	.015	.0	.998	.000	.002
.32	.5	1.0	.069	3.2	2.81	2.02	1.011	.045	.956	.027	.017	.5	.974	.010	.015
.47	1.1	3.0	.053	4.7	3.60	2.64	1.297	.069	.941	.155	-.096	1.8	.945	.083	-.027
.63	2.0	6.4	.043	6.3	4.33	3.20	1.558	.093	.930	.246	-.175	4.5	.933	.196	-.129
.79	3.1	11.6	.037	7.9	5.00	3.72	1.800	.117	.920	.315	-.234	8.8	.922	.278	-.200
.95	4.5	18.8	.033	9.5	5.63	4.20	2.028	.141	.911	.369	-.280	15.0	.913	.340	-.254
1.10	6.1	28.4	.030	11.0	6.23	4.65	2.244	.165	.903	.413	-.317	23.4	.906	.390	-.296
1.26	8.0	40.5	.027	12.6	6.81	5.09	2.451	.189	.896	.450	-.347	34.2	.899		

```
.431  -.330
        1.42   10.1     55.4     .025    14.2      7.36    5.50     2.649    .212    .890    .482   -.372      47.7     .892
.466  -.358
        1.58   12.4     73.4     .024    15.8      7.89    5.90     2.840    .236    .884    .509   -.394      64.2     .886
.495  -.381
        1.73   15.0     94.6     .022    17.3      8.40    6.29     3.025    .260    .879    .533   -.412      83.8     .881
.521  -.401
        1.89   17.9    119.4     .021    18.9      9.21    6.66     3.317    .274    .881    .564   -.445     106.7     .876
.543  -.419
        2.05   21.0    149.8     .019    20.0     10.85    7.13     3.905    .276    .893    .614   -.507     134.3     .885
.588  -.473
        2.21   24.2    188.2     .018    20.0     12.68    7.79     4.564    .297    .899    .659   -.557     168.6     .902
.647  -.549
        2.37   27.3    229.7     .017    20.0     13.65    8.41     4.914    .337    .892    .680   -.572     208.6     .895
.670  -.565
        2.52   30.5    274.2     .015    20.0     14.56    9.00     5.243    .377    .886    .698   -.584     251.6     .889
.689  -.579
        2.68   33.6    321.6     .015    20.0     15.43    9.56     5.555    .417    .880    .713   -.594     297.5     .883
.706  -.589
        2.84   36.8    371.5     .014    20.0     16.25   10.10     5.852    .457    .875    .726   -.601     346.2     .878
.720  -.598
        3.00   39.9    424.1     .013    20.0     17.04   10.62     6.135    .498    .870    .738   -.608     397.5     .872
.732  -.605
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =    3 OCCURRED        4 TIMES.  AVERAGE NUMBER ITERATIONS =  1.0589
       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)
         .00      .0       .0     .150      .0      2.78      .58    1.000     .000   1.000    .000    .000       .0    1.000
.000   .000
         .16      .1       .2     .109     1.6      2.74     1.27     .985     .015    .985    .000    .015       .0     .998
.000   .002
         .32      .5      1.0     .069     3.2      2.81     2.02    1.011     .045    .956    .027    .017       .5     .974
.010   .015
         .47     1.1      3.0     .053     4.7      3.01     2.64    1.083     .083    .923    .077    .000      1.8     .940
.060   .000
         .63     2.0      6.4     .043     6.3      3.14     3.20    1.129     .129    .886    .114    .000      4.5     .904
.096   .000
         .79     3.1     11.6     .037     7.9      3.28     3.72    1.179     .179    .848    .152    .000      8.8     .866
.134   .000
         .95     4.5     18.8     .033     9.5      3.42     4.20    1.232     .232    .812    .188    .000     15.0     .829
.171   .000
        1.10     6.1     28.4     .030    11.0      3.58     4.65    1.287     .287    .777    .223    .000     23.4     .793
.207   .000
        1.26     8.0     40.5     .027    12.6      3.73     5.09    1.344     .344    .744    .256    .000     34.2     .760
.240   .000
        1.42    10.1     55.4     .025    14.2      3.89     5.50    1.401     .401    .714    .286    .000     47.7     .728
.272   .000
        1.58    12.4     73.4     .024    15.8      4.05     5.90    1.459     .459    .685    .315    .000     64.2     .699
.301   .000
        1.73    15.0     94.6     .022    17.3      4.22     6.29    1.518     .518    .659    .341    .000     83.8     .672
.328   .000
        1.89    17.9    119.4     .021    18.9      4.38     6.66    1.576     .576    .634    .366    .000    106.7     .646
.354   .000
        2.05    21.0    149.8     .019    20.0      4.59     7.13    1.653     .653    .605    .395    .000    134.3     .619
.381   .000
        2.21    24.2    188.2     .018    20.0      4.91     7.79    1.767     .767    .566    .434    .000    168.6     .585
.415   .000
        2.37    27.3    229.7     .017    20.0      5.22     8.41    1.880     .880    .532    .468    .000    208.6     .548
.452   .000
        2.52    30.5    274.2     .015    20.0      5.53     9.00    1.991     .991    .502    .498    .000    251.6     .517
.483   .000
        2.68    33.6    321.6     .015    20.0      5.84     9.56    2.102    1.102    .476    .524    .000    297.5     .489
.511   .000
        2.84    36.8    371.5     .014    20.0      6.14    10.10    2.210    1.210    .452    .548    .000    346.2     .464
.536   .000
        3.00    39.9    424.1     .013    20.0      6.44    10.62    2.317    1.317    .432    .568    .000    397.5     .442
.558   .000
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =    2 OCCURRED       30 TIMES.  AVERAGE NUMBER ITERATIONS =  1.0520
     Equations solved with two passes: first using the Ponce correction to C1, second using the Fread correction to C1,
C2 and C3
     PRINT HYD            ID=4   CODE=1

                                        PARTIAL HYDROGRAPH   110.10


     RUNOFF VOLUME =      2.07963 INCHES      =       1.4640 ACRE-FEET
     PEAK DISCHARGE RATE =      23.86 CFS  AT   1.600 HOURS   BASIN AREA =    .0132 SQ. MI.



     *
     * **** SUB-BASIN 110 ****
     * SOUTH HALF OF SOCCER FIELD
     COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
                           NK=1   ISLOPE=0
                           LENGTH=497 FT  SLOPE=0.008  K=2.0
                           KN=0.021   CENTROID DIST=301 FT

          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION              .0            .000000             .0000
```

SHALLOW FLOW PORTION	497.0	.008000	2.0000
CHANNEL FLOW PORTION	.0	.000000	.0000
TOTAL BASIN	497.0	.008000	2.0000

TIME OF CONCENTRATION (HRS)= .0772 TIME TO PEAK (HRS)= .0515 LAG TIME (HRS)= .0579

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

```
COMPUTE NM HYD       ID=5   HYD NO=110   DA=0.005 SQ MI
                     PER A=90 PER B=0  PER C=5  PER D=5
                     TP=0.0   MASSRAIN=-1
```

TIME TO PEAK (hrs)= .1333

K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = .98677 CFS UNIT VOLUME = .9890 B = 526.28 P60 = 1.8700
AREA = .000250 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .160681HR TP = .133333HR K/TP RATIO = 1.205107 SHAPE CONSTANT, N = 2.949709
UNIT PEAK = 9.8929 CFS UNIT VOLUME = .9970 B = 277.70 P60 = 1.8700
AREA = .004750 SQ MI IA = .63421 INCHES INF = 1.62579 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

```
PRINT HYD            ID=5   CODE=1
```

PARTIAL HYDROGRAPH 110.00

RUNOFF VOLUME = .55707 INCHES = .1486 ACRE-FEET
PEAK DISCHARGE RATE = 4.80 CFS AT 1.500 HOURS BASIN AREA = .0050 SQ. MI.

```
*
* **** SUB-BASIN 112 ****
* WEST SIDE OF TRACK & FIELD
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=318 FT  SLOPE=0.006  K=2.0
                     KN=0.021   CENTROID DIST=266 FT
```

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	.0	.000000	.0000
SHALLOW FLOW PORTION	318.0	.006000	2.0000
CHANNEL FLOW PORTION	.0	.000000	.0000
TOTAL BASIN	318.0	.006000	2.0000

TIME OF CONCENTRATION (HRS)= .0570 TIME TO PEAK (HRS)= .0380 LAG TIME (HRS)= .0428

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

```
COMPUTE NM HYD       ID=1   HYD NO=112   DA=0.002 SQ MI
                     PER A=95 PER B=0  PER C=0  PER D=5
                     TP=0.0   MASSRAIN=-1
```

TIME TO PEAK (hrs)= .1333

K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = .39471 CFS UNIT VOLUME = .9739 B = 526.28 P60 = 1.8700
AREA = .000100 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .163724HR TP = .133333HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899764
UNIT PEAK = 3.8980 CFS UNIT VOLUME = .9947 B = 273.54 P60 = 1.8700
AREA = .001900 SQ MI IA = .65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

```
PRINT HYD            ID=1   CODE=1
```

PARTIAL HYDROGRAPH 112.00

RUNOFF VOLUME = .53875 INCHES = .0575 ACRE-FEET
PEAK DISCHARGE RATE = 1.85 CFS AT 1.500 HOURS BASIN AREA = .0020 SQ. MI.

```
*
* **** SUB-BASIN 113 ****
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```
* EAST SIDE OF TRACK & FIELD
COMPUTE LT TP          LCODE=1   UPLAND/LAG TIME METHOD
                       NK=1   ISLOPE=0
                       LENGTH=315 FT  SLOPE=0.006  K=2.0
                       KN=0.021   CENTROID DIST=273 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0           .000000             .0000
     SHALLOW FLOW PORTION         315.0           .006000            2.0000
     CHANNEL FLOW PORTION           .0           .000000             .0000
     TOTAL BASIN                  315.0           .006000            2.0000


     TIME OF CONCENTRATION (HRS)=   .0565     TIME TO PEAK (HRS)=   .0377     LAG TIME (HRS)=   .0424



     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

COMPUTE NM HYD         ID=2   HYD NO=113   DA=0.0023 SQ MI
                       PER A=95 PER B=0  PER C=0  PER D=5
                       TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .1333
     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   .45391    CFS   UNIT VOLUME =    .9739       B =   526.28      P60 = 1.8700
     AREA =      .000115 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

     K =   .163724HR    TP =   .133333HR    K/TP RATIO =  1.227936     SHAPE CONSTANT, N =  2.899764
     UNIT PEAK =   4.4827    CFS   UNIT VOLUME =    .9953       B =   273.54      P60 = 1.8700
     AREA =      .002185 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD              ID=2   CODE=1

                                   PARTIAL HYDROGRAPH   113.00


    RUNOFF VOLUME =      .53875 INCHES     =        .0661 ACRE-FEET
    PEAK DISCHARGE RATE =       2.13 CFS  AT   1.500 HOURS   BASIN AREA =   .0023 SQ. MI.


*
* ADD 112 TO 113 TO GET 110.2
ADD HYD                ID=3  HYD NO=113.1  ID I=1   ID II=2
PRINT HYD              ID=3   CODE=1

                                   PARTIAL HYDROGRAPH   113.10


    RUNOFF VOLUME =      .53867 INCHES     =        .1235 ACRE-FEET
    PEAK DISCHARGE RATE =       3.98 CFS  AT   1.500 HOURS   BASIN AREA =   .0043 SQ. MI.


*
* ADD 110.1 TO 110.2 TO GET 110.3
ADD HYD                ID=1  HYD NO=110.3  ID I=3   ID II=4
PRINT HYD              ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   110.30


    RUNOFF VOLUME =     1.70095 INCHES     =       1.5875 ACRE-FEET
    PEAK DISCHARGE RATE =      26.97 CFS  AT   1.600 HOURS   BASIN AREA =   .0175 SQ. MI.


*
* ADD 110 TO 110.3 TO GET 110.4
ADD HYD                ID=2  HYD NO=110.4  ID I=1   ID II=5
PRINT HYD              ID=2   CODE=1

                                   PARTIAL HYDROGRAPH   110.40


    RUNOFF VOLUME =     1.44675 INCHES     =       1.7361 ACRE-FEET
    PEAK DISCHARGE RATE =      30.72 CFS  AT   1.600 HOURS   BASIN AREA =   .0225 SQ. MI.


*
*
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*
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*S BASINS CONTRIBUTING TO POND 109
* **** SUB-BASIN 106 ****
* TENNIS & BASKETBALL COURTS
COMPUTE LT TP          LCODE=1   UPLAND/LAG TIME METHOD
                       NK=1   ISLOPE=0
                       LENGTH=863 FT  SLOPE=0.005  K=2.0
                       KN=0.021   CENTROID DIST=492 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0           .000000             .0000
     SHALLOW FLOW PORTION         863.0           .005000            2.0000
     CHANNEL FLOW PORTION           .0           .000000             .0000
     TOTAL BASIN                  863.0           .005000            2.0000


     TIME OF CONCENTRATION (HRS)=   .1695     TIME TO PEAK (HRS)=   .1130     LAG TIME (HRS)=   .1271


     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

COMPUTE NM HYD         ID=1   HYD NO=106   DA=0.0076 SQ MI
                       PER A=35 PER B=15  PER C=5  PER D=45
                       TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .1333

     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   13.499    CFS   UNIT VOLUME =    .9983       B =   526.28      P60 = 1.8700
     AREA =      .003420 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .149549HR    TP =   .133333HR    K/TP RATIO =  1.121619     SHAPE CONSTANT, N =  3.154190
     UNIT PEAK =   9.2220    CFS   UNIT VOLUME =    .9983       B =   294.16      P60 = 1.8700
     AREA =      .004180 SQ MI    IA =    .58182 INCHES    INF =   1.47909 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD              ID=1   CODE=1

                                PARTIAL HYDROGRAPH   106.00


    RUNOFF VOLUME =     1.38474 INCHES     =        .5613 ACRE-FEET
    PEAK DISCHARGE RATE =      13.64 CFS  AT   1.500 HOURS   BASIN AREA =   .0076 SQ. MI.



*
* ROUTE 106 THRU 109 IN OPEN CHANNEL TO 109.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5096     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.035           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100      10  5096
                        20  5100

                                RATING CURVE VALLEY SECTION  1.0
                                    WATER       FLOW        FLOW        TOP
                                  SURFACE       AREA        RATE       WIDTH
                                    ELEV        SQ FT       CFS        FT
                                 5096.00          .00         .00         .00
                                 5096.21          .11         .07        1.05
                                 5096.42          .44         .45        2.10
                                 5096.63         1.00        1.32        3.16
                                 5096.84         1.77        2.84        4.21
                                 5097.05         2.77        5.15        5.26
                                 5097.26         3.99        8.38        6.31
                                 5097.47         5.43       12.64        7.37
                                 5097.68         7.09       18.05        8.42
                                 5097.89         8.97       24.71        9.47
                                 5098.10        11.07       32.73       10.52
                                 5098.31        13.40       42.20       11.57
                                 5098.53        15.94       53.22       12.63
                                 5098.74        18.71       65.88       13.68
                                 5098.95        21.70       80.28       14.73
                                 5099.16        24.91       96.50       15.78
                                 5099.37        28.34      114.62       16.84
                                 5099.58        32.00      134.73       17.89
                                 5099.79        35.87      156.91       18.94
                                 5100.00        39.97      181.25       19.99
ROUTE MCUNGE           ID=2   HYD NO=109.1  INFLOW ID=1
                       DT=0.0   L=680 FT   NS=0   SLOPE=0.005
                       MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

     INFLOW END= 493              TABLE PTS= 20
     DT=  .050000                 QMED=        6.82  CKMED=      2.6498
     WIDTH MED=        5.80       NREACH=  3         DX=       226.67
```

C2-M	DEPTH C3-M (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M
	.00	.0	.0	.406	.0	1.26	.29	1.000	.000	1.000	.000	.000	.0	1.000
.000	.000													
	.21	.1	.1	.297	1.1	1.20	.64	.951	.049	.951	.000	.049	.0	.992
.000	.008													
	.42	.4	.4	.187	2.1	1.41	1.01	1.117	.134	.881	.111	.008	.2	.925
.041	.034													
	.63	1.0	1.3	.143	3.2	1.80	1.32	1.433	.204	.845	.242	-.087	.8	.853
.172	-.025													
	.84	1.8	2.8	.118	4.2	2.17	1.60	1.721	.275	.817	.333	-.149	2.0	.823
.285	-.109													
	1.05	2.8	5.2	.101	5.3	2.50	1.86	1.989	.345	.793	.400	-.193	3.9	.799
.365	-.165													
	1.26	4.0	8.4	.090	6.3	2.82	2.10	2.241	.415	.773	.453	-.226	6.7	.779
.426	-.205													
	1.47	5.4	12.6	.081	7.4	3.12	2.33	2.480	.485	.755	.496	-.251	10.4	.761
.474	-.234													
	1.68	7.1	18.1	.074	8.4	3.41	2.55	2.708	.555	.740	.531	-.270	15.3	.744
.513	-.257													
	1.89	9.0	24.7	.069	9.5	3.69	2.76	2.927	.625	.725	.561	-.286	21.3	.730
.546	-.276													
	2.10	11.1	32.7	.064	10.5	3.95	2.96	3.138	.695	.713	.586	-.299	28.6	.717
.573	-.290													
	2.31	13.4	42.2	.060	11.6	4.21	3.15	3.343	.764	.701	.608	-.309	37.4	.705
.597	-.302													
	2.53	15.9	53.2	.057	12.6	4.46	3.34	3.541	.834	.690	.628	-.318	47.6	.693
.618	-.312													
	2.74	18.7	65.9	.054	13.7	4.70	3.52	3.734	.904	.679	.645	-.325	59.4	.683
.637	-.320													
	2.95	21.7	80.3	.051	14.7	4.94	3.70	3.923	.973	.670	.661	-.331	73.0	.673
.653	-.326													
	3.16	24.9	96.5	.049	15.8	5.17	3.87	4.107	1.043	.661	.675	-.336	88.3	.664
.668	-.332													
	3.37	28.3	114.6	.047	16.8	5.40	4.04	4.287	1.113	.652	.687	-.340	105.4	.655
.681	-.336													
	3.58	32.0	134.7	.045	17.9	5.62	4.21	4.463	1.183	.644	.699	-.343	124.5	.647
.693	-.340													
	3.79	35.9	156.9	.043	18.9	5.84	4.37	4.636	1.252	.636	.710	-.346	145.7	.639
.704	-.344													
	4.00	40.0	181.2	.042	20.0	5.92	4.53	4.703	1.351	.617	.716	-.334	168.9	.632
.714	-.346													

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 10 TIMES. AVERAGE NUMBER ITERATIONS = 1.0491
Equations solved using the Ponce correction to C2
PRINT HYD ID=2 CODE=1

PARTIAL HYDROGRAPH 109.10

RUNOFF VOLUME = 1.38383 INCHES = .5609 ACRE-FEET
PEAK DISCHARGE RATE = 13.04 CFS AT 1.550 HOURS BASIN AREA = .0076 SQ. MI.

*
* **** SUB-BASIN 109 ****
* NORTH HALF OF SOCCER FIELD
COMPUTE LT TP LCODE=1 UPLAND/LAG TIME METHOD
NK=1 ISLOPE=0
LENGTH=689 FT SLOPE=0.006 K=2.0
KN=0.021 CENTROID DIST=321 FT

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	.0	.000000	.0000
SHALLOW FLOW PORTION	689.0	.006000	2.0000
CHANNEL FLOW PORTION	.0	.000000	.0000
TOTAL BASIN	689.0	.006000	2.0000

TIME OF CONCENTRATION (HRS)= .1235 TIME TO PEAK (HRS)= .0824 LAG TIME (HRS)= .0927

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

COMPUTE NM HYD ID=3 HYD NO=109 DA=0.0058 SQ MI
PER A=75 PER B=15 PER C=5 PER D=5
TP=0.0 MASSRAIN=-1
TIME TO PEAK (hrs)= .1333

K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 1.1447 CFS UNIT VOLUME = .9890 B = 526.28 P60 = 1.8700
AREA = .000290 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

```
      K =   .155517HR    TP =   .133333HR    K/TP RATIO =  1.166384     SHAPE CONSTANT, N =  3.040026
      UNIT PEAK =   11.781    CFS   UNIT VOLUME =    .9980       B =   285.07      P60 = 1.8700
      AREA =      .005510 SQ MI    IA =    .61053 INCHES    INF =   1.55947 INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD             ID=3   CODE=1

                                   PARTIAL HYDROGRAPH   109.00


    RUNOFF VOLUME =      .58809 INCHES     =        .1819 ACRE-FEET
    PEAK DISCHARGE RATE =       5.92 CFS  AT   1.500 HOURS   BASIN AREA =   .0058 SQ. MI.



*
* ADD 109.1 TO 109 TO GET 109.2
ADD HYD               ID=1  HYD NO=109.2  ID I=2   ID II=3
PRINT HYD             ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   109.20


    RUNOFF VOLUME =     1.03933 INCHES     =        .7428 ACRE-FEET
    PEAK DISCHARGE RATE =      18.69 CFS  AT   1.550 HOURS   BASIN AREA =   .0134 SQ. MI.

*
FINISH

    NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 14:52:21
```

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services Section

August 6, 2009

Jason R. Woodruff, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: Longfellow Elementary School, 400 Edith Blvd. NE,
Approval of 90-Day Certificate of Occupancy (C.O.)
Engineer's Stamp dated 6/04/09 (K-14/D010)
Certification dated 08-05-09

Dear Mr. Woodruff,

The TCL / Letter of Certification submitted on August 6, 2009 is sufficient for acceptance by this office for a 90-Day Temporary Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer,Planning Dept.
Development and Building Services

C: Hydrology file
CO Clerk
Engineer

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: Longfellow ES ZONE MAP/DRG. FILE#: ~~K-14~~ K-14/D010

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

LEGAL DESCRIPTION: SEE exhibits in attached Report

CITY ADDRESS: 400 Edith Rd

ENGINEERING FIRM:	Wilson & Company	CONTACT:	Jason Woodruff, PE
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
OWNER:	APS	CONTACT:	Frank Shaw
ADDRESS:	915 Oak Street	PHONE:	505-975-6248
CITY, STATE:	Albuquerque New Mexico	ZIP CODE:	87106
ARCHITECT:	Wilson & Company	CONTACT:	See Engineer Above
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuquerque, NM	ZIP CODE:	
SURVEYING FIRM:	Wilson & Company	LICENSED SURVEYOR:	Ben Aragon
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4067
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT - RESUBMITTAL
___ DRAINAGE PLAN 1st SUBMITTAL
___ DRAINAGE PLAN RESUBMITTAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERT (HYDROLOGY)
___ CLOMR\LOMR
~~X~~ TRAFFIC CIRCULTAION LAYOUT
X ENGINEER/ARCHITECT CERT (TCL)
___ ENGINEER/ARCHITECT CERT (DRB S. P.)
___ ENGINEER/ARCHITECT CERT (AA)
___ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:

___ SIA / FINANCIAL GUARANTEE RELEASE
___ PRELIMINARY PLAT APPROVAL
___ S. DEV. PLAN FOR SUB'D. APPROVAL
___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY (PERM.)
X CERTIFICATE OF OCCUPANCY (TEMP)
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ WORK ORDER APPROVAL
___ OTHER (SPECIFY) SO #19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
x NO
_____ COPY PROVIDED

Submitted By: Jason Woodruff DATE: 08/05/09

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

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

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Longfellow Elementary School ZONE MAP/DRG. FILE#: K-14 / D10

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

LEGAL DESCRIPTION: 7/Longfellow Elementary School, 7, Belvidire Addition

CITY ADDRESS: 400 Edith Blvd, NE, Albuquerque NM 87102

ENGINEERING FIRM: Wilson & Company Inc., E&A CONTACT: Jesse Dickson
ADDRESS: 4900 Lang Ave. NW PHONE: (505) 348-4136
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: Albuquerque Public Schools CONTACT: Karen Alarid
ADDRESS: 915 Oak Street SE PHONE: (505) 848-8810
CITY, STATE: Albuquerque, NM ZIP CODE: 87106

ARCHITECT: Design Plus CONTACT: Rupal Engineer
ADDRESS: 2415 Princeton, Suite G-2 PHONE: (505) 843-7587
CITY, STATE: Albuquerque, NM ZIP CODE: 87107

SURVEYOR: N/A CONTACT: N/A
ADDRESS: N/A PHONE: N/A
CITY, STATE: N/A ZIP CODE: N/A

CONTRACTOR: N/A. CONTACT: N/A.
ADDRESS: N/A. PHONE: N/A.
CITY, STATE: N/A. ZIP CODE: N/A.

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
___ DRAINAGE PLAN 1st SUBMITTAL, REQUIRES TCL OR EQUAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEERS CERTIFICATION (HYDROLOGY)
___ CLOMR\LOMR
___ TRAFFIC CIRCULTAION LAYOUT (TCL)
___ ENGINEERS CERTIFICATION (TCL)
___ ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)
✓ OTHER: Resubmittal addressing comments dated 06/26/06

Resub

CHECK TYPE OF APPROVAL SOUGHT:

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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

___ YES
✓ NO
___

RECEIVED
JUL 03 2006
HYDROLOGY SECTION

Date Submitted: July 3, 2006 By: Jesse Dickson

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

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

WILSON & COMPANY

4900 Lang Avenue, NE
Albuquerque, New Mexico 87109
(505) 348-4066
FAX (505) 348-4072

TRANSMITTAL

Date:	07/03/06
Job No.:	X4218064
Re:	Longfellow Elementary School

To: City of Albuquerque – Planning
600 2nd Street NW
Albuquerque, NM 87103

Attn: **Brad Bingham**

WE ARE SENDING YOU ☑ Attached ☐ Under Separate Cover via hand-deliver the following items:

☐ Shop Drawings ☑ Prints ☐ Correspondance ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐

Copies	Date	Pages/Sheets	Description
2	06/30/06	1	Grading & Drainage Plan
2	06/30/06	2	Site Plan (C-103A & C-103B)
2	06/30/06	4	Detail Sheets (C-501 to 504)
2	06/30/06	1	Drainage & Transportation Information Sheet
1	06/29/06	2	Memo, Response to Comments
2	07/03/06	1	Drainage Information Sheet

THESE ARE TRANSMITTED AS CHECKED BELOW:

☑ For approval/signature ☐ Approved as submitted ☑ Resubmiting 2 copies for approval
☐ For your File ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Return _____ copies ☐ Return _____ corrected prints
☑ For review and comment ☐ _____
☐ FOR BIDS DUE _____, 20___ ☐ PRINTS ON LOAN – RETURN TO WC*EA* AFTER BID

Remarks: Please find the attached copies for re-submittal. If you have any questions, please let me know.

COPY TO: File.
Bob Becker, APS

SIGNED: Jesse Dickson

RECEIVED
JUL 03 2006
HYDROLOGY SECTION

RECEIVED BY: Sandy Handley

DATE:

WILSON
&COMPANY

4900 Lang Ave. NE
Albuquerque, NM 87109
P.O. Box 94000, 87199-4000
505-348-4000
505-348-4055 Fax

Albuquerque
Colorado Springs
Denver
Fort Worth
Houston
Kansas City
Lenexa
Omaha
Pasadena
Phoenix
Rio Rancho
Salina
San Bernardino
San Diego

Wilson & Company
Latin America, LLC

June 29, 2006

Bradley Bingham
Principal Engineer, Planning Dept.
Development & Building Services
P.O. Box 1293
Albuquerque, NM 87103

Re: Longfellow Elementary School Drainage Improvements
Albuquerque, NM
WCEA File: X4-218-064

Brad:

Please find the enclosed construction documents for the Longfellow Elementary School Drainage Improvements. The original drainage report was submitted on June 23, 2006.

The enclosed revisions address the City's comments dated June 26, 2006. Specifically:

Comment 1. *Please add pipe sizes and inverts at all appropriate locations for the intended infrastructure.*
Response: Concur; Please refer to Sheets C-103A & 103B enclosed herewith.

Comment 2. *Please add dimensions for the drop inlets or reference COA Standards.*
Response: Concur; Please refer to Detail Sheets C-501, 502, 503, &504 enclosed herewith.

Comment 3. *Add all build notes for infiltration gallery and outlets.*
Response: Concur; Please refer to Detail Sheets C-501, 502, 503, &504 enclosed herewith.

Comment 4. *Are weep holes at grade? Why are you installing weep holes?*
Response: Weep holes are located as shown on Sheet C-503 of the enclosed planset. The original drainage report performed by Isaacson & Arfman (1981) utilized the playground area as a retention pond. The proposed improvements are

removing retention from the playground area. Weepholes are being installed as a precaution to prevent runoff from being retained behind the existing wall.

We anticipate that the enclosed revisions satisfy your comments and questions, however, if you need any further information or clarification, please do not hesitate to contact me.

WILSON & COMPANY

Jesse Dickson, EI

-jsd

Enclosures

cc: file;
Bob Becker, APS Facilities Management

LONGFELLOW ELEMENTARY SCHOOL
AHYMO FILES

JUNE 2006

Prepared for:
Design Plus Architects
2415 Princeton NE, Suite G-2
Albuquerque, NM 87107

Prepared by:
Wilson & Company
4900 Lang Ave. NW
Albuquerque, NM 87109

LONGFELLOW ELEMENTARY SCHOOL
AHYMO FILES

JUNE 2006

Prepared for:
Design Plus Architects
2415 Princeton NE, Suite G-2
Albuquerque, NM 87107

Prepared by:
Wilson & Company
4900 Lang Ave. NW
Albuquerque, NM 87109

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

John A. Tellez
NMPE No. 16671

7-3-06
Date

```
* WMHS.DAT
*S EXISTING & PROPOSED CONDITION MODELS FOR WMHS DRAINAGE IMPROVEMENTS
*S BASINS AREAS DO NOT CHANGE FROM THE EXISTING TO PROPOSED CONDITION
*S PONDS ARE NAMED FOR THE BASINS IN WHICH THEY ARE LOCATED
START                TIME=0.0  PUNCH CODE=0 PRINT CODE=0
LOCATION             BERNALILLO COUNTY
*
* RAINFALL FROM NOAA COA DEVELOPMENT PROCESS MANUAL
*
*S*************************************************************************
*S 100 YEAR 24HR STORM
RAINFALL             TYPE=2   ONE DAY RAINFALL, NOAA ATLAS TWO
                     QUARTER=0.00 IN
                     HOUR=   1.87 IN
                     SIX HR= 2.20 IN
                     DAY=    2.66 IN   DT=0.05
* *S 10 YEAR 24HR STORM EXISTING CONDITION
*RAINFALL            TYPE=2   0.0  1.08   1.41  1.78     DT=0.1
*S
*S BASINS CONTRIBUTING TO POND 108
* **** SUB-BASIN 101 ****
* NW CORNER OF PARKING LOT @ NW CORNER OF SITE
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=381 FT  SLOPE=0.003  K=2.0
                     KN=0.021   CENTROID DIST=153 FT
COMPUTE NM HYD       ID=1   HYD NO=101   DA=0.0011 SQ MI
                     PER A=5 PER B=0  PER C=0  PER D=95
                     TP=0.0   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*
* **** SUB-BASIN 102 ****
* PARKING LOT @ NW CORNER OF SITE
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=955 FT  SLOPE=0.005  K=2.0
                     KN=0.021   CENTROID DIST=377 FT
COMPUTE NM HYD       ID=2   HYD NO=102   DA=0.01 SQ MI
                     PER A=5 PER B=10  PER C=0  PER D=85
                     TP=0.0   MASSRAIN=-1
PRINT HYD            ID=2   CODE=1
*
* ADD 101 TO 102 TO GET 102.1
ADD HYD              ID=3  HYD NO=102.1  ID I=1   ID II=2
PRINT HYD            ID=3   CODE=1
*
* ROUTE 102.1 THRU 108 IN V-DITCH TO 108.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5096     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.030           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100      10  5096
                        20  5100
ROUTE MCUNGE         ID=4   HYD NO=108.1  INFLOW ID=3
                     DT=0.0   L=570 FT   NS=0   SLOPE=0.005
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD            ID=4   CODE=1
*
* **** SUB-BASIN 108 ****
* WEST BASEBALL FIELD
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
```

```
                                                    WMHS.DAT
                        LENGTH=423 FT  SLOPE=0.004  K=2.0
                        KN=0.021   CENTROID DIST=220 FT
COMPUTE NM HYD          ID=1   HYD NO=108   DA=0.0035 SQ MI
                        PER A=70 PER B=25  PER C=0  PER D=5
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=1   CODE=1
*
* ADD 108.1 TO 108 TO GET 108.2
ADD HYD                 ID=2  HYD NO=108.2  ID I=1   ID II=4
PRINT HYD               ID=2   CODE=1
*
*
*
*S BASINS CONTRIBUTING TO POND 111
* **** SUB-BASIN 111 ****
* EAST BASEBALL FIELD
COMPUTE LT TP           LCODE=1   UPLAND/LAG TIME METHOD
                        NK=1   ISLOPE=0
                        LENGTH=382 FT  SLOPE=0.012  K=2.0
                        KN=0.021   CENTROID DIST=209 FT
COMPUTE NM HYD          ID=1   HYD NO=111   DA=.0034 SQ MI
                        PER A=75 PER B=15  PER C=5  PER D=5
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=1   CODE=1
*
*
*
*S BASINS CONTRIBUTING TO POND 107
* **** SUB-BASIN 107 ****
* MAIN BLDG
COMPUTE LT TP           LCODE=1   UPLAND/LAG TIME METHOD
                        NK=1   ISLOPE=0
                        LENGTH=373 FT  SLOPE=0.01  K=2.0
                        KN=0.021   CENTROID DIST=237 FT
COMPUTE NM HYD          ID=1   HYD NO=107   DA=.004 SQ MI
                        PER A=35 PER B=15  PER C=5  PER D=45
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=1   CODE=1
*
*
*
*
*S BASINS CONTRIBUTING TO POND 110
* **** SUB-BASIN 103 ****
* SW CORNER OF SITE
COMPUTE LT TP           LCODE=1   UPLAND/LAG TIME METHOD
                        NK=1   ISLOPE=0
                        LENGTH=1667 FT  SLOPE=0.004  K=2.0
                        KN=0.021   CENTROID DIST=337 FT
COMPUTE NM HYD          ID=3   HYD NO=103   DA=0.0099 SQ MI
                        PER A=5 PER B=10  PER C=0  PER D=85
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=3   CODE=1
*
* **** SUB-BASIN 104 ****
* COURTYARD AREA
COMPUTE LT TP           LCODE=1   UPLAND/LAG TIME METHOD
                        NK=1   ISLOPE=0
                        LENGTH=282 FT  SLOPE=0.007  K=2.0
                        KN=0.021   CENTROID DIST=146 FT
COMPUTE NM HYD          ID=1   HYD NO=104   DA=0.0015 SQ MI
                        PER A=0 PER B=45  PER C=10  PER D=55
                        TP=0.0   MASSRAIN=-1
```

```
PRINT HYD              ID=1   CODE=1
*
* ROUTE 104 THRU 105 IN OPEN CHANNEL TO 105.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5097     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.015           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100       0  5099
                        10  5097      20  5099
                        20  5100
ROUTE MCUNGE          ID=2   HYD NO=105.1  INFLOW ID=1
                      DT=0.0   L=270 FT   NS=0   SLOPE=0.005
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD             ID=2   CODE=1
*
* **** SUB-BASIN 105 ****
* FRONT YARD AND PARKING AREA
COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
                      NK=1   ISLOPE=0
                      LENGTH=430 FT  SLOPE=0.007  K=2.0
                      KN=0.021   CENTROID DIST=220 FT
COMPUTE NM HYD        ID=4   HYD NO=105   DA=0.0018 SQ MI
                      PER A=15 PER B=0  PER C=0  PER D=85
                      TP=0.0   MASSRAIN=-1
PRINT HYD             ID=4   CODE=1
*
* ADD 103 TO 105 TO GET 105.2
ADD HYD               ID=1  HYD NO=105.2  ID I=3   ID II=4
PRINT HYD             ID=1   CODE=1
*
* ADD 105.1 TO 105.2 TO GET 105.3
ADD HYD               ID=3  HYD NO=105.3  ID I=1   ID II=2
PRINT HYD             ID=3   CODE=1
*
* ROUTE 104 THRU 105 IN OPEN CHANNEL TO 105.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5097     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.015           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100       0  5099
                        10  5097      20  5099
                        20  5100
ROUTE MCUNGE          ID=4   HYD NO=110.1  INFLOW ID=3
                      DT=0.0   L=500 FT   NS=0   SLOPE=0.005
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD             ID=4   CODE=1
*
* **** SUB-BASIN 110 ****
* SOUTH HALF OF SOCCER FIELD
COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
                      NK=1   ISLOPE=0
                      LENGTH=497 FT  SLOPE=0.008  K=2.0
                      KN=0.021   CENTROID DIST=301 FT
COMPUTE NM HYD        ID=5   HYD NO=110   DA=0.005 SQ MI
                      PER A=90 PER B=0  PER C=5  PER D=5
                      TP=0.0   MASSRAIN=-1
PRINT HYD             ID=5   CODE=1
*
* **** SUB-BASIN 112 ****
* WEST SIDE OF TRACK & FIELD
COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
```

```
                    NK=1    ISLOPE=0
                    LENGTH=318 FT  SLOPE=0.006  K=2.0
                    KN=0.021    CENTROID DIST=266 FT
COMPUTE NM HYD      ID=1    HYD NO=112    DA=0.002 SQ MI
                    PER A=95 PER B=0   PER C=0   PER D=5
                    TP=0.0    MASSRAIN=-1
PRINT HYD           ID=1    CODE=1
*
* **** SUB-BASIN 113 ****
* EAST SIDE OF TRACK & FIELD
COMPUTE LT TP       LCODE=1    UPLAND/LAG TIME METHOD
                    NK=1    ISLOPE=0
                    LENGTH=315 FT  SLOPE=0.006  K=2.0
                    KN=0.021    CENTROID DIST=273 FT
COMPUTE NM HYD      ID=2    HYD NO=113    DA=0.0023 SQ MI
                    PER A=95 PER B=0   PER C=0   PER D=5
                    TP=0.0    MASSRAIN=-1
PRINT HYD           ID=2    CODE=1
*
* ADD 112 TO 113 TO GET 110.2
ADD HYD             ID=3  HYD NO=113.1  ID I=1    ID II=2
PRINT HYD           ID=3    CODE=1
*
* ADD 110.1 TO 110.2 TO GET 110.3
ADD HYD             ID=1  HYD NO=110.3  ID I=3    ID II=4
PRINT HYD           ID=1    CODE=1
*
* ADD 110 TO 110.3 TO GET 110.4
ADD HYD             ID=2  HYD NO=110.4  ID I=1    ID II=5
PRINT HYD           ID=2    CODE=1
*
*
*
*
*S BASINS CONTRIBUTING TO POND 109
* **** SUB-BASIN 106 ****
* TENNIS & BASKETBALL COURTS
COMPUTE LT TP       LCODE=1    UPLAND/LAG TIME METHOD
                    NK=1    ISLOPE=0
                    LENGTH=863 FT  SLOPE=0.005  K=2.0
                    KN=0.021    CENTROID DIST=492 FT
COMPUTE NM HYD      ID=1    HYD NO=106    DA=0.0076 SQ MI
                    PER A=35 PER B=15  PER C=5   PER D=45
                    TP=0.0    MASSRAIN=-1
PRINT HYD           ID=1    CODE=1
*
* ROUTE 106 THRU 109 IN OPEN CHANNEL TO 109.1
COMPUTE RATING CURVE  CID=1    VS NO=1    NO SEGS=1
                      MIN ELEV=5096      MAX ELEV=5100
                      CH SLOPE=0.005     FP SLOPE=0.005
                      N=0.035            DIST=20
                      DIST  ELEV     DIST  ELEV
                         0  5100       10  5096
                        20  5100
ROUTE MCUNGE        ID=2    HYD NO=109.1  INFLOW ID=1
                    DT=0.0    L=680 FT    NS=0    SLOPE=0.005
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD           ID=2    CODE=1
*
* **** SUB-BASIN 109 ****
* NORTH HALF OF SOCCER FIELD
COMPUTE LT TP       LCODE=1    UPLAND/LAG TIME METHOD
                    NK=1    ISLOPE=0
```

```
                                                WMHS.DAT
                        LENGTH=689 FT  SLOPE=0.006  K=2.0
                        KN=0.021   CENTROID DIST=321 FT
COMPUTE NM HYD          ID=3   HYD NO=109   DA=0.0058 SQ MI
                        PER A=75 PER B=15  PER C=5  PER D=5
                        TP=0.0   MASSRAIN=-1
PRINT HYD               ID=3   CODE=1
*
* ADD 109.1 TO 109 TO GET 109.2
ADD HYD                 ID=1  HYD NO=109.2  ID I=2   ID II=3
PRINT HYD               ID=1   CODE=1
*
FINISH
```

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02c RUN DATE (MON/DAY/YR) =06/30/2006
INPUT FILE = WMHS.DAT USER NO.= AHYMO-C-9803c01UNMLIB-AH

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION	
*S EXISTING & PROPOSED CONDITION MODELS FOR WMHS DRAINAGE IMPROVEMENTS											
*S BASINS AREAS DO NOT CHANGE FROM THE EXISTING TO PROPOSED CONDITION											
*S PONDS ARE NAMED FOR THE BASINS IN WHICH THEY ARE LOCATED											
START										TIME=	.00
LOCATION	BERNALILLO COUNTY										
*S**********											
*S 100 YEAR 24HR STORM											
RAINFALL TYPE= 2										RAIN24=	2.660
*S											
*S BASINS CONTRIBUTING TO POND 108											
COMPUTE NM HYD	101.00	-	1	.00110	2.93	.137	2.32785	1.500	4.166	PER IMP=	95.00
COMPUTE NM HYD	102.00	-	2	.01000	25.06	1.147	2.15031	1.500	3.915	PER IMP=	85.00
ADD HYD	102.10	1& 2	3	.01110	27.99	1.283	2.16785	1.500	3.940		
ROUTE MCUNGE	108.10	3	4	.01110	27.33	1.283	2.16734	1.550	3.847	CCODE =	.2
COMPUTE NM HYD	108.00	-	1	.00350	3.58	.110	.58809	1.500	1.600	PER IMP=	5.00
ADD HYD	108.20	1& 4	2	.01460	30.75	1.393	1.78869	1.550	3.291		
*S BASINS CONTRIBUTING TO POND 111											
COMPUTE NM HYD	111.00	-	1	.00340	3.48	.107	.58809	1.500	1.598	PER IMP=	5.00
*S BASINS CONTRIBUTING TO POND 107											
COMPUTE NM HYD	107.00	-	1	.00400	7.19	.295	1.38474	1.500	2.807	PER IMP=	45.00
*S BASINS CONTRIBUTING TO POND 110											
COMPUTE NM HYD	103.00	-	3	.00990	18.50	1.135	2.15031	1.600	2.919	PER IMP=	85.00
COMPUTE NM HYD	104.00	-	1	.00150	3.11	.126	1.57240	1.500	3.244	PER IMP=	50.00
ROUTE MCUNGE	105.10	1	2	.00150	3.02	.126	1.57267	1.500	3.141	CCODE =	.2
COMPUTE NM HYD	105.00	-	4	.00180	4.44	.204	2.12906	1.500	3.856	PER IMP=	85.00
ADD HYD	105.20	3& 4	1	.01170	21.51	1.340	2.14697	1.600	2.873		
ADD HYD	105.30	1& 2	3	.01320	23.97	1.465	2.08165	1.600	2.838		
ROUTE MCUNGE	110.10	3	4	.01320	23.86	1.464	2.07963	1.600	2.824	CCODE =	.1
COMPUTE NM HYD	110.00	-	5	.00500	4.80	.149	.55707	1.500	1.499	PER IMP=	5.00
COMPUTE NM HYD	112.00	-	1	.00200	1.85	.057	.53875	1.500	1.446	PER IMP=	5.00
COMPUTE NM HYD	113.00	-	2	.00230	2.13	.066	.53875	1.500	1.445	PER IMP=	5.00
ADD HYD	113.10	1& 2	3	.00430	3.98	.124	.53867	1.500	1.445		
ADD HYD	110.30	3& 4	1	.01750	26.97	1.588	1.70095	1.600	2.408		
ADD HYD	110.40	1& 5	2	.02250	30.72	1.736	1.44675	1.600	2.133		
*S BASINS CONTRIBUTING TO POND 109											
COMPUTE NM HYD	106.00	-	1	.00760	13.64	.561	1.38474	1.500	2.804	PER IMP=	45.00
ROUTE MCUNGE	109.10	1	2	.00760	13.04	.561	1.38383	1.550	2.680	CCODE =	.2
COMPUTE NM HYD	109.00	-	3	.00580	5.92	.182	.58809	1.500	1.595	PER IMP=	5.00
ADD HYD	109.20	2& 3	1	.01340	18.69	.743	1.03933	1.550	2.180		
FINISH											

```
    AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02c
         RUN DATE (MON/DAY/YR) = 06/30/2006
         START TIME (HR:MIN:SEC) = 14:52:20     USER NO.= AHYMO-C-9803c01UNMLIB-AH
         INPUT FILE = WMHS.DAT

* WMHS.DAT
*S EXISTING & PROPOSED CONDITION MODELS FOR WMHS DRAINAGE IMPROVEMENTS
*S BASINS AREAS DO NOT CHANGE FROM THE EXISTING TO PROPOSED CONDITION
*S PONDS ARE NAMED FOR THE BASINS IN WHICH THEY ARE LOCATED
START               TIME=0.0  PUNCH CODE=0 PRINT CODE=0
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

*
* RAINFALL FROM NOAA COA DEVELOPMENT PROCESS MANUAL
*
*S**************************************************************************
*S 100 YEAR 24HR STORM
RAINFALL            TYPE=2   ONE DAY RAINFALL, NOAA ATLAS TWO
                    QUARTER=0.00 IN
                    HOUR=   1.87 IN
                    SIX HR= 2.20 IN
                    DAY=    2.66 IN   DT=0.05

COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT =     .050000 HOURS        END TIME =    24.000000 HOURS
   .0000   .0025   .0050   .0076   .0103   .0131   .0160
   .0190   .0222   .0254   .0289   .0324   .0362   .0401
   .0443   .0487   .0534   .0584   .0637   .0695   .0758
   .0837   .0924   .1176   .1773   .2798   .4384   .6668
   .9790  1.2253  1.3366  1.4295  1.5109  1.5836  1.6495
  1.7096  1.7648  1.8156  1.8624  1.9057  1.9458  1.9548
  1.9631  1.9708  1.9780  1.9848  1.9912  1.9973  2.0031
  2.0087  2.0140  2.0191  2.0240  2.0287  2.0333  2.0377
  2.0420  2.0462  2.0502  2.0542  2.0580  2.0617  2.0653
  2.0689  2.0724  2.0757  2.0791  2.0823  2.0855  2.0886
  2.0916  2.0946  2.0976  2.1005  2.1033  2.1061  2.1088
  2.1115  2.1142  2.1168  2.1193  2.1219  2.1244  2.1268
  2.1293  2.1316  2.1340  2.1363  2.1386  2.1409  2.1431
  2.1453  2.1475  2.1497  2.1518  2.1539  2.1560  2.1580
  2.1601  2.1621  2.1641  2.1660  2.1680  2.1699  2.1718
  2.1737  2.1756  2.1774  2.1793  2.1811  2.1829  2.1847
  2.1864  2.1882  2.1899  2.1916  2.1933  2.1950  2.1967
  2.1984  2.2000  2.2020  2.2039  2.2059  2.2078  2.2097
  2.2117  2.2136  2.2155  2.2174  2.2193  2.2212  2.2231
  2.2249  2.2268  2.2287  2.2305  2.2324  2.2342  2.2361
  2.2379  2.2398  2.2416  2.2434  2.2452  2.2470  2.2488
  2.2506  2.2524  2.2542  2.2559  2.2577  2.2595  2.2612
  2.2630  2.2647  2.2665  2.2682  2.2700  2.2717  2.2734
  2.2751  2.2768  2.2785  2.2802  2.2819  2.2836  2.2853
  2.2870  2.2887  2.2903  2.2920  2.2937  2.2953  2.2970
  2.2986  2.3002  2.3019  2.3035  2.3051  2.3068  2.3084
  2.3100  2.3116  2.3132  2.3148  2.3164  2.3180  2.3196
  2.3212  2.3227  2.3243  2.3259  2.3274  2.3290  2.3305
  2.3321  2.3336  2.3352  2.3367  2.3383  2.3398  2.3413
  2.3428  2.3444  2.3459  2.3474  2.3489  2.3504  2.3519
  2.3534  2.3549  2.3563  2.3578  2.3593  2.3608  2.3622
  2.3637  2.3652  2.3666  2.3681  2.3695  2.3710  2.3724
  2.3739  2.3753  2.3767  2.3782  2.3796  2.3810  2.3824
  2.3839  2.3853  2.3867  2.3881  2.3895  2.3909  2.3923
  2.3937  2.3951  2.3965  2.3978  2.3992  2.4006  2.4020
  2.4033  2.4047  2.4061  2.4074  2.4088  2.4101  2.4115
  2.4128  2.4142  2.4155  2.4168  2.4182  2.4195  2.4208
  2.4222  2.4235  2.4248  2.4261  2.4274  2.4287  2.4300
  2.4314  2.4327  2.4340  2.4352  2.4365  2.4378  2.4391
  2.4404  2.4417  2.4430  2.4442  2.4455  2.4468  2.4480
  2.4493  2.4506  2.4518  2.4531  2.4543  2.4556  2.4568
  2.4581  2.4593  2.4606  2.4618  2.4630  2.4643  2.4655
  2.4667  2.4680  2.4692  2.4704  2.4716  2.4728  2.4740
  2.4753  2.4765  2.4777  2.4789  2.4801  2.4813  2.4825
  2.4837  2.4849  2.4860  2.4872  2.4884  2.4896  2.4908
  2.4919  2.4931  2.4943  2.4955  2.4966  2.4978  2.4990
  2.5001  2.5013  2.5024  2.5036  2.5047  2.5059  2.5070
  2.5082  2.5093  2.5105  2.5116  2.5127  2.5139  2.5150
  2.5161  2.5172  2.5184  2.5195  2.5206  2.5217  2.5229
  2.5240  2.5251  2.5262  2.5273  2.5284  2.5295  2.5306
  2.5317  2.5328  2.5339  2.5350  2.5361  2.5372  2.5383
  2.5394  2.5404  2.5415  2.5426  2.5437  2.5448  2.5458
  2.5469  2.5480  2.5490  2.5501  2.5512  2.5522  2.5533
  2.5544  2.5554  2.5565  2.5575  2.5586  2.5596  2.5607
  2.5617  2.5628  2.5638  2.5649  2.5659  2.5669  2.5680
  2.5690  2.5700  2.5711  2.5721  2.5731  2.5741  2.5752
  2.5762  2.5772  2.5782  2.5792  2.5803  2.5813  2.5823
  2.5833  2.5843  2.5853  2.5863  2.5873  2.5883  2.5893
  2.5903  2.5913  2.5923  2.5933  2.5943  2.5953  2.5963
  2.5973  2.5982  2.5992  2.6002  2.6012  2.6022  2.6031
  2.6041  2.6051  2.6061  2.6070  2.6080  2.6090  2.6099
```

```
2.6109  2.6119  2.6128  2.6138  2.6148  2.6157  2.6167
2.6176  2.6186  2.6195  2.6205  2.6214  2.6224  2.6233
2.6243  2.6252  2.6261  2.6271  2.6280  2.6290  2.6299
2.6308  2.6318  2.6327  2.6336  2.6346  2.6355  2.6364
2.6373  2.6383  2.6392  2.6401  2.6410  2.6419  2.6428
2.6438  2.6447  2.6456  2.6465  2.6474  2.6483  2.6492
2.6501  2.6510  2.6519  2.6528  2.6537  2.6546  2.6555
2.6564  2.6573  2.6582  2.6591  2.6600

* *S 10 YEAR 24HR STORM EXISTING CONDITION
*RAINFALL            TYPE=2   0.0  1.08   1.41  1.78     DT=0.1
*S
*S BASINS CONTRIBUTING TO POND 108
* **** SUB-BASIN 101 ****
* NW CORNER OF PARKING LOT @ NW CORNER OF SITE
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=381 FT  SLOPE=0.003  K=2.0
                     KN=0.021   CENTROID DIST=153 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0           .000000             .0000
     SHALLOW FLOW PORTION         381.0           .003000            2.0000
     CHANNEL FLOW PORTION           .0           .000000             .0000
     TOTAL BASIN                  381.0           .003000            2.0000

          TIME OF CONCENTRATION (HRS)=    .0966     TIME TO PEAK (HRS)=    .0644     LAG TIME (HRS)=    .0725


          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=    .2000     TIME TO PEAK (HRS)=    .1333     LAG TIME (HRS)=
.1500

     COMPUTE NM HYD       ID=1   HYD NO=101   DA=0.0011 SQ MI
                          PER A=5 PER B=0  PER C=0  PER D=95
                          TP=0.0   MASSRAIN=-1
          TIME TO PEAK (hrs)=    .1333

          K =    .072666HR    TP =    .133333HR    K/TP RATIO =    .545000     SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    4.1247    CFS   UNIT VOLUME =     .9966       B =    526.28      P60 = 1.8700
          AREA =       .001045 SQ MI    IA =     .10000 INCHES    INF =     .04000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .050000


          K =    .163724HR    TP =    .133333HR    K/TP RATIO =  1.227936     SHAPE CONSTANT, N =  2.899764
          UNIT PEAK =    .11284    CFS   UNIT VOLUME =     .8676       B =    273.54      P60 = 1.8700
          AREA =       .000055 SQ MI    IA =     .65000 INCHES    INF =   1.67000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .050000

     PRINT HYD            ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   101.00


          RUNOFF VOLUME =     2.32785 INCHES     =        .1366 ACRE-FEET
          PEAK DISCHARGE RATE =       2.93 CFS  AT   1.500 HOURS   BASIN AREA =    .0011 SQ. MI.


     *
     * **** SUB-BASIN 102 ****
     * PARKING LOT @ NW CORNER OF SITE
     COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                          NK=1   ISLOPE=0
                          LENGTH=955 FT  SLOPE=0.005  K=2.0
                          KN=0.021   CENTROID DIST=377 FT

          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                   LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             .0           .000000             .0000
          SHALLOW FLOW PORTION         955.0           .005000            2.0000
          CHANNEL FLOW PORTION           .0           .000000             .0000
          TOTAL BASIN                  955.0           .005000            2.0000


          TIME OF CONCENTRATION (HRS)=    .1876     TIME TO PEAK (HRS)=    .1251     LAG TIME (HRS)=    .1407


          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=    .2000     TIME TO PEAK (HRS)=    .1333     LAG TIME (HRS)=
.1500

     COMPUTE NM HYD       ID=2   HYD NO=102   DA=0.01 SQ MI
                          PER A=5 PER B=10  PER C=0  PER D=85
                          TP=0.0   MASSRAIN=-1
```

```
     TIME TO PEAK (hrs)=    .1333

     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   33.550    CFS   UNIT VOLUME =    .9988       B =   526.28      P60 = 1.8700
     AREA =      .008500 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .141924HR    TP =   .133333HR    K/TP RATIO =  1.064435     SHAPE CONSTANT, N =  3.317659
     UNIT PEAK =   3.4512    CFS   UNIT VOLUME =    .9960       B =   306.77      P60 = 1.8700
     AREA =      .001500 SQ MI    IA =    .55000 INCHES    INF =   1.39000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD            ID=2   CODE=1

                                   PARTIAL HYDROGRAPH   102.00


    RUNOFF VOLUME =     2.15031 INCHES     =       1.1468 ACRE-FEET
    PEAK DISCHARGE RATE =      25.06 CFS  AT   1.500 HOURS   BASIN AREA =   .0100 SQ. MI.


*
* ADD 101 TO 102 TO GET 102.1
ADD HYD              ID=3  HYD NO=102.1  ID I=1   ID II=2
PRINT HYD            ID=3   CODE=1

                                   PARTIAL HYDROGRAPH   102.10


    RUNOFF VOLUME =     2.16785 INCHES     =       1.2834 ACRE-FEET
    PEAK DISCHARGE RATE =      27.99 CFS  AT   1.500 HOURS   BASIN AREA =   .0111 SQ. MI.


*
* ROUTE 102.1 THRU 108 IN V-DITCH TO 108.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5096     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.030           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100      10  5096
                        20  5100

                                   RATING CURVE VALLEY SECTION  1.0
                                      WATER       FLOW        FLOW        TOP
                                    SURFACE       AREA        RATE       WIDTH
                                      ELEV       SQ FT         CFS         FT
                                   5096.00         .00         .00         .00
                                   5096.21         .11         .08        1.05
                                   5096.42         .44         .52        2.10
                                   5096.63        1.00        1.54        3.16
                                   5096.84        1.77        3.32        4.21
                                   5097.05        2.77        6.01        5.26
                                   5097.26        3.99        9.78        6.31
                                   5097.47        5.43       14.75        7.37
                                   5097.68        7.09       21.06        8.42
                                   5097.89        8.97       28.83        9.47
                                   5098.10       11.07       38.18       10.52
                                   5098.31       13.40       49.23       11.57
                                   5098.53       15.94       62.09       12.63
                                   5098.74       18.71       76.86       13.68
                                   5098.95       21.70       93.66       14.73
                                   5099.16       24.91      112.58       15.78
                                   5099.37       28.34      133.72       16.84
                                   5099.58       32.00      157.18       17.89
                                   5099.79       35.87      183.06       18.94
                                   5100.00       39.97      211.46       19.99
     ROUTE MCUNGE         ID=4   HYD NO=108.1  INFLOW ID=3
                          DT=0.0   L=570 FT   NS=0   SLOPE=0.005
                          MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

          INFLOW END= 497              TABLE PTS= 20
          DT=  .050000                 QMED=       13.99  CKMED=      3.4541
          WIDTH MED=        7.21       NREACH=  2         DX=       285.00

      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)
        .00      .0      .0     .292     .0      1.58      .34    1.000    .000    1.000    .000    .000       .0   1.000
.000   .000
        .21      .1      .1     .213    1.1      1.53      .74     .964    .036     .964    .000    .036       .0   .994
.000   .006
        .42      .4      .5     .134    2.1      1.64     1.18    1.036    .106     .901    .066    .033       .2   .941
.025   .035
        .63     1.0     1.5     .102    3.2      2.11     1.55    1.330    .163     .870    .198   -.067      1.0   .877
.126  -.003
        .84     1.8     3.3     .085    4.2      2.53     1.87    1.597    .219     .845    .290   -.134      2.3   .851
.241  -.092
       1.05     2.8     6.0     .073    5.3      2.92     2.17    1.846    .274     .824    .359   -.183      4.6   .830
.323  -.153
```

1.26	4.0	9.8	.065	6.3	3.29	2.45	2.079	.330	.806	.413	-.220	7.8	.811
.385	-.197												
1.47	5.4	14.8	.058	7.4	3.64	2.72	2.301	.386	.791	.457	-.248	12.2	.795
.435	-.230												
1.68	7.1	21.1	.053	8.4	3.98	2.97	2.512	.441	.777	.494	-.271	17.8	.781
.475	-.257												
1.89	9.0	28.8	.049	9.5	4.30	3.21	2.716	.497	.764	.525	-.289	24.8	.768
.509	-.278												
2.10	11.1	38.2	.046	10.5	4.61	3.45	2.912	.552	.753	.552	-.305	33.4	.756
.538	-.295												
2.31	13.4	49.2	.043	11.6	4.91	3.67	3.101	.608	.742	.575	-.317	43.6	.745
.563	-.309												
2.53	15.9	62.1	.041	12.6	5.20	3.89	3.286	.663	.732	.596	-.328	55.5	.735
.585	-.321												
2.74	18.7	76.9	.039	13.7	5.49	4.11	3.465	.719	.723	.614	-.337	69.3	.726
.605	-.331												
2.95	21.7	93.7	.037	14.7	5.76	4.32	3.640	.774	.714	.631	-.345	85.1	.717
.622	-.339												
3.16	24.9	112.6	.035	15.8	6.03	4.52	3.810	.830	.706	.645	-.351	103.0	.709
.638	-.347												
3.37	28.3	133.7	.034	16.8	6.30	4.72	3.977	.885	.698	.659	-.357	123.0	.701
.652	-.353												
3.58	32.0	157.2	.032	17.9	6.56	4.91	4.141	.941	.691	.671	-.362	145.3	.693
.665	-.358												
3.79	35.9	183.1	.031	18.9	6.81	5.10	4.301	.996	.684	.682	-.366	170.0	.686
.677	-.363												
4.00	40.0	211.5	.030	20.0	6.91	5.29	4.364	1.074	.666	.689	-.356	197.1	.680
.688	-.367												

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 12 TIMES. AVERAGE NUMBER ITERATIONS = 1.0607
Equations solved using the Ponce correction to C2
PRINT HYD ID=4 CODE=1

PARTIAL HYDROGRAPH 108.10

RUNOFF VOLUME = 2.16734 INCHES = 1.2831 ACRE-FEET
PEAK DISCHARGE RATE = 27.33 CFS AT 1.550 HOURS BASIN AREA = .0111 SQ. MI.

*
* **** SUB-BASIN 108 ****
* WEST BASEBALL FIELD
COMPUTE LT TP LCODE=1 UPLAND/LAG TIME METHOD
NK=1 ISLOPE=0
LENGTH=423 FT SLOPE=0.004 K=2.0
KN=0.021 CENTROID DIST=220 FT

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	.0	.000000	.0000
SHALLOW FLOW PORTION	423.0	.004000	2.0000
CHANNEL FLOW PORTION	.0	.000000	.0000
TOTAL BASIN	423.0	.004000	2.0000

TIME OF CONCENTRATION (HRS)= .0929 TIME TO PEAK (HRS)= .0619 LAG TIME (HRS)= .0697

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

COMPUTE NM HYD ID=1 HYD NO=108 DA=0.0035 SQ MI
PER A=70 PER B=25 PER C=0 PER D=5
TP=0.0 MASSRAIN=-1
TIME TO PEAK (hrs)= .1333

K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = .69074 CFS UNIT VOLUME = .9832 B = 526.28 P60 = 1.8700
AREA = .000175 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .155119HR TP = .133333HR K/TP RATIO = 1.163396 SHAPE CONSTANT, N = 3.047301
UNIT PEAK = 7.1236 CFS UNIT VOLUME = .9974 B = 285.66 P60 = 1.8700
AREA = .003325 SQ MI IA = .61053 INCHES INF = 1.55947 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 108.00

RUNOFF VOLUME = .58809 INCHES = .1098 ACRE-FEET
PEAK DISCHARGE RATE = 3.58 CFS AT 1.500 HOURS BASIN AREA = .0035 SQ. MI.

*

```
* ADD 108.1 TO 108 TO GET 108.2
ADD HYD              ID=2  HYD NO=108.2  ID I=1   ID II=4
PRINT HYD            ID=2   CODE=1

                                  PARTIAL HYDROGRAPH   108.20


    RUNOFF VOLUME =     1.78869 INCHES     =       1.3928 ACRE-FEET
    PEAK DISCHARGE RATE =      30.75 CFS  AT   1.550 HOURS   BASIN AREA =    .0146 SQ. MI.



*
*
*
*S BASINS CONTRIBUTING TO POND 111
* **** SUB-BASIN 111 ****
* EAST BASEBALL FIELD
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=382 FT  SLOPE=0.012  K=2.0
                     KN=0.021   CENTROID DIST=209 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION              .0          .000000             .0000
     SHALLOW FLOW PORTION          382.0          .012000            2.0000
     CHANNEL FLOW PORTION            .0          .000000             .0000
     TOTAL BASIN                   382.0          .012000            2.0000


     TIME OF CONCENTRATION (HRS)=   .0484     TIME TO PEAK (HRS)=   .0323     LAG TIME (HRS)=   .0363


     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

  COMPUTE NM HYD       ID=1   HYD NO=111   DA=.0034 SQ MI
                       PER A=75 PER B=15  PER C=5  PER D=5
                       TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .1333

     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   .67100    CFS   UNIT VOLUME =    .9832       B =   526.28      P60 = 1.8700
     AREA =      .000170 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .155517HR    TP =   .133333HR    K/TP RATIO =  1.166384     SHAPE CONSTANT, N =  3.040026
     UNIT PEAK =   6.9058    CFS   UNIT VOLUME =    .9971       B =   285.07      P60 = 1.8700
     AREA =      .003230 SQ MI    IA =    .61053 INCHES    INF =   1.55947 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

  PRINT HYD            ID=1   CODE=1

                                  PARTIAL HYDROGRAPH   111.00


     RUNOFF VOLUME =      .58809 INCHES     =        .1066 ACRE-FEET
     PEAK DISCHARGE RATE =       3.48 CFS  AT   1.500 HOURS   BASIN AREA =    .0034 SQ. MI.

*
*
*
*S BASINS CONTRIBUTING TO POND 107
* **** SUB-BASIN 107 ****
* MAIN BLDG
COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                     NK=1   ISLOPE=0
                     LENGTH=373 FT  SLOPE=0.01  K=2.0
                     KN=0.021   CENTROID DIST=237 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION              .0          .000000             .0000
     SHALLOW FLOW PORTION          373.0          .010000            2.0000
     CHANNEL FLOW PORTION            .0          .000000             .0000
     TOTAL BASIN                   373.0          .010000            2.0000


     TIME OF CONCENTRATION (HRS)=   .0518     TIME TO PEAK (HRS)=   .0345     LAG TIME (HRS)=   .0389


     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
```

```
      REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

  COMPUTE NM HYD       ID=1   HYD NO=107   DA=.004 SQ MI
                       PER A=35 PER B=15  PER C=5  PER D=45
                       TP=0.0   MASSRAIN=-1
      TIME TO PEAK (hrs)=   .1333

      K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
      UNIT PEAK =   7.1047    CFS   UNIT VOLUME =    .9975       B =   526.28      P60 = 1.8700
      AREA =      .001800 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


      K =   .149549HR    TP =   .133333HR    K/TP RATIO =  1.121619     SHAPE CONSTANT, N =  3.154190
      UNIT PEAK =   4.8537    CFS   UNIT VOLUME =    .9968       B =   294.16      P60 = 1.8700
      AREA =      .002200 SQ MI    IA =    .58182 INCHES    INF =   1.47909 INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

  PRINT HYD            ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   107.00


     RUNOFF VOLUME =     1.38474 INCHES     =        .2954 ACRE-FEET
     PEAK DISCHARGE RATE =       7.19 CFS  AT   1.500 HOURS   BASIN AREA =   .0040 SQ. MI.

*
*
*
*
*S BASINS CONTRIBUTING TO POND 110
* **** SUB-BASIN 103 ****
* SW CORNER OF SITE
COMPUTE LT TP          LCODE=1   UPLAND/LAG TIME METHOD
                       NK=1   ISLOPE=0
                       LENGTH=1667 FT  SLOPE=0.004  K=2.0
                       KN=0.021   CENTROID DIST=337 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0          .000000             .0000
     SHALLOW FLOW PORTION        1667.0          .004000            2.0000
     CHANNEL FLOW PORTION           .0          .000000             .0000
     TOTAL BASIN                 1667.0          .004000            2.0000


     TIME OF CONCENTRATION (HRS)=   .3661     TIME TO PEAK (HRS)=   .2441     LAG TIME (HRS)=   .2746

COMPUTE NM HYD         ID=3   HYD NO=103   DA=0.0099 SQ MI
                       PER A=5 PER B=10  PER C=0  PER D=85
                       TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .2441

     K =   .133008HR    TP =   .244052HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   18.146    CFS   UNIT VOLUME =    .9992       B =   526.28      P60 = 1.8700
     AREA =      .008415 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .259777HR    TP =   .244052HR    K/TP RATIO =  1.064435     SHAPE CONSTANT, N =  3.317659
     UNIT PEAK =   1.8666    CFS   UNIT VOLUME =    .9926       B =   306.77      P60 = 1.8700
     AREA =      .001485 SQ MI    IA =    .55000 INCHES    INF =   1.39000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD              ID=3   CODE=1

                                   PARTIAL HYDROGRAPH   103.00


     RUNOFF VOLUME =     2.15031 INCHES     =        1.1354 ACRE-FEET
     PEAK DISCHARGE RATE =      18.50 CFS  AT   1.600 HOURS   BASIN AREA =   .0099 SQ. MI.


*
* **** SUB-BASIN 104 ****
* COURTYARD AREA
COMPUTE LT TP          LCODE=1   UPLAND/LAG TIME METHOD
                       NK=1   ISLOPE=0
                       LENGTH=282 FT  SLOPE=0.007  K=2.0
                       KN=0.021   CENTROID DIST=146 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0          .000000             .0000
     SHALLOW FLOW PORTION         282.0          .007000            2.0000
```

```
CHANNEL FLOW PORTION                .0          .000000              .0000
TOTAL BASIN                       282.0         .007000             2.0000

TIME OF CONCENTRATION (HRS)=   .0468     TIME TO PEAK (HRS)=   .0312     LAG TIME (HRS)=   .0351


TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

COMPUTE NM HYD       ID=1   HYD NO=104   DA=0.0015 SQ MI
                     PER A=0 PER B=45  PER C=10  PER D=55
                     TP=0.0   MASSRAIN=-1
TIME TO PEAK (hrs)=   .1333
*****WARNING*****  SUM OF TREATMENT TYPES DOES NOT EQUAL 100 PERCENT OR TOTAL AREA


K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
UNIT PEAK =   2.9603    CFS   UNIT VOLUME =    .9959       B =   526.28      P60 = 1.8700
AREA =      .000750 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


K =   .126455HR    TP =   .133333HR    K/TP RATIO =   .948415     SHAPE CONSTANT, N =  3.727038
UNIT PEAK =   1.8930    CFS   UNIT VOLUME =    .9947       B =   336.54      P60 = 1.8700
AREA =      .000750 SQ MI    IA =    .47273 INCHES    INF =   1.17364 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD            ID=1   CODE=1

                                PARTIAL HYDROGRAPH   104.00

    RUNOFF VOLUME =     1.57240 INCHES     =        .1258 ACRE-FEET
    PEAK DISCHARGE RATE =       3.11 CFS  AT   1.500 HOURS   BASIN AREA =   .0015 SQ. MI.


*
* ROUTE 104 THRU 105 IN OPEN CHANNEL TO 105.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5097     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.015           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100       0  5099
                        10  5097      20  5099
                        20  5100

                              RATING CURVE VALLEY SECTION  1.0
                                 WATER       FLOW        FLOW        TOP
                                SURFACE      AREA        RATE       WIDTH
                                 ELEV       SQ FT       CFS         FT
                               5097.00         .00         .00         .00
                               5097.16         .12         .16        1.58
                               5097.32         .50        1.00        3.15
                               5097.47        1.12        2.96        4.73
                               5097.63        1.99        6.38        6.31
                               5097.79        3.11       11.56        7.89
                               5097.95        4.48       18.80        9.46
                               5098.10        6.09       28.35       11.04
                               5098.26        7.96       40.48       12.62
                               5098.42       10.07       55.42       14.19
                               5098.58       12.44       73.40       15.77
                               5098.73       15.05       94.64       17.35
                               5098.89       17.91      119.35       18.93
                               5099.05       21.01      149.82       20.00
                               5099.21       24.16      188.20       20.00
                               5099.37       27.31      229.73       20.00
                               5099.52       30.47      274.24       20.00
                               5099.68       33.62      321.56       20.00
                               5099.84       36.78      371.55       20.00
                               5100.00       39.93      424.06       20.00
ROUTE MCUNGE         ID=2   HYD NO=105.1  INFLOW ID=1
                     DT=0.0   L=270 FT   NS=0   SLOPE=0.005
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

     INFLOW END= 487              TABLE PTS= 20
     DT=  .050000                 QMED=        1.56  CKMED=      3.1458
     WIDTH MED=        3.60       NREACH=  1         DX=      270.00

      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)
        .00      .0      .0     .081     .0      1.50      .58    1.000    .000    1.000    .000    .000       .0    1.000
.000   .000
        .16      .1      .2     .059    1.6      1.77     1.27    1.182    .042    .962     .101   -.063       .0    .994
.016  -.010
        .32      .5     1.0     .037    3.2      2.81     2.02    1.872    .084    .943     .323   -.266       .5    .947
.210  -.157
        .47     1.1     3.0     .028    4.7      3.60     2.64    2.402    .129    .927     .434   -.361      1.8    .930
```

```
.372  -.302
        .63    2.0      6.4    .023    6.3    4.33   3.20   2.885   .173   .915   .507   -.422    4.5   .917
.467  -.385
        .79    3.1     11.6    .020    7.9    5.00   3.72   3.334   .217   .905   .561   -.465    8.8   .907
.532  -.439
        .95    4.5     18.8    .018    9.5    5.63   4.20   3.756   .261   .896   .601   -.497   15.0   .898
.580  -.478
       1.10    6.1     28.4    .016   11.0    6.23   4.65   4.156   .305   .888   .634   -.522   23.4   .890
.617  -.507
       1.26    8.0     40.5    .015   12.6    6.81   5.09   4.538   .349   .881   .660   -.542   34.2   .883
.646  -.530
       1.42   10.1     55.4    .014   14.2    7.36   5.50   4.905   .393   .875   .682   -.558   47.7   .877
.671  -.548
       1.58   12.4     73.4    .013   15.8    7.89   5.90   5.260   .437   .869   .701   -.571   64.2   .871
.692  -.563
       1.73   15.0     94.6    .012   17.3    8.40   6.29   5.602   .481   .864   .718   -.582   83.8   .866
.709  -.575
       1.89   17.9    119.4    .011   18.9    9.21   6.66   6.143   .507   .867   .739   -.606  106.7   .861
.725  -.585
       2.05   21.0    149.8    .011   20.0   10.85   7.13   7.232   .512   .883   .771   -.654  134.3   .873
.754  -.627
       2.21   24.2    188.2    .010   20.0   12.68   7.79   8.452   .550   .890   .800   -.690  168.6   .893
.792  -.686
       2.37   27.3    229.7    .009   20.0   13.65   8.41   9.100   .623   .884   .813   -.697  208.6   .887
.807  -.694
       2.52   30.5    274.2    .008   20.0   14.56   9.00   9.710   .697   .878   .825   -.702  251.6   .881
.819  -.700
       2.68   33.6    321.6    .008   20.0   15.43   9.56  10.288   .772   .872   .834   -.706  297.5   .875
.830  -.704
       2.84   36.8    371.5    .007   20.0   16.25  10.10  10.836   .847   .867   .842   -.709  346.2   .869
.838  -.708
       3.00   39.9    424.1    .007   20.0   17.04  10.62  11.362   .922   .861   .849   -.711  397.5   .864
.846  -.710
    MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   2 OCCURRED      21 TIMES.  AVERAGE NUMBER ITERATIONS =  1.0364
    Equations solved using the Ponce correction to C2
    PRINT HYD           ID=2   CODE=1

                                    PARTIAL HYDROGRAPH   105.10


        RUNOFF VOLUME =     1.57267 INCHES     =        .1258 ACRE-FEET
        PEAK DISCHARGE RATE =       3.02 CFS  AT   1.500 HOURS   BASIN AREA =   .0015 SQ. MI.



    *
    * **** SUB-BASIN 105 ****
    * FRONT YARD AND PARKING AREA
    COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
                          NK=1   ISLOPE=0
                          LENGTH=430 FT  SLOPE=0.007  K=2.0
                          KN=0.021   CENTROID DIST=220 FT

         Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

         SCS UPLAND METHOD FACTORS
                                  LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
         SHEET FLOW PORTION              .0           .000000             .0000
         SHALLOW FLOW PORTION          430.0           .007000            2.0000
         CHANNEL FLOW PORTION            .0           .000000             .0000
         TOTAL BASIN                   430.0           .007000            2.0000


         TIME OF CONCENTRATION (HRS)=   .0714     TIME TO PEAK (HRS)=   .0476     LAG TIME (HRS)=   .0535


         TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
         REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

    COMPUTE NM HYD        ID=4   HYD NO=105   DA=0.0018 SQ MI
                          PER A=15 PER B=0  PER C=0  PER D=85
                          TP=0.0   MASSRAIN=-1
         TIME TO PEAK (hrs)=   .1333

         K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
         UNIT PEAK =   6.0390   CFS   UNIT VOLUME =    .9975       B =   526.28      P60 = 1.8700
         AREA =      .001530 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


         K =   .163724HR    TP =   .133333HR    K/TP RATIO =  1.227936     SHAPE CONSTANT, N =  2.899764
         UNIT PEAK =   .55393    CFS   UNIT VOLUME =    .9727       B =   273.54      P60 = 1.8700
         AREA =      .000270 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

    PRINT HYD             ID=4   CODE=1

                                    PARTIAL HYDROGRAPH   105.00


        RUNOFF VOLUME =     2.12906 INCHES     =        .2044 ACRE-FEET
```

PEAK DISCHARGE RATE = 4.44 CFS AT 1.500 HOURS BASIN AREA = .0018 SQ. MI.

```
*
* ADD 103 TO 105 TO GET 105.2
ADD HYD              ID=1  HYD NO=105.2  ID I=3   ID II=4
PRINT HYD            ID=1   CODE=1
```

PARTIAL HYDROGRAPH 105.20

RUNOFF VOLUME = 2.14697 INCHES = 1.3397 ACRE-FEET
PEAK DISCHARGE RATE = 21.51 CFS AT 1.600 HOURS BASIN AREA = .0117 SQ. MI.

```
*
* ADD 105.1 TO 105.2 TO GET 105.3
ADD HYD              ID=3  HYD NO=105.3  ID I=1   ID II=2
PRINT HYD            ID=3   CODE=1
```

PARTIAL HYDROGRAPH 105.30

RUNOFF VOLUME = 2.08165 INCHES = 1.4655 ACRE-FEET
PEAK DISCHARGE RATE = 23.97 CFS AT 1.600 HOURS BASIN AREA = .0132 SQ. MI.

```
*
* ROUTE 104 THRU 105 IN OPEN CHANNEL TO 105.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5097     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.015           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100       0  5099
                        10  5097      20  5099
                        20  5100
```

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
5097.00	.00	.00	.00
5097.16	.12	.16	1.58
5097.32	.50	1.00	3.15
5097.47	1.12	2.96	4.73
5097.63	1.99	6.38	6.31
5097.79	3.11	11.56	7.89
5097.95	4.48	18.80	9.46
5098.10	6.09	28.35	11.04
5098.26	7.96	40.48	12.62
5098.42	10.07	55.42	14.19
5098.58	12.44	73.40	15.77
5098.73	15.05	94.64	17.35
5098.89	17.91	119.35	18.93
5099.05	21.01	149.82	20.00
5099.21	24.16	188.20	20.00
5099.37	27.31	229.73	20.00
5099.52	30.47	274.24	20.00
5099.68	33.62	321.56	20.00
5099.84	36.78	371.55	20.00
5100.00	39.93	424.06	20.00

```
ROUTE MCUNGE         ID=4   HYD NO=110.1  INFLOW ID=3
                     DT=0.0   L=500 FT   NS=0   SLOPE=0.005
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

     INFLOW END= 511           TABLE PTS= 20
     DT=  .050000              QMED=      11.99  CKMED=     5.2902
     WIDTH MED=       7.98     NREACH= 1         DX=      500.00
```

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.150	.0	2.78	.58	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.16	.1	.2	.109	1.6	2.74	1.27	.985	.015	.985	.000	.015	.0	.998	.000	.002
.32	.5	1.0	.069	3.2	2.81	2.02	1.011	.045	.956	.027	.017	.5	.974	.010	.015
.47	1.1	3.0	.053	4.7	3.60	2.64	1.297	.069	.941	.155	-.096	1.8	.945	.083	-.027
.63	2.0	6.4	.043	6.3	4.33	3.20	1.558	.093	.930	.246	-.175	4.5	.933	.196	-.129
.79	3.1	11.6	.037	7.9	5.00	3.72	1.800	.117	.920	.315	-.234	8.8	.922	.278	-.200
.95	4.5	18.8	.033	9.5	5.63	4.20	2.028	.141	.911	.369	-.280	15.0	.913	.340	-.254
1.10	6.1	28.4	.030	11.0	6.23	4.65	2.244	.165	.903	.413	-.317	23.4	.906	.390	-.296
1.26	8.0	40.5	.027	12.6	6.81	5.09	2.451	.189	.896	.450	-.347	34.2	.899		

```
.431  -.330
        1.42   10.1     55.4    .025    14.2     7.36    5.50    2.649    .212    .890    .482   -.372     47.7    .892
.466  -.358
        1.58   12.4     73.4    .024    15.8     7.89    5.90    2.840    .236    .884    .509   -.394     64.2    .886
.495  -.381
        1.73   15.0     94.6    .022    17.3     8.40    6.29    3.025    .260    .879    .533   -.412     83.8    .881
.521  -.401
        1.89   17.9    119.4    .021    18.9     9.21    6.66    3.317    .274    .881    .564   -.445    106.7    .876
.543  -.419
        2.05   21.0    149.8    .019    20.0    10.85    7.13    3.905    .276    .893    .614   -.507    134.3    .885
.588  -.473
        2.21   24.2    188.2    .018    20.0    12.68    7.79    4.564    .297    .899    .659   -.557    168.6    .902
.647  -.549
        2.37   27.3    229.7    .017    20.0    13.65    8.41    4.914    .337    .892    .680   -.572    208.6    .895
.670  -.565
        2.52   30.5    274.2    .015    20.0    14.56    9.00    5.243    .377    .886    .698   -.584    251.6    .889
.689  -.579
        2.68   33.6    321.6    .015    20.0    15.43    9.56    5.555    .417    .880    .713   -.594    297.5    .883
.706  -.589
        2.84   36.8    371.5    .014    20.0    16.25   10.10    5.852    .457    .875    .726   -.601    346.2    .878
.720  -.598
        3.00   39.9    424.1    .013    20.0    17.04   10.62    6.135    .498    .870    .738   -.608    397.5    .872
.732  -.605
    MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   3 OCCURRED        4 TIMES.  AVERAGE NUMBER ITERATIONS =  1.0589
      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)
        .00      .0       .0     .150     .0      2.78      .58    1.000     .000    1.000    .000    .000       .0    1.000
.000    .000
        .16      .1       .2     .109    1.6      2.74     1.27     .985     .015     .985    .000    .015       .0     .998
.000    .002
        .32      .5      1.0     .069    3.2      2.81     2.02    1.011     .045     .956    .027    .017       .5     .974
.010    .015
        .47     1.1      3.0     .053    4.7      3.01     2.64    1.083     .083     .923    .077    .000      1.8     .940
.060    .000
        .63     2.0      6.4     .043    6.3      3.14     3.20    1.129     .129     .886    .114    .000      4.5     .904
.096    .000
        .79     3.1     11.6     .037    7.9      3.28     3.72    1.179     .179     .848    .152    .000      8.8     .866
.134    .000
        .95     4.5     18.8     .033    9.5      3.42     4.20    1.232     .232     .812    .188    .000     15.0     .829
.171    .000
       1.10     6.1     28.4     .030   11.0      3.58     4.65    1.287     .287     .777    .223    .000     23.4     .793
.207    .000
       1.26     8.0     40.5     .027   12.6      3.73     5.09    1.344     .344     .744    .256    .000     34.2     .760
.240    .000
       1.42    10.1     55.4     .025   14.2      3.89     5.50    1.401     .401     .714    .286    .000     47.7     .728
.272    .000
       1.58    12.4     73.4     .024   15.8      4.05     5.90    1.459     .459     .685    .315    .000     64.2     .699
.301    .000
       1.73    15.0     94.6     .022   17.3      4.22     6.29    1.518     .518     .659    .341    .000     83.8     .672
.328    .000
       1.89    17.9    119.4     .021   18.9      4.38     6.66    1.576     .576     .634    .366    .000    106.7     .646
.354    .000
       2.05    21.0    149.8     .019   20.0      4.59     7.13    1.653     .653     .605    .395    .000    134.3     .619
.381    .000
       2.21    24.2    188.2     .018   20.0      4.91     7.79    1.767     .767     .566    .434    .000    168.6     .585
.415    .000
       2.37    27.3    229.7     .017   20.0      5.22     8.41    1.880     .880     .532    .468    .000    208.6     .548
.452    .000
       2.52    30.5    274.2     .015   20.0      5.53     9.00    1.991     .991     .502    .498    .000    251.6     .517
.483    .000
       2.68    33.6    321.6     .015   20.0      5.84     9.56    2.102    1.102     .476    .524    .000    297.5     .489
.511    .000
       2.84    36.8    371.5     .014   20.0      6.14    10.10    2.210    1.210     .452    .548    .000    346.2     .464
.536    .000
       3.00    39.9    424.1     .013   20.0      6.44    10.62    2.317    1.317     .432    .568    .000    397.5     .442
.558    .000
    MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   2 OCCURRED       30 TIMES.  AVERAGE NUMBER ITERATIONS =  1.0520
    Equations solved with two passes: first using the Ponce correction to C1, second using the Fread correction to C1,
C2 and C3
    PRINT HYD           ID=4   CODE=1

                                        PARTIAL HYDROGRAPH   110.10


      RUNOFF VOLUME =     2.07963 INCHES     =       1.4640 ACRE-FEET
      PEAK DISCHARGE RATE =      23.86 CFS  AT   1.600 HOURS   BASIN AREA =    .0132 SQ. MI.



    *
    * **** SUB-BASIN 110 ****
    * SOUTH HALF OF SOCCER FIELD
    COMPUTE LT TP         LCODE=1   UPLAND/LAG TIME METHOD
                          NK=1   ISLOPE=0
                          LENGTH=497 FT  SLOPE=0.008  K=2.0
                          KN=0.021   CENTROID DIST=301 FT

        Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

        SCS UPLAND METHOD FACTORS
                                  LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
        SHEET FLOW PORTION                .0          .000000             .0000
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```
          SHALLOW FLOW PORTION          497.0          .008000          2.0000
          CHANNEL FLOW PORTION            .0          .000000           .0000
          TOTAL BASIN                   497.0          .008000          2.0000


          TIME OF CONCENTRATION (HRS)=   .0772     TIME TO PEAK (HRS)=   .0515     LAG TIME (HRS)=   .0579


          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

     COMPUTE NM HYD       ID=5   HYD NO=110   DA=0.005 SQ MI
                          PER A=90 PER B=0  PER C=5  PER D=5
                          TP=0.0   MASSRAIN=-1
          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =   .98677    CFS   UNIT VOLUME =    .9890       B =   526.28      P60 = 1.8700
          AREA =      .000250 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


          K =   .160681HR    TP =   .133333HR    K/TP RATIO =  1.205107     SHAPE CONSTANT, N =  2.949709
          UNIT PEAK =   9.8929    CFS   UNIT VOLUME =    .9970       B =   277.70      P60 = 1.8700
          AREA =      .004750 SQ MI    IA =    .63421 INCHES    INF =   1.62579 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

     PRINT HYD            ID=5   CODE=1

                                   PARTIAL HYDROGRAPH   110.00


          RUNOFF VOLUME =      .55707 INCHES     =        .1486 ACRE-FEET
          PEAK DISCHARGE RATE =       4.80 CFS  AT   1.500 HOURS   BASIN AREA =   .0050 SQ. MI.


     *
     * **** SUB-BASIN 112 ****
     * WEST SIDE OF TRACK & FIELD
     COMPUTE LT TP        LCODE=1   UPLAND/LAG TIME METHOD
                          NK=1   ISLOPE=0
                          LENGTH=318 FT  SLOPE=0.006  K=2.0
                          KN=0.021   CENTROID DIST=266 FT

          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                  LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION              .0          .000000            .0000
          SHALLOW FLOW PORTION          318.0          .006000           2.0000
          CHANNEL FLOW PORTION            .0          .000000            .0000
          TOTAL BASIN                   318.0          .006000           2.0000


          TIME OF CONCENTRATION (HRS)=   .0570     TIME TO PEAK (HRS)=   .0380     LAG TIME (HRS)=   .0428


          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

     COMPUTE NM HYD       ID=1   HYD NO=112   DA=0.002 SQ MI
                          PER A=95 PER B=0  PER C=0  PER D=5
                          TP=0.0   MASSRAIN=-1
          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =   .39471    CFS   UNIT VOLUME =    .9739       B =   526.28      P60 = 1.8700
          AREA =      .000100 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


          K =   .163724HR    TP =   .133333HR    K/TP RATIO =  1.227936     SHAPE CONSTANT, N =  2.899764
          UNIT PEAK =   3.8980    CFS   UNIT VOLUME =    .9947       B =   273.54      P60 = 1.8700
          AREA =      .001900 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

     PRINT HYD            ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   112.00


          RUNOFF VOLUME =      .53875 INCHES     =        .0575 ACRE-FEET
          PEAK DISCHARGE RATE =       1.85 CFS  AT   1.500 HOURS   BASIN AREA =   .0020 SQ. MI.


     *
     * **** SUB-BASIN 113 ****
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* EAST SIDE OF TRACK & FIELD
COMPUTE LT TP          LCODE=1   UPLAND/LAG TIME METHOD
                       NK=1   ISLOPE=0
                       LENGTH=315 FT  SLOPE=0.006  K=2.0
                       KN=0.021   CENTROID DIST=273 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0           .000000             .0000
     SHALLOW FLOW PORTION         315.0           .006000            2.0000
     CHANNEL FLOW PORTION           .0           .000000             .0000
     TOTAL BASIN                  315.0           .006000            2.0000


     TIME OF CONCENTRATION (HRS)=   .0565     TIME TO PEAK (HRS)=   .0377     LAG TIME (HRS)=   .0424


     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

COMPUTE NM HYD         ID=2   HYD NO=113   DA=0.0023 SQ MI
                       PER A=95 PER B=0  PER C=0  PER D=5
                       TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .1333
     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   .45391    CFS   UNIT VOLUME =    .9739       B =   526.28      P60 = 1.8700
     AREA =      .000115 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .163724HR    TP =   .133333HR    K/TP RATIO =  1.227936     SHAPE CONSTANT, N =  2.899764
     UNIT PEAK =   4.4827    CFS   UNIT VOLUME =    .9953       B =   273.54      P60 = 1.8700
     AREA =      .002185 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD              ID=2   CODE=1

                                   PARTIAL HYDROGRAPH   113.00


    RUNOFF VOLUME =      .53875 INCHES     =        .0661 ACRE-FEET
    PEAK DISCHARGE RATE =       2.13 CFS  AT   1.500 HOURS   BASIN AREA =   .0023 SQ. MI.


*
* ADD 112 TO 113 TO GET 110.2
ADD HYD                ID=3  HYD NO=113.1  ID I=1   ID II=2
PRINT HYD              ID=3   CODE=1

                                   PARTIAL HYDROGRAPH   113.10


    RUNOFF VOLUME =      .53867 INCHES     =        .1235 ACRE-FEET
    PEAK DISCHARGE RATE =       3.98 CFS  AT   1.500 HOURS   BASIN AREA =   .0043 SQ. MI.


*
* ADD 110.1 TO 110.2 TO GET 110.3
ADD HYD                ID=1  HYD NO=110.3  ID I=3   ID II=4
PRINT HYD              ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   110.30


    RUNOFF VOLUME =     1.70095 INCHES     =       1.5875 ACRE-FEET
    PEAK DISCHARGE RATE =      26.97 CFS  AT   1.600 HOURS   BASIN AREA =   .0175 SQ. MI.


*
* ADD 110 TO 110.3 TO GET 110.4
ADD HYD                ID=2  HYD NO=110.4  ID I=1   ID II=5
PRINT HYD              ID=2   CODE=1

                                   PARTIAL HYDROGRAPH   110.40


    RUNOFF VOLUME =     1.44675 INCHES     =       1.7361 ACRE-FEET
    PEAK DISCHARGE RATE =      30.72 CFS  AT   1.600 HOURS   BASIN AREA =   .0225 SQ. MI.


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*S BASINS CONTRIBUTING TO POND 109
* **** SUB-BASIN 106 ****
* TENNIS & BASKETBALL COURTS
COMPUTE LT TP          LCODE=1   UPLAND/LAG TIME METHOD
                       NK=1   ISLOPE=0
                       LENGTH=863 FT  SLOPE=0.005  K=2.0
                       KN=0.021   CENTROID DIST=492 FT

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                              LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
     SHEET FLOW PORTION             .0           .000000             .0000
     SHALLOW FLOW PORTION         863.0           .005000            2.0000
     CHANNEL FLOW PORTION           .0           .000000             .0000
     TOTAL BASIN                  863.0           .005000            2.0000


     TIME OF CONCENTRATION (HRS)=   .1695     TIME TO PEAK (HRS)=   .1130     LAG TIME (HRS)=   .1271


     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME (HRS)=
.1500

COMPUTE NM HYD         ID=1   HYD NO=106   DA=0.0076 SQ MI
                       PER A=35 PER B=15  PER C=5  PER D=45
                       TP=0.0   MASSRAIN=-1
     TIME TO PEAK (hrs)=   .1333

     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   13.499    CFS   UNIT VOLUME =    .9983       B =   526.28      P60 = 1.8700
     AREA =      .003420 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .149549HR    TP =   .133333HR    K/TP RATIO =  1.121619     SHAPE CONSTANT, N =  3.154190
     UNIT PEAK =   9.2220    CFS   UNIT VOLUME =    .9983       B =   294.16      P60 = 1.8700
     AREA =      .004180 SQ MI    IA =    .58182 INCHES    INF =   1.47909 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD              ID=1   CODE=1

                                  PARTIAL HYDROGRAPH   106.00


    RUNOFF VOLUME =     1.38474 INCHES     =        .5613 ACRE-FEET
    PEAK DISCHARGE RATE =      13.64 CFS  AT   1.500 HOURS   BASIN AREA =   .0076 SQ. MI.


*
* ROUTE 106 THRU 109 IN OPEN CHANNEL TO 109.1
COMPUTE RATING CURVE  CID=1   VS NO=1   NO SEGS=1
                      MIN ELEV=5096     MAX ELEV=5100
                      CH SLOPE=0.005    FP SLOPE=0.005
                      N=0.035           DIST=20
                      DIST  ELEV    DIST  ELEV
                         0  5100      10  5096
                        20  5100

                                  RATING CURVE VALLEY SECTION  1.0
                                     WATER        FLOW         FLOW         TOP
                                    SURFACE       AREA         RATE        WIDTH
                                      ELEV       SQ FT         CFS          FT
                                   5096.00         .00          .00          .00
                                   5096.21         .11          .07         1.05
                                   5096.42         .44          .45         2.10
                                   5096.63        1.00         1.32         3.16
                                   5096.84        1.77         2.84         4.21
                                   5097.05        2.77         5.15         5.26
                                   5097.26        3.99         8.38         6.31
                                   5097.47        5.43        12.64         7.37
                                   5097.68        7.09        18.05         8.42
                                   5097.89        8.97        24.71         9.47
                                   5098.10       11.07        32.73        10.52
                                   5098.31       13.40        42.20        11.57
                                   5098.53       15.94        53.22        12.63
                                   5098.74       18.71        65.88        13.68
                                   5098.95       21.70        80.28        14.73
                                   5099.16       24.91        96.50        15.78
                                   5099.37       28.34       114.62        16.84
                                   5099.58       32.00       134.73        17.89
                                   5099.79       35.87       156.91        18.94
                                   5100.00       39.97       181.25        19.99
ROUTE MCUNGE           ID=2   HYD NO=109.1  INFLOW ID=1
                       DT=0.0   L=680 FT   NS=0   SLOPE=0.005
                       MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

     INFLOW END= 493              TABLE PTS= 20
     DT=  .050000                 QMED=        6.82  CKMED=      2.6498
     WIDTH MED=        5.80       NREACH=  3         DX=       226.67
```

C2-M	DEPTH C3-M (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M
	.00	.0	.0	.406	.0	1.26	.29	1.000	.000	1.000	.000	.000	.0	1.000
.000	.000													
	.21	.1	.1	.297	1.1	1.20	.64	.951	.049	.951	.000	.049	.0	.992
.000	.008													
	.42	.4	.4	.187	2.1	1.41	1.01	1.117	.134	.881	.111	.008	.2	.925
.041	.034													
	.63	1.0	1.3	.143	3.2	1.80	1.32	1.433	.204	.845	.242	-.087	.8	.853
.172	-.025													
	.84	1.8	2.8	.118	4.2	2.17	1.60	1.721	.275	.817	.333	-.149	2.0	.823
.285	-.109													
	1.05	2.8	5.2	.101	5.3	2.50	1.86	1.989	.345	.793	.400	-.193	3.9	.799
.365	-.165													
	1.26	4.0	8.4	.090	6.3	2.82	2.10	2.241	.415	.773	.453	-.226	6.7	.779
.426	-.205													
	1.47	5.4	12.6	.081	7.4	3.12	2.33	2.480	.485	.755	.496	-.251	10.4	.761
.474	-.234													
	1.68	7.1	18.1	.074	8.4	3.41	2.55	2.708	.555	.740	.531	-.270	15.3	.744
.513	-.257													
	1.89	9.0	24.7	.069	9.5	3.69	2.76	2.927	.625	.725	.561	-.286	21.3	.730
.546	-.276													
	2.10	11.1	32.7	.064	10.5	3.95	2.96	3.138	.695	.713	.586	-.299	28.6	.717
.573	-.290													
	2.31	13.4	42.2	.060	11.6	4.21	3.15	3.343	.764	.701	.608	-.309	37.4	.705
.597	-.302													
	2.53	15.9	53.2	.057	12.6	4.46	3.34	3.541	.834	.690	.628	-.318	47.6	.693
.618	-.312													
	2.74	18.7	65.9	.054	13.7	4.70	3.52	3.734	.904	.679	.645	-.325	59.4	.683
.637	-.320													
	2.95	21.7	80.3	.051	14.7	4.94	3.70	3.923	.973	.670	.661	-.331	73.0	.673
.653	-.326													
	3.16	24.9	96.5	.049	15.8	5.17	3.87	4.107	1.043	.661	.675	-.336	88.3	.664
.668	-.332													
	3.37	28.3	114.6	.047	16.8	5.40	4.04	4.287	1.113	.652	.687	-.340	105.4	.655
.681	-.336													
	3.58	32.0	134.7	.045	17.9	5.62	4.21	4.463	1.183	.644	.699	-.343	124.5	.647
.693	-.340													
	3.79	35.9	156.9	.043	18.9	5.84	4.37	4.636	1.252	.636	.710	-.346	145.7	.639
.704	-.344													
	4.00	40.0	181.2	.042	20.0	5.92	4.53	4.703	1.351	.617	.716	-.334	168.9	.632
.714	-.346													

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 10 TIMES. AVERAGE NUMBER ITERATIONS = 1.0491
Equations solved using the Ponce correction to C2
PRINT HYD ID=2 CODE=1

PARTIAL HYDROGRAPH 109.10

RUNOFF VOLUME = 1.38383 INCHES = .5609 ACRE-FEET
PEAK DISCHARGE RATE = 13.04 CFS AT 1.550 HOURS BASIN AREA = .0076 SQ. MI.

*
* **** SUB-BASIN 109 ****
* NORTH HALF OF SOCCER FIELD
COMPUTE LT TP LCODE=1 UPLAND/LAG TIME METHOD
NK=1 ISLOPE=0
LENGTH=689 FT SLOPE=0.006 K=2.0
KN=0.021 CENTROID DIST=321 FT

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	.0	.000000	.0000
SHALLOW FLOW PORTION	689.0	.006000	2.0000
CHANNEL FLOW PORTION	.0	.000000	.0000
TOTAL BASIN	689.0	.006000	2.0000

TIME OF CONCENTRATION (HRS)= .1235 TIME TO PEAK (HRS)= .0824 LAG TIME (HRS)= .0927

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

COMPUTE NM HYD ID=3 HYD NO=109 DA=0.0058 SQ MI
PER A=75 PER B=15 PER C=5 PER D=5
TP=0.0 MASSRAIN=-1
TIME TO PEAK (hrs)= .1333

K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 1.1447 CFS UNIT VOLUME = .9890 B = 526.28 P60 = 1.8700
AREA = .000290 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

```
     K =   .155517HR    TP =   .133333HR    K/TP RATIO =  1.166384     SHAPE CONSTANT, N =  3.040026
     UNIT PEAK =   11.781    CFS   UNIT VOLUME =    .9980       B =   285.07      P60 = 1.8700
     AREA =      .005510 SQ MI    IA =    .61053 INCHES    INF =   1.55947 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD            ID=3   CODE=1

                                   PARTIAL HYDROGRAPH   109.00


    RUNOFF VOLUME =      .58809 INCHES     =        .1819 ACRE-FEET
    PEAK DISCHARGE RATE =       5.92 CFS  AT   1.500 HOURS   BASIN AREA =   .0058 SQ. MI.



*
* ADD 109.1 TO 109 TO GET 109.2
ADD HYD              ID=1  HYD NO=109.2  ID I=2   ID II=3
PRINT HYD            ID=1   CODE=1

                                   PARTIAL HYDROGRAPH   109.20


    RUNOFF VOLUME =     1.03933 INCHES     =        .7428 ACRE-FEET
    PEAK DISCHARGE RATE =      18.69 CFS  AT   1.550 HOURS   BASIN AREA =   .0134 SQ. MI.



*
FINISH

    NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 14:52:21
```

CITY OF ALBUQUERQUE

May 29, 2006

Mario Juarez-Infante, P.E.
Wilson & Company
4900 Lang Ave NW
Albuquerque, NM 87109

Re: 400 Edith Blvd NE, Longfellow Elementary School, Traffic Circulation Layout Engineer's Stamp dated 05-19-06 (K14-D10)

Dear Mr. Infante,

Based upon the information provided in your submittal received 02-17-06, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. Label the drive-pads as existing or proposed.
2. Please, refer to all appropriate City Standards; the drawing number should be included in this reference.
3. Provide the width for the sidewalk along Walter Street.
4. Include a vicinity map of site.
5. Provide Solid Waste approval.
6. Include pedestrian access to the site.
7. Label the queuing for the gates.
8. Clarify the degree of parking; see attached plan.
9. See attached plan for additional comments.

If you have any questions, you can contact me at 924-3630.

Sincerely,

Nilo Salgado-Fernandez, P.E.
Senior Engineer, Planning Dept.
Development and Building Services
C: file

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Longfellow Elementary School ZONE MAP/DRG. FILE#: K-14/D10

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

LEGAL DESCRIPTION: 7/Longfellow Elementary School, 7, Belvidire Addition

CITY ADDRESS: 400 Edith Blvd, NE, Albuquerque NM 87102

ENGINEERING FIRM: Wilson & Company Inc., E&A CONTACT: Jesse Dickson
ADDRESS: 4900 Lang Ave. NW PHONE: (505) 348-4136
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: Albuquerque Public Schools CONTACT: Karen Alarid
ADDRESS: 915 Oak Street SE PHONE: (505) 848-8810
CITY, STATE: Albuquerque, NM ZIP CODE: 87106

ARCHITECT: Design Plus CONTACT: Rupal Engineer
ADDRESS: 2415 Princeton, Suite G-2 PHONE: (505) 843-7587
CITY, STATE: Albuquerque, NM ZIP CODE: 87107

SURVEYOR: N/A CONTACT: N/A
ADDRESS: N/A PHONE: N/A
CITY, STATE: N/A ZIP CODE: N/A

CONTRACTOR: N/A. CONTACT: N/A.
ADDRESS: N/A. PHONE: N/A.
CITY, STATE: N/A. ZIP CODE: N/A.

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
✓ DRAINAGE PLAN 1st SUBMITTAL, REQUIRES TCL OR EQUAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEERS CERTIFICATION (HYDROLOGY)
___ CLOMR\LOMR
✓ TRAFFIC CIRCULTAION LAYOUT (TCL)
___ ENGINEERS CERTIFICATION (TCL)
___ ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)
___ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
✓ NO
_____

RECEIVED
MAY 19 2006
HYDROLOGY SECTION

Date Submitted: May 19, 2006 By: Jesse Dickson

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

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