CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

March 4, 2022

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM 87108

RE: Villa De Marcos Gabriel Subdivision
Grading Plan & Drainage Report
Engineer's Stamp Date: 01/24/22
Hydrology File: L10D027

Dear Mr. Arfman:

Based upon the information provided in your submittal received 12/10/2021, the Grading Plan & Drainage Report are approved for Grading Permit and Work Order.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Villa De Marcos Gabriel Subdvision Building Permit #: N/A Hydrology File #: _____

DRB#: _____ EPC#: _____ Work Order#: CPN: 633982

Legal Description: Unplatted Lands of Board of Education, A.P.S. Property No. 15 / Undesignated Tract, Town of Atrisco Grant, Unit 6

City Address: S3740 Bridge Blvd SW, Albuquerque, NM 87121

Applicant: Isaacson & Arfman, Inc. Contact: Ian Anderson

Address: 128 Monroe Street NE, Albuquerque, NM 87108

Phone#: 505-268-8828 Fax#: _____ E-mail: ian@iacivil.com

Owner: LGI Homes, Inc Contact: Eric Berman

Address: 9105 E Del Camino, Suite 118, Scottsdale, AZ 85258

Phone#: 845-536-2183 Fax#: _____ E-mail: eric.berman@lgihomes.com

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

IS THIS A RESUBMITTAL?: _____ Yes x _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION x ____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

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

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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

DATE SUBMITTED: 01/24/22 By: Ian Anderson

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

JANUARY 24, 2022

DRAINAGE REPORT

FOR

VILLA DE MARCOS GABRIEL
SUBDIVISION

BERNALILLO COUNTY, NEW MEXICO

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 03/04/22
BY: Renée C. Brissette
HydroTrans # L10D027

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

PREPARED BY

Isaacson & Arfman, Inc.
EST 1980
Civil Engineering Consultants

128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

I&A Project No. 2412

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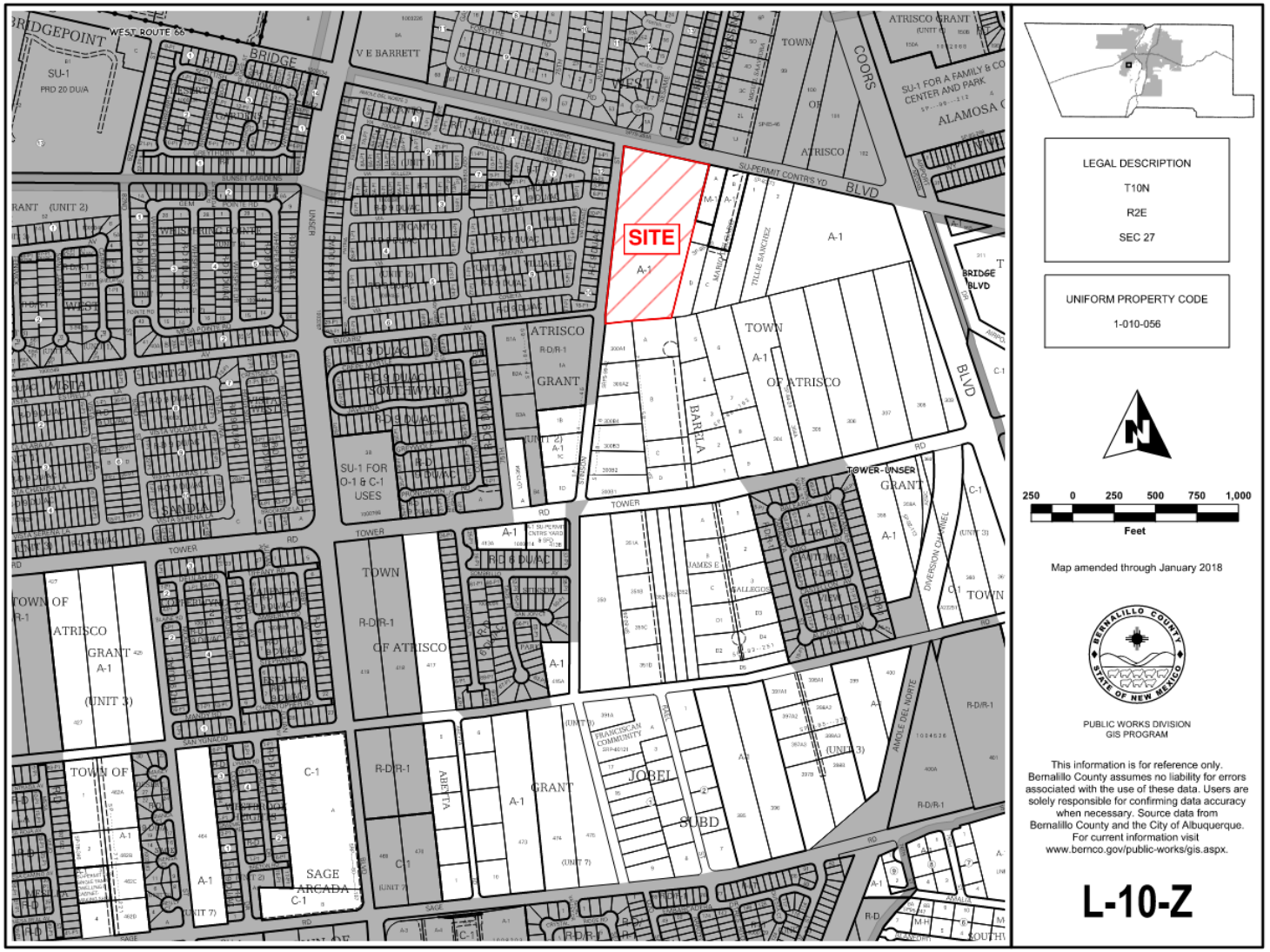


FIGURE 1.1 - LOCATION / ZONE ATLAS MAP

PROJECT INFORMATION

PROPOSED LEGAL DESCRIPTION:
Villa De Marcos Gabriel Subdivision

EXISTING LEGAL DESCRIPTION:
Unplatted Lands of Board of Education, A.P.S. Property No. 15 / Undesignated Tract, Town of Atrisco Grant, Unit 6

ENGINEER: Isaacson & Arfman, Inc.
128 Monroe Street NE
Albuquerque, NM 87108
(505) 268-8828
Attn: Ian M. N. Anderson, PE

DEVELOPER: LGI Homes
9105 E Del Camino, Suite 118
Scottsdale, AZ 85258
(845) 536-2183
Attn: Eric Berman

SURVEYOR: SurvTek, Inc.
P.O. Box 66885
Albuquerque, NM 87114
(505) 897-3366
Attn: Russ Hugg

AREA: 9.6194 AC.±

NUMBER OF PROPOSED DWELLING UNITS: 57

FLOOD PLAIN: This property lies within Flood Zone X which is defined as an area of minimal flood hazard as determined by F.E.M.A. and shown on the Flood Insurance Rate Maps dated August 16, 2012, Map No. 35001C0329H.

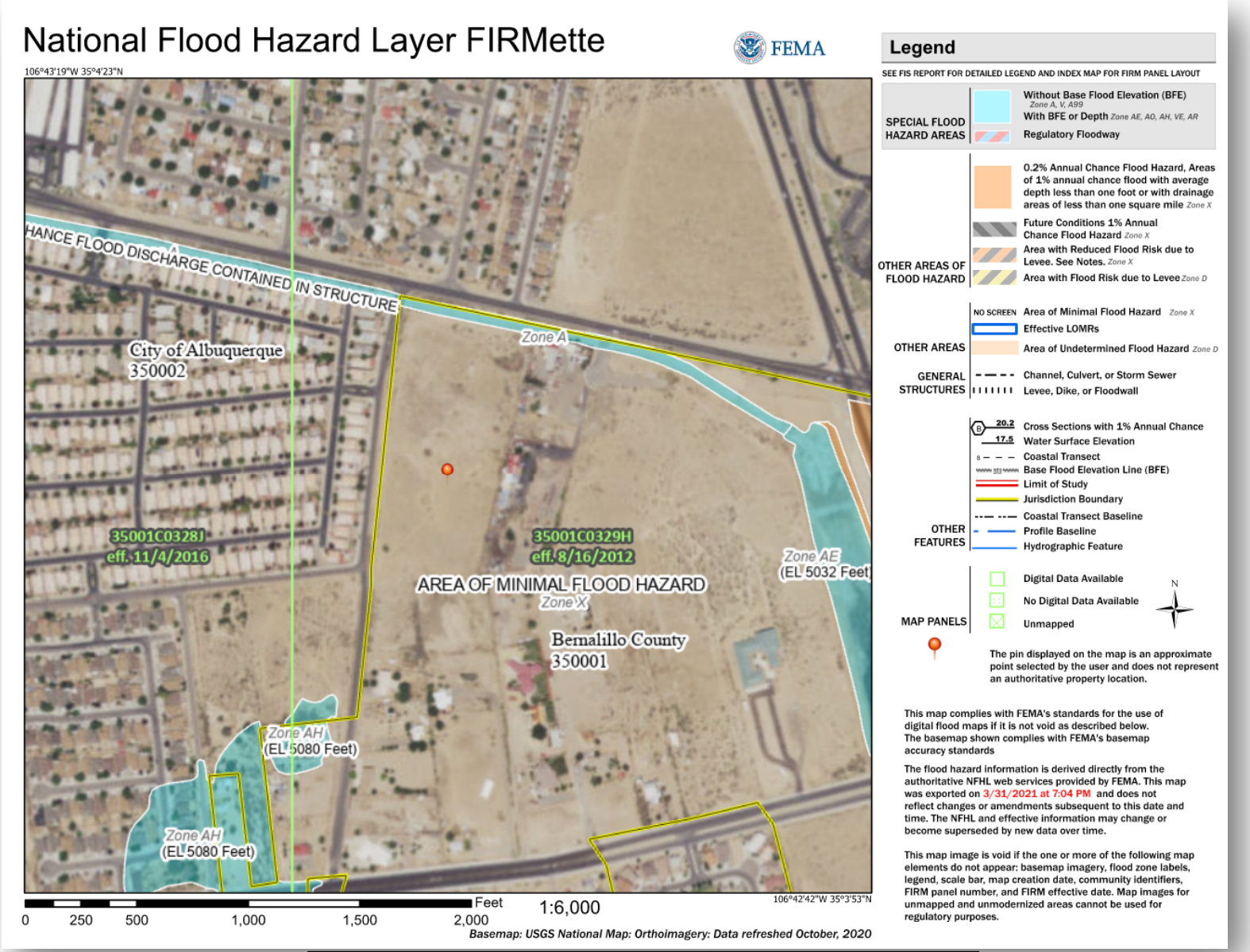


FIGURE 1.2 – FEMA FIRMETTE 35001C0329H

I. INTRODUCTION

The proposed Villa De Marcos Gabriel Subdivision is located east of Stinson St. SW; south of Bridge Boulevard SW, west of Coors Boulevard SW, and north of Tower Road SW. Under previous ownership, this site was approved for Special Use Permit (SUP) through the County of Bernalillo's SUP review process. The SUP package that was approved included a Concept Grading and Drainage for the Site dated June 24, 2021. The project site falls under the approved drainage master plan for the Amole Del Norte Storm Diversion Facilities Tierra Bayita Drainage Facilities Phase III on file with City of Albuquerque Hydrology prepared by URS Grenier, Inc., dated March 19, 1999.

The land is now owned by LGI Homes. and is planned as a single-family subdivision with a total of 57 single-detached residential lots to be developed. This report is prepared to identify the drainage improvements required to support the development of the subdivision.

II. EXISTING CONDITIONS

The project site currently is undeveloped with various low-lying bushes and grasses throughout the vacant property. The existing Stinson Street SW is only half developed, with portions of the undeveloped public right-of-way drainage entering the project site. There is an existing City of Albuquerque Drainage easement located at the northwest corner of the site, covering an existing modified manhole/inlet which collects the runoff generated within the undeveloped public right of way. The existing site was divided into 3 separate drainage basin areas, while 4 off-site basins were determined to affect the on-site drainage patterns. Each drainage basin was analyzed for its specific land treatment area type percentages, which were then used in determining the existing drainage basin runoff flows generated. The existing drainage basin exhibit noting all 7 of these basins and the corresponding land treat area type percentages have been included in Appendix A at the end of this report.

OFFSITE FLOWS

The southernmost existing drainage basin (XBA-1) on site drains southernly towards the neighboring properties located along the site's southern boundary. The generated runoff within this drainage basin was determined to be 1.48 cfs in the 100-year storm event. This basin is the only on-site drainage basin that contributes to off-site flows leaving the site.

There is a total of four existing off-site drainage basins that contributes to the overall runoff entering the project site. The first basin (XOS-1) covers the undeveloped portion of Stinson Street SW which is directed to the existing modified manhole/inlet at the NW corner of the site. The runoff generated within this area is conveyed via overland swale along the shared boundary of the project site to the modified manhole/inlet. The existing drainage facilities located at the NW corner of the site will remain in place, ultimately out falling directly to the Amole Del Norte drainage channel. The total runoff generated within basin XOS-1 was determined to be 1.96 cfs.

The remaining basins all drain easterly on to the project site. Basin XOS-2 is the southernmost portion of the existing Stinson Street SW right-of-way that enters the site. The runoff contributes to the total drainage generated at the southern portion of the site, entering on-site basin XBA-1. The runoff from basin XOS-2 was determined to be 0.01 cfs. Basin XOS-3 and XOS-4 both enter on-site basin XBA-2 contributing to the total runoff generated within that area. The runoff generated from Basins XOS-3 and XOS-4 was determined to be 0.16 cfs and 0.02 cfs, respectively. See Table 2.1 below for the calculated generated runoff flow for each existing basin. See Appendix B for the existing drainage basin AHYMO calculations that was conducted to determine the existing runoff generated on site, and within its vicinity.

ON SITE BASINS

The remaining two existing on site basins enter the Amole Del Norte Channel along the northern boundary. The main basin on site, XBA-2, out falls into the drainage channel via overland flow. The existing runoff meanders through the property, ponding in various locations, until it overflows into the channel at the northeast corner of the site. The total runoff within this basin was calculated to be 13.99 cfs.

The last basin on site, XBA-3, is the portion of the property that enters the existing modified manhole/inlet within the public drainage easement at the northwest corner of the site. This area accepts off-site basin XOS-1 runoff and the combined total runoff is directed into the modified manhole/inlet, ultimately discharging into the Amole Del Norte Drainage channel. The runoff generated from XBA-3 was computed to be 0.07 cfs, while the total combined runoff of XBA-3 and XOS-1 was determined as 2.03 cfs.

See Table 2.1 below for the calculated runoff flow for each existing basin. See Appendix A & B for the existing drainage basin exhibit and the accompanying hydrologic calculations that were performed to determine the existing runoff generated on site and within its vicinity.

Table 2.1 – Existing Drainage Basin Summary

BASIN	AREA (SF)	AREA (AC.)	AREA (SQ.MI.)	Q_{100} (CFS)	V_{100} (AC-FT)	TOTAL OUT Q_{100} (CFS)	NOTES/ COMMENTS
XBA-1	40,058.67	0.92	0.00144	1.48	0.04470	1.48	Southern Basin, drains southernly to adjacent properties to the south
XBA-2	377,699.26	8.67	0.01355	13.99	0.42430	13.99	Main basin on site, drains north-easternly to existing channel to the north, ponds in various naturally made drainage pathways throughout the site
XBA-3	1,248.56	0.03	0.00004	0.07	0.00180	0.07	NW basin, portion of site entering existing modified manhole/inlet within COA drainage easement at NW corner of the project site
XOS-1	31,427.40	0.72	0.00113	1.96	0.07010	1.96	Eastern, undeveloped half of existing Stinson Street, drains northernly onto project site, entering XBA-3 and the modified manhole/inlet witin COA drainage easement on site
XOS-2	353.92	0.01	0.00001	0.01	0.00030	0.01	Eastern, undeveloped half of existing Stinson St ROW that drains south-easternly on site, entering XBA-1
XOS-3	3,612.21	0.08	0.00013	0.16	0.00450	0.16	Eastern, undeveloped half of existing Stinson St ROW that drains north-easternly on site, entering XBA-2
XOS-4	246.93	0.01	0.00001	0.02	0.00050	0.02	Eastern, undeveloped half of existing Stinson St ROW that drains north-easternly on site, entering XBA-2

III. PREVIOUSLY APPROVED AMOLE-HUBBLE DRAINAGE MASTER PLAN UPDATE ANALYSIS / RE-ANALYSIS

The project site was previously analyzed in the Amole-Hubble Drainage Master Plan Update (Amole Hubble DMP), prepared for AMAFCA by Wilson & Company in May 2013. The project site is programmed to discharge into the Amole Del Norte drainage channel running from west to east along the site's northern property line. The drainage channel outfalls into the City of Albuquerque's North/South Coors Connection Detention Pond, located roughly 900-ft to the east, and downstream from the project site, see Figure 3.1.

The project site was included within a larger sub-basin, TB225, in the Amole Hubble DMP. This sub-basin falls under two separate overall drainage basin areas, referenced in the discussion sections of both the Tierra Bayita Area Basin and the Atrisco Business Park Area Basin. Although there are 'future basin flow' restrictions noted within each basin discussion, the restrictions were not applied to the specific sub-basin TB225. This was also confirmed via email correspondence with AMAFCA representatives. Excerpts from the Amole Hubble DMP along with the email correspondence with AMAFCA is included at the end of this report under Appendix C for reference.

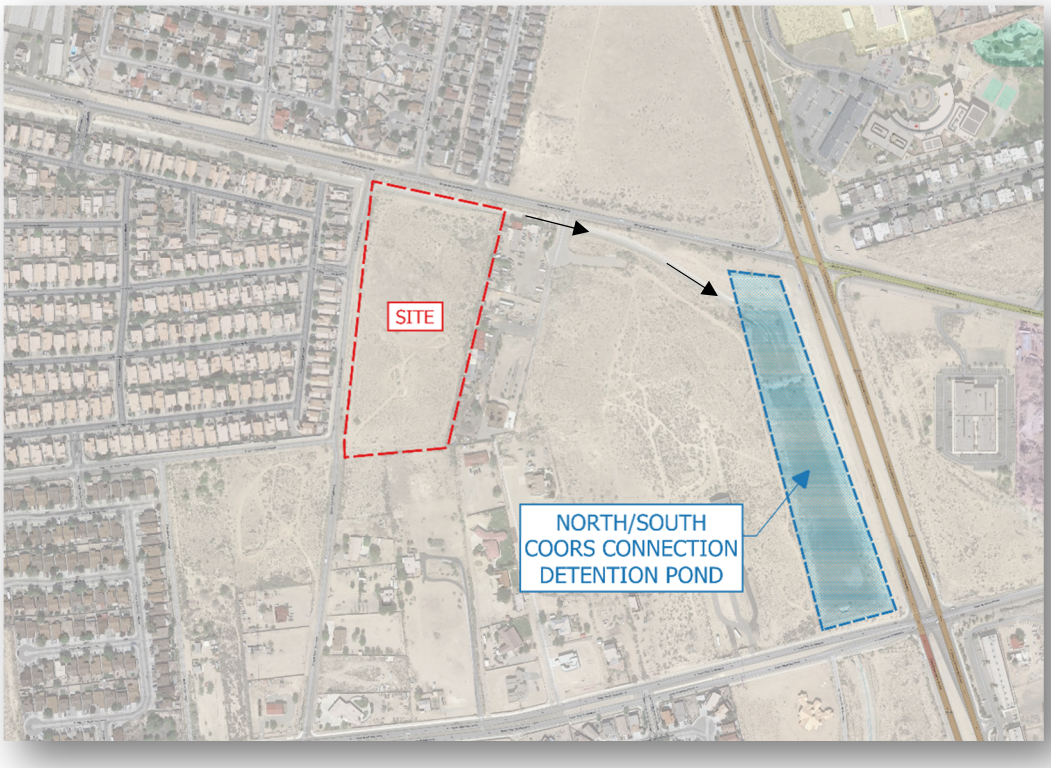


FIGURE 3.1 – COA NORTH/SOUTH COORS CONNECTION DETENTION POND

AMOLE HUBBLE DMP PROJECT SITE ALLOWABLE RELEASE

In reviewing the Amole Hubble DMP, the report notes the proposed project site and the Stinson Street SE right-of-way was enveloped within the limits of the larger sub-basin TB225. An analysis to define the allowable release from the project site areas was undertaken. The record AHYMO calculations that were included in the Amole Hubble DMP's Appendix B were revised to split sub-basin TB225 into two basins. The first, TB225.1, is the remainder of the overall sub-basin area following the removal of the project site area. The second, TB225.2, covering all areas that will be affected by the proposed Villa De Marcos Gabriel subdivision development, including the widening of Stinson Steet SE. The excerpts from the Amole Hubble DMP for the sections applicable to TB225 are included at the end of this report in Appendix C for reference.

The AHYMO calculation was re-analyzed with sub-basin TB225 split into two. The results of the re-analysis were confirmed to correspond with the original report results noted in the Amole Hubble DMP, for the specific sub-basin TB225, the downstream receiving pond, and the North/South Coors Connection Detention Pond. Following confirmation, the overall flow from sub-basin TB225.2 was noted as the 'allowable flow release' from the project site area. The allowable release was

determined to be 28.83 cfs, and is shown in the updated AHYMO calculations included in Appendix D at the end of this report.

IV. PROPOSED CONDITIONS

The site will be developed as a private subdivision with 57 single family residential lots, and three open space/landscape tracts. As part of this development, Stinson Street SW will be widened to the full 36-foot-wide roadway section. The roadway widening and internal public streets will be constructed as a standard crowned roadway with a standard curb and gutter. All runoff generated within the new development area will be conveyed via overland flow and roadway gutters to the existing and proposed drainage facilities. The captured runoff will ultimately out fall into the existing Amole Del Norte drainage channel along the northern boundary of this site. An analysis of the expected released flow was undertaken in order to compare the proposed development release result against the allowable release result noted in the Section III above.

STINSON STREET SW WIDENING

The current, existing roadway section of Stinson Street SW is 24-foot-wide, with no crown and roadway cross-slope in a single direction, from east to west. The proposed widening will include the removal of roughly 6-feet of the existing roadway on the eastern half of the existing extents of Stinson Street SW. The removal will allow for the construction of a standard crown within the full construction of Stinson Street SW roadway. The eastern half of the 36-foot-wide roadway will be sloped towards the east, and the generated runoff increase from this widening will be conveyed northward to the existing drain inlet just south of the Stinson Street & Bridge Boulevard intersection. The total runoff generated within the roadway widening, noted as Basin PR-3, was determined to be 2.26 cfs.

LAND TREATMENTS & BASIN AREAS

Land treatment area analysis was performed for each proposed drainage basin. The total area of each type was determined against the overall basin area for a total percentage of each land treatment type. The percentages were then used in determining the proposed runoff generated within each drainage basin.

See Appendix A the land treatment percentages for each drainage basin and the Proposed Drainage Basin Map. See Table 3.1 below for the basin summary in the proposed condition.

HYDROLOGY

The drainage calculations were performed for the 100-year, 24-hour storm using AHYMO-S4, 2009 with rainfall data from the NOAA Atlas 14.

See Appendix A includes the proposed basin area and flow summary table (including water quality volumes); land treatment calculations. See Appendix B for the AHYMO summary file for On-Site basin.

Table 3.1 – Proposed Drainage Basin Summary

BASIN	AREA (SF)	AREA (AC.)	AREA (SQ.MI.)	Q_{100} (CFS)	V_{100} (AC-FT)	TOTAL OUT Q_{100} (CFS)	NOTES/ COMMENTS
PR-1	416,507	9.5617	0.01494	33.76	0.63750	22.09	Main drainage basin on site in the proposed condition. Runoff generated within this area is conveyed via overland lot swales and roadway gutters to the proposed drainage pond located at the NE corner of the site.
PR-2	2,462	0.0565	0.00009	0.18	0.00240	0.18	Remaining portion of the public drainage easement at NW corner of the site. Runoff generated within this area will drain northward and enter the Amole Del Norte channel via overland flow
PR-3	27,103	0.6222	0.00097	2.26	0.08620	2.26	Fully constructed eastern half of Stinson St SW drainage basin, enters existing inlet within Stinson St SW near the NW corner of the site. Runoff utlimately outfalls directly to Amole Del Norte channel via the existing drainage system located within the public drainage easement at the NW corner of the site

WATER QUALITY VOLUMES

The required water quality volume to be captured and stored on site was determined based off of the total impervious area increase on site, or the total Land Treatment Type D area, in the proposed condition. The water quality calculation was performed under the County of Bernalillo requirements, using the 0.615-inch rainfall depth factor for new developments. The water quality volume calculations in the Basin Area and Flow Summary Table in Appendix A, shows that 13,448 cubic feet is required to be captured and retained on site.

The proposed drainage pond located at the northeast corner of the site, within Tract A, is sized to meet the storm water quality volume requirement. The drainage pond will provide for a total storage volume of 14,580 cubic feet, exceeding the calculated storm water quality volume requirement. See Appendix A for the storm water quality calculation and the pond storage volume table.

STREET CAPACITY

The internal streets will be public, and all streets will have a standard curb and gutter. The streets are designed to slope towards the drainage pond within Tract A, as the historical low point of the overall project site. At street intersections, the runoff flow will be carried through the intersection

using valley gutters. Once the drainage reaches the NE corner of the site, the runoff will enter the pond through a 10-ft wide pond rundown that will also double as the pond access ramp. Appendix E includes AutoCAD's Hydroflow Express analysis for the internal street capacity calculations.

TRACT A POND

As previously noted, the drainage pond located in Tract A is sized to capture the required storm water quality volume to be retained on site. The pond is required to store 13,448 cubic feet, based on the storm water quality calculation noted above, and provides a total storage volume capacity of 14,580 cubic feet.

The pond storage capacity was modeled and analyzed in AHYMO-S4, by routing the calculated runoff for basin PR-1 through the pond. The results for the pond generated by AHYMO show that in the 100-yr, 24-hr storm event the pond will reach a maximum water surface elevation of 5054.81. The pond's outlet structure invert is set to an elevation of 5054.50, and in the design storm event, the pond will release a maximum flow of 22.09 cfs.

The pond's outlet structure was designed to follow existing drainage run downs to the Amole Del Norte drainage channel from existing subdivisions upstream of the project site. The rundown was modeled as a channel within AutoCAD's Hydroflow Express, and shows the capacity of the rundown at the maximum flow released, per the AHYMO analysis.

Under the proposed conditions, the outlet structure has an excess of capacity to carry the expected generated runoff, from site basin PR-1, that will be released to the Amole Del Norte Drainage Channel, after the required storm water quality volume is retained. See Appendix B for the AHYMO results of the proposed pond analysis, and Appendix E for the Hydroflow Express results of the outlet structure channel.

VI. SUMMARY & CONCLUSIONS

The site will be developed as a single-family residential subdivision with 57 residential lots, and 3 open space/landscape tracts. A re-analysis of the Amole Hubble DMP was conducted to quantify an 'allowable runoff release' from the project site. The re-analysis confirmed that the 'allowable runoff release' from the project development areas (including Stinson Street widening) under the Amole Hubble DMP conditions was 28.83 cfs.

The new development is required to retain the Storm Water Quality Volume requirement, based on the total land treatment area D on site. The Storm Water Quality Volume required to be stored was calculated as 13,448 cf. The proposed site drainage pond on Tract A is sized to provide a storage volume of 14,580 cf to contain the required Storm Water Quality Volume.

The site drainage pond will release the developed runoff flow to the Amole Del Norte drainage channel once the storage volume is reached, at a rate of 22.09 cfs under the design storm event. The proposed widening of Stinson Street SE runoff will enter existing public drainage system that outfalls directly to Amole Del Norte, contributing 2.26 cfs to the overall runoff generated from the development. The northwest portion of the site, within the existing public drainage easement, will be maintained in the existing condition. The runoff generated within this area will either enter the Amole Del Norte channel via overland flow, or through the existing modified manhole/inlet within the easement area. This portion contributes a total runoff of 0.18 cfs to the overall generated runoff from this development. The overall generated runoff from this development is the summation of the areas noted above, and totals to a generated runoff of 24.53 cfs.

The overall generated runoff from this development is less than the allowable runoff release from this site under the Amole Hubble DMP conditions (24.53 cfs < 28.83 cfs). This development has been determined to adhere to the approved Amole Hubble DMP, and will actually reduce the allowable runoff from this project site by 4.3 cfs. Therefore, the proposed development will not have any adverse effect on downstream properties or drainage facilities from the project site.

Based on this report, the following drainage improvements shall be required:

- Private lot drainage swales to convey storm runoff from back of lots to the public right-of-way.
- Streets with curb & gutter;
- Tract A drainage pond to capture the required Storm Water Quality volume on site and release excess flow to the Amole Del Norte channel as shown on the Grading & Drainage Plan in the back pocket

APPENDIX A

Existing Drainage Basin Exhibit

Proposed Drainage Basin Exhibit

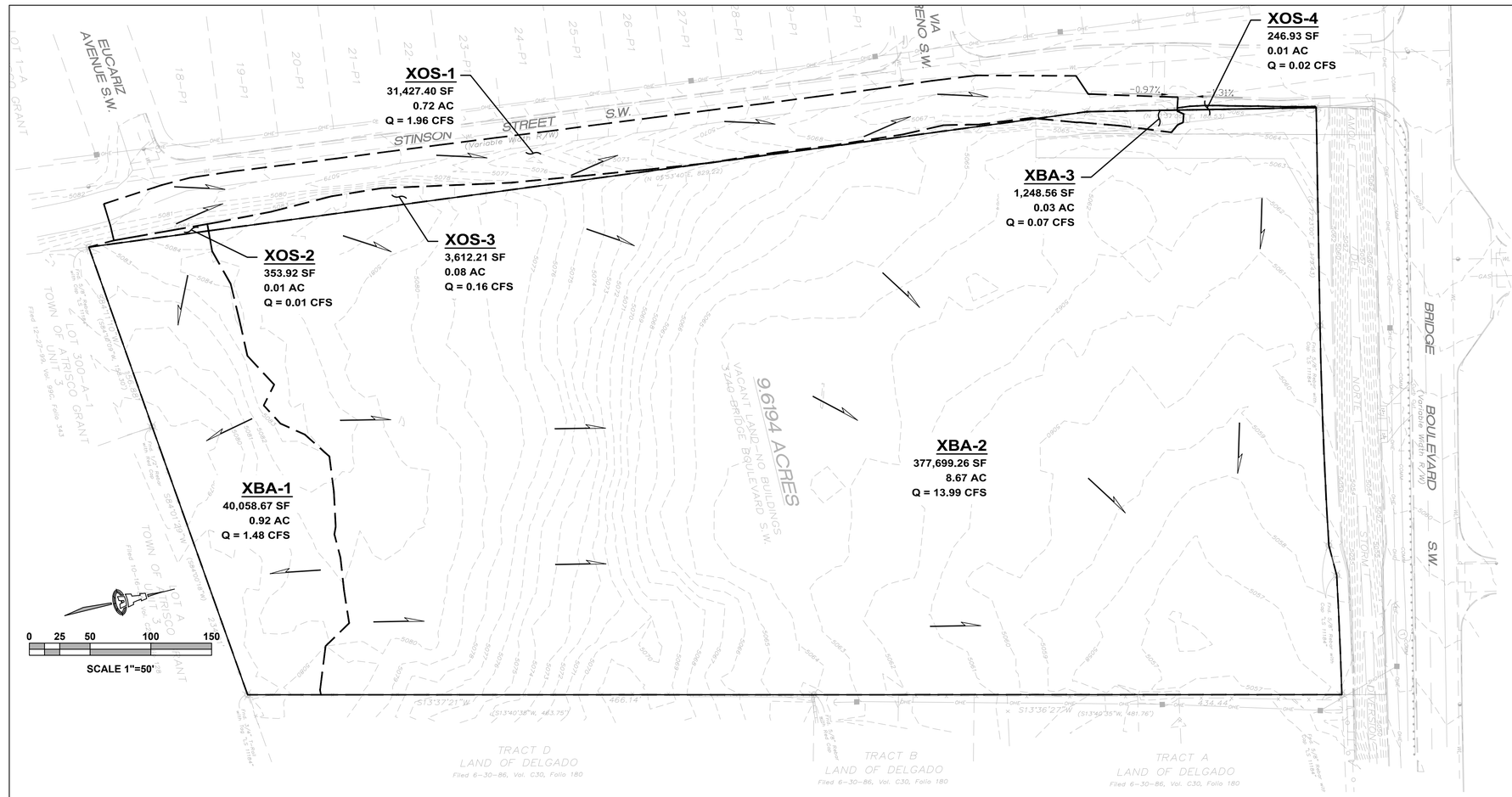
Existing & Proposed Land Treatment Calculation

Proposed Storm Water Quality Requirement Calculation

Existing Basin Area and Flow Summary Table

Proposed Basin Area and Flow Summary Table

Proposed Drainage Pond Sizing Calculation



LEGEND

- x 4941.57 — EXISTING SPOT ELEVATION
- 5045 — EXISTING CONTOUR
- 40 — PROPOSED CONTOUR (1' INCREMENT)
- 39.5 — PROPOSED SPOT ELEVATION
- FLOW ARROW
- EXISTING FLOW ARROW
- EROSION PROTECTION
- GRADE BREAK
- EXISTING FENCE
- EXISTING DRAINAGE BASIN
- PROPOSED DRAINAGE BASIN

EXISTING BASIN AREAS & FLOW SUMMARY (from AHYMO)

BASIN	AREA (SF)	AREA (AC.)	AREA (SQ.MI.)	Q_{100} (CFS)	V_{100} (AC-FT)	TOTAL OUT Q_{100} (CFS)	NOTES/ COMMENTS
XBA-1	40,058.67	0.92	0.00144	1.48	0.04470	1.48	Southern Basin, drains southernly to adjacent properties to the south
XBA-2	377,699.26	8.67	0.01355	13.99	0.42430	13.99	Main basin on site, drains north-easternly to existing channel to the north, ponds in various naturally made drainage pathways throughout the site
XBA-3	1,248.56	0.03	0.00004	0.07	0.00180	0.07	NW basin, portion of site entering existing modified manhole/inlet within COA drainage easement at NW corner of the project site
XOS-1	31,427.40	0.72	0.00113	1.96	0.07010	1.96	Eastern, undeveloped half of existing Stinson Street, drains northernly onto project site, entering XBA-3 and the modified manhole/inlet witin COA drainage easement on site
XOS-2	353.92	0.01	0.00001	0.01	0.00030	0.01	Eastern, undeveloped half of existing Stinson St ROW that drains south-easternly on site, entering XBA-1
XOS-3	3,612.21	0.08	0.00013	0.16	0.00450	0.16	Eastern, undeveloped half of existing Stinson St ROW that drains north-easternly on site, entering XBA-2
XOS-4	246.93	0.01	0.00001	0.02	0.00050	0.02	Eastern, undeveloped half of existing Stinson St ROW that drains north-easternly on site, entering XBA-2

SURVEY INFORMATION
FIELD NOTES

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "11-L10"
NEW MEXICO STATE PLAN COORDINATES CENTRAL ZONE (NAD 83)
N: 1,479,206.196 E: 1,499,894.295
ELEV: 5081.821
(US SURVEY FEET)

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
INSPECTED ACCEPTANCE BY — DATE
VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

ENGINEER'S SEAL

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION USE.

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY FCA	DATE 07/21/21
		DRAWN BY IMNA	DATE 07/21/21
		CHECKED BY: FCA	DATE 1/24/22

COUNTY OF BERNALILLO
PUBLIC WORKS DIVISION

TITLE: VILLA DE MARCOS GABRIEL SUBDIVISION

EXHIBIT - EXISTING BASINS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE

COUNTY PROJECT NO.	CITY PROJECT NO.	MAP NO.	SHEET	OF
XXXXXXX	633982	L-10	1	1

1/24/22 by IAN
M:\PROJECTS\2400-2499\2412\DWG\SHEETS\2412 CG-101 - BASINS.dwg

LEGEND

- x 4941.57 — EXISTING SPOT ELEVATION
- 5045 — EXISTING CONTOUR
- 40 — PROPOSED CONTOUR (1' INCREMENT)
- 39.5 — PROPOSED SPOT ELEVATION
- FLOW ARROW
- EXISTING FLOW ARROW
- EROSION PROTECTION
- GRADE BREAK
- EXISTING FENCE
- EXISTING DRAINAGE BASIN
- PROPOSED DRAINAGE BASIN

PROPOSED BASIN AREAS & FLOW SUMMARY (from AHYMO)

BASIN	AREA (SF)	AREA (AC.)	AREA (SQ.MI.)	Q_{100} (CFS)	V_{100} (AC-FT)	TOTAL OUT Q_{100} (CFS)	NOTES/ COMMENTS
PR-1	416,507	9.5617	0.01494	33.76	1.36960	22.09	Main drainage basin on site in the proposed condition. Runoff generated within this area is conveyed via overland lot swales and roadway gutters to the proposed drainage pond located at the NE corner of the site.
PR-2	2,462	0.0565	0.00009	0.18	0.00480	0.18	Remaining portion of the public drainage easement at NW corner of the site. Runoff generated within this area will drain northward and enter the Amole Del Norte channel via overland flow
PR-3	27,103	0.6222	0.00097	2.26	0.08620	2.26	Fully constructed eastern half of Stinson St SW drainage basin, enters existing inlet within Stinson St SW near the NW corner of the site. Runoff utlimately outfalls directly to Amole Del Norte channel via the existing drainage system located within the public drainage easement at the NW corner of the site

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
INSPECTED BY
ACCEPTANCE BY — DATE
VERIFICATION BY
DRAWINGS CORRECTED BY — DATE

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "11-L10"
NEW MEXICO STATE PLAN COORDINATES CENTRAL ZONE (NAD 83)
N: 1,479,206.196 E: 1,499,894.295
ELEV. 5081.821
(US SURVEY FEET)

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

SURVEY INFORMATION
FIELD NOTES
1.
1.

ENGINEER'S SEAL

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION USE.

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY — FCA — DATE 07/21/21	
		DRAWN BY — IMNA — DATE 07/21/21	
		CHECKED BY — FCA — DATE 1/24/22	

COUNTY OF BERNALILLO
PUBLIC WORKS DIVISION

TITLE: VILLA DE MARCOS GABRIEL SUBDIVISION

EXHIBIT - PROPOSED BASINS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE

COUNTY PROJECT NO.	CITY PROJECT NO.	MAP NO.	SHEET	OF
XXXXXXX	633982	L-10	1	1

1/24/22 by IAN
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LAND TREATMENT CALCULTIONS

PROJECT NAME: **Villa De Marcos Gabriel Subdivision**
JOB NUMBER: 2412

LAND TREATMENT CALCULTIONS

Basin ID	Basin Area (Ac)	# of Lots	LAND TREATMENTS			
			%A	%B	%C	%D
XBA-1	0.92	N/A	96	4	0	0
XBA-2	8.69	N/A	94	5	1	0
XBA-3	0.03	N/A	40	3	53	4
XOS-1	0.72	N/A	27	30	15	28
XOS-2	0.01	N/A	100	0	0	0
XOS-3	0.08	N/A	75	16	9	0
XOS-4	0.01	N/A	0	15	85	0
PR-1	9.56	57	0	29	8	63
PR-2	0.06	N/A	0	0	100	0
PR-3	0.62	N/A	0	0	47	53

Storm Water Quality (SWQ) Requirement:		
Proposed Area %D On-Site	6.02	Ac
	262,399.65	SF
BERNCO New Development Multiplier	0.615	in
SWQ Stored Volume Req	**13448**	**CF**

VILLA DE MARCOS GABRIEL SUBDIVISION

BASIN AREA AND FLOW/VOLUME SUMMARY

By: Ian Anderson, Isaacson & Arfman, Inc.

1/24/2022

EXISTING BASIN AREAS & FLOW SUMMARY (from AHYMO)

BASIN	AREA (SF)	AREA (AC.)	AREA (SQ.MI.)	Q_{100} (CFS)	V_{100} (AC-FT)	TOTAL OUT Q_{100} (CFS)	NOTES/ COMMENTS
XBA-1	40,058.67	0.92	0.00144	1.48	0.04470	1.48	Southern Basin, drains southernly to adjacent properties to the south
XBA-2	377,699.26	8.67	0.01355	13.99	0.42430	13.99	Main basin on site, drains north-easternly to existing channel to the north, ponds in various naturally made drainage pathways throughout the site
XBA-3	1,248.56	0.03	0.00004	0.07	0.00180	0.07	NW basin, portion of site entering existing modified manhole/inlet within COA drainage easement at NW corner of the project site
XOS-1	31,427.40	0.72	0.00113	1.96	0.07010	1.96	Eastern, undeveloped half of existing Stinson Street, drains northernly onto project site, entering XBA-3 and the modified manhole/inlet witin COA drainage easement on site
XOS-2	353.92	0.01	0.00001	0.01	0.00030	0.01	Eastern, undeveloped half of existing Stinson St ROW that drains south-easternly on site, entering XBA-1
XOS-3	3,612.21	0.08	0.00013	0.16	0.00450	0.16	Eastern, undeveloped half of existing Stinson St ROW that drains north-easternly on site, entering XBA-2
XOS-4	246.93	0.01	0.00001	0.02	0.00050	0.02	Eastern, undeveloped half of existing Stinson St ROW that drains north-easternly on site, entering XBA-2

VILLA DE MARCOS GABRIEL SUBDIVISION

BASIN AREA AND FLOW/VOLUME SUMMARY

By: Ian Anderson, Isaacson & Arfman, Inc.

1/24/2022

PROPOSED BASIN AREAS & FLOW SUMMARY (from AHYMO)

BASIN	AREA (SF)	AREA (AC.)	AREA (SQ.MI.)	Q_{100} (CFS)	V_{100} (AC-FT)	TOTAL OUT Q_{100} (CFS)	NOTES/ COMMENTS
PR-1	416,507	9.5617	0.01494	33.76	1.36960	22.09	Main drainage basin on site in the proposed condition. Runoff generated within this area is conveyed via overland lot swales and roadway gutters to the proposed drainage pond located at the NE corner of the site.
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HOA LOT A SWQ POND		
Contour	Area	Volume
5054.5	4,625	- -
5054	4,389	2,254 CF
5053	3,960	4,174 CF
5052	3,595	3,777 CF
5051	2,686	3,140 CF
5050.5	2,254	1,235 CF
POND VOLUME =		**14,580** CF

$V_{Provided}$		$V_{Required}$
14,580	>	13,448

APPENDIX B

NOAA Atlas 14

AHYMO 100-yr, 24-hr Summary for On-Site Basins

AHYMO 100-yr, 24-hr Results for On-Site Basins

NOAA Atlas 14, Volume 1, Version 5
Location name: Albuquerque, New Mexico, USA*
Latitude: 35.0695°, Longitude: -106.7168°
Elevation: 5062.46 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.168** (0.144-0.195)	**0.218** (0.186-0.253)	**0.292** (0.250-0.340)	**0.350** (0.298-0.406)	**0.430** (0.364-0.498)	**0.492** (0.416-0.571)	**0.558** (0.468-0.647)	**0.628** (0.523-0.727)	**0.723** (0.595-0.838)	**0.798** (0.652-0.924)
10-min	**0.255** (0.219-0.297)	**0.331** (0.284-0.385)	**0.443** (0.379-0.517)	**0.532** (0.454-0.618)	**0.654** (0.554-0.758)	**0.749** (0.632-0.868)	**0.850** (0.711-0.984)	**0.956** (0.795-1.11)	**1.10** (0.905-1.27)	**1.21** (0.993-1.41)
15-min	**0.316** (0.272-0.368)	**0.410** (0.351-0.477)	**0.549** (0.470-0.641)	**0.660** (0.563-0.766)	**0.811** (0.687-0.940)	**0.928** (0.784-1.08)	**1.05** (0.882-1.22)	**1.19** (0.986-1.37)	**1.36** (1.12-1.58)	**1.51** (1.23-1.74)
30-min	**0.426** (0.365-0.495)	**0.552** (0.473-0.642)	**0.740** (0.633-0.864)	**0.889** (0.758-1.03)	**1.09** (0.926-1.27)	**1.25** (1.06-1.45)	**1.42** (1.19-1.64)	**1.60** (1.33-1.85)	**1.84** (1.51-2.13)	**2.03** (1.66-2.35)
60-min	**0.527** (0.452-0.613)	**0.683** (0.585-0.795)	**0.916** (0.784-1.07)	**1.10** (0.938-1.28)	**1.35** (1.15-1.57)	**1.55** (1.31-1.79)	**1.76** (1.47-2.03)	**1.98** (1.64-2.29)	**2.27** (1.87-2.64)	**2.51** (2.05-2.91)
2-hr	**0.600** (0.513-0.711)	**0.767** (0.656-0.911)	**1.02** (0.868-1.21)	**1.22** (1.03-1.43)	**1.50** (1.26-1.76)	**1.73** (1.44-2.02)	**1.97** (1.63-2.30)	**2.22** (1.83-2.59)	**2.58** (2.10-3.01)	**2.86** (2.31-3.35)
3-hr	**0.648** (0.560-0.764)	**0.824** (0.710-0.972)	**1.08** (0.934-1.27)	**1.29** (1.11-1.51)	**1.57** (1.34-1.84)	**1.80** (1.53-2.10)	**2.05** (1.72-2.39)	**2.31** (1.92-2.69)	**2.67** (2.20-3.11)	**2.97** (2.42-3.47)
6-hr	**0.749** (0.652-0.874)	**0.945** (0.825-1.10)	**1.22** (1.07-1.42)	**1.44** (1.25-1.67)	**1.73** (1.50-2.01)	**1.97** (1.69-2.28)	**2.21** (1.89-2.56)	**2.47** (2.09-2.85)	**2.83** (2.37-3.27)	**3.12** (2.59-3.62)
12-hr	**0.843** (0.740-0.962)	**1.06** (0.935-1.21)	**1.35** (1.18-1.54)	**1.58** (1.38-1.79)	**1.88** (1.63-2.13)	**2.11** (1.83-2.40)	**2.36** (2.03-2.67)	**2.61** (2.23-2.96)	**2.95** (2.50-3.35)	**3.23** (2.71-3.68)
24-hr	**0.932** (0.828-1.06)	**1.17** (1.03-1.32)	**1.46** (1.30-1.65)	**1.69** (1.50-1.91)	**2.01** (1.77-2.26)	**2.25** (1.97-2.53)	**2.50** (2.19-2.81)	**2.75** (2.40-3.09)	**3.09** (2.67-3.47)	**3.35** (2.89-3.77)
2-day	**0.991** (0.883-1.11)	**1.24** (1.11-1.39)	**1.55** (1.38-1.73)	**1.79** (1.59-2.00)	**2.11** (1.87-2.35)	**2.36** (2.08-2.63)	**2.61** (2.30-2.91)	**2.87** (2.52-3.20)	**3.21** (2.80-3.58)	**3.47** (3.01-3.88)
3-day	**1.10** (0.993-1.21)	**1.37** (1.24-1.51)	**1.69** (1.53-1.86)	**1.94** (1.75-2.13)	**2.28** (2.05-2.50)	**2.53** (2.28-2.78)	**2.79** (2.50-3.07)	**3.05** (2.72-3.36)	**3.39** (3.02-3.74)	**3.65** (3.24-4.03)
4-day	**1.21** (1.10-1.32)	**1.49** (1.37-1.63)	**1.83** (1.67-1.99)	**2.09** (1.91-2.27)	**2.44** (2.23-2.65)	**2.71** (2.47-2.94)	**2.97** (2.70-3.23)	**3.24** (2.93-3.52)	**3.58** (3.24-3.90)	**3.84** (3.46-4.18)
7-day	**1.38** (1.26-1.50)	**1.71** (1.56-1.85)	**2.07** (1.90-2.25)	**2.35** (2.16-2.55)	**2.72** (2.50-2.94)	**2.99** (2.74-3.23)	**3.26** (2.99-3.52)	**3.52** (3.22-3.80)	**3.85** (3.51-4.16)	**4.08** (3.72-4.42)
10-day	**1.52** (1.40-1.65)	**1.88** (1.73-2.04)	**2.30** (2.12-2.48)	**2.62** (2.42-2.83)	**3.05** (2.80-3.28)	**3.36** (3.09-3.62)	**3.68** (3.37-3.96)	**3.99** (3.65-4.29)	**4.38** (3.99-4.72)	**4.67** (4.24-5.04)
20-day	**1.90** (1.74-2.06)	**2.35** (2.16-2.56)	**2.84** (2.62-3.09)	**3.22** (2.96-3.49)	**3.69** (3.39-4.00)	**4.03** (3.70-4.36)	**4.35** (4.00-4.70)	**4.66** (4.27-5.03)	**5.03** (4.61-5.44)	**5.29** (4.84-5.73)
30-day	**2.27** (2.09-2.45)	**2.81** (2.58-3.03)	**3.37** (3.10-3.64)	**3.79** (3.48-4.08)	**4.30** (3.96-4.62)	**4.66** (4.28-5.01)	**5.00** (4.60-5.37)	**5.32** (4.88-5.71)	**5.69** (5.22-6.11)	**5.94** (5.45-6.38)
45-day	**2.76** (2.55-2.98)	**3.42** (3.16-3.69)	**4.06** (3.76-4.37)	**4.52** (4.18-4.85)	**5.06** (4.69-5.43)	**5.43** (5.03-5.82)	**5.76** (5.34-6.16)	**6.04** (5.60-6.46)	**6.34** (5.89-6.77)	**6.50** (6.07-6.93)
60-day	**3.19** (2.95-3.44)	**3.93** (3.64-4.25)	**4.68** (4.34-5.04)	**5.21** (4.83-5.60)	**5.84** (5.42-6.28)	**6.26** (5.82-6.73)	**6.65** (6.18-7.15)	**6.98** (6.50-7.50)	**7.35** (6.85-7.90)	**7.57** (7.07-8.12)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical

AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4) - Ver. S4.01a, Rel: 01a RUN DATE (MON/DAY/YR) =01/24/2022
INPUT FILE = M:\PROJECTS\2400-2499\2412\CALCS\HYDROLOGY\2021 10-25_ahymo_runs\2412-R.DAT USER NO.= AHYMO_Temp_User:20122010

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	**PEAK DISCHARGE (CFS)**	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION	
*S**********											
START										TIME=	0.00
LOCATION	ALBUQUERQUE										
RAINFALL TYPE= 2 NOAA 14										RAIN24=	2.500
***S EXISTING BASIN 1 (XBA-1)**											
COMPUTE NM HYD	101.00	-	1	0.00144	**1.48**	0.045	0.58159	1.550	1.602	PER IMP=	0.00
***S EXISTING BASIN 2 (XBA-2)**											
COMPUTE NM HYD	102.00	-	2	0.01355	**13.99**	0.424	0.58713	1.550	1.614	PER IMP=	0.00
***S EXISTING BASIN 3 (XBA-3)**											
COMPUTE NM HYD	103.00	-	3	0.00004	**0.07**	0.002	0.86330	1.500	2.718	PER IMP=	4.00
***S EXISTING OFF-SITE BASIN 1 (XOS-1)**											
COMPUTE NM HYD	104.00	-	4	0.00113	**1.96**	0.070	1.16347	1.500	2.714	PER IMP=	28.00
***S EXISTING OFF-SITE BASIN 2 (XOS-2)**											
COMPUTE NM HYD	105.00	-	5	0.00001	**0.01**	0.000	0.57425	1.550	1.812	PER IMP=	0.00
***S EXISTING OFF-SITE BASIN 3 (XOS-3)**											
COMPUTE NM HYD	106.00	-	6	0.00013	**0.16**	0.004	0.64246	1.500	1.883	PER IMP=	0.00
***S EXISTING OFF-SITE BASIN 4 (XOS-4)**											
COMPUTE NM HYD	107.00	-	7	0.00001	**0.02**	0.001	0.96647	1.500	3.193	PER IMP=	0.00
***S PROPOSED BASIN 1 (PR-1)**											
COMPUTE NM HYD	108.00	-	8	0.01491	**33.76**	1.370	1.72231	1.500	3.538	PER IMP=	63.00
***S PROPOSED BASIN 2 (PR-2)**											
COMPUTE NM HYD	109.00	-	9	0.00009	**0.18**	0.005	1.00672	1.500	3.092	PER IMP=	0.00
***S PROPOSED BASIN 3 (PR-3)**											
COMPUTE NM HYD	110.00	-	10	0.00097	**2.26**	0.086	1.66573	1.500	3.637	PER IMP=	53.00
***S ~~~~~~~~~~~~~~~~~~~~ POND ~~~~~~~~~~~~~~~~~~~~~~**											
***S ROUTE BASIN PR-2 THROUGH POND (OVERFLOW CHANNEL)**											
ROUTE RESERVOIR	111.00	8	11	0.01491	**22.09**	1.370	1.72229	1.650	2.315	AC-FT=	0.351

FINISH

```
    AHYMO PROGRAM (AHYMO-S4)                    - Version: S4.01a - Rel: 01a
         RUN DATE (MON/DAY/YR) = 01/24/2022
         START TIME (HR:MIN:SEC) = 10:44:07     USER NO.= AHYMO_Temp_User:20122010
         INPUT FILE = M:\PROJECTS\2400-2499\2412\CALCS\HYDROLOGY\2021 10-25_ahymo_runs\2412-R.DAT

*S*****************************************************************
*
*     2412 - VILLA DE MARCOS GABRIEL SD
*     JANUARY 13, 2022 - IMNA
*
*     PRECIPITATION FROM NOAA
*     STINSON RD SW; ALBUQUERQUE; (LAT: 35.0695° LONG:-106.7168°)
*          P15 =       1.05"
*          P60 =       1.76"
*          P360 =      2.21"
*          P1440 =     2.50"
*
*     HYDROLOGIC MODEL FOR SITE EXISTING & PROPOSED CONDITIONS
*     100-YEAR, 24-HOUR STORM
*
*     2412-R.DAT
*     BY ISAACSON & ARFMAN PA - FRED ARFMAN, PE / IMNA
*
*****************************************************************
START               TIME=0.0 HR  PUNCH CODE=0
LOCATION                    ALBUQUERQUE
     City of Albuquerque soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment     Initial Abstr.(in)    Unif. Infilt.(in/hour)
          A             0.65                  1.67
          B             0.50                  1.25
          C             0.35                  0.83
          D             0.10                  0.04

RAINFALL            TYPE=2 RAIN QUARTER=1.05 RAIN ONE=1.76
                    RAIN SIX=2.21 RAIN DAY=2.50 DT=0.05HR

               24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE AREAS (NM & AZ) - D1
               DT =   0.050000 HOURS       END TIME =    24.000002 HOURS
                 0.0000  0.0030  0.0061  0.0094  0.0130  0.0167  0.0209
                 0.0268  0.0360  0.0460  0.0564  0.0677  0.0791  0.0909
                 0.1031  0.1155  0.1292  0.1435  0.1591  0.1812  0.2067
                 0.2408  0.2794  0.3271  0.3908  0.4625  0.5861  0.7784
                 1.1080  1.3396  1.5222  1.6140  1.6945  1.7523  1.7983
                 1.8383  1.8677  1.8946  1.9168  1.9340  1.9486  1.9616
                 1.9739  1.9846  1.9949  2.0048  2.0144  2.0224  2.0269
                 2.0313  2.0356  2.0397  2.0437  2.0477  2.0515  2.0553
                 2.0589  2.0625  2.0660  2.0694  2.0728  2.0761  2.0793
                 2.0824  2.0855  2.0886  2.0915  2.0944  2.0973  2.1001
                 2.1029  2.1056  2.1083  2.1110  2.1137  2.1163  2.1189
                 2.1214  2.1240  2.1264  2.1289  2.1314  2.1338  2.1362
                 2.1385  2.1409  2.1432  2.1454  2.1477  2.1499  2.1522
```

2.1543	2.1565	2.1587	2.1608	2.1629	2.1650	2.1671
2.1691	2.1711	2.1732	2.1752	2.1771	2.1791	2.1810
2.1830	2.1849	2.1868	2.1886	2.1905	2.1923	2.1942
2.1960	2.1978	2.1996	2.2013	2.2031	2.2048	2.2066
2.2083	2.2100	2.2108	2.2116	2.2124	2.2132	2.2140
2.2148	2.2156	2.2164	2.2172	2.2181	2.2189	2.2197
2.2205	2.2213	2.2221	2.2229	2.2237	2.2245	2.2253
2.2261	2.2269	2.2277	2.2285	2.2293	2.2301	2.2309
2.2317	2.2326	2.2334	2.2342	2.2350	2.2358	2.2366
2.2374	2.2382	2.2390	2.2398	2.2406	2.2414	2.2422
2.2430	2.2438	2.2446	2.2454	2.2462	2.2471	2.2479
2.2487	2.2495	2.2503	2.2511	2.2519	2.2527	2.2535
2.2543	2.2551	2.2559	2.2567	2.2575	2.2583	2.2591
2.2599	2.2607	2.2616	2.2624	2.2632	2.2640	2.2648
2.2656	2.2664	2.2672	2.2680	2.2688	2.2696	2.2704
2.2712	2.2720	2.2728	2.2736	2.2744	2.2752	2.2761
2.2769	2.2777	2.2785	2.2793	2.2801	2.2809	2.2817
2.2825	2.2833	2.2841	2.2849	2.2857	2.2865	2.2873
2.2881	2.2889	2.2897	2.2906	2.2914	2.2922	2.2930
2.2938	2.2946	2.2954	2.2962	2.2970	2.2978	2.2986
2.2994	2.3002	2.3010	2.3018	2.3026	2.3034	2.3042
2.3051	2.3059	2.3067	2.3075	2.3083	2.3091	2.3099
2.3107	2.3115	2.3123	2.3131	2.3139	2.3147	2.3155
2.3163	2.3171	2.3179	2.3187	2.3196	2.3204	2.3212
2.3220	2.3228	2.3236	2.3244	2.3252	2.3260	2.3268
2.3276	2.3284	2.3292	2.3300	2.3308	2.3316	2.3324
2.3332	2.3340	2.3349	2.3357	2.3365	2.3373	2.3381
2.3389	2.3397	2.3405	2.3413	2.3421	2.3429	2.3437
2.3445	2.3453	2.3461	2.3469	2.3477	2.3485	2.3494
2.3502	2.3510	2.3518	2.3526	2.3534	2.3542	2.3550
2.3558	2.3566	2.3574	2.3582	2.3590	2.3598	2.3606
2.3614	2.3622	2.3630	2.3639	2.3647	2.3655	2.3663
2.3671	2.3679	2.3687	2.3695	2.3703	2.3711	2.3719
2.3727	2.3735	2.3743	2.3751	2.3759	2.3767	2.3775
2.3784	2.3792	2.3800	2.3808	2.3816	2.3824	2.3832
2.3840	2.3848	2.3856	2.3864	2.3872	2.3880	2.3888
2.3896	2.3904	2.3912	2.3920	2.3929	2.3937	2.3945
2.3953	2.3961	2.3969	2.3977	2.3985	2.3993	2.4001
2.4009	2.4017	2.4025	2.4033	2.4041	2.4049	2.4057
2.4065	2.4074	2.4082	2.4090	2.4098	2.4106	2.4114
2.4122	2.4130	2.4138	2.4146	2.4154	2.4162	2.4170
2.4178	2.4186	2.4194	2.4202	2.4210	2.4219	2.4227
2.4235	2.4243	2.4251	2.4259	2.4267	2.4275	2.4283
2.4291	2.4299	2.4307	2.4315	2.4323	2.4331	2.4339
2.4347	2.4355	2.4364	2.4372	2.4380	2.4388	2.4396
2.4404	2.4412	2.4420	2.4428	2.4436	2.4444	2.4452
2.4460	2.4468	2.4476	2.4484	2.4492	2.4500	2.4509
2.4517	2.4525	2.4533	2.4541	2.4549	2.4557	2.4565
2.4573	2.4581	2.4589	2.4597	2.4605	2.4613	2.4621
2.4629	2.4637	2.4645	2.4653	2.4662	2.4670	2.4678
2.4686	2.4694	2.4702	2.4710	2.4718	2.4726	2.4734
2.4742	2.4750	2.4758	2.4766	2.4774	2.4782	2.4790

```
                2.4798  2.4807  2.4815  2.4823  2.4831  2.4839  2.4847
                2.4855  2.4863  2.4871  2.4879  2.4887  2.4895  2.4903
                2.4911  2.4919  2.4927  2.4935  2.4943  2.4952  2.4960
                2.4968  2.4976  2.4984  2.4992  2.5000

**********************************************************************
*S  EXISTING BASIN 1 (XBA-1)
COMPUTE NM HYD       ID=1 HYD NO=101 AREA= 0.00144 SQ MI
                     PER A=96 PER B=4 PER C=0 PER D=0
                     TP=-0.1333 HR   MASS RAIN=-1

     K =  0.165116HR    TP =  0.133300HR    K/TP RATIO =  1.238678     SHAPE CONSTANT, N =  2.876914
     UNIT PEAK =   2.9344    CFS   UNIT VOLUME =   0.9936       B =   271.63      P60 = 1.7600
     AREA =     0.001440 SQ MI    IA =   0.64400 INCHES    INF =   1.65320 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=1   CODE=5

                                  PARTIAL HYDROGRAPH   101.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
     0.000       0.0         0.750       0.0         1.500       1.5         2.250       0.1         3.000       0.0
     0.250       0.0         1.000       0.0         1.750       0.5         2.500       0.1         3.250       0.0
     0.500       0.0         1.250       0.0         2.000       0.1         2.750       0.0         3.500       0.0

    RUNOFF VOLUME =     0.58159 INCHES     =       0.0447 ACRE-FEET
    PEAK DISCHARGE RATE =       1.48 CFS  AT   1.550 HOURS   BASIN AREA =  0.0014 SQ. MI.


*S  EXISTING BASIN 2 (XBA-2)
COMPUTE NM HYD       ID=2 HYD NO=102 AREA= 0.01355 SQ MI
                     PER A=94 PER B=5 PER C=1 PER D=0
                     TP=-0.1333 HR   MASS RAIN=-1

     K =  0.164162HR    TP =  0.133300HR    K/TP RATIO =  1.231524     SHAPE CONSTANT, N =  2.891985
     UNIT PEAK =   27.740    CFS   UNIT VOLUME =   0.9978       B =   272.90      P60 = 1.7600
     AREA =     0.013550 SQ MI    IA =   0.63950 INCHES    INF =   1.64060 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=2   CODE=5

                                  PARTIAL HYDROGRAPH   102.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
     0.000       0.0         1.000       0.0         2.000       1.4         3.000       0.2         4.000       0.0
     0.250       0.0         1.250       0.0         2.250       0.8         3.250       0.1         4.250       0.0
     0.500       0.0         1.500      13.9         2.500       0.5         3.500       0.1         4.500       0.0
     0.750       0.0         1.750       5.0         2.750       0.3         3.750       0.0         4.750       0.0
```

```
    RUNOFF VOLUME =     0.58713 INCHES     =       0.4243 ACRE-FEET
    PEAK DISCHARGE RATE =      13.99 CFS  AT   1.550 HOURS   BASIN AREA =  0.0136 SQ. MI.
```

***S EXISTING BASIN 3 (XBA-3)**

```
COMPUTE NM HYD       ID=3 HYD NO=103 AREA= 0.00004 SQ MI
                     PER A=40 PER B=3 PER C=53 PER D=4
                     TP=-0.1333 HR   MASS RAIN=-1

     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =  0.63169E-02CFS   UNIT VOLUME =   0.8994       B =   526.28      P60 = 1.7600
     AREA =     0.000002 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.131273HR    TP =  0.133300HR    K/TP RATIO =  0.984796     SHAPE CONSTANT, N =  3.585451
     UNIT PEAK =  0.94061E-01CFS   UNIT VOLUME =   0.8754       B =   326.52      P60 = 1.7600
     AREA =     0.000038 SQ MI    IA =   0.47969 INCHES    INF =   1.19312 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=3   CODE=5

                                PARTIAL HYDROGRAPH   103.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
     0.000       0.0         0.500       0.0         1.000       0.0         1.500       0.1         2.000       0.0
     0.250       0.0         0.750       0.0         1.250       0.0         1.750       0.0

    RUNOFF VOLUME =     0.86330 INCHES     =       0.0018 ACRE-FEET
    PEAK DISCHARGE RATE =       0.07 CFS  AT   1.500 HOURS   BASIN AREA =  0.0000 SQ. MI.
```

***S EXISTING OFF-SITE BASIN 1 (XOS-1)**

```
COMPUTE NM HYD       ID=4 HYD NO=104 AREA= 0.00113 SQ MI
                     PER A=27 PER B=30 PER C=15 PER D=28
                     TP=-0.1333 HR   MASS RAIN=-1

     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   1.2492    CFS   UNIT VOLUME =   0.9911       B =   526.28      P60 = 1.7600
     AREA =     0.000316 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.139605HR    TP =  0.133300HR    K/TP RATIO =  1.047298     SHAPE CONSTANT, N =  3.370870
     UNIT PEAK =   1.8969    CFS   UNIT VOLUME =   0.9933       B =   310.79      P60 = 1.7600
     AREA =     0.000814 SQ MI    IA =   0.52500 INCHES    INF =   1.32000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=4   CODE=5
```

PARTIAL HYDROGRAPH 104.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.250	0.0	5.250	0.0	10.250	0.0	15.250	0.0	20.250	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
0.750	0.0	5.750	0.0	10.750	0.0	15.750	0.0	20.750	0.0
1.000	0.1	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.250	0.2	6.250	0.0	11.250	0.0	16.250	0.0	21.250	0.0
1.500	2.0	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
1.750	0.7	6.750	0.0	11.750	0.0	16.750	0.0	21.750	0.0
2.000	0.2	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.250	0.1	7.250	0.0	12.250	0.0	17.250	0.0	22.250	0.0
2.500	0.1	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
2.750	0.0	7.750	0.0	12.750	0.0	17.750	0.0	22.750	0.0
3.000	0.0	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.250	0.0	8.250	0.0	13.250	0.0	18.250	0.0	23.250	0.0
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
3.750	0.0	8.750	0.0	13.750	0.0	18.750	0.0	23.750	0.0
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.250	0.0	9.250	0.0	14.250	0.0	19.250	0.0		
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0		
4.750	0.0	9.750	0.0	14.750	0.0	19.750	0.0		

RUNOFF VOLUME = 1.16347 INCHES = 0.0701 ACRE-FEET
PEAK DISCHARGE RATE = 1.96 CFS AT 1.500 HOURS BASIN AREA = 0.0011 SQ. MI.

***S EXISTING OFF-SITE BASIN 2 (XOS-2)**

```
COMPUTE NM HYD       ID=5 HYD NO=105 AREA= 0.00001 SQ MI
                     PER A=100 PER B=0 PER C=0 PER D=0
                     TP=-0.1333 HR   MASS RAIN=-1
```

K = 0.166457HR TP = 0.133300HR K/TP RATIO = 1.248739 SHAPE CONSTANT, N = 2.856080
UNIT PEAK = 0.20246E-01CFS UNIT VOLUME = 0.8648 B = 269.88 P60 = 1.7600
AREA = 0.000010 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

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

PARTIAL HYDROGRAPH 105.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	0.500	0.0	1.000	0.0	1.500	0.0		
0.250	0.0	0.750	0.0	1.250	0.0	1.750	0.0		

RUNOFF VOLUME = 0.57425 INCHES = 0.0003 ACRE-FEET
PEAK DISCHARGE RATE = 0.01 CFS AT 1.550 HOURS BASIN AREA = 0.0000 SQ. MI.

***S EXISTING OFF-SITE BASIN 3 (XOS-3)**

```
COMPUTE NM HYD       ID=6 HYD NO=106 AREA= 0.00013 SQ MI
                     PER A=75 PER B=16 PER C=9 PER D=0
                     TP=-0.1333 HR   MASS RAIN=-1

     K =  0.155527HR    TP =  0.133300HR    K/TP RATIO =  1.166747     SHAPE CONSTANT, N =  3.038996
     UNIT PEAK =  0.27794    CFS   UNIT VOLUME =   0.9471       B =   284.99      P60 = 1.7600
     AREA =     0.000130 SQ MI    IA =   0.59900 INCHES    INF =   1.52720 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=6   CODE=5

                                  PARTIAL HYDROGRAPH   106.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
     0.000       0.0         0.500       0.0         1.000       0.0         1.500       0.2         2.000       0.0
     0.250       0.0         0.750       0.0         1.250       0.0         1.750       0.1         2.250       0.0

    RUNOFF VOLUME =     0.64246 INCHES     =       0.0045 ACRE-FEET
    PEAK DISCHARGE RATE =       0.16 CFS  AT   1.500 HOURS   BASIN AREA =  0.0001 SQ. MI.
```

***S EXISTING OFF-SITE BASIN 4 (XOS-4)**

```
COMPUTE NM HYD       ID=7 HYD NO=107 AREA= 0.00001 SQ MI
                     PER A=0 PER B=15 PER C=85 PER D=0
                     TP=-0.1333 HR   MASS RAIN=-1

     K =  0.108871HR    TP =  0.133300HR    K/TP RATIO =  0.816738     SHAPE CONSTANT, N =  4.375786
     UNIT PEAK =  0.28469E-01CFS   UNIT VOLUME =   0.8870       B =   379.49      P60 = 1.7600
     AREA =     0.000010 SQ MI    IA =   0.37250 INCHES    INF =   0.89300 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=7   CODE=5

                                  PARTIAL HYDROGRAPH   107.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
     0.000       0.0         0.500       0.0         1.000       0.0         1.500       0.0
     0.250       0.0         0.750       0.0         1.250       0.0         1.750       0.0

    RUNOFF VOLUME =     0.96647 INCHES     =       0.0005 ACRE-FEET
    PEAK DISCHARGE RATE =       0.02 CFS  AT   1.500 HOURS   BASIN AREA =  0.0000 SQ. MI.
```

***S PROPOSED BASIN 1 (PR-1)**

```
COMPUTE NM HYD       ID=8 HYD NO=108 AREA= 0.01491 SQ MI
                     PER A=0 PER B=29 PER C=8 PER D=63
                     TP=-0.1333 HR   MASS RAIN=-1

     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   37.085    CFS   UNIT VOLUME =   0.9989       B =   526.28      P60 = 1.7600
     AREA =     0.009393 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.126808HR    TP =  0.133300HR    K/TP RATIO =  0.951299     SHAPE CONSTANT, N =  3.715178
     UNIT PEAK =   13.894    CFS   UNIT VOLUME =    1.000       B =   335.72      P60 = 1.7600
     AREA =     0.005517 SQ MI    IA =   0.46757 INCHES    INF =   1.15919 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=8   CODE=5

                                PARTIAL HYDROGRAPH   108.00
```

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.2	10.000	0.1	15.000	0.1	20.000	0.1
0.250	0.0	5.250	0.2	10.250	0.1	15.250	0.1	20.250	0.1
0.500	0.0	5.500	0.2	10.500	0.1	15.500	0.1	20.500	0.1
0.750	0.1	5.750	0.2	10.750	0.1	15.750	0.1	20.750	0.1
1.000	1.6	6.000	0.2	11.000	0.1	16.000	0.1	21.000	0.1
1.250	5.1	6.250	0.1	11.250	0.1	16.250	0.1	21.250	0.1
1.500	33.8	6.500	0.1	11.500	0.1	16.500	0.1	21.500	0.1
1.750	11.9	6.750	0.1	11.750	0.1	16.750	0.1	21.750	0.1
2.000	4.5	7.000	0.1	12.000	0.1	17.000	0.1	22.000	0.1
2.250	2.1	7.250	0.1	12.250	0.1	17.250	0.1	22.250	0.1
2.500	0.9	7.500	0.1	12.500	0.1	17.500	0.1	22.500	0.1
2.750	0.5	7.750	0.1	12.750	0.1	17.750	0.1	22.750	0.1
3.000	0.3	8.000	0.1	13.000	0.1	18.000	0.1	23.000	0.1
3.250	0.2	8.250	0.1	13.250	0.1	18.250	0.1	23.250	0.1
3.500	0.2	8.500	0.1	13.500	0.1	18.500	0.1	23.500	0.1
3.750	0.1	8.750	0.1	13.750	0.1	18.750	0.1	23.750	0.1
4.000	0.1	9.000	0.1	14.000	0.1	19.000	0.1	24.000	0.1
4.250	0.1	9.250	0.1	14.250	0.1	19.250	0.1	24.250	0.0
4.500	0.1	9.500	0.1	14.500	0.1	19.500	0.1	24.500	0.0
4.750	0.2	9.750	0.1	14.750	0.1	19.750	0.1	24.750	0.0

```
    RUNOFF VOLUME =     1.72231 INCHES     =       1.3696 ACRE-FEET
    PEAK DISCHARGE RATE =      33.76 CFS  AT   1.500 HOURS   BASIN AREA =  0.0149 SQ. MI.
```

***S PROPOSED BASIN 2 (PR-2)**

```
COMPUTE NM HYD       ID=9 HYD NO=109 AREA= 0.00009 SQ MI
                     PER A=0 PER B=0 PER C=100 PER D=0
                     TP=-0.1333 HR   MASS RAIN=-1
```

K = 0.104626HR TP = 0.133300HR K/TP RATIO = 0.784891 SHAPE CONSTANT, N = 4.574880
UNIT PEAK = 0.26456 CFS UNIT VOLUME = 0.9523 B = 391.84 P60 = 1.7600
AREA = 0.000090 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=9 CODE=5

PARTIAL HYDROGRAPH 109.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	0.500	0.0	1.000	0.0	1.500	0.2	2.000	0.0
0.250	0.0	0.750	0.0	1.250	0.0	1.750	0.1		

RUNOFF VOLUME = 1.00672 INCHES = 0.0048 ACRE-FEET
PEAK DISCHARGE RATE = 0.18 CFS AT 1.500 HOURS BASIN AREA = 0.0001 SQ. MI.

***S PROPOSED BASIN 3 (PR-3)**
COMPUTE NM HYD ID=10 HYD NO=110 AREA= 0.00097 SQ MI
PER A=0 PER B=0 PER C=47 PER D=53
TP=-0.1333 HR MASS RAIN=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 2.0297 CFS UNIT VOLUME = 0.9941 B = 526.28 P60 = 1.7600
AREA = 0.000514 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.104626HR TP = 0.133300HR K/TP RATIO = 0.784891 SHAPE CONSTANT, N = 4.574880
UNIT PEAK = 1.3401 CFS UNIT VOLUME = 0.9931 B = 391.84 P60 = 1.7600
AREA = 0.000456 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=10 CODE=5

PARTIAL HYDROGRAPH 110.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	5.000	0.0	10.000	0.0	15.000	0.0	20.000	0.0
0.250	0.0	5.250	0.0	10.250	0.0	15.250	0.0	20.250	0.0
0.500	0.0	5.500	0.0	10.500	0.0	15.500	0.0	20.500	0.0
0.750	0.0	5.750	0.0	10.750	0.0	15.750	0.0	20.750	0.0
1.000	0.1	6.000	0.0	11.000	0.0	16.000	0.0	21.000	0.0
1.250	0.3	6.250	0.0	11.250	0.0	16.250	0.0	21.250	0.0
1.500	2.3	6.500	0.0	11.500	0.0	16.500	0.0	21.500	0.0
1.750	0.8	6.750	0.0	11.750	0.0	16.750	0.0	21.750	0.0
2.000	0.3	7.000	0.0	12.000	0.0	17.000	0.0	22.000	0.0
2.250	0.1	7.250	0.0	12.250	0.0	17.250	0.0	22.250	0.0

2.500	0.0	7.500	0.0	12.500	0.0	17.500	0.0	22.500	0.0
2.750	0.0	7.750	0.0	12.750	0.0	17.750	0.0	22.750	0.0
3.000	0.0	8.000	0.0	13.000	0.0	18.000	0.0	23.000	0.0
3.250	0.0	8.250	0.0	13.250	0.0	18.250	0.0	23.250	0.0
3.500	0.0	8.500	0.0	13.500	0.0	18.500	0.0	23.500	0.0
3.750	0.0	8.750	0.0	13.750	0.0	18.750	0.0	23.750	0.0
4.000	0.0	9.000	0.0	14.000	0.0	19.000	0.0	24.000	0.0
4.250	0.0	9.250	0.0	14.250	0.0	19.250	0.0		
4.500	0.0	9.500	0.0	14.500	0.0	19.500	0.0		
4.750	0.0	9.750	0.0	14.750	0.0	19.750	0.0		

RUNOFF VOLUME = 1.66573 INCHES = 0.0862 ACRE-FEET
PEAK DISCHARGE RATE = 2.26 CFS AT 1.500 HOURS BASIN AREA = 0.0010 SQ. MI.

***S ~~~~~~~~~~~~~~~~~~~~~ POND ~~~~~~~~~~~~~~~~~~~~~~~**
***S ROUTE BASIN PR-2 THROUGH POND (OVERFLOW WEIR)**

ROUTE RESERVOIR ID=11 HYD NO=111 INFLOW ID=8 CODE=2

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.0	0.0000	50.5
23.0	0.36508	54.75
81.8	0.39304	55.0

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	50.50	0.000	0.00
0.10	0.00	50.50	0.000	0.00
0.20	0.00	50.50	0.000	0.00
0.30	0.00	50.50	0.000	0.00
0.40	0.00	50.50	0.000	0.00
0.50	0.00	50.50	0.000	0.00
0.60	0.00	50.50	0.000	0.00
0.70	0.01	50.50	0.000	0.00
0.80	0.45	50.51	0.001	0.08
0.90	1.08	50.57	0.006	0.38
1.00	1.62	50.64	0.012	0.77
1.10	2.63	50.74	0.021	1.32
1.20	4.05	50.90	0.034	2.15
1.30	6.81	51.14	0.055	3.46
1.40	17.97	51.77	0.109	6.88
1.50	33.76	53.33	0.243	15.31
1.60	26.50	54.51	0.344	21.70
1.70	15.40	54.40	0.335	21.10
1.80	9.47	53.71	0.276	17.38
1.90	6.36	52.98	0.213	13.44
2.00	4.49	52.37	0.161	10.13
2.10	3.19	51.89	0.120	7.53

2.20	2.38	51.53	0.089	5.58
2.30	1.85	51.27	0.066	4.15
2.40	1.46	51.08	0.050	3.13
2.50	0.94	50.93	0.037	2.33
2.60	0.66	50.81	0.027	1.70
2.70	0.51	50.73	0.020	1.24
2.80	0.41	50.67	0.015	0.92
2.90	0.34	50.63	0.011	0.70
3.00	0.28	50.60	0.009	0.54
3.10	0.24	50.58	0.007	0.42
3.20	0.21	50.56	0.005	0.34
3.30	0.19	50.55	0.004	0.28
3.40	0.17	50.54	0.004	0.24
3.50	0.16	50.54	0.003	0.21
3.60	0.15	50.53	0.003	0.19
3.70	0.15	50.53	0.003	0.17
3.80	0.14	50.53	0.003	0.16
3.90	0.14	50.53	0.002	0.15
4.00	0.14	50.53	0.002	0.15
4.10	0.14	50.53	0.002	0.15
4.20	0.14	50.53	0.002	0.14
4.30	0.14	50.53	0.002	0.14
4.40	0.14	50.53	0.002	0.14
4.50	0.15	50.53	0.002	0.14
4.60	0.15	50.53	0.002	0.15
4.70	0.15	50.53	0.002	0.15
4.80	0.16	50.53	0.002	0.15
4.90	0.16	50.53	0.002	0.15
5.00	0.16	50.53	0.002	0.16
5.10	0.17	50.53	0.003	0.16
5.20	0.17	50.53	0.003	0.16
5.30	0.17	50.53	0.003	0.17
5.40	0.18	50.53	0.003	0.17
5.50	0.18	50.53	0.003	0.17

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
5.60	0.19	50.53	0.003	0.18
5.70	0.19	50.53	0.003	0.18
5.80	0.19	50.53	0.003	0.19
5.90	0.20	50.54	0.003	0.19
6.00	0.20	50.54	0.003	0.19
6.10	0.17	50.54	0.003	0.19
6.20	0.12	50.53	0.003	0.17
6.30	0.11	50.53	0.002	0.15
6.40	0.11	50.52	0.002	0.13
6.50	0.10	50.52	0.002	0.12
6.60	0.10	50.52	0.002	0.11
6.70	0.10	50.52	0.002	0.11
6.80	0.10	50.52	0.002	0.10
6.90	0.10	50.52	0.002	0.10

7.00	0.10	50.52	0.002	0.10
7.10	0.10	50.52	0.002	0.10
7.20	0.10	50.52	0.002	0.10
7.30	0.10	50.52	0.002	0.10
7.40	0.10	50.52	0.002	0.10
7.50	0.10	50.52	0.002	0.10
7.60	0.10	50.52	0.002	0.10
7.70	0.10	50.52	0.002	0.10
7.80	0.10	50.52	0.002	0.10
7.90	0.10	50.52	0.002	0.10
8.00	0.10	50.52	0.002	0.10
8.10	0.10	50.52	0.002	0.10
8.20	0.10	50.52	0.002	0.10
8.30	0.10	50.52	0.002	0.10
8.40	0.10	50.52	0.002	0.10
8.50	0.10	50.52	0.002	0.10
8.60	0.10	50.52	0.002	0.10
8.70	0.10	50.52	0.002	0.10
8.80	0.10	50.52	0.002	0.10
8.90	0.10	50.52	0.002	0.10
9.00	0.10	50.52	0.002	0.10
9.10	0.10	50.52	0.002	0.10
9.20	0.10	50.52	0.002	0.10
9.30	0.10	50.52	0.002	0.10
9.40	0.10	50.52	0.002	0.10
9.50	0.10	50.52	0.002	0.10
9.60	0.10	50.52	0.002	0.10
9.70	0.10	50.52	0.002	0.10
9.80	0.10	50.52	0.002	0.10
9.90	0.10	50.52	0.002	0.10
10.00	0.10	50.52	0.002	0.10
10.10	0.10	50.52	0.002	0.10
10.20	0.10	50.52	0.002	0.10
10.30	0.10	50.52	0.002	0.10
10.40	0.10	50.52	0.002	0.10
10.50	0.10	50.52	0.002	0.10
10.60	0.10	50.52	0.002	0.10
10.70	0.10	50.52	0.002	0.10
10.80	0.10	50.52	0.002	0.10
10.90	0.10	50.52	0.002	0.10
11.00	0.10	50.52	0.002	0.10
11.10	0.10	50.52	0.002	0.10

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
11.20	0.10	50.52	0.002	0.10
11.30	0.10	50.52	0.002	0.10
11.40	0.10	50.52	0.002	0.10
11.50	0.10	50.52	0.002	0.10
11.60	0.10	50.52	0.002	0.10
11.70	0.10	50.52	0.002	0.10

11.80	0.10	50.52	0.002	0.10
11.90	0.10	50.52	0.002	0.10
12.00	0.10	50.52	0.002	0.10
12.10	0.10	50.52	0.002	0.10
12.20	0.10	50.52	0.002	0.10
12.30	0.10	50.52	0.002	0.10
12.40	0.10	50.52	0.002	0.10
12.50	0.10	50.52	0.002	0.10
12.60	0.10	50.52	0.002	0.10
12.70	0.10	50.52	0.002	0.10
12.80	0.10	50.52	0.002	0.10
12.90	0.10	50.52	0.002	0.10
13.00	0.10	50.52	0.002	0.10
13.10	0.10	50.52	0.002	0.10
13.20	0.10	50.52	0.002	0.10
13.30	0.10	50.52	0.002	0.10
13.40	0.10	50.52	0.002	0.10
13.50	0.10	50.52	0.002	0.10
13.60	0.10	50.52	0.002	0.10
13.70	0.10	50.52	0.002	0.10
13.80	0.10	50.52	0.002	0.10
13.90	0.10	50.52	0.002	0.10
14.00	0.10	50.52	0.002	0.10
14.10	0.10	50.52	0.002	0.10
14.20	0.10	50.52	0.002	0.10
14.30	0.10	50.52	0.002	0.10
14.40	0.10	50.52	0.002	0.10
14.50	0.10	50.52	0.002	0.10
14.60	0.10	50.52	0.002	0.10
14.70	0.10	50.52	0.002	0.10
14.80	0.10	50.52	0.002	0.10
14.90	0.10	50.52	0.002	0.10
15.00	0.10	50.52	0.002	0.10
15.10	0.10	50.52	0.002	0.10
15.20	0.10	50.52	0.002	0.10
15.30	0.10	50.52	0.002	0.10
15.40	0.10	50.52	0.002	0.10
15.50	0.10	50.52	0.002	0.10
15.60	0.10	50.52	0.002	0.10
15.70	0.10	50.52	0.002	0.10
15.80	0.10	50.52	0.002	0.10
15.90	0.10	50.52	0.002	0.10
16.00	0.10	50.52	0.002	0.10
16.10	0.10	50.52	0.002	0.10
16.20	0.10	50.52	0.002	0.10
16.30	0.10	50.52	0.002	0.10
16.40	0.10	50.52	0.002	0.10
16.50	0.10	50.52	0.002	0.10
16.60	0.10	50.52	0.002	0.10
16.70	0.10	50.52	0.002	0.10

TIME	INFLOW	ELEV	VOLUME	OUTFLOW

(HRS)	(CFS)	(FEET)	(AC-FT)	(CFS)
16.80	0.10	50.52	0.002	0.10
16.90	0.10	50.52	0.002	0.10
17.00	0.10	50.52	0.002	0.10
17.10	0.10	50.52	0.002	0.10
17.20	0.10	50.52	0.002	0.10
17.30	0.10	50.52	0.002	0.10
17.40	0.10	50.52	0.002	0.10
17.50	0.10	50.52	0.002	0.10
17.60	0.10	50.52	0.002	0.10
17.70	0.10	50.52	0.002	0.10
17.80	0.10	50.52	0.002	0.10
17.90	0.10	50.52	0.002	0.10
18.00	0.10	50.52	0.002	0.10
18.10	0.10	50.52	0.002	0.10
18.20	0.10	50.52	0.002	0.10
18.30	0.10	50.52	0.002	0.10
18.40	0.10	50.52	0.002	0.10
18.50	0.10	50.52	0.002	0.10
18.60	0.10	50.52	0.002	0.10
18.70	0.10	50.52	0.002	0.10
18.80	0.10	50.52	0.002	0.10
18.90	0.10	50.52	0.002	0.10
19.00	0.10	50.52	0.002	0.10
19.10	0.10	50.52	0.002	0.10
19.20	0.10	50.52	0.002	0.10
19.30	0.10	50.52	0.002	0.10
19.40	0.10	50.52	0.002	0.10
19.50	0.10	50.52	0.002	0.10
19.60	0.10	50.52	0.002	0.10
19.70	0.10	50.52	0.002	0.10
19.80	0.10	50.52	0.002	0.10
19.90	0.10	50.52	0.002	0.10
20.00	0.10	50.52	0.002	0.10
20.10	0.10	50.52	0.002	0.10
20.20	0.10	50.52	0.002	0.10
20.30	0.10	50.52	0.002	0.10
20.40	0.10	50.52	0.002	0.10
20.50	0.10	50.52	0.002	0.10
20.60	0.10	50.52	0.002	0.10
20.70	0.10	50.52	0.002	0.10
20.80	0.10	50.52	0.002	0.10
20.90	0.10	50.52	0.002	0.10
21.00	0.10	50.52	0.002	0.10
21.10	0.10	50.52	0.002	0.10
21.20	0.10	50.52	0.002	0.10
21.30	0.10	50.52	0.002	0.10
21.40	0.10	50.52	0.002	0.10
21.50	0.10	50.52	0.002	0.10
21.60	0.10	50.52	0.002	0.10
21.70	0.10	50.52	0.002	0.10

```
    21.80       0.10     50.52      0.002      0.10
    21.90       0.10     50.52      0.002      0.10
    22.00       0.10     50.52      0.002      0.10
    22.10       0.10     50.52      0.002      0.10
    22.20       0.10     50.52      0.002      0.10
    22.30       0.10     50.52      0.002      0.10

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

    22.40       0.10     50.52      0.002      0.10
    22.50       0.10     50.52      0.002      0.10
    22.60       0.10     50.52      0.002      0.10
    22.70       0.10     50.52      0.002      0.10
    22.80       0.10     50.52      0.002      0.10
    22.90       0.10     50.52      0.002      0.10
    23.00       0.10     50.52      0.002      0.10
    23.10       0.10     50.52      0.002      0.10
    23.20       0.10     50.52      0.002      0.10
    23.30       0.10     50.52      0.002      0.10
    23.40       0.10     50.52      0.002      0.10
    23.50       0.10     50.52      0.002      0.10
    23.60       0.10     50.52      0.002      0.10
    23.70       0.10     50.52      0.002      0.10
    23.80       0.10     50.52      0.002      0.10
    23.90       0.10     50.52      0.002      0.10
    24.00       0.10     50.52      0.002      0.10
    24.10       0.07     50.52      0.001      0.09
    24.20       0.02     50.51      0.001      0.07
    24.30       0.01     50.51      0.001      0.05
    24.40       0.01     50.51      0.001      0.03
    24.50       0.00     50.50      0.000      0.02
    24.60       0.00     50.50      0.000      0.01
    24.70       0.00     50.50      0.000      0.01
    24.80       0.00     50.50      0.000      0.01
    24.90       0.00     50.50      0.000      0.00
 PEAK DISCHARGE =       22.086 CFS - PEAK OCCURS AT HOUR    1.65
 MAXIMUM WATER SURFACE ELEVATION =       54.581
 MAXIMUM STORAGE =        0.3506 AC-FT      INCREMENTAL TIME=    0.050000HRS

PRINT HYD           ID=11 CODE=1

                                  PARTIAL HYDROGRAPH   111.00


    RUNOFF VOLUME =     1.72229 INCHES     =       1.3696 ACRE-FEET
    PEAK DISCHARGE RATE =      22.09 CFS  AT   1.650 HOURS   BASIN AREA =  0.0149 SQ. MI.



FINISH
    NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 10:44:07
```

APPENDIX C

Excerpts from:

-Amole Hubble Drainage Master Plan Update 2013

-Amole Hubble Drainage Master Plan Update – AHYMO 100-yr, 24-hr Summary

3.5.3 Tierra Bayita Area

Existing Conditions

The Tierra Bayita Basin is approximately 1.40 sq. mi. and is irregularly shaped with I-40 bounding the north, 98th Street bounding the west, Eucariz Avenue being the most southern boundary, and Coors Boulevard being the most eastern boundary. Several land uses in Tierra Bayita Basin include industrial, commercial, undeveloped platted lots, mass graded platted lots, and residential. Main storm drain systems have been constructed in the Tierra Bayita Basin. Stub-outs have been set along the storm drain portion on Bluewater Road. Most developments are allowed free discharge to the public storm drain. The developments in Sub-Basin TB103 and TB105 were required to construct Pond TB2 and Pond TB3, respectively. There are three major storm drain systems which convey runoff to the Tierra Bayita Channel.

Runoff from Sub-Basin TB101 and Sub-Basin TB102 is retained in Pond TB1. Once these sub-basins are developed, the storm drain on Bluewater Road will intercept its controlled runoff release. From the Bluewater Road and 90th Street intersection, this storm drain system bends 90 degrees and follows 90th Street to Volcano Road, then bends at 90th Street to Bridge, then finally it runs along Bridge Boulevard until outletting into the Tierra Bayita Channel. Pond TB2 and TB3 release a controlled rate into this system. A lateral is extended from 90th Street on Central Avenue to the two cell pond located in the 98th & Central Area.

The second major storm drain in the Tierra Bayita Basin is on Sunset Garden Road, which begins near its intersection with 86th Street and runs east to Unser Boulevard, then north on Unser Boulevard until emptying into the Tierra Bayita Channel. This system receives free discharge from its respective drainage area. The third system begins in the Unser/214 Area. The portion in the Tierra Bayita Basin is in Unser Boulevard from Avalon Road to Tierra Bayita Channel. Refer to Appendix A for hydrologic data and existing hydrologic model diagram.

Proposed Conditions

Per the Bluewater Road near 90th Street Drainage Analysis by Tierra West dated 12-20-01 basins 202.1 and 202.2 have been restricted to 2.05 cfs/ac. To achieve this restriction, ponds were created in AHYMO to reduce runoff to the restricted rate. Also, in the proposed condition TB 101 has been shifted to the 98th & Central Basin. The Coors North South pond in the proposed condition is overtopping. The pond needs to be increased in size to hold 75 ac-ft of runoff. Refer to Table 3-11 for hydrologic data and Figure 3-14 for proposed hydrologic model diagram.

Recommendations:

Below are the recommendations from 1999 Amole-Hubbell DMP for the basin along with the status of the recommendation:

- No recommendations from the 1999 Amole Hubbell DMP

Additional Recommendations for the basin based on updated basin analysis are below:

- Restrict future basin flows to 2.5 cfs/acre for basins 202.1 and 202.2.
- Increase volume of Coors N-S Pond to 75 ac-ft.

Figure 3-13: Tierra Bayita Area - Proposed Basin Map

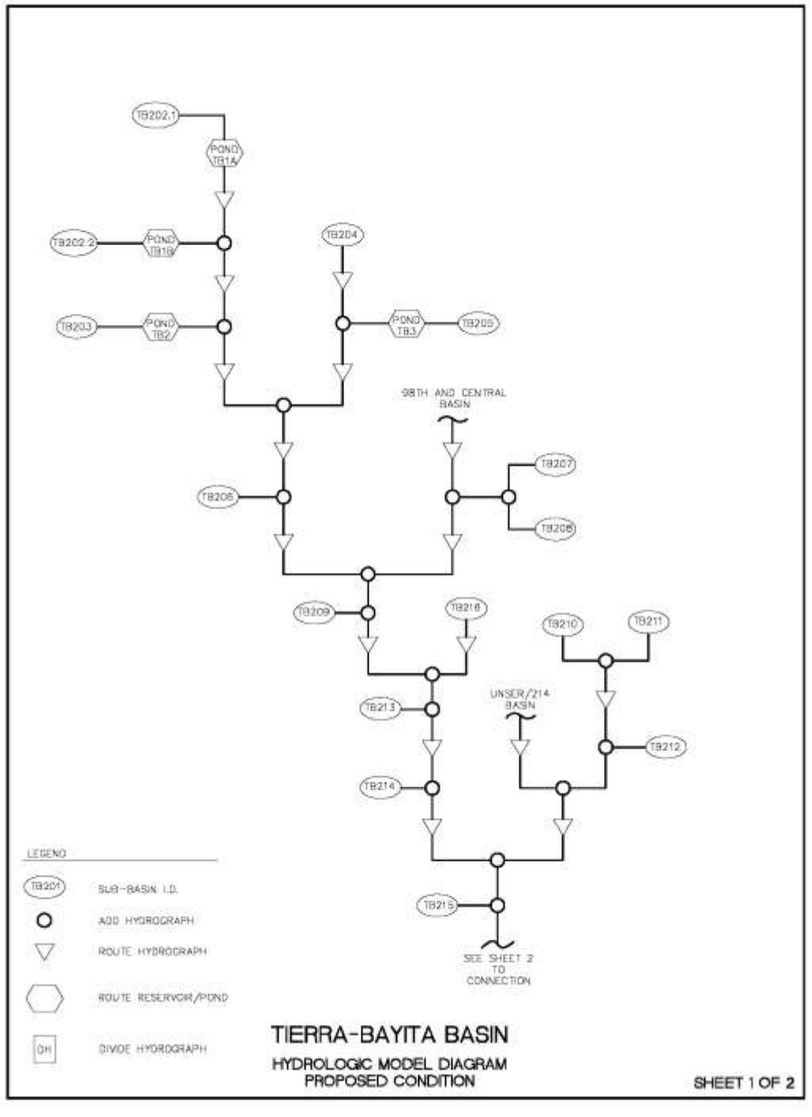

Figure 3-14: Tierra Bayita Basin - Proposed Hydrologic Model Diagram

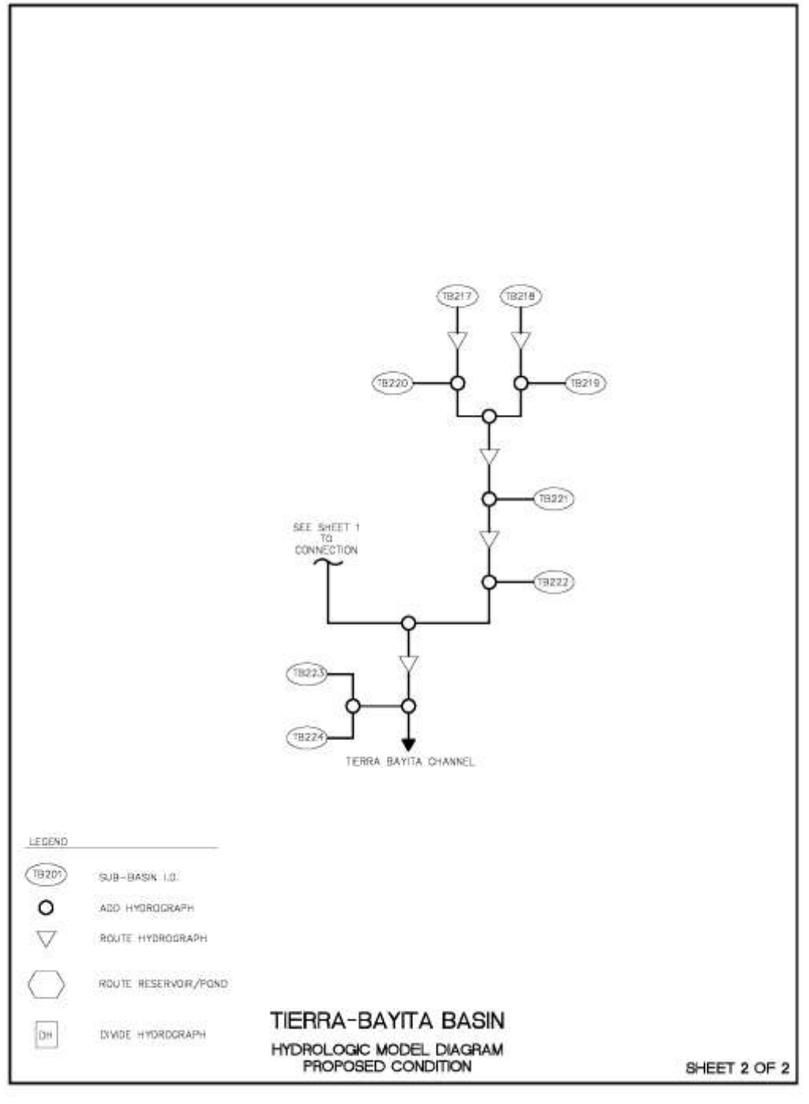

Figure 3-14: Tierra Bayita Basin - Proposed Hydrologic Model Diagram

Table 3-11: Tierra Bayita Area - Proposed Sub-Basin Peak Discharge and Volumes			
Sub-Basin	Area (ac)	$Q_{100yr-6hr}$ (cfs)	$V_{100yr-24hr}$ (ac-ft)
TB202.1	88	286.10	11.871
TB202.2	56	234.77	9.208
TB203	32	123.90	4.854
TB204	25	106.80	4.584
TB205	29	115.37	4.583
TB206	16	64.63	2.570
TB207	44	180.99	7.480
TB208	32	125.02	5.303
TB209	20	85.75	3.659
TB210	47	175.08	7.917
TB211	15	66.05	2.870
TB212	44	159.66	7.680
TB213	30	133.59	5.771
TB214	17	68.55	2.713
TB215	72	195.06	9.623
TB216	21	89.82	3.817
TB217	12	50.87	2.147
TB218	23	73.14	2.353
TB219	15	58.43	2.347
TB220	24	96.97	3.995
TB221	37	137.45	5.770
TB222	45	155.17	7.233
TB223	46	129.70	6.937
TB224	102	236.51	15.234
TB202.1	88	286.10	11.871

3.5.4 Atrisco Business Park Basin

Existing Conditions

The Atrisco Business Park Area is approximately 0.89 sq. mi. Land uses in this sub-area include undeveloped platted lots, platted mass graded, industrial, and commercial. There is one storm drain system that is approximately 9,800 ft long. It begins near Gallatin Place on Los Volcanes Road running east to Airport Drive, then south on Airport Drive to Central Avenue, then south through a private property to Coors Boulevard, then finally south on Coors until penetrating into Pond N-S Coors. The entire sub-area discharges into this one system.

The original Amole-Hubbell DMP set a maximum allowed discharge rate equal to 0.1 cfs/ac. There are high density developments in this basin. The model limits the sub-area, discharge of Sub-Basins AB101 through AB103 to 0.1 cfs/acre. Sub-Area AB104 is mostly undeveloped, so the max release criterion has not been applied. The total flow into Pond N-S Coors from Atrisco Business Park Area is 225 cfs. Refer to Appendix A for hydrologic data and existing hydrologic model diagram.

Proposed Conditions

The proposed model is built with the assumption that all basins are restricted to the 0.1 cfs/acre. The total flow into the Coors N-S pond from the Atrisco Business Area is 50 cfs. Refer to Table 3-12 for hydrologic data and Figure 3-16 for proposed hydrologic model diagram.

Recommendations:

Below are the recommendations from 1999 Amole-Hubbell DMP for the basin along with the status of the recommendation.

- No recommendations from the 1999 Amole Hubbell DMP

Additional Recommendations for the basin based on updated basin analysis are below:

- Enforce the 0.1 cfs/acre max release criterion with adequate documentation to verify compliance with the master plan models.

Figure 3-15: Atrisco Business Park Area - Proposed Basin Map

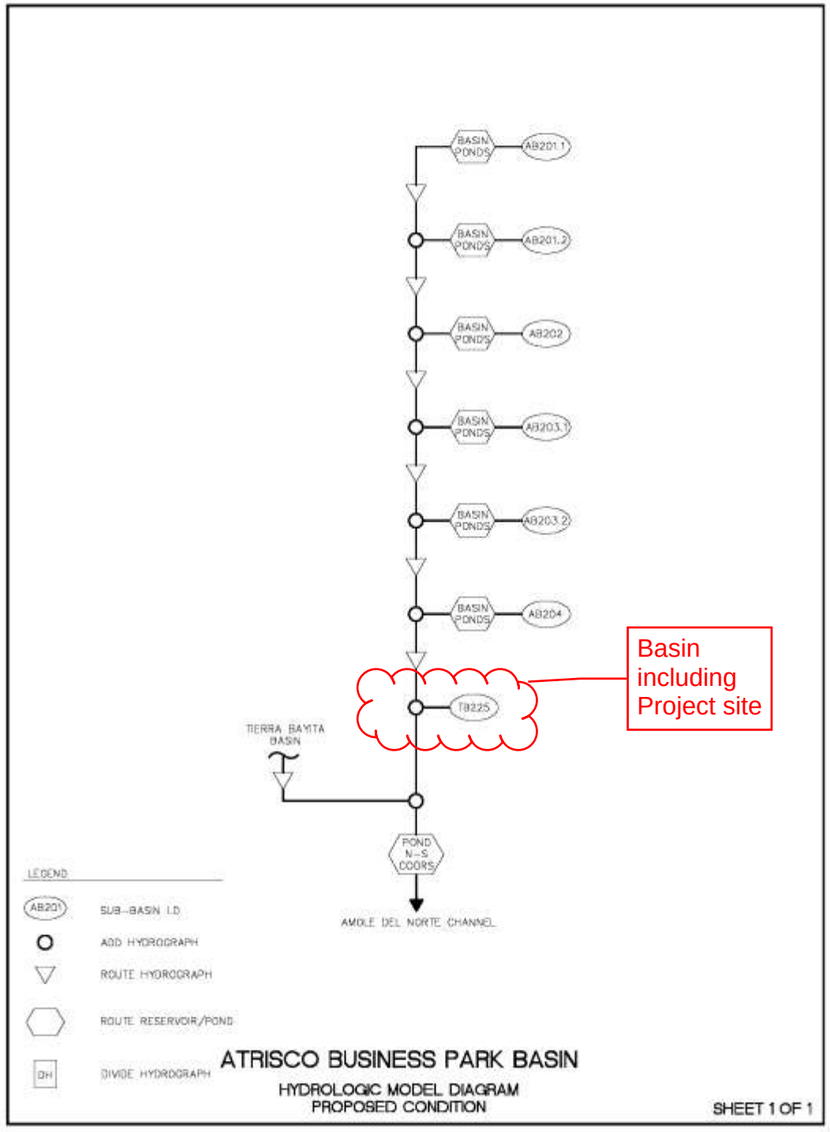

Figure 3-16: Atrisco Business Park Area - Proposed Hydrologic Model Diagram

Table 3-12: Atrisco Business Park Area - Proposed Sub-Basin Peak Discharge and Volumes

Sub-Basin	Area (ac)	$Q_{100yr-6hr}$ (cfs)	Allowable Discharge (cfs)	$V_{100yr-24hr}$ (ac-ft)
AB201.1	76	299.35	7.6	12.710
AB201.2	62	227.97	6.2	10.343
AB202	117	320.85	11.7	19.669
AB203.1	71	233.36	7.1	12.849
AB203.2	66	160.41	6.6	10.776
AB204	103	291.27	10.3	17.730

AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4) - Ver. S4.01a, Rel: 01a RUN DATE (MON/DAY/YR) =01/21/2022
INPUT FILE = -hubble_dmp_reference_files\2013_amole_hubbell_dmp\2013_PHubbellDam 24hr.txt USER NO.= AHYMO_Temp_User:20122010

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
										PAGE = 1
*S "PROPOSED" CONDITION MODEL FOR AMOLE HUBBELL										
START										TIME= 0.00
LOCATION	ALBUQUERQUE									
*S	RAINFALL DATA FROM NOAA ATLAS 14									
*S**********										
*S 100 YEAR 24HR STORM										
RAINFALL TYPE= 2 NOAA 14										RAIN24= 2.570
SEDIMENT BULK										PK BF = 1.06
*S**********										
*S**********	98TH AND CENTRAL BASIN									
*S**********										
COMPUTE NM HYD	NE202.1	-	1	0.08439	172.80	5.550	1.23306	1.533	3.199	PER IMP= 17.00
ROUTE MCUNGE	NE202.1RT	1	2	0.08439	170.40	5.542	1.23124	1.567	3.155	CCODE = 0.1
COMPUTE NM HYD	NE202.2	-	1	0.06185	126.52	4.067	1.23306	1.533	3.196	PER IMP= 17.00
ADD HYD	NE202.2SUM	2& 1	1	0.14624	296.40	9.609	1.23200	1.533	3.167	
*S APNE3										
ROUTE MCUNGE	NE202.2SUMRt	1	2	0.14624	295.66	9.607	1.23172	1.567	3.159	CCODE = 0.2
COMPUTE NM HYD	NE204	-	1	0.08938	183.06	5.878	1.23306	1.533	3.200	PER IMP= 17.00
ADD HYD	NE204SUM	2& 1	1	0.23562	467.35	15.485	1.23223	1.567	3.099	
ROUTE MCUNGE	NE204SUMRT	1	10	0.23562	466.86	15.475	1.23148	1.567	3.096	CCODE = 0.1
COMPUTE NM HYD	NE201.1	-	1	0.08463	173.30	5.566	1.23306	1.533	3.200	PER IMP= 17.00
ROUTE MCUNGE	NE201.1RT	1	2	0.08463	171.13	5.558	1.23135	1.567	3.160	CCODE = 0.1
COMPUTE NM HYD	NE201.2	-	1	0.04349	88.97	2.860	1.23306	1.533	3.196	PER IMP= 17.00
ADD HYD	NE201.2SUMA	2& 1	1	0.12812	259.25	8.418	1.23193	1.533	3.162	
*S APNE1										
ROUTE MCUNGE	NE201.2SUMAR	1	3	0.12812	256.54	8.393	1.22830	1.600	3.129	CCODE = 0.1
ADD HYD	NE208SUMA	10& 3	1	0.36374	721.39	23.868	1.23036	1.600	3.099	
COMPUTE NM HYD	NE208	-	2	0.10104	197.57	6.772	1.25668	1.533	3.055	PER IMP= 18.60
ADD HYD	NE208SUMB	1& 2	1	0.46478	906.52	30.640	1.23608	1.567	3.048	
*S APNE2										
ROUTE MCUNGE	NE208SUMBRt	1	10	0.46478	906.52	30.640	1.23608	1.567	3.048	CCODE = 0.0
COMPUTE NM HYD	NE205.1	-	1	0.07464	152.77	4.909	1.23306	1.533	3.198	PER IMP= 17.00
ROUTE MCUNGE	NE205.1RT	1	2	0.07464	150.12	4.898	1.23046	1.567	3.143	CCODE = 0.1
COMPUTE NM HYD	NE205.2	-	1	0.06038	123.59	3.976	1.23479	1.533	3.198	PER IMP= 17.12
ADD HYD	NE205.2SUM	1& 2	1	0.13502	266.04	8.875	1.23239	1.567	3.079	
ROUTE MCUNGE	NE205.2SUMRT	1	2	0.13502	262.30	8.862	1.23059	1.600	3.035	CCODE = 0.1
COMPUTE NM HYD	NE206	-	1	0.04398	114.85	4.691	1.99993	1.533	4.081	PER IMP= 69.03
ADD HYD	NE206SUM	2& 1	1	0.17900	367.45	13.553	1.41961	1.567	3.207	
*S APNE4										
ROUTE MCUNGE	NE206SUMRT	1	2	0.17900	365.02	13.552	1.41951	1.567	3.186	CCODE = 0.2
ADD HYD	NE211SUMA	10& 2	1	0.64378	1271.54	44.192	1.28708	1.567	3.086	
ROUTE RESERVOIR	PondNE2	1	40	0.64378	30.30	44.192	1.28708	2.600	0.074	AC-FT= 37.605
*S RATING CURVE FROM PLAN SET ADN SD FACILITIES										
*S TB DRAINAGE FACILITIES PHASE IIIC JUNE 1995										
COMPUTE NM HYD	NE210	-	1	0.09526	216.65	9.433	1.85665	1.567	3.554	PER IMP= 59.30

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	NE210RT	1	2	0.09526	215.34	9.425	1.85508	1.567	3.532	CCODE = 0.1
COMPUTE NM HYD	NE211	-	1	0.07784	186.95	7.421	1.78758	1.533	3.753	PER IMP= 57.40
ADD HYD	PondNE3SUM	2& 1	1	0.17310	391.00	16.846	1.82472	1.533	3.529	
ADD HYD	NE211SUMB	40& 1	1	0.81688	408.71	61.038	1.40101	1.567	0.782	
ROUTE RESERVOIR	PondNE3	1	41	0.81688	21.80	61.038	1.40101	14.732	0.042	AC-FT= 22.387
*S**********										
*S**********	END OF 98TH AND CENTRAL BASIN									
*S**********										
*S**********										
*S**********	UNSER-214 BASIN									
*S**********										
COMPUTE NM HYD	U202.2	-	1	0.04661	104.70	4.227	1.70029	1.533	3.510	PER IMP= 56.00
ROUTE MCUNGE	U202.2SUMRT	1	2	0.04661	103.84	4.220	1.69740	1.567	3.481	CCODE = 0.1
COMPUTE NM HYD	U201	-	1	0.03522	99.89	4.316	2.29751	1.500	4.431	PER IMP= 89.19
ADD HYD	U201SUM	2& 1	1	0.08183	195.86	8.535	1.95568	1.567	3.740	
ROUTE RESERVOIR	PondU6	1	30	0.08183	51.96	8.535	1.95568	1.866	0.992	AC-FT= 4.094
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
ROUTE MCUNGE	PONDU6Rt	30	2	0.08183	51.95	8.535	1.95559	1.900	0.992	CCODE = 0.2
COMPUTE NM HYD	U202.1	-	1	0.06636	176.49	7.502	2.11955	1.533	4.156	PER IMP= 79.20
ROUTE RESERVOIR	PondU5	1	30	0.06636	118.53	7.502	2.11955	1.633	2.791	AC-FT= 2.192
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
ROUTE MCUNGE	PONDu5Rt	30	1	0.06636	114.97	7.444	2.10323	1.667	2.707	CCODE = 0.2
ADD HYD	U202.1SUM	2& 1	1	0.14819	163.15	15.978	2.02169	1.700	1.720	
ROUTE RESERVOIR	PondU4	1	31	0.14819	85.46	15.978	2.02169	2.033	0.901	AC-FT= 3.928
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
COMPUTE NM HYD	U203	-	1	0.05311	124.07	4.784	1.68899	1.533	3.650	PER IMP= 50.45
ADD HYD	U203SUM	31& 1	1	0.20130	149.78	20.762	1.93384	1.533	1.163	
*S APU1										
ROUTE RESERVOIR	PondU3	1	30	0.20130	92.03	20.762	1.93384	2.166	0.714	AC-FT= 2.989
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
ROUTE RESERVOIR	PondU2	30	31	0.20130	46.51	20.457	1.90544	3.566	0.361	AC-FT= 6.963
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
COMPUTE NM HYD	U204	-	1	0.04966	113.17	4.334	1.63633	1.533	3.561	PER IMP= 47.85
ROUTE RESERVOIR	PondU7	1	30	0.04966	47.51	4.334	1.63633	1.733	1.495	AC-FT= 1.553
*S Pond Rating Curve from Avalon Report Feb. 1998 stated pond release of 35.8cf										
*S Sub-Basin U104 drains to pond in analysis; however,										
*S The pond respective watershed is smaller, thus the higher release from pond.										
*S										
ADD HYD	U204SUM	31&30	1	0.25096	64.33	24.791	1.85219	2.200	0.401	
ROUTE RESERVOIR	PondU1	1	30	0.25096	44.41	24.741	1.84845	4.533	0.277	AC-FT= 3.641
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
ROUTE MCUNGE	PondU1Rt	30	1	0.25096	44.41	24.740	1.84841	4.566	0.277	CCODE = 0.2

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	U207	-	2	0.04489	114.77	4.610	1.92566	1.533	3.995	PER IMP= 64.00
ADD HYD	U207SUM	1& 2	1	0.29585	122.92	29.350	1.86013	1.533	0.649	
ROUTE MCUNGE	U207SUMRt	1	10	0.29585	122.12	29.347	1.85994	1.567	0.645	CCODE = 0.2
COMPUTE NM HYD	U205	-	1	0.07980	176.04	8.550	2.00899	1.600	3.447	PER IMP= 69.67
ROUTE MCUNGE	U205Rt	1	2	0.07980	175.31	8.546	2.00788	1.633	3.433	CCODE = 0.2
COMPUTE NM HYD	U206	-	1	0.09646	189.28	10.116	1.96638	1.633	3.066	PER IMP= 66.70
ADD HYD	U206SUM	2& 1	1	0.17626	364.59	18.662	1.98517	1.633	3.232	
*S APU2										
ROUTE MCUNGE	U206SUMRt	1	2	0.17626	344.43	18.512	1.96923	1.667	3.053	CCODE = 0.2
COMPUTE NM HYD	U208	-	1	0.03976	98.33	3.902	1.84009	1.533	3.864	PER IMP= 56.50
ADD HYD	U208SUMB	2& 1	1	0.21602	411.84	22.414	1.94546	1.633	2.979	
COMPUTE NM HYD	U209	-	2	0.03339	85.47	3.341	1.87591	1.533	4.000	PER IMP= 58.20
ADD HYD	U209SUM	1& 2	1	0.24941	480.60	25.754	1.93614	1.567	3.011	
ROUTE RESERVOIR	PONDU214	1	30	0.24941	137.74	25.754	1.93614	2.000	0.863	AC-FT= 11.990
ADD HYD	U208SUMA	10&30	42	0.54526	226.00	55.103	1.89483	1.600	0.648	
*S APU3										
*S**********	END OF UNSER-214 BASIN									
*S**********	TIERRA BAYITA BASIN									
COMPUTE NM HYD	TB202.1	-	1	0.13801	286.10	13.441	1.82608	1.567	3.239	PER IMP= 63.00
ROUTE RESERVOIR	PondTB1A	1	30	0.13801	180.05	13.441	1.82608	1.733	2.038	AC-FT= 2.194
ROUTE MCUNGE	PONDTB1RT	30	1	0.13801	180.05	13.438	1.82563	1.766	2.038	CCODE = 0.1
COMPUTE NM HYD	TB202.2	-	2	0.08784	234.77	10.586	2.25974	1.533	4.176	PER IMP= 86.90
ROUTE RESERVOIR	PondTB1B	2	30	0.08784	114.06	10.586	2.25973	1.733	2.029	AC-FT= 2.530
ADD HYD	TB202.2SUM	1&30	1	0.22585	294.11	24.024	1.99446	1.733	2.035	
ROUTE MCUNGE	TB202.2SUMRT	1	2	0.22585	293.91	23.863	1.98114	1.933	2.033	CCODE = 0.2
COMPUTE NM HYD	TB103	-	1	0.04991	123.90	4.854	1.82356	1.533	3.879	PER IMP= 57.00
ROUTE RESERVOIR	PondTB2	1	30	0.04991	66.57	4.854	1.82355	1.667	2.084	AC-FT= 1.918
*S Outflow equals to 49.4 cfs From "DMP for Avalon Subdivision" on Pg 3										
ADD HYD	PONDTB2SUM	2&30	1	0.27576	355.53	28.717	1.95261	1.733	2.014	
ROUTE MCUNGE	PONDTB2SUMRT	1	2	0.27576	344.83	28.170	1.91538	1.900	1.954	CCODE = 0.2
COMPUTE NM HYD	TB204	-	1	0.03918	106.93	4.584	2.19364	1.533	4.265	PER IMP= 83.50
ROUTE MCUNGE	TB204RT	1	3	0.03918	106.92	4.583	2.19316	1.533	4.264	CCODE = 0.2
COMPUTE NM HYD	TB205	-	1	0.04575	115.37	4.583	1.87843	1.533	3.940	PER IMP= 60.80
ROUTE RESERVOIR	PondTB3	1	30	0.04575	31.73	4.583	1.87842	1.800	1.084	AC-FT= 2.420
*S Pond never graded per proposed G&D with date 12-7-10										
*S Pond likely will be modified per plan, but left as existing										
*S Assumed existing 30" RCP outlet with 0.5% slope										
ADD HYD	PONDTB3SUM	3&30	1	0.08493	129.96	9.166	2.02348	1.567	2.391	
ROUTE MCUNGE	PondTB3SUMRT	1	3	0.08493	129.92	9.166	2.02347	1.567	2.390	CCODE = 0.2
ADD HYD	TB206SUMA	2& 3	1	0.36069	407.53	37.335	1.94083	1.800	1.765	
ROUTE MCUNGE	TB206SUMART	1	2	0.36069	400.53	36.930	1.91978	1.833	1.735	CCODE = 0.2
COMPUTE NM HYD	TB206	-	1	0.02559	64.63	2.570	1.88298	1.533	3.946	PER IMP= 61.10
ADD HYD	TB206SUMB	2& 1	1	0.38628	417.80	39.500	1.91734	1.766	1.690	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S APTB1										
ROUTE MCUNGE	TB206SUMBRT	1	10	0.38628	412.09	39.069	1.89639	1.833	1.667	CCODE = 0.2
ROUTE MCUNGE	NEBASINRT	41	1	0.81688	21.80	61.037	1.40100	14.765	0.042	CCODE = 0.2
COMPUTE NM HYD	TB207	-	2	0.06805	180.99	7.480	2.06089	1.533	4.156	PER IMP= 72.90
COMPUTE NM HYD	TB208	-	3	0.05040	125.02	5.303	1.97290	1.533	3.876	PER IMP= 67.20
ADD HYD	TB208SUMA	2& 3	2	0.11845	306.01	12.783	2.02344	1.533	4.037	
ADD HYD	TB208SUMB	1& 2	1	0.93533	315.55	73.820	1.47983	1.533	0.527	
*S APTB2										
ROUTE MCUNGE	TB208SUMBRT	1	2	0.93533	314.41	73.819	1.47981	1.533	0.525	CCODE = 0.2
ADD HYD	TB209SUMA	10& 2	1	1.32161	677.91	112.888	1.60156	1.567	0.801	
COMPUTE NM HYD	TB209	-	2	0.03089	85.75	3.659	2.22091	1.500	4.338	PER IMP= 84.00
ADD HYD	TB209SUMB	1& 2	1	1.35250	757.08	116.547	1.61571	1.567	0.875	
ROUTE MCUNGE	TB209SUMBRT	1	2	1.35250	723.70	116.383	1.61345	1.633	0.836	CCODE = 0.2
COMPUTE NM HYD	TB216	-	1	0.03257	89.82	3.817	2.19729	1.533	4.309	PER IMP= 82.40
ROUTE MCUNGE	TB216RT	1	3	0.03257	89.27	3.809	2.19265	1.600	4.283	CCODE = 0.1
ADD HYD	TB213SUMA	2& 3	1	1.38507	809.90	120.192	1.62707	1.633	0.914	
*S APTB3										
COMPUTE NM HYD	TB213	-	2	0.04712	133.59	5.771	2.29632	1.500	4.430	PER IMP= 89.10
ADD HYD	TB213SUMB	1& 2	1	1.43219	915.95	125.963	1.64909	1.600	0.999	
ROUTE MCUNGE	TB213SUMBRT	1	2	1.43219	884.55	125.699	1.64563	1.633	0.965	CCODE = 0.2
COMPUTE NM HYD	TB214	-	1	0.02685	68.55	2.713	1.89453	1.533	3.989	PER IMP= 60.76
ADD HYD	TB214SUM	2& 1	1	1.45904	931.52	128.412	1.65021	1.633	0.998	
*S APTB7										
ROUTE MCUNGE	TB214SUMRT	1	10	1.45904	887.60	127.822	1.64264	1.667	0.951	CCODE = 0.2
ROUTE MCUNGE	UNBASINRT	42	11	0.54526	224.57	55.089	1.89435	1.633	0.644	CCODE = 0.1
COMPUTE NM HYD	TB210	-	1	0.07272	175.08	7.917	2.04123	1.567	3.762	PER IMP= 71.83
COMPUTE NM HYD	TB211	-	2	0.02330	66.05	2.870	2.30948	1.533	4.429	PER IMP= 90.00
ADD HYD	TB211SUM	1& 2	1	0.09602	238.63	10.787	2.10631	1.533	3.883	
*S APTB4										
ROUTE MCUNGE	TB211SUMRT	1	2	0.09602	236.24	10.769	2.10288	1.600	3.844	CCODE = 0.1
COMPUTE NM HYD	TB212	-	1	0.06855	159.66	7.680	2.10058	1.567	3.639	PER IMP= 75.20
ADD HYD	TB212SUMA	1& 2	1	0.16457	394.32	18.449	2.10191	1.600	3.744	
*S APTB5										
ADD HYD	TB212SUMB	11& 1	1	0.70983	615.80	73.537	1.94247	1.600	1.356	
*S APTB6										
ROUTE MCUNGE	TB212SUMBRT	1	2	0.70983	612.49	73.532	1.94232	1.633	1.348	CCODE = 0.2
ADD HYD	TB215SUMA	10& 2	1	2.16887	1491.18	201.351	1.74069	1.633	1.074	
COMPUTE NM HYD	TB215	-	2	0.11272	195.06	9.623	1.60072	1.633	2.704	PER IMP= 36.70
ADD HYD	TB215SUMB	1& 2	10	2.28159	1686.25	210.974	1.73378	1.633	1.155	
COMPUTE NM HYD	TB217	-	1	0.01861	50.87	2.147	2.16346	1.533	4.271	PER IMP= 80.10
ROUTE MCUNGE	TB217RT	1	2	0.01861	50.80	2.145	2.16146	1.567	4.266	CCODE = 0.1
COMPUTE NM HYD	TB220	-	1	0.03690	96.97	3.995	2.03023	1.533	4.106	PER IMP= 71.00
ADD HYD	TB220SUM	2& 1	1	0.05551	143.04	6.141	2.07421	1.533	4.026	
COMPUTE NM HYD	TB218	-	2	0.03573	73.14	2.353	1.23479	1.533	3.198	PER IMP= 17.12
ROUTE MCUNGE	TB218RT	2	3	0.03573	71.94	2.347	1.23144	1.567	3.146	CCODE = 0.1
COMPUTE NM HYD	TB219	-	2	0.02285	58.43	2.347	1.92566	1.533	3.995	PER IMP= 64.00
ADD HYD	TB219SUM	2& 3	2	0.05858	126.10	4.693	1.50222	1.567	3.363	
ADD HYD	TB221SUMA	1& 2	1	0.11409	267.16	10.834	1.78052	1.533	3.659	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S APTB8										
ROUTE MCUNGE	TB221SUMART	1	2	0.11409	267.14	10.823	1.77867	1.567	3.659	CCODE = 0.1
COMPUTE NM HYD	TB221	-	1	0.05769	137.45	5.770	1.87544	1.533	3.723	PER IMP= 60.54
ADD HYD	TB221SUMB	2& 1	1	0.17178	401.85	16.593	1.81116	1.567	3.655	
ROUTE MCUNGE	TB221SUMBRT	1	2	0.17178	396.95	16.569	1.80854	1.600	3.611	CCODE = 0.2
COMPUTE NM HYD	TB222	-	1	0.07064	155.17	7.233	1.91976	1.567	3.432	PER IMP= 63.60
ADD HYD	TB222SUMA	2& 1	1	0.24242	550.22	23.802	1.84094	1.600	3.546	
*S APTB9										
ADD HYD	TB222SUMB	10& 1	1	2.52401	2210.89	234.776	1.74407	1.633	1.369	
*S APTB10										
ROUTE MCUNGE	TB222SUMBRT	1	2	2.52401	2205.93	234.732	1.74375	1.633	1.366	CCODE = 0.1
COMPUTE NM HYD	TB223	-	1	0.07133	129.70	6.937	1.82355	1.633	2.841	PER IMP= 57.00
COMPUTE NM HYD	TB224	-	3	0.15974	236.51	15.234	1.78814	1.733	2.313	PER IMP= 54.40
ADD HYD	TB224SUMA	1& 3	1	0.23107	355.12	22.171	1.79907	1.700	2.401	
ADD HYD	TB224SUMB	2& 1	43	2.75508	2549.14	256.903	1.74838	1.667	1.446	
*S**********										
*S********** END OF TIERRA BAYITA BASIN										
*S**********										
*S**********										
*S********** ATRISCO BUSINESS PARK BASIN										
*S**********										
ROUTE MCUNGE	TB222SUMBRT	43	20	2.75508	2542.52	256.846	1.74800	1.667	1.442	CCODE = 0.1
COMPUTE NM HYD	AB201.1	-	1	0.11831	299.35	12.710	2.01424	1.533	3.953	PER IMP= 70.00
ROUTE RESERVOIR	PONDAB201.2	1	30	0.11831	7.56	12.710	2.01423	2.566	0.100	AC-FT= 9.770
ROUTE MCUNGE	PONDAB201.1R	30	1	0.11831	7.56	12.709	2.01419	2.600	0.100	CCODE = 0.1
COMPUTE NM HYD	AB201.2	-	2	0.09628	227.97	10.343	2.01424	1.567	3.700	PER IMP= 70.00
ROUTE RESERVOIR	PONDAB201.2	2	30	0.09628	6.15	10.343	2.01423	2.666	0.100	AC-FT= 7.926
ADD HYD	AB201.2SUM	30& 1	1	0.21459	13.72	23.052	2.01419	2.633	0.100	
*S APAB1										
ROUTE MCUNGE	Pond201.2SUM	1	2	0.21459	13.72	23.051	2.01413	2.733	0.100	CCODE = 0.1
COMPUTE NM HYD	AB202	-	1	0.18317	320.85	19.669	2.01337	1.700	2.737	PER IMP= 69.90
ROUTE RESERVOIR	PondAB202	1	30	0.18317	11.72	19.669	2.01337	3.066	0.100	AC-FT= 14.526
ADD HYD	POND202SUM	2&30	1	0.39776	25.44	42.720	2.01377	2.900	0.100	
*S APAB2										
ROUTE MCUNGE	Pond202SUMRt	1	2	0.39776	25.44	42.719	2.01374	2.966	0.100	CCODE = 0.1
COMPUTE NM HYD	AB203.1	-	1	0.11159	233.36	12.849	2.15891	1.633	3.268	PER IMP= 79.80
ROUTE RESERVOIR	PondAB203.1	1	30	0.11159	7.13	12.849	2.15890	2.933	0.100	AC-FT= 9.625
ADD HYD	POND202SUM	2&30	1	0.50935	32.57	55.568	2.04554	2.966	0.100	
ROUTE MCUNGE	AB203.1Rt	1	2	0.50935	32.57	55.567	2.04550	3.000	0.100	CCODE = 0.1
COMPUTE NM HYD	AB203.2	-	1	0.10280	160.41	10.776	1.96549	1.766	2.438	PER IMP= 64.60
ROUTE RESERVOIR	PondAB203.2	1	30	0.10280	6.57	10.776	1.96548	3.266	0.100	AC-FT= 7.955
ADD HYD	PondAB203.2S	2&30	1	0.61215	39.14	66.343	2.03206	3.033	0.100	
ROUTE MCUNGE	PondAB203.2S	1	2	0.61215	39.14	66.340	2.03199	3.166	0.100	CCODE = 0.1
*S APAB3										
COMPUTE NM HYD	AB204	-	1	0.16122	291.27	17.730	2.06200	1.667	2.823	PER IMP= 73.47
ROUTE RESERVOIR	PondAB204	1	30	0.16122	10.32	17.730	2.06199	3.066	0.100	AC-FT= 13.109
ADD HYD	PondAB204SUM	2&30	1	0.77337	49.46	84.070	2.03824	3.166	0.100	
*S APAB4										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	PondAB2046UM	1	2	0.77837	49.46	84.070	2.03824	3.133	0.100	CCODE = 0.2
COMPUTE NM HYD	TB225	-	1	0.13043	203.16	9.502	1.36592	1.633	2.434	PER IMP= 26.00
ADD HYD	TB225SUMA	2& 1	1	0.90380	237.95	93.572	1.94121	1.633	0.411	
ADD HYD	TB225SUMB	1&20	1	3.65888	2779.40	350.418	1.79572	1.667	1.187	
ROUTE RESERVOIR	PondNSCOORS	1	44	3.65888	988.87	350.402	1.79564	2.200	0.422	AC-FT= 73.531
*S**********										
*S**********	END OF ATRISCO BUSINESS PARK BASIN									
*S**********										
*S**********										
*S**********	TOWER-SAGE BASIN									
*S**********										
COMPUTE NM HYD	TS201	-	1	0.06441	164.37	7.700	2.24158	1.567	3.987	PER IMP= 85.40
ROUTE MCUNGE	TS201Rt	1	2	0.06441	164.10	7.697	2.24062	1.600	3.981	CCODE = 0.2
COMPUTE NM HYD	TS202	-	1	0.08686	212.99	8.918	1.92497	1.533	3.831	PER IMP= 64.04
ADD HYD	TS202SUM	2& 1	1	0.15127	365.11	16.614	2.05937	1.567	3.771	
*S APTS1										
ROUTE MCUNGE	TS202SUMRt	1	2	0.15127	362.25	16.611	2.05897	1.600	3.742	CCODE = 0.2
COMPUTE NM HYD	TS203	-	1	0.10639	228.00	11.034	1.94461	1.600	3.349	PER IMP= 65.20
ADD HYD	TS203SUM	2& 1	1	0.25766	590.25	27.645	2.01174	1.600	3.579	
*S APTS2										
ROUTE MCUNGE	TS203SUMRt	1	2	0.25766	589.43	27.640	2.01137	1.600	3.574	CCODE = 0.2
COMPUTE NM HYD	TS205.1	-	1	0.04038	99.98	3.908	1.81470	1.533	3.869	PER IMP= 56.40
ADD HYD	TS205.1SUM	2& 1	1	0.29804	670.72	31.548	1.98472	1.600	3.516	
ROUTE MCUNGE	TS205.1SUMRt	1	2	0.29804	656.58	31.483	1.98063	1.633	3.442	CCODE = 0.2
COMPUTE NM HYD	TS204	-	1	0.04639	108.73	4.364	1.76374	1.533	3.662	PER IMP= 55.10
ROUTE MCUNGE	TS204Rt	1	3	0.04639	105.20	4.349	1.75776	1.567	3.543	CCODE = 0.2
ADD HYD	TS205.2SUMA	2& 3	1	0.34443	753.81	35.832	1.95061	1.600	3.420	
COMPUTE NM HYD	TS205.5	-	2	0.06260	143.52	5.947	1.78124	1.533	3.582	PER IMP= 54.20
ADD HYD	TS205.1SUMB	1& 2	1	0.40703	884.32	41.779	1.92456	1.600	3.395	
*S APTS3										
ROUTE MCUNGE	TS205.2SUMBR	1	10	0.40703	880.00	41.736	1.92259	1.600	3.378	CCODE = 0.1
COMPUTE NM HYD	TS206	-	1	0.02972	81.72	3.463	2.18487	1.533	4.296	PER IMP= 81.50
ROUTE RESERVOIR	PondTS2	1	30	0.02972	39.05	3.463	2.18485	1.700	2.053	AC-FT= 1.272
ROUTE MCUNGE	PONDTS2RT	30	1	0.02972	38.99	3.463	2.18483	1.733	2.050	CCODE = 0.2
COMPUTE NM HYD	TS207	-	2	0.07155	154.09	6.516	1.70766	1.567	3.365	PER IMP= 49.15
ADD HYD	TS207SUM	2& 1	1	0.10127	183.29	9.979	1.84769	1.567	2.828	
ROUTE MCUNGE	TS207SUMRt	1	2	0.10127	178.32	9.952	1.84266	1.633	2.751	CCODE = 0.2
COMPUTE NM HYD	TS208	-	1	0.05907	113.66	5.546	1.76036	1.600	3.007	PER IMP= 52.75
ADD HYD	TS208SUM	2& 1	1	0.16034	290.47	15.498	1.81234	1.633	2.831	
COMPUTE NM HYD	TS209	-	2	0.06455	147.00	6.724	1.95322	1.567	3.558	PER IMP= 65.80
ROUTE MCUNGE	TS209Rt	2	3	0.06455	146.29	6.722	1.95246	1.600	3.541	CCODE = 0.2
COMPUTE NM HYD	TS210	-	2	0.06151	134.31	6.030	1.83807	1.567	3.412	PER IMP= 58.00
ADD HYD	TS210SUMA	3& 2	2	0.12606	277.13	12.751	1.89664	1.600	3.435	
ADD HYD	TS210SUMB	1& 2	1	0.28640	565.38	28.250	1.84944	1.600	3.085	
*S APTS4										
ROUTE MCUNGE	TS210SUMBRt	1	2	0.28640	562.23	28.248	1.84931	1.600	3.067	CCODE = 0.2
ADD HYD	TS211SUMA	10& 2	1	0.69343	1442.23	69.984	1.89232	1.600	3.250	
COMPUTE NM HYD	TS211	-	2	0.04503	65.75	2.124	0.88456	1.533	2.281	PER IMP= 9.90

Original Overall Site Basin TB225 & NS Coors Pond Results

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	TS211SUMB	1& 2	1	0.73846	1497.81	72.108	1.83087	1.600	3.169	
ROUTE RESERVOIR	PondTS1	1	30	0.73846	90.45	72.108	1.83087	2.533	0.191	AC-FT= 52.351
ROUTE MCUNGE	PondTS1RT	30	1	0.73846	90.28	72.055	1.82953	2.733	0.191	CCODE = 0.2
COMPUTE NM HYD	TS214	-	2	0.04836	92.13	4.560	1.76804	1.600	2.977	PER IMP= 54.20
ADD HYD	TS214SUM	1& 2	1	0.78682	133.43	76.615	1.82575	1.633	0.265	
*S APTS5										
ROUTE MCUNGE	TS214SUMRT	1	2	0.78682	132.43	76.611	1.82564	1.700	0.263	CCODE = 0.2
COMPUTE NM HYD	TS212	-	1	0.09315	185.71	9.702	1.95299	1.633	3.115	PER IMP= 65.83
ROUTE MCUNGE	TS212RT	1	3	0.09315	184.08	9.693	1.95113	1.667	3.088	CCODE = 0.2
COMPUTE NM HYD	TS213	-	1	0.06630	165.63	6.529	1.84644	1.533	3.903	PER IMP= 58.60
ADD HYD	TS213SUMA	3& 1	1	0.15945	311.33	16.222	1.90759	1.567	3.051	
*S APTS6										
ROUTE MCUNGE	TS213SUMRT	1	3	0.15945	309.61	16.216	1.90689	1.600	3.034	CCODE = 0.2
ADD HYD	TS213SUMB	3&44	1	3.81833	1089.47	366.618	1.80028	1.833	0.446	
ROUTE MCUNGE	TS215SUMBRT	1	3	3.81833	1088.98	366.618	1.80029	1.900	0.446	CCODE = 0.2
*s APTS7										
ADD HYD	TS215SUMA	2& 3	1	4.60515	1204.44	443.228	1.80462	1.800	0.409	
COMPUTE NM HYD	TS215	-	2	0.14947	240.67	12.607	1.58145	1.667	2.516	PER IMP= 40.60
ADD HYD	TS215SUMB	1& 2	1	4.75462	1389.01	455.835	1.79760	1.766	0.456	
ROUTE MCUNGE	TS215SUMBRT	1	2	4.75462	1388.14	455.834	1.79760	1.766	0.456	CCODE = 0.2
COMPUTE NM HYD	TS216	-	1	0.07651	131.92	7.482	1.83352	1.667	2.694	PER IMP= 57.70
*S APTS8										
ROUTE MCUNGE	TS216Rt	1	3	0.07651	115.50	7.253	1.77749	1.933	2.359	CCODE = 0.2
ADD HYD	TS217SUMA	2& 3	1	4.83113	1479.34	463.087	1.79728	1.800	0.478	
COMPUTE NM HYD	TS217	-	2	0.14062	246.00	12.146	1.61959	1.633	2.733	PER IMP= 43.20
ADD HYD	TSBASIN	1& 2	45	4.97175	1657.26	475.233	1.79225	1.733	0.521	
*S APTS9										
*S**********										
*S**********	END OF TOWER-SAGE BASIN									
*S**********										
*S**********										
*S**********	POWERLINE BASIN									
*S**********										
COMPUTE NM HYD	PL202	-	1	0.16047	283.84	10.553	1.23306	1.567	2.764	PER IMP= 17.00
ROUTE MCUNGE	PL202Rt	1	2	0.16047	282.61	10.551	1.23281	1.600	2.752	CCODE = 0.2
COMPUTE NM HYD	PL204	-	3	0.15501	288.74	10.243	1.23897	1.567	2.911	PER IMP= 17.40
ADD HYD	PL204sum	2& 3	1	0.31548	555.12	20.794	1.23583	1.567	2.749	
*S APPL1										
ROUTE MCUNGE	PL204sumRt	1	2	0.31548	551.74	20.786	1.23535	1.633	2.733	CCODE = 0.2
COMPUTE NM HYD	PL205	-	3	0.13707	257.09	10.576	1.44675	1.567	2.931	PER IMP= 31.50
ADD HYD	PL205sum	2& 3	1	0.45255	804.40	31.362	1.29938	1.600	2.777	
ROUTE MCUNGE	PL205sumRt	1	2	0.45255	798.07	31.360	1.29929	1.633	2.755	CCODE = 0.2
COMPUTE NM HYD	PL206	-	3	0.17377	274.30	9.878	1.06587	1.567	2.466	PER IMP= 11.30
ADD HYD	PL206sum	2& 3	1	0.62632	1061.96	41.238	1.23453	1.600	2.649	
ROUTE RESERVOIR	PondPL1	1	30	0.62632	417.17	41.012	1.22776	1.866	1.041	AC-FT= 20.686
*S Increased Pond Storage and Outlet Discharge to Prevent Overtopping.										
*S Same Outlet Configuration as downstream Detention Ponds.										
ROUTE MCUNGE	PONDPL1RT	30	2	0.62632	380.74	40.725	1.21917	2.066	0.950	CCODE = 0.2

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	PL207	-	3	0.09881	144.96	4.201	0.79709	1.533	2.292	PER IMP= 0.00
ADD HYD	PL207sumA	2& 3	1	0.72513	392.35	44.925	1.16166	2.066	0.845	
ROUTE MCUNGE	PL207SUMRt	1	5	0.72513	392.32	44.921	1.16154	2.066	0.845	CCODE = 0.2
COMPUTE NM HYD	PL208.1	-	1	0.07570	106.84	3.118	0.77220	1.533	2.205	PER IMP= 0.00
ROUTE MCUNGE	PL208.1Rt	1	2	0.07570	106.44	3.120	0.77272	1.567	2.197	CCODE = 0.2
COMPUTE NM HYD	PL208.2	-	1	0.01112	26.78	1.040	1.75419	1.533	3.763	PER IMP= 53.60
COMPUTE NM HYD	PL208.3	-	3	0.02338	46.01	1.665	1.33522	1.533	3.075	PER IMP= 31.80
ADD HYD	PL208.3sumA	1& 3	1	0.03450	72.78	2.705	1.47024	1.533	3.296	
ADD HYD	PL208.3sumB	1& 2	1	0.11020	177.11	5.825	0.99109	1.533	2.511	
ADD HYD	PL208.3sumC	1& 5	1	0.83533	409.11	50.746	1.13906	2.066	0.765	
ROUTE RESERVOIR	PondPL2	1	30	0.83533	343.52	50.736	1.13883	2.333	0.643	AC-FT= 13.202
ROUTE MCUNGE	PONDPL2Rt	30	10	0.83533	343.52	50.736	1.13883	2.333	0.643	CCODE = 0.0
COMPUTE NM HYD	PL209.1	-	1	0.06028	87.26	2.506	0.77957	1.533	2.262	PER IMP= 0.00
ROUTE MCUNGE	PL209.1Rt	1	2	0.06028	87.19	2.509	0.78033	1.567	2.260	CCODE = 0.2
COMPUTE NM HYD	PL209.2	-	1	0.01575	37.67	1.430	1.70212	1.533	3.737	PER IMP= 48.85
ADD HYD	PL209.2sum	1& 2	1	0.07603	122.23	3.938	0.97127	1.567	2.512	
COMPUTE NM HYD	PL209.3	-	2	0.00878	21.04	0.799	1.70546	1.533	3.745	PER IMP= 49.00
ADD HYD	PL209.3sumA	1& 2	1	0.08481	142.61	4.737	1.04727	1.533	2.627	
ADD HYD	PL209.3sumB	10& 1	1	0.92014	350.98	55.473	1.13039	2.300	0.596	
ROUTE RESERVOIR	PondPL3	1	30	0.92014	328.87	55.466	1.13025	2.500	0.558	AC-FT= 8.468
ROUTE MCUNGE	UPONDPL3Rt	30	10	0.92014	328.87	55.466	1.13025	2.500	0.558	CCODE = 0.0
COMPUTE NM HYD	PL210.1	-	1	0.07778	103.27	3.038	0.73233	1.533	2.075	PER IMP= 0.00
ROUTE MCUNGE	PL210.1Rt	1	2	0.07778	102.62	3.040	0.73286	1.567	2.062	CCODE = 0.2
COMPUTE NM HYD	PL210.2	-	1	0.01496	35.84	1.361	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	PL210.2sum	1& 2	1	0.09274	135.96	4.401	0.88974	1.567	2.291	
COMPUTE NM HYD	PL210.3	-	2	0.00903	21.64	0.821	1.70546	1.533	3.745	PER IMP= 49.00
ADD HYD	PL210.3sumA	1& 2	1	0.10177	156.08	5.222	0.96212	1.567	2.396	
ADD HYD	PL210.3sumB	10& 1	1	1.02191	334.49	60.688	1.11351	2.500	0.511	
ROUTE RESERVOIR	PondPL4	1	30	1.02191	316.59	60.680	1.11336	2.700	0.484	AC-FT= 8.391
ROUTE MCUNGE	PONDPL4Rt	30	10	1.02191	316.59	60.680	1.11336	2.700	0.484	CCODE = 0.0
COMPUTE NM HYD	PL211.1	-	1	0.07867	99.87	2.919	0.69570	1.533	1.983	PER IMP= 0.00
ROUTE MCUNGE	PL211.1Rt	1	2	0.07867	99.69	2.922	0.69636	1.567	1.980	CCODE = 0.2
COMPUTE NM HYD	PL211.3	-	1	0.01064	25.50	0.968	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	PL211.3sumA	1& 2	1	0.08931	123.40	3.890	0.81657	1.567	2.159	
ADD HYD	PL211.3sumB	10& 1	1	1.11122	319.84	64.569	1.08950	2.666	0.450	
ROUTE RESERVOIR	PondPL5	1	30	1.11122	302.04	64.561	1.08937	2.900	0.425	AC-FT= 8.959
ROUTE MCUNGE	PONDPL5Rt	30	10	1.11122	302.04	64.561	1.08937	2.900	0.425	CCODE = 0.0
COMPUTE NM HYD	PL211.2	-	1	0.05553	133.00	5.051	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	PL211.2sum	10& 1	1	1.16675	303.21	69.612	1.11869	2.900	0.406	
ROUTE RESERVOIR	PondPL6	1	30	1.16675	286.40	69.603	1.11854	3.100	0.384	AC-FT= 9.368
COMPUTE NM HYD	PL212.1	-	1	0.03223	77.20	2.932	1.70546	1.533	3.743	PER IMP= 49.00
COMPUTE NM HYD	PL212.2	-	2	0.01592	38.14	1.448	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	PL212.2sumA	1& 2	1	0.04815	115.34	4.380	1.70544	1.533	3.743	
ADD HYD	PL212.2sumB	30& 1	1	1.21490	287.08	73.983	1.14180	3.100	0.369	
COMPUTE NM HYD	PL213	-	2	0.02311	55.36	2.102	1.70546	1.533	3.743	PER IMP= 49.00
ADD HYD	PLBASIN	1& 2	46	1.23801	287.41	76.085	1.15232	3.100	0.363	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S APPL2										
*S**********	END OF POWERLINE BASIN									
*S**********	SNOW VISTA BASIN									
COMPUTE NM HYD	SV201	-	1	0.10812	230.93	7.433	1.28905	1.533	3.337	PER IMP= 18.00
ROUTE MCUNGE	SV201Rt	1	2	0.10812	230.08	7.435	1.28938	1.567	3.325	CCODE = 0.2
COMPUTE NM HYD	SV203	-	1	0.06845	175.50	7.068	1.93612	1.533	4.006	PER IMP= 64.70
ROUTE MCUNGE	SV203Rt	1	3	0.06845	174.06	7.051	1.93146	1.600	3.973	CCODE = 0.1
ADD HYD	SV202SUMA	2& 3	2	0.17657	392.44	14.486	1.53829	1.567	3.473	
COMPUTE NM HYD	SV202	-	1	0.03670	92.92	3.703	1.89183	1.533	3.956	PER IMP= 61.70
ADD HYD	SV202SUMB	1& 2	1	0.21327	478.62	18.189	1.59913	1.567	3.507	
COMPUTE NM HYD	SV204	-	2	0.03698	75.93	2.452	1.24313	1.533	3.208	PER IMP= 17.68
ADD HYD	SV204SUM	2& 1	10	0.25025	549.82	20.641	1.54652	1.567	3.433	
COMPUTE NM HYD	SV207	-	1	0.05374	131.74	5.267	1.83783	1.533	3.830	PER IMP= 60.26
ROUTE RESERVOIR	PondSV1	1	30	0.05374	10.78	5.267	1.83782	2.133	0.314	AC-FT= 3.671
ROUTE MCUNGE	PondSV1Rt	30	1	0.05374	10.78	5.267	1.83771	2.200	0.314	CCODE = 0.2
COMPUTE NM HYD	SV212	-	2	0.08270	163.38	7.522	1.70546	1.600	3.087	PER IMP= 49.00
ROUTE MCUNGE	SV208SUMARt	2	3	0.08270	163.05	7.523	1.70553	1.633	3.081	CCODE = 0.2
ADD HYD	SV208SUMA	1& 3	1	0.13644	170.77	12.790	1.75758	1.633	1.956	
COMPUTE NM HYD	SV208	-	2	0.05371	124.13	4.563	1.59277	1.533	3.611	PER IMP= 41.40
ADD HYD	SV208SUMB	2& 1	1	0.19015	270.25	17.352	1.71103	1.600	2.221	
ADD HYD	SV208SUMC	10& 1	1	0.44040	819.34	37.993	1.61755	1.567	2.907	
ROUTE RESERVOIR	PondSV205	1	30	0.44040	23.46	37.993	1.61755	2.800	0.083	AC-FT= 27.408
ROUTE MCUNGE	SVPOND205Rt	30	10	0.44040	23.45	37.992	1.61752	2.833	0.083	CCODE = 0.2
COMPUTE NM HYD	SV205	-	1	0.04181	95.63	3.479	1.56029	1.533	3.574	PER IMP= 39.20
ROUTE MCUNGE	SVPOND205Rt	1	2	0.04181	95.33	3.478	1.55980	1.567	3.562	CCODE = 0.1
COMPUTE NM HYD	SV209	-	1	0.04749	100.61	3.373	1.33185	1.533	3.310	PER IMP= 23.70
ADD HYD	SV205SUMA	2& 1	1	0.08930	195.07	6.851	1.43856	1.533	3.413	
*S APSV1										
ADD HYD	SV205SUMB	10& 1	1	0.52970	211.51	44.844	1.58735	1.533	0.624	
ROUTE MCUNGE	SVPOND205Rt	1	10	0.52970	210.21	44.844	1.58736	1.567	0.620	CCODE = 0.2
COMPUTE NM HYD	SV210	-	1	0.03230	81.84	3.280	1.90398	1.533	3.959	PER IMP= 62.90
ROUTE MCUNGE	SV210Rt	1	2	0.03230	81.44	3.279	1.90318	1.567	3.939	CCODE = 0.1
COMPUTE NM HYD	SV206	-	1	0.02392	65.81	2.792	2.18843	1.533	4.299	PER IMP= 81.80
ROUTE MCUNGE	SV206Rt	1	3	0.02392	65.76	2.789	2.18639	1.567	4.296	CCODE = 0.1
COMPUTE NM HYD	SV211	-	1	0.01797	31.05	1.092	1.13960	1.533	2.699	PER IMP= 23.30
ADD HYD	SV211SUMA	3& 1	1	0.04189	95.00	3.881	1.73732	1.567	3.543	
ADD HYD	SV211SUMB	2& 1	1	0.07419	176.44	7.160	1.80952	1.567	3.716	
ADD HYD	SV211SUMC	10& 1	1	0.60389	386.64	52.004	1.61465	1.567	1.000	
ROUTE RESERVOIR	PondSV3	1	30	0.60389	195.34	52.004	1.61465	1.733	0.505	AC-FT= 7.239
*S RATING CURVE OBTAINED BY 2' LIDAR FOR VOLUME AND CALCULATING OUTFLOW WITH CU										
*S FOR ORFICES AND USING CIPOLETTI WEIR EQUATION FOR SPILLWAY										
*S										
ROUTE MCUNGE	PondSV3Rt	30	10	0.60389	192.07	51.974	1.61372	1.800	0.497	CCODE = 0.1
COMPUTE NM HYD	SV217	-	1	0.02636	63.33	2.411	1.71506	1.533	3.754	PER IMP= 49.65

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*S APSV2										
ROUTE MCUNGE	SV217Rt	1	2	0.02636	62.98	2.410	1.71412	1.600	3.733	CCODE = 0.1
COMPUTE NM HYD	SV218	-	1	0.04773	118.49	4.642	1.82356	1.533	3.879	PER IMP= 57.00
ADD HYD	SV218SUMA	2& 1	1	0.07409	174.44	7.052	1.78461	1.533	3.679	
ADD HYD	SV218SUMB	10& 1	1	0.67798	250.24	59.026	1.63240	1.800	0.577	
*S APSV3										
ROUTE MCUNGE	SV218SUMBRT	1	2	0.67798	249.39	59.010	1.63197	1.833	0.575	CCODE = 0.1
COMPUTE NM HYD	SV219	-	1	0.02000	47.91	1.819	1.70546	1.533	3.743	PER IMP= 49.00
ADD HYD	SV219SUM	2& 1	1	0.69798	260.69	60.829	1.63408	1.833	0.584	
*S APSV4										
ROUTE MCUNGE	SV219SUMRT	1	10	0.69798	260.19	60.830	1.63408	1.833	0.582	CCODE = 0.2
COMPUTE NM HYD	SV214	-	1	0.05386	129.00	4.899	1.70546	1.533	3.742	PER IMP= 49.00
ROUTE RESERVOIR	PondSV4	1	30	0.05386	98.64	4.899	1.70545	1.600	2.862	AC-FT= 1.329
*s ****DIVIDE 42.2 CFS TO 24" PIPE AND REMAINING TO 54" SURGE PIPE										
DIVIDE HYD	PONDSV4RT1	30	1	0.04347	42.20	3.954	1.70545	1.533	1.517	
	PONDSV4RT2	and	2	0.01039	56.44	0.945	1.70545	1.600	8.488	
ROUTE MCUNGE	PondSV4Rt1	1	5	0.04347	42.20	3.951	1.70418	1.600	1.517	CCODE = 0.1
ROUTE MCUNGE	PondSV4Rt2	2	4	0.01039	55.83	0.948	1.71012	1.600	8.396	CCODE = 0.2
COMPUTE NM HYD	SV213	-	2	0.02147	51.43	1.953	1.70546	1.533	3.743	PER IMP= 49.00
ADD HYD	SV213SUM	2& 4	1	0.03186	97.77	2.900	1.70695	1.600	4.795	
ROUTE MCUNGE	SV213SUMRt	1	2	0.03186	96.48	2.897	1.70482	1.633	4.732	CCODE = 0.1
ADD HYD	SV215SUMA	5& 2	1	0.07533	138.68	6.848	1.70444	1.633	2.877	
COMPUTE NM HYD	SV215	-	2	0.01573	37.69	1.431	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	SV215SUMB	1& 2	1	0.09106	164.67	8.279	1.70461	1.633	2.826	
*S APSV5										
ROUTE MCUNGE	SV115SUMBRT	1	20	0.09106	162.68	8.274	1.70367	1.700	2.791	CCODE = 0.1
COMPUTE NM HYD	SV216	-	1	0.02254	53.99	2.050	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	SV216RT	1	2	0.02254	53.54	2.049	1.70409	1.633	3.712	CCODE = 0.1
COMPUTE NM HYD	SV220	-	1	0.02887	69.15	2.626	1.70546	1.533	3.743	PER IMP= 49.00
ADD HYD	SV220SUM	2& 1	1	0.05141	112.21	4.674	1.70484	1.567	3.410	
ROUTE MCUNGE	SV120RT	1	2	0.05141	111.74	4.674	1.70484	1.600	3.396	CCODE = 0.2
ADD HYD	SV221SUMA	20& 2	1	0.14247	245.70	12.948	1.70408	1.667	2.695	
COMPUTE NM HYD	SV221	-	2	0.04057	92.33	3.462	1.59997	1.533	3.556	PER IMP= 44.10
ADD HYD	SV221SUMB	1& 2	1	0.18304	308.27	16.410	1.68100	1.600	2.632	
ADD HYD	SV221SUMC	10& 1	1	0.88102	526.82	77.240	1.64383	1.600	0.934	
*S APSV6										
ROUTE MCUNGE	SV221SUMBRT	1	2	0.88102	523.83	77.226	1.64353	1.633	0.929	CCODE = 0.1
COMPUTE NM HYD	SV222	-	1	0.03288	83.30	3.318	1.89225	1.533	3.958	PER IMP= 61.66
ROUTE MCUNGE	SV222RT	1	3	0.03288	82.10	3.310	1.88769	1.567	3.902	CCODE = 0.1
ADD HYD	SV222SUM	2& 3	10	0.91390	597.76	80.536	1.65231	1.600	1.022	
*S APSV7										
COMPUTE NM HYD	SV223	-	1	0.01602	38.38	1.457	1.70546	1.533	3.744	PER IMP= 49.00
ROUTE RESERVOIR	PondSV5	1	30	0.01602	14.58	1.457	1.70544	1.733	1.422	AC-FT= 0.584
ROUTE MCUNGE	PondSV5RT	30	1	0.01602	14.58	1.457	1.70543	1.733	1.422	CCODE = 0.2
COMPUTE NM HYD	SV224	-	2	0.05671	135.82	5.158	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	SV224SUM	1& 2	1	0.07273	147.08	6.615	1.70544	1.533	3.160	
ROUTE RESERVOIR	PondSV6	1	30	0.07273	36.93	6.615	1.70544	1.900	0.793	AC-FT= 2.936
ROUTE MCUNGE	PondSV6RT	30	1	0.07273	36.93	6.615	1.70544	1.933	0.793	CCODE = 0.2

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COMPUTE NM HYD	SV225	-	2	0.02569	62.28	2.390	1.74455	1.533	3.788	PER IMP= 51.65
ADD HYD	SV225SUM	1& 2	1	0.09842	90.23	9.006	1.71564	1.533	1.432	
ROUTE RESERVOIR	PondSV7	1	30	0.09842	29.75	9.006	1.71564	2.800	0.472	AC-FT= 2.936
ROUTE MCUNGE	PondSV7RT	30	1	0.09842	29.75	9.006	1.71565	2.833	0.472	CCODE = 0.2
COMPUTE NM HYD	SV226	-	2	0.03966	94.99	3.607	1.70546	1.533	3.742	PER IMP= 49.00
COMPUTE NM HYD	SV227	-	3	0.01936	44.85	1.653	1.60089	1.533	3.620	PER IMP= 42.00
ADD HYD	SV227SUMA	2& 3	2	0.05902	139.85	5.260	1.67115	1.533	3.702	
ADD HYD	SV227SUMB	1& 2	1	0.15744	158.05	14.266	1.69896	1.533	1.569	
*S APSV8										
ROUTE MCUNGE	SV227SUMBRT	1	2	0.15744	155.98	14.258	1.69807	1.600	1.548	CCODE = 0.1
COMPUTE NM HYD	SV228	-	1	0.03522	99.89	4.316	2.29751	1.500	4.431	PER IMP= 89.19
ADD HYD	SV228SUM	2& 1	1	0.19266	247.95	18.574	1.80765	1.567	2.011	
ROUTE RESERVOIR	PondSV8	1	30	0.19266	215.51	18.574	1.80765	1.633	1.748	AC-FT= 3.553
ADD HYD	PondSV8SUM	10&30	1	1.10656	808.88	99.110	1.67935	1.633	1.142	
*S APSV9										
ROUTE MCUNGE	PondSV8SUMRT	1	2	1.10656	795.54	99.088	1.67900	1.667	1.123	CCODE = 0.1
COMPUTE NM HYD	SV238	-	1	0.04738	109.75	4.045	1.60089	1.533	3.619	PER IMP= 42.00
ROUTE MCUNGE	SV238RT	1	3	0.04738	109.17	4.044	1.60018	1.567	3.600	CCODE = 0.1
ADD HYD	SV239SUMA	2& 3	1	1.15394	870.55	103.132	1.67576	1.667	1.179	
COMPUTE NM HYD	SV239	-	2	0.03445	81.29	3.048	1.65914	1.533	3.687	PER IMP= 45.95
ADD HYD	SV239SUMB	1& 2	10	1.18839	917.04	106.180	1.67528	1.667	1.206	
*S APSV10										
COMPUTE NM HYD	SV232	-	1	0.01563	38.81	1.520	1.82355	1.533	3.880	PER IMP= 57.00
ROUTE MCUNGE	SV232SUMRT	1	2	0.01563	38.61	1.521	1.82425	1.633	3.860	CCODE = 0.2
*S										
*S From Drainage Study for the Timarron W. Subdivision										
*S Unit 5 only 26.6 cfs was supposed to be released to El Moro.										
*S Analysis diverts Sub-basin SV129, SV130, and SV131 S. to Amole.										
*S These sub-basins suppose to discharge to El Moro via pipe.										
*S										
COMPUTE NM HYD	SV233	-	1	0.03867	89.58	3.302	1.60089	1.533	3.619	PER IMP= 42.00
COMPUTE NM HYD	SV234	-	3	0.01925	44.60	1.644	1.60089	1.533	3.620	PER IMP= 42.00
ADD HYD	SV234SUMA	1& 3	1	0.05792	134.18	4.945	1.60088	1.533	3.620	
ADD HYD	SV234SUMB	1& 2	1	0.07355	165.48	6.466	1.64834	1.533	3.515	
*S APSV11										
ROUTE MCUNGE	SV234SUMBRT	1	20	0.07355	164.10	6.466	1.64837	1.533	3.486	CCODE = 0.2
COMPUTE NM HYD	SV235	-	1	0.01963	45.48	1.676	1.60089	1.533	3.620	PER IMP= 42.00
ROUTE MCUNGE	SV235RT	1	2	0.01963	45.00	1.673	1.59830	1.600	3.582	CCODE = 0.1
COMPUTE NM HYD	SV236	-	1	0.03000	59.07	2.095	1.30926	1.533	3.076	PER IMP= 29.07
ADD HYD	SV236SUM	2& 1	1	0.04963	96.08	3.768	1.42357	1.567	3.025	
*S										
*S ****DIVIDE Hyd SV136SUM by Half. Half of flow turns SW down Del Rey Road										
*S ****Flow diverted to Del Rey Road (SV136SUM2) is added in Amole Basin										
*S										
DIVIDE HYD	SV136DIV1	1	3	0.02482	48.04	1.884	1.42357	1.567	3.025	
	SV136DIV2	and	48	0.02481	48.04	1.884	1.42357	1.567	3.025	
ROUTE MCUNGE	SV236SUM1RT	3	1	0.02482	47.86	1.884	1.42375	1.600	3.014	CCODE = 0.2
ADD HYD	SV237SUMA	20& 1	1	0.09837	210.99	8.350	1.59170	1.567	3.352	

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COMPUTE NM HYD	SV237	-	2	0.03272	77.17	2.893	1.65779	1.533	3.685	PER IMP= 45.85
ADD HYD	SV237SUMB	1& 2	1	0.13109	284.73	11.243	1.60819	1.533	3.394	
*S APSV12										
ROUTE MCUNGE	SV237SUMBRT	1	2	0.13109	284.55	11.237	1.60734	1.567	3.392	CCODE = 0.1
COMPUTE NM HYD	SV240	-	1	0.04727	109.49	4.036	1.60089	1.533	3.619	PER IMP= 42.00
ADD HYD	SV240SUM	2& 1	1	0.17836	386.55	15.273	1.60563	1.567	3.386	
*S APSV13										
ROUTE MCUNGE	SV240sumRT	1	2	0.17836	385.67	15.278	1.60614	1.567	3.379	CCODE = 0.2
COMPUTE NM HYD	SV241	-	1	0.04160	96.36	3.552	1.60089	1.533	3.619	PER IMP= 42.00
ADD HYD	SV241SUM	2& 1	1	0.21996	475.43	18.830	1.60514	1.567	3.377	
*S APSV14										
ROUTE MCUNGE	SV241SUMRT	1	2	0.21996	475.19	18.829	1.60511	1.567	3.376	CCODE = 0.2
ADD HYD	SV243SUMA	10& 2	10	1.40835	1295.82	125.010	1.66432	1.667	1.438	
*S APSV15										
COMPUTE NM HYD	SV242	-	1	0.08119	180.79	8.674	2.00317	1.567	3.479	PER IMP= 70.13
*S APSV16										
ROUTE MCUNGE	SV242RT	1	2	0.08119	180.38	8.668	2.00188	1.600	3.471	CCODE = 0.2
COMPUTE NM HYD	SV243	-	1	0.02884	80.26	3.430	2.22977	1.500	4.348	PER IMP= 84.60
ADD HYD	SV243SUMB	1& 2	1	0.11003	245.97	12.098	2.06160	1.567	3.493	
*S APSV17										
ROUTE MCUNGE	SV243SUMBRT	1	2	0.11003	246.02	12.091	2.06042	1.600	3.494	CCODE = 0.2
ADD HYD	SV243SUMC	10& 2	1	1.51838	1514.48	137.101	1.69302	1.667	1.558	
COMPUTE NM HYD	SV244	-	2	0.02736	63.15	2.603	1.78376	1.533	3.607	PER IMP= 54.35
ADD HYD	SV244SUM	1& 2	1	1.54574	1558.48	139.704	1.69463	1.633	1.575	
*S APSV18										
ROUTE MCUNGE	SVBASIN	1	47	1.54574	1558.48	139.704	1.69463	1.633	1.575	CCODE = 0.0
*S**********										
*S******* END OF SNOW VISTA BASIN										
*S**********										
*S**********										
*S******* AMOLE BASIN										
*S**********										
*S										
*S RECALL HYD Below From ORIGINAL DMP AHYMO Files under										
*S Folder EX Amole Hubbell Basins File WGEXIST.PUN										
*S Offsite flows from Westgate Dam flow into the Amole Basin										
*S										
RECALL HYD	WGDAM	-	70	18.68360	73.15	167.311	0.16791	11.250	0.006	
*S										
*S END of RECALL HYD										
*S										
ROUTE MCUNGE	PLBASINRT	46	2	1.23801	287.41	76.085	1.15232	3.100	0.363	CCODE = 0.0
DIVIDE HYD	ADIVSUMA	70	1	18.67907	73.00	167.271	0.16791	9.150	0.006	
	ADIVSUMB	and	91	0.00453	0.15	0.041	0.16792	11.250	0.051	
ROUTE MCUNGE	ADIVSUMART	1	3	18.67907	73.00	167.271	0.16791	9.150	0.006	CCODE = 0.0
*S APA1										
ADD HYD	A201SUMA	3& 2	1	19.91708	352.16	243.188	0.22894	3.100	0.028	
COMPUTE NM HYD	A201	-	2	0.07236	122.09	4.373	1.13307	1.533	2.636	PER IMP= 21.72

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	A201SUMB	1& 2	1	19.98944	353.26	247.561	0.23221	3.100	0.028	
*S APA2										
ROUTE MCUNGE	A201SUMBRt	1	10	19.98944	353.26	247.561	0.23221	3.100	0.028	CCODE = 0.0
COMPUTE NM HYD	SV229	-	1	0.02916	69.85	2.652	1.70546	1.533	3.743	PER IMP= 49.00
COMPUTE NM HYD	SV230	-	2	0.01824	45.29	1.774	1.82355	1.533	3.880	PER IMP= 57.00
ADD HYD	SV230SUM	1& 2	1	0.04740	115.14	4.426	1.75089	1.533	3.795	
ROUTE RESERVOIR	PondSV10	1	30	0.04740	55.05	4.426	1.75089	1.700	1.815	AC-FT= 1.734
ROUTE MCUNGE	SV230SUMRT	30	1	0.04740	54.85	4.419	1.74802	1.766	1.808	CCODE = 0.2
COMPUTE NM HYD	A202.1	-	2	0.05920	60.67	3.969	1.25702	1.733	1.601	PER IMP= 28.49
ADD HYD	SV202.1SUMA	2& 1	1	0.10660	114.85	8.388	1.47534	1.733	1.683	
ROUTE MCUNGE	A202.1SUMARt	1	2	0.10660	114.85	8.388	1.47534	1.733	1.683	CCODE = 0.0
ADD HYD	A202.1SUMB	10& 2	1	20.09604	402.82	255.949	0.23881	1.567	0.031	
COMPUTE NM HYD	A202.2	-	2	0.02663	53.58	1.938	1.36468	1.533	3.144	PER IMP= 32.70
ADD HYD	A202.2SUM	1& 2	1	20.12267	455.77	257.887	0.24030	1.533	0.035	
*S APA3										
ROUTE MCUNGE	A202.2SUMRt	1	2	20.12267	455.75	257.882	0.24029	1.633	0.035	CCODE = 0.2
COMPUTE NM HYD	A206	-	1	0.03109	74.47	2.828	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	A206Rt	1	3	0.03109	73.94	2.824	1.70334	1.533	3.716	CCODE = 0.1
ADD HYD	A206SUM	2& 3	10	20.15376	517.33	260.707	0.24255	1.600	0.040	
ROUTE MCUNGE	SV236SUM2Rt	48	1	0.02481	47.91	1.883	1.42270	1.633	3.017	CCODE = 0.1
*S APA4										
COMPUTE NM HYD	A203	-	2	0.06206	143.75	5.299	1.60089	1.533	3.619	PER IMP= 42.00
ROUTE MCUNGE	A203Rt	2	3	0.06206	142.23	5.290	1.59827	1.600	3.581	CCODE = 0.1
ADD HYD	A204SUMA	3& 1	2	0.08687	189.27	7.173	1.54810	1.633	3.404	
COMPUTE NM HYD	A204	-	1	0.03430	78.99	2.908	1.58949	1.533	3.598	PER IMP= 41.50
ADD HYD	A204SUMB	2& 1	1	0.12118	252.56	10.081	1.55982	1.600	3.257	
ROUTE MCUNGE	A204SumBRt	1	2	0.12118	251.47	10.080	1.55974	1.633	3.243	CCODE = 0.2
COMPUTE NM HYD	A205	-	1	0.02852	61.77	2.435	1.60089	1.533	3.384	PER IMP= 42.00
ADD HYD	A205Sum	2& 1	1	0.14970	305.30	12.515	1.56758	1.600	3.187	
*S APA5										
ROUTE MCUNGE	A205SumRt	1	2	0.14970	305.28	12.516	1.56773	1.633	3.186	CCODE = 0.2
ADD HYD	A207SUMA	10& 2	1	20.30345	819.61	273.223	0.25232	1.633	0.063	
COMPUTE NM HYD	A207	-	2	0.04014	60.01	1.945	0.90836	1.533	2.336	PER IMP= 10.71
ADD HYD	A207SUMB	1& 2	1	20.34359	868.78	275.168	0.25361	1.600	0.067	
*S APA6										
ROUTE MCUNGE	A207SUMBRT	1	2	20.34359	867.19	275.163	0.25361	1.633	0.067	CCODE = 0.2
COMPUTE NM HYD	A208	-	1	0.06723	164.52	6.375	1.77804	1.533	3.824	PER IMP= 54.00
ADD HYD	A208SUMA	47& 1	1	1.61297	1686.85	146.079	1.69810	1.600	1.634	
ADD HYD	A208SUMB	2& 1	1	21.95656	2538.88	421.242	0.35972	1.633	0.181	
ROUTE MCUNGE	A208SUMBRt	1	2	21.95656	2533.06	421.237	0.35972	1.667	0.180	CCODE = 0.2
COMPUTE NM HYD	A209	-	1	0.01282	18.08	0.571	0.83568	1.533	2.203	PER IMP= 7.30
ROUTE MCUNGE	A209Rt	1	3	0.01282	17.37	0.566	0.82788	1.900	2.116	CCODE = 0.1
COMPUTE NM HYD	A210	-	1	0.04365	111.71	4.491	1.92914	1.533	3.999	PER IMP= 64.24
ADD HYD	A210SUMA	3& 1	1	0.05647	112.03	5.057	1.67912	1.533	3.100	
ADD HYD	A210SUMB	2& 1	1	22.01303	2601.00	426.294	0.36310	1.633	0.185	
*S APA7										
ROUTE MCUNGE	A210SUMBRT	1	2	22.01303	2575.77	426.171	0.36300	1.667	0.183	CCODE = 0.1
COMPUTE NM HYD	A211	-	1	0.06511	165.76	6.637	1.91115	1.533	3.978	PER IMP= 63.00

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S APA8										
ROUTE MCUNGE	A211Rt	1	3	0.06511	164.68	6.623	1.90740	1.567	3.952	CCODE = 0.1
COMPUTE NM HYD	A212	-	1	0.06224	174.78	7.656	2.30653	1.533	4.388	PER IMP= 89.80
ADD HYD	A212SUMA	3& 1	1	0.12735	328.91	14.280	2.10246	1.567	4.036	
ADD HYD	A212SUMB	2& 1	1	22.14038	2806.84	440.451	0.37300	1.667	0.198	
*S APA9										
ROUTE MCUNGE	A212SUMBRT	1	10	22.14038	2796.09	440.460	0.37301	1.667	0.197	CCODE = 0.2
COMPUTE NM HYD	A214	-	1	0.02567	61.49	2.335	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	A214RT	1	2	0.02567	61.05	2.333	1.70423	1.633	3.716	CCODE = 0.1
COMPUTE NM HYD	A215	-	1	0.07926	191.61	7.261	1.71772	1.533	3.777	PER IMP= 49.00
ADD HYD	A215SUM	2& 1	1	0.10493	233.66	9.594	1.71441	1.533	3.479	
*S APA10										
ROUTE MCUNGE	A215SUMRt	1	2	0.10493	220.08	9.490	1.69570	1.600	3.277	CCODE = 0.2
COMPUTE NM HYD	A216	-	1	0.00913	21.87	0.830	1.70410	1.533	3.743	PER IMP= 48.90
ROUTE MCUNGE	A216Rt	1	3	0.00913	21.60	0.827	1.69876	1.633	3.696	CCODE = 0.1
COMPUTE NM HYD	A217	-	1	0.05761	133.19	4.615	1.50215	1.533	3.613	PER IMP= 31.10
ADD HYD	A117SUMA	3& 1	1	0.06674	144.72	5.443	1.52903	1.533	3.388	
ADD HYD	A217SUMB	1& 2	1	0.17167	360.59	14.932	1.63091	1.567	3.282	
ROUTE MCUNGE	A217SUMBRt	1	2	0.17167	329.24	14.600	1.59467	1.633	2.997	CCODE = 0.2
COMPUTE NM HYD	A218	-	1	0.05592	128.79	4.429	1.48500	1.533	3.599	PER IMP= 29.70
ADD HYD	A218SUMA	2& 1	1	0.22759	428.67	19.029	1.56772	1.600	2.943	
*S ****DIVIDE 235 CFS through 54" pipe and remaining to Surge Pond										
DIVIDE HYD	A218SUMB	1	1	0.18179	235.00	15.200	1.56772	1.433	2.020	
	A218SUMC	and	2	0.04580	193.67	3.830	1.56772	1.600	6.607	
ROUTE RESERVOIR	PondA1	2	30	0.04580	0.30	2.218	0.90789	1.800	0.010	AC-FT= 3.825
ADD HYD	A218SUMD	1&30	1	0.22759	235.29	17.417	1.43493	1.766	1.615	
*S APA11										
ROUTE MCUNGE	A218SUMDRt	1	2	0.22759	234.95	17.122	1.41064	1.766	1.613	CCODE = 0.2
COMPUTE NM HYD	A219	-	1	0.06433	159.68	6.256	1.82356	1.533	3.879	PER IMP= 57.00
ADD HYD	A219SUM	2& 1	1	0.29192	383.01	23.379	1.50163	1.533	2.050	
ROUTE MCUNGE	A219SUMRt	1	2	0.29192	352.54	23.062	1.48130	1.633	1.887	CCODE = 0.2
COMPUTE NM HYD	A220	-	1	0.03619	89.59	3.514	1.82035	1.533	3.868	PER IMP= 57.03
ADD HYD	A220SUM	2& 1	1	0.32811	423.01	26.576	1.51869	1.600	2.014	
*S APA12										
ROUTE MCUNGE	A220SUMRt	1	2	0.32811	396.63	26.125	1.49292	1.667	1.889	CCODE = 0.2
COMPUTE NM HYD	A221	-	1	0.04187	118.26	5.098	2.28291	1.500	4.413	PER IMP= 88.20
ADD HYD	A221SUM	2& 1	1	0.36998	468.86	31.223	1.58232	1.633	1.980	
ROUTE MCUNGE	A221SUMRt	1	2	0.36998	446.04	30.570	1.54926	1.733	1.884	CCODE = 0.2
COMPUTE NM HYD	A222	-	1	0.04520	128.19	5.539	2.29752	1.500	4.431	PER IMP= 89.19
ADD HYD	A222SUM	2& 1	1	0.41518	505.15	36.109	1.63072	1.667	1.901	
ADD HYD	A223SUMA	10& 1	1	22.55556	3301.24	476.569	0.39616	1.667	0.229	
COMPUTE NM HYD	A223	-	2	0.02061	57.77	2.479	2.25499	1.500	4.380	PER IMP= 86.30
ADD HYD	A223SUMB	2& 1	1	22.57617	3333.91	479.048	0.39786	1.667	0.231	
*S APA13										
ROUTE MCUNGE	A223SUMBRT	1	10	22.57617	3319.18	478.885	0.39772	1.733	0.230	CCODE = 0.1
COMPUTE NM HYD	A224	-	1	0.02007	48.08	1.826	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	A224RT	1	2	0.02007	47.67	1.824	1.70410	1.633	3.711	CCODE = 0.1
COMPUTE NM HYD	A225	-	1	0.04681	119.33	4.782	1.91545	1.533	3.983	PER IMP= 63.30

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ADD HYD	A225SUMA	2& 1	1	0.06688	153.28	6.606	1.85202	1.567	3.581	
ROUTE MCUNGE	A225SUMBRT	1	2	0.06688	153.16	6.606	1.85193	1.567	3.578	CCODE = 0.2
ADD HYD	A225SUMB	10& 2	10	22.64305	3413.00	485.491	0.40202	1.733	0.236	
*S APA15										
COMPUTE NM HYD	A226	-	1	0.04817	122.90	4.929	1.91841	1.533	3.987	PER IMP= 63.50
ROUTE MCUNGE	A226Rt	1	2	0.04817	119.56	4.909	1.91085	1.600	3.878	CCODE = 0.1
COMPUTE NM HYD	A227	-	1	0.04342	104.57	4.474	1.93209	1.533	3.763	PER IMP= 64.44
ADD HYD	A227SUM	2& 1	1	0.09159	221.03	9.383	1.92091	1.567	3.771	
COMPUTE NM HYD	A228	-	2	0.06983	167.59	6.379	1.71271	1.533	3.750	PER IMP= 49.50
ADD HYD	A228SUM	1& 2	1	0.16142	376.88	15.762	1.83084	1.567	3.648	
*S APA14										
ROUTE MCUNGE	A228SUMRt	1	2	0.16142	281.42	14.819	1.72129	1.667	2.724	CCODE = 0.2
COMPUTE NM HYD	A229	-	1	0.01395	33.43	1.269	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	A229SUM	1& 2	1	0.17537	300.52	16.088	1.72003	1.667	2.678	
ROUTE MCUNGE	A229SUMRT	1	2	0.17537	300.11	16.089	1.72019	1.667	2.674	CCODE = 0.2
COMPUTE NM HYD	A230	-	1	0.04312	112.97	4.625	2.01129	1.533	4.094	PER IMP= 69.80
ADD HYD	A230SUM	1& 2	1	0.21849	374.61	20.714	1.77764	1.633	2.679	
COMPUTE NM HYD	A231	-	2	0.01188	30.23	1.209	1.90795	1.533	3.976	PER IMP= 62.80
ADD HYD	A231SUMA	1& 2	1	0.23037	396.03	21.923	1.78435	1.600	2.686	
ROUTE MCUNGE	A231SUMCRt	1	2	0.23037	361.65	21.278	1.73187	1.700	2.453	CCODE = 0.2
ADD HYD	A231SUMB	10& 2	1	22.87342	3769.13	506.770	0.41541	1.733	0.257	
ROUTE MCUNGE	A231SUMBRt	1	10	22.87342	3365.62	506.647	0.41531	1.800	0.230	CCODE = 0.2
COMPUTE NM HYD	A232	-	1	0.06536	171.36	7.021	2.01424	1.533	4.096	PER IMP= 70.00
ROUTE MCUNGE	A232RT	1	2	0.06536	166.32	6.985	2.00394	1.766	3.976	CCODE = 0.1
COMPUTE NM HYD	A233	-	1	0.11362	245.20	12.206	2.01424	1.600	3.372	PER IMP= 70.00
ADD HYD	A233SUM	2& 1	1	0.17898	338.06	19.191	2.01047	1.700	2.951	
*S APA16										
ROUTE MCUNGE	A233SUMRT	1	2	0.17898	333.43	19.167	2.00790	1.733	2.911	CCODE = 0.1
ADD HYD	A234SUMA	10& 2	1	23.05240	3683.53	525.814	0.42768	1.800	0.250	
COMPUTE NM HYD	A234	-	2	0.03607	89.40	3.501	1.82001	1.533	3.873	PER IMP= 56.84
ADD HYD	A234SUMB	1& 2	1	23.08847	3708.74	529.315	0.42985	1.800	0.251	
COMPUTE NM HYD	A235	-	2	0.08192	194.03	7.857	1.79834	1.533	3.701	PER IMP= 55.30
ADD HYD	A235SUM	1& 2	1	23.17039	3775.20	537.172	0.43469	1.766	0.255	
*S APA17										
ROUTE MCUNGE	ABASIN	1	49	23.17039	3756.56	537.026	0.43457	1.833	0.253	CCODE = 0.1
*S**********										
*S******* END OF AMOLE BASIN										
*S**********										
*S**********										
*S******* SOUTH AMOLE BASIN										
*S**********										
COMPUTE NM HYD	SA202	-	1	0.03705	95.83	3.882	1.96478	1.533	4.041	PER IMP= 66.60
ROUTE MCUNGE	SA202Rt	1	2	0.03705	95.11	3.874	1.96028	1.567	4.011	CCODE = 0.1
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA204	-	1	0.02776	66.16	2.501	1.68909	1.533	3.724	PER IMP= 47.90
ROUTE RESERVOIR	PONDSA1	1	30	0.02776	6.49	2.501	1.68908	2.066	0.365	AC-FT= 1.754
ROUTE MCUNGE	PondSA1Rt	30	1	0.02776	6.49	2.500	1.68876	2.100	0.365	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										

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ADD HYD	SA203SUMA	2& 1	1	0.06481	97.85	6.374	1.84397	1.567	2.359	
COMPUTE NM HYD	SA203	-	2	0.02384	55.23	2.035	1.60089	1.533	3.620	PER IMP= 42.00
ADD HYD	SA203SUMB	1& 2	1	0.08865	149.30	8.409	1.77859	1.567	2.631	
*S APSA1										
ROUTE MCUNGE	SA203SUMBRt	1	2	0.08865	148.74	8.407	1.77823	1.567	2.622	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA205	-	1	0.07789	154.79	6.232	1.50027	1.567	3.105	PER IMP= 38.20
ADD HYD	SA205SUM	2& 1	1	0.16654	303.53	14.640	1.64822	1.567	2.848	
*S APSA2										
ROUTE MCUNGE	SA205SUMRt	1	2	0.16654	300.99	14.637	1.64789	1.600	2.824	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA206	-	1	0.04163	101.98	3.950	1.77927	1.533	3.828	PER IMP= 54.00
ADD HYD	SA206SUM	2& 1	1	0.20817	393.55	18.587	1.67416	1.567	2.954	
ROUTE MCUNGE	SA206SUMRT	1	10	0.20817	390.58	18.587	1.67413	1.567	2.932	CCODE = 0.2
*S Increased Pipe Size to Allow Extended Storm System										
COMPUTE NM HYD	SA207	-	1	0.01910	48.84	1.962	1.92566	1.533	3.996	PER IMP= 64.00
ROUTE MCUNGE	SA207RT	1	2	0.01910	48.62	1.961	1.92477	1.533	3.977	CCODE = 0.1
COMPUTE NM HYD	SA208	-	1	0.03950	106.90	4.608	2.18735	1.533	4.229	PER IMP= 81.72
ADD HYD	SA208SUM	2& 1	1	0.05860	155.52	6.569	2.10175	1.533	4.147	
*S APSA3										
ROUTE MCUNGE	SA208SUMRT	1	2	0.05860	140.28	6.463	2.06785	1.567	3.741	CCODE = 0.2
ADD HYD	SA213SUMA	10& 2	10	0.26677	530.87	25.050	1.76061	1.567	3.109	
COMPUTE NM HYD	SA209	-	1	0.03817	98.39	4.701	2.30949	1.567	4.027	PER IMP= 90.00
ROUTE MCUNGE	SA209RT	1	2	0.03817	97.29	4.698	2.30781	1.600	3.983	CCODE = 0.1
COMPUTE NM HYD	SA210	-	1	0.05112	131.15	5.863	2.15027	1.533	4.009	PER IMP= 81.18
ADD HYD	SA210SUM	2& 1	1	0.08929	223.96	10.561	2.21761	1.567	3.919	
*S APSA4										
ROUTE MCUNGE	SA210SUMRT	1	2	0.08929	222.93	10.559	2.21722	1.567	3.901	CCODE = 0.2
COMPUTE NM HYD	SA211	-	1	0.02232	49.88	1.867	1.56858	1.533	3.492	PER IMP= 43.00
COMPUTE NM HYD	SA212	-	3	0.06692	145.65	6.184	1.73266	1.567	3.401	PER IMP= 50.85
ADD HYD	SA212SUMA	1& 3	1	0.08924	192.83	8.051	1.69161	1.533	3.376	
ADD HYD	SA212SUMB	2& 1	1	0.17853	415.11	18.610	1.95449	1.567	3.633	
*S APSA5										
ROUTE MCUNGE	SA212SUMBRT	1	2	0.17853	410.49	18.597	1.95319	1.600	3.593	CCODE = 0.2
ADD HYD	SA213SUMB	10& 2	1	0.44530	938.85	43.647	1.83782	1.567	3.294	
COMPUTE NM HYD	SA213	-	2	0.06061	136.03	5.280	1.63324	1.533	3.507	PER IMP= 46.75
ADD HYD	SA213SUMC	1& 2	1	0.50591	1068.40	48.926	1.81331	1.567	3.300	
ROUTE RESERVOIR	PONDSA2	1	30	0.50591	412.78	48.926	1.81331	1.833	1.275	AC-FT= 19.074
*S PondSA2 is undersized with the 48" RCP as an outlet.										
*S Runoff will overflow on Arenal. Added Elev. 5031' to route combined										
*S Overflow and pipe flow to Amole del Norte.										
*S Increasing Outlet in Proposed has allowed entire flow to be carried to chann										
*S Increased to Prevent Overtopping to Double-60" RCP.										
ROUTE MCUNGE	PONDSA2RT	30	10	0.50591	412.60	48.900	1.81232	1.866	1.274	CCODE = 0.1
ROUTE MCUNGE	TSBASINRT	45	1	4.97175	1656.83	475.230	1.79224	1.766	0.521	CCODE = 0.2
COMPUTE NM HYD	SA201	-	2	0.16721	309.58	16.338	1.83203	1.633	2.893	PER IMP= 58.76
ADD HYD	SA201SUM	1& 2	1	5.13896	1908.91	491.568	1.79353	1.733	0.580	
ADD HYD	SA214SUMA	10& 1	1	5.64487	2305.74	540.468	1.79522	1.733	0.638	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S APSA6										
ROUTE MCUNGE	SA214SUMART	1	2	5.64487	2305.74	540.468	1.79522	1.733	0.638	CCODE = 0.0
COMPUTE NM HYD	SA214	-	1	0.06684	123.59	6.676	1.87267	1.633	2.889	PER IMP= 60.86
ADD HYD	SA214SUMB	2& 1	1	5.71171	2412.65	547.143	1.79612	1.733	0.660	
ROUTE MCUNGE	SA214SUMBRT	1	2	5.71171	2412.65	547.143	1.79612	1.733	0.660	CCODE = 0.0
COMPUTE NM HYD	SA215	-	1	0.05396	112.89	5.292	1.83876	1.567	3.269	PER IMP= 59.00
ADD HYD	SA215SUM	2& 1	1	5.76567	2490.38	552.435	1.79652	1.700	0.675	
ROUTE MCUNGE	SA215SUMRT	1	2	5.76567	2490.78	552.433	1.79652	1.733	0.675	CCODE = 0.2
COMPUTE NM HYD	SA216	-	1	0.13141	263.18	12.990	1.85342	1.600	3.129	PER IMP= 59.54
ADD HYD	SA216SUM	2& 1	1	5.89708	2701.48	565.423	1.79778	1.700	0.716	
*S APSA7										
ROUTE MCUNGE	SA216SUMRT	1	20	5.89708	2697.01	565.419	1.79777	1.700	0.715	CCODE = 0.2
COMPUTE NM HYD	SA218	-	1	0.03281	78.87	3.008	1.71899	1.533	3.756	PER IMP= 50.00
COMPUTE NM HYD	SA219	-	2	0.01224	29.09	1.098	1.68139	1.533	3.714	PER IMP= 47.45
ADD HYD	SA219SUM	1& 2	1	0.04505	107.97	4.106	1.70876	1.533	3.745	
ROUTE MCUNGE	SA219SUMRT	1	2	0.04505	107.41	4.104	1.70806	1.533	3.725	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA220	-	1	0.06240	159.66	7.686	2.30948	1.567	3.998	PER IMP= 90.00
ADD HYD	SA220SUM	2& 1	1	0.10745	266.80	11.790	2.05732	1.567	3.880	
ROUTE MCUNGE	SA220SUMRT	1	2	0.10745	232.43	11.478	2.00284	1.600	3.380	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA221	-	1	0.00802	21.53	0.919	2.14876	1.533	4.195	PER IMP= 81.10
ADD HYD	SA221SUM	2& 1	1	0.11547	249.80	12.397	2.01297	1.600	3.380	
*S APSA8										
ROUTE MCUNGE	SA221SUMRT	1	2	0.11547	249.12	12.393	2.01230	1.633	3.371	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA222	-	1	0.05066	121.15	4.876	1.80470	1.533	3.737	PER IMP= 56.20
ADD HYD	SA222SUM	2& 1	10	0.16613	350.46	17.269	1.94899	1.600	3.296	
*S APSA9										
COMPUTE NM HYD	SA223	-	1	0.07060	171.74	6.866	1.82356	1.533	3.801	PER IMP= 57.00
ROUTE MCUNGE	SA223RT	1	2	0.07060	170.54	6.863	1.82278	1.533	3.774	CCODE = 0.2
COMPUTE NM HYD	SA224	-	1	0.01720	48.30	2.074	2.26109	1.500	4.388	PER IMP= 86.71
ADD HYD	SA224SUM	2& 1	1	0.08780	218.79	8.937	1.90863	1.533	3.894	
COMPUTE NM HYD	SA225	-	2	0.02910	75.31	3.052	1.96638	1.533	4.044	PER IMP= 66.70
ADD HYD	SA225SUM	1& 2	1	0.11690	294.10	11.989	1.92300	1.533	3.931	
*S APSA10										
ROUTE MCUNGE	SA225SUMRT	1	2	0.11690	294.10	11.989	1.92300	1.533	3.931	CCODE = 0.0
ADD HYD	SA226SUMA	10& 2	1	0.28303	628.13	29.258	1.93825	1.567	3.468	
*S APSA11										
COMPUTE NM HYD	SA226	-	2	0.06223	154.48	6.052	1.82356	1.533	3.879	PER IMP= 57.00
ADD HYD	SA226SUMB	1& 2	1	0.34526	774.84	35.310	1.91758	1.533	3.507	
ROUTE RESERVOIR	PONDSA3	1	30	0.34526	342.02	35.310	1.91758	1.800	1.548	AC-FT= 12.919
*S Pond is adequate or close to adequate.										
*S Added elevation 5052'										
ROUTE MCUNGE	PONDSA3RT	30	1	0.34526	341.99	35.309	1.91754	1.833	1.548	CCODE = 0.2
*S Increased to Prevent Overtopping to Double-48" RCP.										
*S Also redirected to avoid extending into residents backyards by										
*S running storm drain South down Unser Blvd to Amole Arroyo.										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	SA217SUMA	20& 1	1	6.24234	3026.52	600.729	1.80440	1.733	0.758	
COMPUTE NM HYD	SA217	-	2	0.12026	230.86	11.964	1.86526	1.633	2.999	PER IMP= 59.90
ADD HYD	SA217SUMB	1& 2	1	6.36260	3229.89	612.692	1.80555	1.700	0.793	
*S APSA12										
ROUTE MCUNGE	SA217SUMBRT	1	2	6.36260	3223.16	612.689	1.80554	1.733	0.792	CCODE = 0.2
COMPUTE NM HYD	SA227.1	-	1	0.08008	170.52	7.337	1.71788	1.567	3.327	PER IMP= 49.90
ADD HYD	SA227.1SUMA	2& 1	1	6.44268	3336.58	620.026	1.80445	1.700	0.809	
ROUTE MCUNGE	SA227.1SUMRT	1	2	6.44268	3330.82	620.023	1.80444	1.733	0.808	CCODE = 0.2
ADD HYD	SA227.1SUMB	49& 2	1	29.61307	6918.42	1157.052	0.73261	1.800	0.365	
COMPUTE NM HYD	SA227.2	-	2	0.12451	237.70	8.173	1.23078	1.533	2.983	PER IMP= 24.58
ADD HYD	SABASIN	1& 2	80	29.73758	6980.38	1165.224	0.73469	1.800	0.367	
*S APSA13										
*S**********										
*S**********	END OF SOUTH AMOLE BASIN									
*S**********										
*S										
*s **********	AMOLE POND			**********						
*S										
ROUTE RESERVOIR	AMOLEPOND	80	60	29.73758	1345.62	910.917	0.57435	3.366	0.071	AC-FT= 505.154
DIVIDE HYD	AMOLEPRIME	60	93	11.16737	34.00	342.050	0.57430	3.000	0.005	
	AMOLESPILL	and	94	18.57021	1311.62	568.794	0.57430	3.366	0.110	
*S**********										
*S**********	SOUTH POWERLINE BASIN									
*S**********										
COMPUTE NM HYD	SP201	-	1	0.13557	276.54	10.520	1.45501	1.533	3.187	PER IMP= 36.10
ROUTE RESERVOIR	PondSP1	1	30	0.13557	79.28	10.520	1.45500	1.833	0.914	AC-FT= 4.870
ROUTE MCUNGE	PondSP1Rt	30	1	0.13557	76.98	10.296	1.42405	2.200	0.887	CCODE = 0.2
COMPUTE NM HYD	SP202	-	2	0.22512	426.51	16.350	1.36178	1.533	2.960	PER IMP= 30.40
ADD HYD	SP202SUM	1& 2	1	0.36069	456.59	26.646	1.38518	1.567	1.978	
ROUTE RESERVOIR	PondSP2	1	30	0.36069	220.75	26.646	1.38518	1.766	0.956	AC-FT= 6.378
ROUTE MCUNGE	PondSP2Rt	30	1	0.36069	220.78	26.646	1.38517	1.800	0.956	CCODE = 0.2
COMPUTE NM HYD	SP203	-	2	0.00770	18.46	0.700	1.70546	1.533	3.745	PER IMP= 49.00
ADD HYD	SP203SUM	1& 2	1	0.36839	226.62	27.347	1.39186	1.766	0.961	
ROUTE MCUNGE	SP203SUMRt	1	2	0.36839	226.62	27.347	1.39186	1.766	0.961	CCODE = 0.0
COMPUTE NM HYD	SP204	-	1	0.13615	229.69	8.662	1.19294	1.567	2.636	PER IMP= 22.50
ADD HYD	SP204SUM	2& 1	1	0.50454	418.20	36.009	1.33818	1.600	1.295	
ROUTE RESERVOIR	PondSP4	1	30	0.50454	252.17	36.009	1.33818	1.966	0.781	AC-FT= 6.535
ROUTE MCUNGE	PondSP4Rt	30	1	0.50454	252.19	36.008	1.33817	1.966	0.781	CCODE = 0.2
COMPUTE NM HYD	SP205	-	2	0.03658	85.16	3.293	1.68780	1.533	3.638	PER IMP= 48.20
ADD HYD	SP205SUM	1& 2	1	0.54112	271.30	39.301	1.36180	1.700	0.783	
ROUTE RESERVOIR	PondSP5	1	30	0.54112	232.58	39.301	1.36180	2.400	0.672	AC-FT= 5.504
ROUTE MCUNGE	PondSP5Rt	30	1	0.54112	232.57	39.301	1.36178	2.400	0.672	CCODE = 0.2
COMPUTE NM HYD	SP206	-	2	0.05864	113.68	4.350	1.39105	1.533	3.029	PER IMP= 33.90
ADD HYD	SP206SUM	1& 2	1	0.59976	238.46	43.651	1.36464	2.333	0.621	
ROUTE RESERVOIR	PondSP6	1	30	0.59976	228.13	43.651	1.36464	2.700	0.594	AC-FT= 4.069
ROUTE MCUNGE	SPBASIN	30	1	0.59976	228.13	43.651	1.36463	2.700	0.594	CCODE = 0.2
COMPUTE NM HYD	SP207	-	2	0.18178	249.67	8.627	0.88984	1.567	2.146	PER IMP= 8.20
ADD HYD	SP207SUM	1& 2	1	0.78154	382.89	52.278	1.25420	1.600	0.766	

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ROUTE RESERVOIR	PondSP7	1	30	0.78154	316.97	48.767	1.16998	1.733	0.634	AC-FT= 7.825
ROUTE MCUNGE	PONDSP7RT	30	1	0.78154	316.97	48.767	1.16998	1.733	0.634	CCODE = 0.0
COMPUTE NM HYD	SP208	-	2	0.13653	158.63	5.326	0.73143	1.567	1.815	PER IMP= 1.70
ADD HYD	SP208SUM	1& 2	1	0.91807	402.64	54.093	1.10476	1.733	0.685	
ROUTE RESERVOIR	PondSP8	1	30	0.91807	198.61	54.030	1.10347	3.333	0.338	AC-FT= 15.750
ROUTE MCUNGE	PONDSP8RT	30	1	0.91807	198.26	53.978	1.10241	3.400	0.337	CCODE = 0.2
COMPUTE NM HYD	SP209	-	2	0.12305	140.02	4.707	0.71720	1.567	1.778	PER IMP= 0.00
ADD HYD	SP209SUM	2& 1	41	1.04112	199.56	58.685	1.05688	3.366	0.300	
*S APSP1										
*S**********										
*S**********	END OF SOUTH POWERLINE BASIN									
*S**********										
*S**********										
*S**********	BORREGA BASIN									
*S**********										
COMPUTE NM HYD	B201	-	1	0.18234	205.48	7.629	0.78445	1.600	1.761	PER IMP= 0.00
ROUTE MCUNGE	B201RT	1	2	0.18234	203.25	7.620	0.78352	1.667	1.742	CCODE = 0.2
COMPUTE NM HYD	B202	-	1	0.22493	304.29	9.163	0.76386	1.533	2.114	PER IMP= 0.00
ADD HYD	B202SUM	2& 1	1	0.40727	467.76	16.783	0.77266	1.600	1.795	
ROUTE MCUNGE	B202SUMRT	1	2	0.40727	466.59	16.774	0.77226	1.600	1.790	CCODE = 0.2
COMPUTE NM HYD	B203.1	-	1	0.11117	144.97	4.336	0.73133	1.533	2.037	PER IMP= 0.00
ADD HYD	B203.1SUM	2& 1	1	0.51844	595.61	21.110	0.76348	1.600	1.795	
ROUTE MCUNGE	B203.1SUMRT	1	2	0.51844	595.61	21.110	0.76348	1.600	1.795	CCODE = 0.0
COMPUTE NM HYD	B203.2	-	1	0.02067	34.05	1.160	1.05217	1.533	2.574	PER IMP= 18.20
ADD HYD	B203.2SUM	2& 1	1	0.53911	624.13	22.270	0.77455	1.600	1.809	
*S APB1										
ROUTE MCUNGE	B203.2SUMRT	1	10	0.53911	616.49	22.234	0.77330	1.633	1.787	CCODE = 0.2
COMPUTE NM HYD	B204	-	1	0.23622	339.36	9.813	0.77894	1.533	2.245	PER IMP= 0.00
ROUTE MCUNGE	NE204RT	1	2	0.23622	329.90	9.789	0.77700	1.667	2.182	CCODE = 0.2
COMPUTE NM HYD	B205	-	1	0.10595	116.11	3.857	0.68261	1.567	1.712	PER IMP= 0.00
ADD HYD	B205SUM	2& 1	1	0.34217	425.51	13.646	0.74777	1.633	1.943	
*S APB2										
ROUTE RESERVOIR	PondB1	1	30	0.34217	185.31	13.646	0.74777	1.866	0.846	AC-FT= 5.985
ROUTE MCUNGE	RB205SUMRT	30	1	0.34217	185.26	13.643	0.74760	1.866	0.846	CCODE = 0.2
ADD HYD	B206SUMA	10& 1	1	0.88128	708.02	35.877	0.76332	1.667	1.255	
COMPUTE NM HYD	B206	-	2	0.02796	70.27	2.783	1.86661	1.533	3.927	PER IMP= 60.00
ADD HYD	B206SUMB	1& 2	1	0.90924	748.05	38.661	0.79725	1.667	1.285	
ROUTE MCUNGE	B206SUMRT	1	2	0.90924	746.12	38.613	0.79627	1.700	1.282	CCODE = 0.1
COMPUTE NM HYD	B207	-	1	0.08667	185.81	7.946	1.71899	1.567	3.350	PER IMP= 50.00
ROUTE MCUNGE	RB207RT	1	3	0.08667	183.95	7.937	1.71718	1.600	3.316	CCODE = 0.2
COMPUTE NM HYD	B208	-	1	0.07574	169.36	6.849	1.69550	1.533	3.494	PER IMP= 48.50
ADD HYD	B208SUM	3& 1	1	0.16241	342.64	14.786	1.70707	1.567	3.296	
ADD HYD	B209SUMA	2& 1	1	1.07165	1009.62	53.400	0.93430	1.667	1.472	
COMPUTE NM HYD	B209	-	2	0.05388	115.31	4.215	1.46683	1.533	3.344	PER IMP= 37.10
ADD HYD	B209SUMB	1& 2	1	1.12553	1077.07	57.615	0.95979	1.633	1.495	
*S APB3										
ROUTE MCUNGE	B209SUMBRT	1	2	1.12553	1065.65	57.559	0.95886	1.766	1.479	CCODE = 0.1
COMPUTE NM HYD	B211.1	-	1	0.06114	146.43	5.561	1.70546	1.533	3.742	PER IMP= 49.00

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	B211.1SUM	1& 2	1	1.18667	1117.05	63.120	0.99732	1.733	1.471	
ROUTE MCUNGE	B211.1SUMRT	1	2	1.18667	1116.05	63.108	0.99714	1.766	1.470	CCODE = 0.1
COMPUTE NM HYD	B210	-	1	0.09574	206.58	8.708	1.70546	1.567	3.371	PER IMP= 49.00
ADD HYD	B211.2SUMA	2& 1	1	1.28241	1210.22	71.816	1.05002	1.766	1.475	
ROUTE MCUNGE	B211.2SUMART	1	2	1.28241	1208.72	71.813	1.04998	1.800	1.473	CCODE = 0.2
COMPUTE NM HYD	B211.2	-	1	0.03788	85.41	3.445	1.70546	1.533	3.523	PER IMP= 49.00
ADD HYD	B211.2SUMB	2& 1	10	1.32029	1237.50	75.259	1.06878	1.800	1.465	
COMPUTE NM HYD	B213.1	-	1	0.06111	143.54	5.567	1.70816	1.533	3.670	PER IMP= 49.20
ROUTE MCUNGE	B213.1RT	1	2	0.06111	142.33	5.567	1.70797	1.533	3.639	CCODE = 0.2
COMPUTE NM HYD	B213.2	-	1	0.01461	35.00	1.329	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	B213.2SUM	2& 1	1	0.07572	177.34	6.895	1.70747	1.533	3.659	
ROUTE MCUNGE	B213.2SUMRT	1	2	0.07572	170.47	6.857	1.69799	1.700	3.518	CCODE = 0.1
COMPUTE NM HYD	B213.3	-	1	0.06698	155.41	6.092	1.70546	1.533	3.625	PER IMP= 49.00
ADD HYD	B215SUM	2& 1	1	0.14270	258.99	12.949	1.70149	1.667	2.836	
ROUTE MCUNGE	B213.3SUMRT	1	2	0.14270	256.89	12.947	1.70121	1.700	2.813	CCODE = 0.2
COMPUTE NM HYD	B213.1	-	1	0.02317	55.50	2.107	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	B213.4RT	1	3	0.02317	52.87	2.091	1.69212	1.733	3.565	CCODE = 0.1
ADD HYD	B213.5SUMA	2& 3	1	0.16587	308.43	15.038	1.69993	1.733	2.905	
COMPUTE NM HYD	B213.5	-	2	0.07883	172.15	7.170	1.70546	1.567	3.412	PER IMP= 49.00
ADD HYD	B213.5SUMB	1& 2	1	0.24470	412.13	22.208	1.70171	1.700	2.632	
ROUTE MCUNGE	B213.5SUMBRT	1	2	0.24470	409.63	22.206	1.70154	1.733	2.616	CCODE = 0.2
COMPUTE NM HYD	B213.6	-	1	0.05793	138.74	5.269	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	B213.6SUMB	2& 1	1	0.30263	492.54	27.475	1.70229	1.600	2.543	
ADD HYD	B213.6SUMC	10& 1	1	1.62292	1646.44	102.734	1.18691	1.766	1.585	
*S APB4										
ROUTE MCUNGE	B213.6SUMCRT	1	10	1.62292	1633.18	102.709	1.18662	1.833	1.572	CCODE = 0.1
COMPUTE NM HYD	B211.3	-	1	0.04871	92.71	3.498	1.34663	1.533	2.974	PER IMP= 31.40
ROUTE MCUNGE	B211.3RT	1	2	0.04871	92.30	3.498	1.34646	1.633	2.961	CCODE = 0.2
COMPUTE NM HYD	B211.4	-	1	0.17820	322.23	13.693	1.44074	1.567	2.825	PER IMP= 37.00
ADD HYD	BB211.4SUM	2& 1	1	0.22691	396.77	17.191	1.42050	1.600	2.732	
ROUTE MCUNGE	B211.4SUMRT	1	2	0.22691	390.80	17.181	1.41970	1.667	2.691	CCODE = 0.2
COMPUTE NM HYD	B211.5	-	1	0.04923	117.91	4.478	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	B211.5SUM	2& 1	1	0.27614	458.16	21.659	1.47064	1.667	2.592	
ADD HYD	B212SUMA	10& 1	1	1.89906	1941.86	124.367	1.22792	1.800	1.598	
COMPUTE NM HYD	B212	-	2	0.08048	151.47	5.366	1.25021	1.533	2.941	PER IMP= 27.37
ADD HYD	B212SUMB	1& 2	1	1.97954	1983.07	129.734	1.22882	1.800	1.565	
*S										
*S **********	BORREGA DETENTION DAM			**********						
*S										
ROUTE RESERVOIR	PONDBOR	1	30	1.97954	189.34	128.776	1.21975	2.766	0.149	AC-FT= 96.177
ROUTE MCUNGE	BBASIN	30	61	1.97954	189.34	128.774	1.21974	2.800	0.149	CCODE = 0.2
*S**********										
*S**********	END OF BORREGA BASIN									
*S**********										
*S**********										
*S**********	RIO BRAVO BASIN									
*S**********										
COMPUTE NM HYD	RB201	-	1	0.13686	208.11	8.679	1.18900	1.633	2.376	PER IMP= 5.60

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	RB201RT	1	2	0.13686	207.00	8.677	1.18875	1.667	2.363	CCODE = 0.2
COMPUTE NM HYD	RB202	-	1	0.13037	281.52	12.159	1.74869	1.567	3.374	PER IMP= 53.05
ADD HYD	RB202SUM	2& 1	1	0.26723	464.27	20.836	1.46192	1.600	2.715	
ROUTE RESERVOIR	PondRB1	1	30	0.26723	73.98	20.836	1.46191	2.100	0.433	AC-FT= 13.680
ROUTE MCUNGE	PondRB1RT	30	10	0.26723	71.89	20.689	1.45166	2.666	0.420	CCODE = 0.2
ROUTE MCUNGE	SPBASINRT	41	1	1.04112	199.57	58.689	1.05696	3.400	0.300	CCODE = 0.2
COMPUTE NM HYD	RB203	-	2	0.04593	130.48	5.643	2.30358	1.500	4.439	PER IMP= 89.60
ADD HYD	RB203SUM	1& 2	1	1.08705	261.66	64.332	1.10963	1.567	0.376	
ROUTE MCUNGE	RB203SUMRT	1	2	1.08705	260.15	64.325	1.10950	1.600	0.374	CCODE = 0.1
COMPUTE NM HYD	RB204	-	1	0.11728	235.03	9.263	1.48095	1.567	3.131	PER IMP= 31.37
ADD HYD	RB204SUM	2& 1	1	1.20433	487.97	73.588	1.14568	1.567	0.633	
*S APRB1										
ROUTE MCUNGE	RB204SUMRT	1	2	1.20433	485.84	73.552	1.14512	1.667	0.630	CCODE = 0.1
ADD HYD	RB204SUM	10& 2	1	1.47156	516.89	94.241	1.20078	1.667	0.549	
COMPUTE NM HYD	RB205.1	-	2	0.10519	209.87	9.031	1.60975	1.567	3.117	PER IMP= 42.60
ADD HYD	RB205.1SUMA	1& 2	1	1.57675	688.00	103.272	1.22807	1.667	0.682	
*S APRB2										
ROUTE MCUNGE	RB205.1SUMBR	1	2	1.57675	681.90	103.220	1.22744	1.766	0.676	CCODE = 0.1
COMPUTE NM HYD	RB106	-	1	0.06997	173.51	6.797	1.82146	1.533	3.875	PER IMP= 56.90
ROUTE MCUNGE	RB206.1SUMRT	1	3	0.06997	165.10	6.748	1.80839	1.600	3.687	CCODE = 0.2
ADD HYD	RB205.1SUMA	2& 3	1	1.64672	750.94	109.968	1.25213	1.766	0.713	
COMPUTE NM HYD	RB206.2	-	2	0.12568	282.64	11.995	1.78948	1.533	3.514	PER IMP= 54.70
ADD HYD	RB206.2SUMA	1& 2	1	1.77240	873.11	121.963	1.29023	1.766	0.770	
*S APRB3										
COMPUTE NM HYD	RB207.1	-	2	0.06566	150.52	6.743	1.92566	1.567	3.582	PER IMP= 64.00
ADD HYD	RB207.1SUM	1& 2	1	1.83806	957.23	128.706	1.31293	1.733	0.814	
*S APRB4										
ROUTE MCUNGE	RB207.1SUMRt	1	10	1.83806	953.63	128.675	1.31261	1.800	0.811	CCODE = 0.1
ROUTE MCUNGE	AMOLEDAMRt	94	1	18.57021	1311.74	568.799	0.57431	3.400	0.110	CCODE = 0.2
COMPUTE NM HYD	RB208	-	2	0.16716	220.47	12.253	1.37442	1.667	2.061	PER IMP= 35.90
ADD HYD	RB208SUM	1& 2	1	18.73737	1316.76	581.053	0.58144	3.400	0.110	
ROUTE MCUNGE	RB208SUMRt	1	2	18.73737	1316.33	581.126	0.58152	3.400	0.110	CCODE = 0.2
ADD HYD	RB209.1SUMB	10& 2	1	20.57543	1587.70	709.801	0.64683	3.400	0.121	
COMPUTE NM HYD	RB209.1	-	2	0.06158	90.63	3.845	1.17070	1.600	2.300	PER IMP= 18.72
ADD HYD	RB109SUMA	1& 2	1	20.63701	1588.75	713.646	0.64839	3.400	0.120	
ROUTE MCUNGE	RB209.1SUMRT	1	10	20.63701	1588.75	713.646	0.64839	3.400	0.120	CCODE = 0.0
COMPUTE NM HYD	RB205.2	-	1	0.01722	35.13	1.574	1.71358	1.567	3.187	PER IMP= 49.60
ROUTE MCUNGE	RB205.2RT	1	2	0.01722	32.36	1.553	1.69138	1.833	2.937	CCODE = 0.1
COMPUTE NM HYD	RB206.3	-	1	0.01237	28.70	1.125	1.70546	1.533	3.625	PER IMP= 49.00
ADD HYD	RB206.3SUM	2& 1	1	0.02959	40.17	2.678	1.69724	1.800	2.121	
ROUTE MCUNGE	RB206.3SUMRT	1	2	0.02959	40.14	2.678	1.69705	1.833	2.120	CCODE = 0.2
COMPUTE NM HYD	RB207.2	-	1	0.00378	9.07	0.344	1.70546	1.533	3.749	PER IMP= 49.00
ADD HYD	RB207.2SUM	2& 1	1	0.03337	42.28	3.022	1.69798	1.833	1.980	
COMPUTE NM HYD	RB211	-	2	0.04777	112.01	4.345	1.70546	1.533	3.664	PER IMP= 49.00
ADD HYD	RB211SUMA	1& 2	1	0.08114	150.04	7.367	1.70238	1.533	2.889	
ROUTE MCUNGE	RB211SUMART	1	2	0.08114	149.04	7.364	1.70165	1.600	2.870	CCODE = 0.2
ADD HYD	RB209SUMA	10& 2	1	20.71815	1590.33	721.010	0.65252	3.400	0.120	
COMPUTE NM HYD	RB209.2	-	2	0.01087	21.94	0.768	1.32391	1.533	3.154	PER IMP= 28.30

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	RB209.2SUM	1& 2	1	20.72902	1590.41	721.777	0.65287	3.400	0.120	
COMPUTE NM HYD	RB212	-	2	0.29207	414.32	21.068	1.35252	1.633	2.216	PER IMP= 31.10
ADD HYD	RB212SUMA	61& 2	2	2.27161	417.63	149.842	1.23681	1.633	0.287	
ADD HYD	RB212SUMB	1& 2	1	23.00063	1785.24	871.620	0.71054	3.400	0.121	
*S**********										
*S**********	END OF RIO BRAVO BASIN									
*S**********										
*S										
*s **********	HUBBELL LAKE DETENTION BASIN				**********					
*S										
ROUTE RESERVOIR	HUBBELLDAM	1	99	23.00063	385.77	745.039	0.60735	8.799	0.026	AC-FT= 480.156
DIVIDE HYD	HUBBELLPRIME	99	1	14.70713	55.00	476.360	0.60731	8.599	0.006	
	HUBBELLSPILL	and	94	8.29350	330.77	268.624	0.60731	8.799	0.062	
FINISH										

APPENDIX D

Re-Analysis of Amole Hubble Drainage Master Plan Update
AHYMO 100-yr, 24-hr Result Summary

AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4) - Ver. S4.01a, Rel: 01a RUN DATE (MON/DAY/YR) =01/21/2022
INPUT FILE = ble_dmp_reference_files\2022_amole_hubbel_calc_rev\2022_PHubbellDam 24hr.txt USER NO.= AHYMO_Temp_User:20122010

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S "PROPOSED" CONDITION MODEL FOR AMOLE HUBBELL										
START										TIME= 0.00
LOCATION	ALBUQUERQUE									
*S	RAINFALL DATA FROM NOAA ATLAS 14									
*S**********										
*S 100 YEAR 24HR STORM										
RAINFALL TYPE= 2 NOAA 14										RAIN24= 2.570
SEDIMENT BULK										PK BF = 1.06
*S**********										
*S**********	98TH AND CENTRAL BASIN									
*S**********										
COMPUTE NM HYD	NE202.1	-	1	0.08439	172.80	5.550	1.23306	1.533	3.199	PER IMP= 17.00
ROUTE MCUNGE	NE202.1RT	1	2	0.08439	170.40	5.542	1.23124	1.567	3.155	CCODE = 0.1
COMPUTE NM HYD	NE202.2	-	1	0.06185	126.52	4.067	1.23306	1.533	3.196	PER IMP= 17.00
ADD HYD	NE202.2SUM	2& 1	1	0.14624	296.40	9.609	1.23200	1.533	3.167	
*S APNE3										
ROUTE MCUNGE	NE202.2SUMRt	1	2	0.14624	295.66	9.607	1.23172	1.567	3.159	CCODE = 0.2
COMPUTE NM HYD	NE204	-	1	0.08938	183.06	5.878	1.23306	1.533	3.200	PER IMP= 17.00
ADD HYD	NE204SUM	2& 1	1	0.23562	467.35	15.485	1.23223	1.567	3.099	
ROUTE MCUNGE	NE204SUMRT	1	10	0.23562	466.86	15.475	1.23148	1.567	3.096	CCODE = 0.1
COMPUTE NM HYD	NE201.1	-	1	0.08463	173.30	5.566	1.23306	1.533	3.200	PER IMP= 17.00
ROUTE MCUNGE	NE201.1RT	1	2	0.08463	171.13	5.558	1.23135	1.567	3.160	CCODE = 0.1
COMPUTE NM HYD	NE201.2	-	1	0.04349	88.97	2.860	1.23306	1.533	3.196	PER IMP= 17.00
ADD HYD	NE201.2SUMA	2& 1	1	0.12812	259.25	8.418	1.23193	1.533	3.162	
*S APNE1										
ROUTE MCUNGE	NE201.2SUMAR	1	3	0.12812	256.54	8.393	1.22830	1.600	3.129	CCODE = 0.1
ADD HYD	NE208SUMA	10& 3	1	0.36374	721.39	23.868	1.23036	1.600	3.099	
COMPUTE NM HYD	NE208	-	2	0.10104	197.57	6.772	1.25668	1.533	3.055	PER IMP= 18.60
ADD HYD	NE208SUMB	1& 2	1	0.46478	906.52	30.640	1.23608	1.567	3.048	
*S APNE2										
ROUTE MCUNGE	NE208SUMBRt	1	10	0.46478	906.52	30.640	1.23608	1.567	3.048	CCODE = 0.0
COMPUTE NM HYD	NE205.1	-	1	0.07464	152.77	4.909	1.23306	1.533	3.198	PER IMP= 17.00
ROUTE MCUNGE	NE205.1RT	1	2	0.07464	150.12	4.898	1.23046	1.567	3.143	CCODE = 0.1
COMPUTE NM HYD	NE205.2	-	1	0.06038	123.59	3.976	1.23479	1.533	3.198	PER IMP= 17.12
ADD HYD	NE205.2SUM	1& 2	1	0.13502	266.04	8.875	1.23239	1.567	3.079	
ROUTE MCUNGE	NE205.2SUMRT	1	2	0.13502	262.30	8.862	1.23059	1.600	3.035	CCODE = 0.1
COMPUTE NM HYD	NE206	-	1	0.04398	114.85	4.691	1.99993	1.533	4.081	PER IMP= 69.03
ADD HYD	NE206SUM	2& 1	1	0.17900	367.45	13.553	1.41961	1.567	3.207	
*S APNE4										
ROUTE MCUNGE	NE206SUMRT	1	2	0.17900	365.02	13.552	1.41951	1.567	3.186	CCODE = 0.2
ADD HYD	NE211SUMA	10& 2	1	0.64378	1271.54	44.192	1.28708	1.567	3.086	
ROUTE RESERVOIR	PondNE2	1	40	0.64378	30.30	44.192	1.28708	2.600	0.074	AC-FT= 37.605
*S RATING CURVE FROM PLAN SET ADN SD FACILITIES										
*S TB DRAINAGE FACILITIES PHASE IIIC JUNE 1995										
COMPUTE NM HYD	NE210	-	1	0.09526	216.65	9.433	1.85665	1.567	3.554	PER IMP= 59.30

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	NE210RT	1	2	0.09526	215.34	9.425	1.85508	1.567	3.532	CCODE = 0.1
COMPUTE NM HYD	NE211	-	1	0.07784	186.95	7.421	1.78758	1.533	3.753	PER IMP= 57.40
ADD HYD	PondNE3SUM	2& 1	1	0.17310	391.00	16.846	1.82472	1.533	3.529	
ADD HYD	NE211SUMB	40& 1	1	0.81688	408.71	61.038	1.40101	1.567	0.782	
ROUTE RESERVOIR	PondNE3	1	41	0.81688	21.80	61.038	1.40101	14.732	0.042	AC-FT= 22.387
*S**********										
*S**********	END OF 98TH AND CENTRAL BASIN									
*S**********										
*S**********										
*S**********	UNSER-214 BASIN									
*S**********										
COMPUTE NM HYD	U202.2	-	1	0.04661	104.70	4.227	1.70029	1.533	3.510	PER IMP= 56.00
ROUTE MCUNGE	U202.2SUMRT	1	2	0.04661	103.84	4.220	1.69740	1.567	3.481	CCODE = 0.1
COMPUTE NM HYD	U201	-	1	0.03522	99.89	4.316	2.29751	1.500	4.431	PER IMP= 89.19
ADD HYD	U201SUM	2& 1	1	0.08183	195.86	8.535	1.95568	1.567	3.740	
ROUTE RESERVOIR	PondU6	1	30	0.08183	51.96	8.535	1.95568	1.866	0.992	AC-FT= 4.094
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
ROUTE MCUNGE	PONDU6Rt	30	2	0.08183	51.95	8.535	1.95559	1.900	0.992	CCODE = 0.2
COMPUTE NM HYD	U202.1	-	1	0.06636	176.49	7.502	2.11955	1.533	4.156	PER IMP= 79.20
ROUTE RESERVOIR	PondU5	1	30	0.06636	118.53	7.502	2.11955	1.633	2.791	AC-FT= 2.192
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
ROUTE MCUNGE	PONDu5Rt	30	1	0.06636	114.97	7.444	2.10323	1.667	2.707	CCODE = 0.2
ADD HYD	U202.1SUM	2& 1	1	0.14819	163.15	15.978	2.02169	1.700	1.720	
ROUTE RESERVOIR	PondU4	1	31	0.14819	85.46	15.978	2.02169	2.033	0.901	AC-FT= 3.928
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
COMPUTE NM HYD	U203	-	1	0.05311	124.07	4.784	1.68899	1.533	3.650	PER IMP= 50.45
ADD HYD	U203SUM	31& 1	1	0.20130	149.78	20.762	1.93384	1.533	1.163	
*S APU1										
ROUTE RESERVOIR	PondU3	1	30	0.20130	92.03	20.762	1.93384	2.166	0.714	AC-FT= 2.989
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
ROUTE RESERVOIR	PondU2	30	31	0.20130	46.51	20.457	1.90544	3.566	0.361	AC-FT= 6.963
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
COMPUTE NM HYD	U204	-	1	0.04966	113.17	4.334	1.63633	1.533	3.561	PER IMP= 47.85
ROUTE RESERVOIR	PondU7	1	30	0.04966	47.51	4.334	1.63633	1.733	1.495	AC-FT= 1.553
*S Pond Rating Curve from Avalon Report Feb. 1998 stated pond release of 35.8cf										
*S Sub-Basin U104 drains to pond in analysis; however,										
*S The pond respective watershed is smaller, thus the higher release from pond.										
*S										
ADD HYD	U204SUM	31&30	1	0.25096	64.33	24.791	1.85219	2.200	0.401	
ROUTE RESERVOIR	PondU1	1	30	0.25096	44.41	24.741	1.84845	4.533	0.277	AC-FT= 3.641
*S USED STAGE-STORAGE-DISCHARGE RATING CURVE FROM MDP FOR THE WEST SIDE TRANSIT										
*S										
ROUTE MCUNGE	PondU1Rt	30	1	0.25096	44.41	24.740	1.84841	4.566	0.277	CCODE = 0.2

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	U207	-	2	0.04489	114.77	4.610	1.92566	1.533	3.995	PER IMP= 64.00
ADD HYD	U207SUM	1& 2	1	0.29585	122.92	29.350	1.86013	1.533	0.649	
ROUTE MCUNGE	U207SUMRt	1	10	0.29585	122.12	29.347	1.85994	1.567	0.645	CCODE = 0.2
COMPUTE NM HYD	U205	-	1	0.07980	176.04	8.550	2.00899	1.600	3.447	PER IMP= 69.67
ROUTE MCUNGE	U205Rt	1	2	0.07980	175.31	8.546	2.00788	1.633	3.433	CCODE = 0.2
COMPUTE NM HYD	U206	-	1	0.09646	189.28	10.116	1.96638	1.633	3.066	PER IMP= 66.70
ADD HYD	U206SUM	2& 1	1	0.17626	364.59	18.662	1.98517	1.633	3.232	
*S APU2										
ROUTE MCUNGE	U206SUMRt	1	2	0.17626	344.43	18.512	1.96923	1.667	3.053	CCODE = 0.2
COMPUTE NM HYD	U208	-	1	0.03976	98.33	3.902	1.84009	1.533	3.864	PER IMP= 56.50
ADD HYD	U208SUMB	2& 1	1	0.21602	411.84	22.414	1.94546	1.633	2.979	
COMPUTE NM HYD	U209	-	2	0.03339	85.47	3.341	1.87591	1.533	4.000	PER IMP= 58.20
ADD HYD	U209SUM	1& 2	1	0.24941	480.60	25.754	1.93614	1.567	3.011	
ROUTE RESERVOIR	PONDU214	1	30	0.24941	137.74	25.754	1.93614	2.000	0.863	AC-FT= 11.990
ADD HYD	U208SUMA	10&30	42	0.54526	226.00	55.103	1.89483	1.600	0.648	
*S APU3										
*S********** END OF UNSER-214 BASIN										
*S********** TIERRA BAYITA BASIN										
COMPUTE NM HYD	TB202.1	-	1	0.13801	286.10	13.441	1.82608	1.567	3.239	PER IMP= 63.00
ROUTE RESERVOIR	PondTB1A	1	30	0.13801	180.05	13.441	1.82608	1.733	2.038	AC-FT= 2.194
ROUTE MCUNGE	PONDTB1RT	30	1	0.13801	180.05	13.438	1.82563	1.766	2.038	CCODE = 0.1
COMPUTE NM HYD	TB202.2	-	2	0.08784	234.77	10.586	2.25974	1.533	4.176	PER IMP= 86.90
ROUTE RESERVOIR	PondTB1B	2	30	0.08784	114.06	10.586	2.25973	1.733	2.029	AC-FT= 2.530
ADD HYD	TB202.2SUM	1&30	1	0.22585	294.11	24.024	1.99446	1.733	2.035	
ROUTE MCUNGE	TB202.2SUMRT	1	2	0.22585	293.91	23.863	1.98114	1.933	2.033	CCODE = 0.2
COMPUTE NM HYD	TB103	-	1	0.04991	123.90	4.854	1.82356	1.533	3.879	PER IMP= 57.00
ROUTE RESERVOIR	PondTB2	1	30	0.04991	66.57	4.854	1.82355	1.667	2.084	AC-FT= 1.918
*S Outflow equals to 49.4 cfs From "DMP for Avalon Subdivision" on Pg 3										
ADD HYD	PONDTB2SUM	2&30	1	0.27576	355.53	28.717	1.95261	1.733	2.014	
ROUTE MCUNGE	PONDTB2SUMRT	1	2	0.27576	344.83	28.170	1.91538	1.900	1.954	CCODE = 0.2
COMPUTE NM HYD	TB204	-	1	0.03918	106.93	4.584	2.19364	1.533	4.265	PER IMP= 83.50
ROUTE MCUNGE	TB204RT	1	3	0.03918	106.92	4.583	2.19316	1.533	4.264	CCODE = 0.2
COMPUTE NM HYD	TB205	-	1	0.04575	115.37	4.583	1.87843	1.533	3.940	PER IMP= 60.80
ROUTE RESERVOIR	PondTB3	1	30	0.04575	31.73	4.583	1.87842	1.800	1.084	AC-FT= 2.420
*S Pond never graded per proposed G&D with date 12-7-10										
*S Pond likely will be modified per plan, but left as existing										
*S Assumed existing 30" RCP outlet with 0.5% slope										
ADD HYD	PONDTB3SUM	3&30	1	0.08493	129.96	9.166	2.02348	1.567	2.391	
ROUTE MCUNGE	PondTB3SUMRT	1	3	0.08493	129.92	9.166	2.02347	1.567	2.390	CCODE = 0.2
ADD HYD	TB206SUMA	2& 3	1	0.36069	407.53	37.335	1.94083	1.800	1.765	
ROUTE MCUNGE	TB206SUMART	1	2	0.36069	400.53	36.930	1.91978	1.833	1.735	CCODE = 0.2
COMPUTE NM HYD	TB206	-	1	0.02559	64.63	2.570	1.88298	1.533	3.946	PER IMP= 61.10
ADD HYD	TB206SUMB	2& 1	1	0.38628	417.80	39.500	1.91734	1.766	1.690	
*S APTB1										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	TB206SUMBRT	1	10	0.38628	412.09	39.069	1.89639	1.833	1.667	CCODE = 0.2
ROUTE MCUNGE	NEBASINRT	41	1	0.81688	21.80	61.037	1.40100	14.765	0.042	CCODE = 0.2
COMPUTE NM HYD	TB207	-	2	0.06805	180.99	7.480	2.06089	1.533	4.156	PER IMP= 72.90
COMPUTE NM HYD	TB208	-	3	0.05040	125.02	5.303	1.97290	1.533	3.876	PER IMP= 67.20
ADD HYD	TB208SUMA	2& 3	2	0.11845	306.01	12.783	2.02344	1.533	4.037	
ADD HYD	TB208SUMB	1& 2	1	0.93533	315.55	73.820	1.47983	1.533	0.527	
*S APTB2										
ROUTE MCUNGE	TB208SUMBRT	1	2	0.93533	314.41	73.819	1.47981	1.533	0.525	CCODE = 0.2
ADD HYD	TB209SUMA	10& 2	1	1.32161	677.91	112.888	1.60156	1.567	0.801	
COMPUTE NM HYD	TB209	-	2	0.03089	85.75	3.659	2.22091	1.500	4.338	PER IMP= 84.00
ADD HYD	TB209SUMB	1& 2	1	1.35250	757.08	116.547	1.61571	1.567	0.875	
ROUTE MCUNGE	TB209SUMBRT	1	2	1.35250	723.70	116.383	1.61345	1.633	0.836	CCODE = 0.2
COMPUTE NM HYD	TB216	-	1	0.03257	89.82	3.817	2.19729	1.533	4.309	PER IMP= 82.40
ROUTE MCUNGE	TB216RT	1	3	0.03257	89.27	3.809	2.19265	1.600	4.283	CCODE = 0.1
ADD HYD	TB213SUMA	2& 3	1	1.38507	809.90	120.192	1.62707	1.633	0.914	
*S APTB3										
COMPUTE NM HYD	TB213	-	2	0.04712	133.59	5.771	2.29632	1.500	4.430	PER IMP= 89.10
ADD HYD	TB213SUMB	1& 2	1	1.43219	915.95	125.963	1.64909	1.600	0.999	
ROUTE MCUNGE	TB213SUMBRT	1	2	1.43219	884.55	125.699	1.64563	1.633	0.965	CCODE = 0.2
COMPUTE NM HYD	TB214	-	1	0.02685	68.55	2.713	1.89453	1.533	3.989	PER IMP= 60.76
ADD HYD	TB214SUM	2& 1	1	1.45904	931.52	128.412	1.65021	1.633	0.998	
*S APTB7										
ROUTE MCUNGE	TB214SUMRT	1	10	1.45904	887.60	127.822	1.64264	1.667	0.951	CCODE = 0.2
ROUTE MCUNGE	UNBASINRT	42	11	0.54526	224.57	55.089	1.89435	1.633	0.644	CCODE = 0.1
COMPUTE NM HYD	TB210	-	1	0.07272	175.08	7.917	2.04123	1.567	3.762	PER IMP= 71.83
COMPUTE NM HYD	TB211	-	2	0.02330	66.05	2.870	2.30948	1.533	4.429	PER IMP= 90.00
ADD HYD	TB211SUM	1& 2	1	0.09602	238.63	10.787	2.10631	1.533	3.883	
*S APTB4										
ROUTE MCUNGE	TB211SUMRT	1	2	0.09602	236.24	10.769	2.10288	1.600	3.844	CCODE = 0.1
COMPUTE NM HYD	TB212	-	1	0.06855	159.66	7.680	2.10058	1.567	3.639	PER IMP= 75.20
ADD HYD	TB212SUMA	1& 2	1	0.16457	394.32	18.449	2.10191	1.600	3.744	
*S APTB5										
ADD HYD	TB212SUMB	11& 1	1	0.70983	615.80	73.537	1.94247	1.600	1.356	
*S APTB6										
ROUTE MCUNGE	TB212SUMBRT	1	2	0.70983	612.49	73.532	1.94232	1.633	1.348	CCODE = 0.2
ADD HYD	TB215SUMA	10& 2	1	2.16887	1491.18	201.351	1.74069	1.633	1.074	
COMPUTE NM HYD	TB215	-	2	0.11272	195.06	9.623	1.60072	1.633	2.704	PER IMP= 36.70
ADD HYD	TB215SUMB	1& 2	10	2.28159	1686.25	210.974	1.73378	1.633	1.155	
COMPUTE NM HYD	TB217	-	1	0.01861	50.87	2.147	2.16346	1.533	4.271	PER IMP= 80.10
ROUTE MCUNGE	TB217RT	1	2	0.01861	50.80	2.145	2.16146	1.567	4.266	CCODE = 0.1
COMPUTE NM HYD	TB220	-	1	0.03690	96.97	3.995	2.03023	1.533	4.106	PER IMP= 71.00
ADD HYD	TB220SUM	2& 1	1	0.05551	143.04	6.141	2.07421	1.533	4.026	
COMPUTE NM HYD	TB218	-	2	0.03573	73.14	2.353	1.23479	1.533	3.198	PER IMP= 17.12
ROUTE MCUNGE	TB218RT	2	3	0.03573	71.94	2.347	1.23144	1.567	3.146	CCODE = 0.1
COMPUTE NM HYD	TB219	-	2	0.02285	58.43	2.347	1.92566	1.533	3.995	PER IMP= 64.00
ADD HYD	TB219SUM	2& 3	2	0.05858	126.10	4.693	1.50222	1.567	3.363	
ADD HYD	TB221SUMA	1& 2	1	0.11409	267.16	10.834	1.78052	1.533	3.659	
*S APTB8										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	TB221SUMART	1	2	0.11409	267.14	10.823	1.77867	1.567	3.659	CCODE = 0.1
COMPUTE NM HYD	TB221	-	1	0.05769	137.45	5.770	1.87544	1.533	3.723	PER IMP= 60.54
ADD HYD	TB221SUMB	2& 1	1	0.17178	401.85	16.593	1.81116	1.567	3.655	
ROUTE MCUNGE	TB221SUMBRT	1	2	0.17178	396.95	16.569	1.80854	1.600	3.611	CCODE = 0.2
COMPUTE NM HYD	TB222	-	1	0.07064	155.17	7.233	1.91976	1.567	3.432	PER IMP= 63.60
ADD HYD	TB222SUMA	2& 1	1	0.24242	550.22	23.802	1.84094	1.600	3.546	
*S APTB9										
ADD HYD	TB222SUMB	10& 1	1	2.52401	2210.89	234.776	1.74407	1.633	1.369	
*S APTB10										
ROUTE MCUNGE	TB222SUMBRT	1	2	2.52401	2205.93	234.732	1.74375	1.633	1.366	CCODE = 0.1
COMPUTE NM HYD	TB223	-	1	0.07133	129.70	6.937	1.82355	1.633	2.841	PER IMP= 57.00
COMPUTE NM HYD	TB224	-	3	0.15974	236.51	15.234	1.78814	1.733	2.313	PER IMP= 54.40
ADD HYD	TB224SUMA	1& 3	1	0.23107	355.12	22.171	1.79907	1.700	2.401	
ADD HYD	TB224SUMB	2& 1	43	2.75508	2549.14	256.903	1.74838	1.667	1.446	
*S**********										
*S********** END OF TIERRA BAYITA BASIN										
*S**********										
*S**********										
*S********** ATRISCO BUSINESS PARK BASIN										
*S**********										
ROUTE MCUNGE	TB222SUMBRT	43	20	2.75508	2542.52	256.846	1.74800	1.667	1.442	CCODE = 0.1
COMPUTE NM HYD	AB201.1	-	1	0.11831	299.35	12.710	2.01424	1.533	3.953	PER IMP= 70.00
ROUTE RESERVOIR	PONDAB201.2	1	30	0.11831	7.56	12.710	2.01423	2.566	0.100	AC-FT= 9.770
ROUTE MCUNGE	PONDAB201.1R	30	1	0.11831	7.56	12.709	2.01419	2.600	0.100	CCODE = 0.1
COMPUTE NM HYD	AB201.2	-	2	0.09628	227.97	10.343	2.01424	1.567	3.700	PER IMP= 70.00
ROUTE RESERVOIR	PONDAB201.2	2	30	0.09628	6.15	10.343	2.01423	2.666	0.100	AC-FT= 7.926
ADD HYD	AB201.2SUM	30& 1	1	0.21459	13.72	23.052	2.01419	2.633	0.100	
*S APAB1										
ROUTE MCUNGE	Pond201.2SUM	1	2	0.21459	13.72	23.051	2.01413	2.733	0.100	CCODE = 0.1
COMPUTE NM HYD	AB202	-	1	0.18317	320.85	19.669	2.01337	1.700	2.737	PER IMP= 69.90
ROUTE RESERVOIR	PondAB202	1	30	0.18317	11.72	19.669	2.01337	3.066	0.100	AC-FT= 14.526
ADD HYD	POND202SUM	2&30	1	0.39776	25.44	42.720	2.01377	2.900	0.100	
*S APAB2										
ROUTE MCUNGE	Pond202SUMRt	1	2	0.39776	25.44	42.719	2.01374	2.966	0.100	CCODE = 0.1
COMPUTE NM HYD	AB203.1	-	1	0.11159	233.36	12.849	2.15891	1.633	3.268	PER IMP= 79.80
ROUTE RESERVOIR	PondAB203.1	1	30	0.11159	7.13	12.849	2.15890	2.933	0.100	AC-FT= 9.625
ADD HYD	POND202SUM	2&30	1	0.50935	32.57	55.568	2.04554	2.966	0.100	
ROUTE MCUNGE	AB203.1Rt	1	2	0.50935	32.57	55.567	2.04550	3.000	0.100	CCODE = 0.1
COMPUTE NM HYD	AB203.2	-	1	0.10280	160.41	10.776	1.96549	1.766	2.438	PER IMP= 64.60
ROUTE RESERVOIR	PondAB203.2	1	30	0.10280	6.57	10.776	1.96548	3.266	0.100	AC-FT= 7.955
ADD HYD	PondAB203.2S	2&30	1	0.61215	39.14	66.343	2.03206	3.033	0.100	
ROUTE MCUNGE	PondAB203.2S	1	2	0.61215	39.14	66.340	2.03199	3.166	0.100	CCODE = 0.1
*S APAB3										
COMPUTE NM HYD	AB204	-	1	0.16122	291.27	17.730	2.06200	1.667	2.823	PER IMP= 73.47
ROUTE RESERVOIR	PondAB204	1	30	0.16122	10.32	17.730	2.06199	3.066	0.100	AC-FT= 13.109
ADD HYD	PondAB204SUM	2&30	1	0.77337	49.46	84.070	2.03824	3.166	0.100	
*S APAB4										
ROUTE MCUNGE	PondAB204SUM	1	2	0.77337	49.46	84.070	2.03824	3.133	0.100	CCODE = 0.2

Revised 'Split' Basin calc; TB 225.1 - Remainder of Overall Basin, TB225.2 - Site Basin's 'allowable release', verification of pond results against reported Pond In/Out flows in original Amole Hubble DMP Update

COMMAND	HYDROGRAPH IDENTIFICATION	ID NO.	ID NO.	AREA (SQ MI)	DISCHARGE (CFS)	VOLUME (AC-FT)	RUNOFF (INCHES)	PEAK (HOURS)	PER ACRE	NOTATION
COMPUTE NM HYD	TB225.1	-	1	0.11190	174.21	8.152	1.36592	1.633	2.433	PER IMP= 26.00
COMPUTE NM HYD	TB225.2	-	3	0.01853	28.83	1.350	1.36592	1.633	2.431	PER IMP= 26.00
ADD HYD	TB225SUMA	1& 2	4	0.88527	209.01	92.222	1.95325	1.633	0.369	
ADD HYD	TB225SUMA	4& 3	5	0.90380	237.84	93.572	1.94121	1.633	0.411	
ADD HYD	TB225SUMB	5&20	6	3.65888	2779.27	350.418	1.79572	1.667	1.187	
ROUTE RESERVOIR	PondNSCOORS	6	44	3.65888	988.87	350.402	1.79564	2.200	0.422	AC-FT= 73.531
*S**********										
*S**********	END OF ATRISCO BUSINESS PARK BASIN									
*S**********										
*S**********										
*S**********	TOWER-SAGE BASIN									
*S**********										
COMPUTE NM HYD	TS201	-	1	0.06441	164.37	7.700	2.24158	1.567	3.987	PER IMP= 85.40
ROUTE MCUNGE	TS201Rt	1	2	0.06441	164.10	7.697	2.24062	1.600	3.981	CCODE = 0.2
COMPUTE NM HYD	TS202	-	1	0.08686	212.99	8.918	1.92497	1.533	3.831	PER IMP= 64.04
ADD HYD	TS202SUM	2& 1	1	0.15127	365.11	16.614	2.05937	1.567	3.771	
*S APTS1										
ROUTE MCUNGE	TS202SUMRt	1	2	0.15127	362.25	16.611	2.05897	1.600	3.742	CCODE = 0.2
COMPUTE NM HYD	TS203	-	1	0.10639	228.00	11.034	1.94461	1.600	3.349	PER IMP= 65.20
ADD HYD	TS203SUM	2& 1	1	0.25766	590.25	27.645	2.01174	1.600	3.579	
*S APTS2										
ROUTE MCUNGE	TS203SUMRt	1	2	0.25766	589.43	27.640	2.01137	1.600	3.574	CCODE = 0.2
COMPUTE NM HYD	TS205.1	-	1	0.04038	99.98	3.908	1.81470	1.533	3.869	PER IMP= 56.40
ADD HYD	TS205.1SUM	2& 1	1	0.29804	670.72	31.548	1.98472	1.600	3.516	
ROUTE MCUNGE	TS205.1SUMRt	1	2	0.29804	656.58	31.483	1.98063	1.633	3.442	CCODE = 0.2
COMPUTE NM HYD	TS204	-	1	0.04639	108.73	4.364	1.76374	1.533	3.662	PER IMP= 55.10
ROUTE MCUNGE	TS204Rt	1	3	0.04639	105.20	4.349	1.75776	1.567	3.543	CCODE = 0.2
ADD HYD	TS205.2SUMA	2& 3	1	0.34443	753.81	35.832	1.95061	1.600	3.420	
COMPUTE NM HYD	TS205.5	-	2	0.06260	143.52	5.947	1.78124	1.533	3.582	PER IMP= 54.20
ADD HYD	TS205.1SUMB	1& 2	1	0.40703	884.32	41.779	1.92456	1.600	3.395	
*S APTS3										
ROUTE MCUNGE	TS205.2SUMBR	1	10	0.40703	880.00	41.736	1.92259	1.600	3.378	CCODE = 0.1
COMPUTE NM HYD	TS206	-	1	0.02972	81.72	3.463	2.18487	1.533	4.296	PER IMP= 81.50
ROUTE RESERVOIR	PondTS2	1	30	0.02972	39.05	3.463	2.18485	1.700	2.053	AC-FT= 1.272
ROUTE MCUNGE	PONDTS2RT	30	1	0.02972	38.99	3.463	2.18483	1.733	2.050	CCODE = 0.2
COMPUTE NM HYD	TS207	-	2	0.07155	154.09	6.516	1.70766	1.567	3.365	PER IMP= 49.15
ADD HYD	TS207SUM	2& 1	1	0.10127	183.29	9.979	1.84769	1.567	2.828	
ROUTE MCUNGE	TS207SUMRt	1	2	0.10127	178.32	9.952	1.84266	1.633	2.751	CCODE = 0.2
COMPUTE NM HYD	TS208	-	1	0.05907	113.66	5.546	1.76036	1.600	3.007	PER IMP= 52.75
ADD HYD	TS208SUM	2& 1	1	0.16034	290.47	15.498	1.81234	1.633	2.831	
COMPUTE NM HYD	TS209	-	2	0.06455	147.00	6.724	1.95322	1.567	3.558	PER IMP= 65.80
ROUTE MCUNGE	TS209Rt	2	3	0.06455	146.29	6.722	1.95246	1.600	3.541	CCODE = 0.2
COMPUTE NM HYD	TS210	-	2	0.06151	134.31	6.030	1.83807	1.567	3.412	PER IMP= 58.00
ADD HYD	TS210SUMA	3& 2	2	0.12606	277.13	12.751	1.89664	1.600	3.435	
ADD HYD	TS210SUMB	1& 2	1	0.28640	565.38	28.250	1.84944	1.600	3.085	
*S APTS4										
ROUTE MCUNGE	TS210SUMBRt	1	2	0.28640	562.23	28.248	1.84931	1.600	3.067	CCODE = 0.2
ADD HYD	TS211SUMA	10& 2	1	0.69343	1442.23	69.984	1.89232	1.600	3.250	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	TS211	-	2	0.04503	65.75	2.124	0.88456	1.533	2.281	PER IMP= 9.90
ADD HYD	TS211SUMB	1& 2	1	0.73846	1497.81	72.108	1.83087	1.600	3.169	
ROUTE RESERVOIR	PondTS1	1	30	0.73846	90.45	72.108	1.83087	2.533	0.191	AC-FT= 52.351
ROUTE MCUNGE	PondTS1RT	30	1	0.73846	90.28	72.055	1.82953	2.733	0.191	CCODE = 0.2
COMPUTE NM HYD	TS214	-	2	0.04836	92.13	4.560	1.76804	1.600	2.977	PER IMP= 54.20
ADD HYD	TS214SUM	1& 2	1	0.78682	133.43	76.615	1.82575	1.633	0.265	
*S APTS5										
ROUTE MCUNGE	TS214SUMRT	1	2	0.78682	132.43	76.611	1.82564	1.700	0.263	CCODE = 0.2
COMPUTE NM HYD	TS212	-	1	0.09315	185.71	9.702	1.95299	1.633	3.115	PER IMP= 65.83
ROUTE MCUNGE	TS212RT	1	3	0.09315	184.08	9.693	1.95113	1.667	3.088	CCODE = 0.2
COMPUTE NM HYD	TS213	-	1	0.06630	165.63	6.529	1.84644	1.533	3.903	PER IMP= 58.60
ADD HYD	TS213SUMA	3& 1	1	0.15945	311.33	16.222	1.90759	1.567	3.051	
*S APTS6										
ROUTE MCUNGE	TS213SUMRT	1	3	0.15945	309.61	16.216	1.90689	1.600	3.034	CCODE = 0.2
ADD HYD	TS213SUMB	3&44	1	3.81833	1089.46	366.618	1.80028	1.833	0.446	
ROUTE MCUNGE	TS215SUMBRT	1	3	3.81833	1088.96	366.618	1.80029	1.900	0.446	CCODE = 0.2
*s APTS7										
ADD HYD	TS215SUMA	2& 3	1	4.60515	1204.42	443.228	1.80462	1.800	0.409	
COMPUTE NM HYD	TS215	-	2	0.14947	240.67	12.607	1.58145	1.667	2.516	PER IMP= 40.60
ADD HYD	TS215SUMB	1& 2	1	4.75462	1389.00	455.835	1.79760	1.766	0.456	
ROUTE MCUNGE	TS215SUMBRT	1	2	4.75462	1388.12	455.834	1.79760	1.766	0.456	CCODE = 0.2
COMPUTE NM HYD	TS216	-	1	0.07651	131.92	7.482	1.83352	1.667	2.694	PER IMP= 57.70
*S APTS8										
ROUTE MCUNGE	TS216Rt	1	3	0.07651	115.50	7.253	1.77749	1.933	2.359	CCODE = 0.2
ADD HYD	TS217SUMA	2& 3	1	4.83113	1479.32	463.087	1.79728	1.800	0.478	
COMPUTE NM HYD	TS217	-	2	0.14062	246.00	12.146	1.61959	1.633	2.733	PER IMP= 43.20
ADD HYD	TSBASIN	1& 2	45	4.97175	1657.25	475.233	1.79225	1.733	0.521	
*S APTS9										
*S**********	END OF TOWER-SAGE BASIN									
*S**********	POWERLINE BASIN									
COMPUTE NM HYD	PL202	-	1	0.16047	283.84	10.553	1.23306	1.567	2.764	PER IMP= 17.00
ROUTE MCUNGE	PL202Rt	1	2	0.16047	282.61	10.551	1.23281	1.600	2.752	CCODE = 0.2
COMPUTE NM HYD	PL204	-	3	0.15501	288.74	10.243	1.23897	1.567	2.911	PER IMP= 17.40
ADD HYD	PL204sum	2& 3	1	0.31548	555.12	20.794	1.23583	1.567	2.749	
*S APPL1										
ROUTE MCUNGE	PL204sumRt	1	2	0.31548	551.74	20.786	1.23535	1.633	2.733	CCODE = 0.2
COMPUTE NM HYD	PL205	-	3	0.13707	257.09	10.576	1.44675	1.567	2.931	PER IMP= 31.50
ADD HYD	PL205sum	2& 3	1	0.45255	804.40	31.362	1.29938	1.600	2.777	
ROUTE MCUNGE	PL205sumRt	1	2	0.45255	798.07	31.360	1.29929	1.633	2.755	CCODE = 0.2
COMPUTE NM HYD	PL206	-	3	0.17377	274.30	9.878	1.06587	1.567	2.466	PER IMP= 11.30
ADD HYD	PL206sum	2& 3	1	0.62632	1061.96	41.238	1.23453	1.600	2.649	
ROUTE RESERVOIR	PondPL1	1	30	0.62632	417.17	41.012	1.22776	1.866	1.041	AC-FT= 20.686

*S Increased Pond Storage and Outlet Discharge to Prevent Overtopping.
*S Same Outlet Configuration as downstream Detention Ponds.

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	PONDPL1RT	30	2	0.62632	380.74	40.725	1.21917	2.066	0.950	CCODE = 0.2
COMPUTE NM HYD	PL207	-	3	0.09881	144.96	4.201	0.79709	1.533	2.292	PER IMP= 0.00
ADD HYD	PL207sumA	2& 3	1	0.72513	392.35	44.925	1.16166	2.066	0.845	
ROUTE MCUNGE	PL207SUMRt	1	5	0.72513	392.32	44.921	1.16154	2.066	0.845	CCODE = 0.2
COMPUTE NM HYD	PL208.1	-	1	0.07570	106.84	3.118	0.77220	1.533	2.205	PER IMP= 0.00
ROUTE MCUNGE	PL208.1Rt	1	2	0.07570	106.44	3.120	0.77272	1.567	2.197	CCODE = 0.2
COMPUTE NM HYD	PL208.2	-	1	0.01112	26.78	1.040	1.75419	1.533	3.763	PER IMP= 53.60
COMPUTE NM HYD	PL208.3	-	3	0.02338	46.01	1.665	1.33522	1.533	3.075	PER IMP= 31.80
ADD HYD	PL208.3sumA	1& 3	1	0.03450	72.78	2.705	1.47024	1.533	3.296	
ADD HYD	PL208.3sumB	1& 2	1	0.11020	177.11	5.825	0.99109	1.533	2.511	
ADD HYD	PL208.3sumC	1& 5	1	0.83533	409.11	50.746	1.13906	2.066	0.765	
ROUTE RESERVOIR	PondPL2	1	30	0.83533	343.52	50.736	1.13883	2.333	0.643	AC-FT= 13.202
ROUTE MCUNGE	PONDPL2Rt	30	10	0.83533	343.52	50.736	1.13883	2.333	0.643	CCODE = 0.0
COMPUTE NM HYD	PL209.1	-	1	0.06028	87.26	2.506	0.77957	1.533	2.262	PER IMP= 0.00
ROUTE MCUNGE	PL209.1Rt	1	2	0.06028	87.19	2.509	0.78033	1.567	2.260	CCODE = 0.2
COMPUTE NM HYD	PL209.2	-	1	0.01575	37.67	1.430	1.70212	1.533	3.737	PER IMP= 48.85
ADD HYD	PL209.2sum	1& 2	1	0.07603	122.23	3.938	0.97127	1.567	2.512	
COMPUTE NM HYD	PL209.3	-	2	0.00878	21.04	0.799	1.70546	1.533	3.745	PER IMP= 49.00
ADD HYD	PL209.3sumA	1& 2	1	0.08481	142.61	4.737	1.04727	1.533	2.627	
ADD HYD	PL209.3sumB	10& 1	1	0.92014	350.98	55.473	1.13039	2.300	0.596	
ROUTE RESERVOIR	PondPL3	1	30	0.92014	328.87	55.466	1.13025	2.500	0.558	AC-FT= 8.468
ROUTE MCUNGE	UPONDPL3Rt	30	10	0.92014	328.87	55.466	1.13025	2.500	0.558	CCODE = 0.0
COMPUTE NM HYD	PL210.1	-	1	0.07778	103.27	3.038	0.73233	1.533	2.075	PER IMP= 0.00
ROUTE MCUNGE	PL210.1Rt	1	2	0.07778	102.62	3.040	0.73286	1.567	2.062	CCODE = 0.2
COMPUTE NM HYD	PL210.2	-	1	0.01496	35.84	1.361	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	PL210.2sum	1& 2	1	0.09274	135.96	4.401	0.88974	1.567	2.291	
COMPUTE NM HYD	PL210.3	-	2	0.00903	21.64	0.821	1.70546	1.533	3.745	PER IMP= 49.00
ADD HYD	PL210.3sumA	1& 2	1	0.10177	156.08	5.222	0.96212	1.567	2.396	
ADD HYD	PL210.3sumB	10& 1	1	1.02191	334.49	60.688	1.11351	2.500	0.511	
ROUTE RESERVOIR	PondPL4	1	30	1.02191	316.59	60.680	1.11336	2.700	0.484	AC-FT= 8.391
ROUTE MCUNGE	PONDPL4Rt	30	10	1.02191	316.59	60.680	1.11336	2.700	0.484	CCODE = 0.0
COMPUTE NM HYD	PL211.1	-	1	0.07867	99.87	2.919	0.69570	1.533	1.983	PER IMP= 0.00
ROUTE MCUNGE	PL211.1Rt	1	2	0.07867	99.69	2.922	0.69636	1.567	1.980	CCODE = 0.2
COMPUTE NM HYD	PL211.3	-	1	0.01064	25.50	0.968	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	PL211.3sumA	1& 2	1	0.08931	123.40	3.890	0.81657	1.567	2.159	
ADD HYD	PL211.3sumB	10& 1	1	1.11122	319.84	64.569	1.08950	2.666	0.450	
ROUTE RESERVOIR	PondPL5	1	30	1.11122	302.04	64.561	1.08937	2.900	0.425	AC-FT= 8.959
ROUTE MCUNGE	PONDPL5Rt	30	10	1.11122	302.04	64.561	1.08937	2.900	0.425	CCODE = 0.0
COMPUTE NM HYD	PL211.2	-	1	0.05553	133.00	5.051	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	PL211.2sum	10& 1	1	1.16675	303.21	69.612	1.11869	2.900	0.406	
ROUTE RESERVOIR	PondPL6	1	30	1.16675	286.40	69.603	1.11854	3.100	0.384	AC-FT= 9.368
COMPUTE NM HYD	PL212.1	-	1	0.03223	77.20	2.932	1.70546	1.533	3.743	PER IMP= 49.00
COMPUTE NM HYD	PL212.2	-	2	0.01592	38.14	1.448	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	PL212.2sumA	1& 2	1	0.04815	115.34	4.380	1.70544	1.533	3.743	
ADD HYD	PL212.2sumB	30& 1	1	1.21490	287.08	73.983	1.14180	3.100	0.369	
COMPUTE NM HYD	PL213	-	2	0.02311	55.36	2.102	1.70546	1.533	3.743	PER IMP= 49.00
ADD HYD	PLBASIN	1& 2	46	1.23801	287.41	76.085	1.15232	3.100	0.363	

*S APPL2

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S**********	END OF POWERLINE BASIN									
*S**********	SNOW VISTA BASIN									
COMPUTE NM HYD	SV201	-	1	0.10812	230.93	7.433	1.28905	1.533	3.337	PER IMP= 18.00
ROUTE MCUNGE	SV201Rt	1	2	0.10812	230.08	7.435	1.28938	1.567	3.325	CCODE = 0.2
COMPUTE NM HYD	SV203	-	1	0.06845	175.50	7.068	1.93612	1.533	4.006	PER IMP= 64.70
ROUTE MCUNGE	SV203Rt	1	3	0.06845	174.06	7.051	1.93146	1.600	3.973	CCODE = 0.1
ADD HYD	SV202SUMA	2& 3	2	0.17657	392.44	14.486	1.53829	1.567	3.473	
COMPUTE NM HYD	SV202	-	1	0.03670	92.92	3.703	1.89183	1.533	3.956	PER IMP= 61.70
ADD HYD	SV202SUMB	1& 2	1	0.21327	478.62	18.189	1.59913	1.567	3.507	
COMPUTE NM HYD	SV204	-	2	0.03698	75.93	2.452	1.24313	1.533	3.208	PER IMP= 17.68
ADD HYD	SV204SUM	2& 1	10	0.25025	549.82	20.641	1.54652	1.567	3.433	
COMPUTE NM HYD	SV207	-	1	0.05374	131.74	5.267	1.83783	1.533	3.830	PER IMP= 60.26
ROUTE RESERVOIR	PondSV1	1	30	0.05374	10.78	5.267	1.83782	2.133	0.314	AC-FT= 3.671
ROUTE MCUNGE	PondSV1Rt	30	1	0.05374	10.78	5.267	1.83771	2.200	0.314	CCODE = 0.2
COMPUTE NM HYD	SV212	-	2	0.08270	163.38	7.522	1.70546	1.600	3.087	PER IMP= 49.00
ROUTE MCUNGE	SV208SUMARt	2	3	0.08270	163.05	7.523	1.70553	1.633	3.081	CCODE = 0.2
ADD HYD	SV208SUMA	1& 3	1	0.13644	170.77	12.790	1.75758	1.633	1.956	
COMPUTE NM HYD	SV208	-	2	0.05371	124.13	4.563	1.59277	1.533	3.611	PER IMP= 41.40
ADD HYD	SV208SUMB	2& 1	1	0.19015	270.25	17.352	1.71103	1.600	2.221	
ADD HYD	SV208SUMC	10& 1	1	0.44040	819.34	37.993	1.61755	1.567	2.907	
ROUTE RESERVOIR	PondSV205	1	30	0.44040	23.46	37.993	1.61755	2.800	0.083	AC-FT= 27.408
ROUTE MCUNGE	SVPOND205Rt	30	10	0.44040	23.45	37.992	1.61752	2.833	0.083	CCODE = 0.2
COMPUTE NM HYD	SV205	-	1	0.04181	95.63	3.479	1.56029	1.533	3.574	PER IMP= 39.20
ROUTE MCUNGE	SVPOND205Rt	1	2	0.04181	95.33	3.478	1.55980	1.567	3.562	CCODE = 0.1
COMPUTE NM HYD	SV209	-	1	0.04749	100.61	3.373	1.33185	1.533	3.310	PER IMP= 23.70
ADD HYD	SV205SUMA	2& 1	1	0.08930	195.07	6.851	1.43856	1.533	3.413	
*S APSV1										
ADD HYD	SV205SUMB	10& 1	1	0.52970	211.51	44.844	1.58735	1.533	0.624	
ROUTE MCUNGE	SVPOND205Rt	1	10	0.52970	210.21	44.844	1.58736	1.567	0.620	CCODE = 0.2
COMPUTE NM HYD	SV210	-	1	0.03230	81.84	3.280	1.90398	1.533	3.959	PER IMP= 62.90
ROUTE MCUNGE	SV210Rt	1	2	0.03230	81.44	3.279	1.90318	1.567	3.939	CCODE = 0.1
COMPUTE NM HYD	SV206	-	1	0.02392	65.81	2.792	2.18843	1.533	4.299	PER IMP= 81.80
ROUTE MCUNGE	SV206Rt	1	3	0.02392	65.76	2.789	2.18639	1.567	4.296	CCODE = 0.1
COMPUTE NM HYD	SV211	-	1	0.01797	31.05	1.092	1.13960	1.533	2.699	PER IMP= 23.30
ADD HYD	SV211SUMA	3& 1	1	0.04189	95.00	3.881	1.73732	1.567	3.543	
ADD HYD	SV211SUMB	2& 1	1	0.07419	176.44	7.160	1.80952	1.567	3.716	
ADD HYD	SV211SUMC	10& 1	1	0.60389	386.64	52.004	1.61465	1.567	1.000	
ROUTE RESERVOIR	PondSV3	1	30	0.60389	195.34	52.004	1.61465	1.733	0.505	AC-FT= 7.239
*S RATING CURVE OBTAINED BY 2' LIDAR FOR VOLUME AND CALCULATING OUTFLOW WITH CU										
*S FOR ORFICES AND USING CIPOLETTI WEIR EQUATION FOR SPILLWAY										
*S										
ROUTE MCUNGE	PondSV3Rt	30	10	0.60389	192.07	51.974	1.61372	1.800	0.497	CCODE = 0.1
COMPUTE NM HYD	SV217	-	1	0.02636	63.33	2.411	1.71506	1.533	3.754	PER IMP= 49.65
*S APSV2										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	SV217Rt	1	2	0.02636	62.98	2.410	1.71412	1.600	3.733	CCODE = 0.1
COMPUTE NM HYD	SV218	-	1	0.04773	118.49	4.642	1.82356	1.533	3.879	PER IMP= 57.00
ADD HYD	SV218SUMA	2& 1	1	0.07409	174.44	7.052	1.78461	1.533	3.679	
ADD HYD	SV218SUMB	10& 1	1	0.67798	250.24	59.026	1.63240	1.800	0.577	
*S APSV3										
ROUTE MCUNGE	SV218SUMBRT	1	2	0.67798	249.39	59.010	1.63197	1.833	0.575	CCODE = 0.1
COMPUTE NM HYD	SV219	-	1	0.02000	47.91	1.819	1.70546	1.533	3.743	PER IMP= 49.00
ADD HYD	SV219SUM	2& 1	1	0.69798	260.69	60.829	1.63408	1.833	0.584	
*S APSV4										
ROUTE MCUNGE	SV219SUMRT	1	10	0.69798	260.19	60.830	1.63408	1.833	0.582	CCODE = 0.2
COMPUTE NM HYD	SV214	-	1	0.05386	129.00	4.899	1.70546	1.533	3.742	PER IMP= 49.00
ROUTE RESERVOIR	PondSV4	1	30	0.05386	98.64	4.899	1.70545	1.600	2.862	AC-FT= 1.329
*s ****DIVIDE 42.2 CFS TO 24" PIPE AND REMAINING TO 54" SURGE PIPE										
DIVIDE HYD	PONDSV4RT1	30	1	0.04347	42.20	3.954	1.70545	1.533	1.517	
	PONDSV4RT2	and	2	0.01039	56.44	0.945	1.70545	1.600	8.488	
ROUTE MCUNGE	PondSV4Rt1	1	5	0.04347	42.20	3.951	1.70418	1.600	1.517	CCODE = 0.1
ROUTE MCUNGE	PondSV4Rt2	2	4	0.01039	55.83	0.948	1.71012	1.600	8.396	CCODE = 0.2
COMPUTE NM HYD	SV213	-	2	0.02147	51.43	1.953	1.70546	1.533	3.743	PER IMP= 49.00
ADD HYD	SV213SUM	2& 4	1	0.03186	97.77	2.900	1.70695	1.600	4.795	
ROUTE MCUNGE	SV213SUMRt	1	2	0.03186	96.48	2.897	1.70482	1.633	4.732	CCODE = 0.1
ADD HYD	SV215SUMA	5& 2	1	0.07533	138.68	6.848	1.70444	1.633	2.877	
COMPUTE NM HYD	SV215	-	2	0.01573	37.69	1.431	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	SV215SUMB	1& 2	1	0.09106	164.67	8.279	1.70461	1.633	2.826	
*S APSV5										
ROUTE MCUNGE	SV115SUMBRT	1	20	0.09106	162.68	8.274	1.70367	1.700	2.791	CCODE = 0.1
COMPUTE NM HYD	SV216	-	1	0.02254	53.99	2.050	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	SV216RT	1	2	0.02254	53.54	2.049	1.70409	1.633	3.712	CCODE = 0.1
COMPUTE NM HYD	SV220	-	1	0.02887	69.15	2.626	1.70546	1.533	3.743	PER IMP= 49.00
ADD HYD	SV220SUM	2& 1	1	0.05141	112.21	4.674	1.70484	1.567	3.410	
ROUTE MCUNGE	SV120RT	1	2	0.05141	111.74	4.674	1.70484	1.600	3.396	CCODE = 0.2
ADD HYD	SV221SUMA	20& 2	1	0.14247	245.70	12.948	1.70408	1.667	2.695	
COMPUTE NM HYD	SV221	-	2	0.04057	92.33	3.462	1.59997	1.533	3.556	PER IMP= 44.10
ADD HYD	SV221SUMB	1& 2	1	0.18304	308.27	16.410	1.68100	1.600	2.632	
ADD HYD	SV221SUMC	10& 1	1	0.88102	526.82	77.240	1.64383	1.600	0.934	
*S APSV6										
ROUTE MCUNGE	SV221SUMBRT	1	2	0.88102	523.83	77.226	1.64353	1.633	0.929	CCODE = 0.1
COMPUTE NM HYD	SV222	-	1	0.03288	83.30	3.318	1.89225	1.533	3.958	PER IMP= 61.66
ROUTE MCUNGE	SV222RT	1	3	0.03288	82.10	3.310	1.88769	1.567	3.902	CCODE = 0.1
ADD HYD	SV222SUM	2& 3	10	0.91390	597.76	80.536	1.65231	1.600	1.022	
*S APSV7										
COMPUTE NM HYD	SV223	-	1	0.01602	38.38	1.457	1.70546	1.533	3.744	PER IMP= 49.00
ROUTE RESERVOIR	PondSV5	1	30	0.01602	14.58	1.457	1.70544	1.733	1.422	AC-FT= 0.584
ROUTE MCUNGE	PondSV5RT	30	1	0.01602	14.58	1.457	1.70543	1.733	1.422	CCODE = 0.2
COMPUTE NM HYD	SV224	-	2	0.05671	135.82	5.158	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	SV224SUM	1& 2	1	0.07273	147.08	6.615	1.70544	1.533	3.160	
ROUTE RESERVOIR	PondSV6	1	30	0.07273	36.93	6.615	1.70544	1.900	0.793	AC-FT= 2.936
ROUTE MCUNGE	PondSV6RT	30	1	0.07273	36.93	6.615	1.70544	1.933	0.793	CCODE = 0.2
COMPUTE NM HYD	SV225	-	2	0.02569	62.28	2.390	1.74455	1.533	3.788	PER IMP= 51.65

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	SV225SUM	1& 2	1	0.09842	90.23	9.006	1.71564	1.533	1.432	
ROUTE RESERVOIR	PondSV7	1	30	0.09842	29.75	9.006	1.71564	2.800	0.472	AC-FT= 2.936
ROUTE MCUNGE	PondSV7RT	30	1	0.09842	29.75	9.006	1.71565	2.833	0.472	CCODE = 0.2
COMPUTE NM HYD	SV226	-	2	0.03966	94.99	3.607	1.70546	1.533	3.742	PER IMP= 49.00
COMPUTE NM HYD	SV227	-	3	0.01936	44.85	1.653	1.60089	1.533	3.620	PER IMP= 42.00
ADD HYD	SV227SUMA	2& 3	2	0.05902	139.85	5.260	1.67115	1.533	3.702	
ADD HYD	SV227SUMB	1& 2	1	0.15744	158.05	14.266	1.69896	1.533	1.569	
*S APSV8										
ROUTE MCUNGE	SV227SUMBRT	1	2	0.15744	155.98	14.258	1.69807	1.600	1.548	CCODE = 0.1
COMPUTE NM HYD	SV228	-	1	0.03522	99.89	4.316	2.29751	1.500	4.431	PER IMP= 89.19
ADD HYD	SV228SUM	2& 1	1	0.19266	247.95	18.574	1.80765	1.567	2.011	
ROUTE RESERVOIR	PondSV8	1	30	0.19266	215.51	18.574	1.80765	1.633	1.748	AC-FT= 3.553
ADD HYD	PondSV8SUM	10&30	1	1.10656	808.88	99.110	1.67935	1.633	1.142	
*S APSV9										
ROUTE MCUNGE	PondSV8SUMRT	1	2	1.10656	795.54	99.088	1.67900	1.667	1.123	CCODE = 0.1
COMPUTE NM HYD	SV238	-	1	0.04738	109.75	4.045	1.60089	1.533	3.619	PER IMP= 42.00
ROUTE MCUNGE	SV238RT	1	3	0.04738	109.17	4.044	1.60018	1.567	3.600	CCODE = 0.1
ADD HYD	SV239SUMA	2& 3	1	1.15394	870.55	103.132	1.67576	1.667	1.179	
COMPUTE NM HYD	SV239	-	2	0.03445	81.29	3.048	1.65914	1.533	3.687	PER IMP= 45.95
ADD HYD	SV239SUMB	1& 2	10	1.18839	917.04	106.180	1.67528	1.667	1.206	
*S APSV10										
COMPUTE NM HYD	SV232	-	1	0.01563	38.81	1.520	1.82355	1.533	3.880	PER IMP= 57.00
ROUTE MCUNGE	SV232SUMRT	1	2	0.01563	38.61	1.521	1.82425	1.633	3.860	CCODE = 0.2
*S										
*S From Drainage Study for the Timarron W. Subdivision										
*S Unit 5 only 26.6 cfs was supposed to be released to El Moro.										
*S Analysis diverts Sub-basin SV129, SV130, and SV131 S. to Amole.										
*S These sub-basins suppose to discharge to El Moro via pipe.										
*S										
COMPUTE NM HYD	SV233	-	1	0.03867	89.58	3.302	1.60089	1.533	3.619	PER IMP= 42.00
COMPUTE NM HYD	SV234	-	3	0.01925	44.60	1.644	1.60089	1.533	3.620	PER IMP= 42.00
ADD HYD	SV234SUMA	1& 3	1	0.05792	134.18	4.945	1.60088	1.533	3.620	
ADD HYD	SV234SUMB	1& 2	1	0.07355	165.48	6.466	1.64834	1.533	3.515	
*S APSV11										
ROUTE MCUNGE	SV234SUMBRT	1	20	0.07355	164.10	6.466	1.64837	1.533	3.486	CCODE = 0.2
COMPUTE NM HYD	SV235	-	1	0.01963	45.48	1.676	1.60089	1.533	3.620	PER IMP= 42.00
ROUTE MCUNGE	SV235RT	1	2	0.01963	45.00	1.673	1.59830	1.600	3.582	CCODE = 0.1
COMPUTE NM HYD	SV236	-	1	0.03000	59.07	2.095	1.30926	1.533	3.076	PER IMP= 29.07
ADD HYD	SV236SUM	2& 1	1	0.04963	96.08	3.768	1.42357	1.567	3.025	
*S										
*S ****DIVIDE Hyd SV136SUM by Half. Half of flow turns SW down Del Rey Road										
*S ****Flow diverted to Del Rey Road (SV136SUM2) is added in Amole Basin										
*S										
DIVIDE HYD	SV136DIV1	1	3	0.02482	48.04	1.884	1.42357	1.567	3.025	
	SV136DIV2	and	48	0.02481	48.04	1.884	1.42357	1.567	3.025	
ROUTE MCUNGE	SV236SUM1RT	3	1	0.02482	47.86	1.884	1.42375	1.600	3.014	CCODE = 0.2
ADD HYD	SV237SUMA	20& 1	1	0.09837	210.99	8.350	1.59170	1.567	3.352	
COMPUTE NM HYD	SV237	-	2	0.03272	77.17	2.893	1.65779	1.533	3.685	PER IMP= 45.85

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ADD HYD	SV237SUMB	1& 2	1	0.13109	284.73	11.243	1.60819	1.533	3.394	
*S APSV12										
ROUTE MCUNGE	SV237SUMBRT	1	2	0.13109	284.55	11.237	1.60734	1.567	3.392	CCODE = 0.1
COMPUTE NM HYD	SV240	-	1	0.04727	109.49	4.036	1.60089	1.533	3.619	PER IMP= 42.00
ADD HYD	SV240SUM	2& 1	1	0.17836	386.55	15.273	1.60563	1.567	3.386	
*S APSV13										
ROUTE MCUNGE	SV240sumRT	1	2	0.17836	385.67	15.278	1.60614	1.567	3.379	CCODE = 0.2
COMPUTE NM HYD	SV241	-	1	0.04160	96.36	3.552	1.60089	1.533	3.619	PER IMP= 42.00
ADD HYD	SV241SUM	2& 1	1	0.21996	475.43	18.830	1.60514	1.567	3.377	
*S APSV14										
ROUTE MCUNGE	SV241SUMRT	1	2	0.21996	475.19	18.829	1.60511	1.567	3.376	CCODE = 0.2
ADD HYD	SV243SUMA	10& 2	10	1.40835	1295.82	125.010	1.66432	1.667	1.438	
*S APSV15										
COMPUTE NM HYD	SV242	-	1	0.08119	180.79	8.674	2.00317	1.567	3.479	PER IMP= 70.13
*S APSV16										
ROUTE MCUNGE	SV242RT	1	2	0.08119	180.38	8.668	2.00188	1.600	3.471	CCODE = 0.2
COMPUTE NM HYD	SV243	-	1	0.02884	80.26	3.430	2.22977	1.500	4.348	PER IMP= 84.60
ADD HYD	SV243SUMB	1& 2	1	0.11003	245.97	12.098	2.06160	1.567	3.493	
*S APSV17										
ROUTE MCUNGE	SV243SUMBRT	1	2	0.11003	246.02	12.091	2.06042	1.600	3.494	CCODE = 0.2
ADD HYD	SV243SUMC	10& 2	1	1.51838	1514.48	137.101	1.69302	1.667	1.558	
COMPUTE NM HYD	SV244	-	2	0.02736	63.15	2.603	1.78376	1.533	3.607	PER IMP= 54.35
ADD HYD	SV244SUM	1& 2	1	1.54574	1558.48	139.704	1.69463	1.633	1.575	
*S APSV18										
ROUTE MCUNGE	SVBASIN	1	47	1.54574	1558.48	139.704	1.69463	1.633	1.575	CCODE = 0.0
*S**********										
*S******* END OF SNOW VISTA BASIN										
*S**********										
*S**********										
*S******* AMOLE BASIN										
*S**********										
*S										
*S RECALL HYD Below From ORIGINAL DMP AHYMO Files under										
*S Folder EX Amole Hubbell Basins File WGEXIST.PUN										
*S Offsite flows from Westgate Dam flow into the Amole Basin										
*S										
RECALL HYD	WGDAM	-	70	18.68360	73.15	167.311	0.16791	11.250	0.006	
*S										
*S END of RECALL HYD										
*S										
ROUTE MCUNGE	PLBASINRT	46	2	1.23801	287.41	76.085	1.15232	3.100	0.363	CCODE = 0.0
DIVIDE HYD	ADIVSUMA	70	1	18.67907	73.00	167.271	0.16791	9.150	0.006	
	ADIVSUMB	and	91	0.00453	0.15	0.041	0.16792	11.250	0.051	
ROUTE MCUNGE	ADIVSUMART	1	3	18.67907	73.00	167.271	0.16791	9.150	0.006	CCODE = 0.0
*S APA1										
ADD HYD	A201SUMA	3& 2	1	19.91708	352.16	243.188	0.22894	3.100	0.028	
COMPUTE NM HYD	A201	-	2	0.07236	122.09	4.373	1.13307	1.533	2.636	PER IMP= 21.72
ADD HYD	A201SUMB	1& 2	1	19.98944	353.26	247.561	0.23221	3.100	0.028	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S APA2										
ROUTE MCUNGE	A201SUMBRt	1	10	19.98944	353.26	247.561	0.23221	3.100	0.028	CCODE = 0.0
COMPUTE NM HYD	SV229	-	1	0.02916	69.85	2.652	1.70546	1.533	3.743	PER IMP= 49.00
COMPUTE NM HYD	SV230	-	2	0.01824	45.29	1.774	1.82355	1.533	3.880	PER IMP= 57.00
ADD HYD	SV230SUM	1& 2	1	0.04740	115.14	4.426	1.75089	1.533	3.795	
ROUTE RESERVOIR	PondSV10	1	30	0.04740	55.05	4.426	1.75089	1.700	1.815	AC-FT= 1.734
ROUTE MCUNGE	SV230SUMRT	30	1	0.04740	54.85	4.419	1.74802	1.766	1.808	CCODE = 0.2
COMPUTE NM HYD	A202.1	-	2	0.05920	60.67	3.969	1.25702	1.733	1.601	PER IMP= 28.49
ADD HYD	SV202.1SUMA	2& 1	1	0.10660	114.85	8.388	1.47534	1.733	1.683	
ROUTE MCUNGE	A202.1SUMARt	1	2	0.10660	114.85	8.388	1.47534	1.733	1.683	CCODE = 0.0
ADD HYD	A202.1SUMB	10& 2	1	20.09604	402.82	255.949	0.23881	1.567	0.031	
COMPUTE NM HYD	A202.2	-	2	0.02663	53.58	1.938	1.36468	1.533	3.144	PER IMP= 32.70
ADD HYD	A202.2SUM	1& 2	1	20.12267	455.77	257.887	0.24030	1.533	0.035	
*S APA3										
ROUTE MCUNGE	A202.2SUMRt	1	2	20.12267	455.75	257.882	0.24029	1.633	0.035	CCODE = 0.2
COMPUTE NM HYD	A206	-	1	0.03109	74.47	2.828	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	A206Rt	1	3	0.03109	73.94	2.824	1.70334	1.533	3.716	CCODE = 0.1
ADD HYD	A206SUM	2& 3	10	20.15376	517.33	260.707	0.24255	1.600	0.040	
ROUTE MCUNGE	SV236SUM2Rt	48	1	0.02481	47.91	1.883	1.42270	1.633	3.017	CCODE = 0.1
*S APA4										
COMPUTE NM HYD	A203	-	2	0.06206	143.75	5.299	1.60089	1.533	3.619	PER IMP= 42.00
ROUTE MCUNGE	A203Rt	2	3	0.06206	142.23	5.290	1.59827	1.600	3.581	CCODE = 0.1
ADD HYD	A204SUMA	3& 1	2	0.08687	189.27	7.173	1.54810	1.633	3.404	
COMPUTE NM HYD	A204	-	1	0.03430	78.99	2.908	1.58949	1.533	3.598	PER IMP= 41.50
ADD HYD	A204SUMB	2& 1	1	0.12118	252.56	10.081	1.55982	1.600	3.257	
ROUTE MCUNGE	A204SumBRt	1	2	0.12118	251.47	10.080	1.55974	1.633	3.243	CCODE = 0.2
COMPUTE NM HYD	A205	-	1	0.02852	61.77	2.435	1.60089	1.533	3.384	PER IMP= 42.00
ADD HYD	A205Sum	2& 1	1	0.14970	305.30	12.515	1.56758	1.600	3.187	
*S APA5										
ROUTE MCUNGE	A205SumRt	1	2	0.14970	305.28	12.516	1.56773	1.633	3.186	CCODE = 0.2
ADD HYD	A207SUMA	10& 2	1	20.30345	819.61	273.223	0.25232	1.633	0.063	
COMPUTE NM HYD	A207	-	2	0.04014	60.01	1.945	0.90836	1.533	2.336	PER IMP= 10.71
ADD HYD	A207SUMB	1& 2	1	20.34359	868.78	275.168	0.25361	1.600	0.067	
*S APA6										
ROUTE MCUNGE	A207SUMBRT	1	2	20.34359	867.19	275.163	0.25361	1.633	0.067	CCODE = 0.2
COMPUTE NM HYD	A208	-	1	0.06723	164.52	6.375	1.77804	1.533	3.824	PER IMP= 54.00
ADD HYD	A208SUMA	47& 1	1	1.61297	1686.85	146.079	1.69810	1.600	1.634	
ADD HYD	A208SUMB	2& 1	1	21.95656	2538.88	421.242	0.35972	1.633	0.181	
ROUTE MCUNGE	A208SUMBRt	1	2	21.95656	2533.06	421.237	0.35972	1.667	0.180	CCODE = 0.2
COMPUTE NM HYD	A209	-	1	0.01282	18.08	0.571	0.83568	1.533	2.203	PER IMP= 7.30
ROUTE MCUNGE	A209Rt	1	3	0.01282	17.37	0.566	0.82788	1.900	2.116	CCODE = 0.1
COMPUTE NM HYD	A210	-	1	0.04365	111.71	4.491	1.92914	1.533	3.999	PER IMP= 64.24
ADD HYD	A210SUMA	3& 1	1	0.05647	112.03	5.057	1.67912	1.533	3.100	
ADD HYD	A210SUMB	2& 1	1	22.01303	2601.00	426.294	0.36310	1.633	0.185	
*S APA7										
ROUTE MCUNGE	A210SUMBRT	1	2	22.01303	2575.77	426.171	0.36300	1.667	0.183	CCODE = 0.1
COMPUTE NM HYD	A211	-	1	0.06511	165.76	6.637	1.91115	1.533	3.978	PER IMP= 63.00
*S APA8										

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ROUTE MCUNGE	A211Rt	1	3	0.06511	164.68	6.623	1.90740	1.567	3.952	CCODE = 0.1
COMPUTE NM HYD	A212	-	1	0.06224	174.78	7.656	2.30653	1.533	4.388	PER IMP= 89.80
ADD HYD	A212SUMA	3& 1	1	0.12735	328.91	14.280	2.10246	1.567	4.036	
ADD HYD	A212SUMB	2& 1	1	22.14038	2806.84	440.451	0.37300	1.667	0.198	
*S APA9										
ROUTE MCUNGE	A212SUMBRT	1	10	22.14038	2796.09	440.460	0.37301	1.667	0.197	CCODE = 0.2
COMPUTE NM HYD	A214	-	1	0.02567	61.49	2.335	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	A214RT	1	2	0.02567	61.05	2.333	1.70423	1.633	3.716	CCODE = 0.1
COMPUTE NM HYD	A215	-	1	0.07926	191.61	7.261	1.71772	1.533	3.777	PER IMP= 49.00
ADD HYD	A215SUM	2& 1	1	0.10493	233.66	9.594	1.71441	1.533	3.479	
*S APA10										
ROUTE MCUNGE	A215SUMRt	1	2	0.10493	220.08	9.490	1.69570	1.600	3.277	CCODE = 0.2
COMPUTE NM HYD	A216	-	1	0.00913	21.87	0.830	1.70410	1.533	3.743	PER IMP= 48.90
ROUTE MCUNGE	A216Rt	1	3	0.00913	21.60	0.827	1.69876	1.633	3.696	CCODE = 0.1
COMPUTE NM HYD	A217	-	1	0.05761	133.19	4.615	1.50215	1.533	3.613	PER IMP= 31.10
ADD HYD	A117SUMA	3& 1	1	0.06674	144.72	5.443	1.52903	1.533	3.388	
ADD HYD	A217SUMB	1& 2	1	0.17167	360.59	14.932	1.63091	1.567	3.282	
ROUTE MCUNGE	A217SUMBRt	1	2	0.17167	329.24	14.600	1.59467	1.633	2.997	CCODE = 0.2
COMPUTE NM HYD	A218	-	1	0.05592	128.79	4.429	1.48500	1.533	3.599	PER IMP= 29.70
ADD HYD	A218SUMA	2& 1	1	0.22759	428.67	19.029	1.56772	1.600	2.943	
*S ****DIVIDE 235 CFS through 54" pipe and remaining to Surge Pond										
DIVIDE HYD	A218SUMB	1	1	0.18179	235.00	15.200	1.56772	1.433	2.020	
	A218SUMC	and	2	0.04580	193.67	3.830	1.56772	1.600	6.607	
ROUTE RESERVOIR	PondA1	2	30	0.04580	0.30	2.218	0.90789	1.800	0.010	AC-FT= 3.825
ADD HYD	A218SUMD	1&30	1	0.22759	235.29	17.417	1.43493	1.766	1.615	
*S APA11										
ROUTE MCUNGE	A218SUMDRt	1	2	0.22759	234.95	17.122	1.41064	1.766	1.613	CCODE = 0.2
COMPUTE NM HYD	A219	-	1	0.06433	159.68	6.256	1.82356	1.533	3.879	PER IMP= 57.00
ADD HYD	A219SUM	2& 1	1	0.29192	383.01	23.379	1.50163	1.533	2.050	
ROUTE MCUNGE	A219SUMRt	1	2	0.29192	352.54	23.062	1.48130	1.633	1.887	CCODE = 0.2
COMPUTE NM HYD	A220	-	1	0.03619	89.59	3.514	1.82035	1.533	3.868	PER IMP= 57.03
ADD HYD	A220SUM	2& 1	1	0.32811	423.01	26.576	1.51869	1.600	2.014	
*S APA12										
ROUTE MCUNGE	A220SUMRt	1	2	0.32811	396.63	26.125	1.49292	1.667	1.889	CCODE = 0.2
COMPUTE NM HYD	A221	-	1	0.04187	118.26	5.098	2.28291	1.500	4.413	PER IMP= 88.20
ADD HYD	A221SUM	2& 1	1	0.36998	468.86	31.223	1.58232	1.633	1.980	
ROUTE MCUNGE	A221SUMRt	1	2	0.36998	446.04	30.570	1.54926	1.733	1.884	CCODE = 0.2
COMPUTE NM HYD	A222	-	1	0.04520	128.19	5.539	2.29752	1.500	4.431	PER IMP= 89.19
ADD HYD	A222SUM	2& 1	1	0.41518	505.15	36.109	1.63072	1.667	1.901	
ADD HYD	A223SUMA	10& 1	1	22.55556	3301.24	476.569	0.39616	1.667	0.229	
COMPUTE NM HYD	A223	-	2	0.02061	57.77	2.479	2.25499	1.500	4.380	PER IMP= 86.30
ADD HYD	A223SUMB	2& 1	1	22.57617	3333.91	479.048	0.39786	1.667	0.231	
*S APA13										
ROUTE MCUNGE	A223SUMBRT	1	10	22.57617	3319.18	478.885	0.39772	1.733	0.230	CCODE = 0.1
COMPUTE NM HYD	A224	-	1	0.02007	48.08	1.826	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	A224RT	1	2	0.02007	47.67	1.824	1.70410	1.633	3.711	CCODE = 0.1
COMPUTE NM HYD	A225	-	1	0.04681	119.33	4.782	1.91545	1.533	3.983	PER IMP= 63.30
ADD HYD	A225SUMA	2& 1	1	0.06688	153.28	6.606	1.85202	1.567	3.581	

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ROUTE MCUNGE	A225SUMBRT	1	2	0.06688	153.16	6.606	1.85193	1.567	3.578	CCODE = 0.2
ADD HYD	A225SUMB	10& 2	10	22.64305	3413.00	485.491	0.40202	1.733	0.236	
*S APA15										
COMPUTE NM HYD	A226	-	1	0.04817	122.90	4.929	1.91841	1.533	3.987	PER IMP= 63.50
ROUTE MCUNGE	A226Rt	1	2	0.04817	119.56	4.909	1.91085	1.600	3.878	CCODE = 0.1
COMPUTE NM HYD	A227	-	1	0.04342	104.57	4.474	1.93209	1.533	3.763	PER IMP= 64.44
ADD HYD	A227SUM	2& 1	1	0.09159	221.03	9.383	1.92091	1.567	3.771	
COMPUTE NM HYD	A228	-	2	0.06983	167.59	6.379	1.71271	1.533	3.750	PER IMP= 49.50
ADD HYD	A228SUM	1& 2	1	0.16142	376.88	15.762	1.83084	1.567	3.648	
*S APA14										
ROUTE MCUNGE	A228SUMRt	1	2	0.16142	281.42	14.819	1.72129	1.667	2.724	CCODE = 0.2
COMPUTE NM HYD	A229	-	1	0.01395	33.43	1.269	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	A229SUM	1& 2	1	0.17537	300.52	16.088	1.72003	1.667	2.678	
ROUTE MCUNGE	A229SUMRT	1	2	0.17537	300.11	16.089	1.72019	1.667	2.674	CCODE = 0.2
COMPUTE NM HYD	A230	-	1	0.04312	112.97	4.625	2.01129	1.533	4.094	PER IMP= 69.80
ADD HYD	A230SUM	1& 2	1	0.21849	374.61	20.714	1.77764	1.633	2.679	
COMPUTE NM HYD	A231	-	2	0.01188	30.23	1.209	1.90795	1.533	3.976	PER IMP= 62.80
ADD HYD	A231SUMA	1& 2	1	0.23037	396.03	21.923	1.78435	1.600	2.686	
ROUTE MCUNGE	A231SUMCRt	1	2	0.23037	361.65	21.278	1.73187	1.700	2.453	CCODE = 0.2
ADD HYD	A231SUMB	10& 2	1	22.87342	3769.13	506.770	0.41541	1.733	0.257	
ROUTE MCUNGE	A231SUMBRt	1	10	22.87342	3365.62	506.647	0.41531	1.800	0.230	CCODE = 0.2
COMPUTE NM HYD	A232	-	1	0.06536	171.36	7.021	2.01424	1.533	4.096	PER IMP= 70.00
ROUTE MCUNGE	A232RT	1	2	0.06536	166.32	6.985	2.00394	1.766	3.976	CCODE = 0.1
COMPUTE NM HYD	A233	-	1	0.11362	245.20	12.206	2.01424	1.600	3.372	PER IMP= 70.00
ADD HYD	A233SUM	2& 1	1	0.17898	338.06	19.191	2.01047	1.700	2.951	
*S APA16										
ROUTE MCUNGE	A233SUMRT	1	2	0.17898	333.43	19.167	2.00790	1.733	2.911	CCODE = 0.1
ADD HYD	A234SUMA	10& 2	1	23.05240	3683.53	525.814	0.42768	1.800	0.250	
COMPUTE NM HYD	A234	-	2	0.03607	89.40	3.501	1.82001	1.533	3.873	PER IMP= 56.84
ADD HYD	A234SUMB	1& 2	1	23.08847	3708.74	529.315	0.42985	1.800	0.251	
COMPUTE NM HYD	A235	-	2	0.08192	194.03	7.857	1.79834	1.533	3.701	PER IMP= 55.30
ADD HYD	A235SUM	1& 2	1	23.17039	3775.20	537.172	0.43469	1.766	0.255	
*S APA17										
ROUTE MCUNGE	ABASIN	1	49	23.17039	3756.56	537.026	0.43457	1.833	0.253	CCODE = 0.1
*S**********										
*S******* END OF AMOLE BASIN										
*S**********										
*S**********										
*S******* SOUTH AMOLE BASIN										
*S**********										
COMPUTE NM HYD	SA202	-	1	0.03705	95.83	3.882	1.96478	1.533	4.041	PER IMP= 66.60
ROUTE MCUNGE	SA202Rt	1	2	0.03705	95.11	3.874	1.96028	1.567	4.011	CCODE = 0.1
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA204	-	1	0.02776	66.16	2.501	1.68909	1.533	3.724	PER IMP= 47.90
ROUTE RESERVOIR	PONDSA1	1	30	0.02776	6.49	2.501	1.68908	2.066	0.365	AC-FT= 1.754
ROUTE MCUNGE	PondSA1Rt	30	1	0.02776	6.49	2.500	1.68876	2.100	0.365	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
ADD HYD	SA203SUMA	2& 1	1	0.06481	97.85	6.374	1.84397	1.567	2.359	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	SA203	-	2	0.02384	55.23	2.035	1.60089	1.533	3.620	PER IMP= 42.00
ADD HYD	SA203SUMB	1& 2	1	0.08865	149.30	8.409	1.77859	1.567	2.631	
*S APSA1										
ROUTE MCUNGE	SA203SUMBRt	1	2	0.08865	148.74	8.407	1.77823	1.567	2.622	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA205	-	1	0.07789	154.79	6.232	1.50027	1.567	3.105	PER IMP= 38.20
ADD HYD	SA205SUM	2& 1	1	0.16654	303.53	14.640	1.64822	1.567	2.848	
*S APSA2										
ROUTE MCUNGE	SA205SUMRt	1	2	0.16654	300.99	14.637	1.64789	1.600	2.824	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA206	-	1	0.04163	101.98	3.950	1.77927	1.533	3.828	PER IMP= 54.00
ADD HYD	SA206SUM	2& 1	1	0.20817	393.55	18.587	1.67416	1.567	2.954	
ROUTE MCUNGE	SA206SUMRT	1	10	0.20817	390.58	18.587	1.67413	1.567	2.932	CCODE = 0.2
*S Increased Pipe Size to Allow Extended Storm System										
COMPUTE NM HYD	SA207	-	1	0.01910	48.84	1.962	1.92566	1.533	3.996	PER IMP= 64.00
ROUTE MCUNGE	SA207RT	1	2	0.01910	48.62	1.961	1.92477	1.533	3.977	CCODE = 0.1
COMPUTE NM HYD	SA208	-	1	0.03950	106.90	4.608	2.18735	1.533	4.229	PER IMP= 81.72
ADD HYD	SA208SUM	2& 1	1	0.05860	155.52	6.569	2.10175	1.533	4.147	
*S APSA3										
ROUTE MCUNGE	SA208SUMRT	1	2	0.05860	140.28	6.463	2.06785	1.567	3.741	CCODE = 0.2
ADD HYD	SA213SUMA	10& 2	10	0.26677	530.87	25.050	1.76061	1.567	3.109	
COMPUTE NM HYD	SA209	-	1	0.03817	98.39	4.701	2.30949	1.567	4.027	PER IMP= 90.00
ROUTE MCUNGE	SA209RT	1	2	0.03817	97.29	4.698	2.30781	1.600	3.983	CCODE = 0.1
COMPUTE NM HYD	SA210	-	1	0.05112	131.15	5.863	2.15027	1.533	4.009	PER IMP= 81.18
ADD HYD	SA210SUM	2& 1	1	0.08929	223.96	10.561	2.21761	1.567	3.919	
*S APSA4										
ROUTE MCUNGE	SA210SUMRT	1	2	0.08929	222.93	10.559	2.21722	1.567	3.901	CCODE = 0.2
COMPUTE NM HYD	SA211	-	1	0.02232	49.88	1.867	1.56858	1.533	3.492	PER IMP= 43.00
COMPUTE NM HYD	SA212	-	3	0.06692	145.65	6.184	1.73266	1.567	3.401	PER IMP= 50.85
ADD HYD	SA212SUMA	1& 3	1	0.08924	192.83	8.051	1.69161	1.533	3.376	
ADD HYD	SA212SUMB	2& 1	1	0.17853	415.11	18.610	1.95449	1.567	3.633	
*S APSA5										
ROUTE MCUNGE	SA212SUMBRT	1	2	0.17853	410.49	18.597	1.95319	1.600	3.593	CCODE = 0.2
ADD HYD	SA213SUMB	10& 2	1	0.44530	938.85	43.647	1.83782	1.567	3.294	
COMPUTE NM HYD	SA213	-	2	0.06061	136.03	5.280	1.63324	1.533	3.507	PER IMP= 46.75
ADD HYD	SA213SUMC	1& 2	1	0.50591	1068.40	48.926	1.81331	1.567	3.300	
ROUTE RESERVOIR	PONDSA2	1	30	0.50591	412.78	48.926	1.81331	1.833	1.275	AC-FT= 19.074
*S PondSA2 is undersized with the 48" RCP as an outlet.										
*S Runoff will overflow on Arenal. Added Elev. 5031' to route combined										
*S Overflow and pipe flow to Amole del Norte.										
*S Increasing Outlet in Proposed has allowed entire flow to be carried to chann										
*S Increased to Prevent Overtopping to Double-60" RCP.										
ROUTE MCUNGE	PONDSA2RT	30	10	0.50591	412.60	48.900	1.81232	1.866	1.274	CCODE = 0.1
ROUTE MCUNGE	TSBASINRT	45	1	4.97175	1656.82	475.230	1.79224	1.766	0.521	CCODE = 0.2
COMPUTE NM HYD	SA201	-	2	0.16721	309.58	16.338	1.83203	1.633	2.893	PER IMP= 58.76
ADD HYD	SA201SUM	1& 2	1	5.13896	1908.90	491.568	1.79353	1.733	0.580	
ADD HYD	SA214SUMA	10& 1	1	5.64487	2305.74	540.468	1.79522	1.733	0.638	
*S APSA6										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	SA214SUMART	1	2	5.64487	2305.74	540.468	1.79522	1.733	0.638	CCODE = 0.0
COMPUTE NM HYD	SA214	-	1	0.06684	123.59	6.676	1.87267	1.633	2.889	PER IMP= 60.86
ADD HYD	SA214SUMB	2& 1	1	5.71171	2412.64	547.143	1.79612	1.733	0.660	
ROUTE MCUNGE	SA214SUMBRT	1	2	5.71171	2412.64	547.143	1.79612	1.733	0.660	CCODE = 0.0
COMPUTE NM HYD	SA215	-	1	0.05396	112.89	5.292	1.83876	1.567	3.269	PER IMP= 59.00
ADD HYD	SA215SUM	2& 1	1	5.76567	2490.37	552.435	1.79652	1.700	0.675	
ROUTE MCUNGE	SA215SUMRT	1	2	5.76567	2490.77	552.433	1.79652	1.733	0.675	CCODE = 0.2
COMPUTE NM HYD	SA216	-	1	0.13141	263.18	12.990	1.85342	1.600	3.129	PER IMP= 59.54
ADD HYD	SA216SUM	2& 1	1	5.89708	2701.48	565.423	1.79778	1.700	0.716	
*S APSA7										
ROUTE MCUNGE	SA216SUMRT	1	20	5.89708	2697.00	565.419	1.79777	1.700	0.715	CCODE = 0.2
COMPUTE NM HYD	SA218	-	1	0.03281	78.87	3.008	1.71899	1.533	3.756	PER IMP= 50.00
COMPUTE NM HYD	SA219	-	2	0.01224	29.09	1.098	1.68139	1.533	3.714	PER IMP= 47.45
ADD HYD	SA219SUM	1& 2	1	0.04505	107.97	4.106	1.70876	1.533	3.745	
ROUTE MCUNGE	SA219SUMRT	1	2	0.04505	107.41	4.104	1.70806	1.533	3.725	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA220	-	1	0.06240	159.66	7.686	2.30948	1.567	3.998	PER IMP= 90.00
ADD HYD	SA220SUM	2& 1	1	0.10745	266.80	11.790	2.05732	1.567	3.880	
ROUTE MCUNGE	SA220SUMRT	1	2	0.10745	232.43	11.478	2.00284	1.600	3.380	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA221	-	1	0.00802	21.53	0.919	2.14876	1.533	4.195	PER IMP= 81.10
ADD HYD	SA221SUM	2& 1	1	0.11547	249.80	12.397	2.01297	1.600	3.380	
*S APSA8										
ROUTE MCUNGE	SA221SUMRT	1	2	0.11547	249.12	12.393	2.01230	1.633	3.371	CCODE = 0.2
*S Extended Storm System to Avoid Excess Street Flow										
COMPUTE NM HYD	SA222	-	1	0.05066	121.15	4.876	1.80470	1.533	3.737	PER IMP= 56.20
ADD HYD	SA222SUM	2& 1	10	0.16613	350.46	17.269	1.94899	1.600	3.296	
*S APSA9										
COMPUTE NM HYD	SA223	-	1	0.07060	171.74	6.866	1.82356	1.533	3.801	PER IMP= 57.00
ROUTE MCUNGE	SA223RT	1	2	0.07060	170.54	6.863	1.82278	1.533	3.774	CCODE = 0.2
COMPUTE NM HYD	SA224	-	1	0.01720	48.30	2.074	2.26109	1.500	4.388	PER IMP= 86.71
ADD HYD	SA224SUM	2& 1	1	0.08780	218.79	8.937	1.90863	1.533	3.894	
COMPUTE NM HYD	SA225	-	2	0.02910	75.31	3.052	1.96638	1.533	4.044	PER IMP= 66.70
ADD HYD	SA225SUM	1& 2	1	0.11690	294.10	11.989	1.92300	1.533	3.931	
*S APSA10										
ROUTE MCUNGE	SA225SUMRT	1	2	0.11690	294.10	11.989	1.92300	1.533	3.931	CCODE = 0.0
ADD HYD	SA226SUMA	10& 2	1	0.28303	628.13	29.258	1.93825	1.567	3.468	
*S APSA11										
COMPUTE NM HYD	SA226	-	2	0.06223	154.48	6.052	1.82356	1.533	3.879	PER IMP= 57.00
ADD HYD	SA226SUMB	1& 2	1	0.34526	774.84	35.310	1.91758	1.533	3.507	
ROUTE RESERVOIR	PONDSA3	1	30	0.34526	342.02	35.310	1.91758	1.800	1.548	AC-FT= 12.919
*S Pond is adequate or close to adequate.										
*S Added elevation 5052'										
ROUTE MCUNGE	PONDSA3RT	30	1	0.34526	341.99	35.309	1.91754	1.833	1.548	CCODE = 0.2
*S Increased to Prevent Overtopping to Double-48" RCP.										
*S Also redirected to avoid extending into residents backyards by										
*S running storm drain South down Unser Blvd to Amole Arroyo.										
ADD HYD	SA217SUMA	20& 1	1	6.24234	3026.51	600.729	1.80440	1.733	0.758	

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COMPUTE NM HYD	SA217	-	2	0.12026	230.86	11.964	1.86526	1.633	2.999	PER IMP= 59.90
ADD HYD	SA217SUMB	1& 2	1	6.36260	3229.88	612.692	1.80555	1.700	0.793	
*S APSA12										
ROUTE MCUNGE	SA217SUMBRT	1	2	6.36260	3223.15	612.689	1.80554	1.733	0.792	CCODE = 0.2
COMPUTE NM HYD	SA227.1	-	1	0.08008	170.52	7.337	1.71788	1.567	3.327	PER IMP= 49.90
ADD HYD	SA227.1SUMA	2& 1	1	6.44268	3336.58	620.026	1.80445	1.700	0.809	
ROUTE MCUNGE	SA227.1SUMRT	1	2	6.44268	3330.81	620.024	1.80444	1.733	0.808	CCODE = 0.2
ADD HYD	SA227.1SUMB	49& 2	1	29.61307	6918.41	1157.052	0.73261	1.800	0.365	
COMPUTE NM HYD	SA227.2	-	2	0.12451	237.70	8.173	1.23078	1.533	2.983	PER IMP= 24.58
ADD HYD	SABASIN	1& 2	80	29.73758	6980.37	1165.224	0.73469	1.800	0.367	
*S APSA13										
*S**********	END OF SOUTH AMOLE BASIN									
*S										
*s **********	AMOLE POND	**********								
*S										
ROUTE RESERVOIR	AMOLEPOND	80	60	29.73758	1345.62	910.917	0.57435	3.366	0.071	AC-FT= 505.154
DIVIDE HYD	AMOLEPRIME	60	93	11.16738	34.00	342.050	0.57430	3.000	0.005	
	AMOLESPILL	and	94	18.57020	1311.62	568.794	0.57430	3.366	0.110	
*S**********	SOUTH POWERLINE BASIN									
COMPUTE NM HYD	SP201	-	1	0.13557	276.54	10.520	1.45501	1.533	3.187	PER IMP= 36.10
ROUTE RESERVOIR	PondSP1	1	30	0.13557	79.28	10.520	1.45500	1.833	0.914	AC-FT= 4.870
ROUTE MCUNGE	PondSP1Rt	30	1	0.13557	76.98	10.296	1.42405	2.200	0.887	CCODE = 0.2
COMPUTE NM HYD	SP202	-	2	0.22512	426.51	16.350	1.36178	1.533	2.960	PER IMP= 30.40
ADD HYD	SP202SUM	1& 2	1	0.36069	456.59	26.646	1.38518	1.567	1.978	
ROUTE RESERVOIR	PondSP2	1	30	0.36069	220.75	26.646	1.38518	1.766	0.956	AC-FT= 6.378
ROUTE MCUNGE	PondSP2Rt	30	1	0.36069	220.78	26.646	1.38517	1.800	0.956	CCODE = 0.2
COMPUTE NM HYD	SP203	-	2	0.00770	18.46	0.700	1.70546	1.533	3.745	PER IMP= 49.00
ADD HYD	SP203SUM	1& 2	1	0.36839	226.62	27.347	1.39186	1.766	0.961	
ROUTE MCUNGE	SP203SUMRt	1	2	0.36839	226.62	27.347	1.39186	1.766	0.961	CCODE = 0.0
COMPUTE NM HYD	SP204	-	1	0.13615	229.69	8.662	1.19294	1.567	2.636	PER IMP= 22.50
ADD HYD	SP204SUM	2& 1	1	0.50454	418.20	36.009	1.33818	1.600	1.295	
ROUTE RESERVOIR	PondSP4	1	30	0.50454	252.17	36.009	1.33818	1.966	0.781	AC-FT= 6.535
ROUTE MCUNGE	PondSP4Rt	30	1	0.50454	252.19	36.008	1.33817	1.966	0.781	CCODE = 0.2
COMPUTE NM HYD	SP205	-	2	0.03658	85.16	3.293	1.68780	1.533	3.638	PER IMP= 48.20
ADD HYD	SP205SUM	1& 2	1	0.54112	271.30	39.301	1.36180	1.700	0.783	
ROUTE RESERVOIR	PondSP5	1	30	0.54112	232.58	39.301	1.36180	2.400	0.672	AC-FT= 5.504
ROUTE MCUNGE	PondSP5Rt	30	1	0.54112	232.57	39.301	1.36178	2.400	0.672	CCODE = 0.2
COMPUTE NM HYD	SP206	-	2	0.05864	113.68	4.350	1.39105	1.533	3.029	PER IMP= 33.90
ADD HYD	SP206SUM	1& 2	1	0.59976	238.46	43.651	1.36464	2.333	0.621	
ROUTE RESERVOIR	PondSP6	1	30	0.59976	228.13	43.651	1.36464	2.700	0.594	AC-FT= 4.069
ROUTE MCUNGE	SPBASIN	30	1	0.59976	228.13	43.651	1.36463	2.700	0.594	CCODE = 0.2
COMPUTE NM HYD	SP207	-	2	0.18178	249.67	8.627	0.88984	1.567	2.146	PER IMP= 8.20
ADD HYD	SP207SUM	1& 2	1	0.78154	382.89	52.278	1.25420	1.600	0.766	
ROUTE RESERVOIR	PondSP7	1	30	0.78154	316.97	48.767	1.16998	1.733	0.634	AC-FT= 7.825

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ROUTE MCUNGE	PONDSP7RT	30	1	0.78154	316.97	48.767	1.16998	1.733	0.634	CCODE = 0.0
COMPUTE NM HYD	SP208	-	2	0.13653	158.63	5.326	0.73143	1.567	1.815	PER IMP= 1.70
ADD HYD	SP208SUM	1& 2	1	0.91807	402.64	54.093	1.10476	1.733	0.685	
ROUTE RESERVOIR	PondSP8	1	30	0.91807	198.61	54.030	1.10347	3.333	0.338	AC-FT= 15.750
ROUTE MCUNGE	PONDSP8RT	30	1	0.91807	198.26	53.978	1.10241	3.400	0.337	CCODE = 0.2
COMPUTE NM HYD	SP209	-	2	0.12305	140.02	4.707	0.71720	1.567	1.778	PER IMP= 0.00
ADD HYD	SP209SUM	2& 1	41	1.04112	199.56	58.685	1.05688	3.366	0.300	
*S APSP1										
*S**********										
*S**********	END OF SOUTH POWERLINE BASIN									
*S**********										
*S**********										
*S**********	BORREGA BASIN									
*S**********										
COMPUTE NM HYD	B201	-	1	0.18234	205.48	7.629	0.78445	1.600	1.761	PER IMP= 0.00
ROUTE MCUNGE	B201RT	1	2	0.18234	203.25	7.620	0.78352	1.667	1.742	CCODE = 0.2
COMPUTE NM HYD	B202	-	1	0.22493	304.29	9.163	0.76386	1.533	2.114	PER IMP= 0.00
ADD HYD	B202SUM	2& 1	1	0.40727	467.76	16.783	0.77266	1.600	1.795	
ROUTE MCUNGE	B202SUMRT	1	2	0.40727	466.59	16.774	0.77226	1.600	1.790	CCODE = 0.2
COMPUTE NM HYD	B203.1	-	1	0.11117	144.97	4.336	0.73133	1.533	2.037	PER IMP= 0.00
ADD HYD	B203.1SUM	2& 1	1	0.51844	595.61	21.110	0.76348	1.600	1.795	
ROUTE MCUNGE	B203.1SUMRT	1	2	0.51844	595.61	21.110	0.76348	1.600	1.795	CCODE = 0.0
COMPUTE NM HYD	B203.2	-	1	0.02067	34.05	1.160	1.05217	1.533	2.574	PER IMP= 18.20
ADD HYD	B203.2SUM	2& 1	1	0.53911	624.13	22.270	0.77455	1.600	1.809	
*S APB1										
ROUTE MCUNGE	B203.2SUMRT	1	10	0.53911	616.49	22.234	0.77330	1.633	1.787	CCODE = 0.2
COMPUTE NM HYD	B204	-	1	0.23622	339.36	9.813	0.77894	1.533	2.245	PER IMP= 0.00
ROUTE MCUNGE	NE204RT	1	2	0.23622	329.90	9.789	0.77700	1.667	2.182	CCODE = 0.2
COMPUTE NM HYD	B205	-	1	0.10595	116.11	3.857	0.68261	1.567	1.712	PER IMP= 0.00
ADD HYD	B205SUM	2& 1	1	0.34217	425.51	13.646	0.74777	1.633	1.943	
*S APB2										
ROUTE RESERVOIR	PondB1	1	30	0.34217	185.31	13.646	0.74777	1.866	0.846	AC-FT= 5.985
ROUTE MCUNGE	RB205SUMRT	30	1	0.34217	185.26	13.643	0.74760	1.866	0.846	CCODE = 0.2
ADD HYD	B206SUMA	10& 1	1	0.88128	708.02	35.877	0.76332	1.667	1.255	
COMPUTE NM HYD	B206	-	2	0.02796	70.27	2.783	1.86661	1.533	3.927	PER IMP= 60.00
ADD HYD	B206SUMB	1& 2	1	0.90924	748.05	38.661	0.79725	1.667	1.285	
ROUTE MCUNGE	B206SUMRT	1	2	0.90924	746.12	38.613	0.79627	1.700	1.282	CCODE = 0.1
COMPUTE NM HYD	B207	-	1	0.08667	185.81	7.946	1.71899	1.567	3.350	PER IMP= 50.00
ROUTE MCUNGE	RB207RT	1	3	0.08667	183.95	7.937	1.71718	1.600	3.316	CCODE = 0.2
COMPUTE NM HYD	B208	-	1	0.07574	169.36	6.849	1.69550	1.533	3.494	PER IMP= 48.50
ADD HYD	B208SUM	3& 1	1	0.16241	342.64	14.786	1.70707	1.567	3.296	
ADD HYD	B209SUMA	2& 1	1	1.07165	1009.62	53.400	0.93430	1.667	1.472	
COMPUTE NM HYD	B209	-	2	0.05388	115.31	4.215	1.46683	1.533	3.344	PER IMP= 37.10
ADD HYD	B209SUMB	1& 2	1	1.12553	1077.07	57.615	0.95979	1.633	1.495	
*S APB3										
ROUTE MCUNGE	B209SUMBRT	1	2	1.12553	1065.65	57.559	0.95886	1.766	1.479	CCODE = 0.1
COMPUTE NM HYD	B211.1	-	1	0.06114	146.43	5.561	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	B211.1SUM	1& 2	1	1.18667	1117.05	63.120	0.99732	1.733	1.471	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	B211.1SUMRT	1	2	1.18667	1116.05	63.108	0.99714	1.766	1.470	CCODE = 0.1
COMPUTE NM HYD	B210	-	1	0.09574	206.58	8.708	1.70546	1.567	3.371	PER IMP= 49.00
ADD HYD	B211.2SUMA	2& 1	1	1.28241	1210.22	71.816	1.05002	1.766	1.475	
ROUTE MCUNGE	B211.2SUMART	1	2	1.28241	1208.72	71.813	1.04998	1.800	1.473	CCODE = 0.2
COMPUTE NM HYD	B211.2	-	1	0.03788	85.41	3.445	1.70546	1.533	3.523	PER IMP= 49.00
ADD HYD	B211.2SUMB	2& 1	10	1.32029	1237.50	75.259	1.06878	1.800	1.465	
COMPUTE NM HYD	B213.1	-	1	0.06111	143.54	5.567	1.70816	1.533	3.670	PER IMP= 49.20
ROUTE MCUNGE	B213.1RT	1	2	0.06111	142.33	5.567	1.70797	1.533	3.639	CCODE = 0.2
COMPUTE NM HYD	B213.2	-	1	0.01461	35.00	1.329	1.70546	1.533	3.744	PER IMP= 49.00
ADD HYD	B213.2SUM	2& 1	1	0.07572	177.34	6.895	1.70747	1.533	3.659	
ROUTE MCUNGE	B213.2SUMRT	1	2	0.07572	170.47	6.857	1.69799	1.700	3.518	CCODE = 0.1
COMPUTE NM HYD	B213.3	-	1	0.06698	155.41	6.092	1.70546	1.533	3.625	PER IMP= 49.00
ADD HYD	B215SUM	2& 1	1	0.14270	258.99	12.949	1.70149	1.667	2.836	
ROUTE MCUNGE	B213.3SUMRT	1	2	0.14270	256.89	12.947	1.70121	1.700	2.813	CCODE = 0.2
COMPUTE NM HYD	B213.1	-	1	0.02317	55.50	2.107	1.70546	1.533	3.743	PER IMP= 49.00
ROUTE MCUNGE	B213.4RT	1	3	0.02317	52.87	2.091	1.69212	1.733	3.565	CCODE = 0.1
ADD HYD	B213.5SUMA	2& 3	1	0.16587	308.43	15.038	1.69993	1.733	2.905	
COMPUTE NM HYD	B213.5	-	2	0.07883	172.15	7.170	1.70546	1.567	3.412	PER IMP= 49.00
ADD HYD	B213.5SUMB	1& 2	1	0.24470	412.13	22.208	1.70171	1.700	2.632	
ROUTE MCUNGE	B213.5SUMBRT	1	2	0.24470	409.63	22.206	1.70154	1.733	2.616	CCODE = 0.2
COMPUTE NM HYD	B213.6	-	1	0.05793	138.74	5.269	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	B213.6SUMB	2& 1	1	0.30263	492.54	27.475	1.70229	1.600	2.543	
ADD HYD	B213.6SUMC	10& 1	1	1.62292	1646.44	102.734	1.18691	1.766	1.585	
*S APB4										
ROUTE MCUNGE	B213.6SUMCRT	1	10	1.62292	1633.18	102.709	1.18662	1.833	1.572	CCODE = 0.1
COMPUTE NM HYD	B211.3	-	1	0.04871	92.71	3.498	1.34663	1.533	2.974	PER IMP= 31.40
ROUTE MCUNGE	B211.3RT	1	2	0.04871	92.30	3.498	1.34646	1.633	2.961	CCODE = 0.2
COMPUTE NM HYD	B211.4	-	1	0.17820	322.23	13.693	1.44074	1.567	2.825	PER IMP= 37.00
ADD HYD	BB211.4SUM	2& 1	1	0.22691	396.77	17.191	1.42050	1.600	2.732	
ROUTE MCUNGE	B211.4SUMRT	1	2	0.22691	390.80	17.181	1.41970	1.667	2.691	CCODE = 0.2
COMPUTE NM HYD	B211.5	-	1	0.04923	117.91	4.478	1.70546	1.533	3.742	PER IMP= 49.00
ADD HYD	B211.5SUM	2& 1	1	0.27614	458.16	21.659	1.47064	1.667	2.592	
ADD HYD	B212SUMA	10& 1	1	1.89906	1941.86	124.367	1.22792	1.800	1.598	
COMPUTE NM HYD	B212	-	2	0.08048	151.47	5.366	1.25021	1.533	2.941	PER IMP= 27.37
ADD HYD	B212SUMB	1& 2	1	1.97954	1983.07	129.734	1.22882	1.800	1.565	
*S										
*S **********	BORREGA DETENTION DAM			**********						
*S										
ROUTE RESERVOIR	PONDBOR	1	30	1.97954	189.34	128.776	1.21975	2.766	0.149	AC-FT= 96.177
ROUTE MCUNGE	BBASIN	30	61	1.97954	189.34	128.774	1.21974	2.800	0.149	CCODE = 0.2
*S**********										
*S**********	END OF BORREGA BASIN									
*S**********										
*S**********										
*S**********	RIO BRAVO BASIN									
*S**********										
COMPUTE NM HYD	RB201	-	1	0.13686	208.11	8.679	1.18900	1.633	2.376	PER IMP= 5.60
ROUTE MCUNGE	RB201RT	1	2	0.13686	207.00	8.677	1.18875	1.667	2.363	CCODE = 0.2

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	RB202	-	1	0.13037	281.52	12.159	1.74869	1.567	3.374	PER IMP= 53.05
ADD HYD	RB202SUM	2& 1	1	0.26723	464.27	20.836	1.46192	1.600	2.715	
ROUTE RESERVOIR	PondRB1	1	30	0.26723	73.98	20.836	1.46191	2.100	0.433	AC-FT= 13.680
ROUTE MCUNGE	PondRB1RT	30	10	0.26723	71.89	20.689	1.45166	2.666	0.420	CCODE = 0.2
ROUTE MCUNGE	SPBASINRT	41	1	1.04112	199.57	58.689	1.05696	3.400	0.300	CCODE = 0.2
COMPUTE NM HYD	RB203	-	2	0.04593	130.48	5.643	2.30358	1.500	4.439	PER IMP= 89.60
ADD HYD	RB203SUM	1& 2	1	1.08705	261.66	64.332	1.10963	1.567	0.376	
ROUTE MCUNGE	RB203SUMRT	1	2	1.08705	260.15	64.325	1.10950	1.600	0.374	CCODE = 0.1
COMPUTE NM HYD	RB204	-	1	0.11728	235.03	9.263	1.48095	1.567	3.131	PER IMP= 31.37
ADD HYD	RB204SUM	2& 1	1	1.20433	487.97	73.588	1.14568	1.567	0.633	
*S APRB1										
ROUTE MCUNGE	RB204SUMRT	1	2	1.20433	485.84	73.552	1.14512	1.667	0.630	CCODE = 0.1
ADD HYD	RB204SUM	10& 2	1	1.47156	516.89	94.241	1.20078	1.667	0.549	
COMPUTE NM HYD	RB205.1	-	2	0.10519	209.87	9.031	1.60975	1.567	3.117	PER IMP= 42.60
ADD HYD	RB205.1SUMA	1& 2	1	1.57675	688.00	103.272	1.22807	1.667	0.682	
*S APRB2										
ROUTE MCUNGE	RB205.1SUMBR	1	2	1.57675	681.90	103.220	1.22744	1.766	0.676	CCODE = 0.1
COMPUTE NM HYD	RB106	-	1	0.06997	173.51	6.797	1.82146	1.533	3.875	PER IMP= 56.90
ROUTE MCUNGE	RB206.1SUMRT	1	3	0.06997	165.10	6.748	1.80839	1.600	3.687	CCODE = 0.2
ADD HYD	RB205.1SUMA	2& 3	1	1.64672	750.94	109.968	1.25213	1.766	0.713	
COMPUTE NM HYD	RB206.2	-	2	0.12568	282.64	11.995	1.78948	1.533	3.514	PER IMP= 54.70
ADD HYD	RB206.2SUMA	1& 2	1	1.77240	873.11	121.963	1.29023	1.766	0.770	
*S APRB3										
COMPUTE NM HYD	RB207.1	-	2	0.06566	150.52	6.743	1.92566	1.567	3.582	PER IMP= 64.00
ADD HYD	RB207.1SUM	1& 2	1	1.83806	957.23	128.706	1.31293	1.733	0.814	
*S APRB4										
ROUTE MCUNGE	RB207.1SUMRt	1	10	1.83806	953.63	128.675	1.31261	1.800	0.811	CCODE = 0.1
ROUTE MCUNGE	AMOLEDAMRt	94	1	18.57020	1311.74	568.799	0.57431	3.400	0.110	CCODE = 0.2
COMPUTE NM HYD	RB208	-	2	0.16716	220.47	12.253	1.37442	1.667	2.061	PER IMP= 35.90
ADD HYD	RB208SUM	1& 2	1	18.73736	1316.76	581.052	0.58144	3.400	0.110	
ROUTE MCUNGE	RB208SUMRt	1	2	18.73736	1316.33	581.126	0.58152	3.400	0.110	CCODE = 0.2
ADD HYD	RB209.1SUMB	10& 2	1	20.57542	1587.70	709.801	0.64683	3.400	0.121	
COMPUTE NM HYD	RB209.1	-	2	0.06158	90.63	3.845	1.17070	1.600	2.300	PER IMP= 18.72
ADD HYD	RB109SUMA	1& 2	1	20.63700	1588.75	713.646	0.64839	3.400	0.120	
ROUTE MCUNGE	RB209.1SUMRT	1	10	20.63700	1588.75	713.646	0.64839	3.400	0.120	CCODE = 0.0
COMPUTE NM HYD	RB205.2	-	1	0.01722	35.13	1.574	1.71358	1.567	3.187	PER IMP= 49.60
ROUTE MCUNGE	RB205.2RT	1	2	0.01722	32.36	1.553	1.69138	1.833	2.937	CCODE = 0.1
COMPUTE NM HYD	RB206.3	-	1	0.01237	28.70	1.125	1.70546	1.533	3.625	PER IMP= 49.00
ADD HYD	RB206.3SUM	2& 1	1	0.02959	40.17	2.678	1.69724	1.800	2.121	
ROUTE MCUNGE	RB206.3SUMRT	1	2	0.02959	40.14	2.678	1.69705	1.833	2.120	CCODE = 0.2
COMPUTE NM HYD	RB207.2	-	1	0.00378	9.07	0.344	1.70546	1.533	3.749	PER IMP= 49.00
ADD HYD	RB207.2SUM	2& 1	1	0.03337	42.28	3.022	1.69798	1.833	1.980	
COMPUTE NM HYD	RB211	-	2	0.04777	112.01	4.345	1.70546	1.533	3.664	PER IMP= 49.00
ADD HYD	RB211SUMA	1& 2	1	0.08114	150.04	7.367	1.70238	1.533	2.889	
ROUTE MCUNGE	RB211SUMART	1	2	0.08114	149.04	7.364	1.70165	1.600	2.870	CCODE = 0.2
ADD HYD	RB209SUMA	10& 2	1	20.71814	1590.33	721.009	0.65252	3.400	0.120	
COMPUTE NM HYD	RB209.2	-	2	0.01087	21.94	0.768	1.32391	1.533	3.154	PER IMP= 28.30
ADD HYD	RB209.2SUM	1& 2	1	20.72901	1590.41	721.777	0.65287	3.400	0.120	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	RB212	-	2	0.29207	414.32	21.068	1.35252	1.633	2.216	PER IMP= 31.10
ADD HYD	RB212SUMA	61& 2	2	2.27161	417.63	149.842	1.23681	1.633	0.287	
ADD HYD	RB212SUMB	1& 2	1	23.00062	1785.24	871.619	0.71054	3.400	0.121	
*S**********										
*S**********	END OF RIO BRAVO BASIN									
*S**********										
*S										
*s **********	HUBBELL LAKE DETENTION BASIN				**********					
*S										
ROUTE RESERVOIR	HUBBELLDAM	1	99	23.00062	385.77	745.039	0.60735	8.799	0.026	AC-FT= 480.156
DIVIDE HYD	HUBBELLPRIME	99	1	14.70713	55.00	476.361	0.60731	8.599	0.006	
	HUBBELLSPILL	and	94	8.29349	330.77	268.624	0.60731	8.799	0.062	
FINISH										

APPENDIX E

Hydraflow Express Capacity Calculations:
Street Capacity Calculations
Pond Outlet Structure Capacity Calculations

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Don Juan / Via Dona Josefa - South / East Halfs

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 2.61
N-Value	= 0.016

Calculations

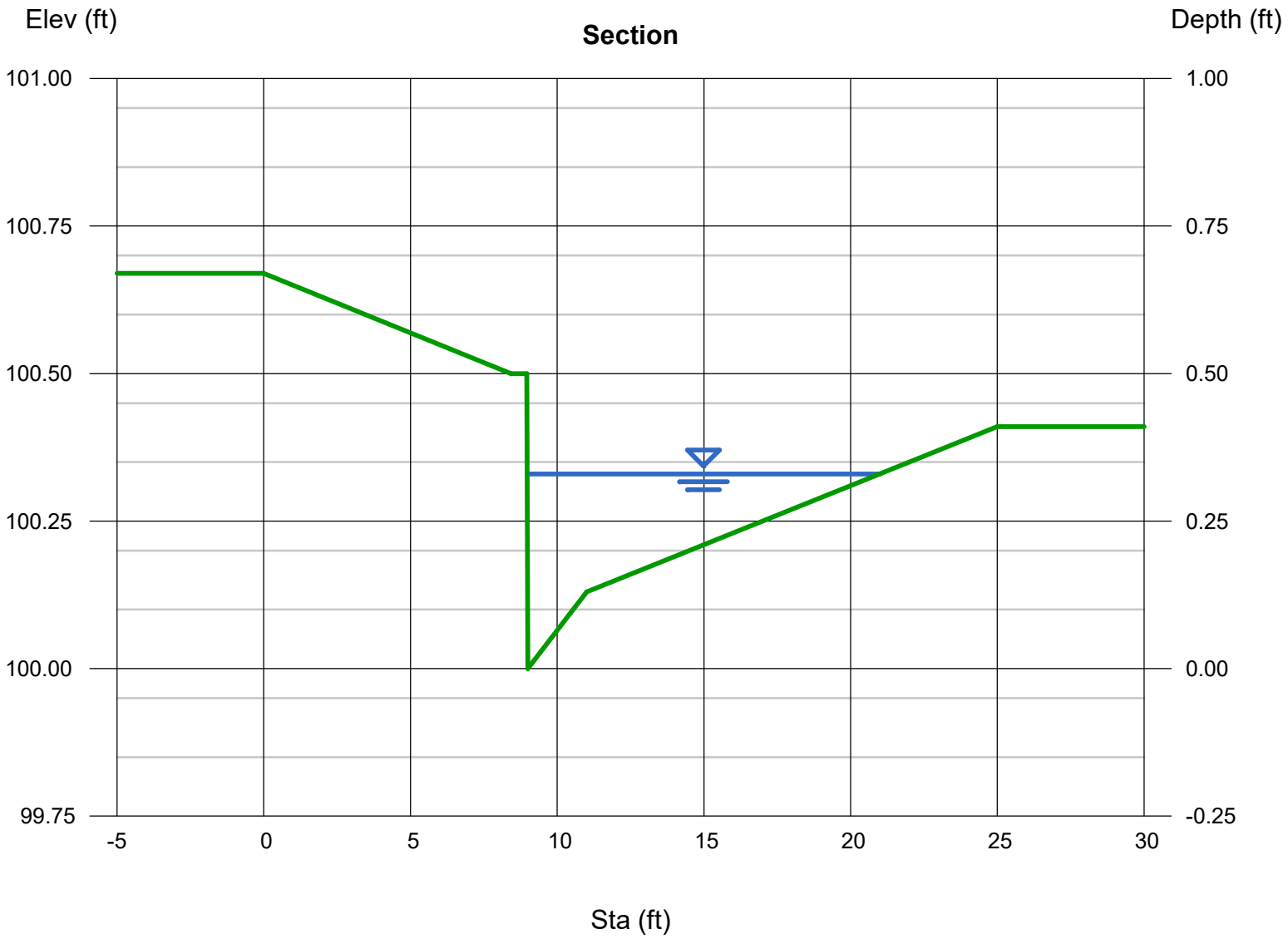
Compute by:	Known Q
Known Q (cfs)	= 5.58

Highlighted

Depth (ft)	= 0.33
Q (cfs)	= 5.580
Area (sqft)	= 1.53
Velocity (ft/s)	= 3.64
Wetted Perim (ft)	= 12.34
Crit Depth, Yc (ft)	= 0.40
Top Width (ft)	= 12.03
EGL (ft)	= 0.54

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Don Juan / Via Dona Josefa - North / West Halfs

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 2.61
N-Value	= 0.016

Calculations

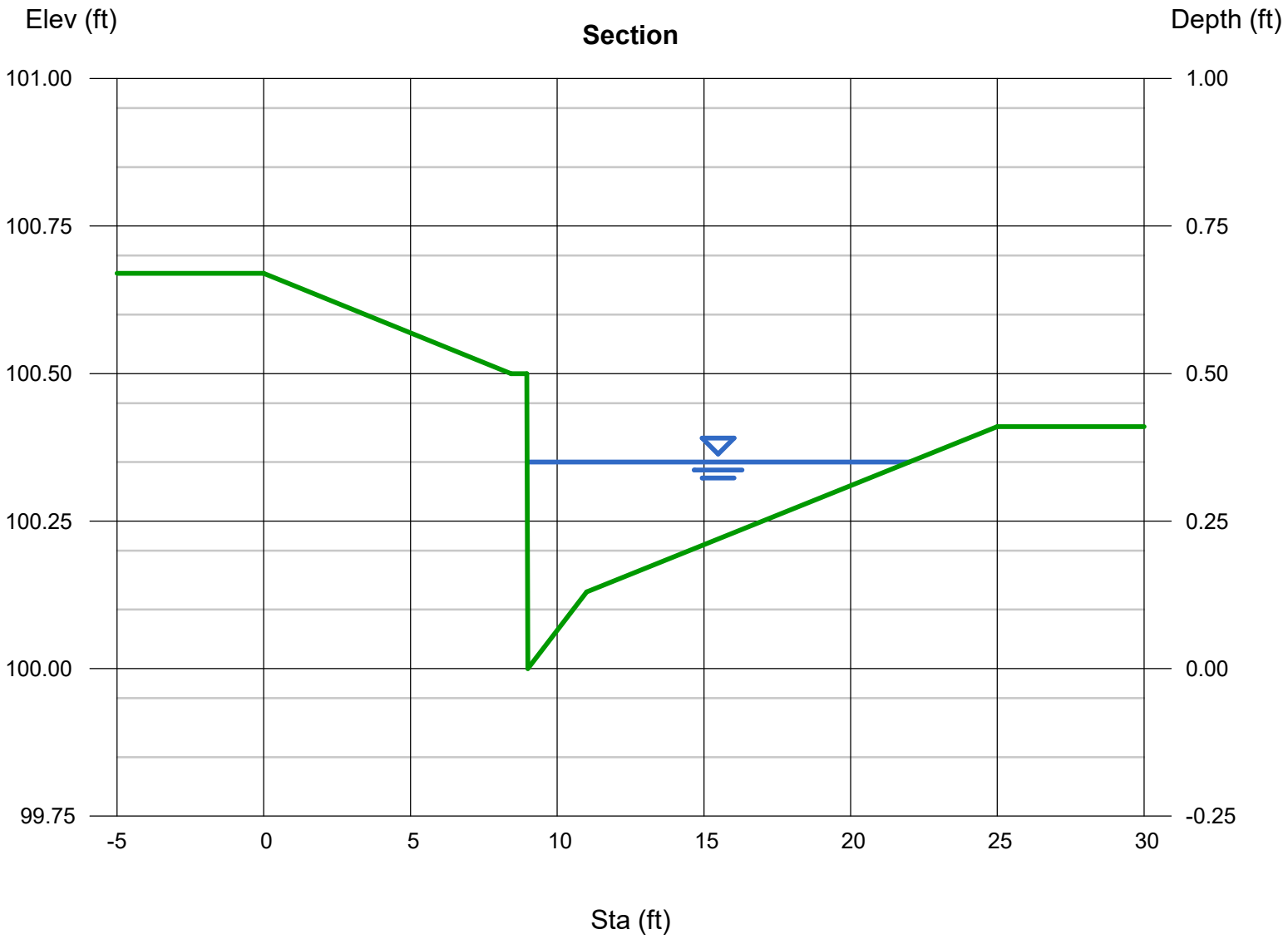
Compute by:	Known Q
Known Q (cfs)	= 6.61

Highlighted

Depth (ft)	= 0.35
Q (cfs)	= 6.610
Area (sqft)	= 1.78
Velocity (ft/s)	= 3.70
Wetted Perim (ft)	= 13.36
Crit Depth, Yc (ft)	= 0.42
Top Width (ft)	= 13.03
EGL (ft)	= 0.56

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Don Pedro - East Half, Up Strm of Via Sereno

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 2.84
N-Value	= 0.016

Calculations

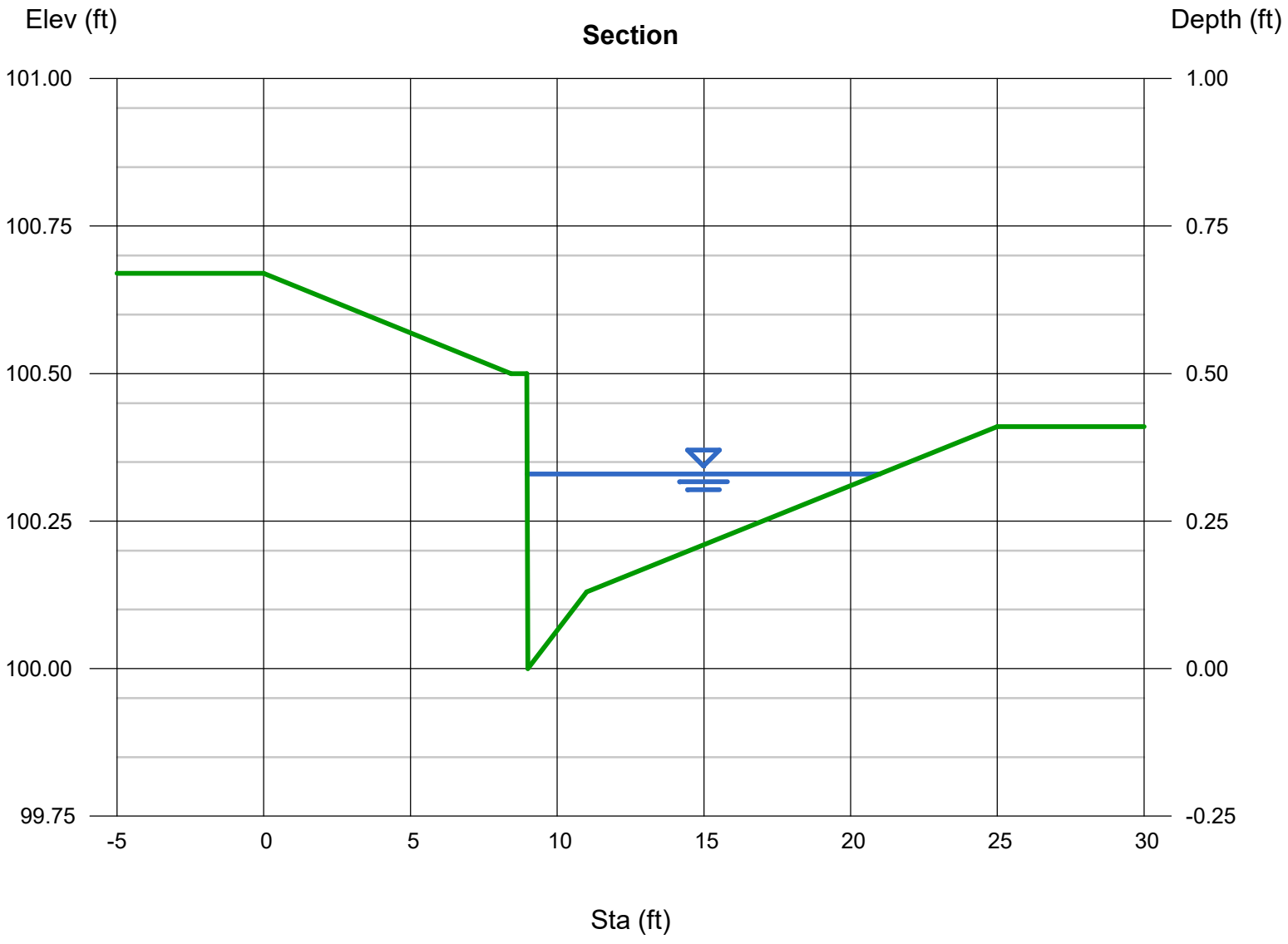
Compute by:	Known Q
Known Q (cfs)	= 5.78

Highlighted

Depth (ft)	= 0.33
Q (cfs)	= 5.780
Area (sqft)	= 1.53
Velocity (ft/s)	= 3.77
Wetted Perim (ft)	= 12.34
Crit Depth, Yc (ft)	= 0.41
Top Width (ft)	= 12.03
EGL (ft)	= 0.55

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Don Pedro - West Half, Up Strm of Via Sereno

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 2.84
N-Value	= 0.016

Calculations

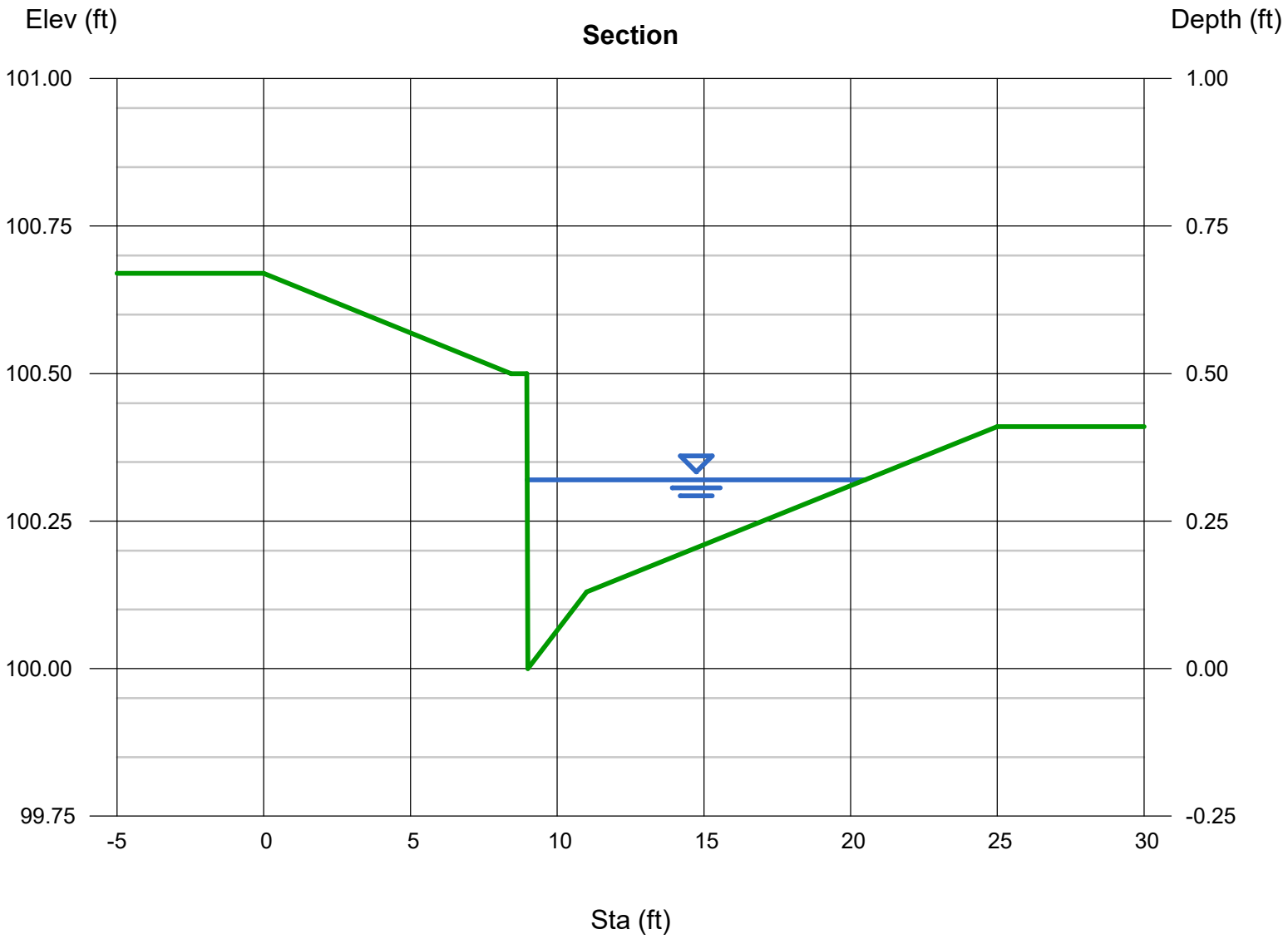
Compute by:	Known Q
Known Q (cfs)	= 4.94

Highlighted

Depth (ft)	= 0.32
Q (cfs)	= 4.940
Area (sqft)	= 1.42
Velocity (ft/s)	= 3.49
Wetted Perim (ft)	= 11.83
Crit Depth, Yc (ft)	= 0.39
Top Width (ft)	= 11.53
EGL (ft)	= 0.51

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Don Pedro - East Half D.S. of Via Sereno

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 1.21
N-Value	= 0.016

Calculations

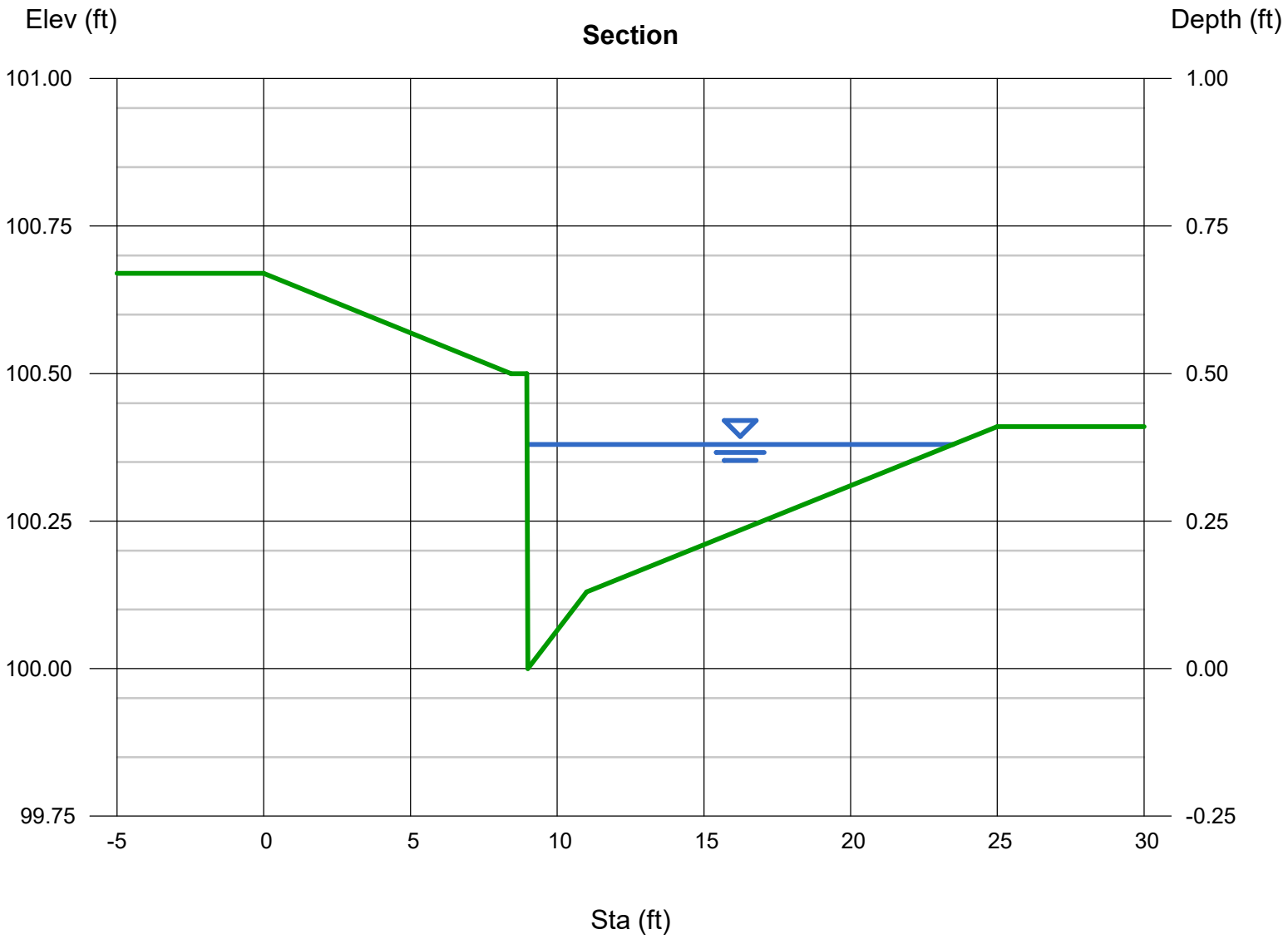
Compute by:	Known Q
Known Q (cfs)	= 5.78

Highlighted

Depth (ft)	= 0.38
Q (cfs)	= 5.780
Area (sqft)	= 2.20
Velocity (ft/s)	= 2.63
Wetted Perim (ft)	= 14.89
Crit Depth, Yc (ft)	= 0.41
Top Width (ft)	= 14.53
EGL (ft)	= 0.49

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Don Pedro - West Half D.S. of Via Sereno

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 1.21
N-Value	= 0.016

Calculations

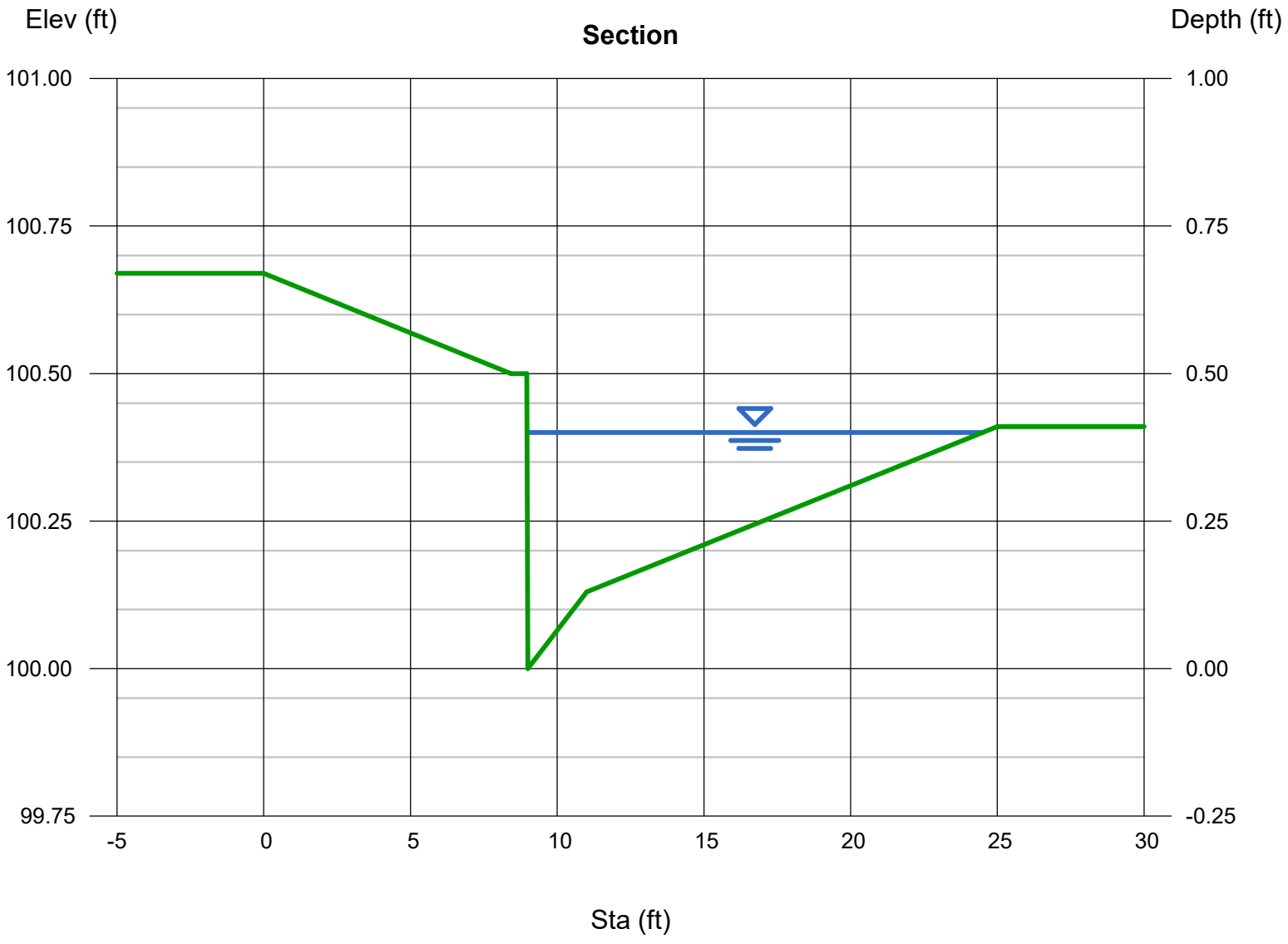
Compute by:	Known Q
Known Q (cfs)	= 7.00

Highlighted

Depth (ft)	= 0.40
Q (cfs)	= 7.000
Area (sqft)	= 2.50
Velocity (ft/s)	= 2.80
Wetted Perim (ft)	= 15.91
Crit Depth, Yc (ft)	= 0.43
Top Width (ft)	= 15.53
EGL (ft)	= 0.52

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Sereno - N Half

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 4.04
N-Value	= 0.013

Calculations

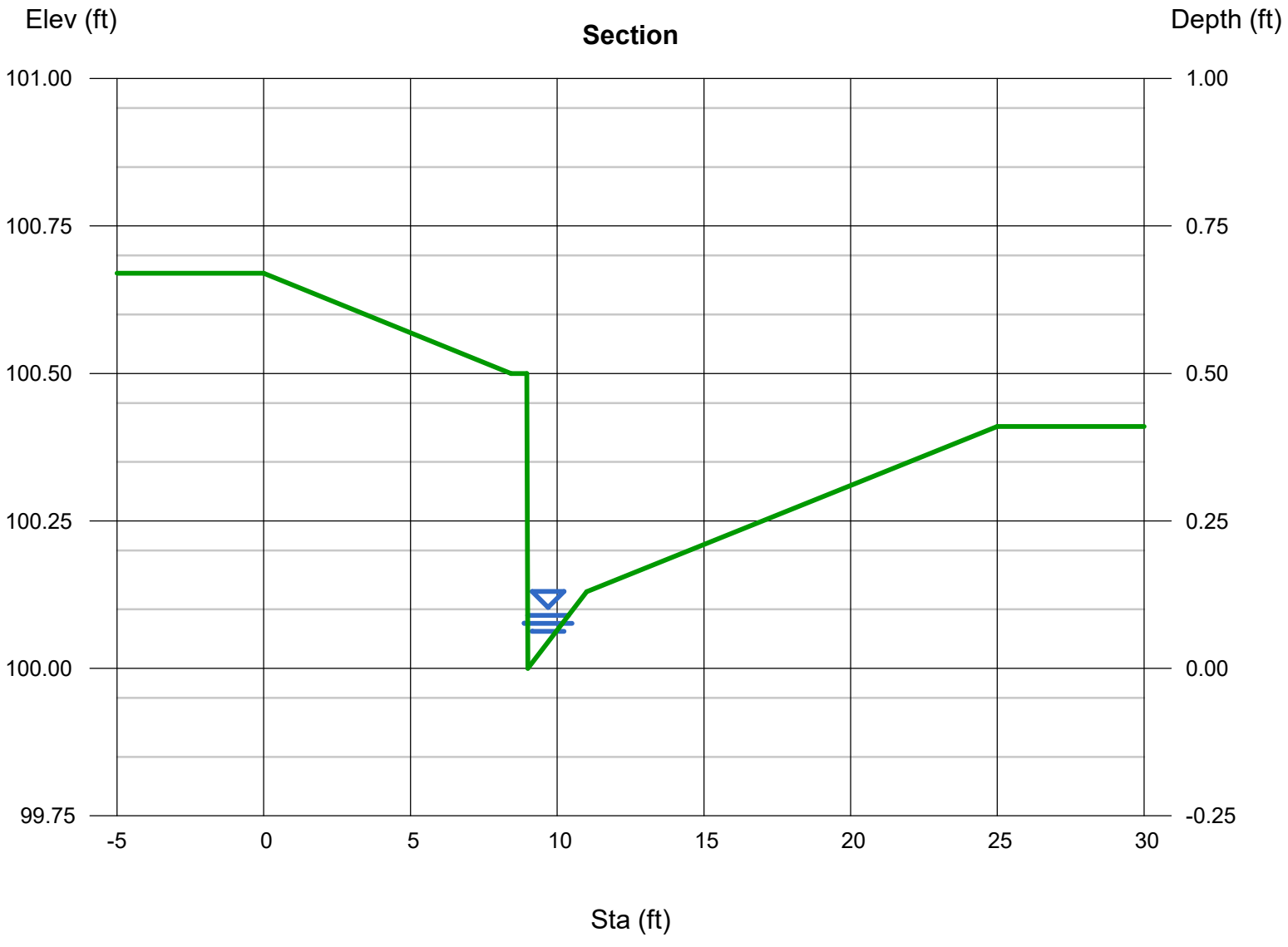
Compute by:	Known Q
Known Q (cfs)	= 0.16

Highlighted

Depth (ft)	= 0.09
Q (cfs)	= 0.160
Area (sqft)	= 0.06
Velocity (ft/s)	= 2.55
Wetted Perim (ft)	= 1.48
Crit Depth, Yc (ft)	= 0.13
Top Width (ft)	= 1.39
EGL (ft)	= 0.19

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Sereno - S Half

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 4.04
N-Value	= 0.013

Calculations

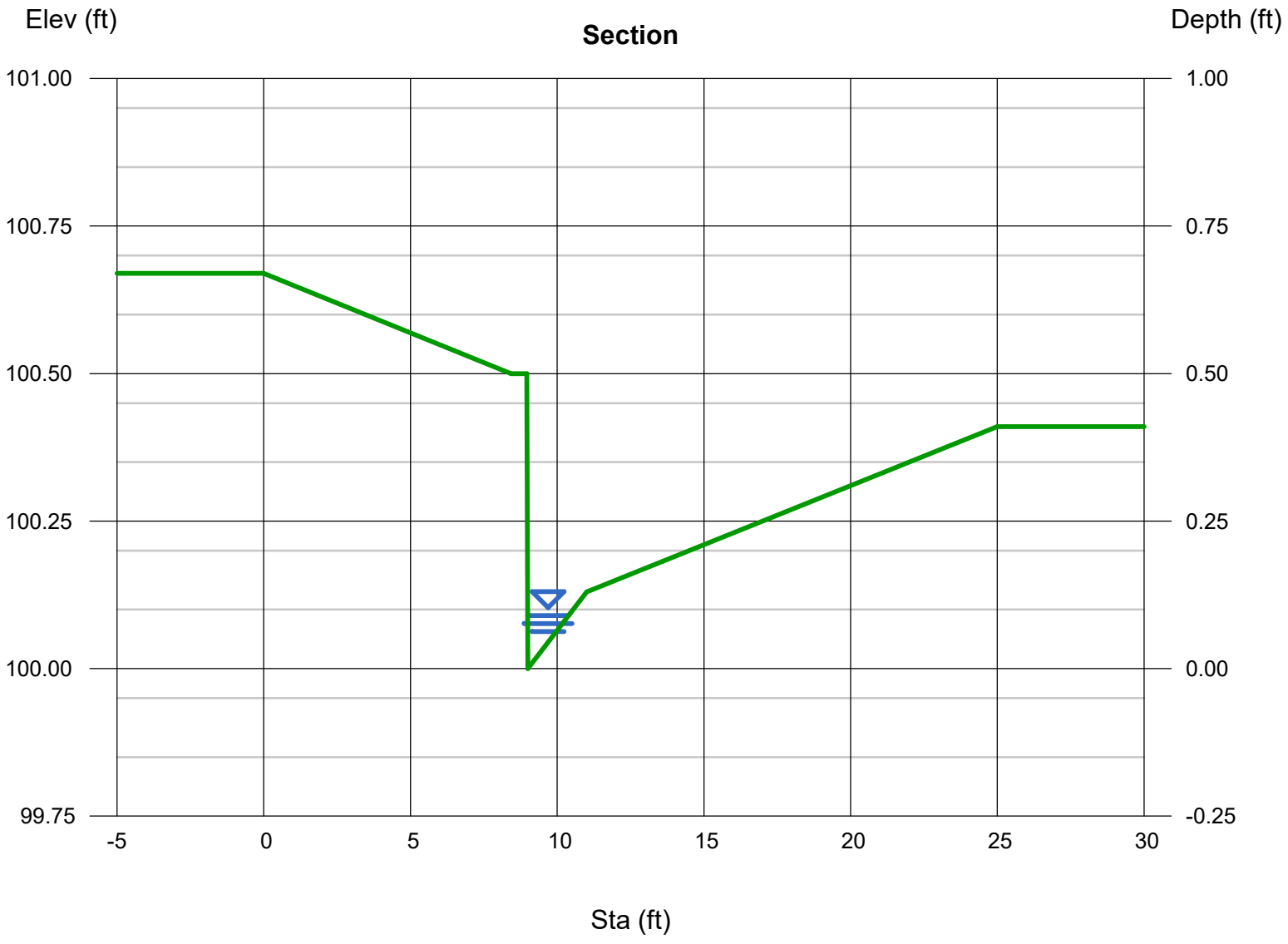
Compute by:	Known Q
Known Q (cfs)	= 0.16

Highlighted

Depth (ft)	= 0.09
Q (cfs)	= 0.160
Area (sqft)	= 0.06
Velocity (ft/s)	= 2.55
Wetted Perim (ft)	= 1.48
Crit Depth, Yc (ft)	= 0.13
Top Width (ft)	= 1.39
EGL (ft)	= 0.19

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Dona Maria - N Half, Up Strm of Via Don Pedro

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 2.34
N-Value	= 0.015

Calculations

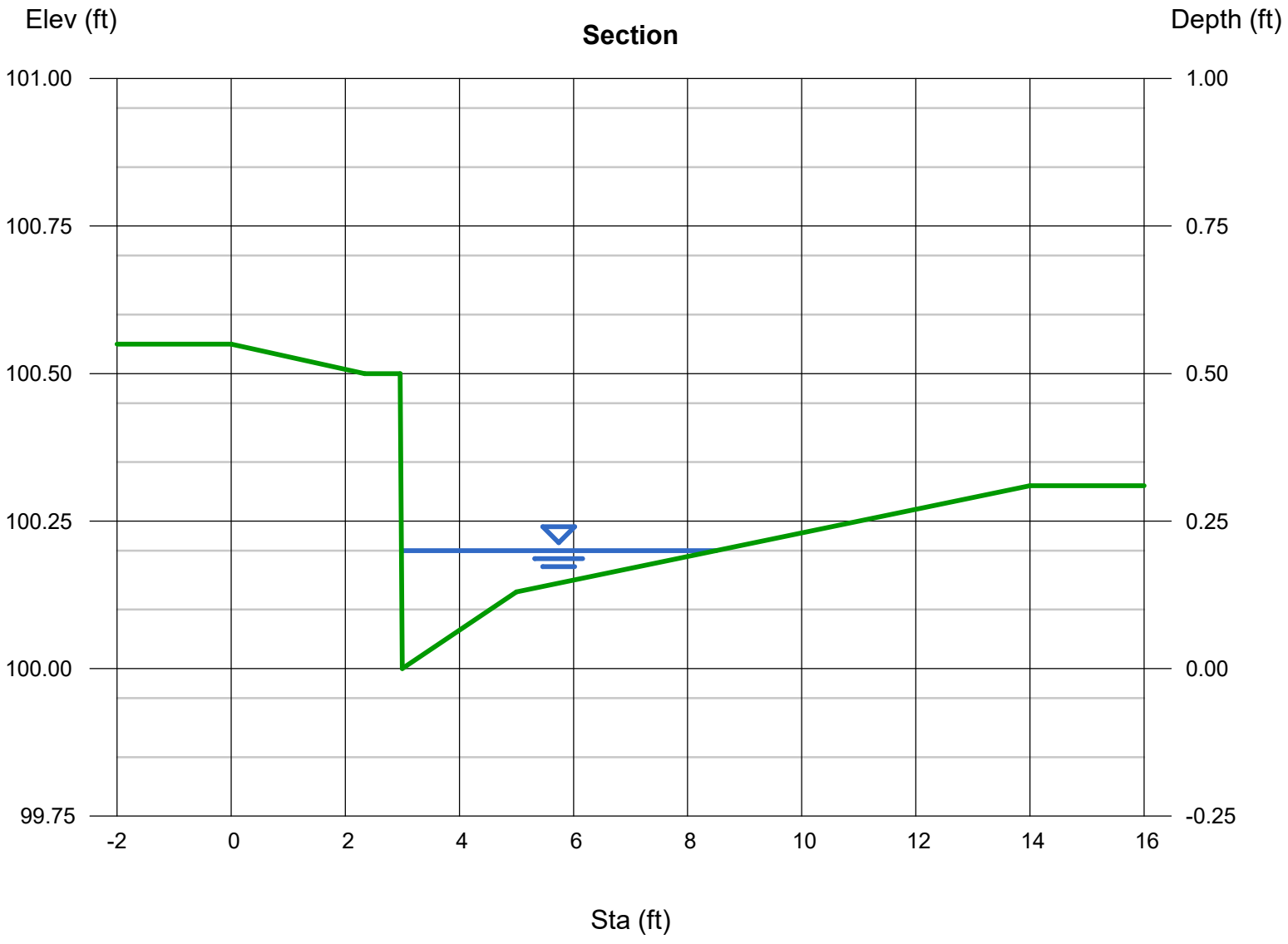
Compute by:	Known Q
Known Q (cfs)	= 0.91

Highlighted

Depth (ft)	= 0.20
Q (cfs)	= 0.910
Area (sqft)	= 0.39
Velocity (ft/s)	= 2.31
Wetted Perim (ft)	= 5.71
Crit Depth, Yc (ft)	= 0.23
Top Width (ft)	= 5.52
EGL (ft)	= 0.28

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.55)-(2.34, 100.50, 0.013)-(2.96, 100.50, 0.013)-(3.00, 100.00, 0.013)-(5.00, 100.13, 0.013)-(14.00, 100.31, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Dona Maria - S Half, Up Strm of Via Don Pedro

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 2.34
N-Value	= 0.015

Calculations

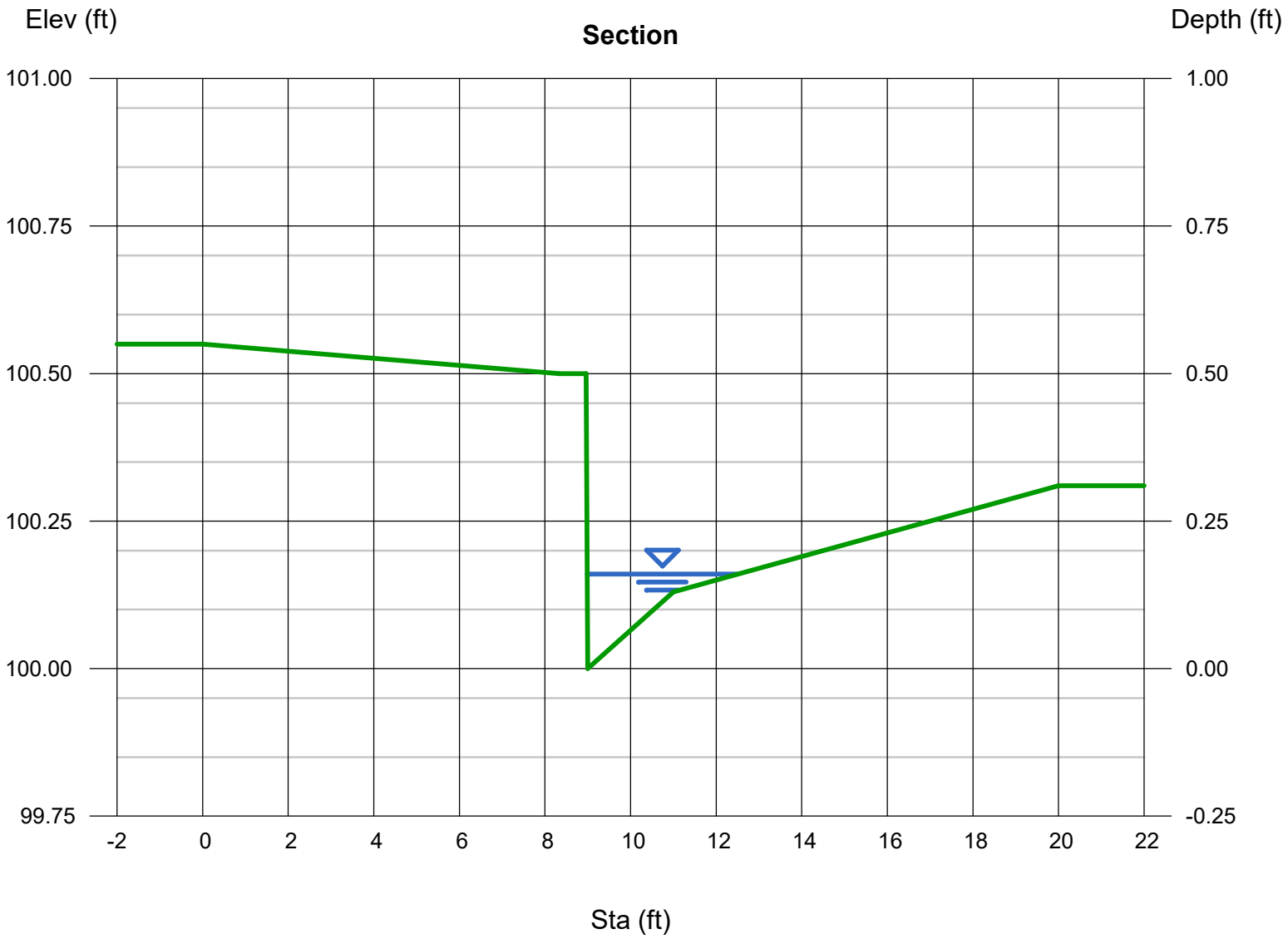
Compute by:	Known Q
Known Q (cfs)	= 0.43

Highlighted

Depth (ft)	= 0.16
Q (cfs)	= 0.430
Area (sqft)	= 0.21
Velocity (ft/s)	= 2.01
Wetted Perim (ft)	= 3.67
Crit Depth, Yc (ft)	= 0.19
Top Width (ft)	= 3.51
EGL (ft)	= 0.22

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.55)-(8.34, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(20.00, 100.31, 0.017)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Jan 17 2022

Via Dona Maria Full

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 2.34
N-Value	= 0.016

Calculations

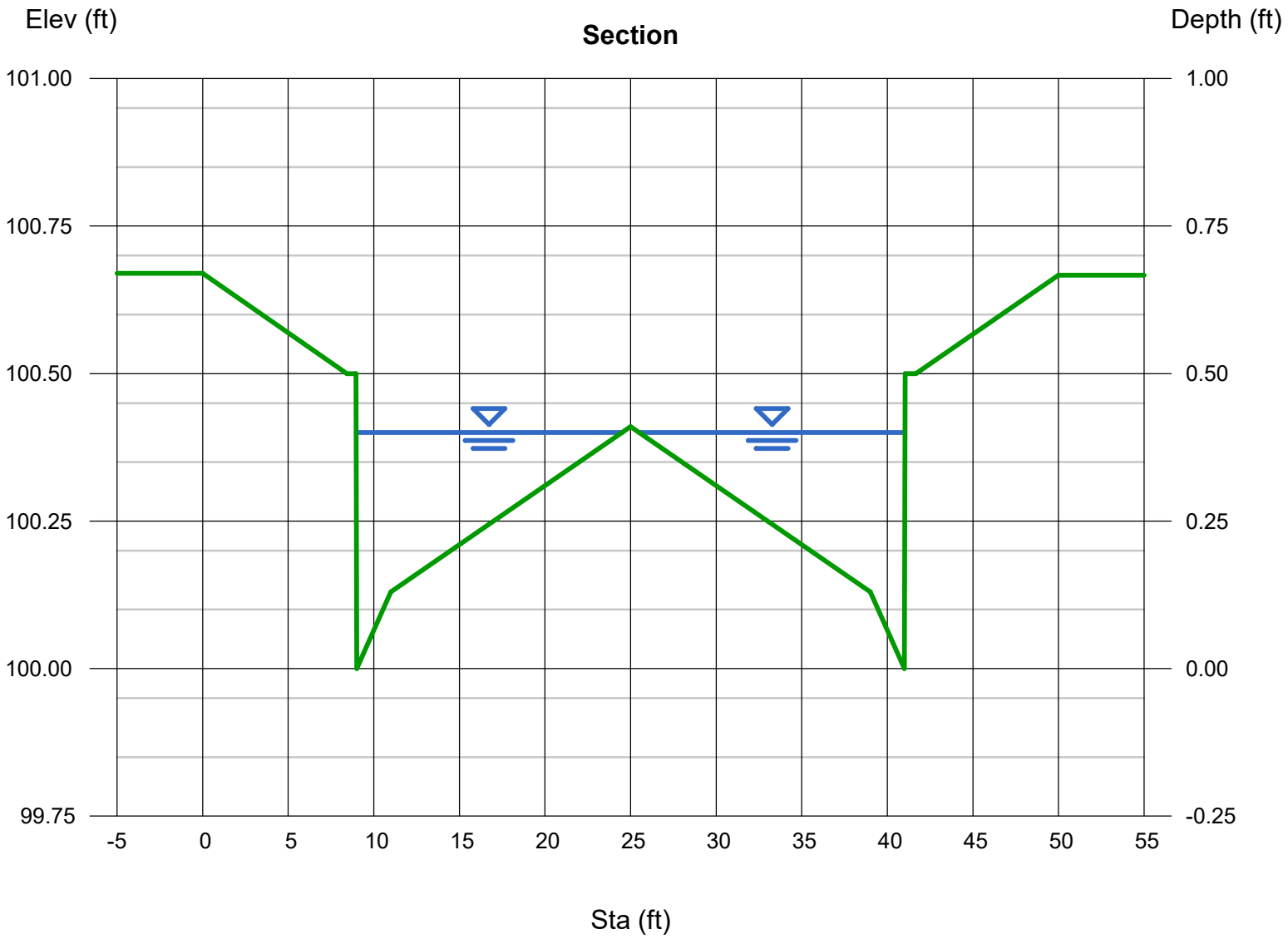
Compute by:	Known Q
Known Q (cfs)	= 20.03

Highlighted

Depth (ft)	= 0.40
Q (cfs)	= 20.03
Area (sqft)	= 5.00
Velocity (ft/s)	= 4.01
Wetted Perim (ft)	= 31.82
Crit Depth, Yc (ft)	= 0.48
Top Width (ft)	= 31.07
EGL (ft)	= 0.65

(Sta, El, n)-(Sta, El, n)...

(0.00, 100.67)-(8.43, 100.50, 0.013)-(8.96, 100.50, 0.013)-(9.00, 100.00, 0.013)-(11.00, 100.13, 0.013)-(25.00, 100.41, 0.017)-(39.00, 100.13, 0.017)
-(41.00, 100.00, 0.013)-(41.04, 100.50, 0.013)-(41.66, 100.50, 0.013)-(50.00, 100.67, 0.013)



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Jan 13 2022

Pond Outlet Structure

Trapezoidal

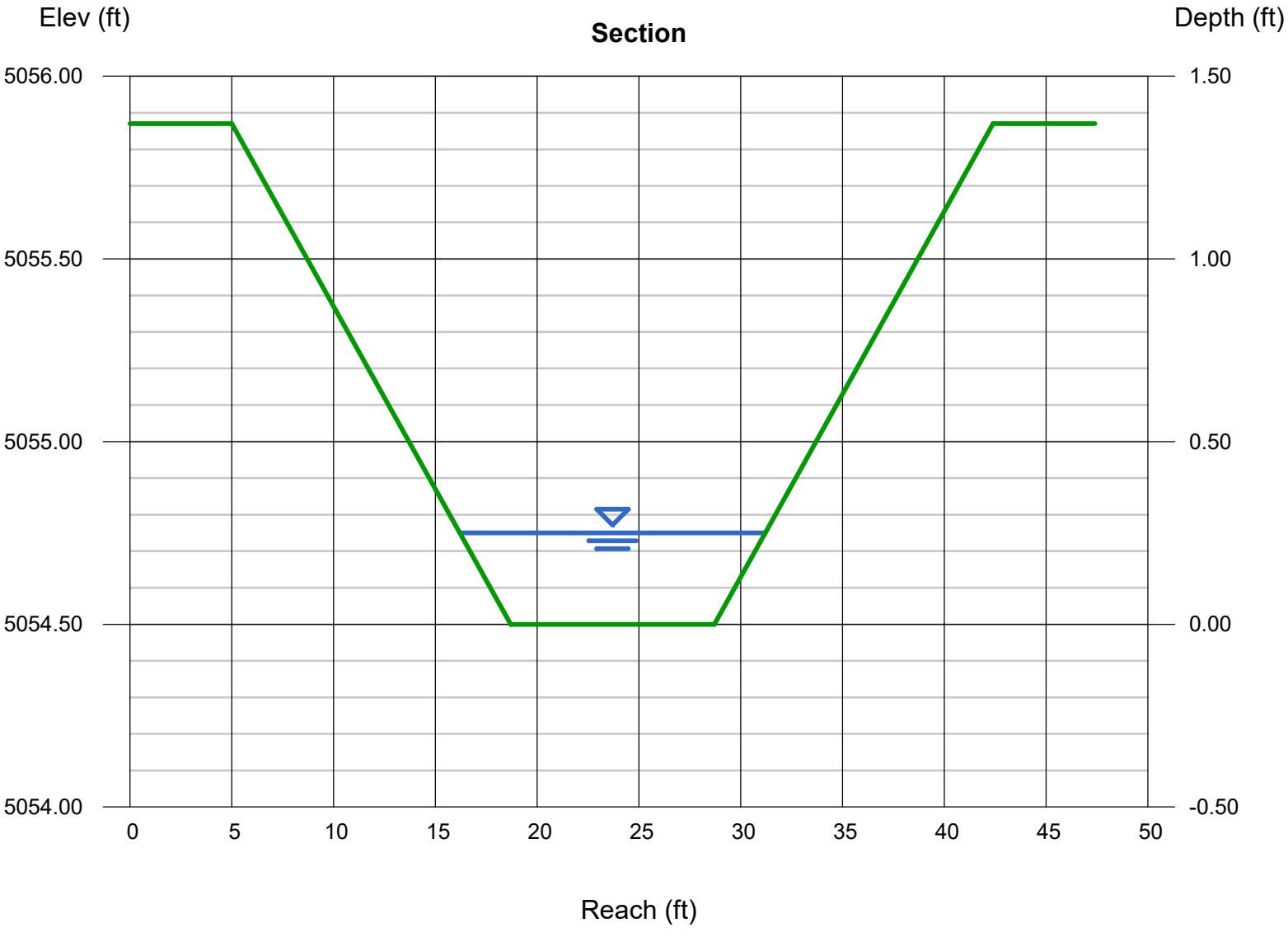
Bottom Width (ft)	= 10.00
Side Slopes (z:1)	= 10.00, 10.00
Total Depth (ft)	= 1.37
Invert Elev (ft)	= 5054.50
Slope (%)	= 2.88
N-Value	= 0.012

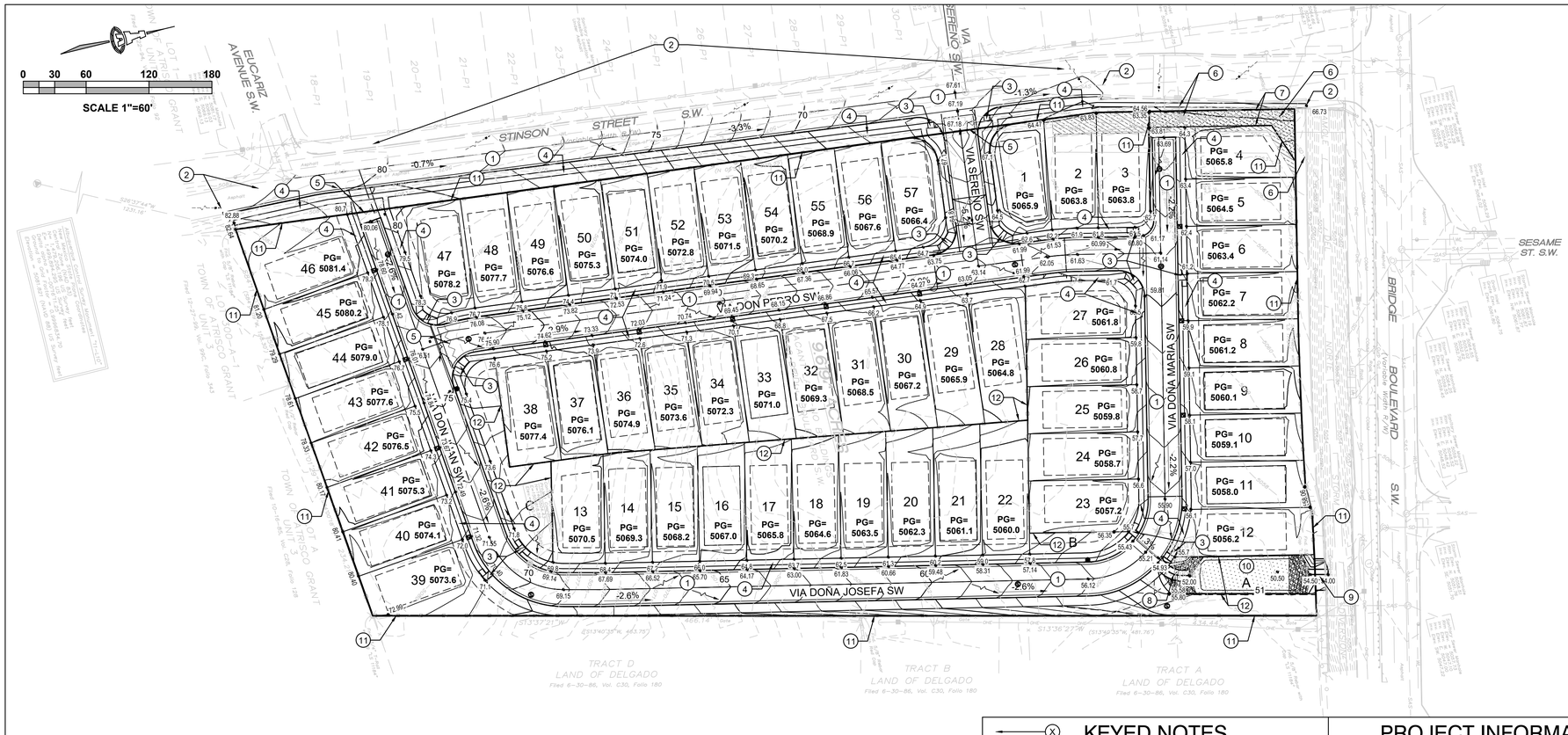
Calculations

Compute by:	Known Q
Known Q (cfs)	= 22.09

Highlighted

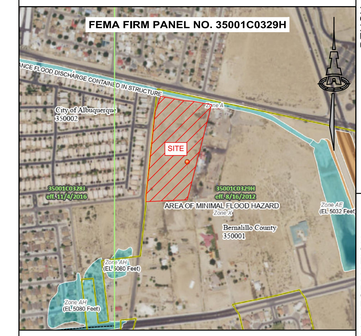
Depth (ft)	= 0.25
Q (cfs)	= 22.09
Area (sqft)	= 3.13
Velocity (ft/s)	= 7.07
Wetted Perim (ft)	= 15.02
Crit Depth, Yc (ft)	= 0.46
Top Width (ft)	= 15.00
EGL (ft)	= 1.03





VICINITY MAP

FLOODPLAIN INFORMATION



LEGEND

x 4941.57	EXISTING SPOT ELEVATION
5045	EXISTING CONTOUR
40	PROPOSED CONTOUR (1' INCREMENT)
39.5	PROPOSED SPOT ELEVATION
	FLOW ARROW
	EXISTING FLOW ARROW
	EROSION PROTECTION
	GRADE BREAK
	PROPOSED WALL
	PROPOSED DRAINAGE BASIN

KEYED NOTES

1. NEW PAVING ELEVATIONS AND CONTOURS ARE SHOWN HERE FOR INFORMATION ONLY, REFER TO PUBLIC WORK ORDER PLANS FOR FINAL DETAILED GRADING AND NOTES.
2. PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT.
3. ADA COMPLIANT 1:12 MAX. SLOPE HANDICAP ACCESS RAMP.
4. ADA COMPLIANT PEDESTRIAN ACCESS WALK AT ELEVATIONS SHOWN. MAX. 5% SLOPE, MAX. 2% CROSS-SLOPE.
5. HIGH POINT / GRADE BREAK LOCATION.
6. EXISTING PUBLIC STORM DRAIN SYSTEM AND PUBLIC STORM DRAIN EASEMENT TO REMAIN
7. EXISTING PUBLIC STORM DRAIN EASEMENT TO REMAIN
8. 10-FT POND RUNDOWN / ACCESS RAMP (MAX. 10% SLOPE) PER COA STD DET. 2260 (TYPE B).
9. POND OUTLET RUNDOWN TO AMOLE DEL NORTE CHANNEL, SEE DETAIL ON SHEET 11.
10. STORM WATER QUALITY POND, LANDSCAPED SIDES TO HAVE A MAXIMUM 3:1 SLOPE.
11. SUBDIVISION PERIMETER SCREENING / RETAINING WALL (WHERE NECESSARY) TO ACHIEVE REQUIRED GRADE DIFFERENCE. STRUCUTRAL DESIGNS BY WALL CONTRACTOR (FOOTINGS, GUARDRAILS, REINFORCING, WATERPROOFING, WEEPHOLES, ETC.)
12. INTERNAL RETAINING WALL TO ACHIEVE REQUIRED GRADE DIFFERENCE. STRUCUTRAL DESIGNS BY WALL CONTRACTOR (FOOTINGS, GUARDRAILS, REINFORCING, WATERPROOFING, WEEPHOLES, ETC.)

PROJECT INFORMATION

PROPERTY: THE SITE IS AN UNDEVELOPED PROPERTY LOCATED WITHIN THE COUNTY OF BERNALILLO VICINITY MAP N-14, AND ZONED A-1. THE SITE IS BOUND TO THE EAST BY DEVELOPED INDUSTRIAL USE PROPERTY, TO THE WEST BY STINSON STREET SW, TO THE NORTH BY THE AMOLE DEL NORTE DRAINAGE CHANNEL AND BRIDGE BOULEVARD SW, AND TO THE SOUTH BY UNDEVELOPED PROPERTY.

PROPOSED IMPROVEMENTS: THE PROPOSED DEVELOPMENT IS A PLANNED RESIDENTIAL SUBDIVISION INTENDED FOR SINGLE-FAMILY RESIDENTIAL USE.

LEGAL: UNPLATTED LANDS OF BOARD OF EDUCATION, A.P.S. PROPERTY NO. 15 / UNDESIGNATED TRACT, TOWN OF ATRISCO GRANT, UNIT 6.

BENCHMARK: VERTICAL DATUM IS BASED ON THE ALBUQUERQUE CONTROL SURVEY BENCHMARK "11-L10" HAVING A PUBLISHED ELEVATION OF 5081.821' (NAVD 1988).

OFF-SITE FLOW:

PER THE DRAINAGE REPORT FOR ENCANTO VILLAGE PREPARED BY MARK GOODWIN & ASSOCIATES, DATED 3/30/99, AND THE APPROVED PUBLIC WORK ORDER PLANS FOR THE AMOLE DEL NORTE STORM DIVERSION FACILITIES - PHASE III TIERRA BAYITA DRAINAGE FACILITIES, APPROXIMATELY 10.32 CFS OF FULLY DEVELOPED OFF-SITE RUNOFF ENTERS THE SUBJECT SITE VIA OVERLAND FLOW FROM STINSON STREET. ONCE ON PROPERTY, THERE IS A TEMPORARY LANDSCAPE SWALE WHICH CONVEYS THE RUNOFF TO AN EXISTING PUBLIC STORM SYSTEM LOCATED AT THE NORTHWEST CORNER OF THE PROPERTY. THE PUBLIC STORM SYSTEM IS LOCATED WITHIN A VARIABLE WIDTH PUBLIC STORM DRAIN EASEMENT. THE PUBLIC STORM SYSTEM COLLECTS RUNOFF GENERATED FROM EUCARIZ STREET, STINSON STREET, AND THE SUBJECT PROPERTY, AND ULTIMATELY OUTFALLS DIRECTLY TO THE AMOLE DEL NORTE DRAINAGE CHANNEL.

FLOOD HAZARD: THE SUBJECT PROPERTY LIES WITHIN "ZONE X" (0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE) AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS 35001C0329H, MAP EFFECTIVE AUGUST 16, 2012.

STORMWATER QUALITY CONTROL: STORMWATER RETENTION FOR THE 90TH PERCENTILE STORM HAS BEEN PROVIDED WITHIN THE PROPOSED NORTHEAST POND. THE POND IS SIZED ONLY TO RETAIN THE REQUIRED STORMWATER QUALITY VOLUME, AND WILL FREELY RELEASE THE SITE'S POST DEVELOPMENT RUNOFF DIRECTLY TO THE AMOLE DEL NORTE CHANNEL PER MARK GOODWIN & ASSOCIATES, P.A. LETTER TO COA HYDROLOGY DATED 7/5/05.

ENGINEER: FRED C. ARFMAN: NMPE 7322
ISAACSON & ARFMAN, INC
128 MONROE NE 87108
505-268-8828

SURVEYOR: RUSS P. HUGG: NMPS NO. 9750
SURV-TEK, INC
9384 VALLEY VIEW DRIVE, NW 87114
505-897-3366

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS ARE SHOWN FOR ORIENTATION ONLY. BOUNDARY DATA SHOWN IS FROM PREVIOUS SURVEYS REFERENCED HEREON.

STORM WATER QUALITY

FOR NEW DEVELOPMENT, THE BERNALILLO COUNTY STORM WATER QUALITY (SWQ) VOLUME IS BASED ON THE 90TH PERCENTILE STORM EVENT 0.615" FOR ALL IMPERVIOUS AREAS. THEREFORE THE RETENTION VOLUME REQUIRED ON SITE (BASED ON BASIN PR-1) IS CALCULATED AS:

LAND TREATMENT D; 63% = 262,400 SF @ 0.615" = 13,448 CF.

THE PROPOSED HOA LOT A SWQ POND WILL PROVIDE 14,580 CF OF STORAGE AT A DEPTH OF 4-FT > 13,448 CF.

LAND TREATMENT CALCULTIONS

Basin ID	Basin Area (Ac)	# of Lots	LAND TREATMENTS %A	%B	%C	%D
PR-1	9.56	57	0	29	8	63
PR-2	0.06	N/A	0	0	100	0
PR-3	0.62	N/A	0	0	47	53

Storm Water Quality (SWQ) Requirement:		
Proposed Area %D On-Site	6.02	Ac
	262,399.65	SF
BERNCO New Development Multiplier	0.615	in
SWQ Stored Volume Req	**13448**	**CF**

HOA LOT A SWQ POND

Contour	Area	Volume
5054.5	4,625	- -
5054	4,389	2,254 CF
5053	3,960	4,174 CF
5052	3,595	3,777 CF
5051	2,686	3,140 CF
5050.5	2,254	1,235 CF

POND VOLUME = **14,580** CF

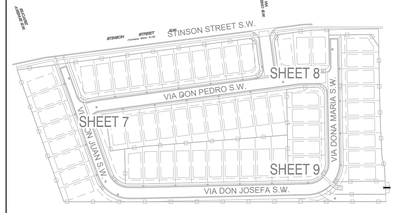
$V_{Provided}$ 14,580 > $V_{Required}$ 13,448

PROPOSED BASIN AREAS & FLOW SUMMARY (from AHYMO)

BASIN	AREA (SF)	AREA (AC.)	AREA (SQ.MI.)	Q_{100} (CFS)	V_{100} (AC-FT)	TOTAL OUT Q_{100} (CFS)	NOTES/ COMMENTS
PR-1	416,507	9.5617	0.01494	33.76	1.36960	22.09	Main drainage basin on site in the proposed condition. Runoff generated within this area is conveyed via overland lot swales and roadway gutters to the proposed drainage pond located at the NE corner of the site.
PR-2	2,462	0.0565	0.00009	0.18	0.00480	0.18	Remaining portion of the public drainage easement at NW corner of the site. Runoff generated within this area will drain northward and enter the Amole Del Norte channel via overland flow
PR-3	27,103	0.6222	0.00097	2.26	0.08620	2.26	Fully constructed eastern half of Stinson St SW drainage basin, enters existing inlet within Stinson St SW near the NW corner of the site. Runoff ultimately outfalls directly to Amole Del Norte channel via the existing drainage system located within the public drainage easement at the NW corner of the site

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 03/04/22
BY: Renée C. Brissette
HydroTrans # L10D027
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW NOR SHALL IT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DEFICIENCY IN PLANS, SPECIFICATIONS OR CONSTRUCTION. APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

G&D KEY MAP



DRAINAGE PLAN CONCEPT

THE EXISTING PUBLIC STORM DRAIN SYSTEM AT THE NORTHWEST CORNER OF THE SITE WILL REMAIN IN PLACE. THE SYSTEM WILL CONTINUE TO COLLECT PUBLIC RUNOFF GENERATED WITHIN EUCARIZ AVENUE AND STINSON STREET. THE EXISTING LANDSCAPE SWALE WILL BE REMOVED AND REPLACED WITH THE FULL CONSTRUCTION OF STINSON STREET TO A 36-FT FACE TO FACE PUBLIC ROADWAY. THE PUBLIC RUNOFF WILL BE ROUTED ALONG THE PROPOSED ROADWAY CURB TO THE ROADWAY'S EXISTING LOW POINT CURB INLET. THIS WILL MAINTAIN THE CURRENT DRAINAGE DESIGN FOR THE PUBLIC 42-INCH STORM SYSTEM CONTAINED WITHIN THE NORTHWEST PUBLIC DRAINAGE EASEMENT.

INTERNALLY, THE INDIVIDUAL LOT RUNOFF WILL BE CONVEYED FROM THE BACK OF EACH LOT TO THE FRONT,VIA LOT SWALES. ONCE RUNOFF HAS ENTERED THE PUBLIC ROADWAY, THE RUNOFF WILL BE DIRECTED VIA OVERLAND FLOW TO THE NORTHEAST CORNER OF THE PROPERTY, FOLLOWING THE HISTORICAL DRAINAGE PATTERN OF THE SITE. THE SITE RUNOFF WILL THEN ENTER THE PROPOSED STORM WATER QUALITY POND WITHIN HOA LOT A VIA A POND RUNDOWN. THE POND RUNDOWN WILL ALSO ACT AS THE POND ACCESS RAMP (MAX. 10% SLOPE) FOR MAINTENANCE. THE PROPOSED DRAINAGE POND IS SIZED TO CONTAIN THE STORM WATER QUALITY VOLUME WHILE ALLOWING FOR A FREE DISCHARGE OF THE SITE GENERATED RUNOFF TO THE AMOLE DEL NORTE CHANNEL, PER MARK GOODWIN & ASSOCIATES, P.A. LETTER TO COA HYDROLOGY DATED 7/5/05. THE FREE DISCHARGE TO THE AMOLE DEL NORTE CHANNEL WILL OCCUR VIA THE PROPOSED POND OUTLET RUNDOWN, MATCHING THE EXISTING UPSTREAM CHANNEL RUNDOWNS FROM UPSTREAM SUBDIVISIONS TO THE AMOLE DEL NORTE CHANNEL. REFER TO THE PROJECT'S DRAINAGE REPORT FOR FUTHER SITE DRAINAGE ANALYSIS DETAIL.

SURVEY INFORMATION
BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "11-L10"
NEW MEXICO STATE PLAN COORDINATES CENTRAL ZONE (NAD 83)
N: 1,479,206.196 E: 1,499,894.295
ELEV: 5081.821
(US SURVEY FEET)

FIELD NOTES
1. AS-BUILT INFORMATION — CONTRACTOR — DATE
1. WORK STAKED BY — DATE
FIELD VERIFICATION BY — DATE
ACCEPTANCE BY — DATE
VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION — RECORDED BY — DATE
NO.

ENGINEER'S SEAL
I AM M. N. ANDERSON
NEW MEXICO
16441
REGISTERED PROFESSIONAL ENGINEER
3/24/22

NO.	DATE	REVISIONS	BY
		DESIGN	
		DESIGNED BY FCA	DATE 07/21/21
		DRAWN BY IMNA	DATE 07/21/21
		CHECKED BY FCA	DATE 01/24/22

COUNTY OF BERNALILLO
PUBLIC WORKS DIVISION

TITLE: VILLA DE MARCOS GABRIEL SUBDIVISION

OVERALL GRADING & DRAINAGE PLAN

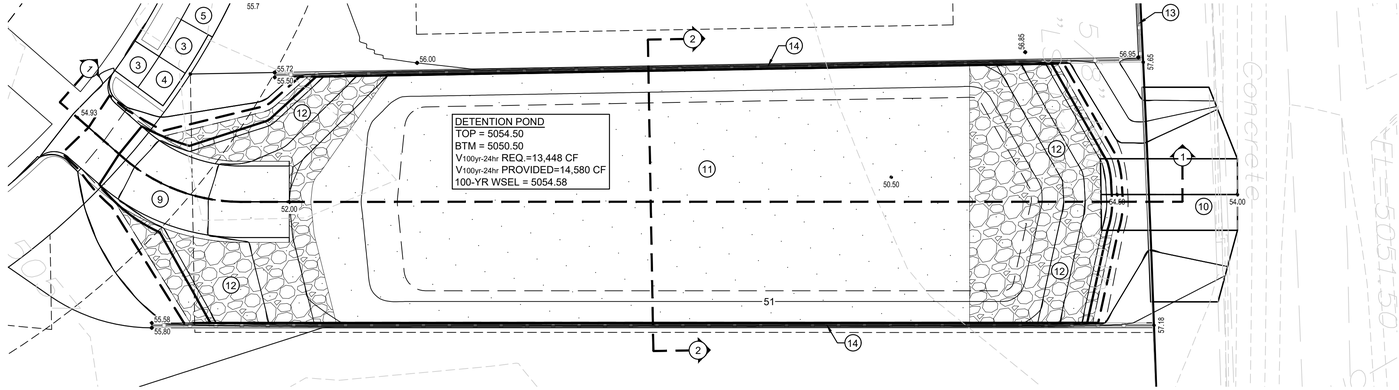
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE

COUNTY PROJECT NO.	CITY PROJECT NO.	MAP NO.	SHEET	OF
XXXXXXX	633982	L-10	6	XX

3/4/22 by IAN
M:\PROJECTS\2400-249\9241\2\DWG\SHEETS\9241\2 CG-101.dwg

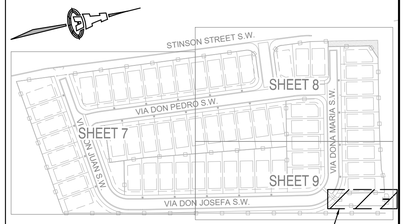
0 5 10 20 30

SCALE 1"=10'



TRACT A DETENTION POND

OVERALL VIEW



LEGEND

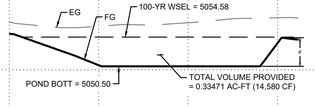
- x 4941.57 — EXISTING SPOT ELEVATION
- 5045 — EXISTING CONTOUR
- 40 — PROPOSED CONTOUR (1' INCREMENT)
- 39.5 — PROPOSED SPOT ELEVATION
- FLOW ARROW
- EXISTING FLOW ARROW
- EROSION PROTECTION
- GRADE BREAK
- PROPOSED WALL
- PROPOSED DRAINAGE BASIN

KEYED NOTES

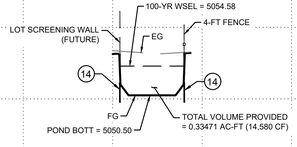
1. NEW PAVING ELEVATIONS AND CONTOURS ARE SHOWN HERE FOR INFORMATION ONLY, REFER TO PUBLIC WORK ORDER PLANS FOR FINAL DETAILED GRADING AND NOTES.
2. PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT.
3. ADA COMPLIANT 1:12 MAX. RUNNING SLOPE / MAX. 2% CROSS-SLOPE HANDICAP ACCESS RAMP.
4. ADA COMPLIANT LANDING, MAX. 2% SLOPE IN ALL DIRECTIONS
5. ADA COMPLIANT PEDESTRIAN ACCESS WALK AT ELEVATIONS SHOWN. MAX. 5% SLOPE / MAX. 2% CROSS-SLOPE.
6. HIGH POINT / GRADE BREAK LOCATION.
7. EXISTING PUBLIC STORM DRAIN SYSTEM AND PUBLIC STORM DRAIN EASEMENT TO REMAIN
8. EXISTING PUBLIC STORM DRAIN EASEMENT TO REMAIN
9. 10-FT POND RUNDOWN / ACCESS RAMP (MAX. 10% SLOPE) PER COA STD DET. 2260 (TYPE B).
10. POND OUTLET RUNDOWN TO AMOLE DEL NORTE CHANNEL, SEE DETAIL ON SHEET 11.
11. STORM WATER QUALITY POND, LANDSCAPED SIDES TO HAVE A MAXIMUM 3:1 SLOPE. POND BOTTOM TREATMENT TO FOLLOW SEEDING REQUIREMENTS PER COA SEEDING SPECIFICATIONS
12. POND SIDE SLOPE AGGREGATE EROSION PROTECTION
13. SUBDIVISION PERIMETER SCREENING / RETAINING WALL (WHERE NECESSARY) TO ACHIEVE REQUIRED GRADE DIFFERENCE. STRUCUTRAL DESIGNS BY WALL CONTRACTOR (FOOTINGS, GUARDRAILS, REINFORCING, WATERPROOFING, WEEPHOLES, ETC.)
14. INTERNAL RETAINING WALL TO ACHIEVE REQUIRED GRADE DIFFERENCE. STRUCUTRAL DESIGNS BY WALL CONTRACTOR (FOOTINGS, GUARDRAILS, REINFORCING, WATERPROOFING, WEEPHOLES, ETC.)
15. POND RETAINING WALL TO ACIEVE REQUIRED GRADE AND STORAGE VOLUME. STRUCTURAL DESIGNS TO BE COMPLETED BY WALL CONTRACTOR (FOOTINGS, GUARDRAILS, FENCING, REINFORCING, WATERPROOFING, WEEPHOLES, ETC.)

PROFILE SCALES:
1"=40' HOR.
1"=10' VERT.

POND SECTION 1



POND SECTION 2



5080 5070 5060 5050 5040 5030

0+00 0+50 1+00 1+50

0+00 0+50 1+00

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
INSPECTIONS
ACCEPTANCE BY — DATE
VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "11-L10"
NEW MEXICO STATE PLAN COORDINATES CENTRAL ZONE (NAD 83)
N: 1,479,206.196 E: 1,499,894.295
ELEV: 5081.821
(US SURVEY FEET)

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

SURVEY INFORMATION
FIELD NOTES

NO.	DATE	REMARKS	BY
1.		REVISIONS	
1.		DESIGN	

DESIGNED BY FCA 07/21/21
DRAWN BY IMNA 07/21/21
CHECKED BY FCA 3/1/22

ENGINEER'S SEAL

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION USE.

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

COUNTY OF BERNALILLO
PUBLIC WORKS DIVISION

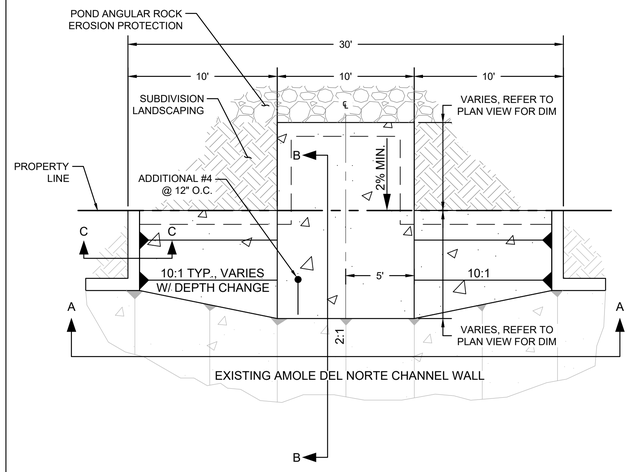
TITLE: VILLA DE MARCOS GABRIEL SUBDIVISION

GRADING & DRAINAGE PLAN 4

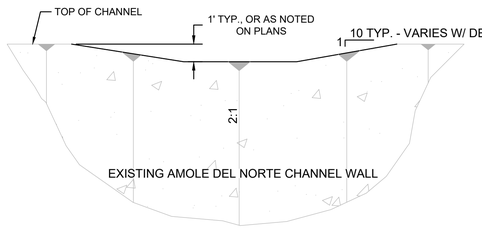
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE

COUNTY PROJECT NO.	CITY PROJECT NO.	MAP NO.	SHEET	OF
XXXXXXX	633982	L-10	10	XX

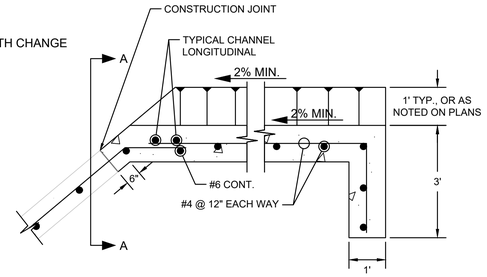
3/1/22 by IAN
M:\PROJECTS\2400-2499\2412\DWG\SHEETS\2412 CG-101.dwg



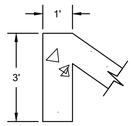
PLAN VIEW



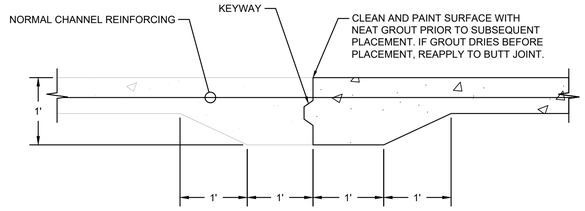
SECTION A-A



SECTION B-B



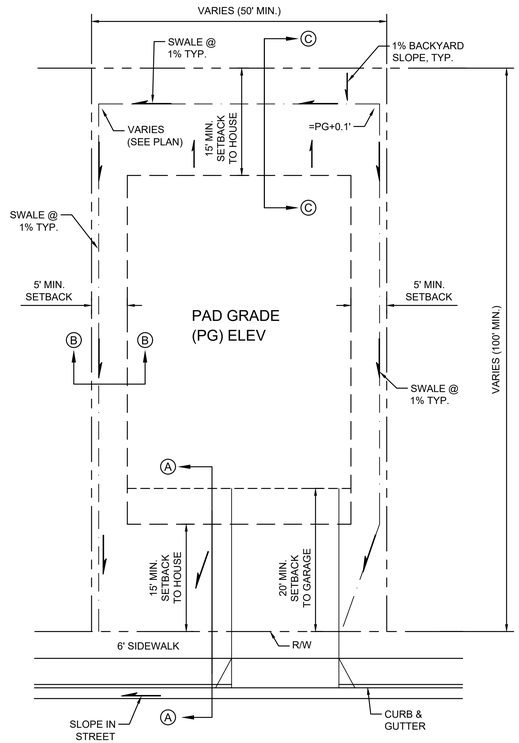
SECTION C-C



CONSTRUCTION JOINT

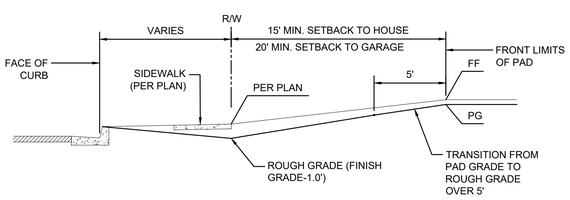
POND OUTLET RUNDOWN TO AMOLE DEL NORTE CHANNEL

SCALE: N.T.S.

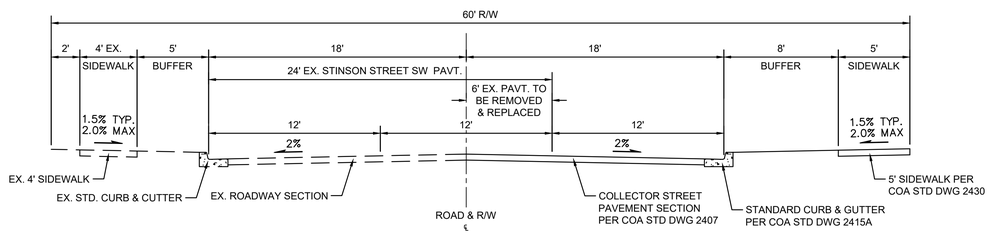


NOTE: 10' SIDEYARD SETBACK ADJACENT TO STREETS.

PLAN VIEW
SCALE: NTS



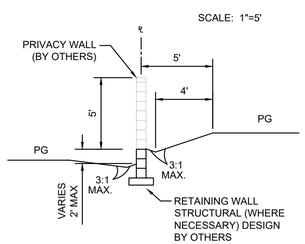
SECTION A-A
FRONT YARD GRADING



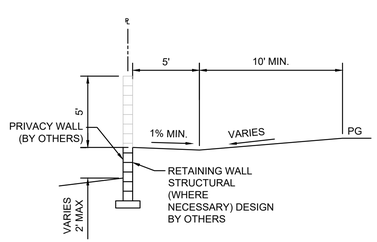
STINSON STREET SW WIDENING STREET SECTION

SCALE: 1"=5'

SCALE: 1"=5'



SECTION B-B
TYPICAL SIDEYARD GRADING
SCALE: 1"=5'



SECTION C-C
TYPICAL BACKYARD GRADING
SCALE: 1"=5'

TYPICAL LOT GRADING DETAIL

SCALE: NTS

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
FIELD NOTES — DATE
ACCEPTANCE BY — DATE
VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "11-L10"
NEW MEXICO STATE PLAN COORDINATES CENTRAL ZONE (NAD 83)
N: 1,479,206.196 E: 1,499,894.295
ELEV. 5081.821
(US SURVEY FEET)

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

SURVEY INFORMATION
FIELD NOTES
1.
1.

ENGINEER'S SEAL

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION USE.

NO.	DATE	REMARKS	BY
		DESIGN	
		REVISIONS	

DESIGNED BY FCA — DATE 07/21/21
DRAWN BY IMNA — DATE 07/21/21
CHECKED BY FCA — DATE 3/1/22

COUNTY OF BERNALILLO
PUBLIC WORKS DIVISION

TITLE: VILLA DE MARCOS GABRIEL SUBDIVISION

GRADING & DRAINAGE DETAILS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE

COUNTY PROJECT NO.	CITY PROJECT NO.	MAP NO.	SHEET	OF
XXXXXXX	633982	L-10	11	XX

3/1/22 by IAN
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