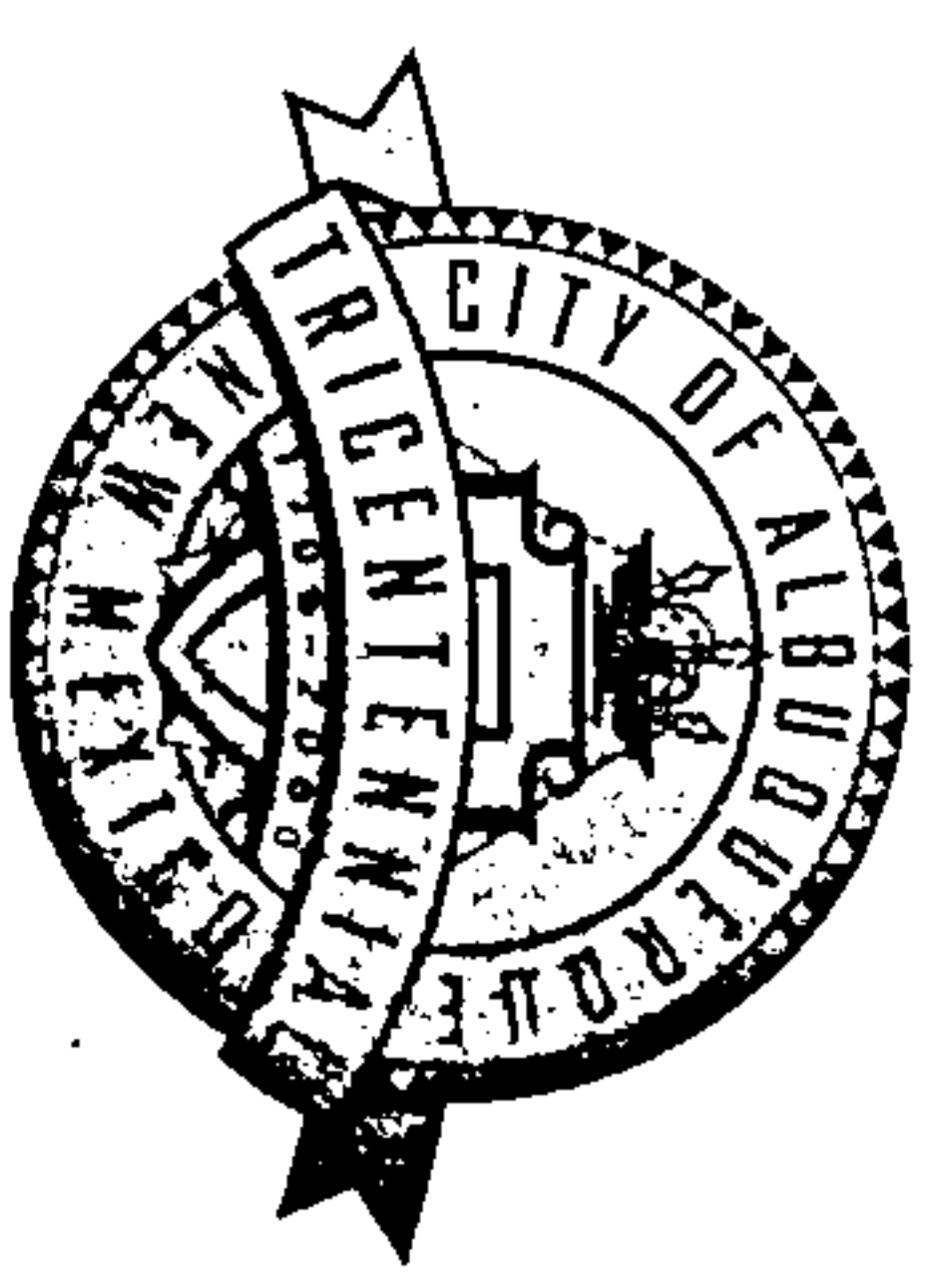


CITY OF ALBUQUERQUE



October 18, 2006

Mike Provine, P.E.
Molzen-Corbin & Associates
2701 Miles SE
Albuquerque, NM 87106

Re: Airport Terminal Apron Reconstruction & Optimization
Engineer's Stamp dated 10-17-06, (M16/D24F)

Dear Mr. Provine,

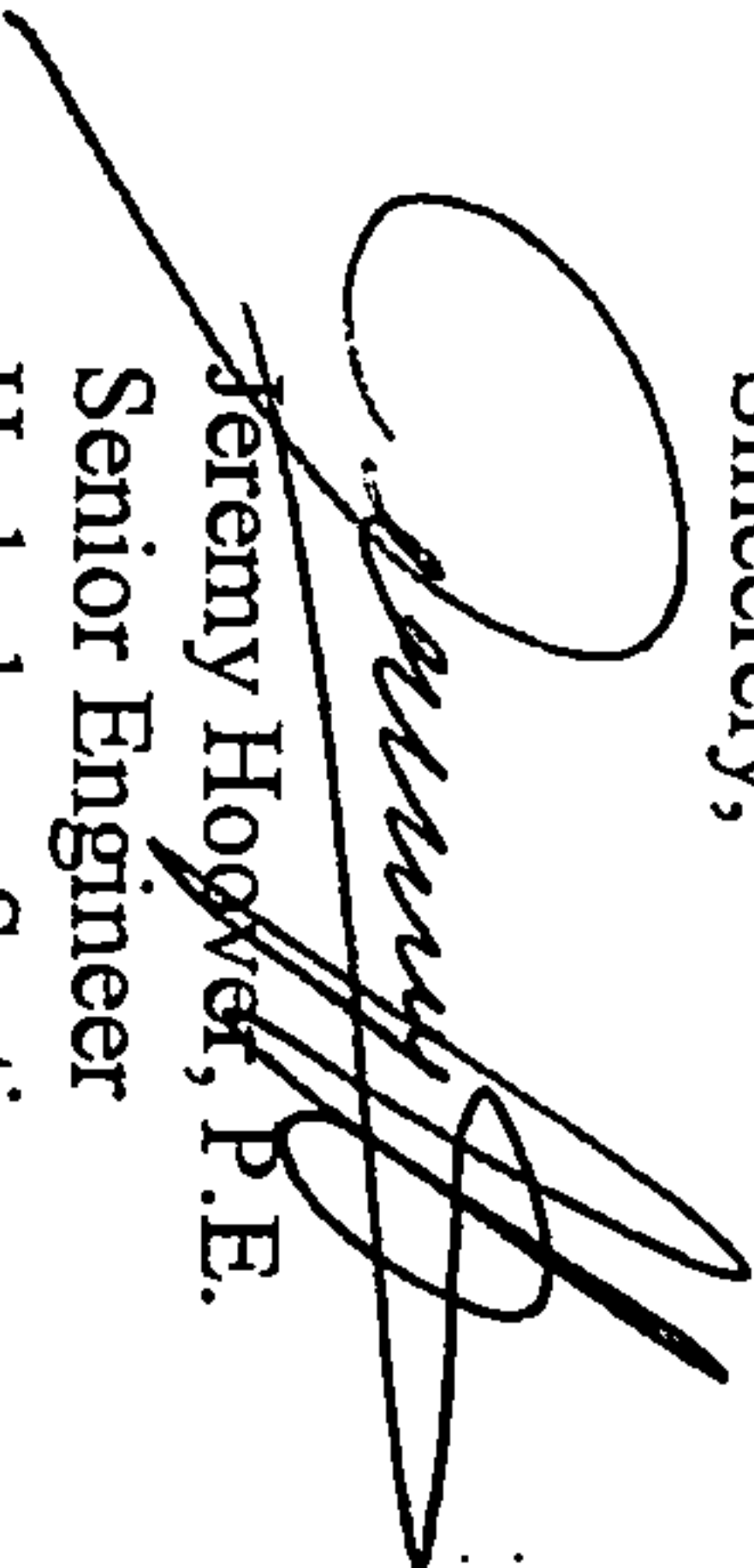
Based upon the information provided in your submittal received October 17, 2006, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions or need additional information, feel free to contact me at 924-3990.

P.O. Box 1293

Sincerely,

Albuquerque


Jeremy Hogwer, P.E.

Senior Engineer

Hydrology Section

Development and Building Services

New Mexico 87103

cc: file (M16/D24F)

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 7-30-02)

PROJECT TITLE: Terminal Apron Reconstruction/Terminal Optimization ZONE MAP/DRG. FILE #: M-16/D24F
DRB #: _____ EPC#: _____ WORK ORDER#: 725920/725915/725916

LEGAL DESCRIPTION: Albuquerque International Sunport
CITY ADDRESS: 2200 Sunport Boulevard, SE

ENGINEERING FIRM: Molzen-Corbin & Associates CONTACT: Mike Provine, PE
ADDRESS: 2701 Miles Road SE PHONE: 505-242-5700
CITY, STATE: Albuquerque, NM 87106 ZIP CODE: 87106

OWNER: City of Albuquerque Aviation Department CONTACT: Dennis Parker
ADDRESS: PO Box 9948 PHONE: 505-244-7800
CITY, STATE: Albuquerque, NM ZIP CODE: 87119

ARCHITECT: ASCG CONTACT: Paul Browne
ADDRESS: 6501 Americas Parkway, NE, Ste 400 PHONE: 505-830-8765
CITY, STATE: Albuquerque, NM ZIP CODE: 87110

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

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

CHECK TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
☒ DRAINAGE REPORT (previous submittal)	☐ SIA / FINANCIAL GUARANTTEE RELEASE
☐ DRAINAGE PLAN	☐ PRELIMINARY PLAT APPROVAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN	☐ S. DEV. PLAN FOR SUBD. 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 CIRCULATION LAYOUT (TCL)	☒ BUILDING PERMIT APPROVAL
☐ ENGINEERS CERTIFICATION (TCL)	☐ CERTIFICATE OF OCCUPANCY (PERM.)
☐ ENGINEERS CERTIF. (DRB APPR. SITE PLAN)	☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ OTHER	☐ GRADING PERMIT APPROVAL

WAS A PRE-DESIGN CONFERENCE ATTENDED:
☒ YES
☐ NO
☐ COPY PROVIDED

RECEIVED
OCT 17 2006
HYDROLOGY SECTION

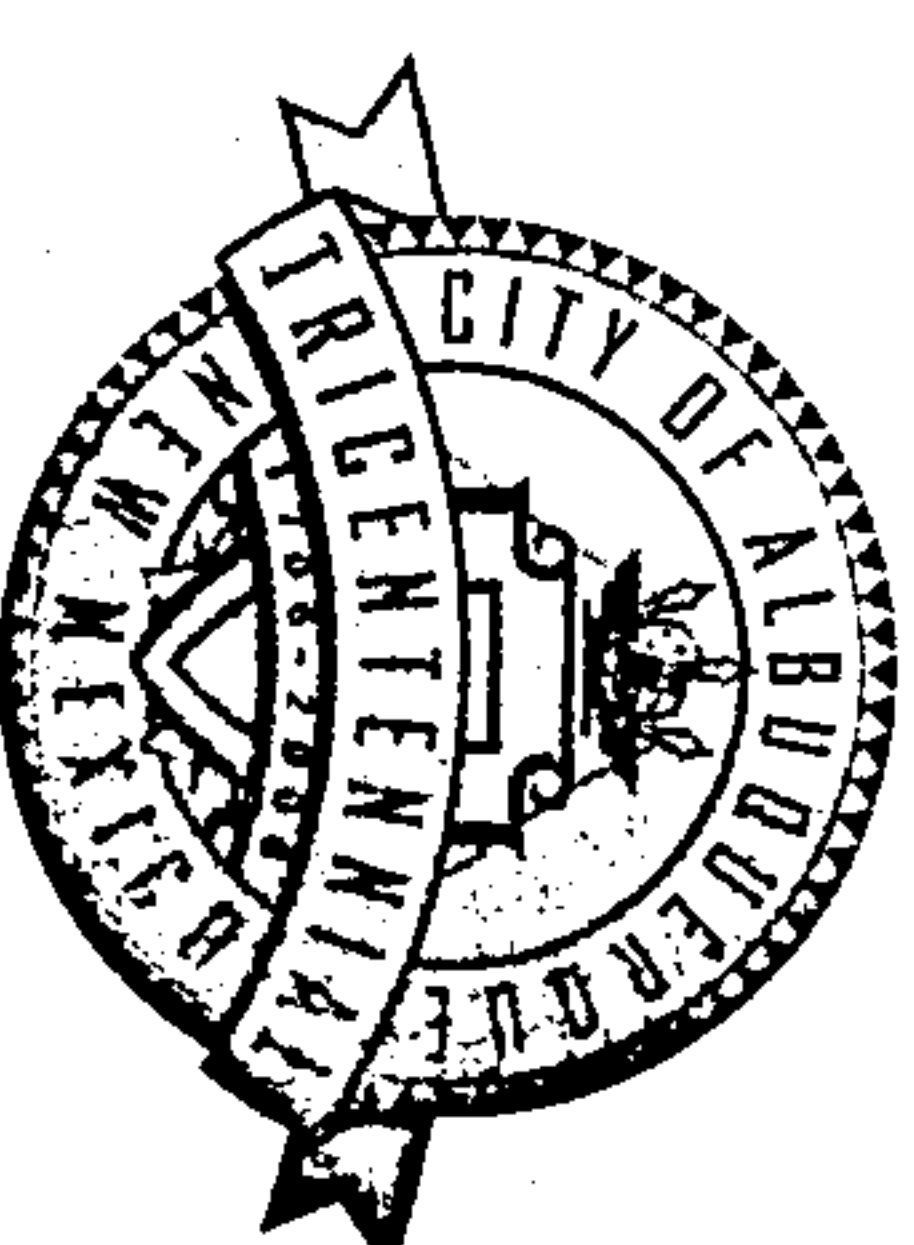
DATE SUBMITTED: October 4, 2006/10/17/06 resubmittal BY: Mike Provine *MP*

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

MP

CITY OF ALBUQUERQUE



October 13, 2006

Mike Provine, P.E.
Molzen-Corbin & Associates
2701 Miles SE
Albuquerque, NM 87106

Re: Airport Terminal Apron Reconstruction & Optimization
Engineer's Stamp dated 10-4-06, (M16/D24F)

Dear Mr. Provine,

We are in receipt of your drainage report for the Airport Terminal Apron Reconstruction & Optimization project. We will consider the information contained therein to be an update to the Albuquerque International Sunport Airport Master Plan.

Prior to approval for Building Permit, please submit a detailed Grading and Drainage Plan to this office for review. That plan will be considered to be a re-submittal and we will make every effort to expedite the review process.

P.O. Box 1293
Albuquerque
Sincerely,
If you have any questions or need additional information, feel free to contact me at 924-3990.

Albuquerque

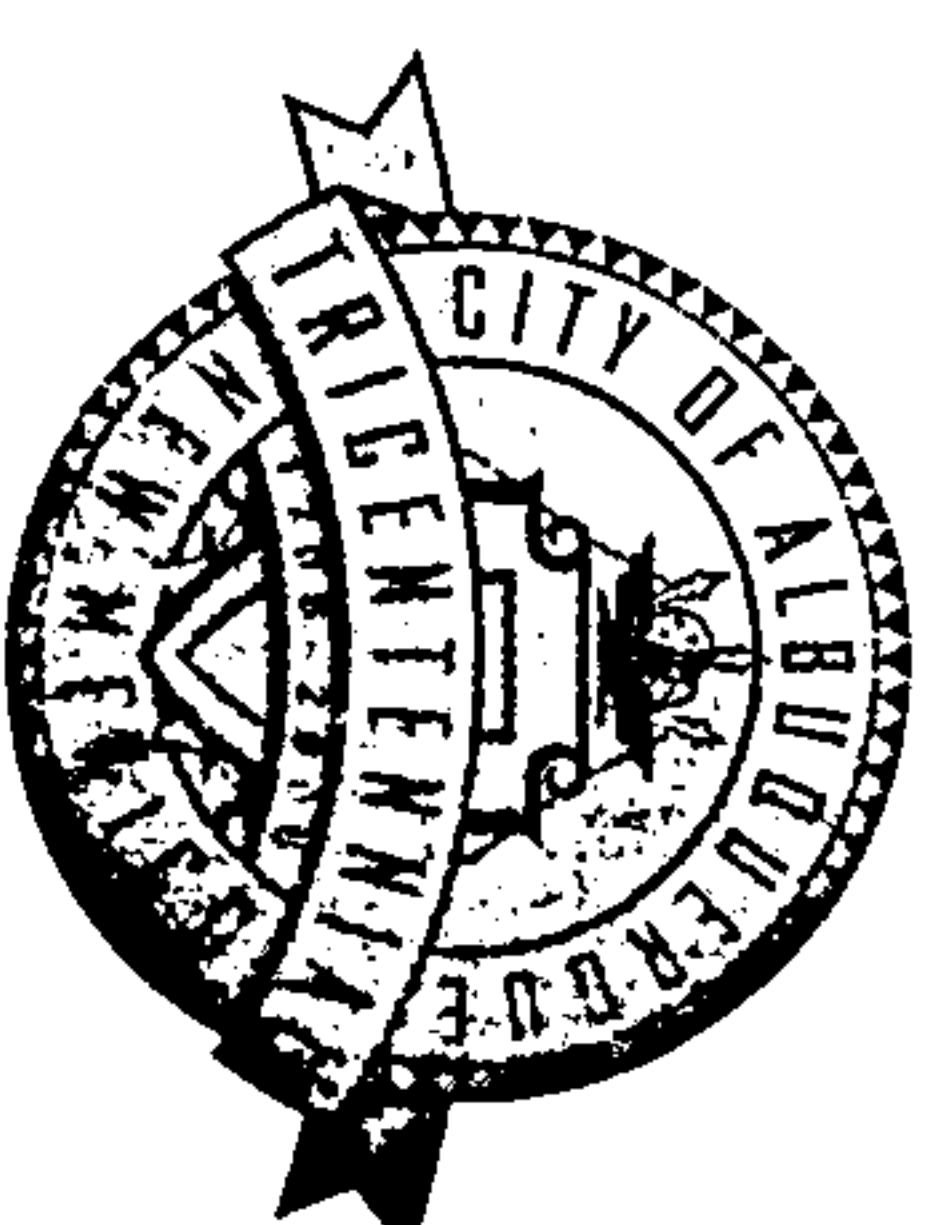
New Mexico 87103
Jeremy Hoover P.E.
Senior Engineer

Hydrology Section
Development and Building Services

www.cabq.gov

cc: file (M16/D24F)

CITY OF ALBUQUERQUE



June 19, 2008

John M. Provine, P.E.
Molzen-Corbin & Associates
2701 Miles Rd. SE
Albuquerque, NM 87106

Re: Sunport Terminal Optimization, 2200 Sunport Boulevard SE,
Traffic Circulation Layout
Engineer's Stamp dated 6-17-08 (M114)

M-114 10024F.

Dear Mr. Provine,

P.O. Box 1293

Based upon the information provided in the above referenced submittal, a
Traffic Circulation Layout is not required for this project.

Albuquerque

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

New Mexico 87103

Sincerely,

www.cabq.gov

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

C: File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 7-30-02)

PROJECT TITLE: Terminal Optimization ZONE MAP/DRG. FILE #: M-16/Doyle
DRB #: _____ EPC#: _____ WORK ORDER#: 725920/725915/725916

LEGAL DESCRIPTION: _____ Albuquerque International Sunport
CITY ADDRESS: _____ 2200 Sunport Boulevard, SE

ENGINEERING FIRM: Molzen-Corbin & Associates CONTACT: Mike Provine, PE
ADDRESS: 2701 Miles Road SE PHONE: 505-242-5700
CITY, STATE: Albuquerque, NM 87106 ZIP CODE: 87106

OWNER: City of Albuquerque Aviation Department CONTACT: Dennis Parker
ADDRESS: PO Box 9948 PHONE: 505-244-7800
CITY, STATE: Albuquerque, NM ZIP CODE: 87119

ARCHITECT: WHPacific CONTACT: Paul Browne
ADDRESS: 6501 Americas Parkway, NE, Ste 400 PHONE: 505-830-8765
CITY, STATE: Albuquerque, NM ZIP CODE: 87110

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

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

*TELL NOT
REQUIRED*

CHECK TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
☐ DRAINAGE REPORT (previous submittal)	☐ SIA / FINANCIAL GUARANTEE RELEASE
☐ DRAINAGE PLAN	☐ 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
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)	☐ FINAL PLAT APPROVAL
☐ CLOMR/LOMR	☐ FOUNDATION PERMIT APPROVAL
☒ TRAFFIC CIRCULATION LAYOUT (TCL)	☒ BUILDING PERMIT APPROVAL
☐ ENGINEERS CERTIFICATION (TCL)	☐ CERTIFICATE OF OCCUPANCY (PERM.)
☐ ENGINEERS CERTIF. (DRB APPR. SITE PLAN)	☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ OTHER	☐ GRADING PERMIT APPROVAL

☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:
☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: June 18, 2008 BY: Mike Provine *Mike P*

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage hydrology section submittal. The particular nature, location and scope of the proposed development defines the degree of drainage hydrology section submittal. 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 (5) acres and Sector Plans.
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3. Drainage Report: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

RECEIVED
JUN 18 2008
HYDROLOGY
SECTION

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 7-30-02)

PROJECT TITLE: Terminal Apron Reconstruction/Terminal Optimization ZONE MAP/DRG. FILE #: M-16 / 224F
DRB #: _____ EPC#: _____ WORK ORDER#: 725920/725915/725916

LEGAL DESCRIPTION: Albuquerque International Sunport
CITY ADDRESS: 2200 Sunport Boulevard, SE

ENGINEERING FIRM: Molzen-Corbin & Associates CONTACT: Mike Provine, PE
ADDRESS: 2701 Miles Road SE PHONE: 505-242-5700
CITY, STATE: Albuquerque, NM 87106 ZIP CODE: 87106

OWNER: City of Albuquerque Aviation Department CONTACT: Dennis Parker
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ARCHITECT: ASCG CONTACT: Paul Browne
ADDRESS: 6501 Americas Parkway, NE, Ste 400 PHONE: 505-830-8765
CITY, STATE: Albuquerque, NM ZIP CODE: 87110

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ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

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

CHECK TYPE OF SUBMITTAL:

☒ DRAINAGE REPORT
____ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
____ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEERS CERTIFICATION (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEERS CERTIFICATION (TCL)
____ ENGINEERS CERTIF. (DRB APPR. SITE PLAN)
____ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

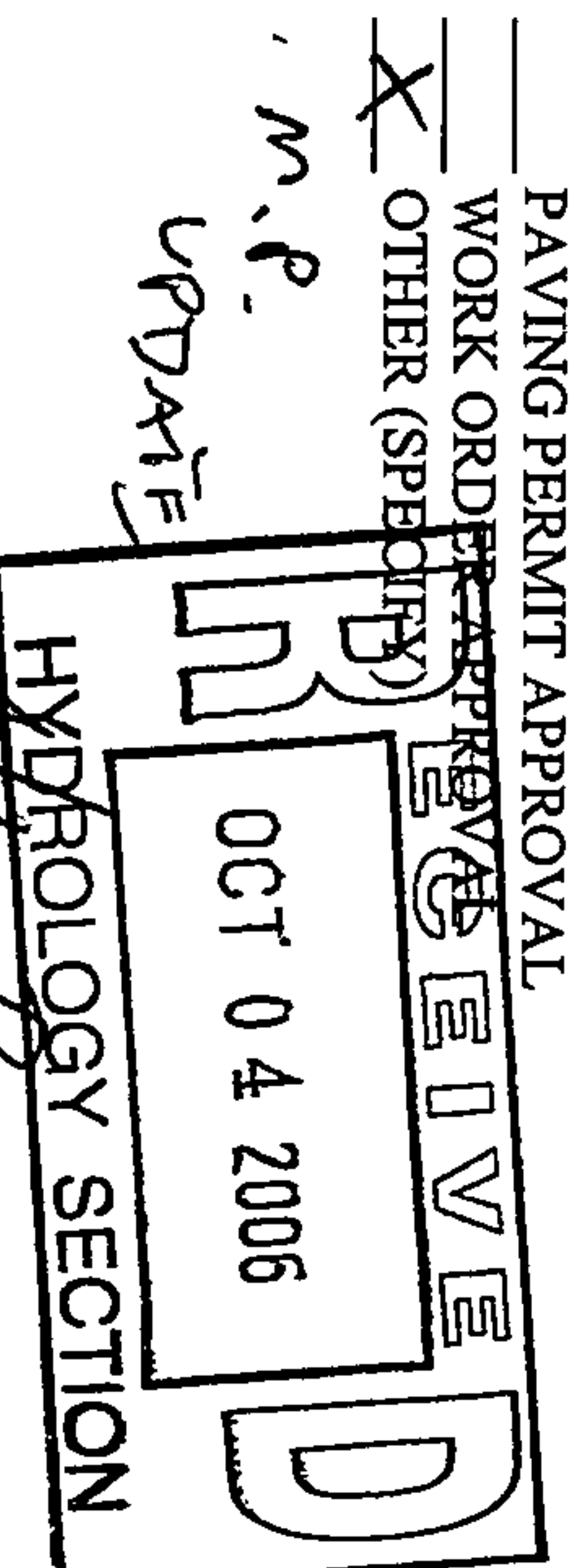
____ SIA / FINANCIAL GUARANTTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUBD. APPROVAL
____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ ~~SE~~ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM.)
____ CERTIFICATE OF OCCUPANCY (TEMP.)
____ GRADING PERMIT APPROVAL

City Project - No fee

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☒ YES
____ NO
____ COPY PROVIDED

DATE SUBMITTED: October 4, 2006 BY: Mike Provine



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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MOLZEN-CORBIN & Associates

LETTER OF TRANSMITTAL

2701 Miles Road SE, Albuquerque, NM 87106
(505) 242-5700

1155 Commerce, Suite F, Las Cruces, NM 88011
(505) 522-0049

TO: Brad Bingham

Drainage Engineer

City of Albuquerque

DATE	October 4, 2006	JOB NO.	BPL042-13
ATTENTION			
RE: Terminal Apron Reconstruction/Terminal Optimization			

WE ARE SENDING YOU Attached Under separate cover via _____ the following items.

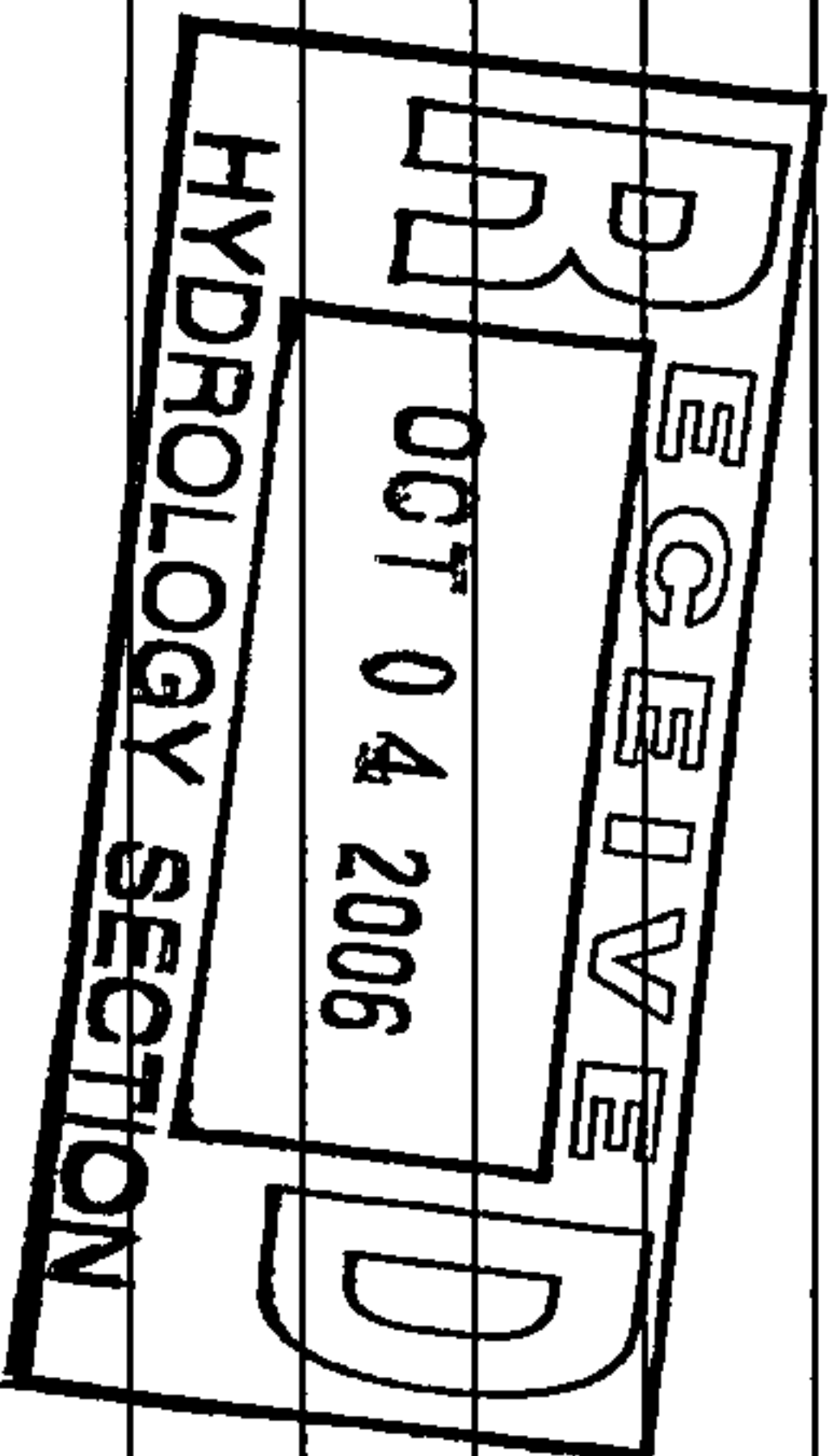
COPIES	DATE	NO.	DESCRIPTION
2	10/4/06		Drainage Information Sheet and Drainage Report

THESE ARE TRANSMITTED as checked below:

For approval✓ For your use As requested For review and comment

Other _____

REMARKS _____



COPY TO File _____ SIGNED: Mike Provine _____

If enclosures are not as noted, kindly notify us at once.

Terminal Apron
Reconstruction & Optimization

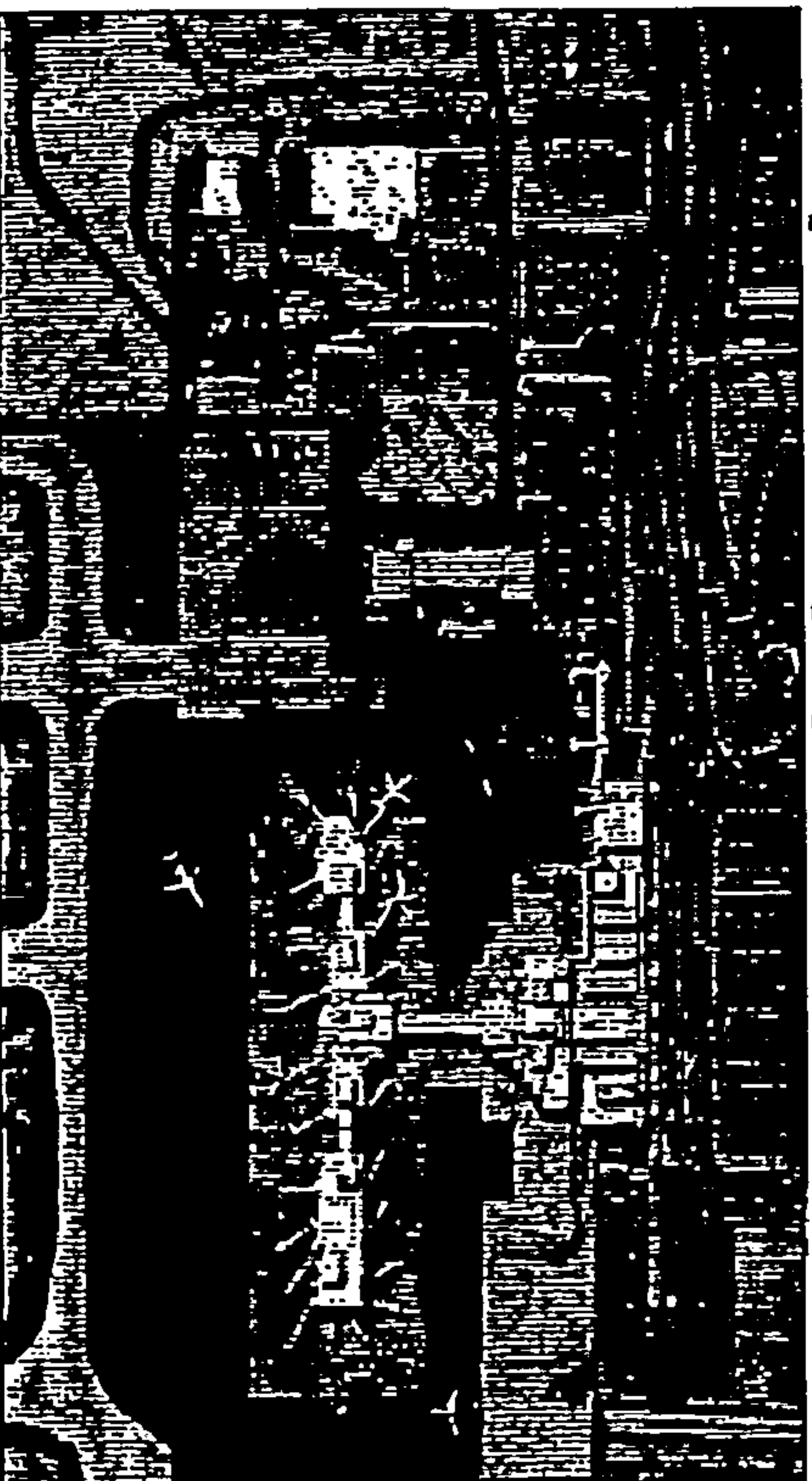
DRAINAGE REPORT

Project No. 7259

Albuquerque International Airport

May, 2006

Prepared for: Albuquerque International Airport



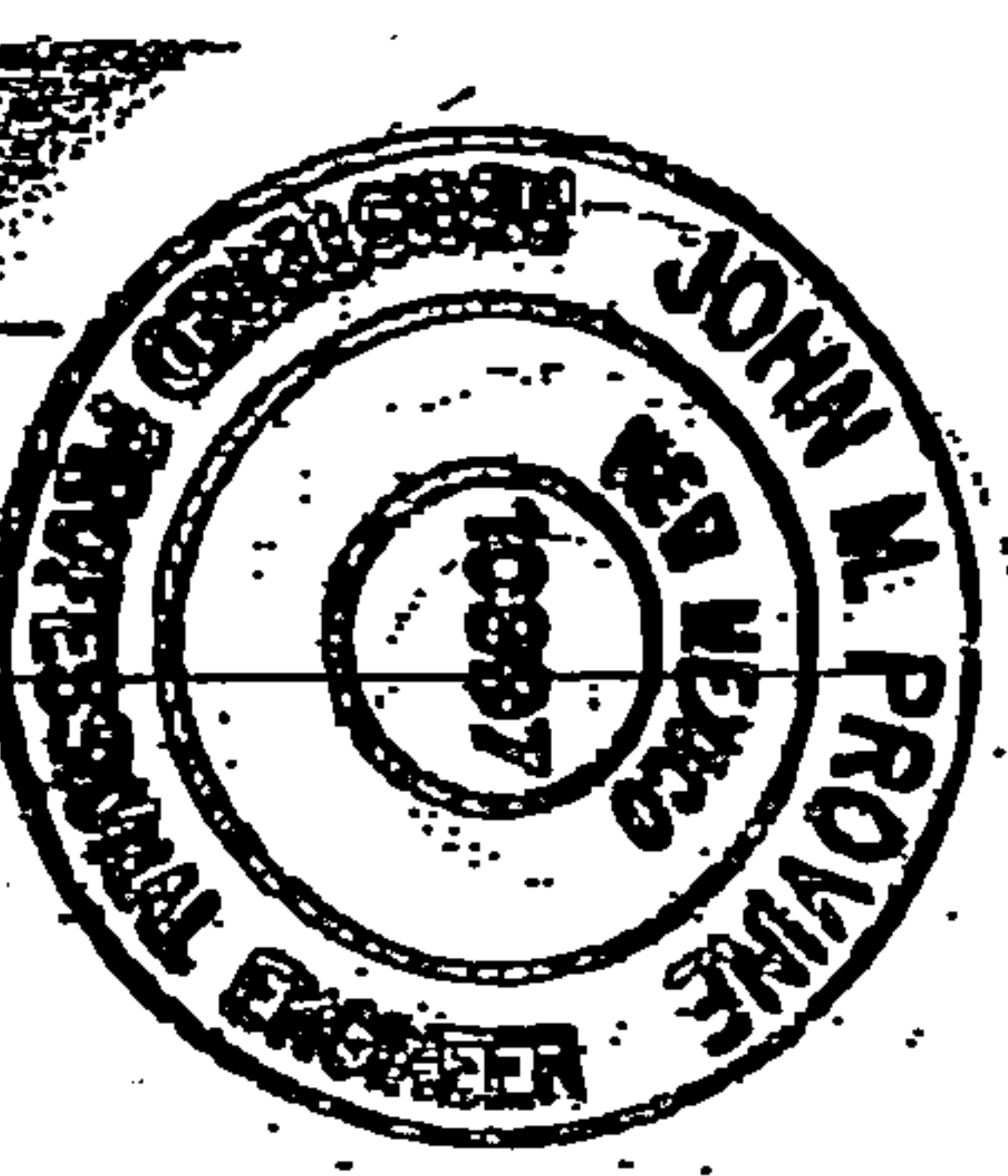
Prepared by:

2701 MALES RD SE
ALBUQUERQUE, NM 87106
TEL: 505.242-5700
FAX: 505.242-0679

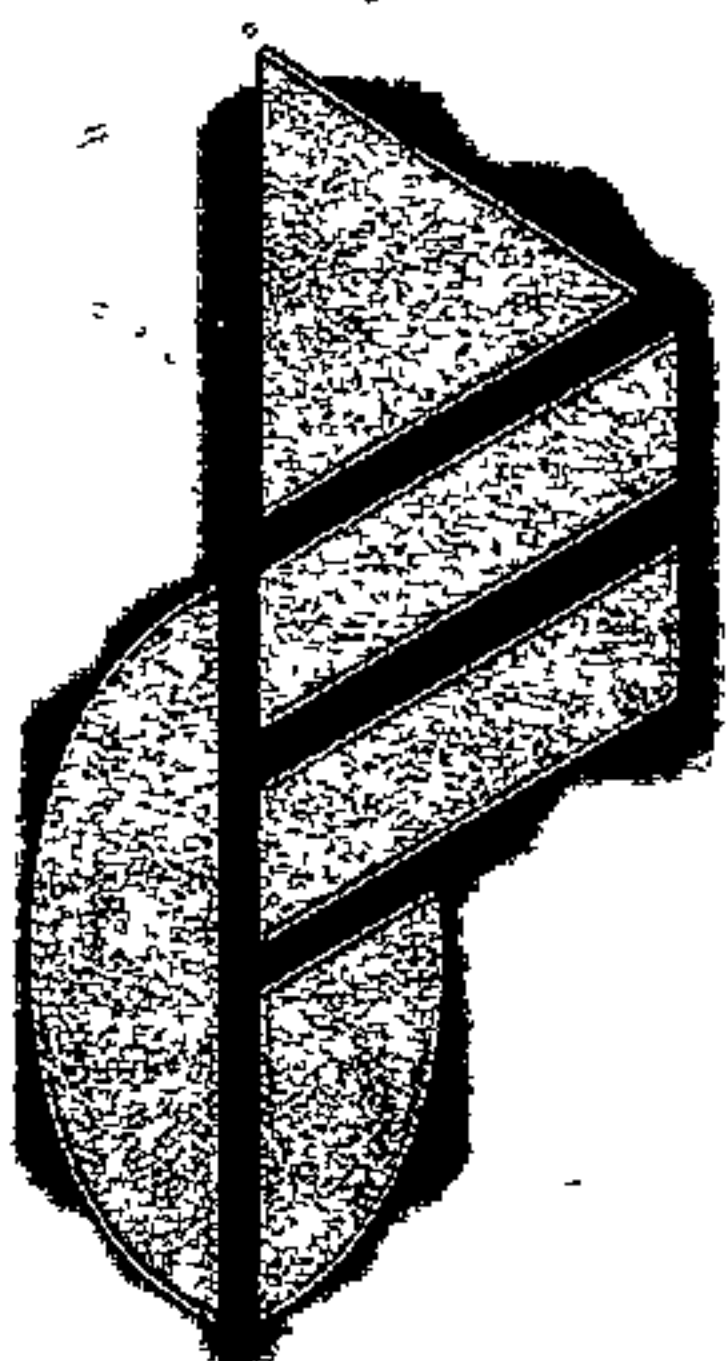
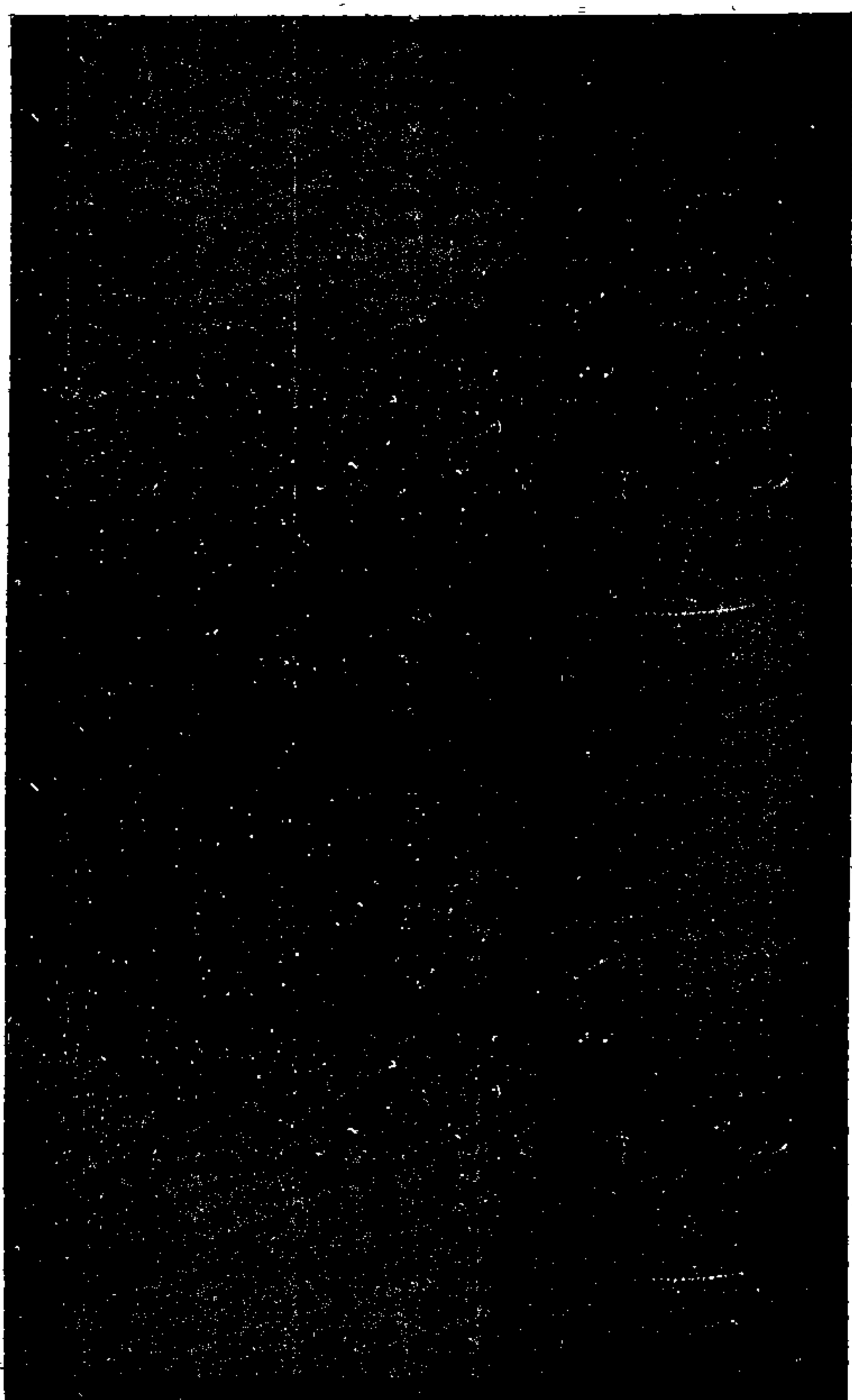


MOLZEN-CORBIN
& Associates
ENGINEERS/ARCHITECTS/PLANNERS

MC File BPL 042-13.D20



10/4/06



MOLZEN-CORBIN
& Associates
ENGINEERS/ARCHITECTS/PLANNERS

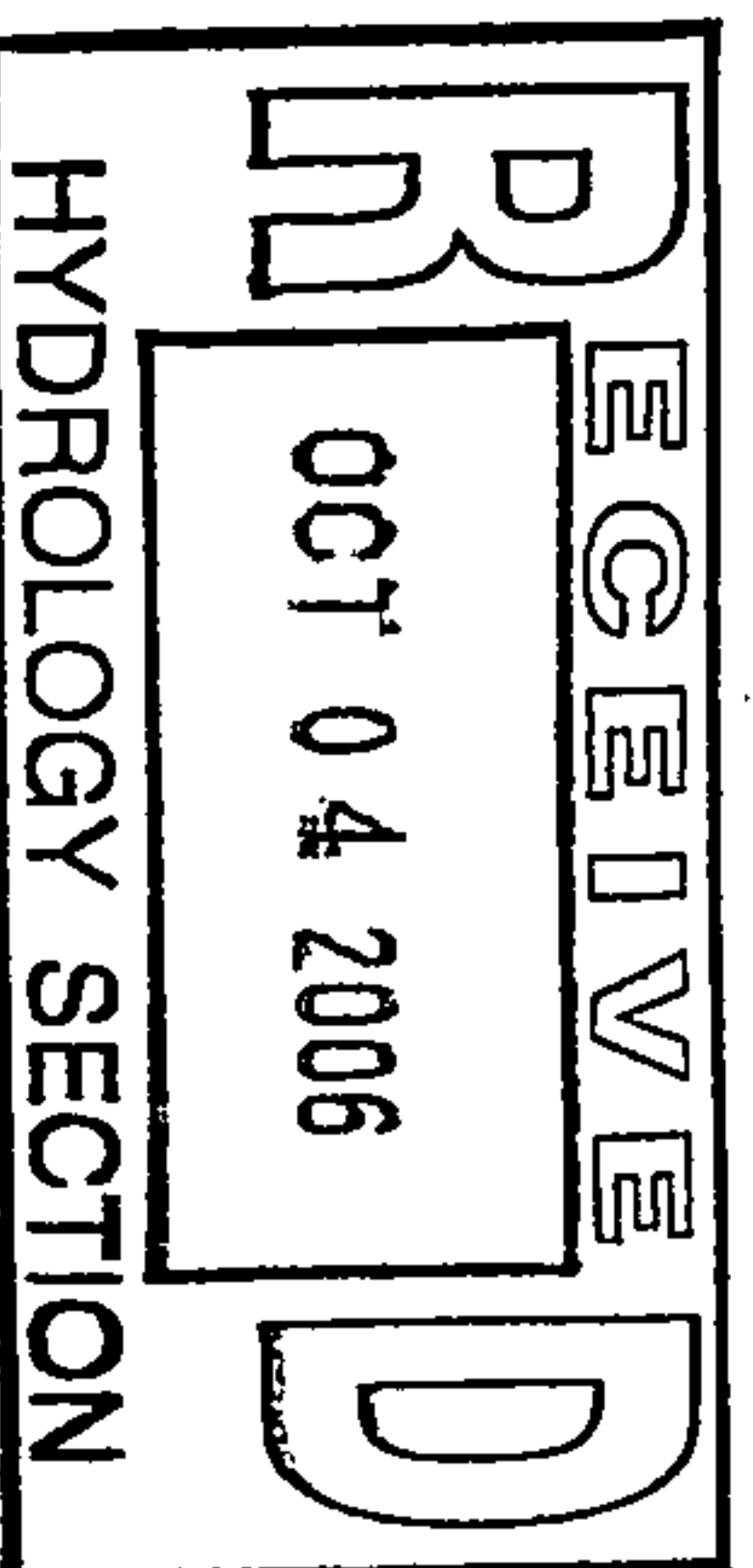
Terminal Apron
Reconstruction & Optimization

DRAINAGE REPORT

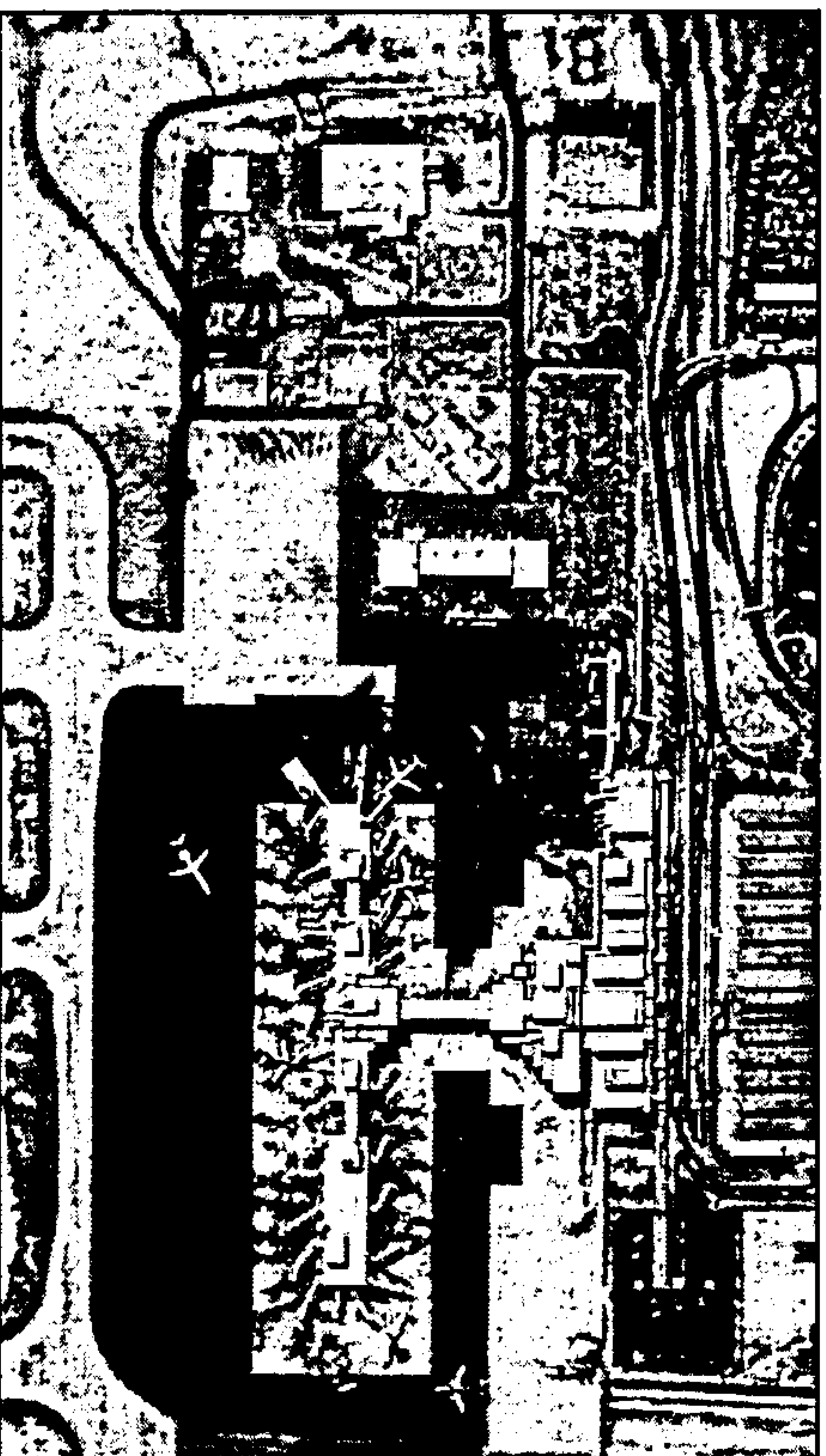
Project No. 725920/15/14

Albuquerque International Airport

May, 2006

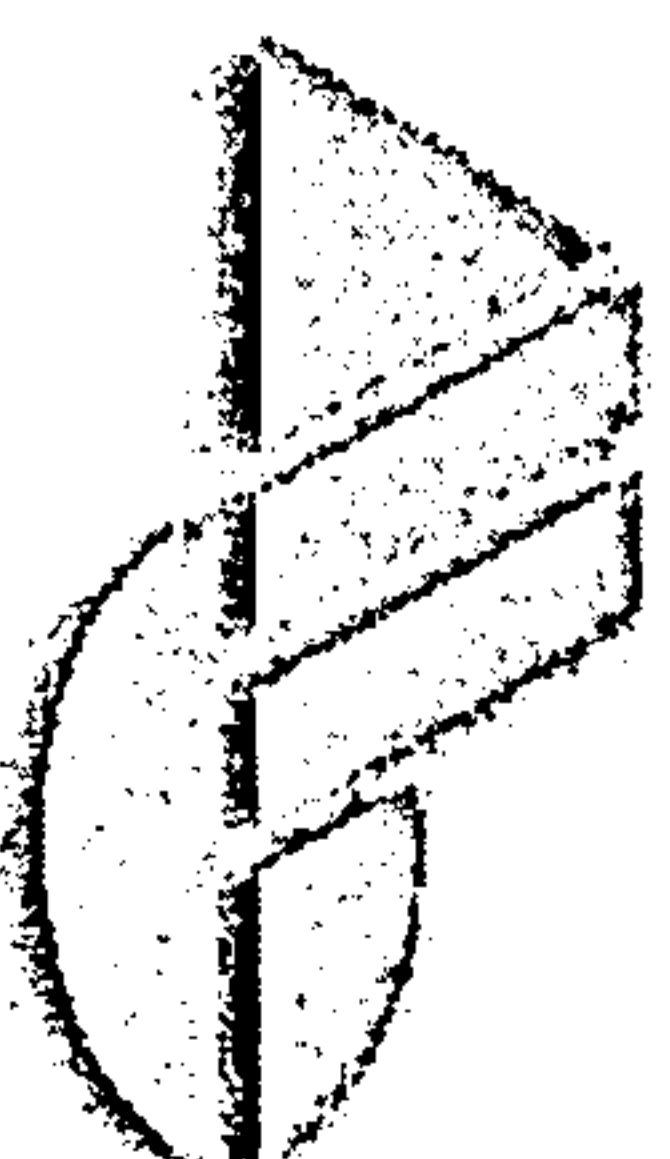


Prepared for: Albuquerque International Airport



Prepared by:

2701 MILES RD SE
ALBUQUERQUE, NM 87106
TEL: 505.242-5700
FAX: 505.242-0673



MOLZEN-CORBIN
& Associates
ENGINEERS/ARCHITECTS/PLANNERS

Table of Contents

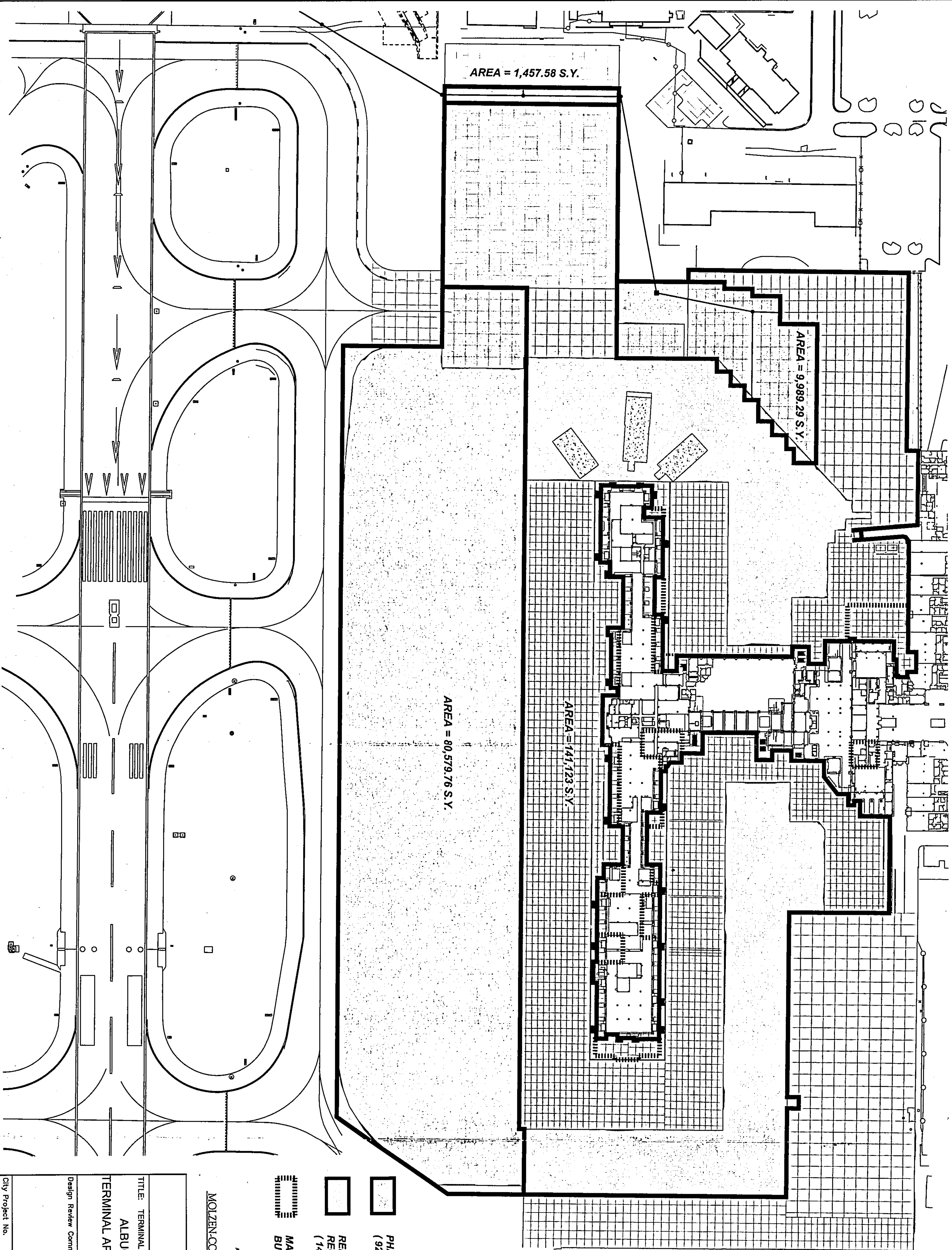
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Proposed Condition	6
West Terminal Reconstruction	6
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INTRODUCTION

The purpose of this report is to evaluate the surface water runoff on the apron surrounding the Terminal Building located at the Albuquerque International Sunport. The reconstruction of the terminal apron will occur in two or more phases as shown on Figure 1. Phase 1 will include approximately 92,026 sy of apron replacement with a majority of the project located on the south side of the terminal between Taxiway A and the terminal, in addition to two smaller sections located on the west side of the terminal between the Air Freight Building and the Terminal Building. Additionally, the Terminal Optimization Project will increase the Terminal Building footprint by approximately 20,540 sf (total with increase of 232,550 sf). There will be no change in the land treatment percentages resulting from the building additions since the existing ground is already paved. The new roofs will be drained through pipes to the existing storm drains and to the new storm drains installed in the apron reconstruction project. The future flow will continue draining to their respective basin outlets.

The existing storm drainage around the Terminal Building is comprised of two different systems. The first provides drainage for the east side of the terminal, and the other system drains the west side of the terminal. This report is therefore divided into two areas labeled "West Terminal Construction" and "East Terminal Construction" to help better define the operation of both systems. The only added runoff to the system will occur on the west side of the terminal once the proposed Belly Freight Building is constructed and the existing Air Freight Building is demolished. When constructed, the roof of the new belly freight building will drain into west system as well as the area where the air freight building is located. Future plans include the extension of the terminal apron to encompass the area of the air freight building.

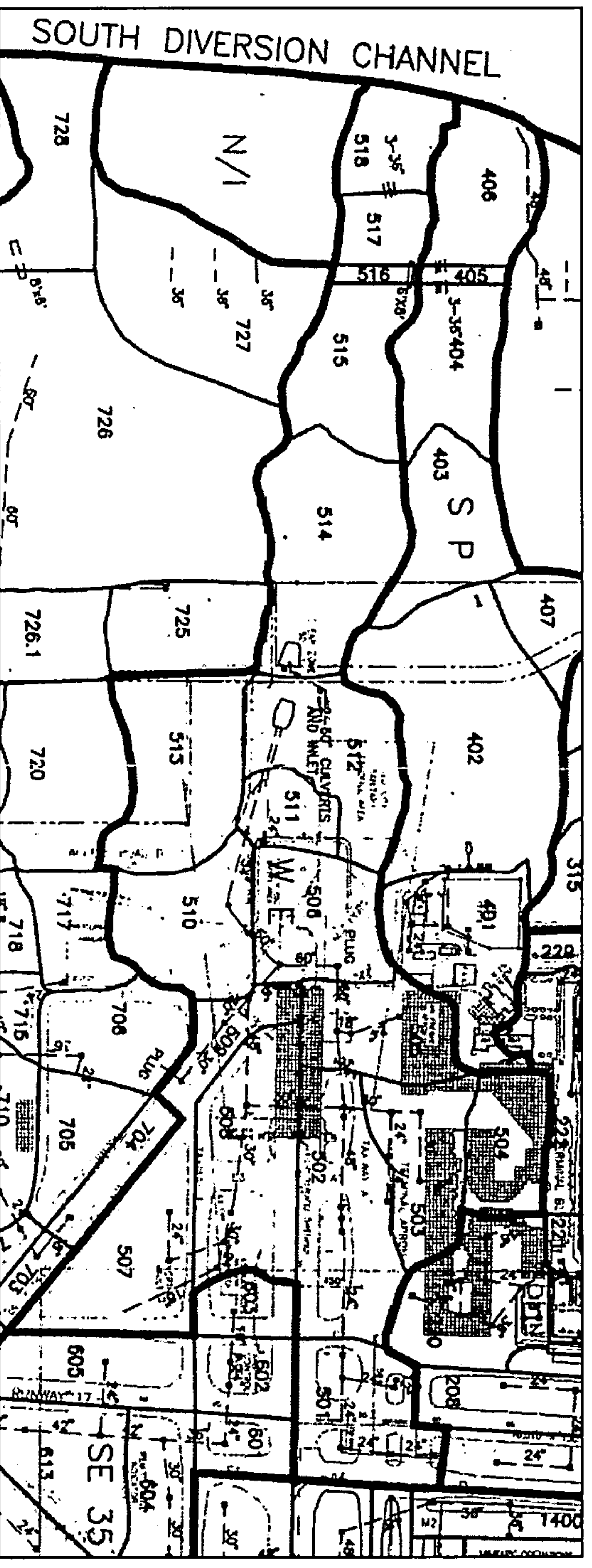
Throughout this report, reference is be made to the Albuquerque International Airport Storm Drainage Master Plan (the Master Plan), prepared in 1995 by Molzen-Corbin & Associates for the Aviation Department of the City of Albuquerque. The scope of this report is in part defined by the Master Plan.

[illegible]

EXISTING CONDITIONS

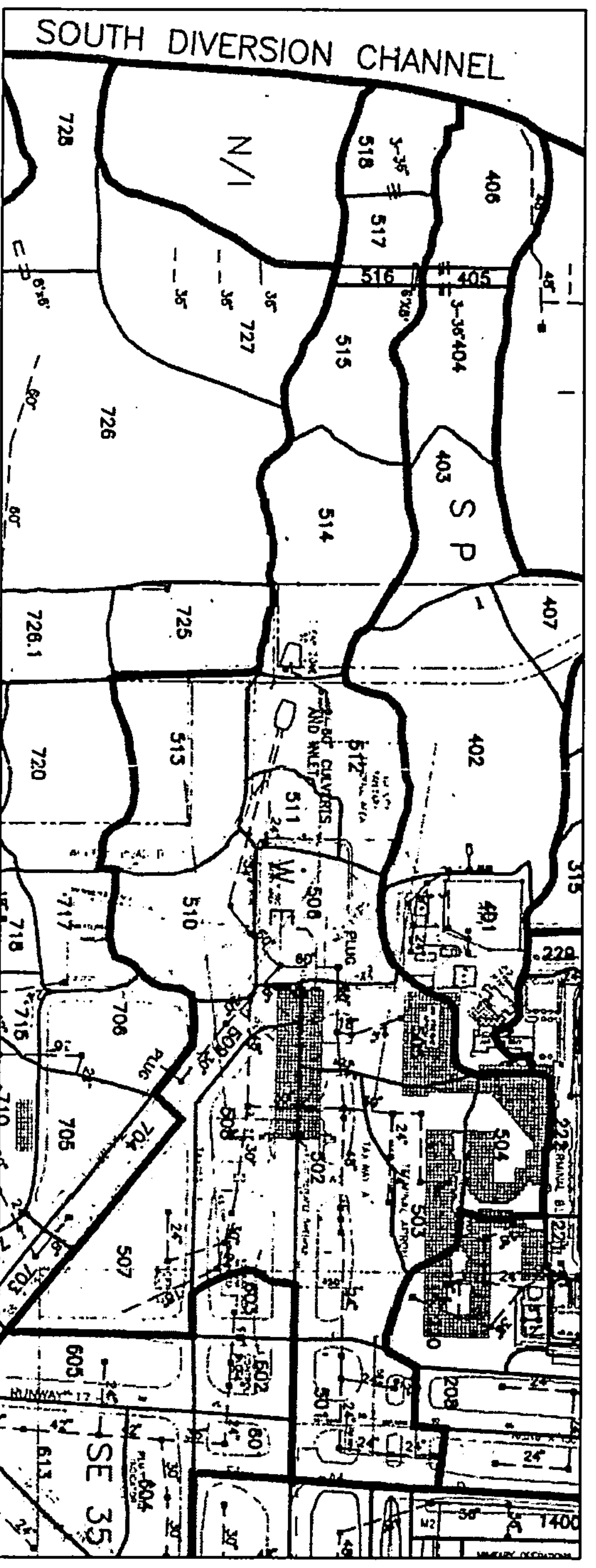
West Terminal Reconstruction

Currently, sub-basin 504, located within basin WE between concourse C and B has ponding problems during a normal storm event. Storm water runoff flows from the north end of sub-basin 504, in a southerly direction, through a shallow swale which splits flows between an inlet with a 24-inch drain in sub-basin 505 and an inlet with a 30-inch drain in sub-basin 503. The relatively flat grade and resulting shallow depth of the swale do not allow for adequate drainage in this area. However, basins 503 and 505 are adequately draining to the inlets and storm drain lines mentioned above. Runoff in these basins are collected and drain into a 60-inch diameter line flowing west through basin WE and discharging into a storm water detention facility located at the northeast corner of University Boulevard and Access Road B, then draining into a 60-inch diameter pipe under University Boulevard before discharging into a storm drain downstream. Flows are then conveyed through the natural arroyo to a 8-foot x 6-foot Concrete Box Culvert under I-25. Flows from the WE Basin eventually discharge to AMAFCA's South Diversion Channel, as stated the Albuquerque International Sunport Rent-A-Car Facility Drainage Report.



East Terminal Reconstruction

Sub-basin 220, located at the south end of basin N17, includes the east side of the Terminal, as shown below and in Figure 2. The existing storm drainage system that collects basin N17 is not a part of the pipe network that serves basin VE. Runoff from sub-basin 220 is collected in a series of inlets located on the southeast and northeast side of the Terminal Building with drain lines ranging from 18 to 36 inches in diameter. Drainage is then conveyed through the Yale Boulevard storm sewer system and eventually discharged into the Kirtland Channel. As stated in the Master Plan, problems with storm sewer flows surfacing have been experienced just north of the parking structure near the commercial development. During the construction of the terminal expansion project a restrictor plate was installed in the storm sewer system in sub-basin 220 northeast of the terminal building. This was done in an attempt to alleviate the surfacing problem mentioned above, but it has caused upstream ponding problems during medium intensity storms, which affect the aircraft parking ramp south of the Terminal.



PROPOSED CONDITIONS

West Terminal Reconstruction

Under proposed conditions for the west side of the terminal building a new storm drain system will be constructed to alleviate the ponding problems in sub-basin 504. The new drain line will connect to the bottom of an existing drop inlet (DI 1-3) which drains into a 60-inch diameter line located west of Taxiway A1. This new system will ultimately consist of approximately 1,415-feet of 42" diameter RCP, 560-feet of 36" diameter RCP, 206-feet of 30" diameter RCP, and 811-feet of 24" diameter RCP. This will allow sub-basin 504 to be broken up into six smaller sub-basins labeled 504-A through 504-F, as shown in Figure 3. Drop inlets will be constructed to collect runoff from each of the smaller sub-basins.

The total area of sub-basin 504 has been extended to the west due to the demolition of the Air Freight Building and the extension of the apron. Also collected within this basin is the runoff from the roof of the proposed Belly Freight Building located west of the Air Freight Apron, labeled sub-basin 504-G. The total area collected by the new system is approximately 2.5 acres (see Figure 3).

Although the southern portion of the Terminal Apron will be reconstructed, in the first phase of this project, grading of the new surface will match the existing conditions. Furthermore, basins 503 and 220 will continue to drain as described in the Master Plan., since all existing inlets will not be removed or relocated.

East Terminal Reconstruction

The East Terminal will be improved in a future phase. The apron will be reconstructed, but the existing storm drain and inlet layout will be maintained, or replaced with similar structures that do not impact the way that Basin 220 drains. The general grading plan will also be consistent with current conditions.

IMPACT TO EXISTING SYSTEM (100 year, 24 hour event)

As described in the Existing Conditions above, Basin 504 currently discharges 66.47 cfs through swale and surface flow towards the inlets within Basins 503 and 504.

The proposed improvements increase the area of Basin WE by approximately 2.5 acres, (the apron extension towards the Air Freight Building, and rooftop drainage of the proposed Belly Freight building), but the total discharge will now be controlled by the proposed drainage inlet grates, which decrease the flow just upstream of DI 1-3 to 17.8 cfs. These are described further in the Hydrology and Hydraulics sections below.

HYDROLOGY – Basin 504

The drainage system is designed to manage the 100-year storm event, as further described in Section II – Criteria of the AIADMP. Precipitation depths correspond to Zone 2 values, per the City of Albuquerque Development Process Manual, Section 22.2, Hydrology.

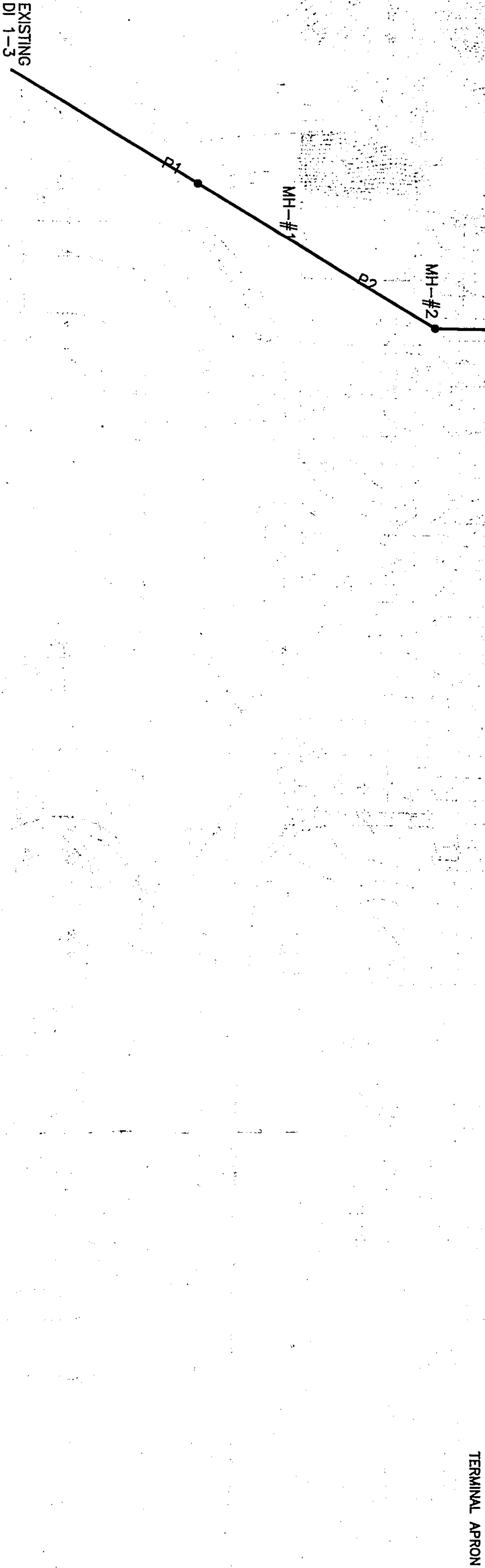
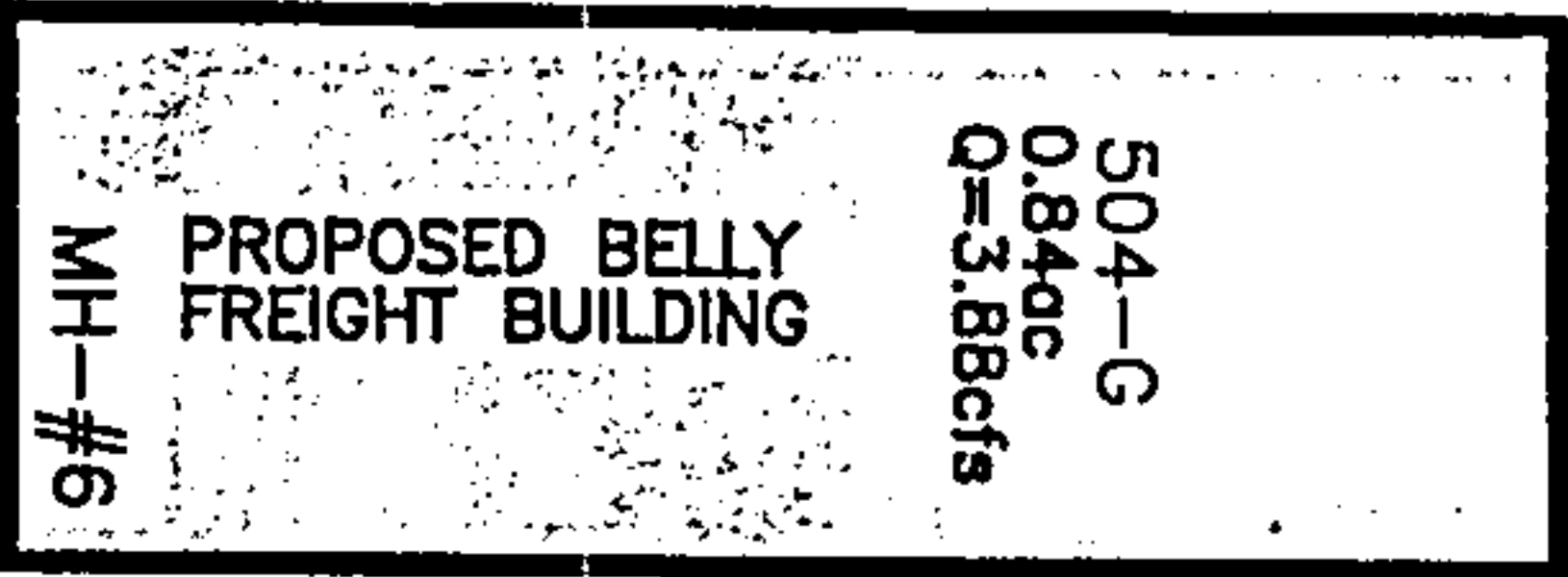
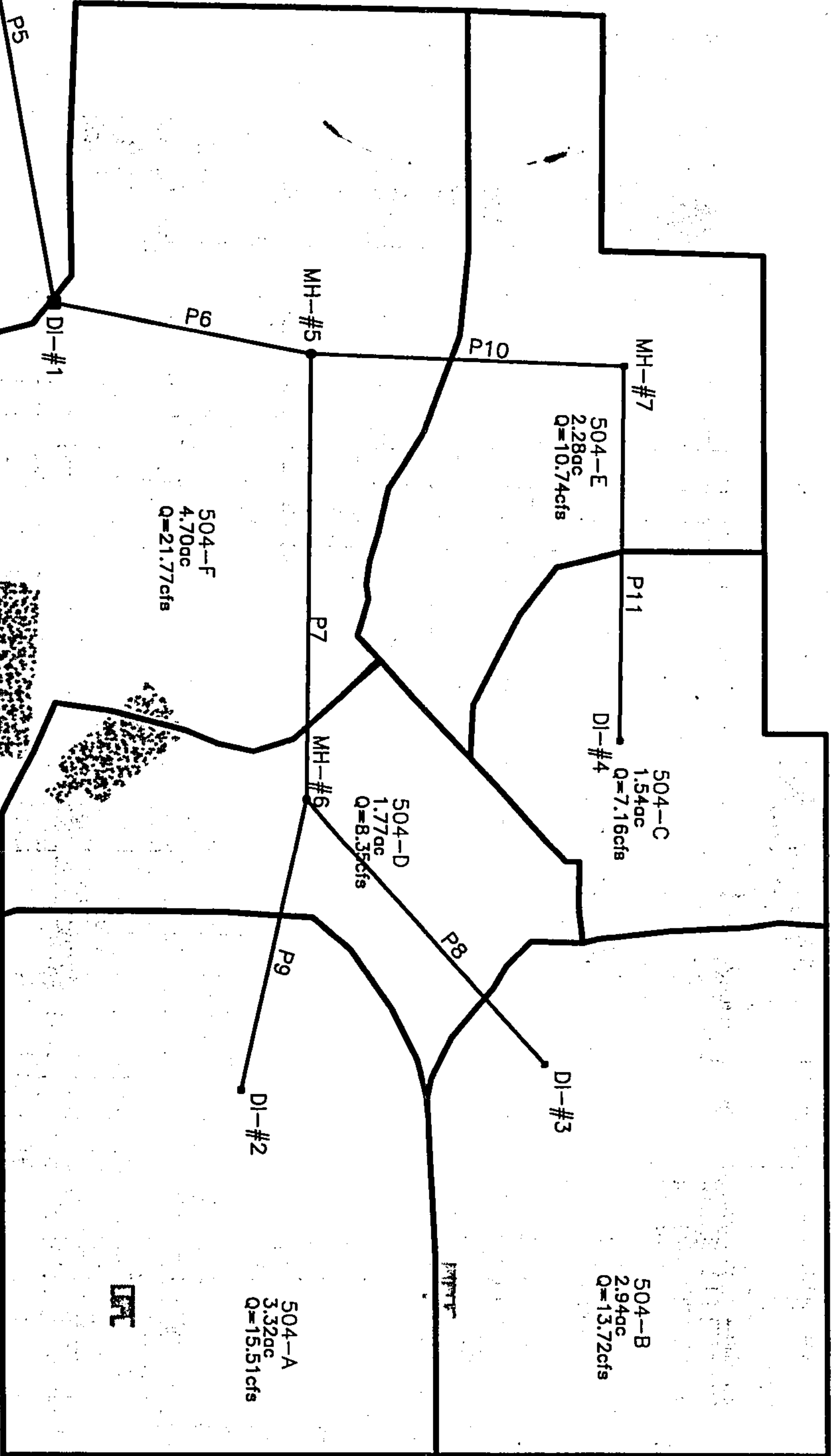
Table 1 summarizes the parameters for each sub-basin of the West Terminal.

Sub-basin	Area (ac)	Area (mi2)	Land Treatments, %			
			A	B	C	D
504-A	3.32	0.0052	0	0	0	100
504-B	2.94	0.0046	0	0	0	100
504-C	1.54	0.0024	0	0	0	100
504-D	1.77	0.0028	0	0	0	100
504-E	2.28	0.0036	0	0	0	100
504-F	4.70	0.0073	0	0	0	100
504-G	0.84	0.0013	0	0	0	100

Table 1. Sub-basin Parameters

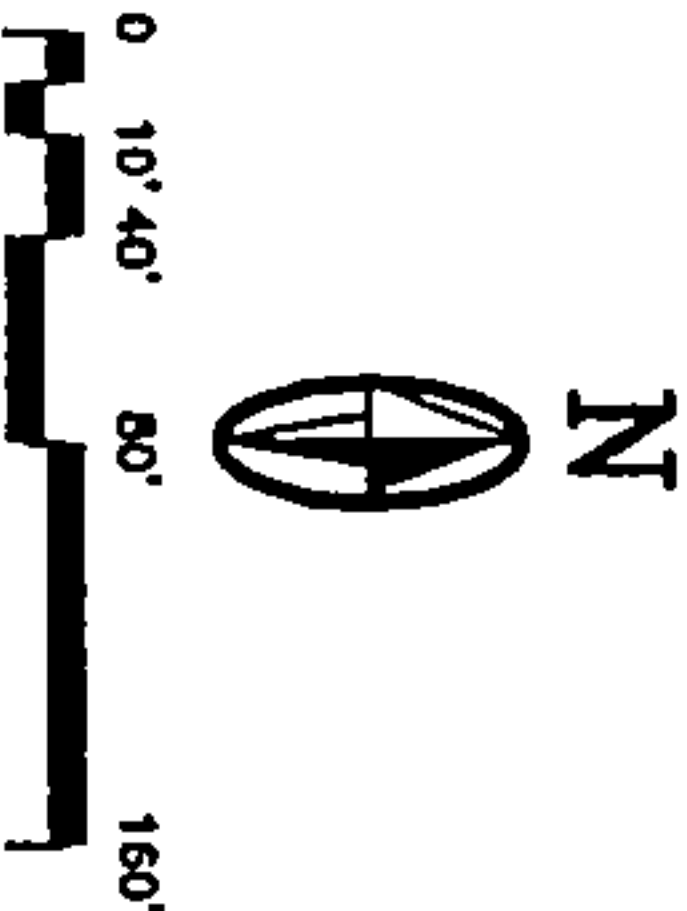
The system was analyzed with AHYMO_97 software, and the input/output printout is included in the Appendix.

Flows that affect the proposed system were obtained from the AIADMP and incorporated in the Hydraulics Section below.



- LEGEND**
- BASIN BOUNDARY
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN MANHOLE
 - PROPOSED STORM DRAIN INLET

PIPE DATA			
PIPE	LENGTH(FT)	SLOPE(%)	DA(IN)
P1	230	0.90	42
P2	300	0.90	42
P3	175	0.90	42
P4	210	0.90	42
P5	430	0.80	42
P6	210	0.96	36
P7	360	0.45	36
P8	290	0.40	30
P9	240	0.85	30
P10	250	0.71	30
P11	300	0.43	24
P12	150	1.00	18



2011 RELEASE
ALBUQUERQUE
TEL: 505.465.5200
FAX: 505.465.5212

MOIZEN-CORBIN & ASSOCIATES
ENGINEERS/ARCHITECTS/PLANNERS

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: ALBUQUERQUE INTERNATIONAL SUPPORT - TERMINAL PROJECT 1 / PHASE 1

FIGURE 3
BASIN MAP
(100 YEAR, 24 HR STORM)

Design Review Committee		City Engineer Approval	
Ms./Day/Yr.	No./Day/Yr.	Ms./Day/Yr.	No./Day/Yr.

Lost Design Update	
Ms./Day/Yr.	No./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
E-6			

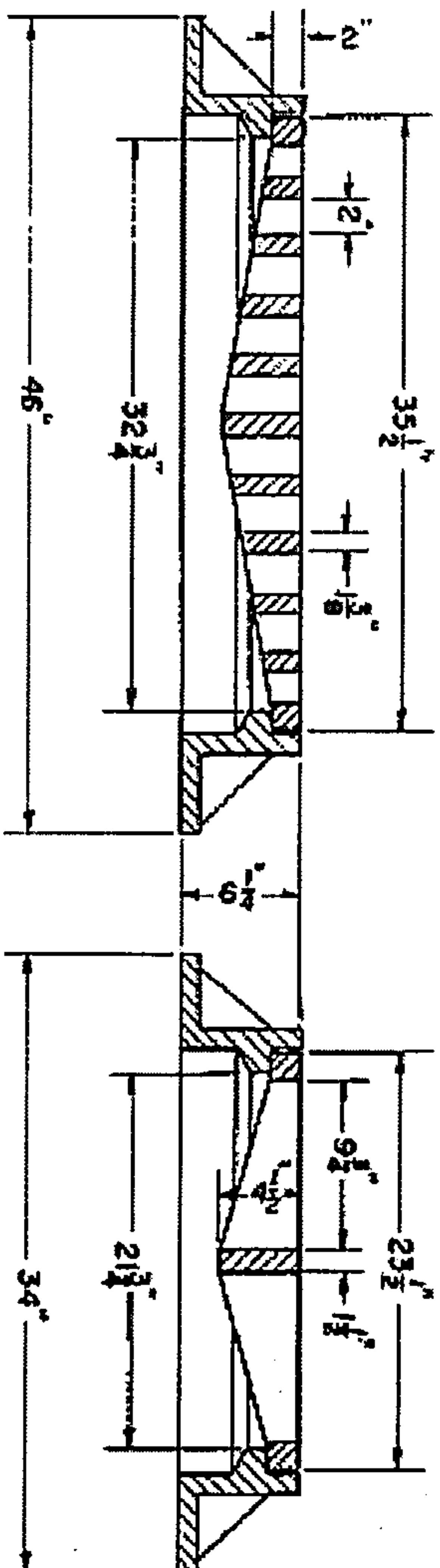
ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION		
		FIELD NOTES		SEE SURVEY CONTROL PLAN SHEET G-006		CONTRACTOR		
		NO.	BY	DATE		DATE		
						INSPECTOR'S		
						ACCEPTANCE BY		
REVISIONS						FIELD		
DESIGN						VERIFICATION BY		
DESIGNED BY						DRAWINGS		
DRAWN BY						REVISIONS		
CHECKED BY						CORRECTED BY		
						RECORDED BY		
						DATE		
						NO.		

HYDRAULICS

Inlet Calculations

Inlets are located in low points, and thus operate under sump conditions.

Typical terminal apron grate dimensions:



Inlet	Grate, in x in	100 YEAR 24 HR STORM			10 YEAR 24 HOUR STORM		
		Max pond depth, ft	Max radius, ft	Time, hr	Max pond depth, ft	Max radius, ft	Time, hr
DI #1	46 X 34	0.50	60	3.75	0.44	51	1.25
DI #2	46 X 34	0.37	37	1.5	0.31	31	1.5
DI #3	46 X 34	0.30	43	2.0	0.25	36	1.5
DI #4	46 X 34	0	0	0	0	0	0

Table 2. Sump conditions

Although the maximum pond depth for the drainage inlet within the Taxiway (DI #1) exceeds the recommended 0.4 ft during the 100-yr, 24-hour storm, this only occurs for approximately 1.5 hours.

Equations

Orifice Capacity, $Q_o = C_o A (2gh)^{1/2}$ where, Orifice flow coefficient, $C_o = 0.6$ Available area, $A = 2.7 \text{ S.F.}$ Gravity, $g = 32.2 \text{ ft/s}^2$ Max allowable head, $h = \text{varies}^*$	Weir Capacity, $Q_w = C_w P h^{1.5}$ where, Weir Coefficient, $C_w = 3$ Grate perimeter, $P = 9.8 \text{ ft}$ Max allowable head, $h = \text{varies}^*$ * See Appendix for performance curve
---	---

PIPE CALCULATIONS

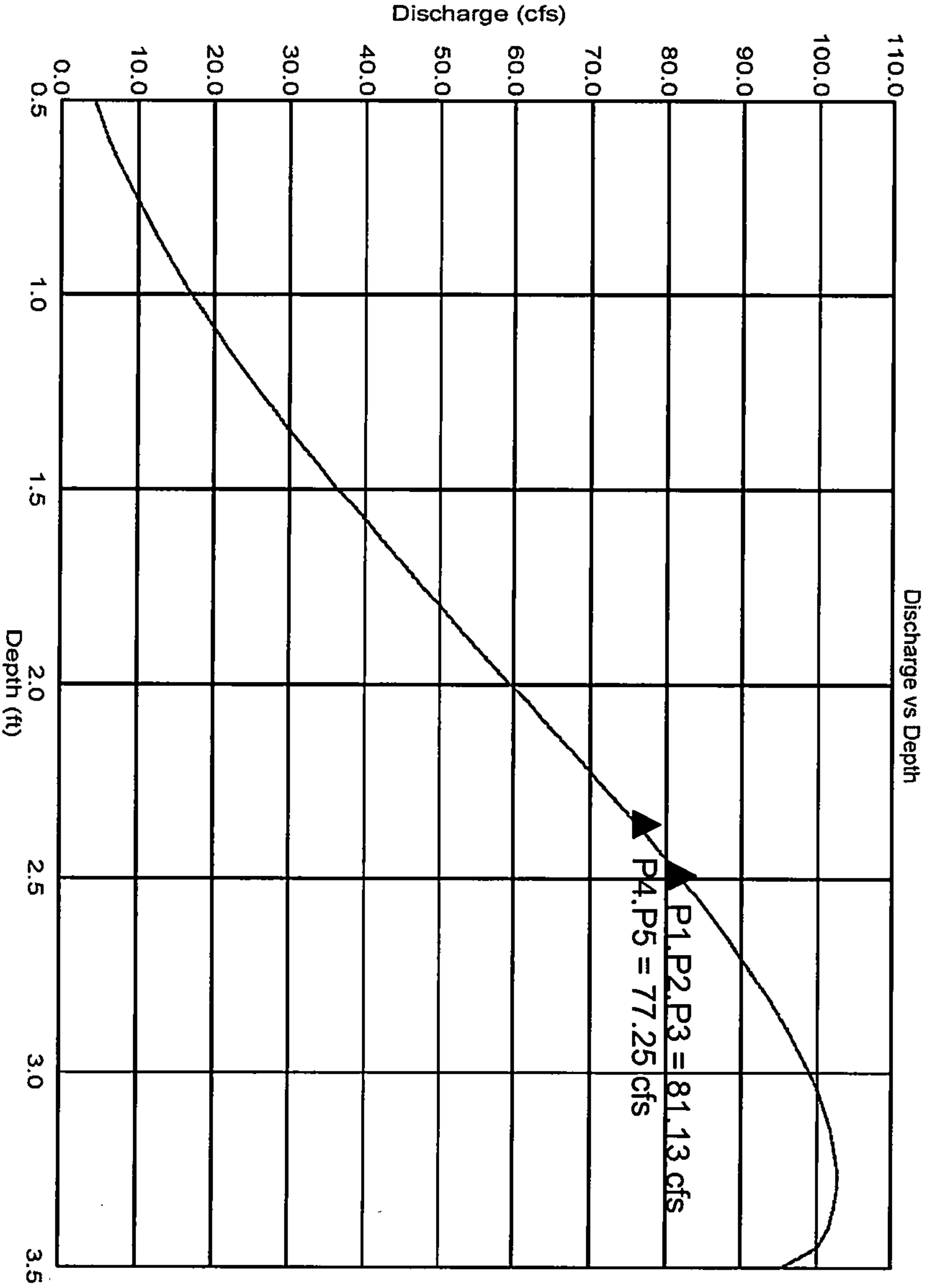
Curve Plotted Curves for Circular Channel

Project Description	
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Worksheet	RCP P1 through P5
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.009000 ft/ft
Diameter	42.00 in

▲ REQUIRED

Input Data			
	Minimum	Maximum	Increment
Depth	0.50	3.50	0.05 ft



Curve Plotted Curves for Circular Channel

Project Description

Project File	i:\bplw\bpl042-13 terminal apron reconstruction\dwg\drainage\drainage report\lar drai.fm2
Worksheet	RCP P6
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

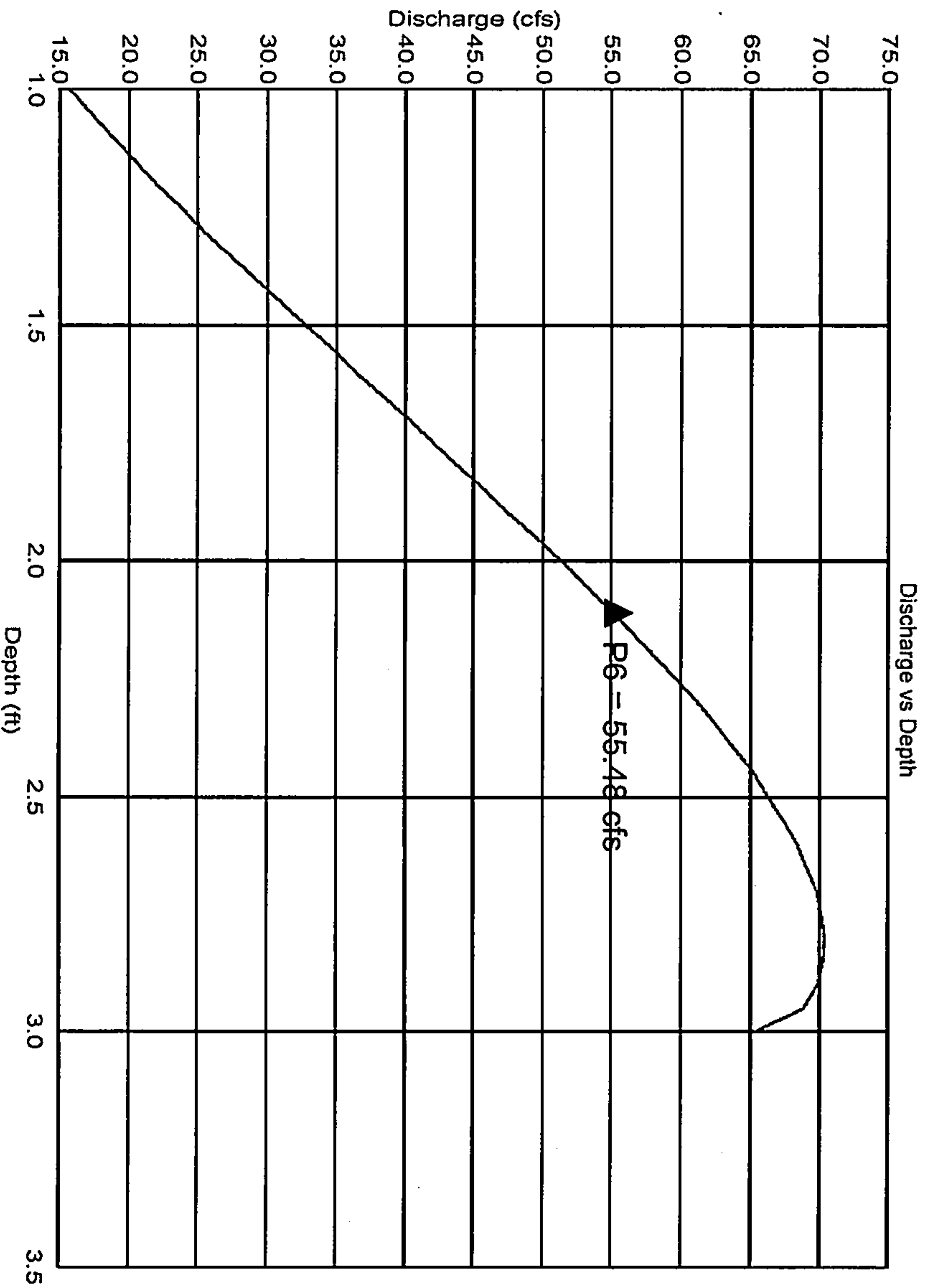
Constant Data

Mannings Coefficient	0.013
Channel Slope	0.009600 ft/ft
Diameter	36.00 in

▲ REQUIRED

Input Data

Minimum	Maximum	Increment
Depth 1.00	3.50	0.05 ft



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09:27:49 AM

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FlowMaster v5.12
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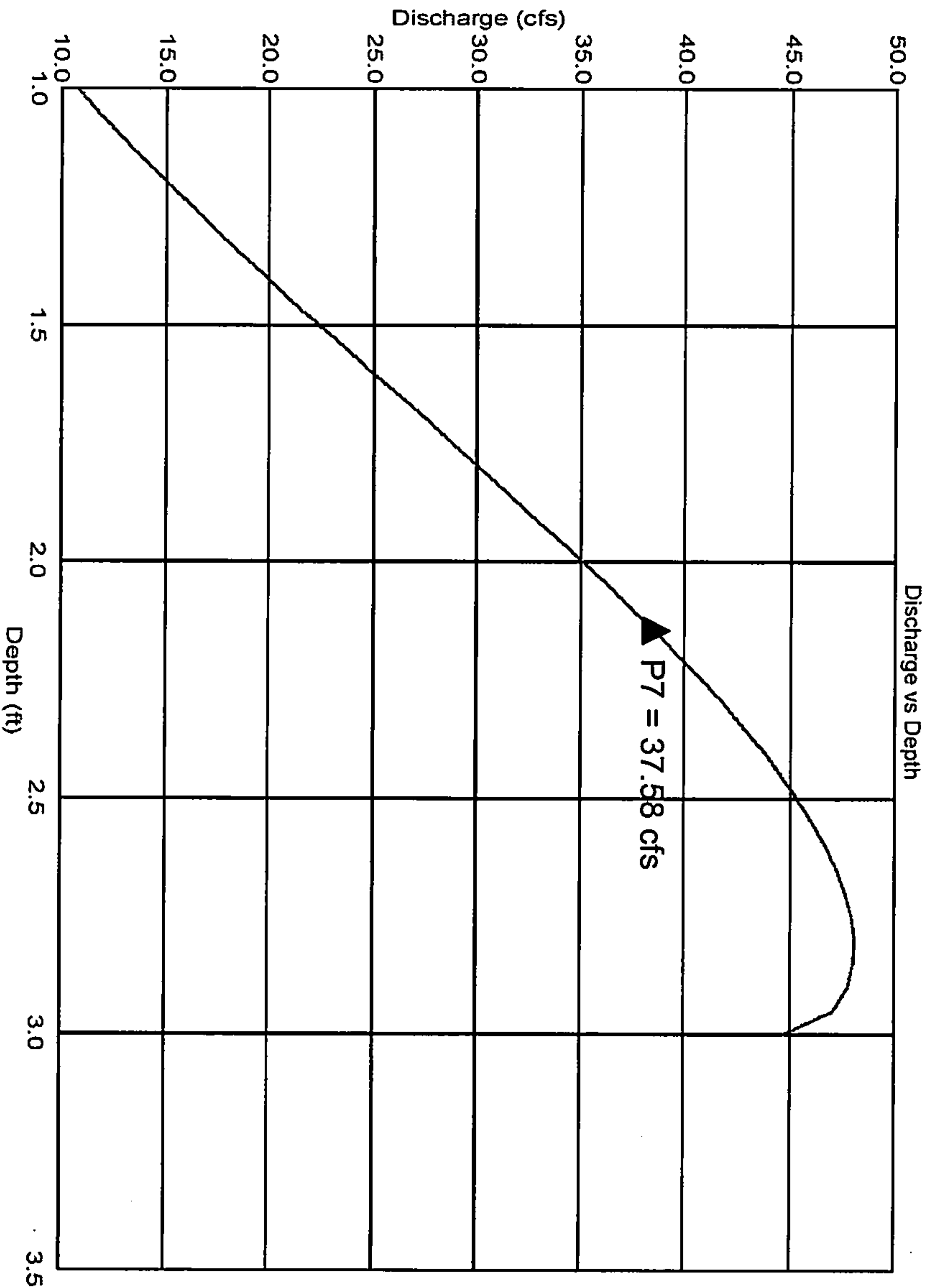
Curve Plotted Curves for Circular Channel

Project Description		
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Worksheet	P7	
Flow Element	Circular Channel	
Method	Manning's Formula	
Solve For	Discharge	

Constant Data		
Mannings Coefficient	0.013	
Channel Slope	0.004500 ft/ft	
Diameter	36.00 in	

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	3.50	0.05 ft

▲ REQUIRED



05/17/06
09:29:21 AM

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Page 1 of 1

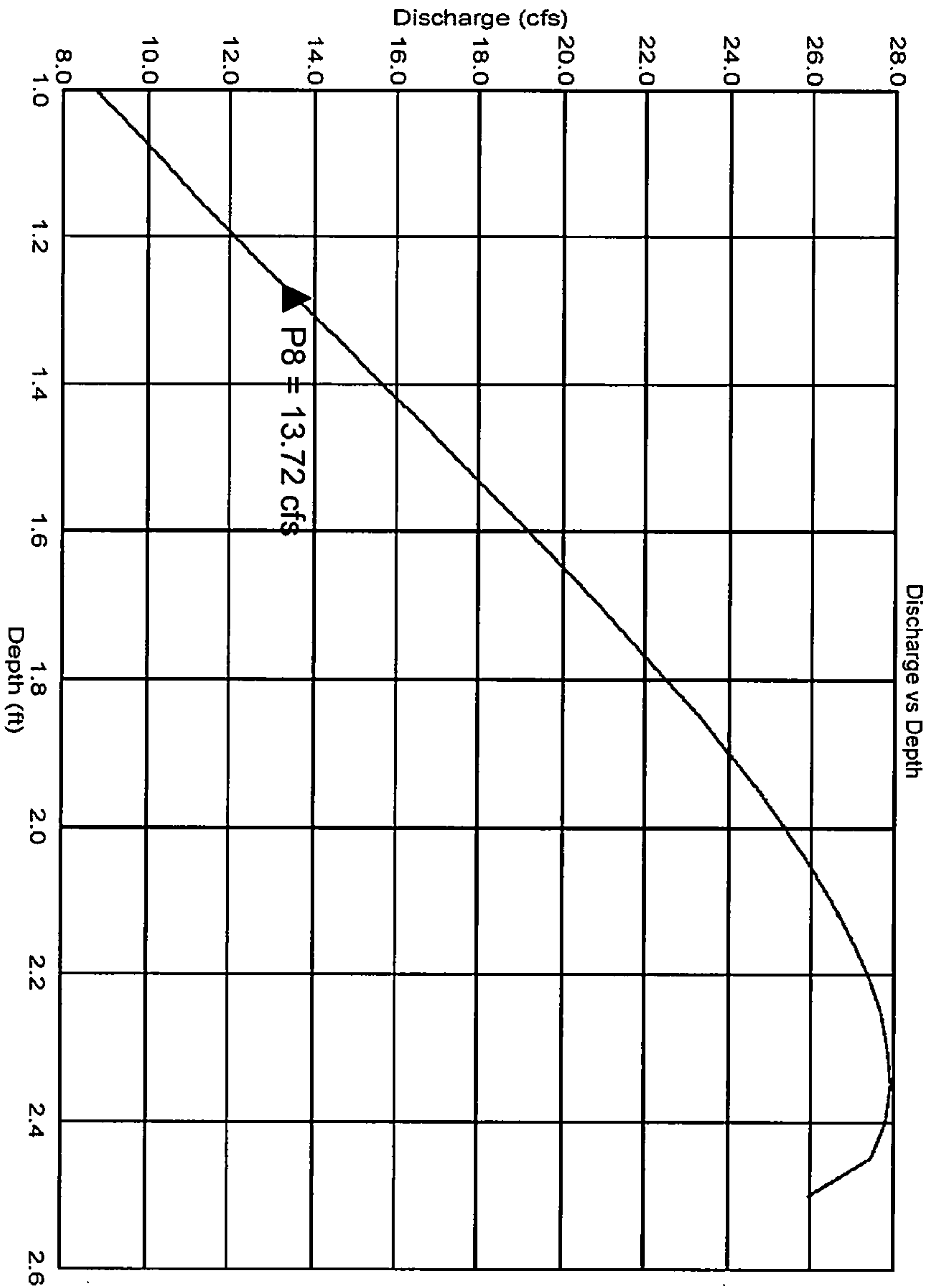
Curve Plotted Curves for Circular Channel

Project Description	
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Worksheet	P8
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.004000 ft/ft
Diameter	30.00 in

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	3.00	0.05 ft

▲ REQUIRED



05/17/06
09:30:42 AM

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Page 1 of 1

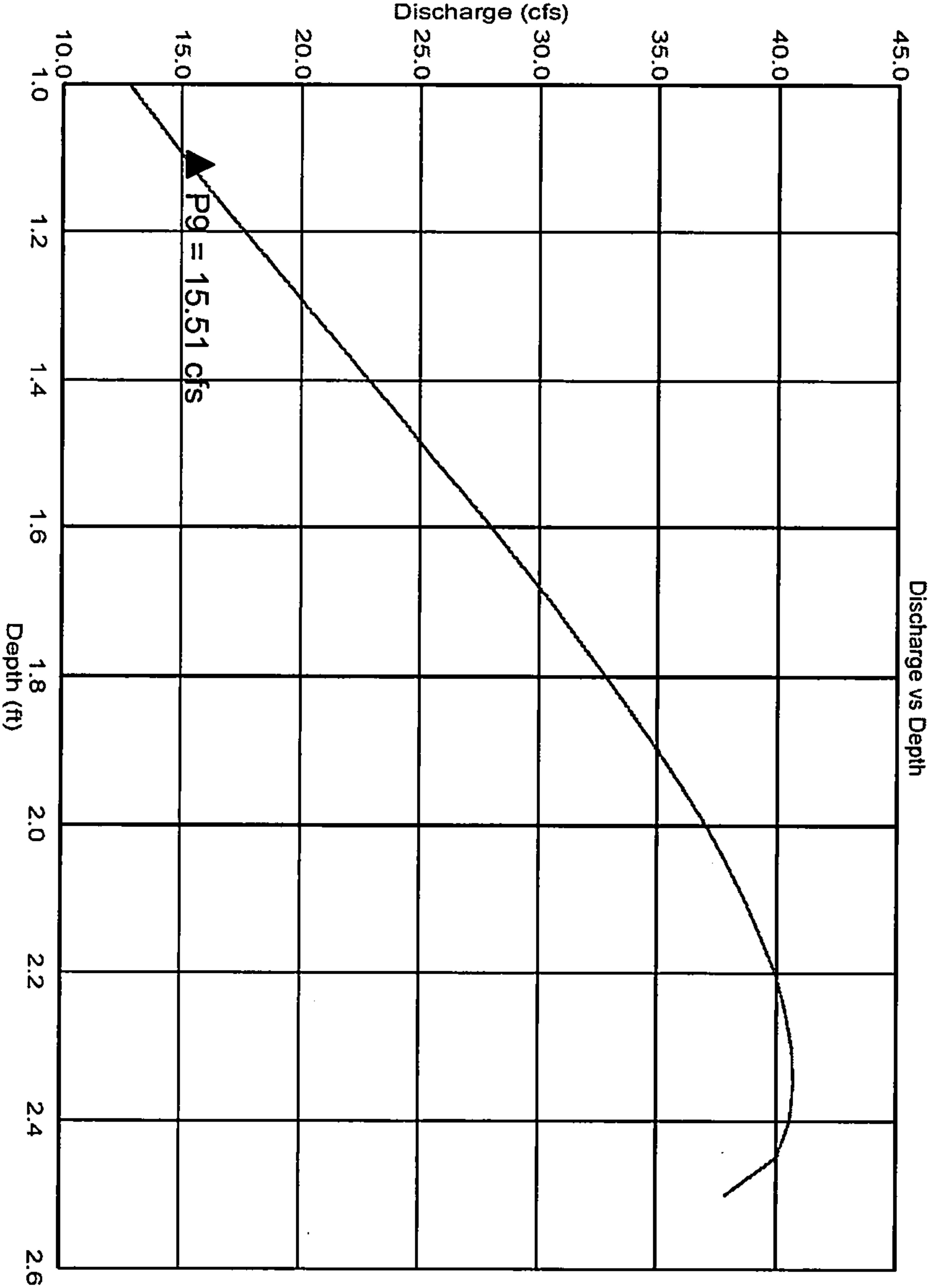
Curve Plotted Curves for Circular Channel

Project Description	
Project File	i:\bplw\bpl042-13 terminal apron reconstruction\dwgs\drainage\report\lar drai.fm2
Worksheet	RCP P9
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.008500 ft/ft
Diameter	30.00 in

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	3.00	0.05 ft

▲ REQUIRED



05/17/06
09:31:48 AM

Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 755-1666

FlowMaster v5.12
Page 1 of 1

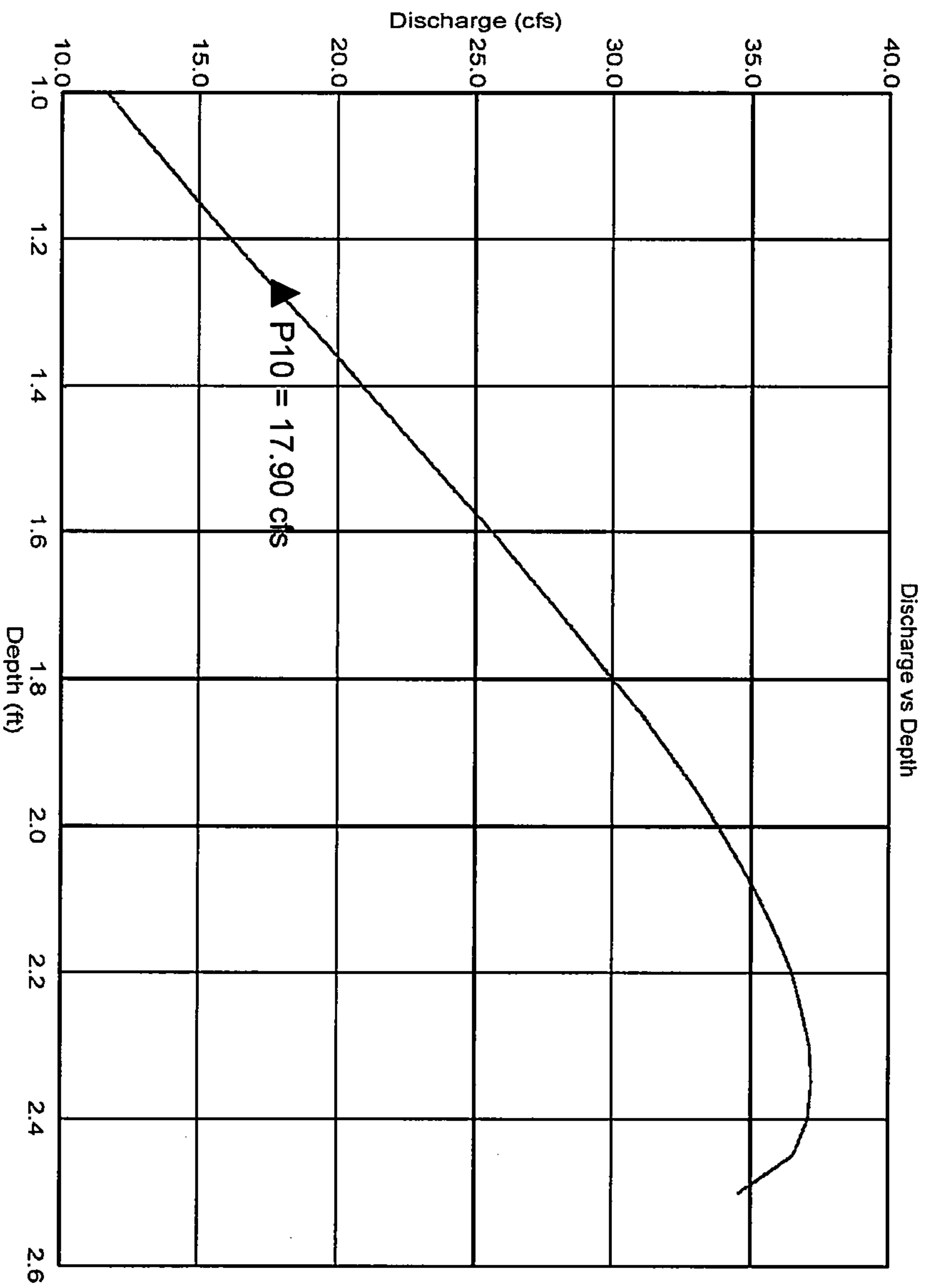
Curve Plotted Curves for Circular Channel

Project Description	
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Worksheet	P10
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.007100 ft/ft
Diameter	30.00 in

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	3.00	0.05 ft

▲ REQUIRED



05/17/06
09:32:56 AM

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FlowMaster v5.12
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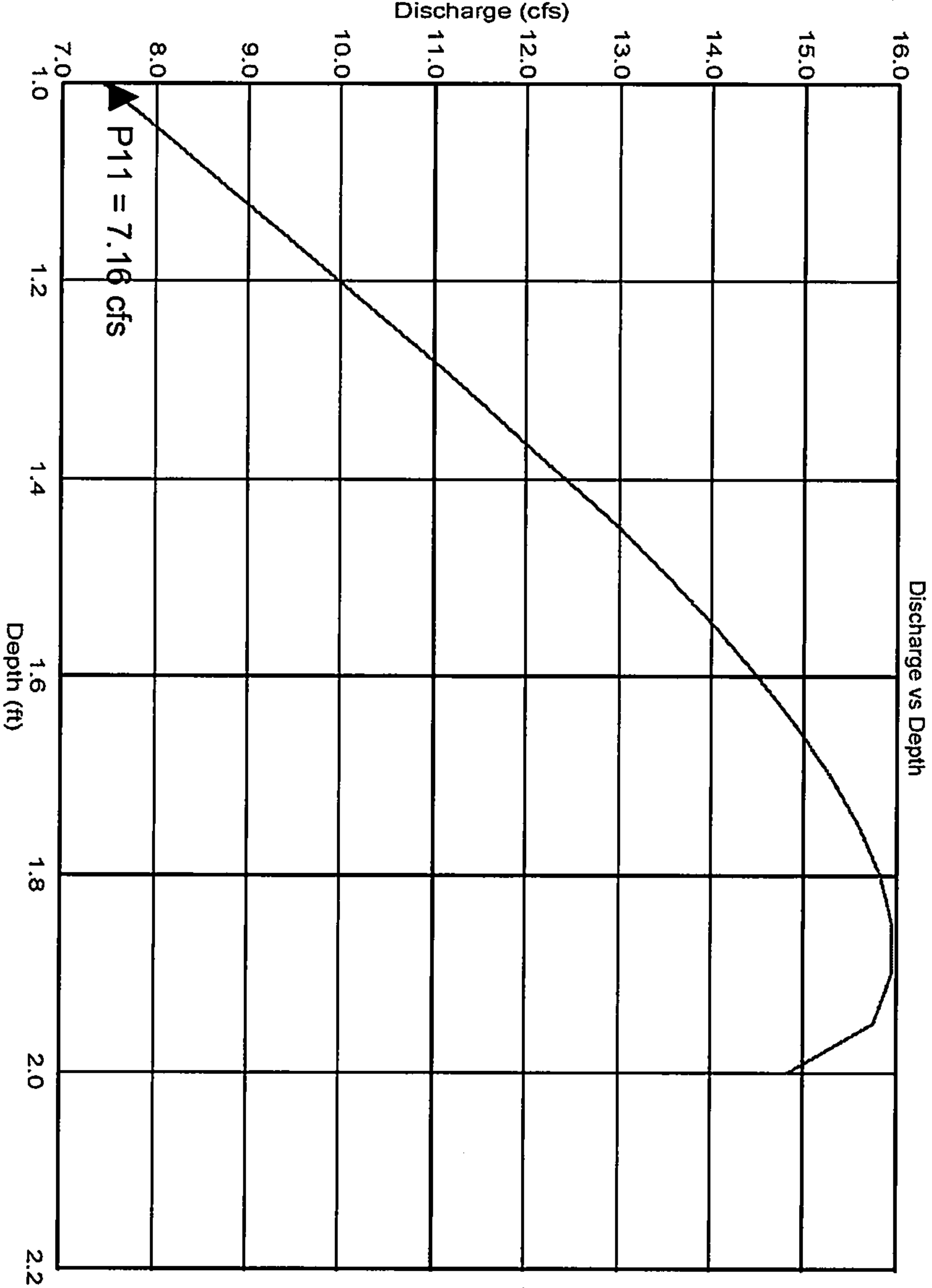
Curve Plotted Curves for Circular Channel

Project Description	
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Worksheet	P11
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.004300 ft/ft
Diameter	24.00 in

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	2.50	0.05 ft

▲ REQUIRED



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09:33:43 AM

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Curve
Plotted Curves for Circular Channel

Project Description

Project File	i:\bplw\bpl042-13 terminal apron reconstruction\dwgs\drainage\drainage report\lar drai.fm2
Worksheet	P12
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

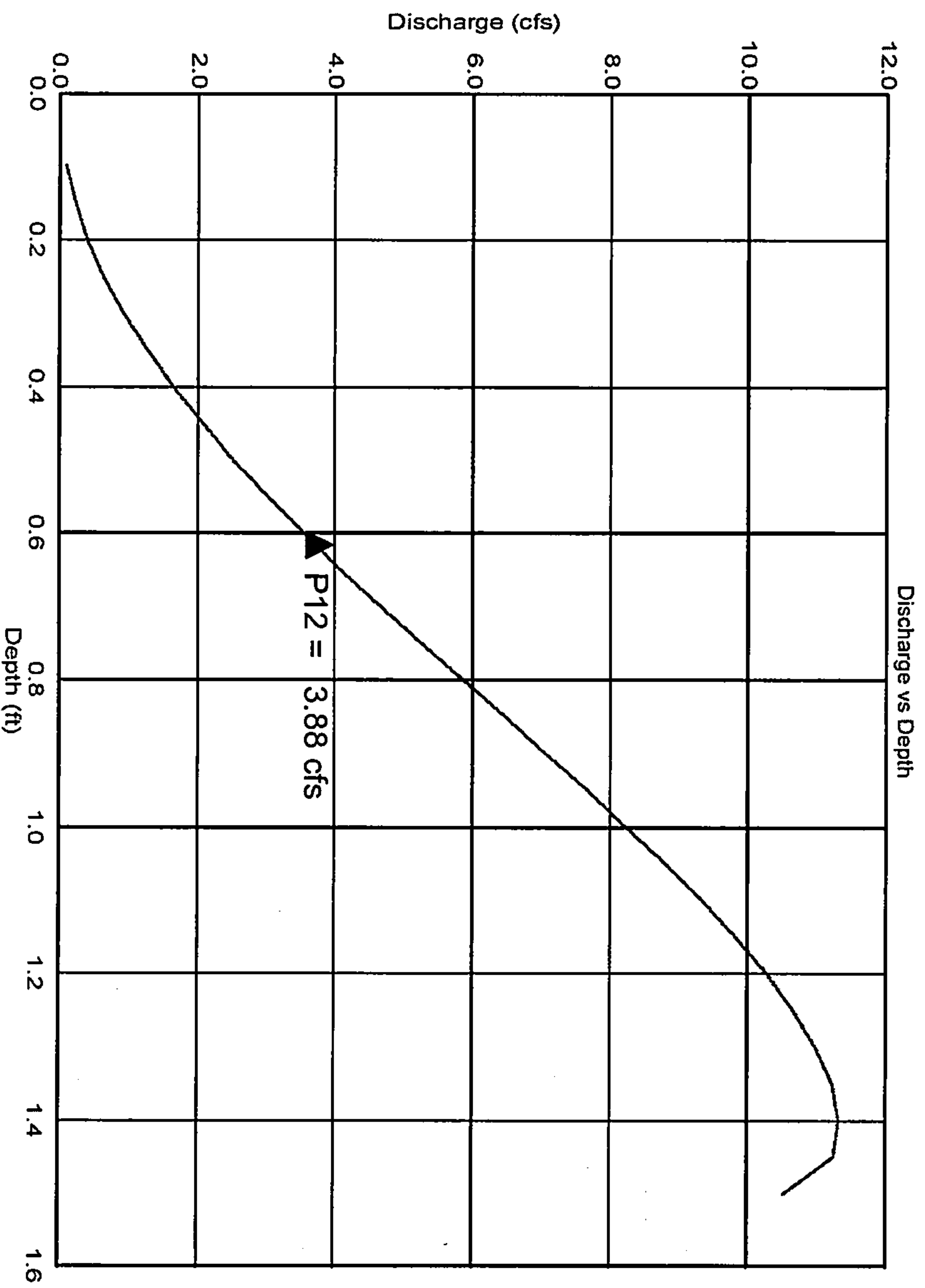
Constant Data

Mannings Coefficient	0.013
Channel Slope	0.010000 ft/ft
Diameter	18.00 in

Input Data

Minimum	Maximum	Increment
Depth 0.10	2.00	0.05 ft

▲ REQUIRED



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11:39:50 AM

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FlowMaster v5.12
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APPENDIX

AREA = .005200 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=1 CODE=10

HYDROGRAPH FROM AREA 504A

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
1.500	15.5	6.500	.1	11.500	.1	16.500	.1
2.000	3.8	7.000	.1	12.000	.1	17.000	.1
2.500	.5	7.500	.1	12.500	.1	17.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1

RUNOFF VOLUME = 2.51715 INCHES .6981 ACRE-FEET
PEAK DISCHARGE RATE = 15.51 CFS AT 1.500 HOURS BASIN AREA = .0052 SQ. MI.

*S ***SUB-BASIN 504-B****

COMPUTE NM HYD ID=2 HYD NO=504B AREA=0.0046 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 18.622 CFS UNIT VOLUME = .9988 B = 526.28
AREA = .004600 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=2 CODE=10

HYDROGRAPH FROM AREA 504B

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
1.500	13.7	6.500	.1	11.500	.1	16.500	.1
2.000	3.4	7.000	.1	12.000	.1	17.000	.1
2.500	.4	7.500	.1	12.500	.1	17.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1

RUNOFF VOLUME = 2.51715 INCHES .6175 ACRE-FEET
PEAK DISCHARGE RATE = 13.72 CFS AT 1.500 HOURS BASIN AREA = .0046 SQ. MI.

*S ***SUB-BASIN 504-C****

COMPUTE NM HYD ID=3 HYD NO=504C AREA=0.0024 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 9.7159 CFS UNIT VOLUME = .9982 B = 526.28
AREA = .002400 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=3 CODE=10

HYDROGRAPH FROM AREA 504C

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.1	11.000	.0	16.000	.0
1.500	7.2	6.500	.1	11.500	.0	16.500	.0
2.000	1.8	7.000	.1	12.000	.0	17.000	.0
2.500	.2	7.500	.0	12.500	.0	17.500	.0
3.000	.1	8.000	.0	13.000	.0	18.000	.0
3.500	.1	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 2.51716 INCHES .3222 ACRE-FEET
PEAK DISCHARGE RATE = 7.16 CFS AT 1.500 HOURS BASIN AREA = .0024 SQ. MI.

*S ***SUB-BASIN 504-D****

COMPUTE NM HYD ID=4 HYD NO=504D AREA=0.0028 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 11.335 CFS UNIT VOLUME = .9985 B = 526.28
AREA = .002800 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=4 CODE=10

HYDROGRAPH FROM AREA 504D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.0	15.000	.0
.500	.0	5.500	.1	10.500	.0	15.500	.0
1.000	.0	6.000	.1	11.000	.0	16.000	.0
1.500	8.4	6.500	.1	11.500	.0	16.500	.0
2.000	2.1	7.000	.1	12.000	.0	17.000	.0
2.500	.3	7.500	.1	12.500	.0	17.500	.0
3.000	.1	8.000	.1	13.000	.0	18.000	.0
3.500	.1	8.500	.1	13.500	.0	18.500	.0
4.000	.1	9.000	.1	14.000	.0	19.000	.0
4.500	.0	9.500	.1	14.500	.0	19.500	.0

RUNOFF VOLUME = 2.51716 INCHES
PEAK DISCHARGE RATE = 8.35 CFS AT 1.500 HOURS BASIN AREA = .0028 SQ. MI.

*S ***SUB-BASIN 504-E****

COMPUTE NM HYD ID=5 HYD NO=504E AREA=0.0036 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 14.574 CFS UNIT VOLUME = .9987 B = 526.28
AREA = .003600 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 2.0100
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=5 CODE=10

HYDROGRAPH FROM AREA 504E

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0
1.000	.0	6.000	.1	11.000	.1	16.000	.0
1.500	10.7	6.500	.1	11.500	.1	16.500	.0
2.000	2.6	7.000	.1	12.000	.1	17.000	.0
2.500	.3	7.500	.1	12.500	.1	17.500	.0
3.000	.1	8.000	.1	13.000	.1	18.000	.0
3.500	.1	8.500	.1	13.500	.1	18.500	.0
4.000	.1	9.000	.1	14.000	.1	19.000	.0
4.500	.1	9.500	.1	14.500	.0	19.500	.0

RUNOFF VOLUME = 2.51715 INCHES
PEAK DISCHARGE RATE = 10.74 CFS AT 1.500 HOURS BASIN AREA = .0036 SQ. MI.

*S ***SUB-BASIN 504-F****

COMPUTE NM HYD ID=6 HYD NO=504F AREA=0.0073 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 29.552 CFS UNIT VOLUME = .9990 B = 526.28
AREA = .007300 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 2.0100
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=6 CODE=10

HYDROGRAPH FROM AREA 504F

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
1.500	21.8	6.500	.2	11.500	.1	16.500	.1
2.000	5.3	7.000	.2	12.000	.1	17.000	.1
2.500	.7	7.500	.1	12.500	.1	17.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1
3.500	.2	8.500	.1	13.500	.1	18.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1

RUNOFF VOLUME = 2.51715 INCHES
PEAK DISCHARGE RATE = 21.77 CFS AT 1.500 HOURS BASIN AREA = .0073 SQ. MI.

*S ***SUB-BASIN 504-G****

COMPUTE NM HYD ID=7 HYD NO=504G AREA=0.0013 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 5.2628 CFS UNIT VOLUME = .9971 B = 526.28
AREA = .001300 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 2.0100
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=7 CODE=1

HYDROGRAPH FROM AREA 504G

RUNOFF VOLUME = 2.51716 INCHES
PEAK DISCHARGE RATE = 3.88 CFS AT 1.500 HOURS BASIN AREA = .0013 SQ. MI.

*S COMBINE BASINS THAT DRAIN TO DI #1

ADD HYD ID=8 HYD NO=DPLUSF ID=4 IDII=6
ADD HYD ID=9 HYD NO=DPLUSF ID=5 IDII=8
PRINT HYD ID=9 CODE=10

HYDROGRAPH FROM AREA DPLUSF

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.2
.500	.0	5.500	.3	10.500	.2	15.500	.2
1.000	.0	6.000	.3	11.000	.2	16.000	.2
1.500	40.9	6.500	.3	11.500	.2	16.500	.2
2.000	10.0	7.000	.3	12.000	.2	17.000	.2
2.500	1.3	7.500	.3	12.500	.2	17.500	.2
3.000	.5	8.000	.3	13.000	.2	18.000	.2
3.500	.3	8.500	.3	13.500	.2	18.500	.2
4.000	.3	9.000	.3	14.000	.2	19.000	.2
4.500	.2	9.500	.2	14.500	.2	19.500	.2

RUNOFF VOLUME = 2.51709 INCHES 1.8391 ACRE-FEET
PEAK DISCHARGE RATE = 40.86 CFS AT 1.500 HOURS BASIN AREA = .0137 SQ. MI.

*S CHECK WATER LEVELS FOR PONDING AREAS

* DI #1

ROUTE RESERVOIR	ID=10 HYD NO=POND.DI1 OUTFLOW (CFS)	INFLOW ID=9 STORAGE (AC-FT)	ELEV (FT) CODE=5
	0.001	0.00	100.00
	0.68665	0.001	100.1
	1.26146	0.0155	100.15
	1.94215	0.0453	100.2
	2.71425		
	3.56797	0.0941	100.25
	4.49616	0.16674835	100.3
	5.49325	0.26798842	100.35
	6.55478	0.402578159	100.4
	7.67705	0.575281807	100.45
	8.85694	0.790863603	100.5
	10.0700	1.054087784	100.55
	10.8769	1.369718589	100.6
	11.6279	1.774678867	100.7
	13.0004	2.313037826	100.8
	18.3853	3.094372951	101.00
	22.5174	5.476492236	102.00
		11.67000238	103.00

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	4.56	100.13	.010	1.04
1.50	16.01	100.50	.412	5.55
1.75	40.86	100.40	.804	7.74
2.00	10.03	100.52	.901	8.17
2.25	2.70	100.51	.859	7.98
2.50	1.26	100.49	.738	7.40
2.75	.71	100.46	.611	6.74
3.00	.46	100.43	.491	6.04
3.25	.35	100.39	.381	5.34
3.50	.30	100.36	.285	4.62
3.75	.27	100.32	.203	3.90
4.00	.25	100.28	.135	3.19
4.25	.24	100.24	.081	2.51
4.50	.24	100.19	.041	1.84
4.75	.24	100.15	.015	1.22
5.00	.25	100.09	.001	.61
5.25	.27	100.04	.000	.25
5.50	.28	100.04	.000	.27
5.75	.30	100.04	.000	.28
6.00	.30	100.04	.000	.29
6.25	.30	100.04	.000	.30
6.50	.29	100.04	.000	.30
6.75	.29	100.04	.000	.29
7.00	.28	100.04	.000	.29
7.25	.28	100.04	.000	.28
7.50	.27	100.04	.000	.28
7.75	.27	100.04	.000	.27
8.00	.27	100.04	.000	.27
8.25	.26	100.04	.000	.27
8.50	.26	100.04	.000	.26
8.75	.25	100.04	.000	.26
9.00	.25	100.04	.000	.26
9.25	.25	100.04	.000	.25
9.50	.24	100.04	.000	.25
9.75	.24	100.04	.000	.24
10.00	.24	100.03	.000	.24
10.25	.23	100.03	.000	.24
10.50	.23	100.03	.000	.23
10.75	.22	100.03	.000	.23
11.00	.22	100.03	.000	.22
11.25	.22	100.03	.000	.22

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	1.73	100.11	.002	.78
1.50	15.51	100.31	.136	3.69
1.75	6.08	100.37	.246	4.92
2.00	3.81	100.37	.243	4.89
2.25	1.02	100.34	.194	4.39
2.50	.48	100.30	.127	3.57
2.75	.27	100.25	.070	2.68
3.00	.17	100.19	.028	1.76
3.25	.13	100.12	.004	.88
3.50	.11	100.02	.000	.15
3.75	.10	100.01	.000	.07
4.00	.10	100.02	.000	.13
4.25	.09	100.01	.000	.06
4.50	.09	100.02	.000	.12
4.75	.09	100.01	.000	.06
5.00	.09	100.02	.000	.13
5.25	.10	100.01	.000	.07
5.50	.10	100.02	.000	.14
5.75	.11	100.01	.000	.07
6.00	.11	100.02	.000	.14
6.25	.12	100.01	.000	.08
6.50	.11	100.02	.000	.15
6.75	.11	100.01	.000	.08
7.00	.11	100.02	.000	.14
7.25	.11	100.01	.000	.07
7.50	.11	100.02	.000	.14
7.75	.10	100.01	.000	.07
8.00	.10	100.02	.000	.14
8.25	.10	100.01	.000	.07
8.50	.10	100.02	.000	.13
8.75	.10	100.01	.000	.06
9.00	.10	100.02	.000	.13
9.25	.09	100.01	.000	.06
9.50	.09	100.02	.000	.13
9.75	.09	100.01	.000	.06
10.00	.09	100.02	.000	.12
10.25	.09	100.01	.000	.06
10.50	.09	100.02	.000	.12
10.75	.09	100.01	.000	.05
11.00	.09	100.02	.000	.12
11.25	.08	100.01	.000	.05
11.50	.08	100.02	.000	.12
11.75	.08	100.01	.000	.05
12.00	.08	100.02	.000	.12
12.25	.08	100.01	.000	.05
12.50	.08	100.02	.000	.11
12.75	.08	100.01	.000	.05
13.00	.08	100.02	.000	.11
13.25	.08	100.01	.000	.04
13.50	.07	100.02	.000	.11
13.75	.07	100.01	.000	.04
14.00	.07	100.02	.000	.11
14.25	.07	100.01	.000	.04
14.50	.07	100.02	.000	.11
14.75	.07	100.01	.000	.04
15.00	.07	100.02	.000	.10
15.25	.07	100.01	.000	.04
15.50	.07	100.02	.000	.10
15.75	.07	100.01	.000	.03
16.00	.07	100.02	.000	.10
16.25	.07	100.01	.000	.03
16.50	.07	100.02	.000	.10
16.75	.07	100.01	.000	.03
17.00	.07	100.02	.000	.10
17.25	.07	100.01	.000	.03
17.50	.06	100.02	.000	.10
17.75	.06	100.01	.000	.03
18.00	.06	100.02	.000	.10
18.25	.06	100.01	.000	.03
18.50	.06	100.02	.000	.10
18.75	.06	100.01	.000	.03
19.00	.06	100.02	.000	.10
19.25	.06	100.01	.000	.03
19.50	.06	100.02	.000	.10
19.75	.06	100.01	.000	.02
20.00	.06	100.02	.000	.10
20.25	.06	100.01	.000	.02
20.50	.06	100.02	.000	.10
20.75	.06	100.01	.000	.02
21.00	.06	100.02	.000	.10
21.25	.06	100.01	.000	.02
21.50	.06	100.02	.000	.10
21.75	.06	100.01	.000	.02
22.00	.05	100.02	.000	.10
22.25	.05	100.01	.000	.02
22.50	.05	100.02	.000	.10
22.75	.05	100.01	.000	.02
23.00	.05	100.02	.000	.10
23.25	.05	100.01	.000	.02
23.50	.05	100.02	.000	.10
23.75	.05	100.01	.000	.02
24.00	.05	100.02	.000	.10
24.25	.01	100.00	.000	.00

PEAK DISCHARGE =

4.963 CFS -

PEAK OCCURS AT HOUR

1.85

MAXIMUM WATER SURFACE ELEVATION =

100.373

INCREMENTAL TIME=

.050000HRS

MAXIMUM STORAGE =

.2505 AC-FT

PRINT HYD

ID=11

CODE=10

HYDROGRAPH FROM AREA POND.D12

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS		
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
1.500	3.7	6.500	.1	11.500	.1	16.500	.1
2.000	4.9	7.000	.1	12.000	.1	17.000	.1
2.500	3.6	7.500	.1	12.500	.1	17.500	.1
3.000	1.8	8.000	.1	13.000	.1	18.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1

RUNOFF VOLUME = 2.51734 INCHES
PEAK DISCHARGE RATE = 4.96 CFS AT 1.850 HOURS BASIN AREA = .0052 SQ. MI.

* DI #3

ROUTE RESERVOIR ID=12 HYD NO=POND.D13 INFLOW ID=2 CODE=5
OUTFLOW (CFS) STORAGE (AC-FT) ELEV (FT)

	0	100.00
0.686656971	0	100.1
1.261469406	0.0239	100.15
1.942159203	0.0699	100.2
2.71425	0.1453	100.25
3.567974284	0.2576	100.3
4.496161474	0.4140	100.35
5.493255769	0.6219	100.4
6.554787309	0.8886	100.45
7.677058323	1.2216	100.5
8.856943367	1.6282	100.55
10.07009513	2.1158	100.6
11.316294427	2.7413	100.7
12.5944589	3.5729	100.8
13.80043692	4.7799	101.00
15.00000000	8.4595	102.00
16.1853942	18.0266	103.00

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	1.53	100.10	.002	.73
1.50	13.72	100.24	.128	2.53
1.75	3.38	100.29	.243	3.45
2.00	3.37	100.30	.258	3.57
2.25	.91	100.29	.228	3.34
2.50	.42	100.26	.176	2.94
2.75	.24	100.24	.126	2.51
3.00	.15	100.21	.082	2.07
3.25	.12	100.18	.047	1.60
3.50	.09	100.14	.020	1.18
3.75	.08	100.11	.003	.75
4.00	.08	100.02	.000	.17
4.25	.08	100.00	.000	.00
4.50	.08	100.02	.000	.16
4.75	.08	100.00	.000	.00
5.00	.09	100.02	.000	.16
5.25	.09	100.00	.000	.01
5.50	.09	100.02	.000	.17
5.75	.10	100.03	.000	.01
6.00	.10	100.00	.000	.18
6.25	.10	100.00	.000	.02
6.50	.10	100.03	.000	.18
6.75	.10	100.00	.000	.02
7.00	.10	100.03	.000	.18
7.25	.10	100.00	.000	.02
7.50	.09	100.03	.000	.17
7.75	.09	100.00	.000	.01
8.00	.09	100.02	.000	.17
8.25	.09	100.00	.000	.01
8.50	.09	100.02	.000	.17
8.75	.08	100.00	.000	.01
9.00	.08	100.02	.000	.16
9.25	.08	100.00	.000	.00
9.50	.08	100.02	.000	.16
9.75	.08	100.00	.000	.00
10.00	.08	100.02	.000	.16
10.25	.08	100.00	.000	.00
10.50	.08	100.02	.000	.16
10.75	.08	100.00	.000	.00
11.00	.08	100.02	.000	.15
11.25	.07	100.00	.000	.00
11.50	.07	100.02	.000	.15
11.75	.07	100.00	.000	.00
12.00	.07	100.02	.000	.14
12.25	.07	100.00	.000	.00
12.50	.07	100.02	.000	.14
12.75	.07	100.00	.000	.00
13.00	.07	100.02	.000	.14
13.25	.07	100.00	.000	.00
13.50	.07	100.02	.000	.13
13.75	.07	100.00	.000	.00
14.00	.06	100.02	.000	.13
14.25	.06	100.00	.000	.00

14.50 .06 100.02 .000 .13
14.75 .06 100.00 .000 .13
15.00 .06 100.02 .000 .13
15.25 .06 100.00 .000 .13
15.50 .06 100.02 .000 .13
15.75 .06 100.00 .000 .13
16.00 .06 100.02 .000 .12
16.25 .06 100.00 .000 .12
16.50 .06 100.02 .000 .12
16.75 .06 100.00 .000 .12
17.00 .06 100.02 .000 .12
17.25 .06 100.00 .000 .11
17.50 .06 100.02 .000 .11
17.75 .06 100.00 .000 .11
18.00 .06 100.02 .000 .11
18.25 .06 100.00 .000 .11
18.50 .06 100.02 .000 .11
18.75 .06 100.00 .000 .11
19.00 .06 100.02 .000 .11
19.25 .06 100.00 .000 .10
19.50 .06 100.02 .000 .10
19.75 .06 100.00 .000 .10
20.00 .06 100.02 .000 .10
20.25 .06 100.00 .000 .10
20.50 .06 100.02 .000 .10
20.75 .06 100.00 .000 .10
21.00 .06 100.02 .000 .10
21.25 .06 100.00 .000 .10
21.50 .06 100.02 .000 .10
21.75 .06 100.00 .000 .10
22.00 .06 100.02 .000 .10
22.25 .06 100.00 .000 .10
22.50 .06 100.02 .000 .10
22.75 .06 100.00 .000 .09
23.00 .06 100.02 .000 .09
23.25 .06 100.00 .000 .09
23.50 .06 100.02 .000 .09
23.75 .06 100.00 .000 .09
24.00 .06 100.02 .000 .09
24.25 .06 100.00 .000 .09
PEAK DISCHARGE = 3.569 CFS - PEAK OCCURS AT HOUR 1.95
MAXIMUM WATER SURFACE ELEVATION = 100.300
MAXIMUM STORAGE = .2578 AC-FT INCREMENTAL TIME= .050000HRS

PRINT HYD

ID=12 CODE=10

HYDROGRAPH FROM AREA POND.DI3

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.1
1.000	.0	6.000	.2	11.000	.2	16.000	.1
1.500	2.5	6.500	.2	11.500	.1	16.500	.1
2.000	3.6	7.000	.2	12.000	.1	17.000	.1
2.500	2.9	7.500	.2	12.500	.1	17.500	.1
3.000	2.1	8.000	.2	13.000	.1	18.000	.1
3.500	1.2	8.500	.2	13.500	.1	18.500	.1
4.000	.2	9.000	.2	14.000	.1	19.000	.1
4.500	.2	9.500	.2	14.500	.1	19.500	.1

RUNOFF VOLUME = 2.52163 INCHES .6186 ACRE-FEET
PEAK DISCHARGE RATE = 3.57 CFS AT 1.950 HOURS BASIN AREA = .0046 SQ. MI.

* DI #4

ROUTE RESERVOIR ID=13 HYD NO=POND.DI4 INFLOW ID=3 CODE=5
OUTFLOW (CFS) 0 STORAGE (AC-FT) 0 ELEV (FT) 0

0.686556971	0	0.292991739	100.1
1.261469406	0	0.856437391	100.15
1.942159203	0	1.780488261	100.2
2.71425	3.567974284	3.155295652	100.3
3.567974284	4.496161474	5.071010869	100.35
4.496161474	5.493255769	7.617785217	100.4
5.493255769	6.554787309	10.88577	100.45
6.554787309	7.677058323	14.96511652	100.5
7.677058323	8.856943367	19.94597608	100.55
8.856943367	10.07009513	25.9185	100.6
10.07009513	10.87694589	33.58136087	100.7
10.87694589	11.62794427	43.76845826	100.8
11.62794427	13.00043692	58.55327217	101.0
13.00043692	18.3853942	103.6289243	102.0
18.3853942	22.51741726	220.82562	103.0

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.25	.00	.00	.000	.00
.50	.00	.00	.000	.00
.75	.00	.00	.000	.00
1.00	.00	.00	.000	.00
1.25	.80	100.10	.000	.69
1.50	7.16	100.11	.067	.82
1.75	2.81	100.12	.142	.97
2.00	1.76	100.13	.168	1.02
2.25	.47	100.13	.168	.99
2.50	.22	100.13	.154	.96
2.75	.12	100.12	.138	.92
3.00	.08	100.12	.120	.89
3.25	.06	100.12	.103	

3.50 .05 100.11 .86
3.75 .05 100.11 .82
4.00 .04 100.11 .79
4.25 .04 100.11 .76
4.50 .04 100.10 .73
5.00 .04 100.10 .71
5.25 .04 12.80 .09
5.50 .05 .53 .00
6.00 .05 13.50 .00
6.25 .05 14.08 .01
6.50 .05 1.22 .10
6.75 .05 1.30 .01
7.00 .05 13.82 .09
7.25 .05 1.02 .01
7.50 .05 13.56 .09
7.75 .05 .82 .01
8.00 .05 13.30 .00
8.25 .05 13.10 .00
8.50 .05 12.81 .09
8.75 .04 12.81 .09
9.00 .04 12.75 .09
9.25 .04 12.37 .00
9.50 .04 12.37 .00
9.75 .04 12.05 .08
10.00 .04 12.05 .08
10.25 .04 11.75 .08
10.50 .04 11.42 .00
11.00 .04 11.00 .00
11.25 .04 11.42 .00
11.50 .04 11.25 .00
11.75 .04 11.08 .08
12.00 .04 10.86 .00
12.25 .04 10.86 .07
12.50 .04 10.59 .00
12.75 .04 10.59 .07
13.00 .04 10.26 .00
13.25 .03 10.26 .07
13.50 .03 10.01 .00
13.75 .03 10.01 .07
14.00 .03 .01 .00
14.25 .03 9.69 .07
14.50 .03 9.64 .00
14.75 .03 9.64 .07
15.00 .03 9.49 .00
15.25 .03 9.49 .07
15.50 .03 9.20 .06
15.75 .03 9.20 .06
16.00 .03 9.04 .00
16.25 .03 9.04 .06
16.50 .03 .00 .00
16.75 .03 8.89 .00
17.00 .03 8.89 .06
17.25 .03 8.76 .00
17.50 .03 8.76 .06
17.75 .03 8.46 .00
18.00 .03 8.46 .06
18.25 .03 .05 .00
18.50 .03 .05 .06
18.75 .03 8.17 .00
19.00 .03 8.17 .06
19.25 .03 8.12 .00
19.50 .03 8.12 .06
19.75 .03 7.86 .00
20.00 .03 7.86 .05
20.25 .03 7.81 .00
20.50 .03 7.81 .05
20.75 .03 7.68 .00
20.75 .03 7.68 .05
(STOPPED AT 20.75 FOR PRINT FORMAT)

PEAK DISCHARGE = 1.024 CFS - PEAK OCCURS AT HOUR 2.10
MAXIMUM WATER SURFACE ELEVATION = 100.129
MAXIMUM STORAGE = 1.717 AC-FT INCREMENTAL TIME= .050000HRS

PRINT HYD ID=13 CODE=10

HYDROGRAPH FROM AREA POND.D14

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	.8	6.500	.0	11.500	.0	16.500	.0
2.000	1.0	7.000	.0	12.000	.0	17.000	.0
2.500	1.0	7.500	.0	12.500	.0	17.500	.0
3.000	.9	8.000	.0	13.000	.0	18.000	.0
3.500	.8	8.500	.0	13.500	.0	18.500	.0
4.000	.7	9.000	.0	14.000	.0	19.000	.0
4.500	.7	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 2.52257 INCHES .3229 ACRE-FEET
PEAK DISCHARGE RATE = 1.02 CFS AT 2.100 HOURS BASIN AREA = .0024 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 08:13:17

AHYMO INPUT/OUTPUT - 10 YEAR, 24 HR RAINFALL

АИҢҢО РРОГРМ (АИҢҢО_97) -

- Version: 1997.02d

```

RUN DATE (MON/DAY/YR) = 05/19/2006
START TIME (HR:MIN:SEC) = 11:05:07
INPUT FILE = I:\BPLW\BPL042~2\dwgs

```

USER NO. = AHYMO-I-9702a01000F11-AH

*S AHMO FILE FOR TERMINAL APRON RECONSTRUCTION
*S FUTURE CONDITIONS, 24HR, 10YR.

* FILENAME: TARFUTURE 10.txt

START 0.0 HRS

0.0 HRS

```
*
*/
*/
S/      SPH=0    FUTURE CONDITIONS
*/
*/
```

```
* 10 YEAR RAINFALL TABLE
RAINFALL TYPE=2
```

```
RAIN QUARTER=0.0      RAIN SIX=1.57 IN
RAIN ONE=1.34 IN      DT=0.05 HRS
RAIN DAY=1.83 IN
```

```
COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .050000 HOURS          END TIME = 24.000000 HOURS
```

T = 0.050000 HOURS			END TIME = 24.000000 HOURS		
1.0000	0.0017	0.0034	0.0052	0.0070	0.0089
0.0129	0.0150	0.0173	0.0196	0.0220	0.0246
0.0301	0.0311	0.0363	0.0397	0.0433	0.0472
0.0571	0.0634	0.0815	0.1242	0.1977	0.3113
0.6988	0.8732	0.9550	1.0215	1.0798	1.1320
1.2223	1.2638	1.2982	1.3318	1.3628	1.3915
1.4039	1.4437	1.4413	1.4467	1.4536	1.4279
1.4359	1.4397	1.4433	1.4467	1.4501	1.4533
1.4594	1.4624	1.4652	1.4680	1.4706	1.4733
1.4783	1.4807	1.4831	1.4854	1.4877	1.4899
1.4943	1.4964	1.4984	1.5004	1.5024	1.5044
1.5082	1.5100	1.5119	1.5137	1.5154	1.5172
1.5206	1.5223	1.5239	1.5255	1.5271	1.5287
1.5318	1.5334	1.5349	1.5364	1.5378	1.5393
1.5421	1.5435	1.5449	1.5463	1.5477	1.5490
1.5517	1.5530	1.5543	1.5555	1.5568	1.5581
1.5605	1.5618	1.5630	1.5642	1.5653	1.5665
1.5689	1.5700	1.5711	1.5722	1.5734	1.5745
1.5763	1.5778	1.5789	1.5799	1.5810	1.5821
1.5843	1.5853	1.5864	1.5875	1.5885	1.5896
1.5917	1.5927	1.5938	1.5948	1.5958	1.5969
1.5989	1.5999	1.6010	1.6020	1.6030	1.6040
1.6060	1.6070	1.6080	1.6090	1.6100	1.6109
1.6129	1.6139	1.6148	1.6158	1.6168	1.6177
1.6197	1.6206	1.6216	1.6225	1.6235	1.6244
1.6263	1.6272	1.6281	1.6291	1.6300	1.6309
1.6328	1.6337	1.6346	1.6355	1.6364	1.6373
1.6391	1.6400	1.6409	1.6419	1.6427	1.6435
1.6453	1.6462	1.6471	1.6479	1.6487	1.6497
1.6514	1.6523	1.6531	1.6540	1.6548	1.6557
1.6574	1.6582	1.6591	1.6599	1.6608	1.6616
1.6633	1.6641	1.6649	1.6657	1.6666	1.6674
1.6690	1.6698	1.6706	1.6715	1.6723	1.6731
1.6747	1.6755	1.6763	1.6771	1.6779	1.6787
1.6802	1.6810	1.6818	1.6826	1.6834	1.6842
1.6857	1.6865	1.6872	1.6880	1.6888	1.6895
1.6911	1.6918	1.6926	1.6933	1.6941	1.6949
1.6964	1.6971	1.6978	1.6986	1.6993	1.7001
1.7016	1.7023	1.7030	1.7038	1.7045	1.7052
1.7067	1.7074	1.7081	1.7088	1.7095	1.7103
1.7117	1.7124	1.7131	1.7138	1.7145	1.7152
1.7166	1.7173	1.7180	1.7187	1.7194	1.7201
1.7215	1.7222	1.7229	1.7236	1.7243	1.7250
1.7263	1.7270	1.7277	1.7284	1.7290	1.7297
1.7311	1.7317	1.7324	1.7331	1.7337	1.7344
1.7357	1.7364	1.7371	1.7378	1.7384	1.7390
1.7403	1.7410	1.7416	1.7423	1.7429	1.7436
1.7449	1.7455	1.7462	1.7468	1.7474	1.7481
1.7493	1.7500	1.7506	1.7512	1.7519	1.7525
1.7538	1.7544	1.7550	1.7556	1.7563	1.7569
1.7581	1.7587	1.7593	1.7600	1.7606	1.7612
1.7624	1.7630	1.7636	1.7642	1.7648	1.7654
1.7667	1.7673	1.7679	1.7685	1.7691	1.7696
1.7708	1.7714	1.7720	1.7726	1.7732	1.7738
1.7750	1.7756	1.7761	1.7767	1.7773	1.7779
1.7791	1.7796	1.7802	1.7808	1.7814	1.7819
1.7831	1.7837	1.7842	1.7848	1.7854	1.7859
1.7871					

*5
*5
SUB-BASIN 504-A

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COMPUTE NM HYD      ID=1      HYD NO=504A  AREA=0.0052 SQ MI
                        PER A=0.0  PER B=0.0  PER C=0.0  PER D=100.0
                        TP=0.13 HR  MASS RAIN=-1

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```
K = .070850HR      TP = .130000HR      K/TP RATIO = .545000
UNIT PEAK = 21.051    CFS UNIT VOLUME = .9988      B = 526.28
SHAPE CONSTANT, N = 7.106420
P60 = 1.3400
```

AREA = .005200 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=1 CODE=10

HYDROGRAPH FROM AREA 504A

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.1	15.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0
1.000	.0	6.000	.1	11.000	.1	16.000	.0
1.500	10.3	6.500	.1	11.500	.1	16.500	.0
2.000	2.5	7.000	.1	12.000	.1	17.000	.0
2.500	.3	7.500	.1	12.500	.1	17.500	.0
3.000	.1	8.000	.1	13.000	.1	18.000	.0
3.500	.0	8.500	.1	13.500	.0	18.500	.0
4.000	.0	9.000	.1	14.000	.0	19.000	.0
4.500	.0	9.500	.1	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59950 INCHES .4436 ACRE-FEET
PEAK DISCHARGE RATE = 10.25 CFS AT 1.500 HOURS BASIN AREA = .0052 SQ. MI.

*S ***SUB-BASIN 504-B****

COMPUTE NM HYD ID=2 HYD NO=504B AREA=0.0046 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 18.622 CFS UNIT VOLUME = .9988 B = 526.28 P60 = 1.3400
AREA = .004600 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=2 CODE=10

HYDROGRAPH FROM AREA 504B

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.1	15.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0
1.000	.0	6.000	.1	11.000	.0	16.000	.0
1.500	9.1	6.500	.1	11.500	.0	16.500	.0
2.000	2.2	7.000	.1	12.000	.0	17.000	.0
2.500	.2	7.500	.1	12.500	.0	17.500	.0
3.000	.1	8.000	.1	13.000	.0	18.000	.0
3.500	.0	8.500	.1	13.500	.0	18.500	.0
4.000	.0	9.000	.1	14.000	.0	19.000	.0
4.500	.0	9.500	.1	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59950 INCHES .3924 ACRE-FEET
PEAK DISCHARGE RATE = 9.07 CFS AT 1.500 HOURS BASIN AREA = .0046 SQ. MI.

*S ***SUB-BASIN 504-C****

COMPUTE NM HYD ID=3 HYD NO=504C AREA=0.0024 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 9.7159 CFS UNIT VOLUME = .9982 B = 526.28 P60 = 1.3400
AREA = .002400 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=3 CODE=10

HYDROGRAPH FROM AREA 504C

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	4.7	6.500	.0	11.500	.0	16.500	.0
2.000	1.1	7.000	.0	12.000	.0	17.000	.0
2.500	.1	7.500	.0	12.500	.0	17.500	.0
3.000	.0	8.000	.0	13.000	.0	18.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59950 INCHES .2047 ACRE-FEET
PEAK DISCHARGE RATE = 4.73 CFS AT 1.500 HOURS BASIN AREA = .0024 SQ. MI.

*S ***SUB-BASIN 504-D****

COMPUTE NM HYD ID=4 HYD NO=504D AREA=0.0028 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 11.335 CFS UNIT VOLUME = .9985 B = 526.28 P60 = 1.3400
AREA = .002800 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=4 CODE=10

HYDROGRAPH FROM AREA 504D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	5.5	6.500	.0	11.500	.0	16.500	.0
2.000	1.3	7.000	.0	12.000	.0	17.000	.0
2.500	.0	7.500	.0	12.500	.0	17.500	.0
3.000	.0	8.000	.0	13.000	.0	18.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0
						20.000	.0
						20.500	.0
						21.000	.0
						21.500	.0
						22.000	.0
						22.500	.0
						23.000	.0
						23.500	.0
						24.000	.0
						24.500	.0

RUNOFF VOLUME = 1.59950 INCHES
PEAK DISCHARGE RATE = 5.52 CFS AT 1.500 HOURS BASIN AREA = .0028 SQ. MI.

*S *****SUB-BASIN 504-E*****

COMPUTE NM HYD ID=5 HYD NO=504E AREA=0.0036 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 14.574 CFS UNIT VOLUME = .9987 B = 526.28
AREA = .003600 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 1.3400
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=5 CODE=10

HYDROGRAPH FROM AREA 504E

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.1	11.000	.0	16.000	.0
1.500	7.1	6.500	.0	11.500	.0	16.500	.0
2.000	1.7	7.000	.0	12.000	.0	17.000	.0
2.500	.2	7.500	.0	12.500	.0	17.500	.0
3.000	.1	8.000	.0	13.000	.0	18.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0
						20.000	.0
						20.500	.0
						21.000	.0
						21.500	.0
						22.000	.0
						22.500	.0
						23.000	.0
						23.500	.0
						24.000	.0
						24.500	.0

RUNOFF VOLUME = 1.59951 INCHES
PEAK DISCHARGE RATE = 7.10 CFS AT 1.500 HOURS BASIN AREA = .0036 SQ. MI.

*S *****SUB-BASIN 504-F*****

COMPUTE NM HYD ID=6 HYD NO=504F AREA=0.0073 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 29.552 CFS UNIT VOLUME = .9990 B = 526.28
AREA = .007300 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 1.3400
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=6 CODE=10

HYDROGRAPH FROM AREA 504F

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
1.500	14.4	6.500	.1	11.500	.1	16.500	.1
2.000	3.5	7.000	.1	12.000	.1	17.000	.1
2.500	.4	7.500	.1	12.500	.1	17.500	.1
3.000	.1	8.000	.1	13.000	.1	18.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1
4.000	.0	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1
						20.000	.1
						20.500	.1
						21.000	.1
						21.500	.1
						22.000	.1
						22.500	.1
						23.000	.0
						23.500	.0
						24.000	.0
						24.500	.0

RUNOFF VOLUME = 1.59951 INCHES
PEAK DISCHARGE RATE = 14.39 CFS AT 1.500 HOURS BASIN AREA = .0073 SQ. MI.

*S *****SUB-BASIN 504-G*****

COMPUTE NM HYD ID=7 HYD NO=504G AREA=0.0013 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 5.2628 CFS UNIT VOLUME = .9971 B = 526.28
AREA = .001300 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 1.3400
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=7 CODE=1

HYDROGRAPH FROM AREA 504G

RUNOFF VOLUME = 1.59950 INCHES
PEAK DISCHARGE RATE = 2.57 CFS AT 1.500 HOURS BASIN AREA = .0013 SQ. MI.

*S COMBINE BASINS THAT DRAIN TO DI #1

ADD HYD ID=8 HYD NO=DPLUSE ID=4 IDII=6
ADD HYD ID=9 HYD NO=DPLUSE ID=5 IDII=8
PRINT HYD ID=9 CODE=10

HYDROGRAPH FROM AREA DPLUSE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.2	15.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.1
1.000	.0	6.000	.2	11.000	.1	16.000	.1
1.500	27.0	6.500	.2	11.500	.1	16.500	.1
2.000	6.6	7.000	.2	12.000	.1	17.000	.1
2.500	.7	7.500	.2	12.500	.1	17.500	.1
3.000	.2	8.000	.2	13.000	.1	18.000	.1
3.500	.1	8.500	.2	13.500	.1	18.500	.1
4.000	.1	9.000	.2	14.000	.1	19.000	.1
4.500	.1	9.500	.2	14.500	.1	19.500	.1
						20.000	.1
						20.500	.1
						21.000	.1
						21.500	.1
						22.000	.1
						22.500	.1
						23.000	.1
						23.500	.1
						24.000	.1
						24.500	.1

RUNOFF VOLUME = 1.59944 INCHES
PEAK DISCHARGE RATE = 27.01 CFS AT 1.500 HOURS BASIN AREA = .0137 SQ. MI.

*S CHECK WATER LEVELS FOR PONDING AREAS

* DI #1

ROUTE RESERVOIR	ID=10 HYD NO=POND.DII	INFLOW ID=9 CODE=5	ELEV (FT)
	OUTFLOW (CFS)	STORAGE (AC-FT)	100.00
	0.001	0.00	100.00
	0.68665	0.001	100.1
	1.26146	0.0155	100.15
	1.94215	0.0453	100.2
	2.71425		
	3.56797	0.0941	100.25
	4.49616	0.16674835	100.3
	5.49325	0.26798842	100.35
	6.55478	0.402578159	100.4
	7.67705	0.575281807	100.45
	8.85694	0.790863603	100.5
	10.0700	1.054087784	100.55
	10.8769	1.369718589	100.6
	11.6279	1.774678867	100.7
	13.0004	2.313037826	100.8
	18.3853	3.094372951	101.00
	22.5174	5.476492236	102.00
		11.67000238	103.00

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	1.55	100.10	.002	.73
1.50	27.01	100.34	.490	4.33
1.75	10.52	100.43	.250	6.03
2.00	6.56	100.44	.534	6.30
2.25	1.68	100.42	.487	6.01
2.50	.73	100.40	.392	5.41
2.75	.36	100.36	.298	4.72
3.00	.19	100.32	.213	4.00
3.25	.13	100.28	.141	3.27
3.50	.10	100.24	.083	2.55
3.75	.09	100.19	.040	1.83
4.00	.09	100.14	.012	1.11
4.25	.10	100.01	.000	.08
4.50	.11	100.02	.000	.10
4.75	.12	100.02	.000	.11
5.00	.14	100.02	.000	.12
5.25	.16	100.02	.000	.14
5.50	.18	100.02	.000	.15
5.75	.20	100.03	.000	.18
6.00	.19	100.03	.000	.20
6.25	.19	100.03	.000	.20
6.50	.19	100.03	.000	.19
6.75	.19	100.03	.000	.19
7.00	.18	100.03	.000	.19
7.25	.18	100.03	.000	.18
7.50	.17	100.03	.000	.18
7.75	.17	100.02	.000	.17
8.00	.17	100.02	.000	.17
8.25	.16	100.02	.000	.17
8.50	.16	100.02	.000	.17
8.75	.16	100.02	.000	.17
9.00	.16	100.02	.000	.17
9.25	.16	100.02	.000	.16
9.50	.15	100.02	.000	.16
9.75	.15	100.02	.000	.16
10.00	.15	100.02	.000	.16
10.25	.15	100.02	.000	.15
10.50	.15	100.02	.000	.15
10.75	.15	100.02	.000	.15
11.00	.15	100.02	.000	.15
11.25	.14	100.02	.000	.14

11.50 .14 100.02 .000 .15
11.75 .14 100.02 .000 .14
12.00 .14 100.02 .000 .14
12.25 .14 100.02 .000 .14
12.50 .14 100.02 .000 .14
12.75 .13 100.02 .000 .13
13.00 .13 100.02 .000 .13
13.25 .13 100.02 .000 .13
13.50 .13 100.02 .000 .13
14.00 .13 100.02 .000 .13
14.25 .12 100.02 .000 .12
14.50 .12 100.02 .000 .12
15.00 .12 100.02 .000 .12
15.25 .12 100.02 .000 .12
15.50 .12 100.02 .000 .12
16.00 .12 100.02 .000 .12
16.25 .11 100.02 .000 .11
16.50 .11 100.02 .000 .11
16.75 .11 100.02 .000 .11
17.00 .11 100.02 .000 .11
17.25 .11 100.02 .000 .11
17.50 .11 100.02 .000 .11
18.00 .11 100.02 .000 .11
18.25 .10 100.02 .000 .10
18.50 .10 100.02 .000 .10
19.00 .11 100.02 .000 .11
19.25 .11 100.02 .000 .11
19.50 .10 100.02 .000 .10
19.75 .10 100.02 .000 .10
20.00 .10 100.02 .000 .10
20.25 .10 100.02 .000 .10
20.50 .10 100.02 .000 .10
20.75 .10 100.02 .000 .10
21.00 .10 100.02 .000 .10
21.25 .10 100.02 .000 .10
21.50 .10 100.02 .000 .10
21.75 .09 100.01 .000 .09
22.00 .10 100.01 .000 .10
22.25 .09 100.01 .000 .09
22.50 .09 100.01 .000 .09
22.75 .09 100.01 .000 .09
23.00 .09 100.01 .000 .09
23.25 .09 100.01 .000 .09
23.50 .09 100.01 .000 .09
24.00 .09 100.01 .000 .09
24.25 .01 100.00 .000 .01
24.50 .00 100.00 .000 .00
PEAK DISCHARGE = 6.303 CFS - PEAK OCCURS AT HOUR 2.00
MAXIMUM WATER SURFACE ELEVATION = 100.438
MAXIMUM STORAGE = .5343 AC-FT INCREMENTAL TIME= .050000HRS

PRINT HYD

ID=10 CODE=10

HYDROGRAPH FROM AREA POND.D11

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	6.000	.2	12.000	.1	18.000	.1
.500	.0	6.500	.2	12.500	.1	18.500	.1
1.000	.0	7.000	.2	13.000	.1	19.000	.1
1.500	4.3	7.500	.2	13.500	.1	19.500	.1
2.000	6.3	8.000	.2	14.000	.1	20.000	.1
2.500	5.4	8.500	.2	14.500	.1	20.500	.1
3.000	4.0	9.000	.2	15.000	.1	21.000	.1
3.500	2.5	9.500	.2	15.500	.1	21.500	.1
4.000	1.1	10.000	.2	16.000	.1	22.000	.1
4.500	.1	10.500	.2	16.500	.1	22.500	.1
5.000	.1	11.000	.1	17.000	.1	23.000	.1
5.500	.2	11.500	.1	17.500	.1	23.500	.1

RUNOFF VOLUME = 1.60017 INCHES = 1.1692 ACRE-FEET
PEAK DISCHARGE RATE = 6.30 CFS AT 2.000 HOURS BASIN AREA = .0137 SQ. MI.

* DI #2

ROUTE RESERVOIR ID=11 HYD NO=POND.D12 INFLOW ID=1 CODE=5
OUTFLOW (CFS) STORAGE (AC-FT) ELEV (FT)

	0	100.00	100.1
0.686556971	0		
1.261469406	0.01171967	100.15	100.1
1.942159203	0.034257496	100.2	
2.71425	0.07121953	100.25	
3.567974284	0.126211826		100.3
4.496161474	0.202840435		100.35
5.493255769	0.304711409		100.4
6.554787309	0.4354308	100.45	
7.677058323	0.598604661	100.5	
8.856943367	0.797839043	100.55	
10.07009513	1.03674	100.6	
10.87694589	1.343254435	100.7	
11.62794427	1.75073833	100.8	
13.00043692	2.342130887	101.00	
18.3853942	4.145156973	102.00	
22.51741726	8.833024799	103.00	

* * * * *
TIME INFLOW ELEV VOLUME OUTFLOW
(HRS) (CFS) (FEET) (AC-FT) (CFS)
.00 .00 100.00 .000 .00

PEAK DISCHARGE = 3.759 CFS - PEAK OCCURS AT HOUR 1.80
MAXIMUM WATER SURFACE ELEVATION = 100.310
MAXIMUM STORAGE = .1420 AC-FT INCREMENTAL TIME=.050000HRS
PRINT HYD ID=11 CODE=10

HYDROGRAPH FROM AREA POND.D12

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

.000	.0	5.000	.0	10.000	.0	15.000	.0	20.000
.500	.0	6.000	.0	11.000	.0	16.000	.0	21.000
1.000	2.9	6.500	.0	11.500	.0	16.500	.0	21.500
1.500	3.6	7.000	.0	12.000	.0	17.000	.0	22.000
2.000	2.2	7.500	.0	12.500	.0	17.500	.0	22.500
2.500	.0	8.000	.0	13.000	.0	18.000	.0	23.000
3.000	.0	8.500	.0	13.500	.0	18.500	.0	23.500
3.500	.0	9.000	.0	14.000	.0	19.000	.0	24.000
4.000	.0	9.500	.0	14.500	.0	19.500	.0	24.500
4.500	.0							

RUNOFF VOLUME = 1.60235 INCHES
PEAK DISCHARGE RATE = 3.76 CFS AT 1.800 HOURS BASIN AREA = .0052 SQ. MI.

* DI #3

ROUTE RESERVOIR	ID=12	HYD NO=POND.DI3	INFLOW ID=2	CODE=5	
	OUTFLOW (CFS)	STORAGE (AC-FT)	ELEV (FT)		100.00
	0	0			
	0.686656971		0		100.1
	1.261469406		0.0239		100.15
	1.942159203		0.0699		100.2
	2.71425		0.1453		100.25
	3.567974284		0.2576		100.3
	4.496161474		0.4140		100.35
	5.493255769		0.6219		100.4
	6.554787309		0.8886		100.45
	7.677058323		1.2216		100.5
	8.856943367		1.6282		100.55
	10.07009513		2.1158		100.6
	10.87694589		2.7413		100.7
	11.62794427		3.5729		100.8
	13.00043692		4.7799		101.00
	18.3853942		8.4595		102.00
	22.51741726		18.0266		103.00

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	.52	100.08	.000	.52
1.50	9.07	100.20	.075	2.00
1.75	3.53	100.25	.143	2.69
2.00	2.20	100.23	.118	2.44
2.25	.57	100.21	.080	2.04
2.50	.12	100.17	.046	1.59
2.75	.06	100.14	.019	1.15
3.00	.04	100.10	.001	.72
3.25	.03	100.00	.000	.00
3.50	.03	100.01	.000	.06
3.75	.03	100.00	.000	.00
4.00	.04	100.01	.000	.07
4.25	.03	100.00	.000	.01
4.50	.03	100.00	.000	.06
4.75	.04	100.01	.000	.00
5.00	.05	100.00	.000	.02
5.25	.05	100.01	.000	.08
5.50	.05	100.00	.000	.02
5.75	.05	100.01	.000	.09
6.00	.07	100.01	.000	.04
6.25	.06	100.01	.000	.10
6.50	.06	100.01	.000	.03
6.75	.06	100.01	.000	.09
7.00	.06	100.00	.000	.03
7.25	.06	100.01	.000	.03
7.50	.06	100.00	.000	.09
7.75	.06	100.01	.000	.03
8.00	.06	100.00	.000	.09
8.25	.06	100.01	.000	.03
8.50	.06	100.00	.000	.09
8.75	.06	100.01	.000	.03
9.00	.06	100.00	.000	.08
9.25	.05	100.01	.000	.03
9.50	.05	100.00	.000	.08
9.75	.05	100.01	.000	.02
10.00	.05	100.00	.000	.08
10.25	.05	100.01	.000	.02
10.50	.05	100.00	.000	.08
10.75	.05	100.01	.000	.02
11.00	.05	100.00	.000	.08
11.25	.05	100.01	.000	.02
11.50	.05	100.00	.000	.08
11.75	.05	100.01	.000	.02
12.00	.05	100.00	.000	.08
12.25	.05	100.01	.000	.02
12.50	.05	100.00	.000	.08
12.75	.05	100.01	.000	.02
13.00	.04	100.00	.000	.07
13.25	.04	100.01	.000	.02
13.50	.04	100.00	.000	.07
13.75	.04	100.01	.000	.01
14.00	.04	100.00	.000	.07
14.25	.04	100.01	.000	.01
14.50	.04	100.00	.000	.07
14.75	.04	100.01	.000	.01
15.00	.04	100.00	.000	.07
15.25	.04	100.01	.000	.01
15.50	.04	100.00	.000	.07
15.75	.04	100.01	.000	.01
16.00	.04	100.00	.000	.07
16.25	.04	100.01	.000	.01

16.50 .04 100.00 .000 .01
16.75 .04 100.01 .000 .07
17.00 .04 100.00 .000 .01
17.25 .04 100.01 .000 .07
17.50 .04 100.00 .000 .01
17.75 .04 100.01 .000 .07
18.00 .04 100.00 .000 .01
18.25 .04 100.01 .000 .07
18.50 .03 100.00 .000 .06
18.75 .04 100.01 .000 .06
19.00 .04 100.00 .000 .01
19.25 .04 100.01 .000 .06
19.50 .03 100.00 .000 .01
19.75 .03 100.01 .000 .06
20.00 .03 100.00 .000 .06
20.25 .03 100.01 .000 .06
20.50 .03 100.00 .000 .06
20.75 .03 100.01 .000 .06
21.00 .03 100.00 .000 .06
21.25 .03 100.01 .000 .06
21.50 .03 100.00 .000 .06
21.75 .03 100.01 .000 .06
22.00 .03 100.00 .000 .06
22.25 .03 100.01 .000 .06
22.50 .03 100.00 .000 .06
22.75 .03 100.01 .000 .06
23.00 .03 100.00 .000 .06
23.25 .03 100.01 .000 .06
23.50 .03 100.00 .000 .06
23.75 .03 100.01 .000 .06
24.00 .03 100.00 .000 .06
PEAK DISCHARGE = 2.729 CFS - PEAK OCCURS AT HOUR 1.90
MAXIMUM WATER SURFACE ELEVATION = 100.251
MAXIMUM STORAGE = .1473 AC-FT INCREMENTAL TIME = .050000HRS

PRINT HYD ID=12 CODE=10

HYDROGRAPH FROM AREA POND.DI3

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	2.0	6.500	.0	11.500	.0	16.500	.0
2.000	2.0	7.000	.0	12.000	.0	17.000	.0
2.500	2.7	7.500	.0	12.500	.0	17.500	.0
3.000	1.1	8.000	.0	13.000	.0	18.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59976 INCHES .3925 ACRE-FEET
PEAK DISCHARGE RATE = 2.73 CFS AT 1.900 HOURS BASIN AREA = .0046 SQ. MI.

* DI #4

ROUTE RESERVOIR ID=13 HYD NO=POND.DI4 INFLOW ID=3 CODE=5
OUTFLOW (CFS) 0 STORAGE (AC-FT) 0 ELEV (FT) 0

0.68656971	0	100.1
1.261469406	0.292991739	100.15
1.942159203	0.856437391	100.2
2.71425	1.780488261	100.25
3.567974284	3.155295652	100.3
4.496161474	5.071010869	100.35
5.493255769	7.617785217	100.4
6.554787309	10.88577	100.45
7.677058323	14.96511652	100.5
8.856943367	19.94597608	100.55
10.07009513	25.9185	100.6
10.87694589	33.58136087	100.7
11.62794427	43.76845826	100.8
13.00043692	58.55327217	101.0
18.3853942	103.6289243	102.0
22.51741726	220.82562	103.0

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.25	.00	.00	.000	.00
.50	.00	.00	.000	.00
.75	.00	.00	.000	.00
1.00	.00	.00	.000	.00
1.25	.27	39.70	.000	.27
1.50	4.73	100.11	.038	.76
1.75	1.84	100.11	.083	.85
2.00	1.15	100.12	.095	.87
2.25	.30	100.12	.092	.87
2.50	.13	100.11	.078	.84
2.75	.06	100.11	.063	.81
3.00	.03	100.11	.047	.78
3.25	.02	100.11	.032	.75
3.50	.02	100.10	.017	.72
4.00	.02	100.10	.003	.69
4.25	.02	4.44	.000	.03
4.50	.02	4.15	.000	.00
4.75	.02	4.72	.000	.03
5.00	.02	5.33	.000	.04
5.25	.02	1.35	.000	.01
5.50	.03	6.18	.000	.04

5.75 .03 2.38 .000 .02
6.00 .03 2.28 .000 .05
6.25 .03 2.90 .000 .02
6.50 .03 7.04 .000 .02
6.75 .03 2.65 .000 .05
7.00 .03 6.95 .000 .02
7.25 .03 2.46 .000 .05
7.50 .03 6.85 .000 .02
7.75 .03 2.34 .000 .05
8.00 .03 6.59 .000 .02
8.25 .03 6.54 .000 .01
8.50 .03 2.18 .000 .04
8.75 .03 6.42 .000 .01
9.00 .03 1.96 .000 .04
9.25 .03 6.26 .000 .04
9.50 .03 1.76 .000 .04
9.75 .03 6.12 .000 .01
10.00 .03 1.76 .000 .04
10.25 .03 1.76 .000 .01
10.50 .03 6.03 .000 .04
10.75 .03 1.65 .000 .01
11.00 .03 5.91 .000 .04
11.25 .03 1.47 .000 .01
11.50 .03 5.88 .000 .04
11.75 .02 1.43 .000 .01
12.00 .02 5.67 .000 .04
12.25 .02 1.29 .000 .01
12.50 .02 5.69 .000 .04
12.75 .02 1.24 .000 .01
13.00 .02 5.61 .000 .04
13.25 .02 1.19 .000 .01
13.50 .02 5.53 .000 .04
13.75 .02 1.12 .000 .01
14.00 .02 5.50 .000 .04
14.25 .02 5.98 .000 .01
14.50 .02 5.35 .000 .04
14.75 .02 5.35 .000 .01
15.00 .02 5.97 .000 .04
15.25 .02 5.35 .000 .01
15.50 .02 5.21 .000 .04
15.75 .02 5.86 .000 .01
16.00 .02 5.17 .000 .04
16.25 .02 5.13 .000 .01
16.50 .02 5.74 .000 .04
16.75 .02 5.70 .000 .00
17.00 .02 5.01 .000 .00
17.25 .02 5.68 .000 .03
17.50 .02 4.99 .000 .03
17.75 .02 4.66 .000 .03
18.00 .02 4.91 .000 .00
18.25 .02 4.65 .000 .00
18.50 .02 4.79 .000 .03
18.75 .02 5.1 .000 .03
19.00 .02 4.88 .000 .00
19.25 .02 4.49 .000 .03
19.50 .02 4.84 .000 .00
19.75 .02 4.37 .000 .00
20.00 .02 4.79 .000 .03
20.25 .02 4.35 .000 .00
20.50 .02 4.69 .000 .03
20.75 .02 4.38 .000 .00
21.00 .02 4.65 .000 .03
21.25 .02 4.28 .000 .00
21.50 .02 4.64 .000 .03
21.75 .02 4.23 .000 .00
22.00 .02 4.62 .000 .03
22.25 .02 4.22 .000 .00
22.50 .02 4.50 .000 .03
22.75 .02 4.11 .000 .00
23.00 .02 4.53 .000 .03
23.25 .02 4.09 .000 .00
23.50 .02 4.47 .000 .03
23.75 .02 4.07 .000 .00
24.00 .02 4.45 .000 .03
24.25 .00 4.00 .000 .00

PEAK DISCHARGE = .876 CFS - PEAK OCCURS AT HOUR 2.10
MAXIMUM WATER SURFACE ELEVATION = 100.116
MAXIMUM STORAGE = .0964 AC-FT INCREMENTAL TIME = .050000HRS

PRINT HYD ID=13 CODE=10

HYDROGRAPH FROM AREA POND.D14

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	.8	6.500	.0	11.500	.0	16.500	.0
2.000	.9	7.000	.0	12.000	.0	17.000	.0
2.500	.8	7.500	.0	12.500	.0	17.500	.0
3.000	.8	8.000	.0	13.000	.0	18.000	.0
3.500	.7	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.60835 INCHES .2059 ACRE-FEET
PEAK DISCHARGE RATE = .88 CFS AT 2.100 HOURS BASIN AREA = .0024 SQ. MI.

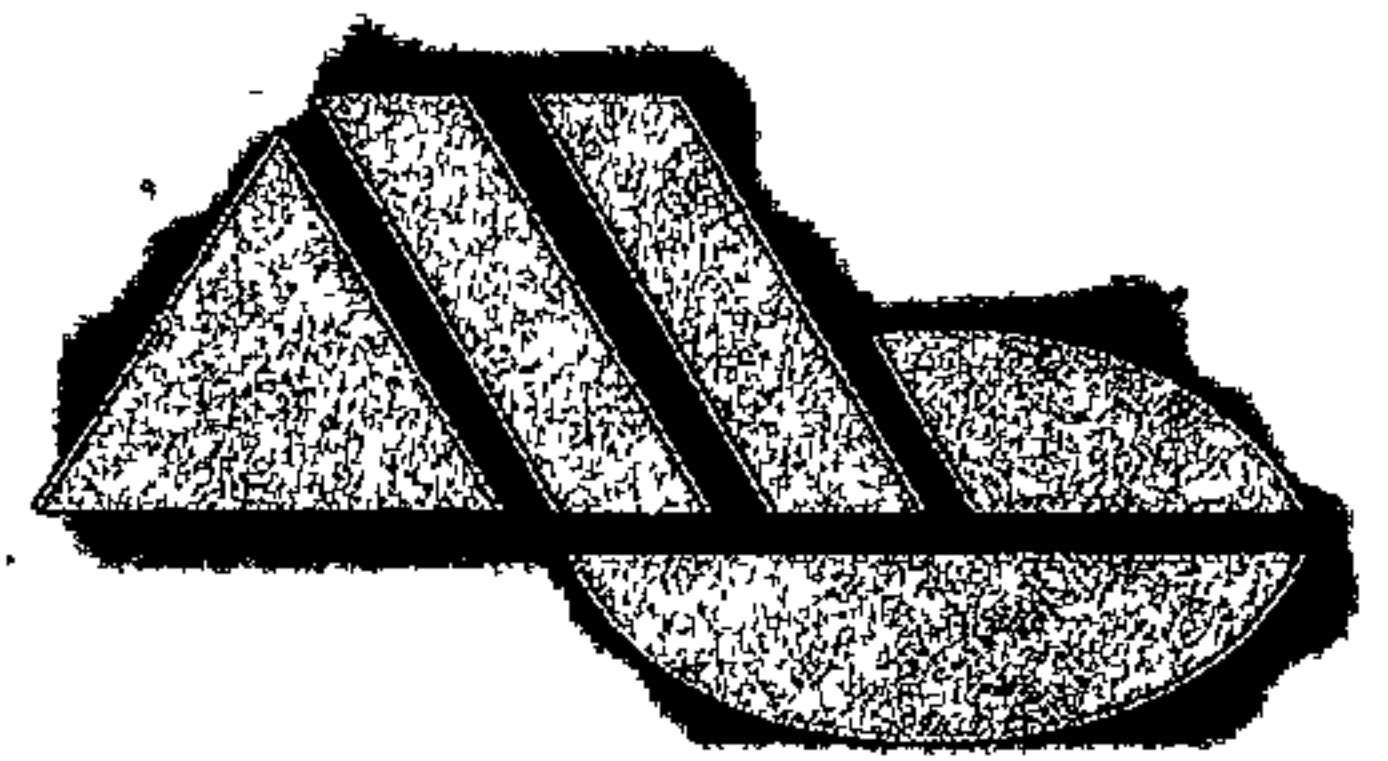
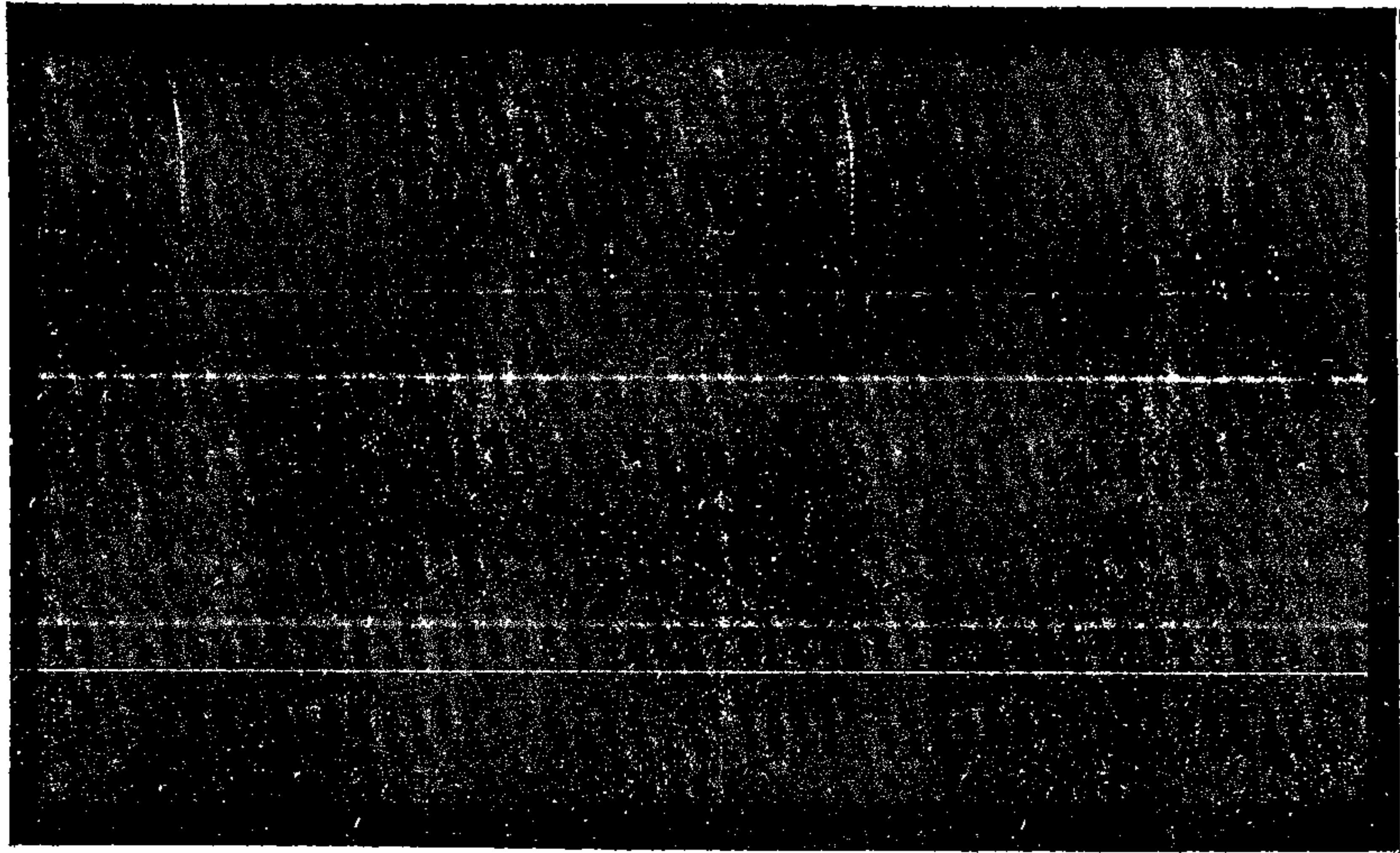
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NORMAL PROGRAM FINISH

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ALBUQUERQUE
505-242-5700

LAS CRUCES
505-522-0049



MOLZEN-CORBIN

& Associates

ENGINEERS/ARCHITECTS/PLANNERS

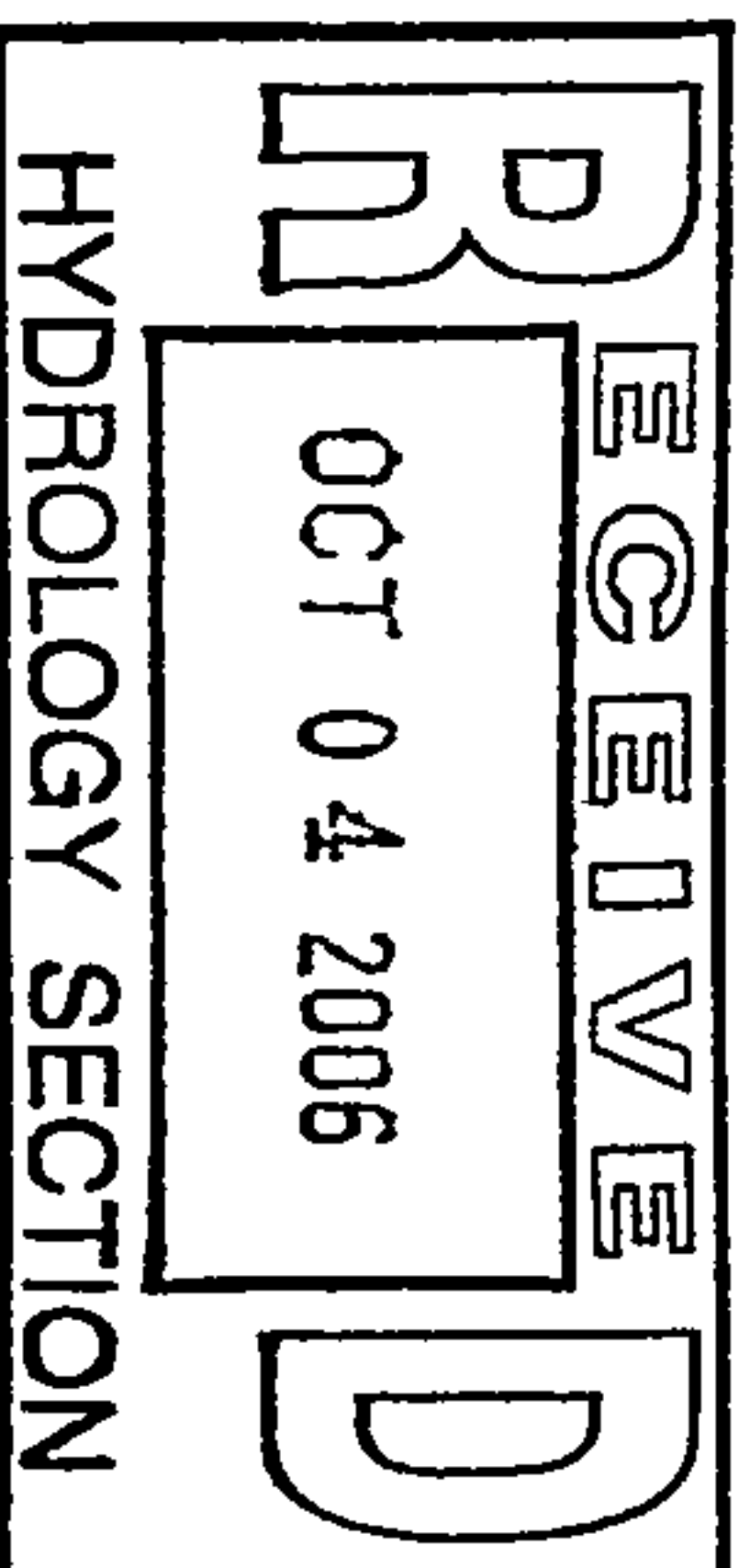
Terminal Apron
Reconstruction & Optimization

DRAINAGE REPORT

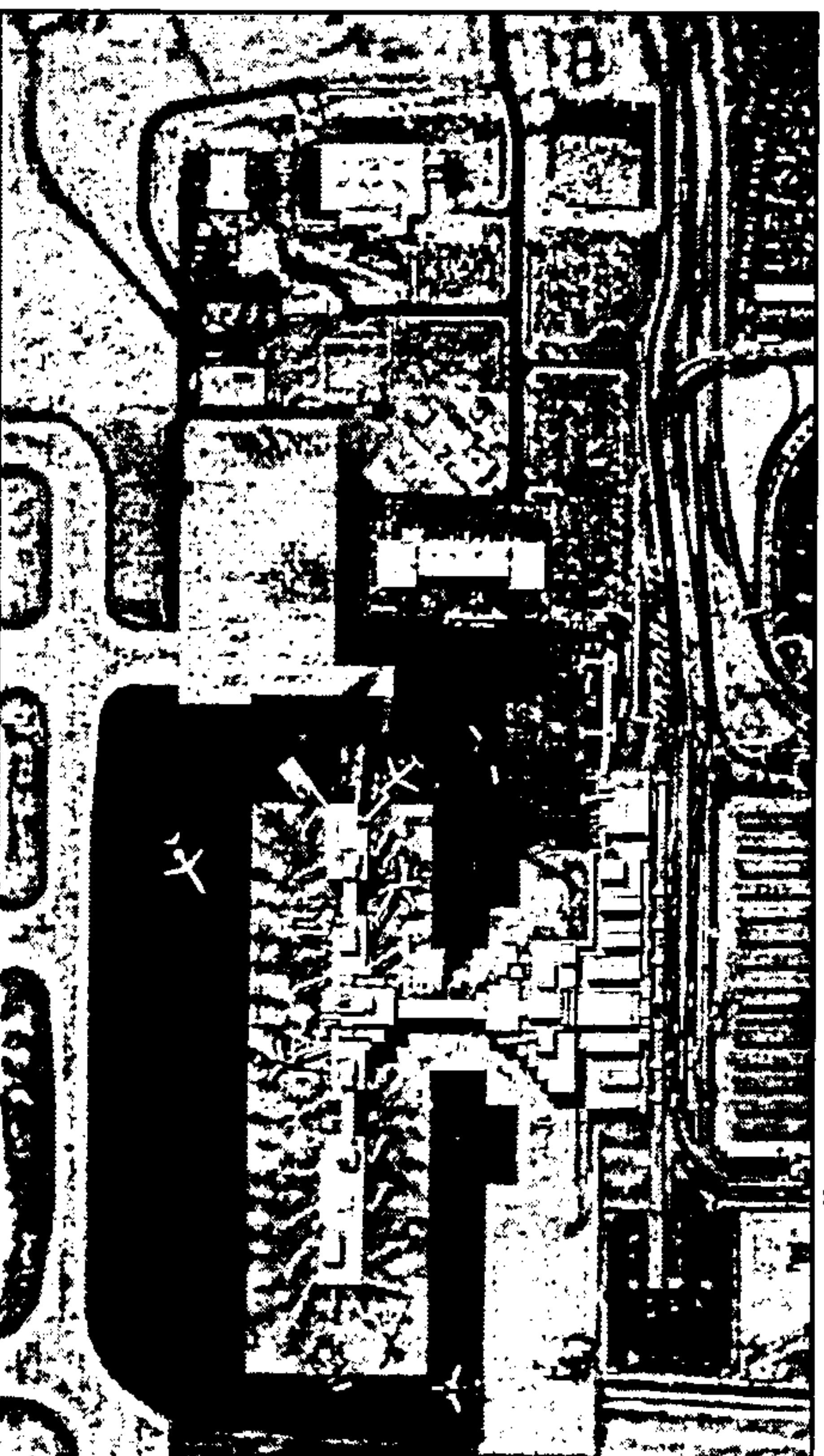
Project No. 725920/15/16

Albuquerque International Airport

May, 2006

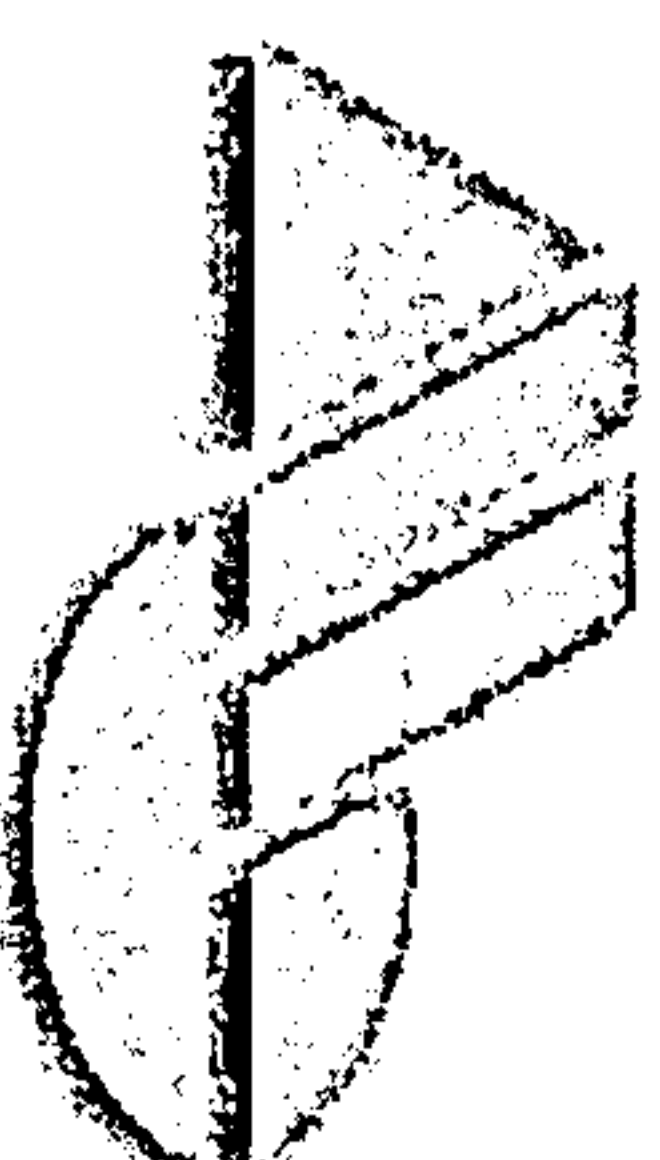


Prepared for: Albuquerque International Airport



Prepared by:

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ALBUQUERQUE, NM 87106
TEL: 505.242-5700
FAX: 505.242-0673



MOLZEN-CORBIN

& Associates

ENGINEERS/ARCHITECTS/PLANNERS

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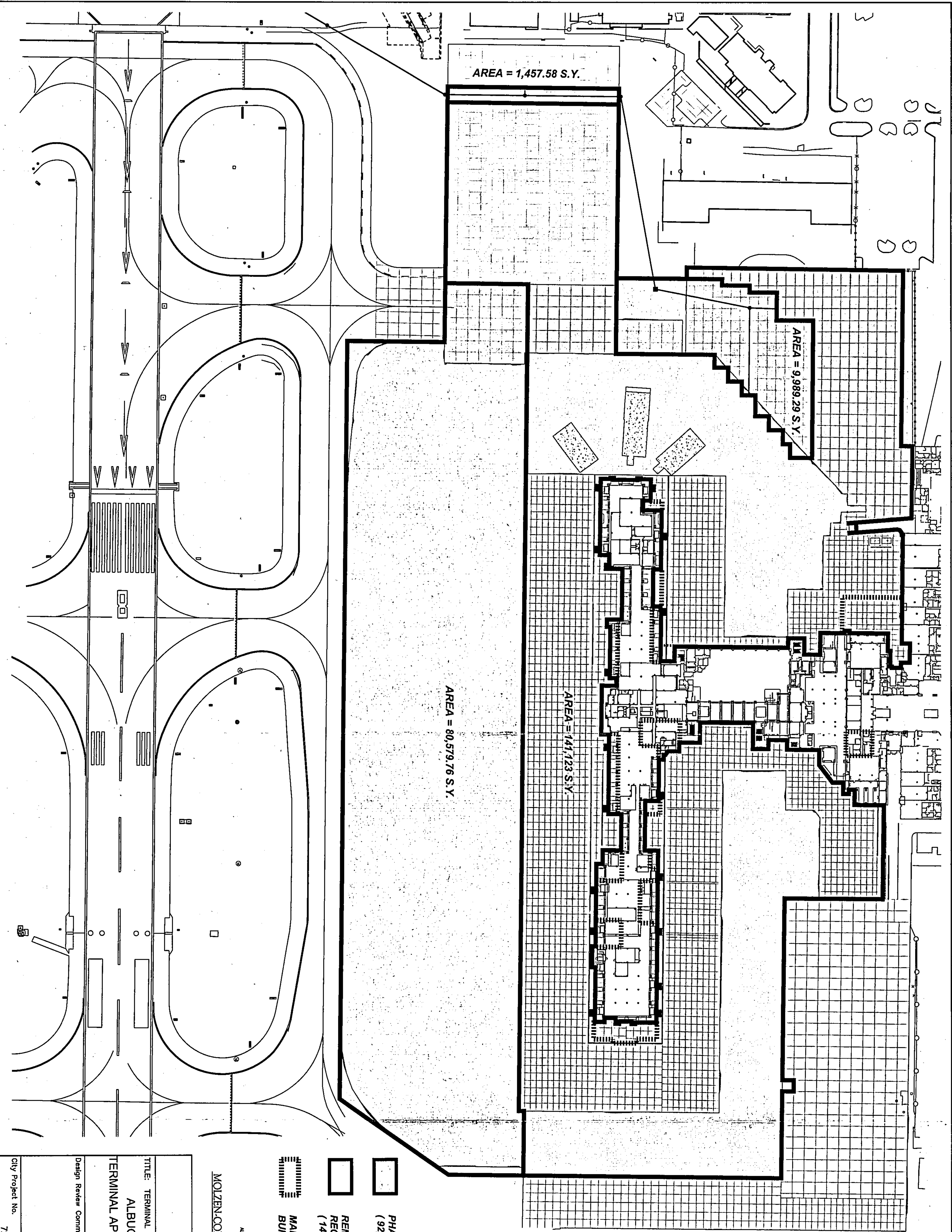
Introduction	2
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East Terminal Reconstruction	5
Proposed Condition	6
West Terminal Reconstruction	6
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INTRODUCTION

The purpose of this report is to evaluate the surface water runoff on the apron surrounding the Terminal Building located at the Albuquerque International Sunport. The reconstruction of the terminal apron will occur in two or more phases as shown on Figure 1. Phase 1 will include approximately 92,026 sy of apron replacement with a majority of the project located on the south side of the terminal between Taxiway A and the terminal, in addition to two smaller sections located on the west side of the terminal between the Air Freight Building and the Terminal Building. Additionally, the Terminal Optimization Project will increase the Terminal Building footprint by approximately 20,540 sf (total with increase of 232,550 sf). There will be no change in the land treatment percentages resulting from the building additions since the existing ground is already paved. The new roofs will be drained through pipes to the existing storm drains and to the new storm drains installed in the apron reconstruction project. The future flow will continue draining to their respective basin outlets.

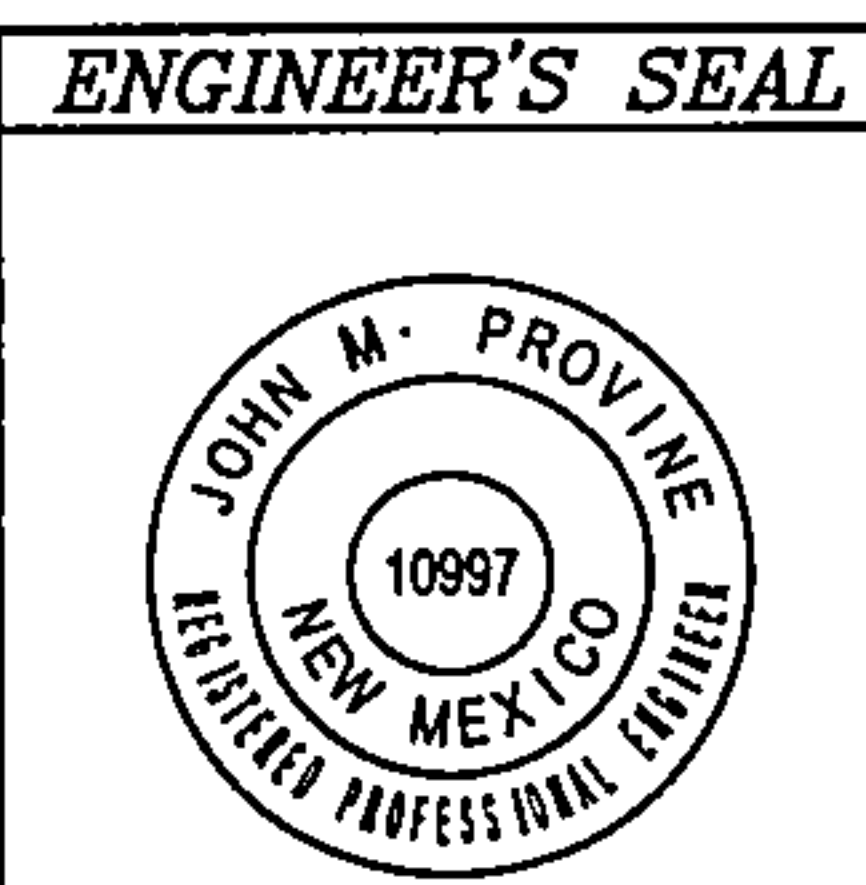
The existing storm drainage around the Terminal Building is comprised of two different systems. The first provides drainage for the east side of the terminal, and the other system drains the west side of the terminal. This report is therefore divided into two areas labeled "West Terminal Construction" and "East Terminal Construction" to help better define the operation of both systems. The only added runoff to the system will occur on the west side of the terminal once the proposed Belly Freight Building is constructed and the existing Air Freight Building is demolished. When constructed, the roof of the new belly freight building will drain into west system as well as the area where the air freight building is located. Future plans include the extension of the terminal apron to encompass the area of the air freight building.

Throughout this report, reference is be made to the Albuquerque International Airport Storm Drainage Master Plan (the Master Plan), prepared in 1995 by Molzen-Corbin & Associates for the Aviation Department of the City of Albuquerque. The scope of this report is in part defined by the Master Plan.



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: TERMINAL APRON RECONSTRUCTION PHASE I ALBUQUERQUE INTERNATIONAL SUNPORT TERMINAL APRON RECONSTRUCTION DRAINAGE REPORT FIGURE 1	
Design Review Committee	City Engineer Approval
City Project No. 725920	Zone Map No. M-16
Sheet	Of

MOUZEN CORBIN & ASSOCIATES 2701 HILLS RD. SE ALBUQUERQUE, NEW MEXICO 87106 TEL: 328-2400 FAX: 328-2400 ENGINEERS/ARCHITECTS/PLANNERS	
MAIN TERMINAL BUILDING IMPROVEMENTS	
REMAINING TERMINAL APRON RECONSTRUCTION PHASES (141,123 S.Y.)	
PHASE I AREA (92,026 S.Y.)	
NO. DATE REMARKS BY	
DESIGNED BY DATE	
DRAWN BY DATE	
CHECKED BY DATE	

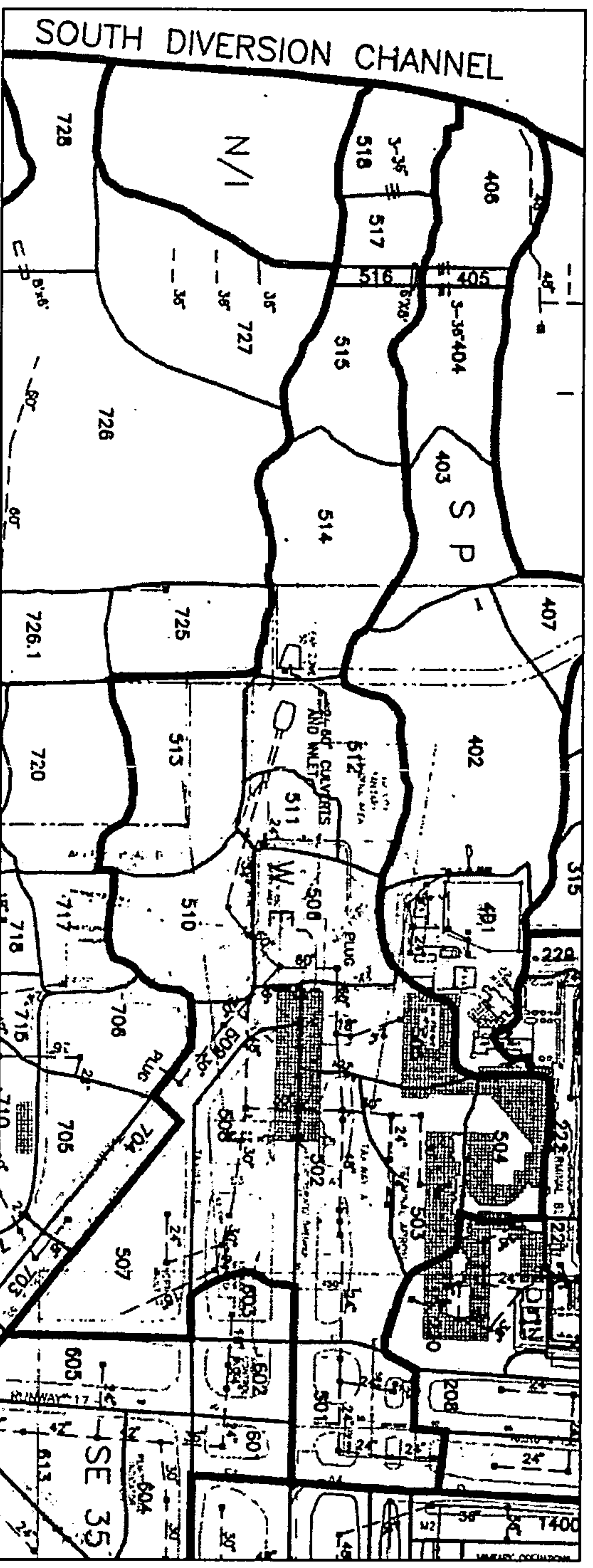


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							MICRO-FILM INFORMATION	
							RECORDED BY DATE	
							NO.	

EXISTING CONDITIONS

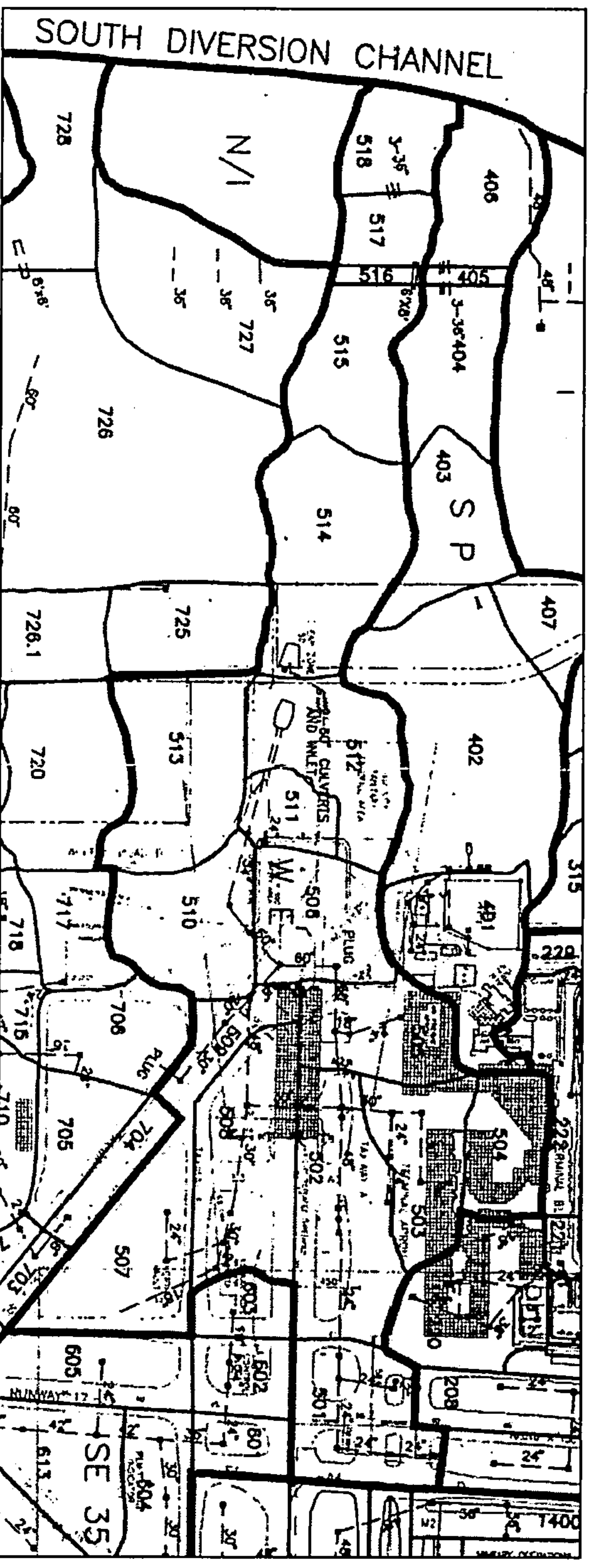
West Terminal Reconstruction

Currently, sub-basin 504, located within basin WE between concourse C and B has ponding problems during a normal storm event. Storm water runoff flows from the north end of sub-basin 504, in a southerly direction, through a shallow swale which splits flows between an inlet with a 24-inch drain in sub-basin 505 and an inlet with a 30-inch drain in sub-basin 503. The relatively flat grade and resulting shallow depth of the swale do not allow for adequate drainage in this area. However, basins 503 and 505 are adequately draining to the inlets and storm drain lines mentioned above. Runoff in these basins are collected and drain into a 60-inch diameter line flowing west through basin WE and discharging into a storm water detention facility located at the northeast corner of University Boulevard and Access Road B, then draining into a 60-inch diameter pipe under University Boulevard before discharging into a storm drain downstream. Flows are then conveyed through the natural arroyo to a 8-foot x 6-foot Concrete Box Culvert under I-25. Flows from the WE Basin eventually discharge to AMAFCA's South Diversion Channel, as stated the Albuquerque International Sunport Rent-A-Car Facility Drainage Report.



East Terminal Reconstruction

Sub-basin 220, located at the south end of basin N17, includes the east side of the Terminal, as shown below and in Figure 2. The existing storm drainage system that collects basin N17 is not a part of the pipe network that serves basin WE. Runoff from sub-basin 220 is collected in a series of inlets located on the southeast and northeast side of the Terminal Building with drain lines ranging from 18 to 36 inches in diameter. Drainage is then conveyed through the Yale Boulevard storm sewer system and eventually discharged into the Kirtland Channel. As stated in the Master Plan, problems with storm sewer flows surfacing have been experienced just north of the parking structure near the commercial development. During the construction of the terminal expansion project a restrictor plate was installed in the storm sewer system in sub-basin 220 northeast of the terminal building. This was done in an attempt to alleviate the surfacing problem mentioned above, but it has caused upstream ponding problems during medium intensity storms, which affect the aircraft parking ramp south of the Terminal.



PROPOSED CONDITIONS

West Terminal Reconstruction

Under proposed conditions for the west side of the terminal building a new storm drain system will be constructed to alleviate the ponding problems in sub-basin 504. The new drain line will connect to the bottom of an existing drop inlet (DI 1-3) which drains into a 60-inch diameter line located west of Taxiway A1. This new system will ultimately consist of approximately 1,415-feet of 42" diameter RCP, 560-feet of 36" diameter RCP, 206-feet of 30" diameter RCP, and 811-feet of 24" diameter RCP. This will allow sub-basin 504 to be broken up into six smaller sub-basins labeled 504-A through 504-F, as shown in Figure 3. Drop inlets will be constructed to collect runoff from each of the smaller sub-basins.

The total area of sub-basin 504 has been extended to the west due to the demolition of the Air Freight Building and the extension of the apron. Also collected within this basin is the runoff from the roof of the proposed Belly Freight Building located west of the Air Freight Apron, labeled sub-basin 504-G. The total area collected by the new system is approximately 2.5 acres (see Figure 3).

Although the southern portion of the Terminal Apron will be reconstructed, in the first phase of this project, grading of the new surface will match the existing conditions. Furthermore, basins 503 and 220 will continue to drain as described in the Master Plan., since all existing inlets will not be removed or relocated.

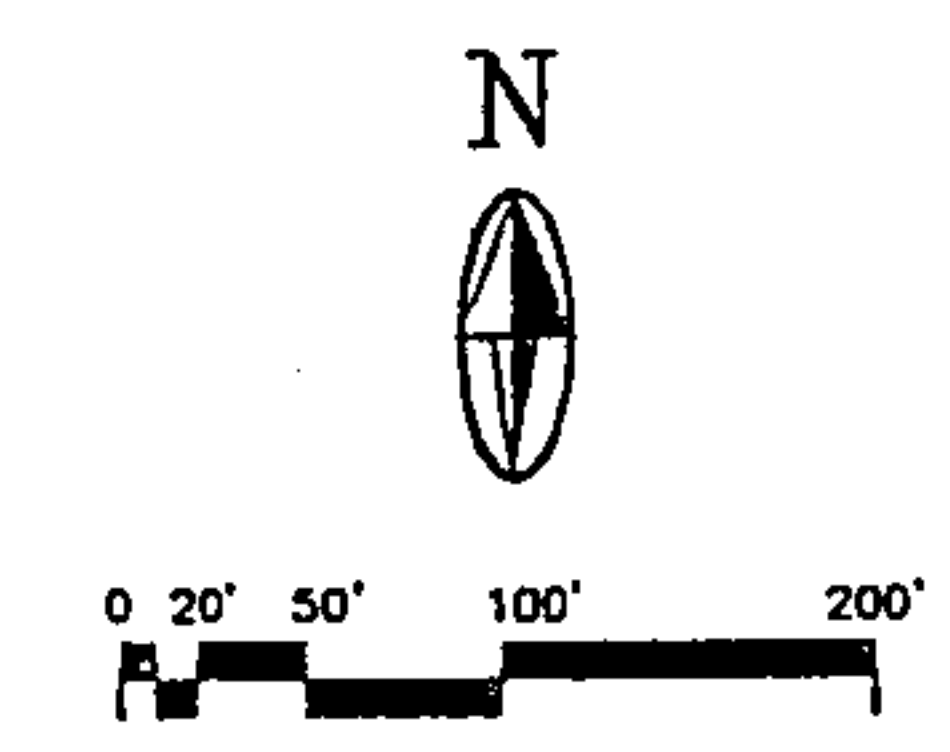
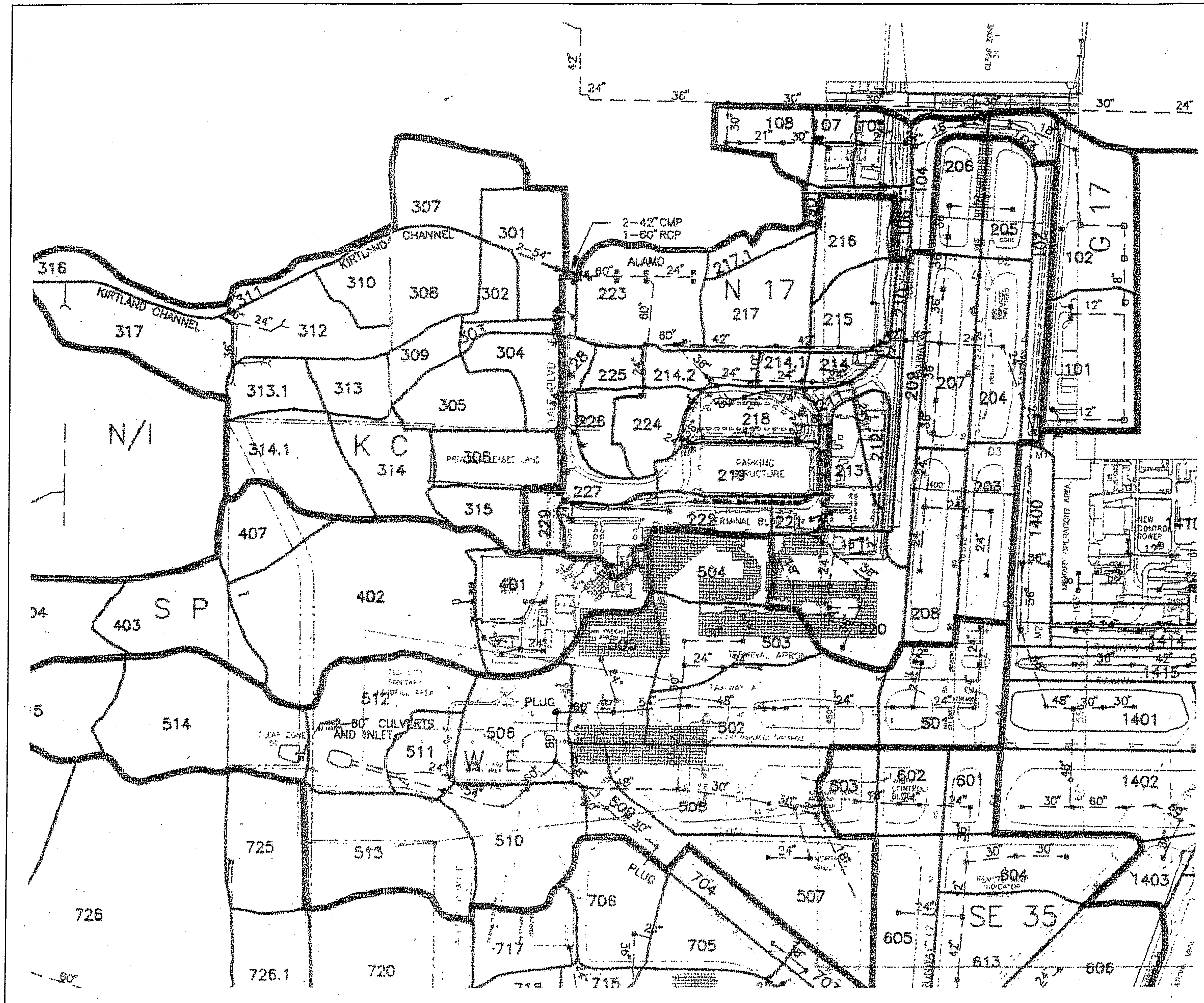
East Terminal Reconstruction

The East Terminal will be improved in a future phase. The apron will be reconstructed, but the existing storm drain and inlet layout will be maintained, or replaced with similar structures that do not impact the way that Basin 220 drains. The general grading plan will also be consistent with current conditions.

IMPACT TO EXISTING SYSTEM (100 year, 24 hour event)

As described in the Existing Conditions above, Basin 504 currently discharges 66.47 cfs through swale and surface flow towards the inlets within Basins 503 and 504.

The proposed improvements increase the area of Basin WE by approximately 2.5 acres, (the apron extension towards the Air Freight Building, and rooftop drainage of the proposed Belly Freight building), but the total discharge will now be controlled by the proposed drainage inlet grates, which decrease the flow just upstream of DI 1-3 to 17.8 cfs. These are described further in the Hydrology and Hydraulics sections below.



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MOLZEN-CORBIN & Associates
ENGINEERS/ARCHITECTS/PLANNERS

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: ALBUQUERQUE INTERNATIONAL SUNPORT - B CONCOURSE TAXILANE ALBUQUERQUE INTERNATIONAL SUNPORT TERMINAL APRON RECONSTRUCTION DRAINAGE REPORT FIGURE 2			
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
	E-6		01

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HYDROLOGY – Basin 504

The drainage system is designed to manage the 100-year storm event, as further described in Section II – Criteria of the AIADMP. Precipitation depths correspond to Zone 2 values, per the City of Albuquerque Development Process Manual, Section 22.2, Hydrology.

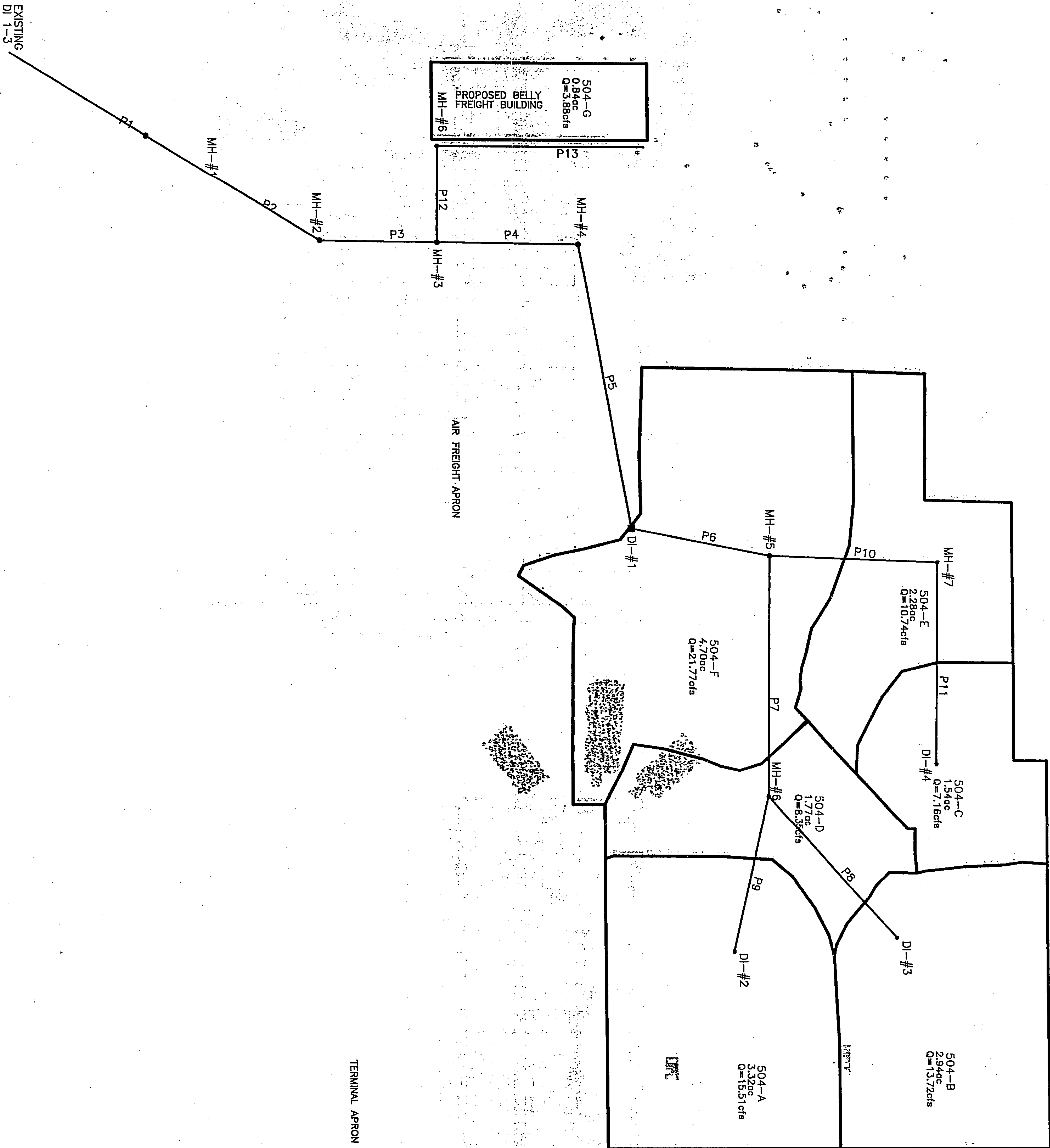
Table 1 summarizes the parameters for each sub-basin of the West Terminal.

Sub-basin	Area (ac)	Area (mi ²)	Land Treatments, %			
			A	B	C	D
504-A	3.32	0.0052	0	0	0	100
504-B	2.94	0.0046	0	0	0	100
504-C	1.54	0.0024	0	0	0	100
504-D	1.77	0.0028	0	0	0	100
504-E	2.28	0.0036	0	0	0	100
504-F	4.70	0.0073	0	0	0	100
504-G	0.84	0.0013	0	0	0	100

Table 1. Sub-basin Parameters

The system was analyzed with AHYMO_97 software, and the input/output printout is included in the Appendix.

Flows that affect the proposed system were obtained from the AIADMP and incorporated in the Hydraulics Section below.



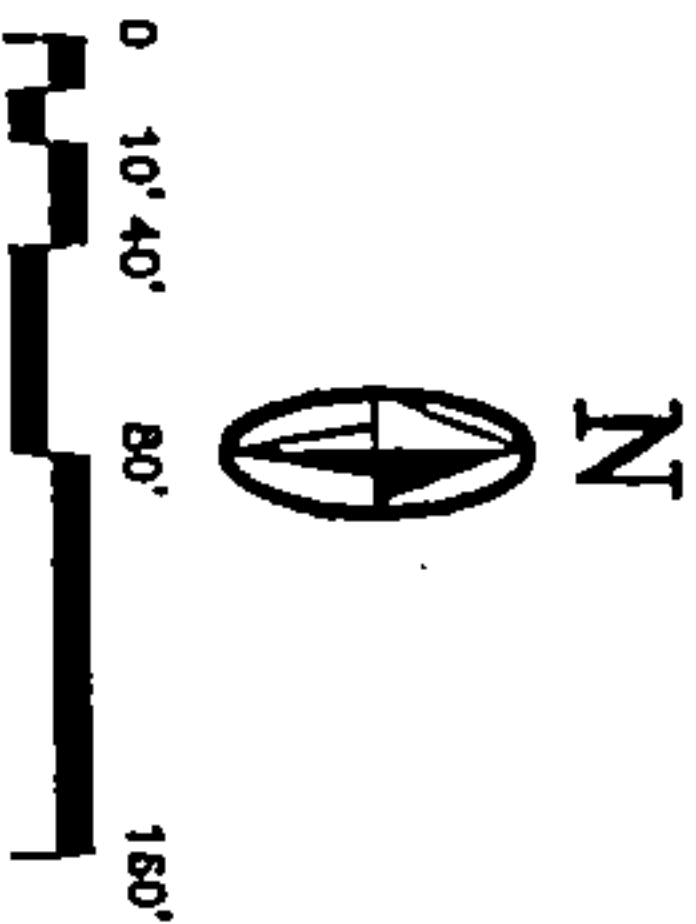
LEGEND	
	BASIN BOUNDARY
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN INLET

PIPE DATA	
PIPE	LENGTH(ft)
P1	240
P2	300
P3	110
P4	210
P5	430
P6	210
P7	360
P8	280
P9	240
P10	250
P11	300
P12	150

SLOPE	
PIPE	SLOPE(%)
P1	0.80
P2	0.80
P3	0.80
P4	0.80
P5	0.80
P6	0.80
P7	0.95
P8	0.45
P9	0.40
P10	0.65
P11	0.71
P12	0.43

DIAMETER	
PIPE	DIAM(in)
P1	42
P2	42
P3	42
P4	42
P5	42
P6	36
P7	36
P8	30
P9	30
P10	30
P11	24
P12	18

AS BUILT INFORMATION	
CONTRACTOR	DATE
WORK STAKED BY	DATE
SURVEYOR'S ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWING CORRECTION BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	



2011 LANSING
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ASSOCIATES
ENGINEERS/ARCHITECTS/PLANNERS

CITY OF ALBUQUERQUE	
PUBLIC WORKS DEPARTMENT	
ENGINEERING DEVELOPMENT GROUP	
TITLE: ALBUQUERQUE INTERNATIONAL SUPPORT - TERMINAL PROJECT 1 / PHASE 1	
FIGURE 3	
BASIN MAP	
(100 YEAR; 24 HR STORM)	
Design Review Committee	City Engineer Approval
Last Design Update	
Mo./Day/Yr.	Mo./Day/Yr.

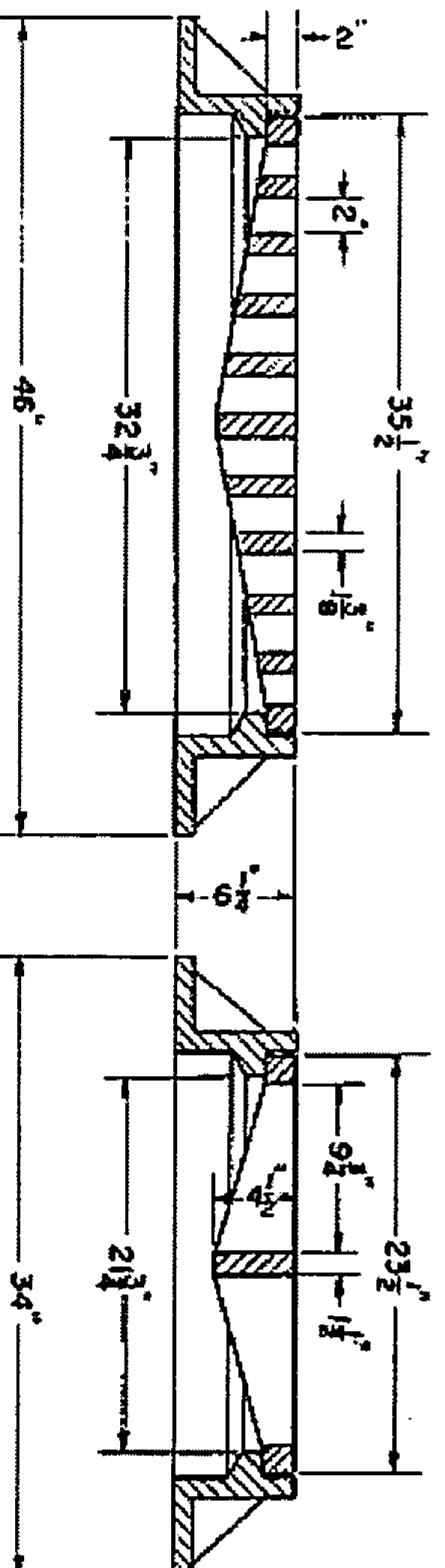
City Project No.	Zone Map No.	Sheet	Of
E-6			

HYDRAULICS

Inlet Calculations

Inlets are located in low points, and thus operate under sump conditions.

Typical terminal apron grate dimensions:



Inlet	Grate, in x in	100 YEAR 24 HR STORM			10 YEAR 24 HOUR STORM		
		Max pond depth, ft	Max radius, ft	Time, hr	Max pond depth, ft	Max radius, ft	Time, hr
DI #1	46 X 34	0.50	60	3.75	0.44	51	1.25
DI #2	46 X 34	0.37	37	1.5	0.31	31	1.5
DI #3	46 X 34	0.30	43	2.0	0.25	36	1.5
DI #4	46 X 34	0	0	0	0	0	0

Table 2. Sump conditions

Although the maximum pond depth for the drainage inlet within the Taxiway (DI #1) exceeds the recommended 0.4 ft during the 100-yr, 24-hour storm, this only occurs for approximately 1.5 hours.

Equations

Orifice Capacity, $Q_o = C_o A (2gh)^{1/2}$ where, Orifice flow coefficient, $C_o = 0.6$ Available area, $A = 2.7 \text{ S.F.}$ Gravity, $g = 32.2 \text{ ft/s}^2$ Max allowable head, $h = \text{varies}^*$	Weir Capacity, $Q_w = C_w P h^{1.5}$ where, Weir Coefficient, $C_w = 3$ Grate perimeter, $P = 9.8 \text{ ft}$ Max allowable head, $h = \text{varies}^*$ * See Appendix for performance curve
---	---

PIPE CALCULATIONS

Curve Plotted Curves for Circular Channel

Project Description

Project File	i:\bplw\bpl042-13 terminal apron reconstruction\dwgs\drainage\drainage report\lar dral.fm2
Worksheet	RCP P1 through P5
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

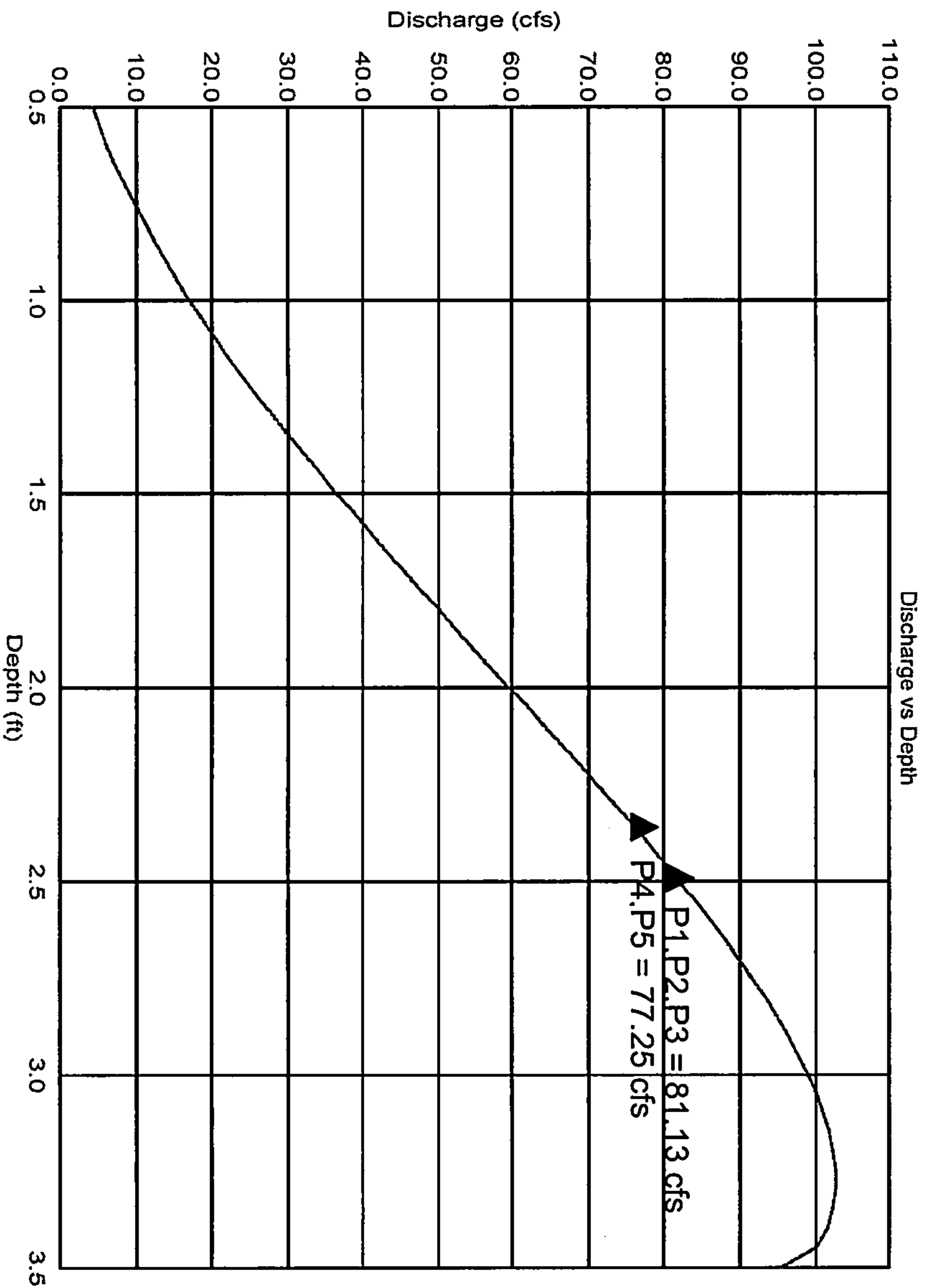
Constant Data

Mannings Coefficient	0.013
Channel Slope	0.009000 ft/ft
Diameter	42.00 in

▲ REQUIRED

Input Data

	Minimum	Maximum	Increment
Depth	0.50	3.50	0.05 ft



05/17/06
09:22:34 AM

Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 755-1666

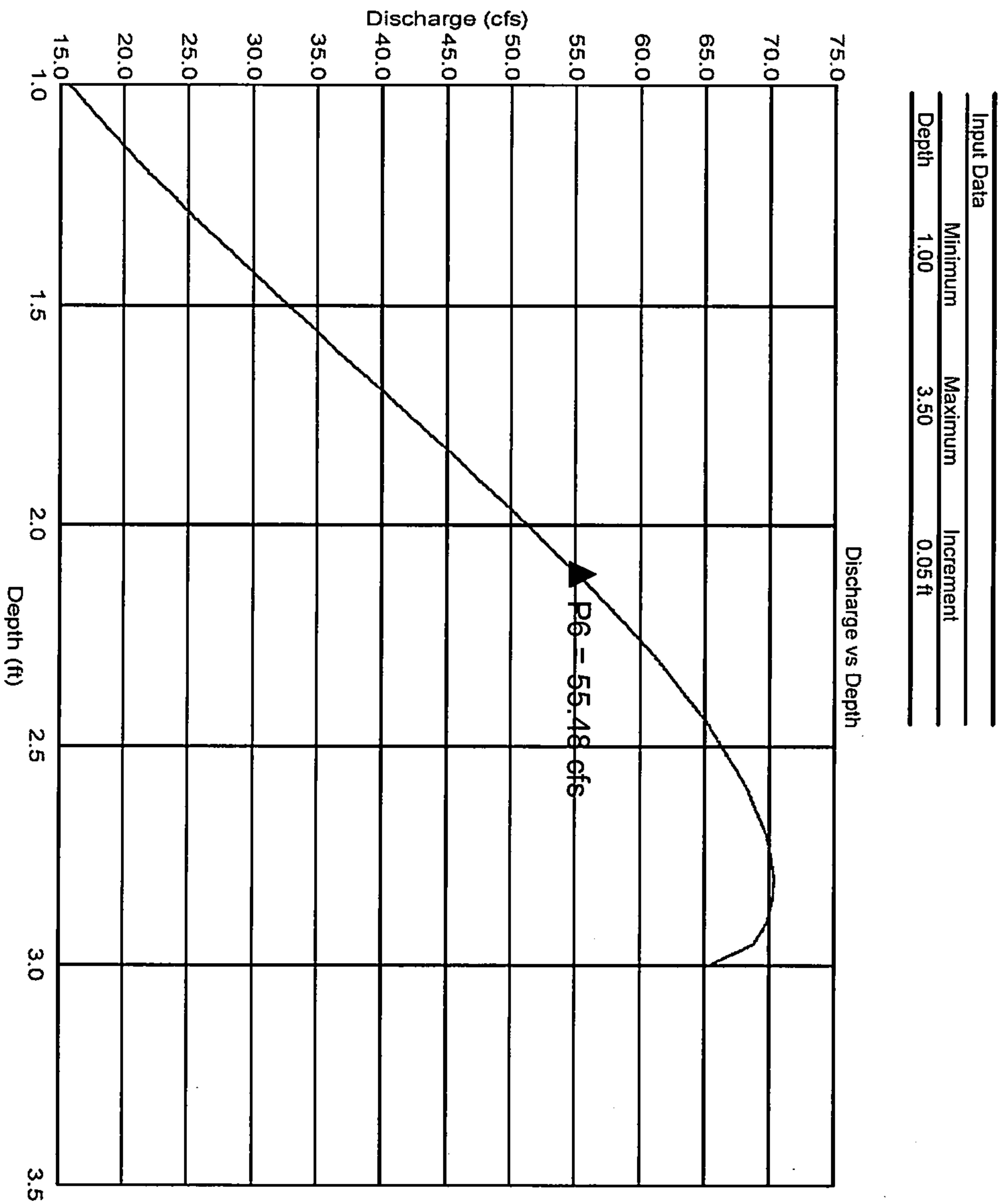
FlowMaster v5.12
Page 1 of 1

Curve Plotted Curves for Circular Channel

Project Description	
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Worksheet	RCP P6
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.009600 ft/ft
Diameter	36.00 in

▲ REQUIRED



05/17/06
09:27:49 AM

Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 755-1666

FlowMaster v5.12
Page 1 of 1

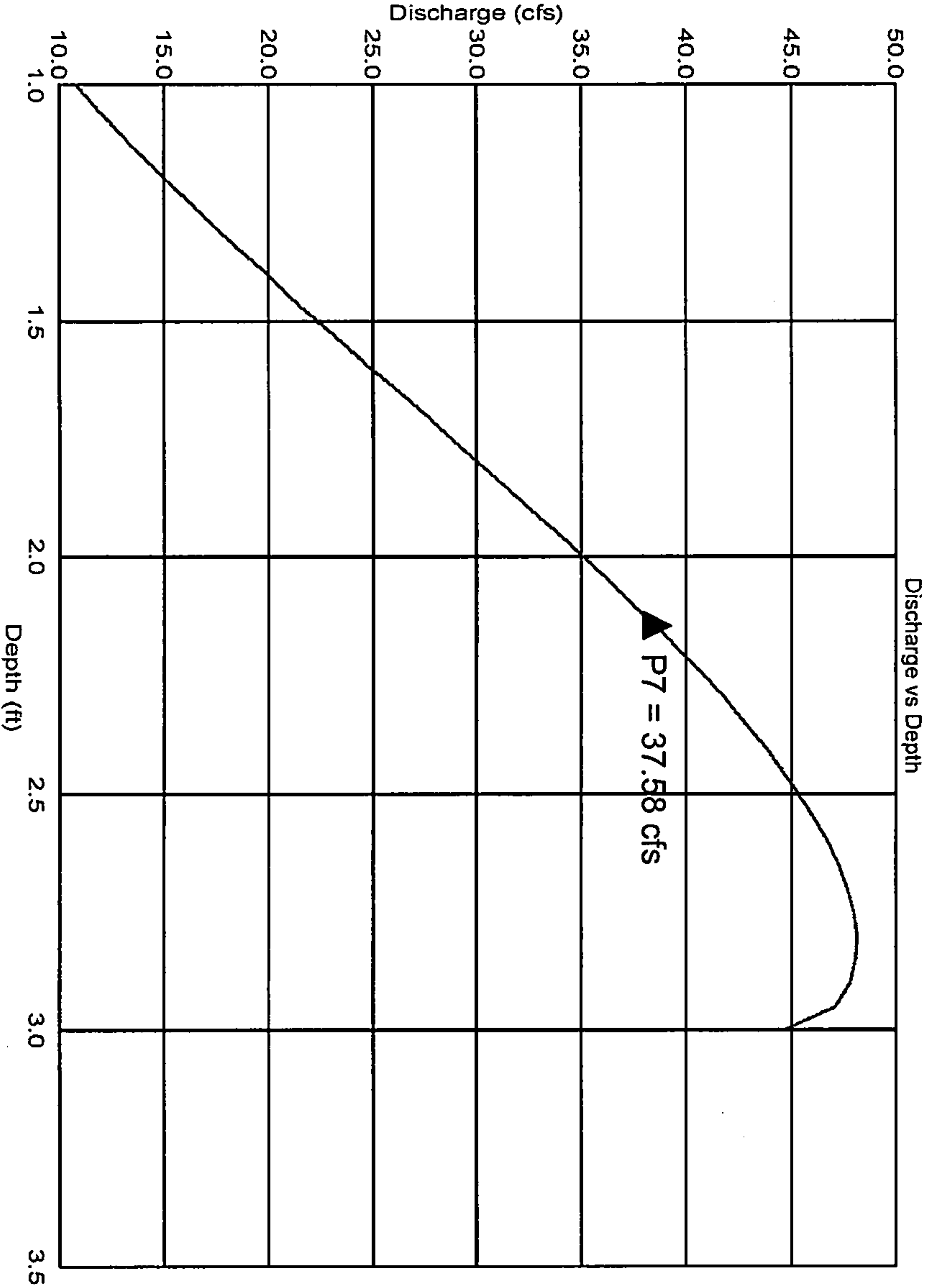
Curve Plotted Curves for Circular Channel

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Worksheet	P7
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.004500 ft/ft
Diameter	36.00 in

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	3.50	0.05 ft

▲ REQUIRED



05/17/06
09:29:21 AM

Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 755-1666

FlowMaster v5.12
Page 1 of 1

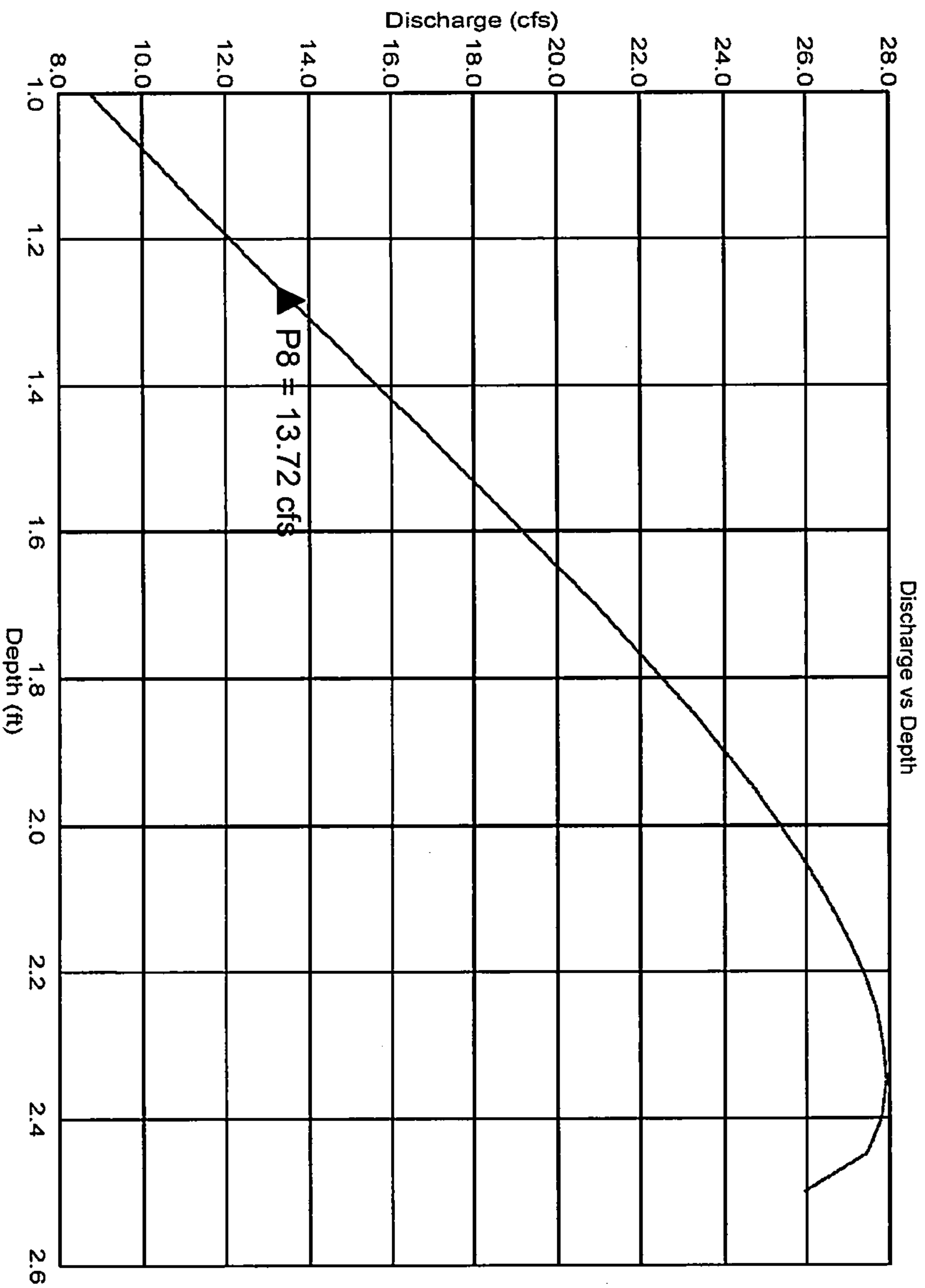
Curve Plotted Curves for Circular Channel

Project Description	
Project File	i:\bplw\bp1042-13 terminal apron reconstruction\dwgs\drainage\drainage report\lar drai.frm2
Worksheet	P8
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.004000 ft/ft
Diameter	30.00 in

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	3.00	0.05 ft

▲ REQUIRED



05/17/06
09:30:42 AM

Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 755-1666

FlowMaster v5.12
Page 1 of 1

Curve
Plotted Curves for Circular Channel

Project Description

Project File	i:\bplw\bpl042-13 terminal apron reconstruction\dwgs\drainage\report\lar drai.fm2
Worksheet	RCP P9
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

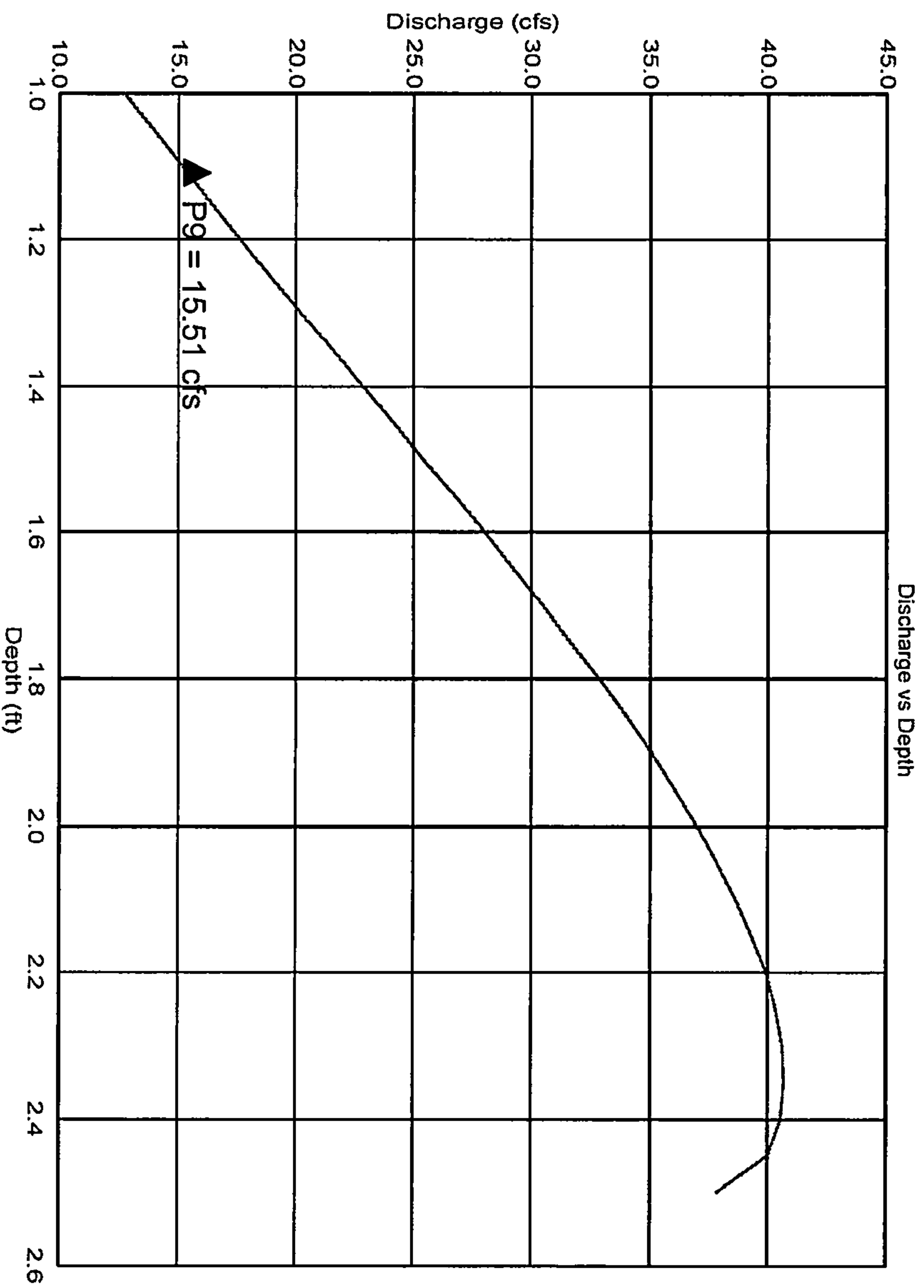
Constant Data

Mannings Coefficient	0.013
Channel Slope	0.008500 ft/ft
Diameter	30.00 in

Input Data

Minimum	Maximum	Increment
Depth 1.00	3.00	0.05 ft

▲ REQUIRED



05/17/06
09:31:48 AM

Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 755-1666

FlowMaster v5.12
Page 1 of 1

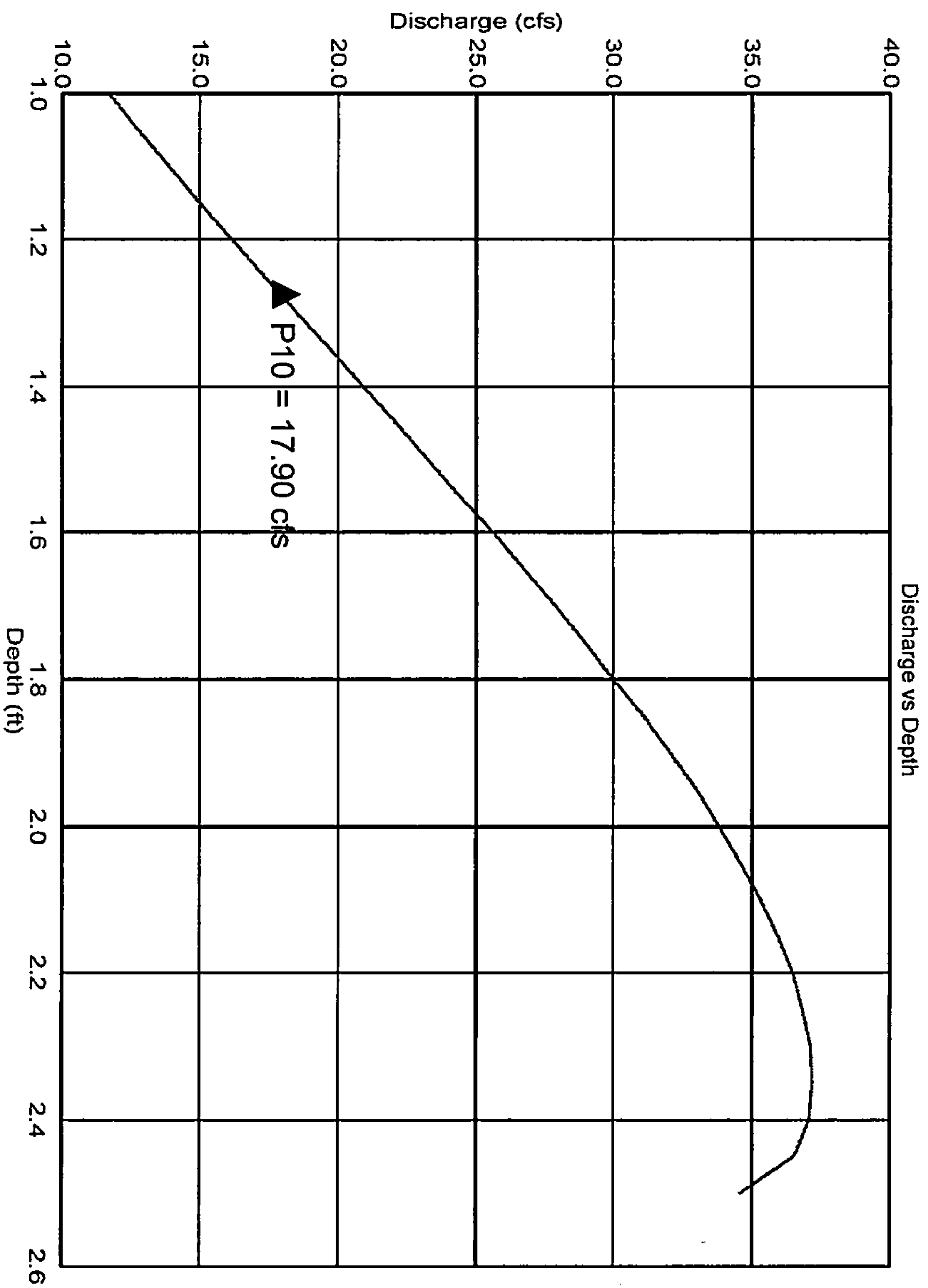
Curve Plotted Curves for Circular Channel

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Worksheet	P10
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.013
Channel Slope	0.007100 ft/ft
Diameter	30.00 in

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	3.00	0.05 ft

▲ REQUIRED



05/17/06
09:32:56 AM

Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 755-1666

FlowMaster v5.12
Page 1 of 1

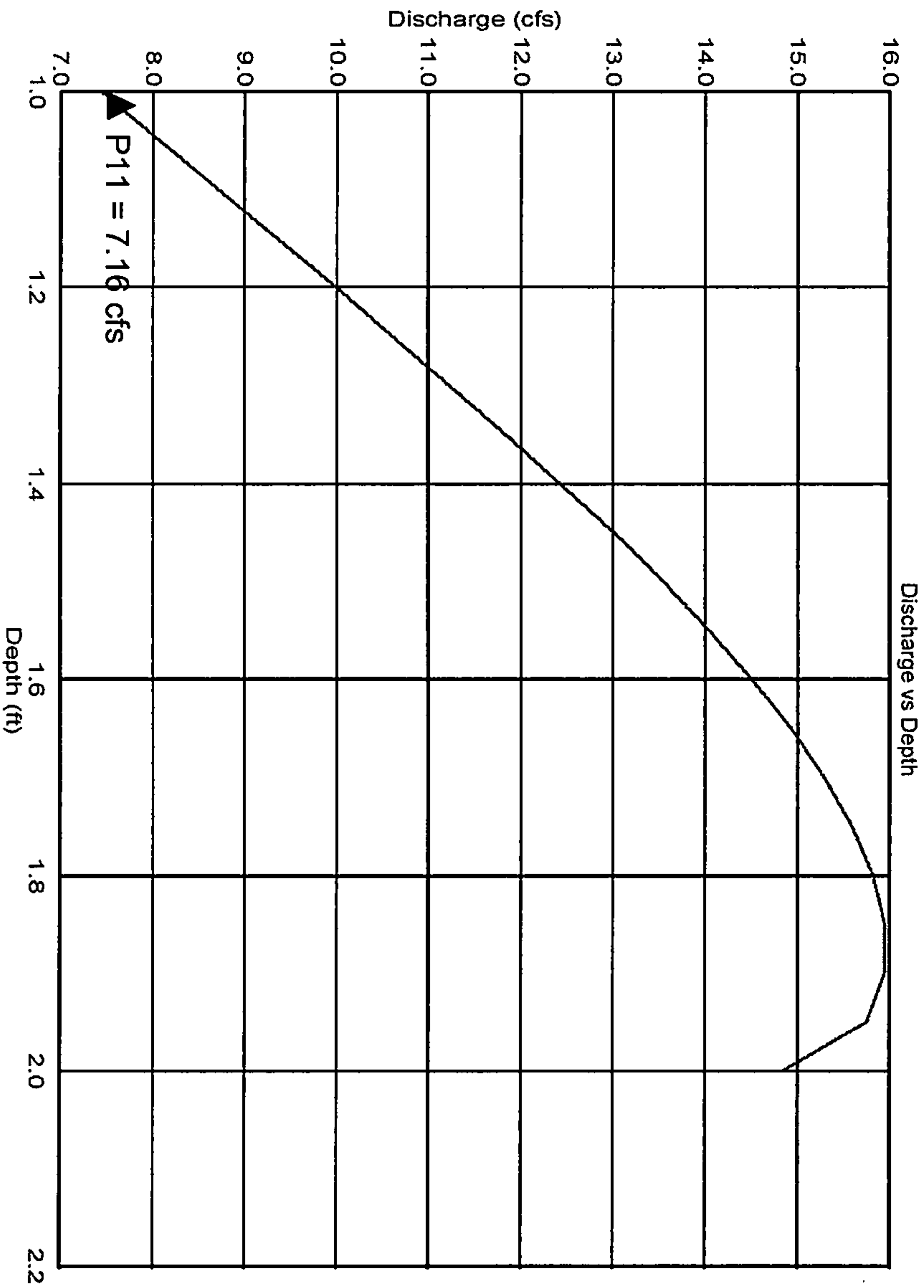
Curve Plotted Curves for Circular Channel

Project Description		
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Worksheet	P11	
Flow Element	Circular Channel	
Method	Manning's Formula	
Solve For	Discharge	

Constant Data		
Mannings Coefficient	0.013	
Channel Slope	0.004300 ft/ft	
Diameter	24.00	in

Input Data			
	Minimum	Maximum	Increment
Depth	1.00	2.50	0.05 ft

▲ REQUIRED



Curve
Plotted Curves for Circular Channel

Project Description

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Worksheet	P12
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

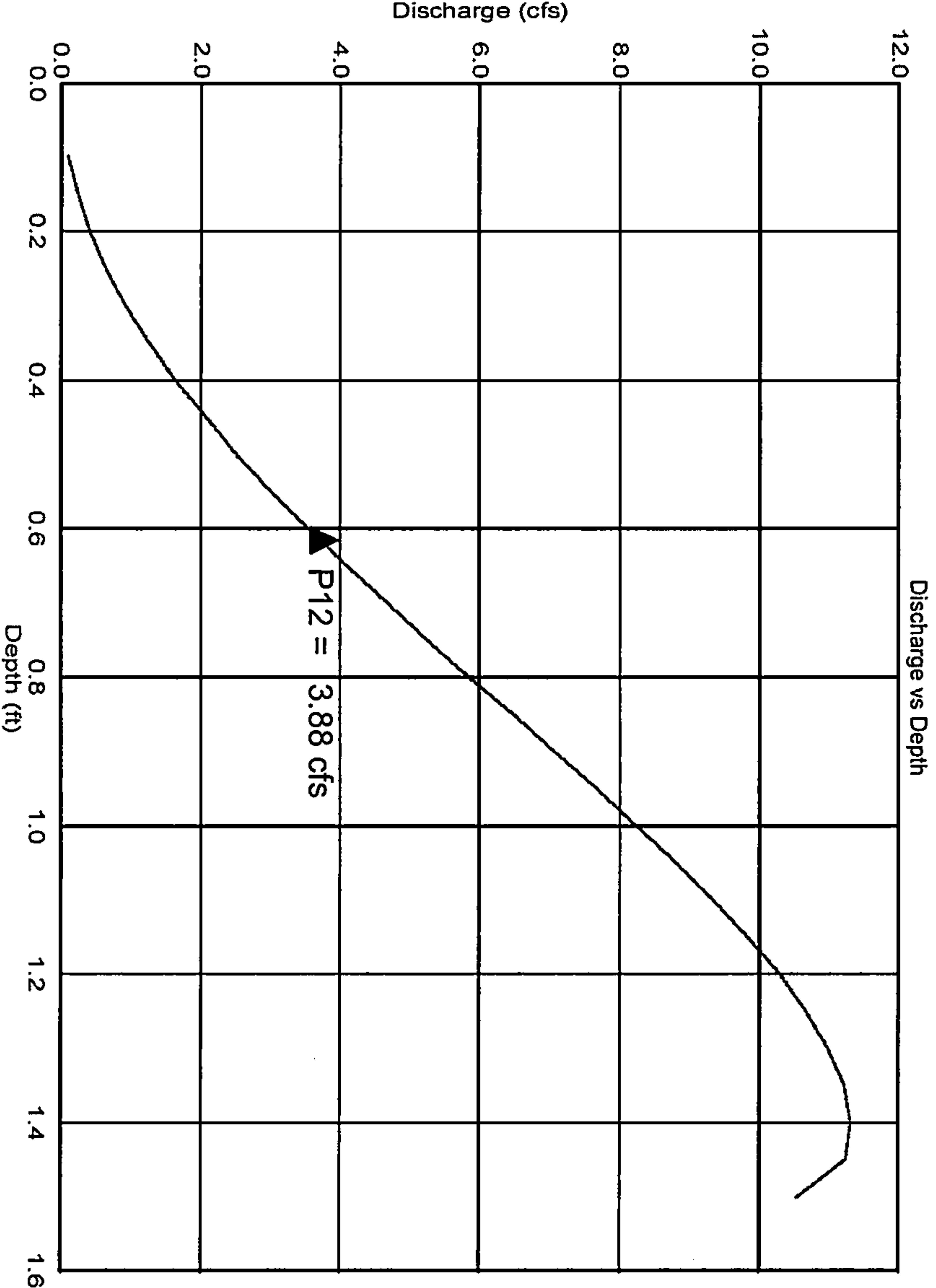
Constant Data

Mannings Coefficient	0.013
Channel Slope	0.010000 ft/ft
Diameter	18.00 in

Input Data

Minimum	Maximum	Increment
Depth 0.10	2.00	0.05 ft

▲ REQUIRED



05/17/06
11:39:50 AM

Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 755-1666

FlowMaster v5.12
Page 1 of 1

APPENDIX

AHYMO INPUT/OUTPUT - 100 YEAR, 24 HR RAINFALL

AHYMO PROGRAM (AHYMO.97) -

- Version: 1997.02d

RUN DATE (MON/DAY/YR) = 05/19/2006 USER NO.= AHYMO-I-9702a01000F11-AH
START TIME (HR:MIN:SEC) = 08:13:17
INPUT FILE = I:\BPLW\BPL042-2\dwgs\drainage\TARFUR-1.TXT

*S AHYMO FILE FOR TERMINAL APRON RECONSTRUCTION
*S FUTURE CONDITIONS, 24HR, 100YR.
*S

*S FILENAME: TARFUTURE 100.txt
*S

*S START 0.0 HRS
*S

*S////////////////////
*S SPH=0 FUTURE CONDITIONS
*S////////////////////
*S

* 100 YEAR RAINFALL TABLE
RAINFALL TYPE=2

RAIN QUARTER=0.0 RAIN SIX=2.35 IN
RAIN ONE=2.01 IN DT=0.05 HRS
RAIN DAY=2.75 IN

COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .050000 HOURS END TIME = 24.000000 HOURS

.0000	.0024	.0049	.0075	.0102	.0130	.0158
.0188	.0219	.0252	.0286	.0321	.0358	.0397
.0439	.0482	.0529	.0578	.0631	.0689	.0751
.0836	.0930	.1201	.1842	.2944	.4649	.7103
1.0460	1.3107	1.4303	1.5302	1.6176	1.6959	1.7667
1.8313	1.8906	1.9452	1.9955	2.0421	2.0851	2.0946
2.1034	2.1115	2.1191	2.1262	2.1330	2.1394	2.1455
2.1513	2.1569	2.1622	2.1673	2.1723	2.1771	2.1817
2.1862	2.1905	2.1948	2.1989	2.2028	2.2067	2.2105
2.2142	2.2178	2.2213	2.2248	2.2282	2.2315	2.2347
2.2379	2.2410	2.2440	2.2470	2.2500	2.2529	2.2557
2.2585	2.2613	2.2640	2.2666	2.2693	2.2719	2.2744
2.2769	2.2794	2.2818	2.2842	2.2866	2.2889	2.2913
2.2935	2.2958	2.2980	2.3002	2.3024	2.3046	2.3067
2.3088	2.3109	2.3129	2.3150	2.3170	2.3190	2.3209
2.3229	2.3248	2.3267	2.3286	2.3305	2.3323	2.3342
2.3360	2.3378	2.3396	2.3414	2.3431	2.3449	2.3466
2.3483	2.3500	2.3517	2.3534	2.3551	2.3569	2.3586
2.3602	2.3619	2.3636	2.3653	2.3669	2.3686	2.3703
2.3719	2.3736	2.3752	2.3768	2.3785	2.3801	2.3817
2.3833	2.3849	2.3865	2.3881	2.3897	2.3913	2.3929
2.3944	2.3960	2.3976	2.3991	2.4007	2.4022	2.4038
2.4053	2.4068	2.4084	2.4099	2.4114	2.4129	2.4144
2.4159	2.4174	2.4189	2.4204	2.4219	2.4234	2.4248
2.4263	2.4278	2.4292	2.4307	2.4322	2.4336	2.4350
2.4365	2.4379	2.4394	2.4408	2.4422	2.4436	2.4450
2.4464	2.4478	2.4493	2.4506	2.4520	2.4534	2.4548
2.4562	2.4576	2.4589	2.4603	2.4617	2.4630	2.4644
2.4658	2.4671	2.4685	2.4698	2.4711	2.4725	2.4738
2.4751	2.4765	2.4778	2.4791	2.4804	2.4817	2.4830
2.4856	2.4869	2.4882	2.4895	2.4908	2.4921	2.4934
2.4946	2.4959	2.4972	2.4984	2.4997	2.5010	
2.5022	2.5035	2.5047	2.5060	2.5072	2.5085	2.5097
2.5109	2.5122	2.5134	2.5146	2.5158	2.5170	2.5183
2.5195	2.5207	2.5219	2.5231	2.5243	2.5255	2.5267
2.5279	2.5291	2.5303	2.5314	2.5326	2.5338	2.5350
2.5361	2.5373	2.5385	2.5396	2.5408	2.5420	2.5431
2.5443	2.5454	2.5466	2.5477	2.5488	2.5500	2.5511
2.5523	2.5534	2.5545	2.5556	2.5568	2.5579	2.5590
2.5601	2.5612	2.5623	2.5635	2.5646	2.5657	2.5668
2.5679	2.5690	2.5701	2.5711	2.5722	2.5733	2.5744
2.5755	2.5766	2.5776	2.5787	2.5798	2.5809	2.5819
2.5830	2.5841	2.5851	2.5862	2.5872	2.5883	2.5893
2.5904	2.5914	2.5925	2.5935	2.5946	2.5956	2.5966
2.5977	2.5987	2.5997	2.6008	2.6018	2.6028	2.6038
2.6049	2.6059	2.6069	2.6079	2.6089	2.6099	2.6109
2.6119	2.6129	2.6139	2.6149	2.6159	2.6169	2.6179
2.6189	2.6199	2.6209	2.6219	2.6229	2.6238	2.6248
2.6258	2.6268	2.6278	2.6287	2.6297	2.6307	2.6316
2.6326	2.6336	2.6345	2.6355	2.6364	2.6374	2.6384
2.6393	2.6403	2.6412	2.6421	2.6431	2.6440	2.6450
2.6459	2.6469	2.6478	2.6487	2.6497	2.6506	2.6515
2.6524	2.6534	2.6543	2.6552	2.6561	2.6571	2.6580
2.6589	2.6598	2.6607	2.6616	2.6625	2.6634	2.6644
2.6653	2.6662	2.6671	2.6680	2.6689	2.6698	2.6707
2.6715	2.6724	2.6733	2.6742	2.6751	2.6760	2.6769
2.6778	2.6786	2.6795	2.6804	2.6813	2.6821	2.6830
2.6839	2.6848	2.6856	2.6865	2.6874	2.6882	2.6891
2.6900	2.6908	2.6917	2.6925	2.6934	2.6942	2.6951
2.6959	2.6968	2.6976	2.6985	2.6993	2.7002	2.7010
2.7019	2.7027	2.7035	2.7044	2.7052	2.7061	2.7069
2.7077	2.7085	2.7094	2.7102	2.7110	2.7119	2.7127
2.7135	2.7143	2.7151	2.7160	2.7168	2.7176	2.7184
2.7192	2.7200	2.7209	2.7217	2.7225	2.7233	2.7241
2.7249	2.7257	2.7265	2.7273	2.7281	2.7289	2.7297
2.7305	2.7313	2.7321	2.7329	2.7337	2.7344	2.7352
2.7360	2.7368	2.7376	2.7384	2.7392	2.7399	2.7407
2.7415	2.7423	2.7431	2.7438	2.7446	2.7454	2.7462
2.7469	2.7477	2.7485	2.7492	2.7500		

*S *****SUB-BASIN 504-A*****
*S

COMPUTE NM HYD

ID=1 HYD NO=504A AREA=0.0052 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 21.051 CFS UNIT VOLUME = .9988 B = 526.28 P60 = 2.0100

AREA = .005200 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=1 CODE=10

HYDROGRAPH FROM AREA 504A

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
1.500	15.5	6.500	.1	11.500	.1	16.500	.1
2.000	3.8	7.000	.1	12.000	.1	17.000	.1
2.500	.5	7.500	.1	12.500	.1	17.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1

RUNOFF VOLUME = 2.51715 INCHES .6981 ACRE-FEET
PEAK DISCHARGE RATE = 15.51 CFS AT 1.500 HOURS BASIN AREA = .0052 SQ. MI.

*S *****SUB-BASIN 504-B*****

COMPUTE NM HYD ID=2 HYD NO=504B AREA=0.0046 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 18.622 CFS UNIT VOLUME = .9988 B = 526.28
AREA = .004600 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=2 CODE=10

HYDROGRAPH FROM AREA 504B

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
1.500	13.7	6.500	.1	11.500	.1	16.500	.1
2.000	3.4	7.000	.1	12.000	.1	17.000	.1
2.500	.4	7.500	.1	12.500	.1	17.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1

RUNOFF VOLUME = 2.51715 INCHES .6175 ACRE-FEET
PEAK DISCHARGE RATE = 13.72 CFS AT 1.500 HOURS BASIN AREA = .0046 SQ. MI.

*S *****SUB-BASIN 504-C*****

COMPUTE NM HYD ID=3 HYD NO=504C AREA=0.0024 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 9.7159 CFS UNIT VOLUME = .9982 B = 526.28
AREA = .002400 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=3 CODE=10

HYDROGRAPH FROM AREA 504C

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.1	11.000	.0	16.000	.0
1.500	7.2	6.500	.1	11.500	.0	16.500	.0
2.000	1.8	7.000	.1	12.000	.0	17.000	.0
2.500	.2	7.500	.0	12.500	.0	17.500	.0
3.000	.1	8.000	.0	13.000	.0	18.000	.0
3.500	.1	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 2.51716 INCHES .3222 ACRE-FEET
PEAK DISCHARGE RATE = 7.16 CFS AT 1.500 HOURS BASIN AREA = .0024 SQ. MI.

*S *****SUB-BASIN 504-D*****

COMPUTE NM HYD ID=4 HYD NO=504D AREA=0.0028 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 11.335 CFS UNIT VOLUME = .9985 B = 526.28
AREA = .002800 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=4 CODE=10

HYDROGRAPH FROM AREA 504D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.0	15.000	.0
.500	.0	5.500	.1	10.500	.0	15.500	.0
1.000	.0	6.000	.1	11.000	.0	16.000	.0
1.500	8.4	6.500	.1	11.500	.0	16.500	.0
2.000	2.1	7.000	.1	12.000	.0	17.000	.0
2.500	.3	7.500	.1	12.500	.0	17.500	.0
3.000	.1	8.000	.1	13.000	.0	18.000	.0
3.500	.1	8.500	.1	13.500	.0	18.500	.0
4.000	.1	9.000	.1	14.000	.0	19.000	.0
4.500	.0	9.500	.1	14.500	.0	19.500	.0

RUNOFF VOLUME = 2.51716 INCHES .3759 ACRE-FEET
PEAK DISCHARGE RATE = 8.35 CFS AT 1.500 HOURS BASIN AREA = .0028 SQ. MI.

*S *****SUB-BASIN 504-E*****

COMPUTE NM HYD ID=5 HYD NO=504E AREA=0.0036 SQ. MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 14.574 CFS UNIT VOLUME = .9987 B = 526.28
AREA = .003600 SQ. MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 2.0100
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=5 CODE=10

HYDROGRAPH FROM AREA 504E

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0
1.000	.0	6.000	.1	11.000	.1	16.000	.0
1.500	10.7	6.500	.1	11.500	.1	16.500	.0
2.000	2.6	7.000	.1	12.000	.1	17.000	.0
2.500	.3	7.500	.1	12.500	.1	17.500	.0
3.000	.1	8.000	.1	13.000	.1	18.000	.0
3.500	.1	8.500	.1	13.500	.1	18.500	.0
4.000	.1	9.000	.1	14.000	.1	19.000	.0
4.500	.1	9.500	.1	14.500	.0	19.500	.0

RUNOFF VOLUME = 2.51715 INCHES .4833 ACRE-FEET
PEAK DISCHARGE RATE = 10.74 CFS AT 1.500 HOURS BASIN AREA = .0036 SQ. MI.

*S *****SUB-BASIN 504-F*****

COMPUTE NM HYD ID=6 HYD NO=504F AREA=0.0073 SQ. MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 29.552 CFS UNIT VOLUME = .9990 B = 526.28
AREA = .007300 SQ. MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 2.0100
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=6 CODE=10

HYDROGRAPH FROM AREA 504F

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.2	11.000	.1	16.000	.1
1.500	21.8	6.500	.2	11.500	.1	16.500	.1
2.000	5.3	7.000	.2	12.000	.1	17.000	.1
2.500	.7	7.500	.1	12.500	.1	17.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1
3.500	.2	8.500	.1	13.500	.1	18.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1

RUNOFF VOLUME = 2.51715 INCHES .9800 ACRE-FEET
PEAK DISCHARGE RATE = 21.77 CFS AT 1.500 HOURS BASIN AREA = .0073 SQ. MI.

*S *****SUB-BASIN 504-G*****

COMPUTE NM HYD ID=7 HYD NO=504G AREA=0.0013 SQ. MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 5.2628 CFS UNIT VOLUME = .9971 B = 526.28
AREA = .001300 SQ. MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR P60 = 2.0100
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=7 CODE=1

HYDROGRAPH FROM AREA 504G

RUNOFF VOLUME = 2.51716 INCHES .1745 ACRE-FEET
PEAK DISCHARGE RATE = 3.88 CFS AT 1.500 HOURS BASIN AREA = .0013 SQ. MI.

*S COMBINE BASINS THAT DRAIN TO DI #1

ADD HYD ID=8 HYD NO=DPLUSE ID=4 IDIT=6
ADD HYD ID=9 HYD NO=DPLUSE ID=5 IDIT=8

PRINT HYD ID=9 CODE=10

HYDROGRAPH FROM AREA DPLUSE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.2
.500	.0	5.500	.3	10.500	.2	15.500	.2
1.000	.0	6.000	.3	11.000	.2	16.000	.2
1.500	40.9	6.500	.3	11.500	.2	16.500	.2
2.000	10.0	7.000	.3	12.000	.2	17.000	.2
2.500	1.3	7.500	.3	12.500	.2	17.500	.2
3.000	.5	8.000	.3	13.000	.2	18.000	.2
3.500	.3	8.500	.3	13.500	.2	18.500	.2
4.000	.3	9.000	.3	14.000	.2	19.000	.2
4.500	.2	9.500	.2	14.500	.2	19.500	.2
						20.000	.2
						20.500	.1
						21.000	.1
						21.500	.1
						22.000	.1
						22.500	.1
						23.000	.1
						23.500	.1
						24.000	.1
						24.500	.0

RUNOFF VOLUME = 2.51709 INCHES
PEAK DISCHARGE RATE = 40.86 CFS AT 1.500 HOURS BASIN AREA = .0137 SQ. MI.

*S CHECK WATER LEVELS FOR PONDING AREAS

* DI #1

ROUTE RESERVOIR	ID=10	HYD NO=POND.D11	INFLOW ID=9	CODE=5
	OUTFLOW (CFS)	STORAGE (AC-FT)	ELEV (FT)	
	0.001	0.00	100.00	
	0.68665	0.001	100.1	
	1.26146	0.0155	100.15	
	1.94215	0.0453	100.2	
	2.71425			
	3.56797	0.0941	100.25	
	4.49616	0.16674835	100.3	
	5.49325	0.26798842	100.35	
	6.55478	0.402578159	100.4	
	7.67705	0.575281807	100.45	
	8.85694	0.790863603	100.5	
	10.0700	1.054087784	100.55	
	11.6279	1.369718589	100.6	
	13.0004	1.774678867	100.7	
	18.3853	2.313037826	100.8	
	22.5174	3.094372951	101.00	
		5.476492236	102.00	
		11.67000238	103.00	

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	4.56	100.13	.010	1.04
1.50	40.86	100.40	.412	5.55
1.75	16.01	100.50	.804	7.74
2.00	10.03	100.52	.901	8.17
2.25	2.70	100.51	.859	7.98
2.50	1.26	100.49	.738	7.40
2.75	.71	100.46	.611	6.74
3.00	.46	100.43	.491	6.04
3.25	.35	100.39	.381	5.34
3.50	.30	100.36	.285	4.62
3.75	.27	100.32	.203	3.90
4.00	.25	100.28	.135	3.19
4.25	.24	100.24	.081	2.51
4.50	.24	100.19	.041	1.84
4.75	.24	100.15	.015	1.22
5.00	.25	100.09	.001	.61
5.25	.25	100.04	.000	.25
5.50	.27	100.04	.000	.27
5.75	.28	100.04	.000	.28
6.00	.30	100.04	.000	.29
6.25	.30	100.04	.000	.30
6.50	.29	100.04	.000	.29
6.75	.29	100.04	.000	.29
7.00	.28	100.04	.000	.28
7.25	.28	100.04	.000	.28
7.50	.27	100.04	.000	.27
7.75	.27	100.04	.000	.27
8.00	.27	100.04	.000	.27
8.25	.26	100.04	.000	.26
8.50	.25	100.04	.000	.26
8.75	.25	100.04	.000	.25
9.00	.25	100.04	.000	.25
9.25	.25	100.04	.000	.25
9.50	.24	100.04	.000	.24
9.75	.24	100.03	.000	.24
10.00	.24	100.03	.000	.24
10.25	.23	100.03	.000	.23
10.50	.23	100.03	.000	.23
10.75	.22	100.03	.000	.23
11.00	.22	100.03	.000	.22
11.25	.22	100.03	.000	.22

11.50 .22 100.03 .000 .22
11.75 .22 100.03 .000 .22
12.00 .22 100.03 .000 .22
12.25 .21 100.03 .000 .21
12.50 .21 100.03 .000 .21
12.75 .21 100.03 .000 .21
13.00 .21 100.03 .000 .21
13.25 .20 100.03 .000 .20
13.50 .20 100.03 .000 .20
13.75 .20 100.03 .000 .20
14.00 .20 100.03 .000 .20
14.25 .19 100.03 .000 .19
14.50 .19 100.03 .000 .19
14.75 .19 100.03 .000 .19
15.00 .19 100.03 .000 .19
15.25 .19 100.03 .000 .19
15.50 .18 100.03 .000 .18
15.75 .18 100.03 .000 .18
16.00 .18 100.03 .000 .18
16.25 .18 100.03 .000 .18
16.50 .17 100.03 .000 .17
16.75 .17 100.03 .000 .17
17.00 .17 100.02 .000 .17
17.25 .17 100.02 .000 .17
17.50 .17 100.02 .000 .17
17.75 .17 100.02 .000 .17
18.00 .16 100.02 .000 .16
18.25 .16 100.02 .000 .16
18.50 .16 100.02 .000 .16
18.75 .16 100.02 .000 .16
19.00 .16 100.02 .000 .16
19.25 .16 100.02 .000 .16
19.50 .15 100.02 .000 .15
19.75 .15 100.02 .000 .15
20.00 .15 100.02 .000 .15
20.25 .15 100.02 .000 .15
20.50 .15 100.02 .000 .15
20.75 .15 100.02 .000 .15
21.00 .15 100.02 .000 .15
21.25 .15 100.02 .000 .15
21.50 .15 100.02 .000 .15
21.75 .14 100.02 .000 .14
22.00 .14 100.02 .000 .14
22.25 .14 100.02 .000 .14
22.50 .14 100.02 .000 .14
22.75 .14 100.02 .000 .14
23.00 .14 100.02 .000 .14
23.25 .14 100.02 .000 .14
23.50 .14 100.02 .000 .14
23.75 .13 100.02 .000 .13
24.00 .13 100.02 .000 .13
24.25 .12 100.00 .000 .12
24.50 .12 100.00 .000 .12
24.75 .01 100.00 .000 .01
25.00 .00 100.00 .000 .00
PEAK DISCHARGE = 8.197 CFS - PEAK OCCURS AT HOUR 2.05
MAXIMUM WATER SURFACE ELEVATION = 100.522
MAXIMUM STORAGE = .9069 AC-FT INCREMENTAL TIME= .050000HRS

PRINT HYD ID=10 CODE=10

HYDROGRAPH FROM AREA POND.D11

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	6.000	.3	12.000	.2	18.000	.2
.500	.0	6.500	.3	12.500	.2	18.500	.2
1.000	.0	7.000	.3	13.000	.2	19.000	.2
1.500	.0	7.500	.3	13.500	.2	19.500	.2
2.000	5.6	8.000	.3	14.000	.2	20.000	.2
2.500	8.2	8.500	.3	14.500	.2	20.500	.2
3.000	7.4	9.000	.3	15.000	.2	21.000	.2
3.500	6.0	9.500	.2	15.500	.2	21.500	.2
4.000	4.6	10.000	.2	16.000	.2	22.000	.1
4.500	3.2	10.500	.2	16.500	.2	22.500	.1
5.000	1.8	11.000	.2	17.000	.2	23.000	.1
5.500	.3	11.500	.2	17.500	.2	23.500	.1

RUNOFF VOLUME = 2.51781 INCHES 1.8397 ACRE-FEET
PEAK DISCHARGE RATE = 8.20 CFS AT 2.050 HOURS BASIN AREA = .0137 SQ. MI.

* DI #2

ROUTE RESERVOIR ID=11 HYD NO=POND.D12 INFLOW ID=1 CODE=5
OUTFLOW (CFS) STORAGE (AC-FT) ELEV (FT)

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.686656971	0	0.01171967	100.00	100.1	
1.261469406	0	0.034257496	100.15		
1.942159203	0	0.07121953	100.2		
2.71425	0	0.126211826	100.25		
3.567974284	0	0.202840435	100.45	100.3	
4.496161474	0	0.304711409	100.5	100.35	
5.493255769	0	0.4354308	100.5	100.4	
6.554787309	0	0.598604661	100.55		
7.677058323	0	0.797839043	100.6		
8.856943367	0	1.03674	100.7		
10.070095113	0	1.343254435	100.8		
11.87694589	0	1.75073833	101.00		
13.62794427	0	2.342130887	102.00		
15.00043692	0	4.145156973	103.00		
16.3853942	0	8.833024799			
22.51741726	0				

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	1.73	100.11	.002	.78
1.50	15.51	100.31	.136	3.69
1.75	6.08	100.37	.246	4.92
2.00	3.81	100.34	.194	4.89
2.25	1.02	100.30	.127	3.57
2.50	.48	100.25	.070	2.68
2.75	.27	100.19	.028	1.76
3.00	.17	100.12	.004	.88
3.25	.13	100.02	.000	.15
3.50	.11	100.01	.000	.07
3.75	.10	100.01	.000	.13
4.00	.10	100.02	.000	.06
4.25	.09	100.02	.000	.12
4.50	.09	100.01	.000	.06
4.75	.09	100.02	.000	.13
5.00	.10	100.01	.000	.07
5.25	.10	100.02	.000	.14
5.50	.11	100.02	.000	.07
5.75	.11	100.01	.000	.14
6.00	.12	100.02	.000	.08
6.25	.11	100.02	.000	.15
6.50	.11	100.01	.000	.08
6.75	.11	100.02	.000	.14
7.00	.11	100.01	.000	.07
7.25	.11	100.02	.000	.14
7.50	.10	100.02	.000	.07
7.75	.10	100.01	.000	.14
8.00	.10	100.02	.000	.07
8.25	.10	100.01	.000	.13
8.50	.10	100.02	.000	.06
8.75	.10	100.01	.000	.13
9.00	.10	100.02	.000	.06
9.25	.10	100.01	.000	.13
9.50	.09	100.02	.000	.06
9.75	.09	100.01	.000	.12
10.00	.09	100.02	.000	.06
10.25	.09	100.01	.000	.12
10.50	.09	100.02	.000	.05
10.75	.09	100.01	.000	.12
11.00	.08	100.02	.000	.05
11.25	.08	100.01	.000	.12
11.50	.08	100.02	.000	.05
11.75	.08	100.01	.000	.12
12.00	.08	100.02	.000	.05
12.25	.08	100.01	.000	.11
12.50	.08	100.02	.000	.05
12.75	.08	100.01	.000	.11
13.00	.08	100.02	.000	.04
13.25	.08	100.01	.000	.11
13.50	.07	100.02	.000	.04
13.75	.07	100.01	.000	.11
14.00	.07	100.02	.000	.04
14.25	.07	100.01	.000	.11
14.50	.07	100.02	.000	.04
14.75	.07	100.01	.000	.11
15.00	.07	100.02	.000	.04
15.25	.07	100.01	.000	.10
15.50	.07	100.02	.000	.04
15.75	.07	100.01	.000	.10
16.00	.07	100.02	.000	.03
16.25	.07	100.01	.000	.10
16.50	.07	100.02	.000	.03
16.75	.07	100.01	.000	.10
17.00	.07	100.02	.000	.03
17.25	.07	100.01	.000	.10
17.50	.06	100.02	.000	.03
17.75	.06	100.01	.000	.10
18.00	.06	100.02	.000	.03
18.25	.06	100.01	.000	.10
18.50	.06	100.02	.000	.03
18.75	.06	100.01	.000	.10
19.00	.06	100.02	.000	.03
19.25	.06	100.01	.000	.10
19.50	.06	100.02	.000	.03
19.75	.06	100.01	.000	.10
20.00	.06	100.02	.000	.03
20.25	.06	100.01	.000	.10
20.50	.06	100.02	.000	.03
20.75	.06	100.01	.000	.10
21.00	.06	100.02	.000	.03
21.25	.06	100.01	.000	.10
21.50	.06	100.02	.000	.03
21.75	.06	100.01	.000	.10
22.00	.05	100.02	.000	.03
22.25	.06	100.01	.000	.10
22.50	.05	100.02	.000	.03
22.75	.05	100.01	.000	.10
23.00	.05	100.02	.000	.03
23.25	.05	100.01	.000	.10
23.50	.05	100.02	.000	.03
23.75	.05	100.01	.000	.10
24.00	.05	100.02	.000	.03
24.25	.01	100.01	.000	.00

PEAK DISCHARGE =

4.963 CFS -

PEAK OCCURS AT HOUR

1.85

MAXIMUM WATER SURFACE ELEVATION =

100.373

INCREMENTAL TIME=

.050000HRS

MAXIMUM STORAGE =

.2505 AC-FT

PRINT HYD

ID=11

CODE=10

HYDROGRAPH FROM AREA POND.DI2

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
4.500	.1	9.500	.1	14.500	.1	19.500	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1
3.000	1.8	8.000	.1	13.000	.1	18.000	.1
2.500	3.6	7.500	.1	12.500	.1	17.500	.1
2.000	4.9	7.000	.1	12.000	.1	17.000	.1
1.500	3.7	6.500	.1	11.500	.1	16.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
.000	.0	5.000	.1	10.000	.1	15.000	.1

RUNOFF VOLUME = 2.51734 INCHES
PEAK DISCHARGE RATE = 4.96 CFS AT 1.850 HOURS BASIN AREA = .0052 SQ. MI.

* DI #3

ROUTE RESERVOIR ID=12 HYD NO=POND.DI3 INFLOW ID=2 CODE=5
OUTFLOW (CFS) STORAGE (AC-FT) ELEV (FT)

0.686656971	0	100.00
1.261469406	0.0239	100.1
1.942159203	0.0699	100.15
2.71425	0.1453	100.2
3.567974284	0.2576	100.25
4.496161474	0.4140	100.3
5.493255769	0.6219	100.35
6.554787309	0.8886	100.4
7.677058323	1.2216	100.45
8.856943367	1.6282	100.5
10.07009513	2.1158	100.55
10.87694589	2.7413	100.6
11.62794427	3.5729	100.7
13.00043692	4.7799	100.8
18.3853942	8.4595	101.00
22.51741726	18.0266	102.00

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.0000	.00
.25	.00	100.00	.0000	.00
.50	.00	100.00	.0000	.00
.75	.00	100.00	.0000	.00
1.00	.00	100.00	.0000	.00
1.25	1.53	100.10	.0002	.73
1.50	13.72	100.24	.128	2.53
1.75	3.38	100.29	.243	3.45
2.00	.91	100.29	.228	3.34
2.25	.42	100.26	.176	2.94
2.50	.24	100.24	.126	2.51
2.75	.15	100.21	.082	2.07
3.00	.12	100.18	.047	1.60
3.25	.09	100.14	.020	1.18
3.50	.08	100.11	.003	.75
4.00	.08	100.02	.000	.17
4.25	.08	100.02	.000	.16
4.50	.08	100.02	.000	.16
4.75	.08	100.00	.000	.00
5.00	.08	100.02	.000	.16
5.25	.09	100.00	.000	.01
5.50	.09	100.02	.000	.17
5.75	.09	100.00	.000	.01
6.00	.10	100.03	.000	.18
6.25	.10	100.03	.000	.02
6.50	.10	100.00	.000	.18
6.75	.10	100.00	.000	.02
7.00	.10	100.03	.000	.18
7.25	.09	100.00	.000	.02
7.50	.09	100.03	.000	.17
7.75	.09	100.00	.000	.01
8.00	.09	100.02	.000	.17
8.25	.09	100.00	.000	.01
8.50	.09	100.02	.000	.17
8.75	.09	100.00	.000	.01
9.00	.08	100.02	.000	.16
9.25	.08	100.00	.000	.00
9.50	.08	100.02	.000	.16
10.00	.08	100.00	.000	.16
10.25	.08	100.02	.000	.16
10.50	.08	100.00	.000	.16
10.75	.08	100.02	.000	.15
11.00	.08	100.00	.000	.15
11.25	.07	100.02	.000	.15
11.50	.07	100.00	.000	.14
11.75	.07	100.02	.000	.14
12.00	.07	100.00	.000	.14
12.25	.07	100.02	.000	.14
12.50	.07	100.00	.000	.14
12.75	.07	100.02	.000	.14
13.00	.07	100.00	.000	.13
13.25	.07	100.02	.000	.13
13.50	.07	100.00	.000	.13
13.75	.07	100.02	.000	.13
14.00	.06	100.00	.000	.13
14.25	.06	100.02	.000	.13

14.50 .06 100.02 .000 .13
14.75 .06 100.00 .000 .00
15.00 .06 100.02 .000 .13
15.25 .06 100.00 .000 .00
15.50 .06 100.02 .000 .00
15.75 .06 100.00 .000 .12
16.00 .06 100.02 .000 .12
16.25 .06 100.00 .000 .00
16.50 .06 100.02 .000 .12
16.75 .06 100.00 .000 .00
17.00 .06 100.02 .000 .12
17.25 .06 100.00 .000 .00
17.50 .06 100.02 .000 .11
17.75 .06 100.00 .000 .00
18.00 .06 100.02 .000 .11
18.25 .05 100.00 .000 .00
18.50 .06 100.02 .000 .11
18.75 .05 100.00 .000 .00
19.00 .05 100.02 .000 .11
19.25 .05 100.00 .000 .10
19.50 .05 100.02 .000 .10
19.75 .05 100.00 .000 .10
20.00 .05 100.02 .000 .10
20.25 .05 100.00 .000 .00
20.50 .05 100.02 .000 .10
20.75 .05 100.00 .000 .10
21.00 .05 100.02 .000 .10
21.25 .05 100.00 .000 .10
21.50 .05 100.02 .000 .10
21.75 .05 100.00 .000 .10
22.00 .05 100.02 .000 .10
22.25 .05 100.00 .000 .00
22.50 .05 100.02 .000 .10
22.75 .05 100.00 .000 .00
23.00 .05 100.02 .000 .09
23.25 .05 100.00 .000 .09
23.50 .05 100.02 .000 .09
23.75 .05 100.00 .000 .09
24.00 .05 100.02 .000 .09
24.25 .01 100.00 .000 .00
PEAK DISCHARGE = 3.569 CFS - PEAK OCCURS AT HOUR 1.95
MAXIMUM WATER SURFACE ELEVATION = 100.300
MAXIMUM STORAGE = .2578 AC-FT INCREMENTAL TIME = .05000HRS

PRINT HYD

ID=12 CODE=10

HYDROGRAPH FROM AREA POND.DI3

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.1
1.000	.0	6.000	.2	11.000	.2	16.000	.1
1.500	2.5	6.500	.2	11.500	.1	16.500	.1
2.000	3.6	7.000	.2	12.000	.1	17.000	.1
2.500	2.9	7.500	.2	12.500	.1	17.500	.1
3.000	2.1	8.000	.2	13.000	.1	18.000	.1
3.500	1.2	8.500	.2	13.500	.1	18.500	.1
4.000	.2	9.000	.2	14.000	.1	19.000	.1
4.500	.2	9.500	.2	14.500	.1	19.500	.1
						20.000	.1
						20.500	.1
						21.000	.1
						21.500	.1
						22.000	.1
						22.500	.1
						23.000	.1
						23.500	.1
						24.000	.1
						24.500	.0

RUNOFF VOLUME = 2.52163 INCHES .6186 ACRE-FEET
PEAK DISCHARGE RATE = 3.57 CFS AT 1.950 HOURS BASIN AREA = .0046 SQ. MI.

* DI #4

ROUTE RESERVOIR ID=13 HYD NO=POND.DI4 INFLOW ID=3 CODE=5
OUTFLOW (CFS) STORAGE (AC-FT) ELEV (FT)

0	0	0
0.686656971	0	100.1
1.261469406	0.292991739	100.15
1.942159203	0.856437391	100.2
2.71425	1.780488261	100.25
3.567974284	3.155295652	100.3
4.496161474	5.071010869	100.35
5.493255769	7.617785217	100.4
6.554787309	10.88577	100.45
7.677058323	14.96511652	100.5
8.856943367	19.94597608	100.55
10.07009513	25.9185	100.6
10.87694589	33.58136087	100.7
11.62794427	43.76845826	100.8
13.00043692	58.55327217	101.0
18.3853942	103.6289243	102.0
22.51741726	220.82562	103.0

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.25	.00	.00	.000	.00
.50	.00	.00	.000	.00
.75	.00	.00	.000	.00
1.00	.00	.00	.000	.00
1.25	.80	100.10	.000	.00
1.50	7.16	100.11	.067	.82
1.75	2.81	100.12	.142	.97
2.00	1.76	100.13	.168	1.02
2.25	.47	100.13	.154	.99
2.50	.22	100.13	.138	.96
2.75	.12	100.12	.120	.92
3.00	.08	100.12	.103	.89
3.25	.06	100.12	.103	.89

3.50 .05 100.11 .86
3.75 .05 100.11 .82
4.00 .04 100.11 .79
4.25 .04 100.11 .76
4.50 .04 100.10 .73
5.00 .04 100.10 .71
5.25 .04 12.80 .09
5.50 .05 .53 .00
5.75 .05 13.50 .09
6.00 .05 1.22 .01
6.25 .05 14.08 .10
6.50 .05 1.30 .01
6.75 .05 13.82 .09
7.00 .05 1.02 .01
7.25 .05 13.56 .09
7.50 .05 .82 .01
8.00 .05 13.30 .00
8.25 .05 13.10 .09
8.50 .05 12.81 .09
8.75 .04 12.81 .09
9.00 .04 12.75 .09
9.25 .04 12.75 .09
9.50 .04 12.37 .08
10.00 .04 12.05 .08
10.25 .04 12.05 .08
10.50 .04 11.75 .08
11.00 .04 11.00 .08
11.25 .04 11.42 .08
11.50 .04 11.08 .08
11.75 .04 10.86 .07
12.00 .04 10.86 .07
12.25 .04 10.59 .07
12.50 .04 10.59 .07
13.00 .04 10.26 .07
13.25 .03 10.01 .07
13.50 .03 10.01 .07
13.75 .03 .01 .00
14.00 .03 9.69 .07
14.25 .03 9.69 .07
14.50 .03 9.64 .07
14.75 .03 9.64 .07
15.00 .03 9.49 .07
15.25 .03 9.49 .07
15.50 .03 9.20 .06
16.00 .03 9.04 .06
16.25 .03 8.89 .06
16.50 .03 8.89 .06
17.00 .03 8.00 .06
17.25 .03 8.76 .06
17.50 .03 8.46 .06
17.75 .03 8.46 .06
18.00 .03 .05 .06
18.25 .03 8.30 .06
18.50 .03 .05 .06
18.75 .03 8.17 .06
19.00 .03 8.17 .06
19.25 .03 8.12 .06
19.50 .03 .09 .06
19.75 .03 7.86 .05
20.00 .03 7.86 .05
20.25 .03 7.81 .05
20.50 .03 7.81 .05
20.75 .03 7.68 .05
(STOPPED AT 20.75 FOR PRINT FORMAT)

PEAK DISCHARGE = 1.024 CFS - PEAK OCCURS AT HOUR 2.10
MAXIMUM WATER SURFACE ELEVATION = 100.129
MAXIMUM STORAGE = .1717 AC-FT INCREMENTAL TIME= .050000HRS

PRINT HYD ID=13 CODE=10

HYDROGRAPH FROM AREA POND.D14

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	.8	6.500	.0	11.500	.0	16.500	.0
2.000	1.0	7.000	.0	12.000	.0	17.000	.0
2.500	1.0	7.500	.0	12.500	.0	17.500	.0
3.000	.9	8.000	.0	13.000	.0	18.000	.0
3.500	.9	8.500	.0	13.500	.0	18.500	.0
4.000	.8	9.000	.0	14.000	.0	19.000	.0
4.500	.7	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 2.52257 INCHES .3229 ACRE-Feet
PEAK DISCHARGE RATE = 1.02 CFS AT 2.100 HOURS BASIN AREA = .0024 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 08:13:17

AHYMO INPUT/OUTPUT - 10 YEAR, 24 HR RAINFALL

АНУМО PROGRAM (АНУМО_97) -

PROGRAM (AHTMO_97) -

- Version: 1997.02d

START TIME (HR:MIN:SEC) = 11:05:07

USER NO. = AHYMO-I-9702a01000F11-AH

INPUT FILE = I:\BPLW\BPL042~2\dwgs\Drainage\TARFUR~2.TXT

*S AHYMO FILE FOR TERMINAL APRON RECONSTRUCTION
*S FUTURE CONDITIONS, 24HR, 10YR.

* FILENAME: TARFURTURE 10.txt

START 0.0 HRS

0.0 HRS

START

```

**S//
**S//
**S//
**S//

```

* 10 YEAR RAINFALL TABLE
RAINFALL TYP

```
RAIN QUARTER=0.0      RAIN SIX=1.57 IN
RAIN ONE=1.34 IN      DT=0.05 HRS
RAIN DAY=1.83 IN
```

COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .050000 HOURS END TIME = 24.000000 HOURS

DT = .050000 HOURS

END TIME =

24.000000 HOURS

01:41:15

0.0000	0.0017	0.0034	0.0052	0.0070	0.0089	0.0109
0.0129	0.0150	0.0173	0.0196	0.0220	0.0246	0.0272
0.0301	0.0331	0.0363	0.0397	0.0433	0.0472	0.0515
0.0581	0.0634	0.0685	0.0742	0.0797	0.0851	0.0905
0.6978	0.7552	0.8150	0.8750	0.9350	0.9950	1.0550
1.2223	1.2618	1.2982	1.3318	1.3628	1.3915	1.4179
1.4037	1.4092	1.4143	1.4191	1.4236	1.4279	1.4320
1.4359	1.4397	1.4433	1.4467	1.4501	1.4533	1.4564
1.4594	1.4624	1.4652	1.4680	1.4706	1.4733	1.4758
1.4783	1.4807	1.4831	1.4854	1.4877	1.4899	1.4921
1.4943	1.4964	1.4984	1.5004	1.5024	1.5044	1.5063
1.5082	1.5100	1.5119	1.5137	1.5154	1.5172	1.5189
1.5206	1.5223	1.5239	1.5255	1.5271	1.5287	1.5303
1.5318	1.5334	1.5349	1.5364	1.5378	1.5393	1.5407
1.5421	1.5435	1.5449	1.5463	1.5477	1.5490	1.5503
1.5515	1.5530	1.5543	1.5555	1.5568	1.5581	1.5593
1.5605	1.5618	1.5630	1.5642	1.5653	1.5665	1.5677
1.5689	1.5700	1.5711	1.5722	1.5734	1.5745	1.5756
1.5767	1.5778	1.5789	1.5799	1.5810	1.5821	1.5832
1.5843	1.5853	1.5864	1.5875	1.5885	1.5896	1.5906
1.5917	1.5927	1.5938	1.5948	1.5958	1.5969	1.5979
1.5989	1.5999	1.6010	1.6020	1.6030	1.6040	1.6050
1.6060	1.6070	1.6080	1.6090	1.6100	1.6109	1.6119
1.6129	1.6139	1.6148	1.6158	1.6168	1.6177	1.6187
1.6197	1.6206	1.6216	1.6225	1.6235	1.6244	1.6253
1.6263	1.6272	1.6281	1.6291	1.6300	1.6309	1.6318
1.6328	1.6337	1.6346	1.6355	1.6364	1.6373	1.6382
1.6393	1.6400	1.6409	1.6418	1.6427	1.6435	1.6444
1.6453	1.6462	1.6471	1.6479	1.6488	1.6497	1.6505
1.6514	1.6523	1.6531	1.6540	1.6548	1.6557	1.6565
1.6574	1.6582	1.6591	1.6599	1.6608	1.6616	1.6624
1.6633	1.6641	1.6649	1.6657	1.6666	1.6674	1.6682
1.6690	1.6698	1.6706	1.6715	1.6723	1.6731	1.6739
1.6747	1.6755	1.6763	1.6771	1.6779	1.6787	1.6795
1.6802	1.6810	1.6818	1.6826	1.6834	1.6842	1.6849
1.6857	1.6865	1.6872	1.6880	1.6888	1.6895	1.6903
1.6911	1.6918	1.6926	1.6933	1.6941	1.6949	1.6956
1.6964	1.6971	1.6978	1.6986	1.6993	1.7001	1.7008
1.7016	1.7023	1.7030	1.7038	1.7045	1.7052	1.7059
1.7067	1.7074	1.7081	1.7088	1.7095	1.7103	1.7110
1.7117	1.7124	1.7131	1.7138	1.7145	1.7152	1.7159
1.7166	1.7173	1.7180	1.7187	1.7194	1.7201	1.7208
1.7215	1.7222	1.7229	1.7236	1.7243	1.7250	1.7257
1.7263	1.7270	1.7277	1.7284	1.7290	1.7297	1.7304
1.7311	1.7317	1.7324	1.7331	1.7337	1.7344	1.7351
1.7357	1.7364	1.7371	1.7377	1.7384	1.7390	1.7397
1.7403	1.7410	1.7416	1.7423	1.7429	1.7436	1.7442
1.7449	1.7455	1.7462	1.7468	1.7474	1.7481	1.7487
1.7493	1.7500	1.7506	1.7512	1.7519	1.7525	1.7531
1.7538	1.7544	1.7550	1.7556	1.7562	1.7569	1.7575
1.7581	1.7587	1.7593	1.7600</			

SUB-BASIN 504-A

```

COMPUTE NM HYD ID=1 HYD NO=504A AREA=0.0052 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

```

```

K = .070850HR      TP = .130000HR      K/TP RATIO = .545000
UNIT PEAK = 21.051  CFS      UNIT VOLUME = .9988      B =
                                     SHAPE CONSTANT, N = 7.106420
                                     P60 = 1.3400
                                     526.28

```

UNIT PEAK = 21.051

CFS UNIT VOLUME = .9988

८

526.28

P60 = 1.3400

AREA = .005200 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=1 CODE=10

HYDROGRAPH FROM AREA 504A

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.1	15.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0
1.000	.0	6.000	.1	11.000	.1	16.000	.0
1.500	.0	6.500	.1	11.500	.1	16.500	.0
2.000	10.3	7.000	.1	12.000	.1	17.000	.0
2.500	2.5	7.500	.1	12.500	.1	17.500	.0
3.000	.3	8.000	.1	13.000	.1	18.000	.0
3.500	.1	8.500	.1	13.500	.0	18.500	.0
4.000	.0	9.000	.1	14.000	.0	19.000	.0
4.500	.0	9.500	.1	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59950 INCHES .4436 ACRE-FEET
PEAK DISCHARGE RATE = 10.25 CFS AT 1.500 HOURS BASIN AREA = .0052 SQ. MI.

*S *****SUB-BASIN 504-B*****

COMPUTE NM HYD ID=2 HYD NO=504B AREA=0.0046 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 18.622 CFS UNIT VOLUME = .9988 B = 526.28
AREA = .004600 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=2 CODE=10

HYDROGRAPH FROM AREA 504B

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.1	15.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0
1.000	.0	6.000	.1	11.000	.0	16.000	.0
1.500	.0	6.500	.1	11.500	.0	16.500	.0
2.000	9.1	7.000	.1	12.000	.0	17.000	.0
2.500	2.2	7.500	.1	12.500	.0	17.500	.0
3.000	.1	8.000	.1	13.000	.0	18.000	.0
3.500	.0	8.500	.1	13.500	.0	18.500	.0
4.000	.0	9.000	.1	14.000	.0	19.000	.0
4.500	.0	9.500	.1	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59950 INCHES .3924 ACRE-FEET
PEAK DISCHARGE RATE = 9.07 CFS AT 1.500 HOURS BASIN AREA = .0046 SQ. MI.

*S *****SUB-BASIN 504-C*****

COMPUTE NM HYD ID=3 HYD NO=504C AREA=0.0024 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 9.7159 CFS UNIT VOLUME = .9982 B = 526.28
AREA = .002400 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=3 CODE=10

HYDROGRAPH FROM AREA 504C

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	4.7	6.500	.0	11.500	.0	16.500	.0
2.000	1.1	7.000	.0	12.000	.0	17.000	.0
2.500	.1	7.500	.0	12.500	.0	17.500	.0
3.000	.0	8.000	.0	13.000	.0	18.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59950 INCHES .2047 ACRE-FEET
PEAK DISCHARGE RATE = 4.73 CFS AT 1.500 HOURS BASIN AREA = .0024 SQ. MI.

*S *****SUB-BASIN 504-D*****

COMPUTE NM HYD ID=4 HYD NO=504D AREA=0.0028 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 11.335 CFS UNIT VOLUME = .9985 B = 526.28
AREA = .002800 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=4 CODE=10

HYDROGRAPH FROM AREA 504D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	5.5	6.500	.0	11.500	.0	16.500	.0
2.000	1.3	7.000	.0	12.000	.0	17.000	.0
2.500	.1	7.500	.0	12.500	.0	17.500	.0
3.000	.0	8.000	.0	13.000	.0	18.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59950 INCHES .2389 ACRE-FEET
PEAK DISCHARGE RATE = 5.52 CFS AT 1.500 HOURS BASIN AREA = .0028 SQ. MI.

*S ***SUB-BASIN 504-E****

COMPUTE NM HYD ID=5 HYD NO=504E AREA=0.0036 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 14.574 CFS UNIT VOLUME = .9987 B = 526.28 P60 = 1.3400
AREA = .003600 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=5 CODE=10

HYDROGRAPH FROM AREA 504E

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.1	11.000	.0	16.000	.0
1.500	7.1	6.500	.0	11.500	.0	16.500	.0
2.000	1.7	7.000	.0	12.000	.0	17.000	.0
2.500	.2	7.500	.0	12.500	.0	17.500	.0
3.000	.1	8.000	.0	13.000	.0	18.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59951 INCHES .3071 ACRE-FEET
PEAK DISCHARGE RATE = 7.10 CFS AT 1.500 HOURS BASIN AREA = .0036 SQ. MI.

*S ***SUB-BASIN 504-F****

COMPUTE NM HYD ID=6 HYD NO=504F AREA=0.0073 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 29.552 CFS UNIT VOLUME = .9990 B = 526.28 P60 = 1.3400
AREA = .007300 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=6 CODE=10

HYDROGRAPH FROM AREA 504F

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1
1.500	14.4	6.500	.1	11.500	.1	16.500	.1
2.000	3.5	7.000	.1	12.000	.1	17.000	.1
2.500	.4	7.500	.1	12.500	.1	17.500	.1
3.000	.1	8.000	.1	13.000	.1	18.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1
4.000	.0	9.000	.1	14.000	.1	19.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1

RUNOFF VOLUME = 1.59951 INCHES .6227 ACRE-FEET
PEAK DISCHARGE RATE = 14.39 CFS AT 1.500 HOURS BASIN AREA = .0073 SQ. MI.

*S ***SUB-BASIN 504-G****

COMPUTE NM HYD ID=7 HYD NO=504G AREA=0.0013 SQ MI
PER A=0.0 PER B=0.0 PER C=0.0 PER D=100.0
TP=0.13 HR MASS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 5.2628 CFS UNIT VOLUME = .9971 B = 526.28 P60 = 1.3400
AREA = .001300 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=7 CODE=1

HYDROGRAPH FROM AREA 504G

RUNOFF VOLUME = 1.59950 INCHES .1109 ACRE-FEET
PEAK DISCHARGE RATE = 2.57 CFS AT 1.500 HOURS BASIN AREA = .0013 SQ. MI.

*S COMBINE BASINS THAT DRAIN TO DI #1

ADD HYD ID=8 HYD NO=DFPLUSF ID=4 IDI1=6
ADD HYD ID=9 HYD NO=DFPLUSF ID=5 IDI1=8

PRINT HYD ID=9 CODE=10

HYDROGRAPH FROM AREA DFPLUSF

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.2	15.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.1
1.000	.0	6.000	.2	11.000	.1	16.000	.1
1.500	27.0	6.500	.2	11.500	.1	16.500	.1
2.000	6.6	7.000	.2	12.000	.1	17.000	.1
2.500	.7	7.500	.2	12.500	.1	17.500	.1
3.000	.2	8.000	.2	13.000	.1	18.000	.1
3.500	.1	8.500	.2	13.500	.1	18.500	.1
4.000	.1	9.000	.2	14.000	.1	19.000	.1
4.500	.1	9.500	.2	14.500	.1	19.500	.1
						20.000	.1
						20.500	.1
						21.000	.1
						21.500	.1
						22.000	.1
						22.500	.1
						23.000	.1
						23.500	.1
						24.000	.1
						24.500	.0

RUNOFF VOLUME = 1.59944 INCHES
PEAK DISCHARGE RATE = 27.01 CFS AT 1.500 HOURS BASIN AREA = .0137 SQ. MI.

*S CHECK WATER LEVELS FOR PONDING AREAS

* DI #1

ROUTE RESERVOIR	ID=10 HYD NO=POND.DI1	INFLOW ID=9 CODE=5	STORAGE (AC-FT)	ELEV (FT)
	OUTFLOW (CFS)			100.00
	0.001	0.001		100.1
	0.68665	0.0155		100.15
	1.26146	0.0453		100.2
	1.94215			
	2.71425	0.0941		100.25
	3.56797	0.16674835		100.3
	4.49616	0.26798842		100.35
	5.49325	0.402578159		100.4
	6.53478	0.575281807		100.45
	7.67705	0.790863603		100.5
	8.85694	1.054087784		100.55
	10.0700	1.369718589		100.6
	10.8769	1.774678867		100.7
	11.6279	2.313037826		100.8
	13.0004	3.094372951		101.00
	18.3853	5.476492236		102.00
	22.5174	11.67000238		103.00

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	1.55	100.10	.002	.73
1.50	27.01	100.34	.250	4.33
1.75	10.52	100.43	.490	6.03
2.00	6.56	100.44	.534	6.30
2.25	1.68	100.42	.487	6.01
2.50	.73	100.40	.392	5.41
2.75	.36	100.36	.298	4.72
3.00	.19	100.32	.213	4.00
3.25	.13	100.28	.141	3.27
3.50	.10	100.24	.083	2.55
3.75	.09	100.19	.040	1.83
4.00	.09	100.14	.012	1.11
4.25	.09	100.01	.000	.08
4.50	.10	100.01	.000	.10
4.75	.11	100.02	.000	.11
5.00	.12	100.02	.000	.12
5.25	.14	100.02	.000	.14
5.50	.16	100.02	.000	.15
5.75	.18	100.03	.000	.18
6.00	.20	100.03	.000	.20
6.25	.19	100.03	.000	.19
6.50	.19	100.03	.000	.19
6.75	.19	100.03	.000	.19
7.00	.18	100.03	.000	.18
7.25	.18	100.03	.000	.18
7.50	.18	100.03	.000	.18
7.75	.17	100.03	.000	.17
8.00	.17	100.02	.000	.17
8.25	.17	100.02	.000	.17
8.50	.16	100.02	.000	.16
8.75	.16	100.02	.000	.16
9.00	.16	100.02	.000	.16
9.25	.15	100.02	.000	.15
9.50	.15	100.02	.000	.15
10.00	.15	100.02	.000	.15
10.25	.15	100.02	.000	.15
10.50	.15	100.02	.000	.15
10.75	.15	100.02	.000	.15
11.00	.15	100.02	.000	.15
11.25	.14	100.02	.000	.14

11.50 .14 100.02 .000 .15
11.75 .14 100.02 .000 .14
12.00 .14 100.02 .000 .14
12.25 .14 100.02 .000 .14
12.50 .14 100.02 .000 .14
12.75 .13 100.02 .000 .13
13.00 .13 100.02 .000 .13
13.25 .13 100.02 .000 .13
13.50 .13 100.02 .000 .13
13.75 .13 100.02 .000 .13
14.00 .13 100.02 .000 .13
14.25 .12 100.02 .000 .12
14.50 .12 100.02 .000 .12
14.75 .12 100.02 .000 .12
15.00 .12 100.02 .000 .12
15.25 .12 100.02 .000 .12
15.50 .12 100.02 .000 .12
16.00 .12 100.02 .000 .12
16.25 .11 100.02 .000 .11
16.50 .11 100.02 .000 .11
16.75 .11 100.02 .000 .11
17.00 .11 100.02 .000 .11
17.25 .11 100.02 .000 .11
17.50 .11 100.02 .000 .11
18.00 .11 100.02 .000 .11
18.25 .11 100.02 .000 .11
18.50 .10 100.01 .000 .10
18.75 .11 100.02 .000 .11
19.00 .11 100.02 .000 .11
19.25 .11 100.02 .000 .10
19.50 .10 100.01 .000 .10
19.75 .10 100.01 .000 .10
20.00 .10 100.01 .000 .10
20.25 .10 100.01 .000 .10
20.50 .10 100.01 .000 .10
21.00 .10 100.01 .000 .10
21.25 .10 100.01 .000 .10
21.50 .10 100.01 .000 .10
21.75 .09 100.01 .000 .10
22.00 .10 100.01 .000 .09
22.25 .09 100.01 .000 .09
22.50 .09 100.01 .000 .09
22.75 .09 100.01 .000 .09
23.00 .09 100.01 .000 .09
23.25 .09 100.01 .000 .09
23.50 .09 100.01 .000 .09
23.75 .09 100.01 .000 .09
24.00 .09 100.01 .000 .09
24.25 .01 100.00 .000 .02
24.50 .00 100.00 .000 .00
PEAK DISCHARGE = 6.303 CFS - PEAK OCCURS AT HOUR 2.00
MAXIMUM WATER SURFACE ELEVATION = 100.438
MAXIMUM STORAGE = .5343 AC-FT INCREMENTAL TIME = .050000HRS

PRINT HYD ID=10 CODE=10
HYDROGRAPH FROM AREA POND.D11

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	6.000	.2	12.000	.1	18.000	.1
.500	.0	6.500	.2	12.500	.1	18.500	.1
1.000	.0	7.000	.2	13.000	.1	19.000	.1
1.500	4.3	7.500	.2	13.500	.1	19.500	.0
2.000	6.3	8.000	.2	14.000	.1	20.000	.0
2.500	5.4	8.500	.2	14.500	.1	20.500	.0
3.000	4.0	9.000	.2	15.000	.1	21.000	.0
3.500	2.5	9.500	.2	15.500	.1	21.500	.0
4.000	1.1	10.000	.2	16.000	.1	22.000	.0
4.500	.1	10.500	.1	16.500	.1	22.500	.0
5.000	.1	11.000	.1	17.000	.1	23.000	.0
5.500	.2	11.500	.1	17.500	.1	23.500	.0

RUNOFF VOLUME = 1.60017 INCHES = 1.1692 ACRE-FEET
PEAK DISCHARGE RATE = 6.30 CFS AT 2.000 HOURS BASIN AREA = .0137 SQ. MI.

* DI #2

ROUTE RESERVOIR	ID=11	HYD NO=POND.D12	INFLOW ID=1	CODE=5
OUTFLOW (CFS)	STORAGE (AC-FT)	ELEV (FT)		
0	0	100.00	100.00	100.1
0.686656971	0	0.01171967	100.15	
1.261469406	0.034257496	100.2		
1.942159203	0.07121953	100.25		
2.71425	0.126211826	100.3		
3.567974284	0.202840435	100.35		
4.496161474	0.304711409	100.4		
5.493255769	0.4354308	100.5		
6.554787309	0.598604661	100.55		
7.677058323	0.797839043	100.6		
8.856943367	1.03674	100.7		
10.07009513	1.343254435	100.8		
11.62794427	1.75073833	101.00		
13.00043692	2.342130887	102.00		
18.3853942	4.145156973	103.00		
22.51741726	8.833024799			

* * * * *
TIME (HRS) INFLOW (CFS) ELEV (FEET) VOLUME (AC-FT) OUTFLOW (CFS)
.00 .00 100.00 .000 .00

.25 .00 100.00 .000 .00
 .50 .00 100.00 .000 .00
 1.00 .00 100.00 .000 .00
 1.25 .59 100.09 .000 .59
 1.50 10.25 100.26 .080 2.85
 1.75 3.99 100.31 .142 3.76
 2.00 2.49 100.30 .130 3.62
 2.25 .64 100.27 .092 3.03
 2.50 .28 100.22 .046 2.19
 2.75 .14 100.15 .014 1.33
 3.00 .07 100.00 .000 .00
 3.25 .05 100.01 .000 .10
 3.50 .04 100.00 .000 .07
 3.75 .03 100.01 .000 .07
 4.00 .03 100.00 .000 .00
 4.25 .04 100.01 .000 .07
 4.50 .04 100.00 .000 .00
 4.75 .05 100.01 .000 .08
 5.00 .05 100.00 .000 .01
 5.25 .06 100.01 .000 .09
 5.50 .06 100.00 .000 .03
 5.75 .07 100.01 .000 .10
 6.00 .08 100.01 .000 .04
 6.25 .08 100.02 .000 .11
 6.50 .07 100.01 .000 .04
 6.75 .07 100.02 .000 .10
 7.00 .07 100.01 .000 .04
 7.25 .07 100.01 .000 .10
 7.50 .07 100.01 .000 .04
 8.00 .07 100.00 .000 .10
 8.25 .06 100.01 .000 .03
 8.50 .06 100.00 .000 .03
 8.75 .06 100.01 .000 .10
 9.00 .06 100.00 .000 .03
 9.25 .06 100.01 .000 .09
 9.50 .06 100.00 .000 .03
 9.75 .06 100.01 .000 .09
 10.00 .06 100.00 .000 .03
 10.25 .06 100.01 .000 .09
 10.50 .06 100.00 .000 .02
 10.75 .06 100.01 .000 .09
 11.00 .06 100.00 .000 .02
 11.25 .05 100.01 .000 .09
 11.50 .05 100.00 .000 .02
 11.75 .05 100.01 .000 .09
 12.00 .05 100.00 .000 .02
 12.25 .05 100.01 .000 .08
 12.50 .05 100.00 .000 .02
 12.75 .05 100.01 .000 .08
 13.00 .05 100.00 .000 .02
 13.25 .05 100.01 .000 .08
 13.50 .05 100.00 .000 .02
 13.75 .05 100.01 .000 .08
 14.00 .05 100.00 .000 .02
 14.25 .05 100.01 .000 .08
 14.50 .05 100.00 .000 .01
 14.75 .05 100.01 .000 .08
 15.00 .05 100.00 .000 .01
 15.25 .05 100.01 .000 .08
 15.50 .04 100.00 .000 .01
 15.75 .05 100.01 .000 .08
 16.00 .04 100.00 .000 .01
 16.25 .04 100.01 .000 .08
 16.50 .04 100.00 .000 .01
 16.75 .04 100.01 .000 .08
 17.00 .04 100.00 .000 .01
 17.25 .04 100.01 .000 .08
 17.50 .04 100.00 .000 .01
 17.75 .04 100.01 .000 .08
 18.00 .04 100.00 .000 .01
 18.25 .04 100.01 .000 .08
 18.50 .04 100.00 .000 .01
 18.75 .04 100.01 .000 .08
 19.00 .04 100.00 .000 .01
 19.25 .04 100.01 .000 .08
 19.50 .04 100.00 .000 .01
 19.75 .04 100.01 .000 .08
 20.00 .04 100.00 .000 .01
 20.25 .04 100.01 .000 .08
 20.50 .04 100.00 .000 .01
 20.75 .04 100.01 .000 .08
 21.00 .04 100.00 .000 .01
 21.25 .04 100.01 .000 .08
 21.50 .04 100.00 .000 .01
 21.75 .04 100.01 .000 .08
 22.00 .04 100.00 .000 .01
 22.25 .04 100.01 .000 .08
 22.50 .03 100.00 .000 .07
 22.75 .03 100.01 .000 .07
 23.00 .03 100.00 .000 .00
 23.25 .03 100.01 .000 .07
 23.50 .03 100.00 .000 .00
 23.75 .03 100.01 .000 .07
 24.00 .03 100.00 .000 .00
 24.25 .01 100.00 .000 .01
 24.50 .00 100.00 .000 .00
 PEAK DISCHARGE = 3.759 CFS - PEAK OCCURS AT HOUR 1.80
 MAXIMUM WATER SURFACE ELEVATION = 100.310
 MAXIMUM STORAGE = .1420 AC-FT INCREMENTAL TIME= .050000HRS

PRINT HYD ID=11 CODE=10

HYDROGRAPH FROM AREA POND.D12

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

.000	.0	5.000	.0	10.000	.0	15.000	.0	20.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0	20.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0	21.000	.0
1.500	2.9	6.500	.0	11.500	.0	16.500	.0	21.500	.0
2.000	3.6	7.000	.0	12.000	.0	17.000	.0	22.000	.0
2.500	2.2	7.500	.0	12.500	.0	17.500	.0	22.500	.0
3.000	.0	8.000	.0	13.000	.0	18.000	.0	23.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0	23.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0	24.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0	24.500	.0

RUNOFF VOLUME = 1.60235 INCHES
PEAK DISCHARGE RATE = 3.76 CFS AT 1.800 HOURS BASIN AREA = .0052 SQ. MI.

* DI #3

ROUTE RESERVOIR	ID=12	HYD NO=POND.DI3	INFLOW ID=2	CODE=5	ELEV (FT)	100.00
	OUTFLOW (CFS)	STORAGE (AC-FT)	ELEV (FT)			
	0	0	0			100.1
	0.686656971		0.0239			100.15
	1.261469406		0.0699			100.2
	1.942159203		0.1453			100.25
	2.71425		0.2576			100.3
	3.567974284		0.4140			100.35
	4.496161474		0.6219			100.4
	5.493255769		0.8886			100.45
	6.554787309		1.2216			100.5
	7.677058323		1.6282			100.55
	8.856943367		2.1158			100.6
	10.07009513		2.7413			100.7
	10.87694589		3.5729			100.8
	11.62794427		4.7799			101.00
	13.00043692		8.4595			102.00
	18.3853942		18.0266			103.00
	22.51741726					

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	100.00	.000	.00
.25	.00	100.00	.000	.00
.50	.00	100.00	.000	.00
.75	.00	100.00	.000	.00
1.00	.00	100.00	.000	.00
1.25	.52	100.08	.000	.52
1.50	9.07	100.20	.075	2.00
1.75	3.53	100.25	.143	2.69
2.00	2.20	100.25	.145	2.71
2.25	.57	100.23	.118	2.44
2.50	.24	100.21	.080	2.04
2.75	.12	100.17	.046	1.59
3.00	.06	100.14	.019	1.15
3.25	.04	100.10	.001	.72
3.50	.03	100.00	.000	.00
3.75	.03	100.01	.000	.06
4.00	.03	100.00	.000	.00
4.25	.03	100.01	.000	.00
4.50	.04	100.01	.000	.07
4.75	.04	100.01	.000	.01
5.00	.04	100.00	.000	.08
5.25	.05	100.01	.000	.02
5.50	.05	100.00	.000	.09
5.75	.06	100.01	.000	.04
6.00	.07	100.01	.000	.10
6.25	.06	100.01	.000	.03
6.50	.06	100.01	.000	.09
6.75	.06	100.00	.000	.03
7.00	.06	100.00	.000	.03
7.25	.06	100.01	.000	.09
7.50	.06	100.01	.000	.03
7.75	.06	100.01	.000	.09
8.00	.06	100.00	.000	.03
8.25	.06	100.01	.000	.09
8.50	.06	100.00	.000	.03
8.75	.06	100.01	.000	.08
9.00	.06	100.00	.000	.03
9.25	.05	100.01	.000	.08
9.50	.05	100.00	.000	.02
9.75	.05	100.01	.000	.08
10.00	.05	100.00	.000	.02
10.25	.05	100.01	.000	.08
10.50	.05	100.00	.000	.02
10.75	.05	100.01	.000	.08
11.00	.05	100.00	.000	.02
11.25	.05	100.01	.000	.08
11.50	.05	100.00	.000	.02
11.75	.05	100.01	.000	.08
12.00	.05	100.00	.000	.02
12.25	.05	100.01	.000	.08
12.50	.05	100.00	.000	.02
12.75	.05	100.01	.000	.08
13.00	.04	100.00	.000	.02
13.25	.04	100.01	.000	.07
13.50	.04	100.00	.000	.01
13.75	.04	100.01	.000	.07
14.00	.04	100.00	.000	.01
14.25	.04	100.01	.000	.07
14.50	.04	100.00	.000	.01
14.75	.04	100.01	.000	.07
15.00	.04	100.00	.000	.01
15.25	.04	100.01	.000	.07
15.50	.04	100.00	.000	.01
15.75	.04	100.01	.000	.07
16.00	.04	100.00	.000	.01
16.25	.04	100.01	.000	.07

16.50 .04 100.00 .000 .01
16.75 .04 100.01 .000 .07
17.00 .04 100.00 .000 .01
17.25 .04 100.01 .000 .07
17.50 .04 100.00 .000 .01
17.75 .04 100.01 .000 .07
18.00 .04 100.00 .000 .01
18.25 .04 100.01 .000 .07
18.50 .03 100.00 .000 .00
18.75 .04 100.01 .000 .06
19.00 .04 100.00 .000 .01
19.25 .04 100.01 .000 .06
19.50 .03 100.00 .000 .01
19.75 .03 100.01 .000 .06
20.00 .03 100.00 .000 .00
20.25 .03 100.01 .000 .06
20.50 .03 100.00 .000 .00
20.75 .03 100.01 .000 .06
21.00 .03 100.00 .000 .00
21.25 .03 100.01 .000 .06
21.50 .03 100.00 .000 .00
21.75 .03 100.01 .000 .06
22.00 .03 100.00 .000 .00
22.25 .03 100.01 .000 .06
22.50 .03 100.00 .000 .00
22.75 .03 100.01 .000 .06
23.00 .03 100.00 .000 .00
23.25 .03 100.01 .000 .06
23.50 .03 100.00 .000 .00
23.75 .03 100.01 .000 .06
24.00 .03 100.00 .000 .00
PEAK DISCHARGE = 2.729 CFS - PEAK OCCURS AT HOUR 1.90
MAXIMUM WATER SURFACE ELEVATION = 100.251
MAXIMUM STORAGE = .1473 AC-FT INCREMENTAL TIME= .050000HRS

PRINT HYD ID=12 CODE=10

HYDROGRAPH FROM AREA POND.DI3

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0
1.500	2.0	6.500	.0	11.500	.0	16.500	.0
2.000	2.7	7.000	.0	12.000	.0	17.000	.0
2.500	2.0	7.500	.0	12.500	.0	17.500	.0
3.000	1.1	8.000	.0	13.000	.0	18.000	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0

RUNOFF VOLUME = 1.59976 INCHES .3925 ACRE-FEET
PEAK DISCHARGE RATE = 2.73 CFS AT 1.900 HOURS BASIN AREA = .0046 SQ. MI.

* DI #4

ROUTE RESERVOIR ID=13 HYD NO=POND.DI4 INFLOW ID=3 CODE=5
OUTFLOW (CFS) STORAGE (AC-FT) ELEV (FT)
0 0 0
0.686656971 0 100.1
1.261469406 0.292991739 100.15
1.942159203 0.856437391 100.2
2.71425 1.780488261 100.25
3.567974284 3.155295652 100.3
4.496161474 5.071010869 100.35
5.493255769 7.617785217 100.4
6.554787309 10.88577 100.45
7.677058323 14.96511652 100.5
8.856943367 19.94597608 100.55
10.07009513 25.9185 100.6
10.87694589 33.58136087 100.7
11.62794427 43.76845826 100.8
13.00043692 58.55327217 101.0
18.3853942 103.6289243 102.0
22.51741726 220.82562 103.0

* * * * *
TIME (HRS) INFLOW (CFS) ELEV (FEET) VOLUME (AC-FT) OUTFLOW (CFS)
.00 .00 .00 .000 .00
.25 .00 .00 .000 .00
.50 .00 .00 .000 .00
.75 .00 .00 .000 .00
1.00 .00 .00 .000 .00
1.25 .27 39.70 .000 .27
1.50 4.73 100.11 .038 .76
1.75 1.84 100.11 .083 .85
2.00 1.15 100.12 .095 .87
2.25 .30 100.12 .092 .87
2.50 .13 100.11 .078 .84
2.75 .06 100.11 .063 .81
3.00 .03 100.11 .047 .78
3.25 .02 100.11 .032 .75
3.50 .02 100.10 .017 .72
3.75 .02 100.10 .003 .69
4.00 .02 4.44 .000 .03
4.25 .02 .15 .000 .00
4.50 .02 4.72 .000 .03
4.75 .02 .68 .000 .00
5.00 .02 5.33 .000 .04
5.25 .02 1.35 .000 .01
5.50 .03 6.18 .000 .04

5.75 .03 2.38 .000 .02
6.00 .03 2.28 .000 .05
6.25 .03 2.90 .000 .02
6.50 .03 7.04 .000 .02
6.75 .03 2.65 .000 .05
7.00 .03 6.95 .000 .05
7.25 .03 2.46 .000 .02
7.50 .03 6.86 .000 .05
7.75 .03 2.34 .000 .02
8.00 .03 6.59 .000 .05
8.25 .03 2.18 .000 .01
8.50 .03 6.34 .000 .04
8.75 .03 2.01 .000 .01
9.00 .03 6.42 .000 .04
9.25 .03 1.96 .000 .01
9.50 .03 6.26 .000 .04
9.75 .03 1.76 .000 .01
10.00 .03 6.12 .000 .04
10.25 .03 1.76 .000 .01
10.50 .03 6.03 .000 .04
10.75 .03 1.65 .000 .01
11.00 .03 5.91 .000 .04
11.25 .03 1.47 .000 .01
11.50 .03 5.88 .000 .04
11.75 .02 1.43 .000 .01
12.00 .02 5.67 .000 .04
12.25 .02 1.29 .000 .01
12.50 .02 5.69 .000 .04
12.75 .02 1.24 .000 .01
13.00 .02 5.61 .000 .04
13.25 .02 1.19 .000 .01
13.50 .02 5.53 .000 .04
13.75 .02 1.12 .000 .01
14.00 .02 5.50 .000 .04
14.25 .02 5.98 .000 .04
14.50 .02 5.35 .000 .04
14.75 .02 5.35 .000 .04
15.00 .02 5.97 .000 .04
15.25 .02 5.35 .000 .01
15.50 .02 5.21 .000 .04
15.75 .02 5.86 .000 .01
16.00 .02 5.17 .000 .04
16.25 .02 5.13 .000 .04
16.50 .02 5.74 .000 .01
16.75 .02 5.70 .000 .04
17.00 .02 5.01 .000 .03
17.25 .02 4.99 .000 .00
17.50 .02 4.99 .000 .03
17.75 .02 4.91 .000 .03
18.00 .02 4.66 .000 .00
18.25 .02 4.65 .000 .03
18.50 .02 4.79 .000 .00
18.75 .02 5.1 .000 .03
19.00 .02 4.88 .000 .03
19.25 .02 4.9 .000 .03
19.50 .02 4.84 .000 .00
19.75 .02 4.37 .000 .03
20.00 .02 4.79 .000 .03
20.25 .02 4.35 .000 .00
20.50 .02 4.69 .000 .03
20.75 .02 4.38 .000 .00
21.00 .02 4.65 .000 .03
21.25 .02 4.28 .000 .00
21.50 .02 4.64 .000 .03
21.75 .02 4.23 .000 .00
22.00 .02 4.62 .000 .03
22.25 .02 4.22 .000 .00
22.50 .02 4.50 .000 .03
22.75 .02 4.11 .000 .00
23.00 .02 4.53 .000 .03
23.25 .02 4.09 .000 .00
23.50 .02 4.47 .000 .03
23.75 .02 4.45 .000 .00
24.00 .02 4.45 .000 .03
24.25 .00 .00 .00 .00

PEAK DISCHARGE = .876 CFS - PEAK OCCURS AT HOUR 2.10
MAXIMUM WATER SURFACE ELEVATION = 100.116
MAXIMUM STORAGE = .0964 AC-FT INCREMENTAL TIME = .050000HRS

PRINT HYD ID=13 CODE=10

HYDROGRAPH FROM AREA POND.D14

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	20.000	.0
.500	.0	5.500	.0	10.500	.0	20.500	.0
1.000	.0	6.000	.0	11.000	.0	21.000	.0
1.500	.8	6.500	.0	11.500	.0	21.500	.0
2.000	.9	7.000	.0	12.000	.0	22.000	.0
2.500	.8	7.500	.0	12.500	.0	22.500	.0
3.000	.8	8.000	.0	13.000	.0	23.000	.0
3.500	.7	8.500	.0	13.500	.0	23.500	.0
4.000	.0	9.000	.0	14.000	.0	24.000	.0
4.500	.0	9.500	.0	14.500	.0		

RUNOFF VOLUME = 1.60835 INCHES .2059 ACRE-FEET
PEAK DISCHARGE RATE = .88 CFS AT 2.100 HOURS BASIN AREA = .0024 SQ. MI.

FINISH

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 11:05:07

ALBUQUERQUE
505-242-5700

LAS CRUCES
505-522-0049