

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,

Sincerely

PO Box 1293

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.

Albuquerque

NM 87103

www.cabq.gov

Nilo E. Salgado-Fernandez, P.E.

Senior Traffic Engineer, Planning Dept. Development and Building Services

C:

Hydrology file CO Clerk Engineer 348-4072

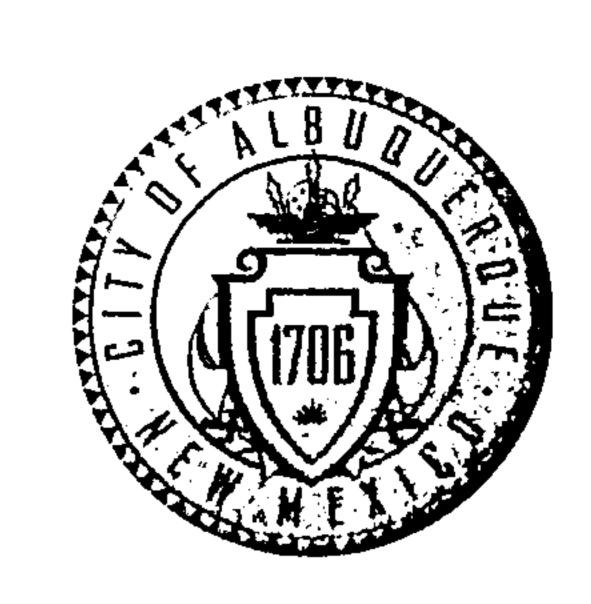
DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: Lon	gfellow ES	ZONE MAP/DRG. FILE#: K-14-Z / DOIO
DRB#:	EPC#:	WORK ORDER #:
LEGAL DESCRIPTION:	SEE exhibits in attached Report	
CITY ADDRESS:	400 Edith Rd	
ENICINIEEDINIC EIDM	Mileon & Compony	CONTACT: In the latest DE
ENGINEERING FIRM: ADDRESS:	Wilson & Company 4900 Lang Ave. NE	CONTACT: dasoir Woodruff, PE PHONE: 505-235-7250
	Albuqueruge, NM	ZIP CODE: 87109
OWNER:	APS 045 Oak Chart	CONTACT: Frank Shaw
ADDRESS:	915 Oak Street Albuqueruque New Mexico	PHONE: <u>505-975-6248</u> ZIP CODE: <u>87106</u>
CITT, STATE.	Albuquel uque New Mexico	ZIP CODE. <u>07 100</u>
ARCHITECT:	Wilson & Company	CONTACT: See Engineer Above
ADDRESS:	4900 Lang Ave. NE	PHONE: <u>505-235-7250</u>
CITY, STATE:	Albuquerque, NM	ZIP CODE:
SURVEYING FIRM:	Wilson & Company	LICENSED S <u>URVEYOR: Ben Aragon</u>
ADDRESS:	4900 Lang Ave. NE	PHONE: <u>505-348-4067</u>
CITY, STATE:	Albuquerque, NM	ZIP CODE: <u>87109</u>
CONTRACTOR:		CONTACT:
ADDRESS:		PHONE:
CITY, STATE:	<u> </u>	ZIP CODE:
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DRAINAGE REPORT	- RESUBMITTAL	SIA / FINANCIAL GUARANTEE RELEASE
DRAINAGE PLAN 1 st	SUBMITTAL	PRELIMINARY PLAT APPROVAL
DRAINAGE PLAN RE	SUBMITTAL	S. DEV. PLAN FOR SUB'D. APPROVAL
CONCEPTUAL GRAD	DING & DRAINAGE PLAN	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
GRADING PLAN		, SECTOR PLAN APPROVAL
EROSION CONTROL		FINAL PLAT APPROVAL
ENGINEER'S CERT ((HYDROLOGY)	FOUNDATION PERMIT APPROVAL
CLOMR\LOMR		BUILDING PERMIT APPROVAL Y CERTIFICATE OF OCCURANCY (DERM)
X TRAFFIC CIRCULTA ENGINEER/ARCHITE		_X_ CERTIFICATE OF OCCUPANCY (PERM.) CERTIFICATE OF OCCUPANCY (TEMP)
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ENGINEER/ARCHITE		PAVING PERMIT APPROVAL
OTHER (SPECIFY)		WORK ORDER APPROVAL
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COPY PROVIDED		I AMBOIOGY
Submitted By: <u>Jasor</u>	n Woodruff	DATE: 08/17/09 SECTION

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.



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,

NM 87103

Timothy E. Sims

Albuquerque

www.cabq.gov

Plan Checker—Hydrology, Planning Dept

Development and Building Services

C: CO Clerk—Katrina Sigala

file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET ZONE MAP/DRG. FILE#: -K=14-2 K-14LD 0(0 (REV. 12/05 - AP) PROJECT TITLE: Longfellow ES EPC#: WORK ORDER #: DRB#: LEGAL DESCRIPTION: SEE exhibits in attached Report CITY ADDRESS: 400 Edith Rd Wilson & Company CONTACT: **ENGINEERING FIRM:** Jason Woodruff, PE ADDRESS: PHONE: 505-235-7250 4900 Lang Ave. NE CITY, STATE: 87109 Albugueruge, NM ZIP CODE: OWNER: APS CONTACT: Frank Shaw 915 Oak Street 505-975-6248 ADDRESS: PHONE: 87106 CITY, STATE: ZIP CODE: Albuqueruque New Mexico ARCHITECT: Wilson & Company CONTACT: See Engineer Above 4900 Lang Ave. NE ADDRESS: PHONE: 505-235-7250 ZIP CODE: CITY, STATE: Albuquerque, NM SURVEYING FIRM: Wilson & Company LICENSED SURVEYOR: Ben Aragon ADDRESS: 505-348-4067 4900 Lang Ave. NE PHONE: CITY, STATE: ZIP CODE: 87109 Albuquerque, NM CONTRACTOR: CONTACT: PHONE: ADDRESS: CITY, STATE: ZIP CODE: CHECK TYPE OF SUBMITTAL: CHECK TYPE OF APPROVAL SOUGHT: DRAINAGE REPORT - RESUBMITTAL SIA / FINANCIAL GUARANTEE RELEASE DRAINAGE PLAN 1st SUBMITTAL PRELIMINARY PLAT APPROVAL S. DEV. PLAN FOR SUB'D. APPROVAL DRAINAGE PLAN RESUBMITTAL CONCEPTUAL GRADING & DRAINAGE PLAN S. DEV. PLAN FOR BLDG. PERMIT APPROVAL SECTOR PLAN APPROVAL X GRADING PLAN FINAL PLAT APPROVAL EROSION CONTROL PLAN ENGINEER'S CERT (HYDROLOGY) FOUNDATION PERMIT APPROVAL BUILDING PERMIT APPROVAL CLOMR\LOMR X CERTIFICATE OF OCCUPANCY (PERM.) ___ TRAFFIC CIRCULTAION LAYOUT ____ ENGINEER/ARCHITECT CERT (TCL) CERTIFICATE OF OCCUPANCY (TEMP) ENGINEER/ARCHITECT CERT (DRB S. P.) GRADING PERMIT APPROVAL ____ ENGINEER/ARCHITECT CERT (AA) PAVING PERMIT APPROVAL ____ OTHER (SPECIFY) WORK ORDER APPROVAL OTHER (SPECIFY) SO #19 WAS A PRE-DESIGN CONFERENCE ATTENDED: YES AUG 17 2009

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:

DATE:

08/17/09

x NO

Submitted By:

COPY PROVIDED

Jason Woodruff

- 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.



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.

Albuquerque 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.

\$\incerely.

NM 87103

www.cabq.gov

Thmothy E'. Sims

Plan Checker—Hydrology,

Development and Building Services

C: CO Clerk—Katrina Sigala File



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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.

PO Box 1293

Albuquerque

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 <u>Drainage and Transportation Information Sheet</u> to Hydrology at the Development Services Center of Plaza Del Sol Building.

NM 87103

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 <u>Drainage and Transportation Information Sheet</u> to Hydrology at the Development Services Center of Plaza Del Sol Building.

www.cabq.gov

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

Elementary School

12-14/1000

400 ED TH NE

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: Lor	igfellow ES	ZONE MAP/DRG. FILE#: K-14-Z
DRB#:	EPC#:	WORK ORDER #:
LEGAL DESCRIPTION:	SEE exhibits in attached Report	
CITY ADDRESS:	400 Edith Rd	
CNICINICEDINIC FIDAM	Milana Q Campany	CONTACT: locop Moodruff DE
ENGINEERING FIRM:	Wilson & Company	CONTACT: Jason Woodruff, PE
ADDRESS:	4900 Lang Ave. NE	PHONE: <u>505-235-7250</u> ZIP CODE: 87109
CITY, STATE:	Albuqueruge, NM	ZIP CODE. <u>07109</u>
OWNER:	APS	CONTACT: Frank Shaw
ADDRESS:	915 Oak Street	PHONE: <u>505-975-6248</u>
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE: <u>87106</u>
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
	Albuquerque, NM	ZIP CODE: 87109
CONTRACTOR:	····································	CONTACT:
ADDRESS:		PHONE:
CITY, STATE:		ZIP CODE:
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DRAINAGE REPORT		SIA / FINANCIAL GUARANTEE RELEASE
DRAINAGE PLAN 1 ^s	SUBMITTAL	PRELIMINARY PLAT APPROVAL
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EROSION CONTRO		FINAL PLAT APPROVAL
ENGINEER'S CERT	(HYDROLOGY)	FOUNDATION PERMIT APPROVAL
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COPY PROVIDED	HYDROLOGY SECTION	DATE: 06/04/09

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- 3. Drainage Report: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



4900 Lang Ave. NE Albuquerque, NM 87109 505-348-4000 505-348-4072 Fax Albuquerque
Colorado Springs
Denver
Fort Worth
Houston
Kansas City
Lenexa
Los Angeles
Phoenix
Rio Rancho
Salina
San Bernardino
Wichita

Wilson & Company `Latin America, LLC

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

cc: file, KC, APS

Civil Engineer

Jason Woodruff, PE

WILSON & COMPANY, INC. ENGINEERS & ARCHITECTS

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.

Making History 1706-2006

- 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.

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Albuquerque

PO Box 1293

NM 87103

www.cabq.gov

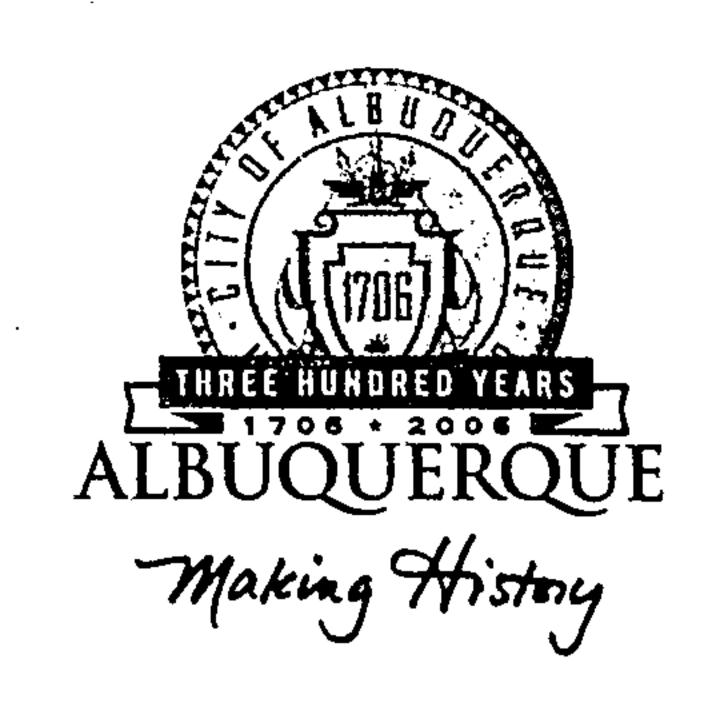
If you have any questions, you can contact me at 34.3991.

Kristal D. Metro, P.

Sincerely,

Traffic Engineer, Planning Dept.

Development and Building Services



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,

P.O. Box 1293

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.

Albuquerque

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).

New Mexico 87103

www.cabq.gov

Sincerely,

Rudy E. Rael, Associate Engineer

Planning Department.

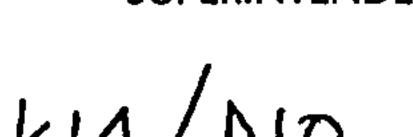
Building and Development Services

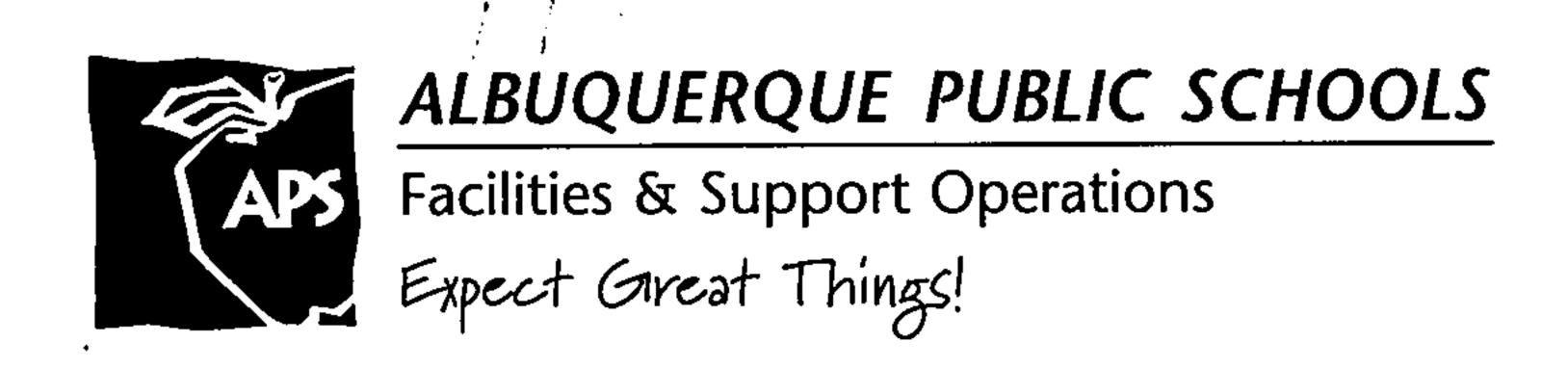
C:

Charles Caruso

CC:

file





Brad Winter EXECUTIVE DIRECTOR

February 13, 2008

To:

Brad Bingham, Hydrology Planning Director

Richard Duarte, City Engineer

From: Brad Winter, Executive Director

Facilities Survive Director Facilities Support & Operations

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

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

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	City of Albuctors 600 2nd Street	•						
		e, NM 87102						
	(505) 924-39	•						
	Bradley L. Bi							
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	☐ Shop Drawir	ngs 🔲 Prints	S	☑ Plans		☐ Samples	☐ Specifications	
	☐ Copy of lette	er 🔲 Chang	ge order		•			
Copies	Date	Pages/Sheets			De	escription		
1	2/15/08		Building Permit		· · · · · · · · · · · · · · · · · · ·			
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	☐ For approva	l/signature	☐ Approved as	submitted		☐ Resubmit _	copies for approval	
	☑ For your use	- -	☐ Approved as				copies for distribution	
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TRANSMITTAL

February 15, 2008

Date:

May 26, 2009

Re:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

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

APS Longfellow Elementary School Building Addition / Bus Drop Off, 400 Edith Road NE, Traffic Circulation Layout

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.

Engineer's Stamp dated 05-13-09 (K14-D010)

- 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,

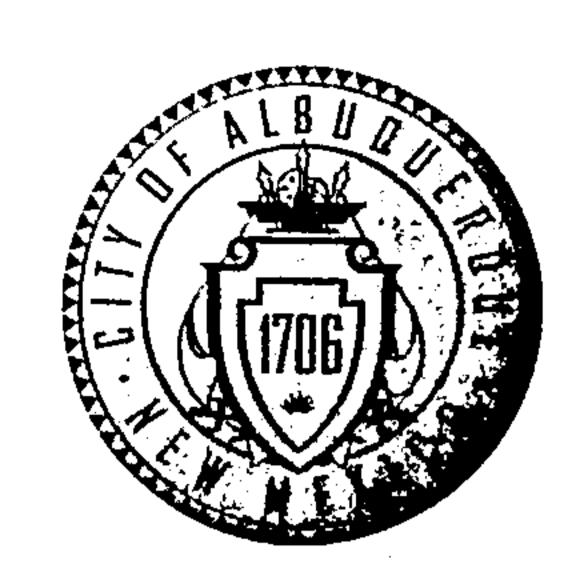
Kristal D. Metro, P.E.

Traffic Engineer, Planning Dept.

Development and Building Services

nmost entrance.

Albuquerque - Making History 1706-2006



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.

Albuquerque

PO Box 1293

NM 87103

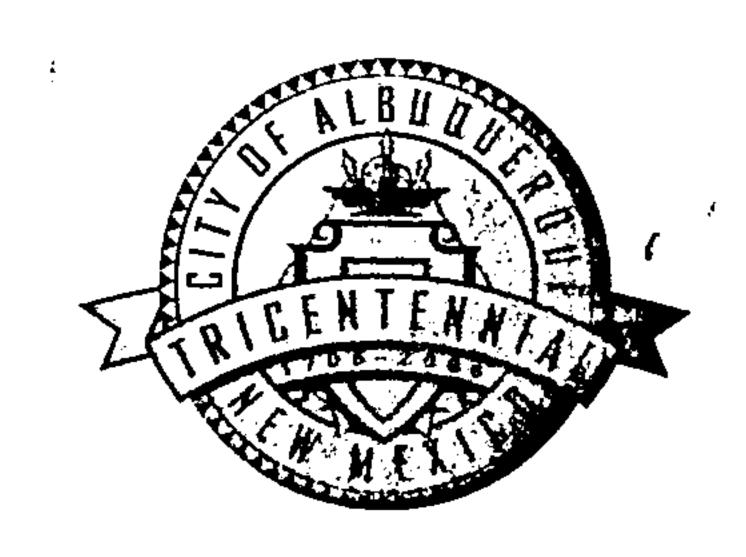
www.cabq.gov

Sincerely

Bradley L. Bingham, PE, CFM

Principal Engineer, Planning Department.

Building and Development Services



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?

New Mexico 87103

www.cabq.gov

Albuquerque

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

Bradle J. Bilm

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(RÈV. 1/28/2003)

PROJECT TITLE: Longfellow Elementary School Z	ONE MAP/DRG. FILE#: K-14 DIO
DRB#: EPC#:	WORK ORDER #:
LEGAL DESCRIPTION: 7/Longfellow Elementary School, 7, E	Belvidire Addition
CITY ADDRESS: 400 Edith Blvd, NE, Albuquerque NM 87102	
ENGINEERING FIRM: Wilson & Company Inc., E&A	_ CONTACT: <u>Jesse Dickson</u>
ADDRESS: 4900 Lang Ave. NW	
CITY, STATE: <u>Albuquerque, NM</u>	_ ZIP CODE: <u>87109</u>
OWNER: Albuquerque Public Schools	_ CONTACT: Karen Alarid
ADDRESS: <u>915 Oak Street SE</u>	PHONE: (505) 848-8810
CITY, STATE: <u>Albuquerque, NM</u>	_ ZIP CODE: <u>87106</u>
ARCHITECT: Design Plus	CONTACT: Rupal Engineer
ADDRESS: 2415 Princeton, Suite G-2	PHONE: (505) 843-7587
CITY, STATE: _Albuquerque, NM	ZIP CODE: <u>87107</u>
SURVEYOR: N/A	CONTACT: NI/A
ADDRESS: N/A	CONTACT: N/A PHONE: N/A
CITY, STATE: N/A	
CONTRACTOR: N/A.	CONTACT: N/A.
ADDRESS: <u>N/A.</u> CITY, STATE: <u>N/A.</u>	PHONE: N/A.
	_ ZIP CODE: <u>N/A.</u>
CHECK TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
DRAINAGE REPORT	SIA / FINANCIAL GUARANTEE RELEASE
✓ DRAINAGE PLAN 1 st SUBMITTAL, REQUIRES TCL OR EQUIRES CONCERTION OR DRAINAGE DUAN	
CONCEPTUAL GRADING & DRAINAGE PLAN GRADING PLAN	S. DEV. PLAN FOR SUB'D. APPROVAL
EROSION CONTROL PLAN	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL SECTOR PLAN APPROVAL
ENGINEERS CERTIFICATION (HYDROLOGY)	FINAL PLAT APPROVAL
CLOMR\LOMR	FOUNDATION PERMIT APPROVAL
/_ TRAFFIC CIRCULTAION LAYOUT (TCL)	BUILDING PERMIT APPROVAL
ENGINEERS CERTIFICATION (TCL)	CERTIFICATION OF OCCUPANCY (PERM.)
ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)	CERTIFICATION OF OCCUPANCY (TEMP.)
OTHER	/_ GRADING PERMIT APPROVAL
	PAVING PERMIT APPROVAL
	WORK ORDER APPROVAL
	OTHER (SPECIFY) [基(G)] [] []
WAS A PRE-DESIGN CONFERENCE ATTENDED:	MAY 1 9 2006
YES V NO	
<u>v </u>	HYDROLOGY SECTION
Date Submitted: May 19, 2006	By: Jesse Dickson
Requests for approvals of Site Development Plans and/or Subdiv	

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.



	Albuquerque, (505) FAX (5) City of Albuc	s – One Stop			Job No.: Re: Lor		18064 Elementary	y School	
Attn:									
WE ARE	SENDING YOU	☑ Attached □	Under Separate Cover		via ľ	nand-de	liver	the following items	S:
	☐ Shop Drawir		•	☐ Corre	espondance	☐ San		☐ Specifications	•
	☐ Copy of lette		ge order		•		•		
Copies	Date	Pages/Sheets	· · · · · · · · · · · · · · · · · · ·	· · · · · ·	•	Description	n		
2	05/19/06	1	Grading & Drainage	Plan		,- <u>u</u> .			
2	5/19/09	1	Traffic Circulation La					<u> </u>	
1	5/19/06	1	Drainage & Transpo	ortation	Informatio	n Sheet			
				·					
						_			
THESE A	ARE TRANSMITT	ED AS CHECKED	BELOW:						
		l/signature	☐ Approved as su	hmitted			Desubmit	copies for approval	
	☐ For your File	_	☐ Approved as no				Submit	copies for distribution	
	☐ As requested		☐ Return					copies for distribution corrected prints	
	For review a		□ 1.0.u	copics				corrected prints	
				PRINTS O	N I OAN – F	RETURN TO) WC <i>EA</i> AFTE	R RID	
Remar			stions or comments						
1 (Ciliai	NS. II you i	lave ally que	suona or commenta	, picas	Comac	· IIIC.		· · · · · · · · · · · · · · · · · · ·	
					<u>. </u>		· · · · · · · · · · · · · · · · · · ·		
<u> </u>				 -		— <u> — </u>			
						· · · · · · · · · · · · · · · · · · ·			
COPY T		ker, APS		GNED:	Jesse Di	ckson (
				♥, 1 1.1			11/1		
	•						(
					RECEIVED) BY:	_		

DATE:

Date:

TRANSMITTAL

05/19/05



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.

Albuquerque -

P.O. Box 1293

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

Sincerely,

New Mexico 87103

Wilfred Gallegos, P.E.

file

www.cabq.gov Traffic Engineer, Planning Dept.

Development and Building Services

C:

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Longfellow Elementary School Z	ONE MAP/DRG. FILE#: K-14/D/Z
DRB#: EPC#:	WORK ORDER #:
LEGAL DESCRIPTION: 7/Longfellow Elementary School, 7, E	Belvidire Addition
CITY ADDRESS: 400 Edith Blvd, NE, Albuquerque NM 87102	<u> </u>
ENGINEERING FIRM: Wilson & Company Inc., E&A	CONTACT: Jesse Dickson
ADDRESS: 4900 Lang Ave. NW	
CITY, STATE: <u>Albuguerque, NM</u>	
OWNER: Albuquerque Public Schools ADDRESS: 915 Oak Street SE	CONTACT: Karen Alarid
CITY, STATE: Albuquerque, NM	PHONE: <u>(505) 848-8810</u> ZIP CODE: 87106
ARCHITECT: Design Plus	CONTACT: Rupal Engineer
ADDRESS: <u>2415 Princeton, Suite G-2</u>	_ PHONE: <u>(505) 843-7587</u>
CITY, STATE: <u>Albuquerque, NM</u>	_ ZIP CODE: <u>87107</u>
SURVEYOR: N/A	CONTACT: N/A
ADDRESS: N/A	_ PHONE: <u>N/A</u>
CITY, STATE: <u>N/A</u>	_ ZIP CODE: <u>N/A</u>
CONTRACTOR: N/A.	CONTACT: N/A.
ADDRESS: N/A.	PHONE: N/A.
CITY, STATE: N/A.	ZIP CODE: N/A.
CHECK TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
DRAINAGE REPORT	SIA / FINANCIAL GUARANTEE RELEASE
DRAINAGE PLAN 1 st SUBMITTAL, REQUIRES TCL OR EQI	UAL PRELIMINARY PLAT APPROVAL
CONCEPTUAL GRADING & DRAINAGE PLAN	S. DEV. PLAN FOR SUB'D. APPROVAL
GRADING PLAN	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
EROSION CONTROL PLAN	SECTOR PLAN APPROVAL
ENGINEERS CERTIFICATION (HYDROLOGY)	FINAL PLAT APPROVAL
CLOMR\LOMR	FOUNDATION PERMIT APPROVAL
✓ TRAFFIC CIRCULTAION LAYOUT (TCL)	
ENGINEERS CERTIFICATION (TCL)	CERTIFICATION OF OCCUPANCY (PERM.)
ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)	CERTIFICATION OF OCCUPANCY (TEMP.)
OTHER: Resubmittal addressing comments dated 05/29/06	GRADING PERMIT APPROVAL
	PAVING PERMIT APPROVAL
	WORK ORDER APPROVAL
WAS A PRE-DESIGN CONFERENCE ATTENDED:	— OTHER (SPECIFY) 「
YES	
1E3 / NO	AUG 1 4 2006
	HYDROLOGY SECTION
Date Submitted: August 14, 2006	By: <u>Mario Juarez-Infante</u>
Requests for approvals of Site Development Plans and/or Subdiv	vision Plats shall be accompanied by a drainage submittel

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.

NEIGH BOR

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May 29, 2006

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

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.

¹2. Please, refer to all appropriate City Standards; the drawing number should be included in this reference.

Provide the width for the sidewalk along Walter Street.
4. Include a vicinity map of site.

Include a vicinity map of site.

^.5. Provide Solid Waste approval.

^.6. Include pedestrian access to the site.

1. Label the queuing for the gates.

Clarify the degree of parking; see attached plan.

See attached plan for additional comments.

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

www.cabq.gov

New Mexico 87103

P.O. Box 1293

Albuquerque

Nilo(Salgado-Fernandez, P.E.

Senior Engineer, Planning Dept.

Development and Building Services

file

Sincerely,



4900 Lang Ave. NE Albuquerque, NM 87109 505-348-4000 505-348-4055 Fax Albuquerque
Colorado Springs
Denver
Fort Worth
Houston
Kansas City
Lenexa
Los Angeles
Phoenix
Rio Rancho
Salina
San Bernardino
Wichita

Wilson & Company Latin America, LLC

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.

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.

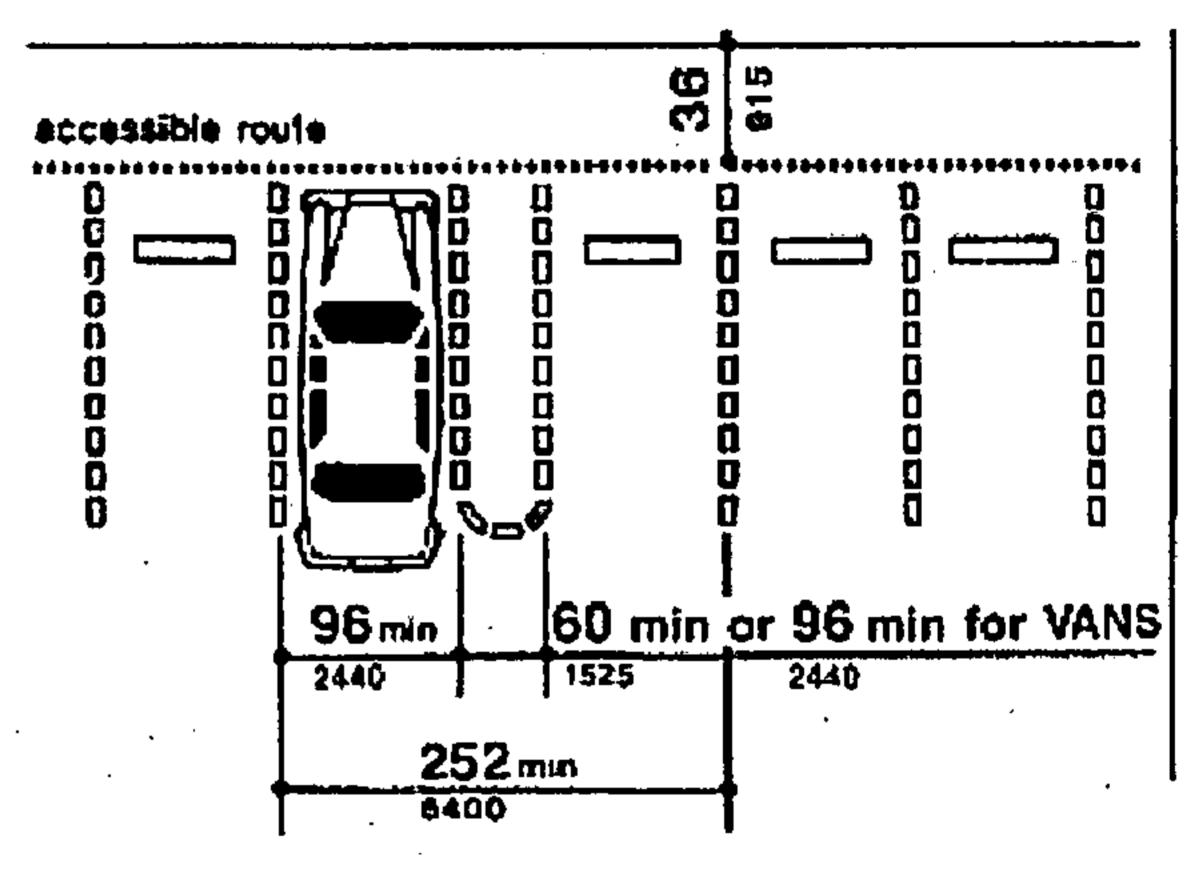


Figure 1: 4.6.3* Parking Spaces, title III of the Americans with Disabilities Act of 1990

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.

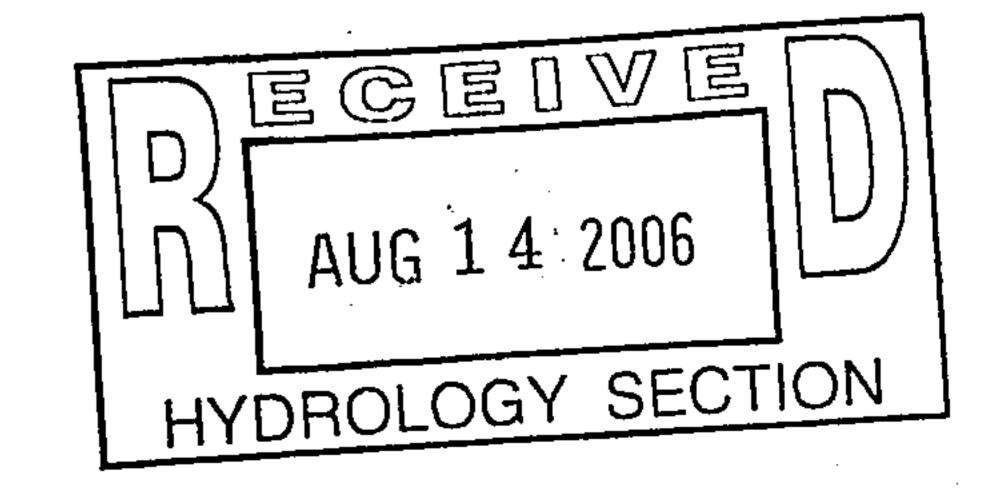
If you have any questions, please do not hesitate to call me at mobile no. 715-2541. Thank you.

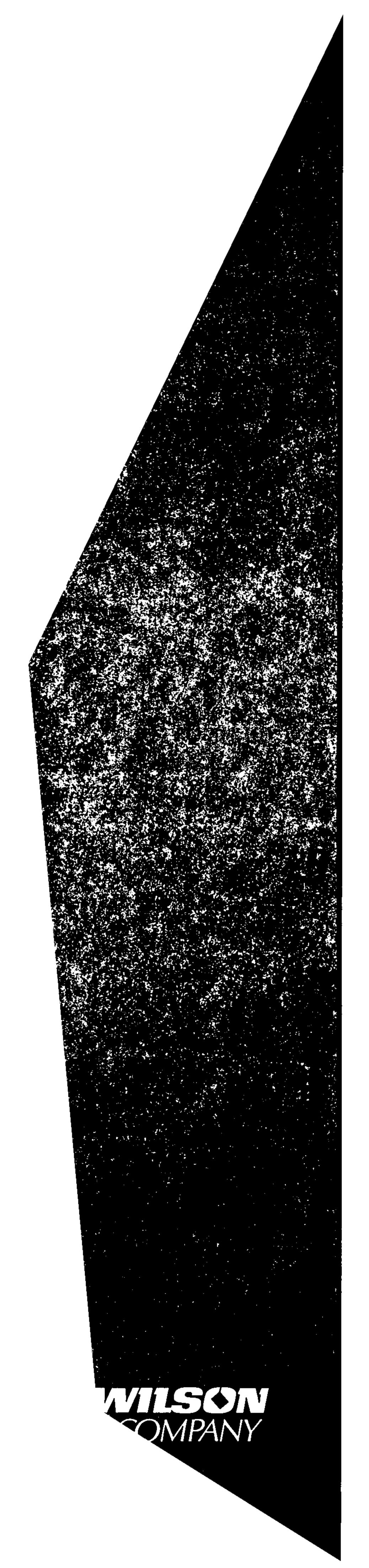
WILSON & COMPANY

Mario Juarez-Infante, PE, CFM

Project Manager

Enclosures: COA letter dated May 29, 2006



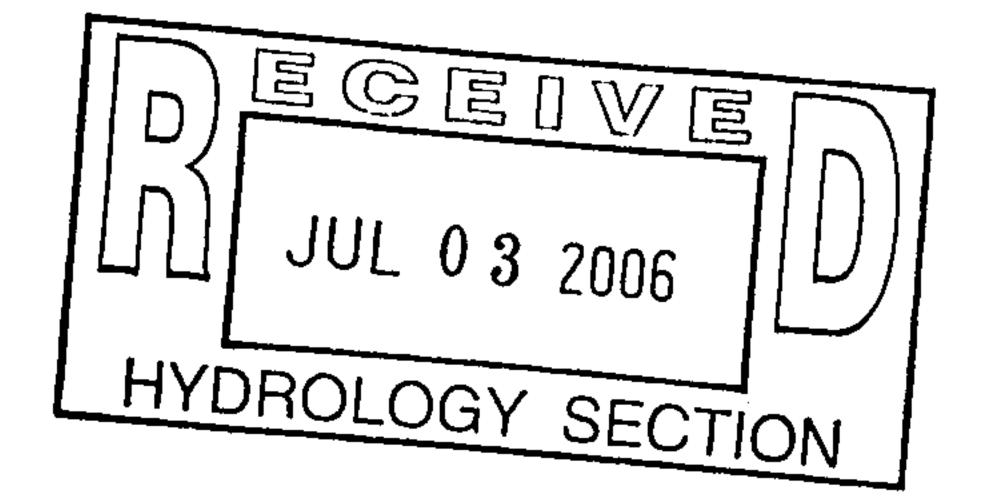


LONGFELLOW ELEMENTARY SCHOOL AHYMO FILES

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

<u>7-3-06</u> Date

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
 RAINFALL FROM NOAA COA DEVELOPMENT PROCESS MANUAL
*S 100 YEAR 24HR STORM
RAINFALL
                     TYPE=2
                             ONE DAY RAINFALL, NOAA ATLAS TWO
                    QUARTER=0.00 IN
                            1.87 IN
                     HOUR=
                     SIX HR= 2.20 IN
                            2.66 IN
                     DAY=
                                      DT = 0.05
* *S 10 YEAR 24HR STORM EXISTING CONDITION
*RAINFALL
                             0.0 1.08
                    TYPE=2
                                       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
                              UPLAND/LAG TIME METHOD
                     LCODE=1
                     NK=1
                           ISLOPE=0
                     LENGTH=381 FT SLOPE=0.003 K=2.0
                    KN=0.021
                               CENTROID DIST=153 FT
                    ID=1 HYD NO=101 DA=0.0011 SQ MI
COMPUTE NM HYD
                    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
                              UPLAND/LAG TIME METHOD
COMPUTE LT TP
                     LCODE=1
                     NK=1
                           ISLOPE=0
                     LENGTH=955 FT SLOPE=0.005 \text{ 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
                    ID=3 HYD NO=102.1 ID I=1 ID II=2
ADD HYD
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
                           5100
                                 10
                                         5096
                           5100
                       20
                          HYD NO=108.1 INFLOW·ID=3
ROUTE MCUNGE
                    ID=4
                           L=570 FT NS=0 SLOPE=0.005
                    DT=0.0
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD
                          CODE=1
                    ID=4
* **** SUB-BASIN 108 ****
* WEST BASEBALL FIELD
COMPUTE LT TP
                              UPLAND/LAG TIME METHOD
                     LCODE=1
                           ISLOPE=0
                    NK=1
```

Page 1

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

```
PRINT HYD
                           CODE=1
                    ID=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
                           ELEV
                                   DIST
                           5100
                                         5099
                           5097
                                     20
                                         5099
                            5100
                          HYD NO=105.1
ROUTE MCUNGE
                   ID=2
                                        INFLOW ID=1
                   DT=0.0
                            L=270 FT
                                       NS=0
                                              SLOPE=0.005
                   MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
                          CODE=1
PRINT HYD
                    ID=2
* **** 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
                    ID=4 HYD NO=105
                                      DA=0.0018 SQ MI
COMPUTE NM HYD
                    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
                           CODE=1
PRINT HYD
                    ID=3
* 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
                                         ELEV
                                   DIST
                            5100
                                         5099
                            5097
                                     20
                                         5099
                        10
                            5100
                          HYD NO=110.1 INFLOW ID=3
ROUTE MCUNGE
                    ID=4
                           L=500 FT NS=0 SLOPE=0.005
                    DT=0.0
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
PRINT HYD
                          CODE=1
                    ID=4
* **** SUB-BASIN 110 ****
* SOUTH HALF OF SOCCER FIELD
                    LCODE=1
                              UPLAND/LAG TIME METHOD
COMPUTE LT TP
                     NK=1
                           ISLOPE=0
                     LENGTH=497 FT SLOPE=0.008 K=2.0
                    KN = 0.021
                               CENTROID DIST=301 FT
                     ID=5 HYD NO=110 DA=0.005 SQ MI
COMPUTE NM HYD
                     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
                               UPLAND/LAG TIME METHOD
                     LCODE=1
COMPUTE LT TP
```

Page 3

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

WMHS.DAT

LENGTH=689 FT SLOPE=0.006 K=2.0 KN=0.021 CENTROID DIST=321 FT

ID=3 HYD NO=109 DA=0.0058 SQ MI PER A=75 PER B=15 PER C=5 PER D=5 COMPUTE NM HYD

TP=0.0 MASSRAIN=-1

CODE=1PRINT HYD ID=3

* ADD 109.1 TO 109 TO GET 109.2

ID=1 HYD NO=109.2 ID I=2 ID II=3 ADD HYD

ID=1CODE=1 PRINT HYD

FINISH

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

	HYDROGRAPH	FROM ID	TO ID	AREA	PEAK DISCHARGE	RUNOFF VOLUME	RUNOFF	TIME TO PEAK	CFS PER	PAGE =	1	
COMMAND	IDENTIFICATION	NO.	NO.	(SQ MI)	(CFS)	(AC-FT)	(INCHES)	(HOURS)	ACRE	NOTATI	ON	
*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 LOCATION			ALILLO CO		J4 LU					TIME=	.00	
*S******	**********				*******	****						
*S 100 YEAR RAINFALL TY *S	PE= 2									RAIN24=	2.660	
	NTRIBUTING TO POND		4	00110	2 02	127	2 22705	1 500	1 166	DED TMD-	95.00	
COMPUTE NM H		_	2	.00110 .01000	2.93 25.06	.137 1.147	2.32785 2.15031	$1.500 \\ 1.500$		PER IMP= PER IMP=	85.00	
ADD HYD	102.10	1& 2	3	.01110	27.99	1.283	2.16785	1.500	3.940		_	
ROUTE MCUNGE		3	4	.01110	27.33	1.283	2.16734	1.550		CCODE =	5 00	
COMPUTE NM H	YD 108.00 108.20	- 1& 4	<u>↑</u>	.00350 .01460	3.58 30.75	.110 1.393	.58809 1.78869	1.500 1.550	3.291	PER IMP=	5.00	
ADD HYD *S BASTNS CO	NTRIBUTING TO POND		2	.01400	30.73	T. 222	1.70005	1.550	J. 2 J.	•		
COMPUTE NM H		_	1	.00340	3.48	.107	.58809	1.500	1.598	PER IMP=	5.00	
*S BASINS CO	NTRIBUTING TO POND	107										
COMPUTE NM H			1 .	.00400	7.19	.295	1.38474	1.500	2.807	PER IMP=	45.00	
	NTRIBUTING TO POND		-	00000	10 50		2 45024	1 (00	2 010	DED THE	0F 00	
COMPUTE NM H		-	3	.00990	18.50	1.135	2.15031	1.600		PER IMP=	85.00	
COMPUTE NM H			7.	.00150	3.11	.126	1.57240 1.57267	1.500 1.500		PER IMP= CCODE =	50.00	
ROUTE MCUNGE		T	<u> </u>	.00150 .00180	3.02 4.44	.126 .204	2.12906	1.500		PER IMP=	85.00	
COMPUTE NM H	YD 105.00 105.20	- 3& 4	4 1	.01170	21.51	1.340	2.12900	1.600	2.873		03.00	
ADD HYD ADD HYD	105.20	1& 2	ユ	.01320	23.97	1.465	2.08165	1.600	2.838			
ROUTE MCUNGE		3,	4	.01320	23.86	1.464	2.07963	1.600		CCODE =	.1	
COMPUTE NM H		_	5	.00500	4.80	.149	.55707	1.500		PER IMP=	5.00	
COMPUTE NM H		_	ĭ	.00200	1.85	.057	.53875	1.500		PER IMP=	5.00	
COMPUTE NM H		_	2	.00230	2.13	.066	.53875	1.500		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			
	NTRIBUTING TO POND	109						4	5 664		45 00	
COMPUTE NM H		-	1	.00760	13.64	. 561	1.38474	1.500		PER IMP=	45.00	
ROUTE MCUNGE	109.10	1	2	.00760	13.04	.561	1.38383	1.550		CCODE =	5 00	
COMPUTE NM H		_ 28. 2	3	.00580	5.92 18.60	.182	.58809 1.03933	1.500 1.550	2.180	PER IMP=	5.00	
ADD HYD FINISH	109.20	2& 3	Т	.01340	18.69	.743	7.0222	T. 220	2.100			
(TITTUI												

WMHS.OUT

```
AHYMO PROGRAM (AHYMO_97) -
                                                                     1997.02c
                                                         - Version:
         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
                     TIME=0.0
                               PUNCH CODE=0 PRINT CODE=0
START
LOCATION
                     BERNALILLO COUNTY
     Bernalillo County soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment
                         Initial Abstr.(in)
                                                Unif. Infilt.(in/hour)
                         0.65
                                                1.67
                         0.50
                        0.35
                                                0.83
                         0.10
                                                0.04
 RAINFALL FROM NOAA COA DEVELOPMENT PROCESS MANUAL
*S 100 YEAR 24HR STORM
RAINFALL
                      TYPE=2 ONE DAY RAINFALL, NOAA ATLAS TWO
                     QUARTER=0.00 IN
                             1.87 IN
                     HOUR=
                      SIX HR= 2.20 IN
                              2.66 IN
                     DAY=
                                       DT=0.05
               COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                        .050000 HOURS
               DT =
                                                           24.000000 HOURS
                                             END TIME =
                           .0025
                   .0000
                                            .0076
                                    .0050
                                                             .0131
                                                    .0103
                                                                     .0160
                   .0190
                           .0222
                                    .0254
                                            .0289
                                                    .0324
                                                             .0362
                                                                     .0401
                   .0443
                           .0487
                                                    .0637
                                                             .0695
                                    .0534
                                            .0584
                                                                     .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
                                           1.8624
                                  1.8156
                                                   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
                                  2.0976
                          2.0946
                                           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
                                                   2.1680
                                           2.1660
                                                           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
                          2.2000
                  2.1984
                                  2.2020
                                           2.2039
                                                   2.2059
                                                           2.2078
                                                                    2.2097
                  2.2117
                          2.2136
                                 2.2155
                                          2.2174
                                                   2.2193
                  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
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                                  2.2542
                                                   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
                 2.3100
                          2.3116
                                  2.3132
                                           2.3148
                                                   2.3164
                                                           2.3180
                                                                    2.3196
                  2.3212
                          2.3227
                                  2.3243
                                           2.3259
                                                   2.3274
                                                            2.3290
                 2.3321
                          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
                 2.3637
                          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
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                                                           2.3909
                                                                    2.3923
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                                  2.3965
                                           2.3978
                                                   2.3992
                                                            2.4006
                 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
                  2.4919
                          2.4931
                                  2.4943
                                           2.4955
                                                   2.4966
                                                           2.4978
                                                                    2.4990
                  2.5001
                          2.5013
                                  2.5024 2.5036
                                                   2.5047
                                                           2.5059
                                  2.5105
                                          2.5116
                  2.5082
                          2.5093
                                                   2.5127
                                                            2.5139
                  2.5161
                          2.5172
                                                   2.5206
                                  2.5184
                                           2.5195
                                                            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
                          2.5480
                                           2.5501
                  2.5469
                                  2.5490
                                                   2.5512
                                                            2.5522
                                                                    2.5533
                  2.5544
                          2.5554
                                           2.5575
                                                   2.5586
                                  2.5565
                                                            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
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2.6090

2.6099

2.6080

2.6041

2.6051

2.6061

2.6070

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2.6109
                            2.6119
                                    2.6128
                                            2.6138
                                                    2.6148
                                                           2.6157
                     2.6176
                            2.6186
                                            2.6205
                                    2.6195
                                                    2.6214
                                                            2.6224
                                                                   2.6233
                     2.6243
                             2.6252
                                    2.6261
                                            2.6271
                                                    2.6280
                                                            2.6290
                     2.6308
                            2.6318
                                    2.6327
                                            2.6336
                                                    2.6346
                                                            2.6355
                     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
                     2.6501
                            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
                                                            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
                                                      .000000
                                                                          .0000
                                      381.0
         SHALLOW FLOW PORTION
                                                      .003000
                                                                        2.0000
         CHANNEL FLOW PORTION
                                       .0
                                                      .000000
                                                                         .0000
                                      381.0
         TOTAL BASIN
                                                      .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
                        ID=1 HYD NO=101 DA=0.0011 SQ MI
    COMPUTE NM HYD
                        PER A=5 PER B=0 PER C=0 PER D=95
                        TP=0.0 MASSRAIN=-1
         TIME TO PEAK (hrs) = .1333
                         TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
         UNIT PEAK = 4.1247 CFS UNIT VOLUME = .9966
                                                                        526.28
                                                                                    P60 = 1.8700
                    .001045 \text{ SQ MI} IA = .10000 \text{ INCHES}
         AREA =
                                                             INF = .04000 INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000
               .163724HR TP = .133333HR
                                               K/TP RATIO = 1.227936
                                                                       SHAPE CONSTANT, N = 2.899764
                      .11284 CFS
         UNIT PEAK =
                                     UNIT VOLUME =
                                                      .8676
                                                                       273.54
         AREA =
                     .000055 SQ MI
                                             .65000 INCHES
                                     IA =
                                                             INF = 1.67000 INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000
    PRINT HYD
                        ID=1 CODE=1
                                                           101.00
                                       PARTIAL HYDROGRAPH
                           2.32785 INCHES
                                                       .1366 ACRE-FEET
        RUNOFF VOLUME =
                                   2.93 CFS AT 1.500 HOURS
        PEAK DISCHARGE RATE =
                                                               BASIN AREA =
                                                                              .0011 SQ. MI.
    * **** SUB-BASIN 102 ****
    * PARKING LOT @ NW CORNER OF SITE
                        LCODE=1 UPLAND/LAG TIME METHOD
    COMPUTE LT TP
                        NK=1 ISLOPE=0
                         LENGTH=955 FT SLOPE=0.005 K=2.0
                         KN=0.021 CENTROID DIST=377 FT
         TC AND TO COMPUTED BY UPLAND/LAG TIME PROCEDURE
         SCS UPLAND METHOD FACTORS
                                   LENGTH (FT)
                                                    SLOPE (FT/FT)
                                                                        COMPOSITE K
         SHEET FLOW PORTION
                                                      .000000
                                                                          .0000
                                      955.0
         SHALLOW FLOW PORTION
                                                      .005000
                                                                        2.0000
         CHANNEL FLOW PORTION
                                                      .000000
                                                                          .0000
                                      955.0
         TOTAL BASIN
                                                      .005000
         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
```

WMHS.OUT

Page 2

ID=2 HYD NO=102 DA=0.01 SQ MI

MASSRAIN=-1

TP=0.0

PER A=5 PER B=10 PER C=0 PER D=85

COMPUTE NM HYD

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.

PARTIAL HYDROGRAPH 102.10

RATING CURVE VALLEY SECTION 1.0

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=0.030DIST=20 DIST ELEV DIST ELEV 0 5100 10 5096 20 5100

	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
٠.	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

	DT=	LOW END= .050000 TH MED=	,		TABLE PT QMED= NREACH=	13.99	CKMED= DX=	3.4 285.00	4541 0			-	•	
C2-M	DEPTH C3-M	AREA	Q	TRAVEL	WIDTH	ck	VEL	С	D	C1	C2	C 3	Q-M	C1-M
.000	(FT) .00	(SQ FT) .0	(CFS) .0	TIME(HR)	(FT) .0	(FPS) 1.58	(FPS) .34	1.000	.000	1.000	.000	.000	(CFS) .0	1.000
.000	.006	.1	.1	.213	1.1	1.53	.74	.964	.036	. 964	.000	.036	0	. 994
.025	.035	.4	. 5	.134	2.1	1.64	1.18	1.036	.106	.901	.066	.033	.2	.941
	.63	1.0	1.5	.102	3.2	2.11	1.55	1.330	.163	.870	.198	067	1.0	. 877
2/1	003 84	1.8	3.3	.085	4.2	2.53	1.87	1.597	.219	.845	.290	134	, 2.3	.851
.323	1.05 153	2.8	6.0	.073	5.3	2.92	2.17	1.846	.274	. 824	.359	183	4.6	.830

```
WMHS.OUT
                                          6.3
         1.26
                 4.0
                          9.8
                                  .065
                                                  3.29
                                                                  2.079
                                                                          .330
                                                         2.45
                                                                                  . 806
                                                                                         .413
                                                                                               -.220
                                                                                                          7.8
                                                                                                                  .811
.385 -.197
                         14.8
                                  .058
                                          7.4
                 5.4
                                                         2.72
                                                                  2.301
                                                                          .386
                                                  3.64
                                                                                  .791
                                                                                         .457
                                                                                                         12.2
                                                                                                                  .795
                                                                                               -.248
.435 -.230
                                  .053
         1.68
                 7.1
                         21.1
                                          8.4
                                                  3.98
                                                         2.97
                                                                  2.512
                                                                          .441
                                                                                  .777
                                                                                         .494 -.271
                                                                                                         17.8
                                                                                                                  .781
.475 -.257
                         28.8
         1.89
                 9.0
                                  .049
                                          9.5
                                                         3.21
                                                                  2.716
                                                  4.30
                                                                          .497
                                                                                         .525 -.289
                                                                                  .764
                                                                                                         24.8
                                                                                                                  .768
.509 -.278
                         38.2
                                  .046
         2.10
                11.1
                                         10.5
                                                                  2.912
                                                                          .552
                                                  4.61
                                                         3.45
                                                                                  .753
                                                                                         .552 -.305
                                                                                                                  .756
                                                                                                         33.4
.538
     -.295
        2.31
                13.4
                         49.2
                                  .043
                                         11.6
                                                         3.67
                                                                          .608
                                                                  3.101
                                                                                  .742
                                                  4.91
                                                                                         .575 -.317
                                                                                                         43.6
                                                                                                                  .745
.563 -.309
                15.9
                         62.1
                                  .041
                                         12.6
                                                                          .663
         2.53
                                                  5.20
                                                         3.89
                                                                  3.286
                                                                                  .732
                                                                                         .596
                                                                                                                  .735
                                                                                                         55.5
                                                                                               -.328
.585 -.321
                         76.9
                                  .039
         2.74
                18.7
                                         13.7
                                                  5.49
                                                         4.11
                                                                  3.465
                                                                          .719
                                                                                  .723
                                                                                         .614 -.337
                                                                                                         69.3
                                                                                                                  .726
.605 -.331
                         93.7
                21.7
                                  .037
                                         14.7
                                                  5.76
                                                         4.32
                                                                  3.640
                                                                          .774
                                                                                  .714
                                                                                         .631 -.345
                                                                                                         85.1
                                                                                                                  .717
.622 -.339
                        112.6
                                  .035
                24.9
         3.16
                                         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
                        157.2
         3.58
                32.0
                                  .032
                                         17.9
                                                  6.56
                                                         4.91
                                                                  4.141
                                                                          .941
                                                                                 .691
                                                                                         .671 -.362
                                                                                                                  .693
                                                                                                        145.3
.665 -.358
                35.9
         3.79
                        183.1
                                  .031
                                         18.9
                                                  6.81
                                                                  4.301
                                                                          .996
                                                         5.10
                                                                                 .684
                                                                                         .682
                                                                                                                  .686
                                                                                               -.366
                                                                                                        170.0
.677
     -.363
                        211.5
                                  .030
                                                  6.91
                                                         5.29
         4.00
                40.0
                                         20.0
                                                                  4.364 1.074
                                                                                  .666
                                                                                                                  .680
                                                                                         .689 -.356
                                                                                                        197.1
.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
                         ID=4 CODE=1
     PRINT HYD
```

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

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 .000000 SHEET FLOW PORTION .0000 423.0 SHALLOW FLOW PORTION .004000 2.0000 .000000 .0000 CHANNEL FLOW PORTION .0 423.0 .004000 TOTAL BASIN 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.

WMHS.OUT

```
* 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=2CODE=1

> 108.20 PARTIAL HYDROGRAPH

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

*S BASINS CONTRIBUTING TO POND 111 * **** SUB-BASIN 111 ****

* EAST BASEBALL FIELD

COMPUTE LT TP UPLAND/LAG TIME METHOD LCODE=1

NK=1ISLOPE=0

LENGTH=382 FT SLOPE=0.012 K=2.0KN=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 .000000 .0000 382.0 SHALLOW FLOW PORTION .012000 2.0000 CHANNEL FLOW PORTION .0 .000000 .0000 382.0 TOTAL BASIN .012000 2.0000

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

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE. REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 .1333 TIME TO PEAK (HRS)= 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=5TP=0.0 MASSRAIN=-1

TIME TO PEAK (hrs) = .1333

K = .072666HRTP = .133333HRK/TP RATIO = .545000SHAPE CONSTANT, N = 7.106420.67100 CFS UNIT PEAK = UNIT VOLUME = .9832 526.28 P60 = 1.8700.000170 SQ MI AREA = .10000 INCHES IA =.04000 INCHES PER HOUR INF = RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =

K = .155517HR TP = .133333HR K/TP RATIO = 1.166384 SHAPE CONSTANT, N = 3.040026UNIT PEAK = 6.9058 CFS UNIT VOLUME = .9971B = 285.07P60 = 1.8700.003230 SQ MI IA = .61053 INCHES INF = 1.55947 INCHES PER HOUR AREA = 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 3.48 CFS AT 1.500 HOURS BASIN AREA = PEAK DISCHARGE RATE = .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 .000000 .0000 SHALLOW FLOW PORTION 373.0 .010000 2.0000 CHANNEL FLOW PORTION .000000 .0000 TOTAL BASIN 373.0 2.0000 .010000

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

WMHS.OUT

REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK

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

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

KN=0.021 CENTROID DIST=337 FT

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

COMPUTE LT TP

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

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

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 PER

PRINT HYD

ID=1 CODE=1

PARTIAL HYDROGRAPH 104.00

RATING CURVE VALLEY SECTION

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

5100

WATER FLOW FLOW TOP SURFACE AREA **RATE** WIDTH **ELEV** CFS FŢ SQ FT 5097.00 .00 .00 .00 .16 5097.16 5097.32 . 50 1.00 3.15 2.96 1.12 5097.47 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 17.35 94.64 5098.89 17.91 119.35 18.93 5099.05 21.01 149.82 20.00 5099.21 24.16 20.00 188.20 5099.37 27.31 229.73 20.00 5099.52 30.47 274.24 20.00 5099.68 33.62 321.56 20.00 36.78 5099.84 371.55 20.00

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

5100.00

INFLOW END= 487 TABLE PTS= 20 DT = .0500003.1458 1.56 QMED= CKMED= 3.60 NREACH= 1 WIDTH MED= DX= 270.00 ck DEPTH AREA Q TRAVEL WIDTH VEL **C3** Q-M C1-M C2-M C3-M TIME(HR) (FT) (FT) (SQ FT) (FPS) (FPS) (CFS) (CFS) .081 1.50 .58 1.000 .000 1.000 .000 .0 .0 .0 .000 1.000 .000 .000 .059 1.6 .16 1.77 1.27 1.182 .042 .962 .101 .994 -.063 .016 -.010 .037 1.0 3.2 2.81 2.02 1.872 .084 .947 .943 .323 -.266 -.157 .210 .47 1.1 3.0 .028 4.7 3.60 2.64 .129 2.402 .927 .434 -.361 1.8 .930

39.93

```
WMHS.OUT
.372 -.302
                                  .023
                          6.4
                                          6.3
          .63
                 2.0
                                                  4.33
                                                                  2.885
                                                         3.20
                                                                          .173
                                                                                 .915
                                                                                         .507
                                                                                                                  .917
                                                                                                          4.5
.467 -.385
                                  .020
                         11.6
                                          7.9
                 3.1
                                                  5.00
                                                         3.72
                                                                  3.334
                                                                          .217
                                                                                 .905
                                                                                         .561
                                                                                                          8.8
                                                                                                                 .907
                                                                                              -.465
.532 -.439
                 4.5
                         18.8
                                  .018
                                          9.5
                                                  5.63
                                                         4.20
                                                                  3.756
                                                                          .261
                                                                                 .896
                                                                                         .601
                                                                                                         15.0
                                                                                                                  .898
                                                                                              -.497
.580 -.478
                 6.1
                         28.4
         1.10
                                  .016
                                         11.0
                                                  6.23
                                                         4.65
                                                                  4.156
                                                                          . 305
                                                                                 .888
                                                                                         .634 -.522
                                                                                                                  .890
                                                                                                         23.4
.617
     -.507
         1.26
                 8.0
                         40.5
                                  .015
                                         12.6
                                                         5.09
                                                                  4.538
                                                  6.81
                                                                          .349
                                                                                 .881
                                                                                         .660
                                                                                                         34.2
                                                                                                                  .883
                                                                                              -.542
.646 -.530
         1.42
                10.1
                         55.4
                                  .014
                                                  7.36
                                                                  4.905
                                                                          . 393
                                         14.2
                                                         5.50
                                                                                 .875
                                                                                         . 682
                                                                                                                  .877
                                                                                              -.558
                                                                                                         47.7
.671 -.548
                                  .013
         1.58
                12.4
                         73.4
                                         15.8
                                                  7.89
                                                         5.90
                                                                  5.260
                                                                          .437
                                                                                 .869
                                                                                         .701
                                                                                                         64.2
                                                                                                                  .871
                                                                                              -.571
.692 -.563
         1.73
                15.0
                         94.6
                                  .012
                                         17.3
                                                         6.29
                                                                  5.602
                                                  8.40
                                                                          .481
                                                                                 .864
                                                                                         .718 -.582
                                                                                                                  .866
                                                                                                         83.8
.709 -.575
                17.9
         1.89
                        119.4
                                  .011
                                         18.9
                                                         6.66
                                                  9.21
                                                                  6.143
                                                                          .507
                                                                                 .867
                                                                                         .739
                                                                                              -.606
                                                                                                                  .861
                                                                                                        106.7
.725
     -.585
                21.0
                        149.8
                                  .011
                                         20.0
                                                 10.85
                                                         7.13
         2.05
                                                                  7.232
                                                                          .512
                                                                                 .883
                                                                                         .771
                                                                                              -.654
                                                                                                        134.3
                                                                                                                  .873
.754 -.627
                24.2
                        188.2
                                  .010
                                         20.0
                                                 12.68
                                                                  8.452
                                                        7.79
                                                                          .550
.792 -.686
         2.37
                27.3
                        229.7
                                  .009
                                                 13.65
                                         20.0
                                                         8.41
                                                                  9.100
                                                                          .623
                                                                                 .884
                                                                                                                  .887
                                                                                         .813 -.697
                                                                                                        208.6
.807 -.694
                                  .008
                30.5
                        274.2
         2.52
                                         20.0
                                                 14.56
                                                         9.00
                                                                  9.710
                                                                          .697
                                                                                 .878
                                                                                         .825
                                                                                              -.702
                                                                                                        251.6
                                                                                                                  .881
.819
     -.700
         2.68
                33.6
                        321.6
                                  .008
                                                 15.43
                                         20.0
                                                         9.56
                                                                 10.288
                                                                          .772
                                                                                 .872
                                                                                         .834 -.706
                                                                                                                  .875
                                                                                                        297.5
. 830
     -.704
                36.8
         2.84
                        371.5
                                  .007
                                         20.0
                                                 16.25
                                                       10.10
                                                                 10.836
                                                                          .847
                                                                                 .867
                                                                                         .842 -.709
                                                                                                                  .869
                                                                                                        346.2
.838 -.708
                39.9
                                  .007
                        424.1
                                         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 =
     Equations solved using the Ponce correction to C2
                                CODE=1
     PRINT HYD
                         ID=2
                                                               105.10
                                          PARTIAL HYDROGRAPH
                             1.57267 INCHES
                                                           .1258 ACRE-FEET
         RUNOFF VOLUME =
                                                 =
                                      3.02 CFS
                                               ΑT
                                                     1.500 HOURS
         PEAK DISCHARGE RATE =
                                                                    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
Page 8

WMHS.OUT

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

RATING CURVE VALLEY SECTION

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=0.015DIST=20 DIST ELEV DIST ELEV 5100 5099 10 5097 20 5099 20 5100

> WATER FLOW FLOW TOP SURFACE AREA RATE WIDTH **ELEV** CFS SQ FT FT 5097.00 .00 .00 .00 5097.16 .16 1.58 .50 5097.32 1.00 1.12 5097.47 2.96 4.73 1.99 5097.63 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 94.64 15.05 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 .050000 DT= QMED= 11.99 5.2902 CKMED= WIDTH MED= 7.98 NREACH= 1 500.00 DX= Ċ DEPTH AREA Q TRAVEL WIDTH ck **VEL** C3 D Q-M C1-M C2-M C3-M (FT) (SQ FT) (CFS) TIME(HR) (FT) (FPS) (FPS) (CFS) .00 .0 .150 .0 2.78 1.000 .0 .000 1.000 .000 .58 .000 1.000 .0 .000 .000 .16 . 109 1.6 2.74 1.27 .985 .015 .985 .000 .015 .0 .998 .000 .002 .5 .069 .32 1.011 1.0 3.2 2.81 2.02 .045 .956 .027 .017 .974 .010 .015 .053 3.0 3.60 1.297 1.1 4.7 2.64 .069 .941 .155 -.096 1.8 .945 .083 -.027 4.33 2.0 6.4 .043 6.3 1.558 .63 3.20 .093 .930 .246 -.175 .933 4.5 .196 -.129 3.1 11.6 .037 7.9 5.00 1.800 3.72 .117 .920 .315 -.234 8.8 .922 .278 -.200 18.8 .033 4.5 5.63 2.028 9.5 4.20 .141 .911 .369 -.280 15.0 .913 .340 -.254 6.1 28.4 1.10 .030 11.0 6.23 4.65 2.244 .165 .903 .413 -.317 .906 23.4 .390 -.296 12.6 1.26 8.0 40.5 .027 5.09 6.81 2.451 .189 .896 .450 -.347 34.2 .899

WMHS.OUT .431 -.330 1.42 55.4 .025 10.1 14.2 7.36 5.50 2.649 . 212 .890 .482 -.372 .892 .466 -.358 1.58 12.4 73.4 .024 15.8 7.89 5.90 2.840 .236 .884 .509 64.2 .886 -.394 .495 -.381 94.6 15.0 .022 17.3 8.40 6.29 3.025 .879 .260 . 533 .881 83.8 -.412 .521 -.401 1.89 17.9 119.4 .021 18.9 9.21 6.66 3.317 .274 .881 .564 -.445 .876 106.7 .543 -.419 149.8 .019 2.05 21.0 20.0 10.85 7.13 3.905 .276 .893 .614 -.507 134.3 .885 .588 -.473 .018 12.68 2.21 24.2 188.2 20.0 7.79 4.564 .297 .899 .659 -.557 .902 168.6 .647 -.549 2.37 27.3 229.7 .017 20.0 13.65 8.41 .337 4.914 .892 .680 -.572 .895 208.6 .670 -.565 30.5 274.2 .015 2.52 20.0 14.56 9.00 5.243 . 377 .886 . 698 .889 251.6 -.584 . 689 -.579 2.68 321.6 .015 5.555 33.6 20.0 15.43 9.56 .417 .880 .713 -.594 297.5 .883 .706 -.589 36.8 371.5 16.25 10.10 .014 20.0 5.852 .457 .875 .726 -.601 346.2 .878 3.00 39.9 424.1 20.0 17.04 10.62 .013 6.135 .498 .870 .738 .732 -.605 MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 4 TIMES. AVERAGE NUMBER ITERATIONS = TRAVEL WIDTH AREA ck VEL DEPTH C C2 C1**C3** C1-M D Q-MC2-M C3-M (FT) (SQ FT) (FPS) (FPS) (CFS) TIME(HR) (FT) (CFS) .00 .150 1.000 .000 1.000 .000 .0 .000 .0 .0 2.78 .58 1.000 .000 .000 .109 .2 1.6 1.27 .16 2.74 .985 .015 . 985 .0 .000 .015 .998 .000 .002 . 5 .069 1.0 3.2 .32 2.81 2.02 1.011 .045 .956 .027 .974 .017 .010 .015 3.0 .053 4.7 .47 1.1 3.01 1.083 2.64 .083 .923 .077 .000 1.8 .940 .060 .000 .043 6.4 6.3 2.0 .63 3.14 3.20 1.129 .129 .886 . 114 .904 .000 4.5 .096 .000 11.6 .037 7.9 3.1 3.28 .79 3.72 1.179 .179 .848 .866 .152 .000 8.8 .134 .000 4.5 18.8 .033 .95 9.5 3.42 4.20 1.232 .232 .812 . 188 15.0 .829 .000 .171 .000 28.4 .030 6.1 11.0 3.58 1.287 1.10 4.65 . 287 .777 .223 23.4 .793 .000 .207 .000 8.0 40.5 .027 12.6 1.26 3.73 5.09 1.344 . 344 .744 .256 34.2 .760 .000 .240 .000 55.4 .025 1.42 10.1 14.2 3.89 5.50 1.401 .286 .401 .714 .728 .000 47.7 .272 .000 73.4 .024 12.4 15.8 1.459 1.58 4.05 5.90 .459 .685 .315 .699 .000 64.2 .301 .000 1.73 15.0 94.6 .022 17.3 4.22 6.29 1.518 .518 .659 .341 .000 . 672 83.8 .328 .000 17.9 1.89 119.4 18.9 .021 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 .000 188.2 .018 24.2 1.767 2.21 20.0 4.91 7.79 .767 .566 .434 .000 168.6 .585 .415 .000 2.37 27.3 229.7 .017 20.0 5.22 8.41 1.880 .532 .880 .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 33.6 321.6 .015 20.0 2.68 5.84 2.102 1.102 9.56 .476 -. 524 297.5 .000 .489 .000 .511 2.84 36.8 371.5 .014 20.0 6.14 10.10 2.210 1.210 .452 .548 346.2 .000 .464 .536 .000 39.9 424.1 .013 3.00 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.

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* **** 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

SHEET FLOW PORTION

LENGTH (FT)

SLOPE (FT/FT) .000000

COMPOSITE K

WMHS.OUT SHALLOW FLOW PORTION 497.0 .008000 2.0000 CHANNEL FLOW PORTION .000000 .0 .0000 497.0 TOTAL BASIN .008000 2.0000 TIME OF CONCENTRATION (HRS) = .0772TIME 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)= COMPUTE NM HYD ID=5 HYD NO=110 DA=0.005 SQ MI PER A=90 PER B=0 PER C=5 PER D=5TP=0.0MASSRAIN=-1 TIME TO PEAK (hrs)= .1333 .072666HR .133333HR TP = K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420.98677 CFS UNIT VOLUME = .9890 526.28 P60 = 1.8700.000250 SQ MI AREA = .10000 INCHES IA = INF = .04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000 K = .160681HR TP = .1333333HR K/TP RATIO = 1.205107 SHAPE CONSTANT, N = 2.949709 9.8929 CFS UNIT VOLUME = .9970 B = 277.70UNIT PEAK = P60 = 1.8700.004750 SQ MI IA = .63421 INCHES INF = 1.62579 INCHES PER HOURAREA = RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000PRINT HYD ID=5 CODE=1 PARTIAL HYDROGRAPH 110.00 RUNOFF VOLUME = .55707 INCHES = .1486 ACRE-FEET 4.80 CFS AT 1.500 HOURS BASIN AREA = .0050 SQ. MI. PEAK DISCHARGE RATE = * **** 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 318.0 TOTAL BASIN .006000 2.0000 TIME OF CONCENTRATION (HRS) = .0570TIME 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)= COMPUTE NM HYD ID=1 HYD NO=112 DA=0.002 SQ MI PER A=95 PER B=0 PER C=0 PER D=5TP=0.0 MASSRAIN=-1 TIME TO PEAK (hrs) = .1333K = .072666HR TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420 UNIT PEAK = .39471 CFS UNIT VOLUME = .9739526.28 B = P60 = 1.8700.000100 SQ MI IA = .10000 INCHESAREA =INF = .04000 INCHES PER HOURRUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000 TP = .133333HR K/TP RATIO = 1.227936SHAPE CONSTANT, N = 2.899764UNIT PEAK = 3.8980 CFS UNIT VOLUME = .9947 273.54 P60 = 1.8700.001900 SQ MI AREA =.65000 INCHES IA =INF = 1.67000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000 PRINT HYD CODE=1 ID=1 PARTIAL HYDROGRAPH 112.00

* **** SUB-BASIN 113 ****

RUNOFF VOLUME =

PEAK DISCHARGE RATE =

.53875 INCHES

.1500

.1500

1.85 CFS AT 1.500 HOURS BASIN AREA =

.0575 ACRE-FEET

.0020 SQ. MI.

* EAST SIDE OF TRACK & FIELD

COMPUTE LT TP

LCODE=1 UPLAND/LAG TIME METHOD NK=1ISLOPE=0 LENGTH=315 FT SLOPE=0.006 K=2.0

KN=0.021CENTROID DIST=273 FT

SCS UPLAND METHOD FACTORS

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

TC AND TP COMPUTED BY UPLAND/LAG TIME PROCEDURE

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 = .9739B = 526.28P60 = 1.8700.000115 SQ MI IA =AREA =.10000 INCHES INF = .04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT \pm .050000

K = .163724HR TP = .1333333HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899764 UNIT PEAK = 4.4827 CFS UNIT VOLUME = .9953B = 273.54P60 = 1.8700.002185 SQ MI IA = .65000 INCHES INF = 1.67000 INCHES PER HOUR AREA =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 2.13 CFS AT 1.500 HOURS BASIN AREA = .0023 SQ. MI. PEAK DISCHARGE RATE =

* ADD 112 TO 113 TO GET 110.2

ID=3 HYD NO=113.1 ID I=1 ID II=2 ADD HYD

PRINT HYD CODE=1 ID=3

PARTIAL HYDROGRAPH 113.10

RUNOFF VOLUME = .53867 INCHES = .1235 ACRE-FEET 3.98 CFS AT 1.500 HOURS PEAK DISCHARGE RATE = 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 26.97 CFS AT 1.600 HOURS BASIN AREA = .0175 SQ. MI.PEAK DISCHARGE RATE =

* 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

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

```
WMHS.OUT
    *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)
         SHEET FLOW PORTION
                                                       .000000
         SHALLOW FLOW PORTION
                                      863.0
                                                       .005000
         CHANNEL FLOW PORTION
                                                       .000000
                                       863.0
         TOTAL BASIN
                                                       .005000
         TIME OF CONCENTRATION (HRS)=
                                        .1695
                                                 TIME TO PEAK (HRS)=
         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
.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 = 526.28P60 = 1.8700.003420 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR AREA = RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

COMPOSITE K

.0000

.0000

LAG TIME (HRS)=

.1271

LAG TIME (HRS)=

2.0000

2.0000

.1130

K = .149549HR TP = .1333333HR K/TP RATIO = 1.121619 SHAPE CONSTANT, N = 3.154190 UNIT PEAK = 9.2220 CFS UNIT VOLUME = .9983 B = 294.16P60 = 1.8700AREA = .004180 SQ MI IA = .58182 INCHES INF = 1.47909 INCHES PER HOURRUNOFF 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 13.64 CFS AT 1.500 HOURS BASIN AREA = .0076 SQ. MI. PEAK DISCHARGE RATE =

* 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=0.035DIST=20 DIST ELEV DIST ELEV 5100 10 5096 5100

R/	ATING 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		114.62	16.84
	5099.58		134.73	17.89
	5099.79 5100.00	_	156.91	18.94
Λ Ω	1 THELOW 3		181.25	19.99

ROUTE MCUNGE

ID=2HYD 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 = .0500006.82 QMED= CKMED= 2.6498 WIDTH MED= 5.80 NREACH= 3 DX= 226.67

```
DEPTH
               AREA
                               TRAVEL
                                       WIDTH
                                                  ck
                          Q
                                                           VEL
                                                                                    C1
                                                                                           C2
                                                                                                   C3
                                                                            D
                                                                                                                    C1-M
                                                                                                          Q-M
       C3-M
C2-M
               (SQ FT)
                        (CFS)
                               TIME(HR) (FT)
                                                   (FPS)
                                                           (FPS)
                                                                                                         (CFS)
                   .0
                                   .406
                                            .0
                                                   1.26
                                                            .29
                                                                   1.000
                                                                            .000
                                                                                  1.000
                                                                                           .000
                                                                                                  .000
                                                                                                                   1.000
.000
       .000
                                   . 297
          .21
                   .1
                                           1.1
                                                   1.20
                                                            .64
                                                                    .951
                                                                            .049
                                                                                   .951
                                                                                           .000
                                                                                                  .049
                                                                                                                    .992
                                                                                                              .0
.000
       .008
                                   .187
                   . 4
                                           2.1
          .42
                            .4
                                                   1.41
                                                           1.01
                                                                   1.117
                                                                            .134
                                                                                   .881
                                                                                           .111
                                                                                                  .008
                                                                                                                    .925
.041
       .034
                 1.0
                           1.3
                                   .143
                                           3.2
          .63
                                                   1.80
                                                           1.32
                                                                   1.433
                                                                            .204
                                                                                   .845
                                                                                           .242
                                                                                                -.087
                                                                                                              .8
                                                                                                                    .853
.172
      -.025
                 1.8
                           2.8
                                   .118
                                           4.2
          .84
                                                   2.17
                                                           1.60
                                                                   1.721
                                                                            .275
                                                                                   .817
                                                                                                            2.0
                                                                                           . 333
                                                                                                                    .823
                                                                                               -.149
.285
      -.109
                  2.8
                           5.2
         1.05
                                           5.3
                                   .101
                                                   2.50
                                                           1.86
                                                                   1.989
                                                                            .345
                                                                                   .793
                                                                                           .400
                                                                                                            3.9
                                                                                                                    .799
                                                                                                -.193
.365 -.165
                 4.0
                                   .090
         1.26
                           8.4
                                           6.3
                                                   2.82
                                                           2.10
                                                                   2.241
                                                                            .415
                                                                                   .773
                                                                                           .453
                                                                                                            6.7
                                                                                                -.226
                                                                                                                    .779
.426 -.205
                          12.6
         1.47
                  5.4
                                   .081
                                           7.4
                                                   3.12
                                                           2.33
                                                                   2.480
                                                                            .485
                                                                                   .755
                                                                                          .496 -.251
                                                                                                                    .761
                                                                                                           10.4
.474
      -.234
                          18.1
         1.68
                 7.1
                                   .074
                                           8.4
                                                          2.55
                                                   3.41
                                                                   2.708
                                                                            .555
                                                                                   .740
                                                                                           .531 -.270
                                                                                                           15.3
                                                                                                                    .744
.513
     -.257
                 9.0
                          24.7
                                   .069
         1.89
                                           9.5
                                                   3.69
                                                           2.76
                                                                   2.927
                                                                            .625
                                                                                   .725
                                                                                           .561
                                                                                                           21.3
                                                                                                                    .730
.546 -.276
                          32.7
                                   .064
         2.10
                11.1
                                          10.5
                                                   3.95
                                                           2.96
                                                                   3.138
                                                                            .695
                                                                                   .713
                                                                                           .586 -.299
                                                                                                           28.6
                                                                                                                    .717
.573
      -.290
                13.4
                          42.2
         2.31
                                   .060
                                          11.6
                                                   4.21
                                                           3.15
                                                                   3.343
                                                                            .764
                                                                                   .701
                                                                                           .608 -.309
                                                                                                                    .705
                                                                                                           37.4
.597 -.302
                          53.2
         2.53
                15.9
                                   .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
                                                                                                                    .683
                                                                                                           59.4
.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
                28.3
         3.37
                         114.6
                                   .047
                                          16.8
                                                   5.40
                                                           4.04
                                                                   4.287 1.113
                                                                                   .652
                                                                                           .687 -.340
                                                                                                          105.4
                                                                                                                    .655
.681 -.336
                32.0
                         134.7
                                   .045
         3.58
                                         17.9
                                                   5.62
                                                           4.21
                                                                   4.463 1.183
                                                                                   .644
                                                                                           .699 -.343
                                                                                                          124.5
                                                                                                                    . 647
. 693
      -.340
                35.9
         3.79
                         156.9
                                   .043
                                         18.9
                                                   5.84
                                                          4.37
                                                                   4.636 1.252
                                                                                   .636
                                                                                           .710 -.346
                                                                                                          145.7
                                                                                                                    .639
.704 -.344
                40.0
                                   .042
                         181.2
                                          20.0
                                                   5.92
         4.00
                                                          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 =
     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
```

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

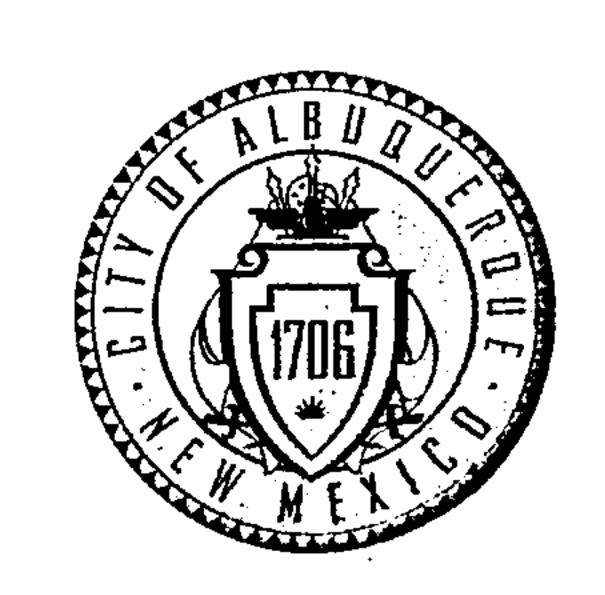
PARTIAL HYDROGRAPH 109.20

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,

PO Box 1293

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.

Albuquerque

Sinderetv

NM 87103

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

www.cabq.gov C:

Hydrology file CO Clerk Engineer

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: Lon	gfellow ES	ZONE MAP/DRG. FILE#: 18-14-2 K-1410010
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: <u>87109</u>
OWNER:	APS	CONTACT: Frank Shaw
ADDRESS:	915 Oak Street	PHONE: <u>505-975-6248</u>
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE: <u>87106</u>
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: <u>505-348-4067</u>
CITY, STATE:	Albuquerque, NM	ZIP CODE: <u>87109</u>
CONTRACTOR:		CONTACT:
ADDRESS:		PHONE:
CITY, STATE:		ZIP CODE:
GRADING PLAN EROSION CONTROL ENGINEER'S CERT (CLOMR\LOMR TRAFFIC CIRCULTAI ENGINEER/ARCHITE	- RESUBMITTAL SUBMITTAL SUBMITTAL SUBMITTAL DING & DRAINAGE PLAN PLAN HYDROLOGY) ON LAYOUT CCT CERT (TCL) CCT CERT (DRB S. P.)	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 COL YES NO COPY PROVIDED		
Submitted By: <u>Jason</u>	Woodruff	DATE: 08/05/09
	(O:4 = Development Die	bdivision Dieta abali ba accompanied by a drainage sybmittal

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 Z	ONE MAP/DRG. FILE#: K-14 / 1>10
DRB#: EPC#:	WORK ORDER #:
LEGAL DESCRIPTION: 7/Longfellow Elementary School, 7, E	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: <u>(505) 348-4136</u>
CITY, STATE: <u>Albuquerque, NM</u>	ZIP CODE: <u>87109</u>
OWNER: Albuquerque Public Schools	CONTACT: Karen Alarid
ADDRESS: 915 Oak Street SE	PHONE: <u>(505) 848-8810</u>
CITY, STATE: <u>Albuquerque, NM</u>	ZIP CODE: <u>87106</u>
ARCHITECT: Design Plus	CONTACT: Rupal Engineer
ADDRESS: 2415 Princeton, Suite G-2	PHONE: (505) 843-7587
CITY, STATE: <u>Albuquerque, NM</u>	ZIP CODE: <u>87107</u>
SURVEYOR: N/A	CONTACT: N/A
ADDRESS: N/A	_ PHONE: <u>N/A</u>
CITY, STATE: N/A	ZIP CODE: N/A
CONTRACTOR: N/A.	CONTACT: N/A.
ADDRESS: N/A.	_ PHONE: <u>N/A.</u>
CITY, STATE: N/A.	ZIP CODE: N/A.
CHECK TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
DRAINAGE REPORT	SIA / FINANCIAL GUARANTEE RELEASE
DRAINAGE PLAN 1 st SUBMITTAL, REQUIRES TCL OR EQU	JAL PRELIMINARY PLAT APPROVAL
CONCEPTUAL GRADING & DRAINAGE PLAN	S. DEV. PLAN FOR SUB'D. APPROVAL
GRADING PLAN	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
EROSION CONTROL PLAN	SECTOR PLAN APPROVAL
ENGINEERS CERTIFICATION (HYDROLOGY)	FINAL PLAT APPROVAL
CLOMR\LOMR	FOUNDATION PERMIT APPROVAL
TRAFFIC CIRCULTAION LAYOUT (TCL)	BUILDING PERMIT APPROVAL
ENGINEERS CERTIFICATION (TCL)	CERTIFICATION OF OCCUPANCY (PERM.)
ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)	CERTIFICATION OF OCCUPANCY (TEMP.)
/_ OTHER: Resubmittel addressing comments dated 06/26/06	/_ GRADING PERMIT APPROVAL
	PAVING PERMIT APPROVAL
-Reside	WORK ORDER APPROVAL
	OTHER (SPECIFY)
WAS A PRE-DESIGN CONFERENCE ATTENDED:	
YES (D) <u>[基(</u>	
<u>/ NO </u>	JL 0 3 2006
HYDRO	LOGY SECTION
Date Submitted: July 3, 2006	By: Jesse Dickson ////////////////////////////////////
	$\boldsymbol{\zeta}$

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.

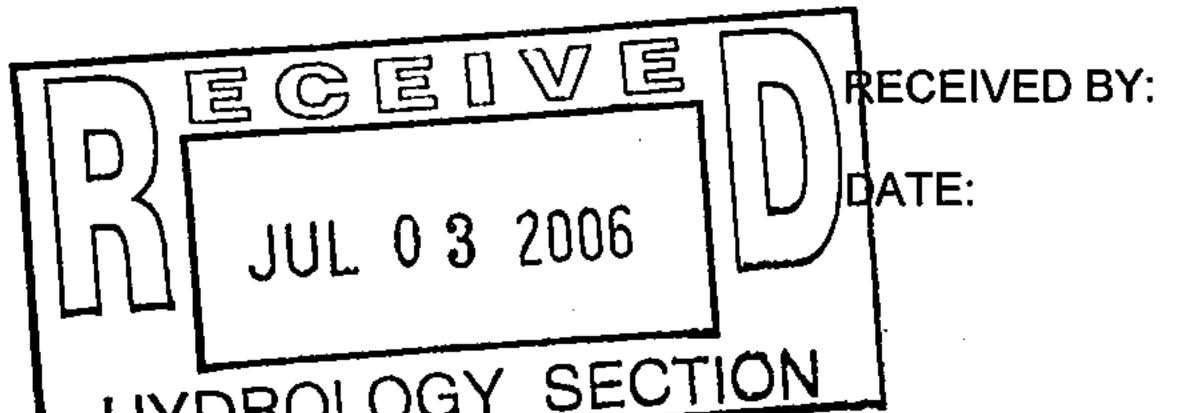
WILSON & COMPANY

	Albuquerque, (505)	ng Avenue, NE New Mexico 87 5) 348-4066 505) 348-4072	'109		Job No.: Re: Long	X4218064 gfellow Elementary	y School
To:	City of Albuq 600 2 nd Stree Albuquerque	et NW	nning				
Attn:	Brad Binghar	M					
WE ARI	E SENDING YOU	☑ Attached □] Under Separate C	over	via <u>ha</u>	and-deliver	the following items:
	☐ Shop Drawin	ngs 🗹 Prints	;	□ Cor	rrespondance	☐ Samples	☐ Specifications
	☐ Copy of lette	er 🗆 Chang	ge order				
Copies	s Date	Pages/Sheets				Description	
2	06/30/06	1	Grading & Drai	inage Plan			
2	06/30/06	2	Site Plan (C-10	3A & C-10	3B)		
2	06/30/06	4	Detail Sheets ((C-501 to 50)4)		
2	06/30/06	1	Drainage & Tra	ansportatior	1 Information	Sheet	
1	06/29/06	2	Memo, Respon		<u> </u>		
2	07/03/06	1	Drainage Infor	mation She	et		
THESE	ARE TRANSMITT	TED AS CHECKEL) BELOW:				
	☑ For approval	l/signature	☐ Approved	d as submitted		☑ Resubmiting	g 2 copies for approval
	☐ For your File	3	☐ Approved	t as noted		☐ Submit	copies for distribution
	☐ As requested		☐ Return _	copies		☐ Return	corrected prints
	☑ For review a						
	☐ FOR BIDS	DUE		☐ PRINTS	ON LOAN – RI	ETURN TO WC <i>EA</i> AFT	ER BID
Rema				r re-submi	ttal. If you l	have any question	ns, please let me know.
	<u> —</u>	· -					
							· · · · · · · · · · · · · · · · · · ·
	<u> </u>						<u></u>
COPY		cker, APS		SIGNED:	Jesse Dic	kson	
•				•			
		·] [国 C] [I]	V/ 国	RECEIVED	BY: Sande	Handley

TRANSMITTAL

07/03/06

Date:





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.

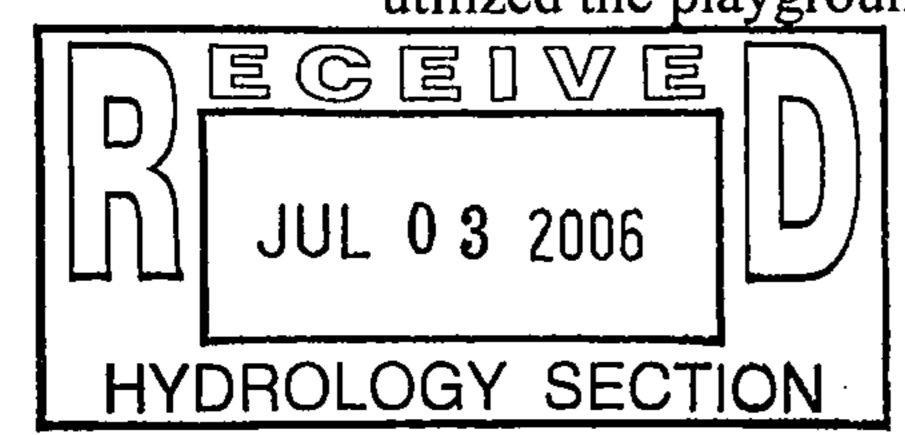
Comment 3. Add all build notes for infiltration gallery and outlets.

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



WILSON & COMPANY, INC., ENGINEERS & ARCHITECTS





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

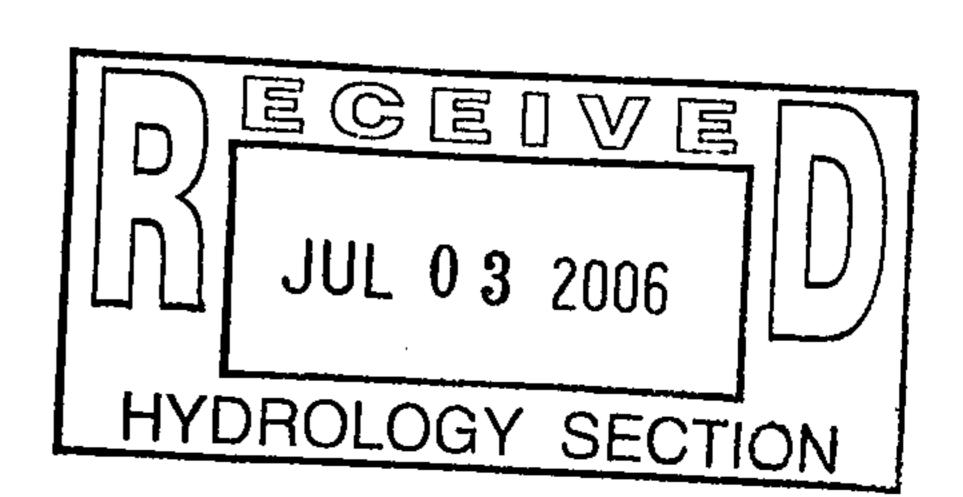
file;

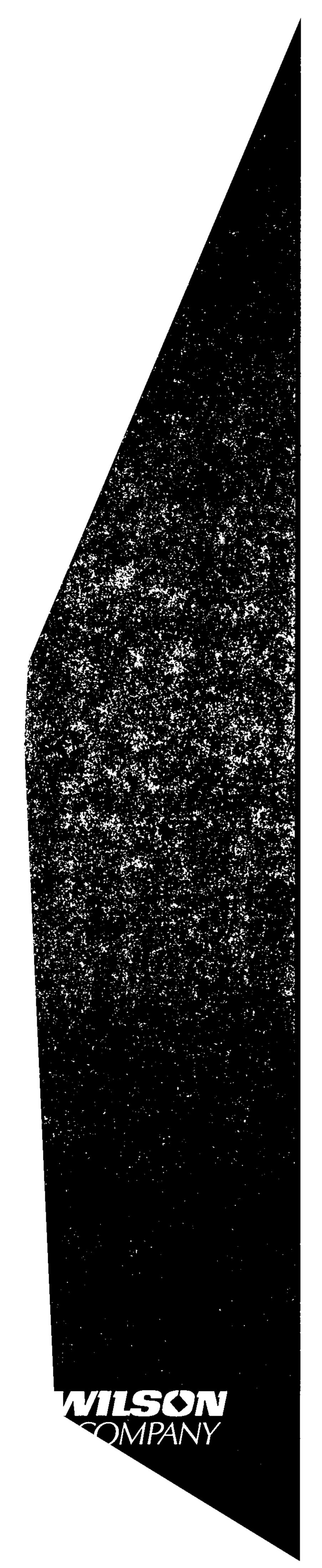
-jsd

Enclosures

CC:

Bob Becker, APS Facilities Management



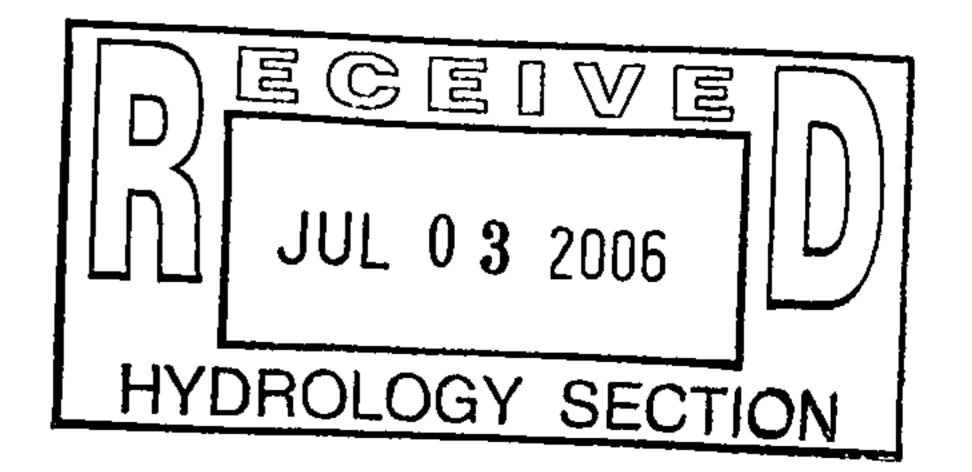


LONGFELLOW ELEMENTARY SCHOOL AHYMO FILES

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

D 国区国V区 JUL 0 3 2006 HYDROLOGY SECTION

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
                   TIME=0.0 PUNCH CODE=0 PRINT CODE=0
START
LOCATION
                   BERNALILLO COUNTY
* RAINFALL FROM NOAA COA DEVELOPMENT PROCESS MANUAL
*S 100 YEAR 24HR STORM
RAINFALL
                    TYPE=2 ONE DAY RAINFALL, NOAA ATLAS TWO
                   QUARTER=0.00 IN
                          1.87 IN
                    HOUR=
                    SIX HR = 2.20 IN
                           2.66 IN
                                     DT = 0.05
                    DAY=
* *S 10 YEAR 24HR STORM EXISTING CONDITION
                   TYPE=2 0.0 1.08
                                      1.41 1.78
                                                      DT=0.1
*RAINFALL
*S
*S BASINS CONTRIBUTING TO POND 108
* **** SUB-BASIN 101 ****
* NW CORNER OF PARKING LOT @ NW CORNER OF SITE
                             UPLAND/LAG TIME METHOD
                    LCODE=1
COMPUTE LT TP
                    NK=1
                          ISLOPE=0
                    LENGTH=381 FT SLOPE=0.003 K=2.0
                    KN=0.021 CENTROID DIST=153 FT
                    ID=1 HYD NO=101
                                     DA=0.0011 SQ MI
COMPUTE NM HYD
                    PER A=5 PER B=0 PER C=0 PER D=95
                    TP = 0.0
                           MASSRAIN=-1
                          CODE=1
PRINT HYD
                    ID=1
* **** SUB-BASIN 102 ****
 PARKING LOT @ NW CORNER OF SITE
                             UPLAND/LAG TIME METHOD
                    LCODE=1
COMPUTE LT TP
                    NK=1 ISLOPE=0
                    LENGTH=955 FT SLOPE=0.005 K=2.0
                    KN = 0.021
                              CENTROID DIST=377 FT
                                      DA=0.01 SQ MI
                          HYD NO=102
                    ID=2
COMPUTE NM HYD
                    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
                   ID=3 HYD NO=102.1 ID I=1 ID II=2
ADD HYD
                          CODE=1
                    ID=3
PRINT HYD
* ROUTE 102.1 THRU 108 IN V-DITCH TO 108.1
                     CID=1 V$ NO=1
COMPUTE RATING CURVE
                                      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
                          5100
                                    10
                                        5096
                          5100
                   ID=4 HYD NO=108.1
ROUTE MCUNGE
                                      INFLOW ID=3
                                      NS=0 SLOPE=0.005
                          L=570 FT
                   DT=0.0
                   MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
                   ID=4 CODE=1
PRINT HYD
* **** SUB-BASIN 108 ****
* WEST BASEBALL FIELD
                             UPLAND/LAG TIME METHOD
COMPUTE LT TP
                    LCODE=1
                          ISLOPE=0
                    NK=1
```

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

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

```
ISLOPE=0
                    NK=1
                    LENGTH=318 FT
                                   SLOPE=0.006 K=2.0
                    KN=0.021
                               CENTROID DIST=266 FT
                                        DA=0.002 SQ MI
                           HYD NO=112
COMPUTE NM HYD
                    ID=1
                    PER A=95 PER B=0 PER C=0 PER D=5
                    TP=0.0
                             MASSRAIN=-1
                           CODE=1
PRINT HYD
                    ID=1
* **** SUB-BASIN 113
* EAST SIDE OF TRACK & FIELD
                              UPLAND/LAG TIME METHOD
COMPUTE LT TP
                    LCODE=1
                    NK=1
                           ISLOPE=0
                    LENGTH=315 FT SLOPE=0.006 K=2.0
                    KN = 0.021
                               CENTROID DIST=273 FT
                                        DA=0.0023 SQ MI
                           HYD NO=113
                    ID=2
COMPUTE NM HYD
                    PER A=95 PER B=0 PER C=0 PER D=5
                    TP=0.0
                            MASSRAIN=-1
                    ID=2
                           CODE=1
PRINT HYD
* ADD 112 TO 113 TO GET 110.2
                    ID=3 HYD NO=113.1 ID I=1 ID II=2
ADD HYD
                           CODE=1
PRINT HYD
                    ID=3
* 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
                           CODE=1
                    ID=1
* ADD 110 TO 110.3 TO GET 110.4
                    ID=2 HYD NO=110.4 ID I=1 ID II=5
ADD HYD
                           CODE=1
PRINT HYD
                    ID=2
*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
                           HYD NO=106
                                       DA=0.0076 SQ MI
COMPUTE NM HYD
                    ID=1
                     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
                     CID=1 VS NO=1
                                       NO SEGS=1
COMPUTE RATING CURVE
                     MIN ELEV=5096
                                       MAX ELEV=5100
                     CH SLOPE=0.005
                                       FP SLOPE=0.005
                     N=0.035
                                       DIST=20
                                   DIST ELEV
                     DIST
                           ELEV
                           5100
                                         5096
                                     10
                        20
                           5100
                   ID=2
                          HYD NO=109.1
ROUTE MCUNGE
                                        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
                           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 S

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

ID=1 HYD NO=109.2 ID I=2 ID II=3

PRINT HYD ID=1 CODE=1

FINISH

ADD HYD

AHYMO.SUM - VERSION: 1997.02c

RUN DATE (MON/DAY/YR) =06/30/2006 USER NO.= AHYMO-C-9803c01UNMLIB-AH

	•											
	HYDROGRAPH	FROM ID	TO ID	AREA	PEAK DISCHARGE	RUNOFF VOLUME	RUNOFF	TIME TO PEAK	CFS PER	PAGE =	1	
	ITIFICATION	NO.	NO.	(SQ MI)	(CFS)	(AC-FT)	(INCHES)	(HOURS)	ACRE	NOTATI	.ON	
*S EXISTING & PROF *S BASINS AREAS DO *S PONDS ARE NAMED START LOCATION	NOT CHANGE	FROM ASINS I	THE EXIS	TING TO PROP	POSED CONDITION					TIME=	.00	
*S********	*****			- · -	*******	****						
*S 100 YEAR 24HR S RAINFALL TYPE= 2 *S										RAIN24=	2.660	
*S BASINS CONTRIBU		ND 108		00440	2	437	2 22705	1 500	4 100	DED T	٥- ٥٥	
COMPUTE NM HYD COMPUTE NM HYD	101.00 102.00	-	1 2	.00110 .01000	2.93 25.06	.137 1.147	2.32785 2.15031	1.500 1.500		PER IMP= PER IMP=	95.00 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 CONTRIBU	ITING TO PON	ND 111										
COMPUTE NM HYD	111.00	-	1	.00340	3.48	.107	.58809	1.500	1.598	PER IMP=	5.00	
*S BASINS CONTRIBU		ID 107				20-	4 20474		2 22		45 00	
COMPUTE NM HYD	107.00	_	1 .	.00400	7.19	.295	1.38474	1.500	2.807	PER IMP=	45.00	
*S BASINS CONTRIBU		ND 110	_	00000	10 50	4 425	2 4 5 0 2 4	1 (00	2 010		05 00	
COMPUTE NM HYD	103.00	-	3	.00990	18.50	1.135	2.15031	1.600		PER IMP=	85.00	
COMPUTE NM HYD	104.00	-	Ţ	.00150	3.11	.126	1.57240	1.500	<u> </u>	PER IMP=	50.00	
ROUTE MCUNGE	105.10	T	4	.00150	3.02	.126	1.57267 2.12906	1.500 1.500		CCODE = PER IMP≃	85.00	
COMPUTE NM HYD	105.00 105.20	- 3& 4	4	.00180 .01170	4.44 21.51	.204 1.340	2.12900	1.600	2.873	PER IMP	03.00	
ADD HYD ADD HYD	105.20	1& 2	. Т	.01320	23.97	1.465	2.08165	1.600	2.838			
ROUTE MCUNGE	110.10	3 TOX 5	Д	.01320	23.86	1.464	2.07963	1.600		CCODE =	1	
COMPUTE NM HYD	110.00	_	5	.00500	4.80	.149	.55707	1.500		PER IMP=	$5.0\overline{0}$	
COMPUTE NM HYD	112.00	_	í	.00200	1.85	.057	.53875	1.500		PER IMP=	5.00	
COMPUTE NM HYD	113.00	_	2	.00230	2.13	.066	.53875	1.500		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	$ar{ extbf{1}}$.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 CONTRIBU		ID 109										
COMPUTE NM HYD	106.00	-	1	.00760	13.64	.561	1.38474	1.500		PER IMP=	45.00	
ROUTE MCUNGE	109.10	1	2	.00760	13.04	.561	1.38383	1.550	_	CCODE =	.2	
COMPUTE NM HYD	109.00	-	3	.00580	5.92	.182	.58809	1.500		PER IMP=	5.00	
ADD HYD	109.20	2& 3	1	.01340	18.69	.743	1.03933	1.550	2.180			
ETNITCLI												

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - INPUT FILE = WMHS.DAT

FINISH

- Version: 1997.02c

AHYMO PROGRAM (AHYMO_97) -

```
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
                    TIME=0.0 PUNCH CODE=0 PRINT CODE=0
START
LOCATION
                    BERNALILLO COUNTY
     Bernalillo County soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment
                        Initial Abstr.(in)
                                               Unif. Infilt.(in/hour)
                        0.65
                                               1.67
                        0.50
                        0.35
                                               0.83
                        0.10
                                               0.04
 RAINFALL FROM NOAA COA DEVELOPMENT PROCESS MANUAL
*S 100 YEAR 24HR STORM
RAINFALL
                     TYPE=2 ONE DAY RAINFALL, NOAA ATLAS TWO
                     QUARTER=0.00 IN
                             1.87 IN
                     HOUR=
                     SIX HR= 2.20 IN
                             2.66 IN
                     DAY=
                                       DT = 0.05
               COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                        .050000 HOURS
               DT =
                                                          24.000000 HOURS
                                            END TIME =
                  .0000
                           .0025
                                   .0050
                                           .0076
                                                   .0103
                                                           .0131
                                                                    .0160
                  .0190
                           .0222
                                   .0254
                                           .0289
                                                   .0324
                                                            .0362
                                                                    .0401
                  .0443
                                   .0534
                                                            .0695
                           .0487
                                           .0584
                                                   .0637
                                                                    .0758
                  .0837
                           .0924
                                   .1176
                                                   .2798
                                           .1773
                                                            .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
                                                                   2.0031
                                                          1.9973
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                         2.0140
                                          2.0240
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2.6109
                                2.6128
                                               2.6148
                                       2.6138
                                                       2.6157
                2.6176
                        2.6186
                                2.6195
                                       2.6205
                                               2.6214
                                                       2.6224
                2.6243
                        2.6252
                                2.6261
                                       2.6271
                                               2.6280
                2.6308
                        2.6318
                                2.6327
                                       2.6336
                                               2.6346
                                                       2.6355
                2.6373
                        2.6383
                                2.6392
                                       2.6401
                                               2.6410
                                                       2.6419
                2.6438
                        2.6447
                                2.6456
                                       2.6465
                                               2.6474
                                                       2.6483
                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
                                                 .000000
                                                                     .0000
     SHALLOW FLOW PORTION
                                  381.0
                                                 .003000
                                                                   2.0000
    CHANNEL FLOW PORTION
                                                 .000000
                                                                     .0000
                                    .0
                                  381.0
     TOTAL BASIN
                                                 .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)=
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
                    TP = .133333HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
     K = .072666HR
    UNIT PEAK = 4.1247 CFS UNIT VOLUME = .9966
                                                                   526.28
                                                              B =
                                                                               P60 = 1.8700
                .001045 \text{ SQ MI} IA = .10000 \text{ INCHES} INF = .04000 \text{ INCHES PER HOUR}
    AREA =
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000
                                       K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899764
     K = .163724HR TP = .133333HR
                .11284 CFS UNIT VOLUME = .8676
     UNIT PEAK =
                                                                   273.54
                                                             B =
                                                                               P60 = 1.8700
                .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
                      2.32785 INCHES
    RUNOFF VOLUME =
                                                  .1366 ACRE-FEET
                              2.93 CFS AT
                                             1.500 HOURS
    PEAK DISCHARGE RATE =
                                                          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 \text{ 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
                                                 .000000
                                                                     .0000
    SHALLOW FLOW PORTION
                                  955.0
                                                 .005000
                                                                   2.0000
    CHANNEL FLOW PORTION
                                                 .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)=
                                                                                         LAG TIME (HRS)=
                                                  .2000
                                                           TIME TO PEAK (HRS) = .1333
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
```

.1500

.1500

TP=0.0

MASSRAIN≕-1

WMHS.OUT

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

CID=1 VS NO=1 NO SEGS=1
MIN ELEV=5096 MAX ELEV=5100

CH SLOPE=0.005

5100

FP SLOPE=0.005

N=0.030 DIST=20 DIST ELEV DIST ELEV 0 5100 10 5096

> RATING CURVE VALLEY SECTION 1.0 WATER FLOW TOP FLOW SURFACE AREA WIDTH RATE **ELEV** SQ FT FT CFS 5096.00 .00 5096.21 .11 .08 1.05 5096.42 .52 .44 2.10 1.54 5096.63 1.00 3.16 5096.84 1.77 3.32 4.21 5097.05 2.77 5.26 6.01 5097.26 3.99 9.78 6.31 5097.47 5.43 14.75 7.37 7.09 5097.68 21.06 8.42 8.97 28.83 5097.89 9.47 5098.10 11.07 38.18 10.52 13.40 5098.31 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

> > 39.97

211.46

19.99

ROUTE MCUNGE

INFLOW END= 497

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

TABLE PTS= 20

5100.00

.050000 DT= 13.99 QMED= 3.4541 CKMED= 7.21 NREACH= 2 WIDTH MED= 285.00 DX= DEPTH AREA Q TRAVEL WIDTH ck **VEL** C **C1** C2 **C3** C1-M Q-M C3-M C2-M (FT) (SQ FT) (CFS) TIME(HR) (FT) (FPS) (FPS) (CFS) .00 .292 1.000 .000 1.000 .0 .0 .0 1.58 . 34 .000 .000 .000 .213 1.1 1.53 .74 .21 .036 .964 .964 .000 .036 .994 .000 .006 .134 2.1 . 4 .42 . 5 1.64 1.18 1.036 .106 .901 .066 .033 .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 3.3 1.8 .085 4.2 2.53 1.87 1.597 .219 .84 .845 .290 -.134 2.3 .851 .241 -.092 2.8 6.0 .073 1.846 1.05 5.3 2.17 2.92 .274 .824 .359 -.183 .830 4.6 .323 -.153

```
WMHS.OUT
                                                                                                                .811
                          9.8
                                 .065
                                         6.3
                                                                 2.079
                                                                         .330
                                                                                .806
                                                                                       .413 -.220
                 4.0
                                                  3.29
        1.26
                                                        2.45
.385 -.197
                                                                                                                .795
                                                                         .386
                         14.8
                                 .058
                                                        2.72
                                                                 2.301
                                                                                .791
                                                                                        .457
        1.47
                 5.4
                                         7.4
                                                  3.64
                                                                                             -.248
.435 -.230
                                 .053
                                                                 2.512
                                                                                .777
                                                                                                        17.8
                                                                                                                .781
                                         8.4
                                                  3.98
                                                        2.97
                                                                         .441
                                                                                        .494
                 7.1
                         21.1
                                                                                             -.271
        1.68
.475 -.257
                                                                                                                .768
                         28.8
                                 .049
                                         9.5
                                                         3.21
                                                                 2.716
                                                                         . 497
                                                                                .764
                                                                                       .525 -.289
                                                                                                        24.8
                 9.0
                                                  4.30
        1.89
.509 -.278
                                                                         .552
                                                                                                                .756
                         38.2
                                  .046
                                                                                .753
                                                                                       .552 -.305
                                        10.5
                                                         3.45
                                                                 2.912
                                                                                                        33.4
        2.10
                11.1
                                                  4.61
.538 -.295
                                 .043
                                        11.6
                                                        3.67
                                                                 3.101
                                                                         .608
                                                                                .742
                                                                                       .575 -.317
                                                                                                        43.6
                                                                                                                .745
                13.4
                         49.2
                                                  4.91
        2.31
.563 -.309
                                                                         .663
                                                                                .732
                                                                                                                .735
                                                         3.89
                                                                 3.286
                                                                                       .596 -.328
                                                                                                        55.5
        2.53
                15.9
                         62.1
                                 .041
                                        12.6
                                                  5.20
.585 -.321
                         76.9
                                 .039
                                                                         .719
                                                                                .723
                                                                                                        69.3
                                                                                                                .726
                                        13.7
                                                  5.49
                                                         4.11
                                                                 3.465
                                                                                       .614 -.337
        2.74
                18.7
. 605
     -.331
                                                                                                                .717
                                 .037
                                                                 3.640
                                                                                       .631 -.345
                21.7
                         93.7
                                        14.7
                                                  5.76
                                                        4.32
                                                                         .774
                                                                                .714
                                                                                                        85.1
        2.95
.622 -.339
                                  .035
                                                                 3.810
                                                                         .830
                                                                                .706
                                                                                        .645 -.351
                                                                                                                .709
                24.9
                        112.6
                                        15.8
                                                  6.03
                                                        4.52
                                                                                                       103.0
         3.16
.638 -.347
                                                                 3.977
                                                                         .885
                                                                                 .698
                                                                                       .659 -.357
                                                                                                       123.0
                                                                                                                .701
                        133.7
                                 .034
                                        16.8
                                                  6.30
                                                        4.72
                28.3
.652 -.353
                32.0
                        157.2
                                  .032
                                        17.9
                                                                 4.141
                                                                         .941
                                                                                 .691
.665 -.358
                                                                         .996
                                                                                                                .686
                35.9
                        183.1
                                 .031
                                        18.9
                                                  6.81
                                                         5.10
                                                                 4.301
                                                                                .684
                                                                                       .682
                                                                                                       170.0
                                                                                             -.366
         3.79
     -.363
.677
                                                         5.29
                                                                 4.364 1.074
                                                                                                                .680
                                 .030
                                                  6.91
                                                                                .666
                                                                                       . 689
                                                                                                       197.1
                        211.5
                                        20.0
                                                                                             -.356
         4.00
                40.0
.688 -.367
                                                                                 AVERAGE NUMBER ITERATIONS = 1.0607
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED
                                                                      12 TIMES.
     Equations solved using the Ponce correction to C2
                         ID=4 CODE=1
     PRINT HYD
```

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 0.1333333 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

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

*S BASINS CONTRIBUTING TO POND 111

* **** SUB-BASIN 111 ****

* EAST BASEBALL FIELD COMPUTE LT TP

UPLAND/LAG TIME METHOD LCODE=1 NK=1

ISLOPE=0

LENGTH=382 FT SLOPE=0.012 K=2.0 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 382.0 .012000 SHALLOW FLOW PORTION 2.0000 .0 382.0 CHANNEL FLOW PORTION .000000 .0000 TOTAL BASIN .012000 2.0000

TIME OF CONCENTRATION (HRS) = .0484 TIME TO PEAK (HRS) = .0323LAG 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)= .1333LAG 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=5TP=0.0 MASSRAIN=-1

TIME TO PEAK (hrs) = .1333

K = .072666HR TP = .133333HRK/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420UNIT PEAK = .67100 CFS UNIT VOLUME = .9832526.28 B = P60 = 1.8700.000170 SQ MI AREA =IA = .10000 INCHES INF = .04000 INCHES PER HOURRUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =

K = .155517HR TP = .1333333HR K/TP RATIO = 1.166384 SHAPE CONSTANT, N = 3.040026 UNIT PEAK = 6.9058 CFS UNIT VOLUME = .9971B = 285.07P60 = 1.8700.003230 SQ MI IA =AREA = .61053 INCHES INF = 1.55947 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD

ID=1 CODE=1

TC AND TP COMPUTED BY UPLAND/LAG TIME PROCEDURE

PARTIAL HYDROGRAPH 111.00

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

*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

SCS UPLAND METHOD FACTORS

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

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 .000000 .0000 1667.0 SHALLOW FLOW PORTION .004000 2.0000 CHANNEL FLOW PORTION .000000 .0000 1667.0 TOTAL BASIN .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

WMHS.OUT .0000 .000000 CHANNEL FLOW PORTION .007000 2.0000 TOTAL BASIN

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

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE. REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333LAG 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/TP RATIO = .545000TP = .133333HRK = .072666HRSHAPE CONSTANT, N = 7.106420UNIT PEAK = 2.9603 CFS UNIT VOLUME = .9959 526.28 P60 = 1.8700.10000 INCHES INF = .04000 INCHES PER HOUR .000750 SQ MI IA =RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .126455HR TP = .1333333HR K/TP RATIO = .948415 SHAPE CONSTANT, N = 3.727038UNIT PEAK = 1.8930 CFS UNIT VOLUME = .9947 B = 336.54P60 = 1.8700.000750 SQ MI IA = .47273 INCHES INF = 1.17364 INCHES PER HOURAREA = RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD

*

ID=1 CODE=1

104.00 PARTIAL HYDROGRAPH

1.57240 INCHES .1258 ACRE-FEET RUNOFF VOLUME = 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 DIST=20 N=0.015DIST ELEV DIST ELEV 5100 5099 0 10 5097 20 5099 5100

> RATING CURVE VALLEY SECTION 1.0 WATER TOP FLOW FLOW SURFACE **RATE** AREA WIDTH **ELEV** SQ FT CFS FT 5097.00 .00 .00 .00 . 12 .16 1.00 5097.16 1.58 .50 5097.32 3.15 2.96 5097.47 1.12 5097.63 1.99 6.38 6.31 5097.79 11.56 3.11 7.89 5097.95 4.48 18.80 9.46 6.09 5098.10 28.35 11.04 7.96 5098.26 40.48 12.62 10.07 5098.42 55.42 14.19 5098.58 12.44 73.40 15.77 17.35 5098.73 15.05 94.64 5098.89 17.91 18.93 119.35 21.01 5099.05 20.00 149.82 24.16 5099.21 188.20 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 20.00 371.55 5100.00 39.93 20.00

424.06

ROUTE MCUNGE

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

INFLOW END= 487 TABLE PTS= 20 DT = .0500001.56 CKMED= 3.1458 QMED= 3.60 NREACH= 1 270.00 DX= WIDTH MED= C2 TRAVEL WIDTH ck VEL D C1 C3 Q-M C1-M DEPTH AREA C2-M C3-M (SQ FT) TIME(HR) (FT) (FPS) (FPS) (CFS) (CFS) (FT) . 58 1.000 .000 1.000 .000 .000 1.000 .081 .0 1.50 .0 .0 .000 .000 .059 1.6 1.77 1.27 1.182 .042 .962 .994 .101 .16 -.063 .016 -.010 3.2 .037 2.02 1.872 . 5 1.0 2.81 .084 .947 .943 .323 -.266 .210 -.1573.0 .028 4.7 2.64 2.402 .129 .927 .930 1.1 3.60 .47 .434 -.361 1.8

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 .000000 .0000 430.0 SHALLOW FLOW PORTION .007000 2.0000 CHANNEL FLOW PORTION .000000 .0 .0000 430.0 TOTAL BASIN .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 Page 8

WMHS.OUT

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

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.

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=0.015DIST=20 DIST ELEV DIST ELEV 5100 5099 10 5097 20 5099 20 5100

> RATING CURVE VALLEY SECTION 1.0 WATER FLOW FLOW TOP SURFACE RATE AREA WIDTH **ELEV** CFS SQ FT FT 5097.00 .00 .00 .00 .12 .16 5097.16 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 3.11 5097.79 11.56 7.89 5097.95 18.80 4.48 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 18.93 119.35 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

TABLE PTS= 20 INFLOW END= 511 DT = .050000QMED= 11.99 5.2902 CKMED= WIDTH MED= 7.98 NREACH= 1 500.00 DX= C DEPTH AREA TRAVEL WIDTH ck VEL C1 C2 C3 C1-M Q-M C3-M C2-M (FT) (SQ FT) (CFS) TIME(HR) (FT) (FPS) (FPS) (CFS) .00 2.78 .0 .150 .0 . 58 1.000 .000 1.000 .000 .000 1.000 .000 .000 .16 1.6 . 2 .109 2.74 1.27 .985 .015 .985 .000 .015 .998 .000 .002 .069 1.0 2.81 2.02 1.011 .045 .956 .010 .015 1.1 3.0 .053 4.7 1.297 3.60 2.64 .069 .941 .155 -.096 .945 1.8 .083 -.027 6.4 .043 6.3 1.558 2.0 .63 4.33 3.20 .093 .930 .246 -.175 .933 4.5 .196 -.129 3.1 11.6 .037 7.9 3.72 1.800 .922 5.00 . 117 .920 .315 -.234 8.8 .278 -.200 4.5 18.8 .033 2.028 9.5 5.63 4.20 .141 .911 .369 -.280 15.0 .913 .340 -.254 6.1 28.4 .030 1.10 11.0 6.23 4.65 2.244 .165 .903 .906 .413 -.317 23.4 .390 -.296 40.5 1.26 8.0 .027 12.6 5.09 .189 6.81 2.451 .896 .450 -.347 34.2 .899

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C2-M
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     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 CODE=1 ID=4

110.10 PARTIAL HYDROGRAPH

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

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

TC AND TP COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

SHEET FLOW PORTION

LENGTH (FT)

SLOPE (FT/FT) .000000

COMPOSITE K .0000

WMHS.OUT 497.0 .008000 2.0000 SHALLOW FLOW PORTION .0000 .000000 CHANNEL FLOW PORTION 497.0 2.0000 .008000 TOTAL BASIN TIME OF CONCENTRATION (HRS) = .0772TIME TO PEAK (HRS) = .0515LAG TIME (HRS)= .0579 TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE. REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 .1333 LAG TIME (HRS)= TIME TO PEAK (HRS)= 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) = .1333TP = .133333HRK/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420 . 98677 UNIT VOLUME = .9890526.28 CFS P60 = 1.8700**B** = .000250 SQ MI .10000 INCHES IA = INF = .04000 INCHES PER HOUR AREA = RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = K = .160681HR TP = .1333333HR K/TP RATIO = 1.205107 SHAPE CONSTANT, N = 2.949709 9.8929 CFS UNIT VOLUME = .9970B = 277.70P60 = 1.8700UNIT PEAK = .004750 SQ MI IA = .63421 INCHES INF = 1.62579 INCHES PER HOUR AREA =RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000 \cdot ID=5 CODE=1 PRINT HYD PARTIAL HYDROGRAPH 110.00 RUNOFF VOLUME = .55707 INCHES = .1486 ACRE-FEET 4.80 CFS AT 1.500 HOURS BASIN AREA = .0050 SQ. MI. PEAK DISCHARGE RATE = * **** 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 .000000 .0000 SHEET FLOW PORTION .0 318.0 .006000 2.0000 SHALLOW FLOW PORTION .000000 .0000 CHANNEL FLOW PORTION .0 318.0 .006000 2.0000 TOTAL BASIN TIME OF CONCENTRATION (HRS) = .0570TIME TO PEAK (HRS) = .0380LAG TIME (HRS)= .0428 TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE. TIME TO PEAK (HRS) = .1333LAG TIME (HRS)= REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 ID=1 HYD NO=112 DA=0.002 SQ MI COMPUTE NM HYD PER A=95 PER B=0 PER C=0 PER D=5TP=0.0 MASSRAIN=-1 TIME TO PEAK (hrs) = .1333K = .072666HR TP = .133333HRK/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420UNIT PEAK = .39471 CFS UNIT VOLUME = .9739 B = 526.28 P60 = 1.8700.10000 INCHES .000100 SQ MI INF = .04000 INCHES PER HOURIA = AREA = RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000 K = .163724HR TP = .1333334HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899764 B = 273.54UNIT PEAK = 3.8980 CFS UNIT VOLUME = .9947P60 = 1.8700.001900 SQ MI IA =.65000 INCHES INF = 1.67000 INCHES PER HOUR AREA =RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000CODE=1 PRINT HYD ID=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.

.1500

.1500

^{****} 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

TC AND TP COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

SLOPE (FT/FT) LENGTH (FT) COMPOSITE K SHEET FLOW PORTION .000000 .0000 SHALLOW FLOW PORTION 315.0 .006000 2.0000 CHANNEL FLOW PORTION .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 = .1333333HR 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 I

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

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.

COMPOSITE K

LAG TIME (HRS)=

.1271

.0000

.0000

2.0000

2.0000

.1130

```
WMHS.OUT
*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
                                                  SLOPE (FT/FT)
                                LENGTH (FT)
                                                    .000000
     SHEET FLOW PORTION
                                   863.0
                                                    .005000
     SHALLOW FLOW PORTION
     CHANNEL FLOW PORTION
                                                    .000000
                                   863.0
     TOTAL BASIN
                                                    .005000
     TIME OF CONCENTRATION (HRS)=
                                    .1695
                                               TIME TO PEAK (HRS)=
```

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE. REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333LAG 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 = .9983B = 526.28P60 = 1.8700.003420 SQ MI .10000 INCHES INF = .04000 INCHES PER HOUR IA = AREA =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 = .9983B = 294.16P60 = 1.8700.004180 SQ MI IA = .58182 INCHES INF = 1.47909 INCHES PER HOURAREA =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=0.035DIST=20 DIST ELEV DIST ELEV 5100 5096 10 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	$\bar{1.77}$	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		114.62	16.84
5099.58		134.73	17.89
5099.79	<u> </u>	156.91	18.94
5100.00		181.25	19.99

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ROUTE MCUNGE

HYD NO=109.1INFLOW ID=1 L=680 FT DT=0.0NS=0SLOPE=0.005 MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

INFLOW END= 493 TABLE PTS= 20 DT = .0500006.82 QMED= CKMED= 5.80 WIDTH MED= NREACH= 3DX= 226.67

C2-M	DEPTH C3-M	AREA	Q	TRAVEL	WIDTH	ck	VEL	C	D	C1	c2	С3	Q-M	C1-M
	(FT) .00	(SQ FT)	(CFS) .0	TIME(HR) .406	(FT) .0	(FPS) 1.26	(FPS) .29	1.000	.000	1.000	· .000	.000	(CFS) .0	1.000
.000	.000	.1	.1	.297	1.1	1.20	. 64	.951	.049	.951	.000	.049	.0	. 992
.000	.008	.4	.4	.187	2.1	1.41	1.01	1.117	.134	.881	.111	.008	.2	. 925
.041	.034	1.0	1.3	.143	3.2	1.80	1.32	1.433	.204	.845	.242	087	.8	.853
.172	.84	1.8	2.8	.118	4.2	2.17	1.60	1.721	.275	. 817	.333	149	2.0	.823
	109 1.05	2.8	5.2	.101	5.3	2.50	1.86	1.989	.345	.793	.400	193	3.9	.799
	165 1.26 205	4.0	8.4	.090	6.3	2.82	2.10	2.241	.415	.773	.453	226	6.7	.779
	203 1.47 234	5.4	12.6	.081	7.4	3.12	2.33	2.480	.485	.755	.496	251	10.4	.761
	254 1.68 257	7.1	18.1	.074	8.4	3.41	2.55	2.708	.555	.740	.531	270	15.3	.744
	1.89 276	9.0	24.7	.069	9.5	3.69	2.76	2.927	.625	.725	.561	286	21.3	.730
	2.10 290	11.1	32.7	.064	10.5	3.95	2.96	3.138	.695	.713	.586	299	28.6	.717
		13.4	42.2	.060	11.6	4.21	3.15	3.343	.764	.701	.608	309	37.4	.705
	2.53 312	15.9	53.2	.057	12.6	4.46	3.34	3.541	.834	.690	.628	318	47.6	.693
	2.74 320	18.7	65.9	.054	13.7	4.70	3.52	3.734	.904	.679	.645	325	59.4	.683
	2.95 326	21.7	80.3	.051	14.7	4.94	3.70	3.923	.973	.670	.661	331	73.0	.673
	3.16 332	24.9	96.5	.049	15.8	5.17	3.87	4.107	1.043	.661	.675	336	88.3	.664
	3.37 336	28.3	114.6	.047	16.8	5.40	4.04	4.287	1.113	.652	. 687	340	105.4	.655
	3.58 340	32.0	134.7	.045	17.9	5.62	4.21	4.463	1.183	.644	.699	343	124.5	. 647
	3.79 344	35.9	156.9	.043	18.9	5.84	4.37	4.636	1.252	.636	.710	346	145.7	.639
	4.00 346	40.0	181.2	.042	20.0	5.92	4.53	4.703	1.351	.617	.716	334	168.9	.632
	MAXIMUM N	s solved	using th		ON (KKMAX) correction			1	O TIMES.	. AVER	AGE NUM	BER ITER	RATIONS =	1.0491

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.

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*
* **** 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

 $\label{eq:constant} WMHS.OUT \\ K = .155517HR \quad TP = .133333HR \quad K/TP \; RATIO = 1.166384 \quad SHAPE \; CONSTANT, \; N = 3.040026 \\ UNIT \; PEAK = 11.781 \quad CFS \quad UNIT \; VOLUME = .9980 \quad B = 285.07 \quad P60 = 1.8700 \\ AREA = .005510 \; SQ \; MI \quad IA = .61053 \; INCHES \quad INF = 1.55947 \; INCHES \; PER \; HOUR \\ RUNOFF \; COMPUTED \; BY \; INITIAL \; ABSTRACTION/INFILTRATION \; NUMBER \; METHOD - DT = .050000 \\ \\$

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 = .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

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.
- Include a vicinity map of site.
- Provide Solid Waste approval.
- Include pedestrian access to the site.
- Label the queuing for the gates.
- 8. Clarify the degree of parking; see attached plan.
- See attached plan for additional comments.

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

New Mexico 87103

P.O. Box 1293

Albuquerque

Nilo (Salgado-Fernandez, P.E. Senior Engineer, Planning Dept.

Development and Building Services

file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Longfellow Elementary School Z	ONE MAP/DRG. FILE#: K-14/DIO
DRB#: EPC#:	
LEGAL DESCRIPTION: 7/Longfellow Elementary School, 7, I	Belvidire Addition
CITY ADDRESS: 400 Edith Blvd, NE, Albuquerque NM 8710	······································
ENGINEERING FIRM: Wilson & Company Inc., E&A	CONTACT:Jesse Dickson
ADDRESS: <u>4900 Lang Ave. NW</u>	PHONE:(505) 348-4136
CITY, STATE: <u>Albuquerque, NM</u>	_ ZIP CODE: <u>87109</u>
OWNER: Albuquerque Public Schools	CONTACT: Karen Alarid
ADDRESS: 915 Oak Street SE	_ PHONE: <u>(505) 848-8810</u>
CITY, STATE: <u>Albuquerque, NM</u>	ZIP CODE: <u>87106</u>
ARCHITECT: Design Plus	_ CONTACT: Rupal Engineer
ADDRESS: 2415 Princeton, Suite G-2	PHONE: _(505) 843-7587
CITY, STATE: <u>Albuquerque, NM</u>	ZIP CODE: <u>87107</u>
SURVEYOR: N/A	CONTACT: N/A
ADDRESS: N/A	
CITY, STATE: N/A	ZIP CODE: N/A
CONTRACTOR: N/A.	
CONTRACTOR: N/A. ADDRESS: N/A.	_ CONTACT <u>: N/A.</u> _ PHONE: _N/A.
CITY, STATE: N/A.	ZIP CODE: N/A.
CHECK TYPE OF SUBMITTAL:	
DRAINAGE REPORT	CHECK TYPE OF APPROVAL SOUGHT:
DRAINAGE PLAN 1 st SUBMITTAL, REQUIRES TCL OR EQ	SIA / FINANCIAL GUARANTEE RELEASE
CONCEPTUAL GRADING & DRAINAGE PLAN	S. DEV. PLAN FOR SUB'D. APPROVAL
GRADING PLAN	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
EROSION CONTROL PLAN	SECTOR PLAN APPROVAL
ENGINEERS CERTIFICATION (HYDROLOGY)	FINAL PLAT APPROVAL
CLOMR\LOMR	FOUNDATION PERMIT APPROVAL
✓ TRAFFIC CIRCULTAION LAYOUT (TCL)	BUILDING PERMIT APPROVAL
ENGINEERS CERTIFICATION (TCL)	CERTIFICATION OF OCCUPANCY (PERM.)
ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)	CERTIFICATION OF OCCUPANCY (TEMP.)
OTHER	GRADING PERMIT APPROVAL
•	PAVING PERMIT APPROVAL
	WORK ORDER APPROVAL
WAS A PRE-DESIGN CONFERENCE ATTENDED:	OTHER (SPECIFY)
YES	
 NO	
	MAY 1 9 2006
Date Submitted: May 19, 2006	By: Jesse Dickson HVDROLOGY SECTION
Requests for approvals of Site Development Plans and/or Subdiv	

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.