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**FINAL
DRAINAGE STUDY**

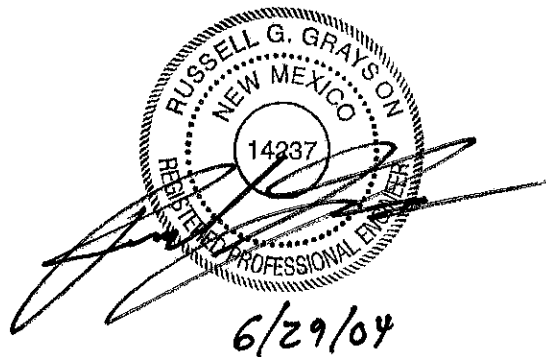
**CABEZON REDEVELOPMENT
YUCATAN AT CABEZON SUBDIVISION**

*Rio Rancho Estates Unit 16
Rio Rancho, New Mexico*

for

**CURB NORTH, INC
5160 SAN FRANCISCO NE
ALBUQUERQUE, NEW MEXICO 87109**

June 29, 2004



Prepared By:

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**DRAINAGE STUDY
FOR
YUCATAN AT CABEZON SUBDIVISION**

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DRAINAGE STUDY FOR YUCATAN AT CABEZON SUBDIVISION

PURPOSE

This drainage report addresses the storm water runoff and proposed infrastructure needed to convey the runoff from the Yucatan at Cabezon Subdivision of the Cabezon Redevelopment. This report will also demonstrate that the development of this project complies with the approved Master Drainage Plan for the Cabezon Redevelopment.

PROJECT LOCATION AND DESCRIPTION

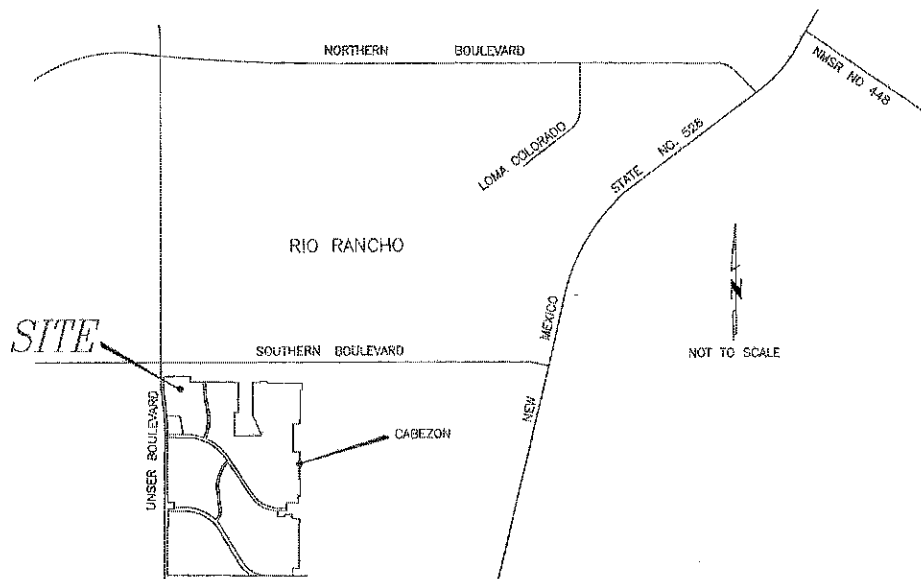


Exhibit 1 – Vicinity Map

The project is located at the southeast corner of the intersection of Unser Boulevard and Southern Boulevard within Unit 16 of Rio Rancho Estates, City of Rio Rancho; see **Exhibit 1**. The site is currently undeveloped and in its natural condition. Unser Boulevard is paved to the west of the development. Southern Boulevard is paved to the north of the development. The development to bound by Western Hills Street to the east and Cabezon Road to the south which are both currently under construction.

ZONING AND PLATTING STATUS

The zoning for this project is R-4, Single Family Residential, of approximately 70 acres. The project is located in Tract 3 within Rio Rancho Estates Unit 16. The Preliminary Plat for this project was approved at the June 8, 2004 City of Rio Rancho Planning and Zoning Board Meeting.

This report is an attachment to the Final Plat and Infrastructure Plan Submittal for this project.

FLOOD HAZARD ZONES

Per FEMA's Flood Insurance Rate Map (FIRM) 35043C0894 C, dated July 16, 1996, a portion of the project site is located within a FEMA 100-year Flood Hazard Zone. See **Appendix A-1**. Wilson & Co. is under contract with the developer for the corresponding CLOMR and LOMR needed to eliminate the existing flood zone. The CLOMR has been submitted to FEMA by Wilson & Co. Per discussions with the City of Rio Rancho, the developer has agreed to restrict building permit requests for the lots that are located within the current FEMA Floodplain. Once the CLOMR/LOMR process has revised the Floodplain, the developer can proceed with building permits for the affected lots. Refer to **Appendix A-2** for an exhibit indicating the affected lots.

JURISDICTIONS OF PUBLIC AGENCIES

Local

This project is located entirely within the City of Rio Rancho (CoRR) Municipal Limits and is therefore within their jurisdiction and must comply with the City's development requirements.

Regional

This project is located within the jurisdiction of the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) and is therefore subject to their review.

RELATED REPORTS

The ***Cabazon Communities Phase I Drainage Management Plan*** prepared by Wilson & Company, Engineers & Architects and dated April 2004, provides an overall master plan for this area. This report has been approved by the City and SCAFCA. It determined the pre-developed drainage patterns of this development and the design parameters for the buildout of the subdivision. However, that study only gave a conceptual design for the Yucatan at Cabazon Subdivision.

METHODOLOGY

This drainage study is based on the procedures outlined in the CoRR's "Grading and Drainage Design Requirements and Policies for Land Development in Rio Rancho

(Revised 3-18-93)." That policy states, "The minimum criteria for hydrology and hydraulic calculations and design shall be as described in the Development Process Manual Section 22.2, City of Albuquerque (CoA DPM), latest revision, or the AHYMO version of the ARS HYMO Computer Program." This drainage study follows the procedures outlined in both the CoA DPM Section 22.2 and the AHYMO Computer Program.

PRECIPITATION

This project will not utilize an on-site detention pond. Storm water will be conveyed through a underground pipe system to main trunk lines in Western Hills Road and Cabezon Road to off-site detention ponds. The 100-yr 24-hr design storm was used for this analysis. The AHYMO Computer Program requires the 1, 6 and 24-hour precipitation values. These values were obtained from the **Cabezon Communities Phase I Drainage Management Plan** and are shown on **Table 1**.

Table 1
Precipitation Values

Return Period (yrs)	24 hr Rainfall (in)	6 hr Rainfall (in)	1 hr Rainfall (in)
100	2.7	2.2	1.8

LAND TREATMENTS

The land treatments used in the AHYMO Computer model are as described by Table A-4 of the CoA DPM Section 22.2, 1993 revision, and are summarized in **Table 2**.

Table 2
Land Treatment Classifications

Treatment	Land Condition
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, groundcover and infiltration capacity. Croplands. Unlined Arroyos.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Unpaved parking, roads and trail. Most vacant lots. Gravel or rock on plastic (desert landscaping)
D	Impervious areas, pavement and roofs.

Table A-5 of the CoA DPM Section 22.2, 1993 revision summarizes the Percent of Treatment D with a corresponding land use. Since this project site is a Single Family Residential Subdivision, the corresponding Percent of Treatment D is determined by the equation: $7*((N*N)+(5*N))^{0.5}$ where, $N=\text{units/acre}$ ($N=397\text{units}/71.59=5.55$). The remaining was split between Treatment B and C. Therefore the Land Treatments for this site are as follows: **%A = 0, %B = 23, %C = 23, and %D = 54**. Basins 103, 105 and

106 are slope and landscape areas within the development and therefore have land treatments as follows: %A = 0, %B = 0, %C = 100, and %D = 0. Basin 104 (Tract 11) is a future commercial site and was designated with land treatments of %A = 0, %B = 5, %C = 5, and %D = 90.

The Land Treatments for the Off-Site Basins Off_1A, 1B, 1C and 1D were taken directly from ***Cabazon Communities Phase I Drainage Management Plan***.

STREET AND INLET CAPACITY CALCULATIONS

Both street and inlet capacities were calculated using the plates in the *City of Albuquerque DPM*. Yucatan Subdivision at Cabazon incorporated flow splits into the creation of each actual drainage basin. See Appendix C for additional information.

STORM DRAIN HYDRAULICS

Storm Drains were modeled using Haestad Method's "StormCad" software (see Appendix C). Headlosses were calculated using the procedures outlined in the *City of Albuquerque DPM*. The main line of the storm drain was designed based on the routed peak discharges as indicated in the AHYMO model and the storm drain design is included in Appendix C. The lateral lines into the main system were designed for the peak flow for each particular line without reference to any routing in the main line.

PRE-DEVELOPMENT CONDITIONS

This project site is in its pre-development condition with existing natural vegetation throughout the site. The project site naturally slopes from northwest to the southeast across the site. Unser Boulevard to the west and ½ Acre Lots and Southern Boulevard to the north bound the property. Both Unser and Southern Blvd are paved with curb and gutter. On-site runoff sheet flows across the site and concentrates into Tributary 'B' of the East Branch of the Black Arroyo. The runoff discharges through Unit 16 of Rio Rancho Estates, crosses into Bernalillo County and into the Blacks Arroyo Dam.

There is a small off-site basin (Basins Off_1A, 1B, 1C & 1D) between the Tract 3 Boundary and Southern Boulevard that discharges onto the subject property. The Unser Channel located along the western right-of-way of Unser Boulevard intercepts off-site runoff from the west. Runoff from the north of Southern Boulevard discharges across Southern at 22nd Street within a graded dirt road to the east of Tract 3. Please refer to the ***Cabazon Communities Phase I Drainage Management Plan*** for further information and analysis of the pre-developed condition.

ULTIMATE DEVELOPED CONDITIONS

Drainage Patterns

As indicated in **Exhibit 2**, the developed drainage design consists of several drainage basins. **Basins Off_1A, 1B, 1C & 1D** are the off-site flows that discharge into Tract 3. Basins within the 300 series are the developed on-site basins within Tract 3.

The developed conditions of the off-site basins (**Basins Off_1A, 1B, 1C & 1D**) were taken directly from the approved **Cabazon Communities Phase I Drainage Management Plan** and were not altered.

Basins Off_1A and Off_1C consists of ½ Acre Commercial Lots that discharge onto **Basin 301** at the intersection of 11th Street and 21st Street to create Analysis Point 'A'. Point 'A' then will combine with ½ Acre Commercial and Residential Lots that will discharge to create Analysis Point 'B' (**Basins Off_1B and Off_1D**). Point 'B' will release into the storm drain system. **Basin 302** drains lots to Analysis Point 'C' where a portion of the basin will enter the storm drain system. The remaining portion of **Basin 302** will bypass the inlets at 'C' and combine with runoff from **Basin 303** to create Analysis Point 'H'. Storm Water bypassing Point 'H' will enter **Basin 312**. **Basin 304** will drain to Analysis Point 'D'. A portion of Point 'D' will enter the storm water system. The remaining portion of Point 'D' will bypass the inlet and join **Basin 308**. **Basin 305** will drain residential lots to Analysis Point 'E' and enter the storm drain system. Storm water bypassing Point 'E' will combine with waters in **Basin 308**. **Basin 306** and **Basin 307** combine to enter the storm drain system at Analysis Point 'F'. Storm water bypassing the inlets will join with other waters within **Basin 308**. The combined waters in **Basin 308** will drain to the storm water system at Analysis Point 'G'. Any storm water bypassing the inlets at Point 'G' will enter **Basin 311**. The storm water collected in the northern half of Tract 3 will discharge into an underground pipeline within the Western Hills Road right of way at the intersecting roadway entrance. The storm water trunk line within Western Hills Road will be designed to accept discharge from Tract 3 at this point (see **Related Reports**).

Basin 309 and **Basin 311** will drain residential lots and combine at Analysis Point 'J'. Storm water bypassing Point 'J' will join with waters in **Basin 312**. **Basin 310** will drain lots to Analysis Point 'K'. Again, flows bypassing Point 'K' will join flows within **Basin 312**. **Basin 312** combined with the flows bypassing Points 'J' and 'K' will discharge through a trench grate inlet at Analysis Point 'L'. The storm water collected in the southern half of Tract 3 will discharge into an underground pipeline within the Cabazon Road right of way at a drainage easement at the southeast corner of Tract 3. The storm water trunk line within Cabazon Road will be designed to accept discharge from Tract 3 at this point (see **Related Reports**).

The remaining drainage basins will collect storm water from slope areas and a potential commercial site. **Basin 103** will drain a sloped area along the commercial area. The basin will drain along the back of residential lots and onto the **Basin 104**. The two basins will combine with **Basin 105** at Point 'M' and drain onto Cabazon Road. The

commercial site will be required to pond and release at pre-developed rates. **Basin 106** will drain directly onto Western Hills Road.

PROJECT PHASING

Yucatan at Cabezon Subdivision will be graded in its entirety. However, infrastructure will be installed in two main phases with Phase 1 and 2 being constructed first with Phase 3 to follow at a later date. Because Phase 1 and 2 will be constructed concurrently, this report does not include any phasing mitigation between the development of Phase 1 and 2. The only interim phasing improvements planned will be between the construction buildout of Phase 2 and 3. These mitigation improvements will require the construction of temporary retention ponds at the phase line between Phases 2 and 3. See **Exhibit #3** for locations of the temporary retention ponds.

Table 3 depicts the required 100-Yr Runoff Volume for each retention pond.

Table 3
Retention Pond Runoff Volume

Description	100-Yr Runoff Volume (Ac-ft)
Retention Pond #1	0.3
Retention Pond #2	3.8

CONCLUSION

Table 4 compares the findings of the analysis of the northern portion of Yucatan Subdivision (Phase 3) with the results of the approved Cabezon **Communities Phase I Drainage Management Plan**.

Table 4
Runoff Comparison for Western Hills Discharge Point

Description	Basin Area (Mi ²)	Time to Peak (hr)	100-Yr Runoff Volume (Ac-ft)	100-Yr Peak Discharge (Ft ³ /s)
Wilson & Co. Phase 1 DMP	0.082	1.50	8.1	127
HZI Plan	0.081	1.50	8.1	126

Table 5 compares the findings of the analysis of the southern portion of Yucatan Subdivision (Phase 1 and 2) with the results of the approved Cabezon **Communities Phase I Drainage Management Plan**.

Table 5
Runoff Comparison for Cabezon Discharge Point

Description	Basin Area (Mi ²)	Time to Peak (hr)	100-Yr Runoff Volume (Ac-ft)	100-Yr Peak Discharge (Ft ³ /s)
Wilson & Co. Phase 1 DMP	0.062	1.50	5.99	141
HZI Plan	0.058	1.50	5.51	130

As indicated by these tables, the flow from the Yucatan Subdivision (Tract 3) is below the Master Plan values. Therefore, the analysis presented in this report is in compliance with the approved **Cabezon Communities Phase I Drainage Management Plan**.

The slight differences in basin areas indicated in Tables 5 and 6 can be attributed to small basin boundary changes that occurred from the **Cabezon Communities Phase I Drainage Management Plan** to the final subdivision layout presented in this report. Also, the final layout contributed some small additional basin area to drain into the commercial Tract 11 that was originally indicated to drain into the Yucatan subdivision.

Table 6 compares the impact of the commercial portion (Tract 11) of the Yucatan Subdivision on the **Cabezon Communities Phase I Drainage Management Plan** (Master Plan).

Table 6
Runoff Comparison for Commercial Discharge Point

Description	Basin Area (Mi ²)	Time to Peak (hr)	100-Yr Runoff Volume (Ac-ft)	100-Yr Peak Discharge (Ft ³ /s)
Wilson & Co. Phase 1 DMP	0.016	1.50	0.4	14
HZI Plan	0.018	1.50	2.1	46

The peak discharge of 46 cfs calculated in the HZI Plan is the fully developed runoff without any on-site mitigation. As indicated in Table 6, that results in a higher discharge than the 14 cfs allowed in the **Cabezon Communities Phase I Drainage Management Plan**. As indicated in Master Plan, this commercial site will need to design a detention pond that will release at or below the Master Plan flow rate of 14 cfs.

UNSER
BOULEVARD

LARIAT ROAD

SOUTHERN BLVD.

Black's Arroyo
East Branch

AJ

STREET

27TH

FUTURE WESTERN HILLS BLVD.

LIMIT OF
DETAILED STUDY

ROAD

DE

ZONE AE

14TH

AVENUE

FUTURE CABEZON ROAD

STREET

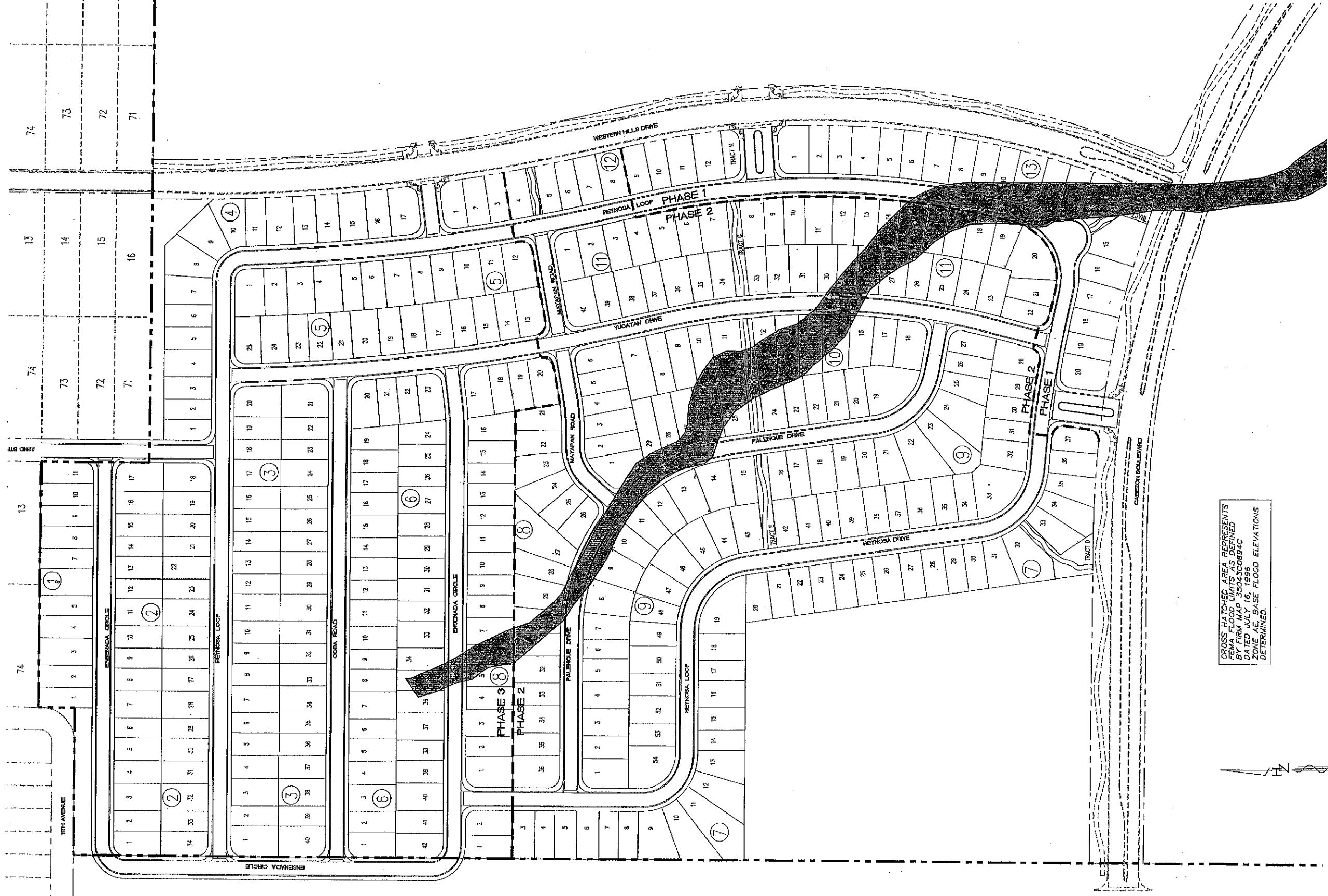
24TH

LIMIT OF DETAILED STUDY

Arroyo "D"

Black
East

A-1



CROSS-HATCHED AREA REPRESENTS
EXISTING FLOOD ZONE DETERMINED
BY FIRM MAP 3504-10089-4C
DATED JULY 16, 1996
ZONE AE, BASE FLOOD ELEVATIONS
DETERMINED.

LEGEND

EXISTING FLOOD ZONE

NOT TO SCALE

Designed For

CURB NORTH, LLC

EXISTING FEMA FLOOD ZONE
YUCATAN AT CABAZON

JUNE 2004

Designed By

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Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Summary File

□(s16.67h8.5v0TU&18D

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -

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RUN DATE (MON/DAY/YR) =06/16/2004

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START											TIME= .00
LOCATION											
*S											
*S	YUCATAN AT CABEZON FINAL DRAINAGE STUDY										
*S	FN:TRACT3FIN.DAT - HYMO PER JAN 1997 DPM REVISIONS										
*S											
*S											
*S	RAINFALL TAKEN FROM WILSON & CO PHASE 1 DMP										
RAINFALL TYPE= 2											RAIN24= 2.703
*S*****											
SEDIMENT BULK											PK BF = 1.06
*S*****											
*S THE FOLLOWING IS WILSON AND CO AHYMO FILE FOR OFF 1A,1B,2A AND 2B											
*S FROM THE PHASE 1 DMP. ESTABLISHES OFF-SITE FLOW RATES FOR 21ST AND 22ND											
*S*****											
COMPUTE NM HYD	Off 1A	1	17	.00540	14.55	.683	2.37034	1.500	4.211	PER IMP=	85.00
*S	ROUTE OFF 1A through existing pond										
*S	Pond Exists in field; Volume and outflow assumed to										
*S	limit flowrate to predevelopment level										
*S											
ROUTE RESERVOIR	P.Out	1	17	.00540	5.18	.682	2.36893	1.800	1.499	AC-FT=	.200
*S *****	DIVIDE HYD TO UNBULK BY 3%										
DIVIDE HYD	P.Out.1	17	17	.00524	5.03	.662	2.36891	1.800	1.499		
	SEDIMENT and	52		.00016	.16	.020	2.36892	1.800	1.499		
ROUTE MCUNGE	Off 1A.9	17	2	.00524	5.02	.662	2.36826	1.900	1.499	CCODE =	.1
COMPUTE NM HYD	Off 1C	1	17	.00540	10.98	.414	1.43633	1.500	3.178	PER IMP=	34.30
ADD HYD	Off 1C.1	1& 2	2	.01064	14.08	1.075	1.89503	1.500	2.069		
COMPUTE NM HYD	21ST	1	17	.00100	2.75	.131	2.45016	1.500	4.303	PER IMP=	90.00
ADD HYD	21ST.1	1& 2	2	.01164	16.84	1.206	1.94270	1.500	2.261		
ROUTE MCUNGE	21ST.9	2	3	.01164	16.40	1.204	1.93931	1.800	2.202	CCODE =	.1
*S*****											
COMPUTE NM HYD	Off 1B	1	17	.00560	15.09	.708	2.37034	1.500	4.211	PER IMP=	85.00
*S	ROUTE OFF 1B through existing pond										
*S	Pond Exists in field; Total volume = 0.22 ac-ft										
*S	limited flowrate to predevelopment level										
*S											
ROUTE RESERVOIR	P.Out	1	17	.00560	5.26	.709	2.37246	1.800	1.467	AC-FT=	.211
*S *****	DIVIDE HYD TO UNBULK BY 3%										
DIVIDE HYD	P.Out.1	17	17	.00543	5.10	.687	2.37245	1.800	1.467		
	SEDIMENT and	52		.00017	.16	.021	2.37245	1.800	1.467		
ROUTE MCUNGE	Off 1B.9	17	2	.00543	5.10	.687	2.37182	1.900	1.467	CCODE =	.1
COMPUTE NM HYD	Off 1D	1	17	.00470	8.76	.316	1.25884	1.500	2.911	PER IMP=	27.00
ADD HYD	Off 1D.1	1& 2	2	.01013	11.92	1.003	1.85535	1.500	1.838		
COMPUTE NM HYD	22ND	1	17	.00100	2.75	.131	2.45016	1.500	4.303	PER IMP=	90.00
ADD HYD	22ND.1	1& 2	2	.01113	14.67	1.133	1.90875	1.500	2.059		
ROUTE MCUNGE	22ND.9	2	1	.01113	14.42	1.133	1.90904	1.550	2.025	CCODE =	.2
COMPUTE NM HYD	Off 2B	2	2	.00470	12.67	.594	2.37033	1.500	4.212	PER IMP=	85.00
*S	ROUTE OFF 2B through existing pond										
*S	Pond Exists in field; Total volume = 0.18 ac-ft										
*S	limited flowrate to predevelopment level										
*S											
ROUTE RESERVOIR	P.Out	2	17	.00470	4.88	.595	2.37213	1.800	1.623	AC-FT=	.160
*S *****	DIVIDE HYD TO UNBULK BY 3%										
DIVIDE HYD	P.Out.1	17	17	.00456	4.73	.577	2.37212	1.800	1.623		
	SEDIMENT and	52		.00014	.15	.018	2.37212	1.800	1.623		
ADD HYD	Off 2B.1	1& 17	2	.01569	18.74	1.710	2.04352	1.550	1.866		
ROUTE MCUNGE	Off 2B.9	2	1	.01569	18.45	1.708	2.04142	1.700	1.837	CCODE =	.1
*S*****											
*S HZ1 ANALYSIS FOR ON-SITE YUCATAN AT CABEZON TRACT 3											
*S*****											
*S-----											
*S COMPUTE DEVELOPED OFF-SITE BASIN 103 (SLOPE AREA ALONG UNSER)											
COMPUTE NM HYD	103.H	11		.00236	3.78	.104	.82952	1.500	2.501	PER IMP=	.00
*S-----											
*S COMPUTE DEVELOPED OFF-SITE BASIN 104 (COMMERCIAL)											
COMPUTE NM HYD	104.D	12		.01563	41.78	1.976	2.37034	1.500	4.177	PER IMP=	85.00
*S-----											
*S COMPUTE DEVELOPED OFF-SITE BASIN 105 (COMMON AREA ALONG CABEZON)											

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B-1

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Summary File

		FROM	TO			PEAK	RUNOFF			CFS	PAGE = 2
COMMAND	HYDROGRAPH IDENTIFICATION	ID NO.	ID NO.	AREA (SQ MI)	DISCHARGE (CFS)	VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	PER ACRE	NOTATION	
COMPUTE NM HYD	105.D	-	13	.00030	.49	.013	.82952	1.500	2.535	PER IMP=	.00
*S-----											
*S COMPUTE DEVELOPED OFF-SITE BASIN 106 (COMMON AREA)											
COMPUTE NM HYD	106.D	-	14	.00077	1.23	.034	.82952	1.500	2.513	PER IMP=	.00
*S-----											
*S COMPUTE DEVELOPED BASIN 301											
COMPUTE NM HYD	301.D	-	15	.00786	17.72	.751	1.79087	1.500	3.523	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 302											
COMPUTE NM HYD	ANLYPT.C	-	16	.00436	9.84	.416	1.79087	1.500	3.526	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 303											
COMPUTE NM HYD	303.D	-	17	.00836	18.85	.798	1.79087	1.500	3.523	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 304											
COMPUTE NM HYD	ANLYPT.D	-	18	.00456	10.29	.436	1.79087	1.500	3.525	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 305											
COMPUTE NM HYD	ANLYPT.E	-	19	.00934	21.06	.892	1.79087	1.500	3.523	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 306											
COMPUTE NM HYD	306.D	-	20	.00489	11.03	.467	1.79087	1.500	3.525	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 307											
COMPUTE NM HYD	307.D	-	21	.00895	20.18	.855	1.79087	1.500	3.523	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 308											
COMPUTE NM HYD	308.D	-	22	.00584	13.17	.558	1.79087	1.500	3.524	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 309											
COMPUTE NM HYD	309.D	-	23	.01492	33.63	1.425	1.79087	1.500	3.522	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 310											
COMPUTE NM HYD	ANLYPT.K	-	24	.01753	39.51	1.674	1.79087	1.500	3.522	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 311											
COMPUTE NM HYD	311.D	-	25	.01095	24.69	1.046	1.79087	1.500	3.523	PER IMP=	54.00
*S-----											
*S COMPUTE DEVELOPED BASIN 312											
COMPUTE NM HYD	312.D	-	26	.01420	32.01	1.356	1.79087	1.500	3.522	PER IMP=	54.00
*S-----											
*S-----											
*S NORTHERN PORTION OF CABEZON TRACT 3											
*S-----											
*S-----											
*S ADD 21st Off-Site Flow to 301											
ADD HYD	ANLYPT.A	3&15	27	.01950	22.01	1.954	1.87942	1.800	1.764		
*S-----											
*S ADD A TO 22nd St Off-Site Flow											
ADD HYD	ANLYPT.B	1&27	28	.03519	39.96	3.663	1.95163	1.750	1.774		
*S-----											
*S DIVIDE ANALYSIS PT. C											
*S ID=30 IS FLOW INTO INLET											
*S ID=31 IS BYPASSING INLET TO BASIN 303											
DIVIDE HYD	C.TO.INLET	16	30	.00436	9.84	.416	1.79080	1.500	3.526		
	C.BYPASS.INL	and	31	.00000	.00	.000	.00000	-.050	.000		
*S-----											
*S DIVIDE ANALYSIS PT. D											
*S ID=32 IS FLOW INTO INLET											
*S ID=33 IS BYPASSING INLET TO BASIN 308											
DIVIDE HYD	D.TO.INLET	18	32	.00455	10.00	.434	1.79081	1.500	3.436		
	D.BYPASS.INL	and	33	.00001	.29	.001	1.79081	1.500	36.115		
*S-----											
*S DIVIDE ANALYSIS PT. E											
*S ID=34 IS FLOW INTO INLET											
*S ID=35 IS BYPASSING INLET TO BASIN 308											
DIVIDE HYD	E.TO.INLET	19	34	.00929	20.00	.888	1.79084	1.500	3.362		
	E.BYPASS.INL	and	35	.00005	1.06	.004	1.79084	1.500	36.115		
*S-----											
*S ADD BYPASS FROM D TO BYPASS FROM E											
ADD HYD	BYP.DE	33&35	36	.00006	1.34	.006	1.79083	1.500	36.115		
*S-----											

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Summary File

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	PAGE = 3 NOTATION
*S ADD 306 TO 307										
ADD HYD	ANLYPT.F 20&21	37		.01384	31.21	1.322	1.79082	1.500	3.524	
*S										
*S DIVIDE ANALYSIS PT. F										
*S ID=38 IS FLOW INTO INLET										
*S ID=39 IS BYPASSING INLET TO BASIN 308										
DIVIDE HYD	F.TO.INLET	37	38	.01379	30.00	1.317	1.79082	1.500	3.400	
	F.BYPASS.INL and	39		.00005	1.21	.005	1.79083	1.500	36.115	
*S										
*S ADD BYPASS FROM D,E TO BYPASS FROM F										
ADD HYD	BYP.DEF 36&39	40		.00011	2.56	.011	1.79083	1.500	36.115	
*S										
*S ADD BYPASS FROM D,E,F TO 308										
ADD HYD	ANLYPT.G 22&40	41		.00595	15.73	.568	1.79082	1.500	4.130	
*S										
*S DIVIDE ANALYSIS PT. G										
*S ID=42 IS FLOW INTO INLET										
*S ID=43 IS BYPASSING INLET TO BASIN 311										
DIVIDE HYD	G.TO.INLET	41	42	.00592	15.00	.565	1.79082	1.500	3.960	
	G.BYPASS.INL and	43		.00003	.73	.003	1.79082	1.500	36.115	
*S										
*S ADD BYPASS FROM C TO 303										
ADD HYD	ANLYPT.H 17&31	44		.00836	18.85	.798	1.79083	1.500	3.523	
*S										
*S ADD Q INTO INLET AT C AND D										
ADD HYD	P.CD 30&32	45		.00891	19.84	.851	1.79081	1.500	3.480	
*S										
*S ADD Q INTO INLET AT C,D TO B										
ADD HYD	P.BCD 28&45	46		.04410	47.39	4.513	1.91915	1.750	1.679	
*S										
*S ADD Q INTO INLET AT B,C,D TO E										
ADD HYD	P.BCDE 34&46	47		.05339	61.65	5.401	1.89681	1.500	1.804	
*S										
*S ADD Q INTO INLET AT B,C,D,E TO F										
ADD HYD	P.BCDEF 38&47	48		.06718	91.65	6.718	1.87506	1.500	2.132	
*S										
*S ADD Q INTO INLET AT B,C,D,E,F TO G										
ADD HYD	P.BCDEF 42&48	49		.07310	106.65	7.283	1.86824	1.500	2.280	
*S										
*S TOTAL Q INTO MAIN TRUNK LINE AT WESTERN HILLS										
*S ADD Q INTO INLET AT B,C,D,E,F,G TO H										
ADD HYD	TOT.WH 44&49	50		.08146	125.50	8.082	1.86030	1.500	2.407	
*S										
*S										
*S SOUTHERN PORTION OF CABEZON TRACT 3										
*S										
*S										
*S ADD 309 TO 311										
ADD HYD	ANLYPT.J 23&25	51		.02587	58.31	2.471	1.79085	1.500	3.522	
*S										
*S DIVIDE ANALYSIS PT. J										
*S ID=52 IS CFS INTO INLET										
*S ID=53 IS CFS BYPASSING INLET TO BASIN 312										
DIVIDE HYD	J.TO.INLET	51	52	.02305	34.00	2.202	1.79085	1.450	2.304	
	J.BYPASS.INL and	53		.00282	24.31	.269	1.79085	1.500	13.496	
*S										
*S DIVIDE ANALYSIS PT. K										
*S ID=54 IS CFS INTO INLET										
*S ID=55 IS CFS BYPASSING INLET TO BASIN 312										
DIVIDE HYD	K.TO.INLET	54	55	.01671	30.00	1.596	1.79085	1.450	2.805	
	K.BYPASS.INL and	55		.00082	9.51	.078	1.79085	1.500	18.202	
*S										
*S ADD BYPASS FROM J AND K										
ADD HYD	BYP.JK 53&55	56		.00363	33.82	.347	1.79085	1.500	14.554	
*S										
*S ADD BYPASS FROM J,K TO 312										
ADD HYD	ANLYPT.L 26&56	57		.01783	65.83	1.703	1.79085	1.500	5.768	
*S										
*S ADD Q INTO INLET J AND K										
ADD HYD	P.JK 52&54	58		.03977	64.00	3.798	1.79085	1.450	2.515	
*S										
*S TOTAL Q INTO MAIN TRUNK LINE AT CABEZON ROAD										

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Summary File

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	PAGE = 4 NOTATION
*S ADD Q INTO INLET AT J,K TO L										
ADD HYD	TOT.CAB 57&58	59		.05760	129.83	5.501	1.79085	1.500	3.522	
*S-----										
*S TOTAL STORM WATER RELEASED FROM CABEZON TRACT 3										
*S-----										
*S-----										
*S ADD TOTAL NORTH TO TOTAL SOUTH										
ADD HYD	TOT.1 50&59	62		.13906	255.33	13.583	1.83153	1.500	2.869	
*S-----										
*S ADD TOTAL FROM 105 AND 106 - DIRECT DISCHARGE										
ADD HYD	TOT.2 13&14	63		.00107	1.72	.047	.82931	1.500	2.519	
*S-----										
*S ADD TOTAL FROM CABEZONT TRACT 3										
ADD HYD	TOT.3 62&63	64		.14012	257.05	13.630	1.82390	1.500	2.866	
*S-----										
*S-----										
*S-----										
*S COMMERCIAL PORTION OF CABEZON TRACT 1										
*S-----										
*S-----										
*S ADD 103 TO 104										
ADD HYD	ANLYPT.M 12&11	60		.01799	45.56	2.080	2.16818	1.500	3.957	
*S-----										
*S-----										
*S-----										
*S INTERIM RETENTION PONDS BETWEEN PHASES 2 AND 3										
*S-----										
*S-----										
*S-----										
*S COMPUTE RETENTION POND #1 (BASIN 306)										
COMPUTE NM HYD	101.H	-	1	.00490	9.23	.265	1.01341	1.500	2.944 PER IMP=	.00
*S-----										
*S COMPUTE RETENTION POND #2										
COMPUTE NM HYD	102.H	-	2	.07040	132.53	3.805	1.01341	1.500	2.942 PER IMP=	.00
FINISH										
□(s0p10h4099T□&16D										
FINISH										
□(s0p10h4099T□&16D□□										

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

□(s16.67h8.5v0TU&l8D

AHYMO PROGRAM (AHYMO_97) - Version: 1997.02c
RUN DATE (MON/DAY/YR) = 06/16/2004
START TIME (HR:MIN:SEC) = 16:48:38 USER NO. = AHYMO-I-9702a01000150-SH
INPUT FILE = G:\Proj\170438-1\DRN_ST-1\AHYMO\TRACT3-2.DAT

START TIME=0.0 CODE 0 LINES -6
LOCATION RIO RANCHO
City of Rio Rancho soil infiltration values (LAND FACTORS) used for computations.
Land Treatment Initial Abstr.(in) Unif. Infiltr.(in/hour)
A 0.65 1.67
B 0.50 1.25
C 0.35 0.83
D 0.10 0.04

*S
*S YUCATAN AT CABEZON FINAL DRAINAGE STUDY
*S
*S FN:TRACT3FIN.DAT - HYMO PER JAN 1997 DPM REVISIONS
*S
*S
*S
*S RAINFALL TAKEN FROM WILSON & CO PHASE 1 DMP

RAINFALL TYPE=2 RAIN QUARTER=0.0 RAIN ONE=1.799
RAIN SIX=2.205 RAIN DAY=2.703 DT=.05

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

.0000	.0038	.0077	.0118	.0160	.0203	.0248
.0295	.0343	.0394	.0447	.0502	.0559	.0620
.0684	.0751	.0823	.0899	.0981	.1069	.1164
.1240	.1324	.1567	.2140	.3127	.4653	.6849
.9854	1.2223	1.3293	1.4187	1.4970	1.5670	1.6304
1.6882	1.7413	1.7901	1.8352	1.8769	1.9154	1.9248
1.9335	1.9417	1.9493	1.9566	1.9635	1.9701	1.9764
1.9825	1.9883	1.9939	1.9994	2.0046	2.0097	2.0146
2.0194	2.0241	2.0286	2.0331	2.0374	2.0416	2.0458
2.0498	2.0538	2.0576	2.0614	2.0651	2.0688	2.0724
2.0759	2.0794	2.0828	2.0861	2.0894	2.0927	2.0959
2.0990	2.1021	2.1052	2.1082	2.1112	2.1141	2.1170
2.1199	2.1227	2.1255	2.1282	2.1310	2.1336	2.1363
2.1389	2.1415	2.1441	2.1466	2.1492	2.1517	2.1541
2.1566	2.1590	2.1614	2.1637	2.1661	2.1684	2.1707
2.1730	2.1753	2.1775	2.1797	2.1819	2.1841	2.1863
2.1884	2.1906	2.1927	2.1948	2.1968	2.1989	2.2010
2.2030	2.2050	2.2071	2.2092	2.2113	2.2134	2.2155
2.2176	2.2196	2.2217	2.2237	2.2258	2.2278	2.2299
2.2319	2.2339	2.2359	2.2379	2.2399	2.2419	2.2439
2.2459	2.2479	2.2498	2.2518	2.2537	2.2557	2.2576
2.2596	2.2615	2.2634	2.2653	2.2672	2.2691	2.2710
2.2729	2.2748	2.2767	2.2786	2.2804	2.2823	2.2842
2.2860	2.2879	2.2897	2.2915	2.2934	2.2952	2.2970
2.2988	2.3006	2.3024	2.3042	2.3060	2.3078	2.3096
2.3114	2.3131	2.3149	2.3167	2.3184	2.3202	2.3219
2.3237	2.3254	2.3271	2.3289	2.3306	2.3323	2.3340
2.3357	2.3374	2.3391	2.3408	2.3425	2.3442	2.3459
2.3475	2.3492	2.3509	2.3525	2.3542	2.3559	2.3575
2.3591	2.3608	2.3624	2.3641	2.3657	2.3673	2.3689
2.3705	2.3721	2.3737	2.3754	2.3769	2.3785	2.3801
2.3817	2.3833	2.3849	2.3865	2.3880	2.3896	2.3911
2.3927	2.3943	2.3958	2.3974	2.3989	2.4004	2.4020
2.4035	2.4050	2.4066	2.4081	2.4096	2.4111	2.4126
2.4141	2.4156	2.4171	2.4186	2.4201	2.4216	2.4231
2.4246	2.4260	2.4275	2.4290	2.4305	2.4319	2.4334
2.4348	2.4363	2.4377	2.4392	2.4406	2.4421	2.4435
2.4449	2.4464	2.4478	2.4492	2.4507	2.4521	2.4535
2.4549	2.4563	2.4577	2.4591	2.4605	2.4619	2.4633
2.4647	2.4661	2.4675	2.4688	2.4702	2.4716	2.4730
2.4743	2.4757	2.4771	2.4784	2.4798	2.4812	2.4825
2.4839	2.4852	2.4865	2.4879	2.4892	2.4906	2.4919
2.4932	2.4945	2.4959	2.4972	2.4985	2.4998	2.5011
2.5025	2.5038	2.5051	2.5064	2.5077	2.5090	2.5103
2.5116	2.5129	2.5141	2.5154	2.5167	2.5180	2.5193
2.5205	2.5218	2.5231	2.5243	2.5256	2.5269	2.5281
2.5294	2.5306	2.5319	2.5332	2.5344	2.5356	2.5369
2.5381	2.5394	2.5406	2.5418	2.5431	2.5443	2.5455
2.5468	2.5480	2.5492	2.5504	2.5516	2.5528	2.5541
2.5553	2.5565	2.5577	2.5589	2.5601	2.5613	2.5625
2.5637	2.5649	2.5660	2.5672	2.5684	2.5696	2.5708
2.5720	2.5731	2.5743	2.5755	2.5766	2.5778	2.5790
2.5801	2.5813	2.5825	2.5836	2.5848	2.5859	2.5871
2.5882	2.5894	2.5905	2.5917	2.5928	2.5940	2.5951
2.5962	2.5974	2.5985	2.5996	2.6008	2.6019	2.6030
2.6041	2.6052	2.6064	2.6075	2.6086	2.6097	2.6108
2.6119	2.6130	2.6141	2.6152	2.6164	2.6175	2.6186
2.6196	2.6207	2.6218	2.6229	2.6240	2.6251	2.6262
2.6273	2.6284	2.6294	2.6305	2.6316	2.6327	2.6337
2.6348	2.6359	2.6370	2.6380	2.6391	2.6401	2.6412
2.6423	2.6433	2.6444	2.6454	2.6465	2.6475	2.6486
2.6496	2.6507	2.6517	2.6528	2.6538	2.6549	2.6559
2.6569	2.6580	2.6590	2.6600	2.6611	2.6621	2.6631
2.6642	2.6652	2.6662	2.6672	2.6682	2.6693	2.6703
2.6713	2.6723	2.6733	2.6743	2.6753	2.6763	2.6774

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B-5

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

2.6784 2.6794 2.6804 2.6814 2.6824 2.6834 2.6844
2.6853 2.6863 2.6873 2.6883 2.6893 2.6903 2.6913
2.6923 2.6932 2.6942 2.6952 2.6962 2.6972 2.6981
2.6991 2.7001 2.7011 2.7020 2.7030

*

* BULK FOR SEDIMENT - TAKEN FROM WILSON PHASE 1 DMP
SEDIMENT BULK CODE=1 BULK FACTOR=1.06
*

*

*S THE FOLLOWING IS WILSON AND CO AHYMO FILE FOR OFF_1A,1B,2A AND 2B
*S FROM THE PHASE 1 DMP. ESTABLISHES OFF-SITE FLOW RATES FOR 21ST AND 22ND

COMPUTE NM HYD ID=1 HYD=Off_1A DA=0.0054 SQ MI
PER A=0 B=0 C=15 D=85
TP=0.13 HRS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 18.582 CFS UNIT VOLUME = .9988 B = 526.28 P60 = 1.7990
AREA = .004590 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .102465HR TP = .130000HR K/TP RATIO = .788191 SHAPE CONSTANT, N = 4.553549
UNIT PEAK = 2.4333 CFS UNIT VOLUME = .9964 B = 390.52 P60 = 1.7990
AREA = .000810 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

*
PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA Off_1A

RUNOFF VOLUME = 2.37034 INCHES = .6827 ACRE-FEET
PEAK DISCHARGE RATE = 14.55 CFS AT 1.500 HOURS BASIN AREA = .0054 SQ. MI.

*
*S ROUTE Off_1A through existing pond
*S Pond Exists in field; Volume and outflow assumed to
*S limit flowrate to predevelopment level
*S

ROUTE RESERVOIR			
TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	OUTFLOW (CFS)
0.00	0.00	1.00	0.00
0.20	0.00	1.00	0.00
0.40	0.00	1.00	0.00
0.60	0.00	1.00	0.00
0.80	0.00	1.00	0.00
1.00	.11	1.01	.04
1.20	.73	1.14	.45
1.40	9.25	2.92	3.13
1.60	9.59	5.89	4.99
1.80	4.99	6.26	5.18
2.00	3.34	6.03	5.07
2.20	1.19	5.30	4.68
2.40	.60	4.11	3.98
2.60	.37	2.62	2.88
2.80	.25	1.24	.76
3.00	.18	1.07	.21
3.20	.15	1.05	.16
3.40	.13	1.04	.14
3.60	.12	1.04	.13
3.80	.12	1.04	.12

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	1.00	.000	.00
.20	.00	1.00	.000	.00
.40	.00	1.00	.000	.00
.60	.00	1.00	.000	.00
.80	.00	1.00	.000	.00
1.00	.11	1.01	.000	.04
1.20	.73	1.14	.002	.45
1.40	9.25	2.92	.039	3.13
1.60	9.59	5.89	.174	4.99
1.80	4.99	6.26	.200	5.18
2.00	3.34	6.03	.182	5.07
2.20	1.19	5.30	.139	4.68
2.40	.60	4.11	.081	3.98
2.60	.37	2.62	.031	2.88
2.80	.25	1.24	.004	.76
3.00	.18	1.07	.001	.21
3.20	.15	1.05	.001	.16
3.40	.13	1.04	.001	.14
3.60	.12	1.04	.001	.13
3.80	.12	1.04	.001	.12

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

4.00	.11	1.03	.001	.11
4.20	.11	1.03	.001	.11
4.40	.11	1.03	.000	.11
4.60	.11	1.03	.000	.11
4.80	.11	1.03	.000	.11
5.00	.11	1.03	.001	.11
5.20	.11	1.03	.001	.11
5.40	.11	1.04	.001	.11
5.60	.12	1.04	.001	.12
5.80	.12	1.04	.001	.12
6.00	.13	1.04	.001	.12
6.20	.13	1.04	.001	.13
6.40	.13	1.04	.001	.13
6.60	.13	1.04	.001	.13
6.80	.13	1.04	.001	.13
7.00	.13	1.04	.001	.13
7.20	.12	1.04	.001	.12
7.40	.12	1.04	.001	.12
7.60	.12	1.04	.001	.12
7.80	.12	1.04	.001	.12
8.00	.12	1.04	.001	.12
8.20	.12	1.04	.001	.12
8.40	.11	1.04	.001	.12
8.60	.11	1.04	.001	.11
8.80	.11	1.04	.001	.11
9.00	.11	1.03	.001	.11
9.20	.11	1.03	.001	.11
9.40	.11	1.03	.001	.11
9.60	.11	1.03	.000	.11
9.80	.11	1.03	.000	.11
10.00	.10	1.03	.000	.11
10.20	.10	1.03	.000	.10
10.40	.10	1.03	.000	.10
10.60	.10	1.03	.000	.10
10.80	.10	1.03	.000	.10
11.00	.10	1.03	.000	.10

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

11.20	.10	1.03	.000	.10
11.40	.10	1.03	.000	.10
11.60	.10	1.03	.000	.10
11.80	.10	1.03	.000	.10
12.00	.09	1.03	.000	.09
12.20	.09	1.03	.000	.09
12.40	.09	1.03	.000	.09
12.60	.09	1.03	.000	.09
12.80	.09	1.03	.000	.09
13.00	.09	1.03	.000	.09
13.20	.09	1.03	.000	.09
13.40	.09	1.03	.000	.09
13.60	.09	1.03	.000	.09
13.80	.09	1.03	.000	.09
14.00	.09	1.03	.000	.09
14.20	.09	1.03	.000	.09
14.40	.09	1.03	.000	.09
14.60	.08	1.03	.000	.08
14.80	.08	1.03	.000	.08
15.00	.08	1.03	.000	.08
15.20	.08	1.03	.000	.08
15.40	.08	1.03	.000	.08
15.60	.08	1.03	.000	.08
15.80	.08	1.03	.000	.08
16.00	.08	1.02	.000	.08
16.20	.08	1.02	.000	.08
16.40	.08	1.02	.000	.08
16.60	.08	1.02	.000	.08
16.80	.08	1.02	.000	.08
17.00	.08	1.02	.000	.08
17.20	.08	1.02	.000	.08
17.40	.08	1.02	.000	.08
17.60	.08	1.02	.000	.08
17.80	.07	1.02	.000	.07
18.00	.07	1.02	.000	.07
18.20	.07	1.02	.000	.07
18.40	.07	1.02	.000	.07
18.60	.07	1.02	.000	.07
18.80	.07	1.02	.000	.07
19.00	.07	1.02	.000	.07
19.20	.07	1.02	.000	.07
19.40	.07	1.02	.000	.07
19.60	.07	1.02	.000	.07
19.80	.07	1.02	.000	.07
20.00	.07	1.02	.000	.07
20.20	.07	1.02	.000	.07
20.40	.07	1.02	.000	.07
20.60	.07	1.02	.000	.07
20.80	.07	1.02	.000	.07
21.00	.07	1.02	.000	.07
21.20	.07	1.02	.000	.07
21.40	.07	1.02	.000	.07
21.60	.07	1.02	.000	.07
21.80	.07	1.02	.000	.07

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

22.00	.07	1.02	.000	.07
22.20	.06	1.02	.000	.06

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

22.40	.06	1.02	.000	.06
22.60	.06	1.02	.000	.06
22.80	.06	1.02	.000	.06
23.00	.06	1.02	.000	.06
23.20	.06	1.02	.000	.06
23.40	.06	1.02	.000	.06
23.60	.06	1.02	.000	.06
23.80	.06	1.02	.000	.06
24.00	.06	1.02	.000	.06
24.20	.01	1.01	.000	.03
24.40	.00	1.00	.000	.01
24.60	.00	1.00	.000	.00

PEAK DISCHARGE = 5.182 CFS - PEAK OCCURS AT HOUR 1.80
 MAXIMUM WATER SURFACE ELEVATION = 6.264
 MAXIMUM STORAGE = .1995 AC-FT INCREMENTAL TIME= .100000HRS

*
 PRINT HYD ID=17 CODE=1

HYDROGRAPH FROM AREA P.Out

RUNOFF VOLUME = 2.36893 INCHES = .6822 ACRE-Feet
 PEAK DISCHARGE RATE = 5.18 CFS AT 1.800 HOURS BASIN AREA = .0054 SQ. MI.

*
 *S *****DIVIDE HYD TO UNBULK BY 3% *****
 DIVIDE HYD ID=17 %=-97 ID I=17 HYD=P.Out.1
 ID II=52 HYD=SEDIMENT

COMPUTE RATING CURVE CID=1 VALLEY SECTION=1 NUMBER OF SEGMENTS=3
 MINIMUM ELEV=99.13 FT MAXIMUM ELEV=100 FT
 CHANNEL SLOPE=0.02 FLOOD PLAIN SLOPE=0.02
 N=0.030 DIST=9 N=-0.017 DIST=41 N=0.030 DIST=50

DIST	ELEV	DIST	ELEV	DIST	ELEV	DIST	ELEV
0.0	100.0	9.0	99.82	9.2	99.13	11	99.26
25.0	99.54	39.0	99.26	41.0	99.13	41.2	99.82
50.0	100.0						

RATING CURVE VALLEY SECTION 1.0			
WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
99.13	.00	.00	.00
99.18	.03	.03	1.37
99.22	.13	.19	2.73
99.27	.28	.53	4.62
99.31	.60	1.18	9.22
99.36	1.13	2.58	13.83
99.40	1.87	4.95	18.43
99.45	2.82	8.47	23.04
99.50	3.98	13.35	27.65
99.54	5.35	19.83	32.04
99.59	6.82	29.68	32.07
99.63	8.28	41.05	32.09
99.68	9.75	53.83	32.12
99.73	11.23	67.96	32.15
99.77	12.70	83.36	32.17
99.82	14.17	99.98	32.20
99.86	15.74	117.88	36.42
99.91	17.51	137.25	40.95
99.95	19.49	158.15	45.48
100.00	21.67	180.68	50.00

*
 ROUTE MCUNGE ID=2 HYD=OFF_1A.9 INFLOW ID=17 DT=0.00
 L=250 NO VS=1 SLP=0.02

INFLOW END= 248
 DT= .100000
 WIDTH MED= 13.60
 TABLE PTS= 20
 QMED= 2.51 CKMED= 2.6618
 NREACH= 1 DX= 250.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.098	.0	.69	.45	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.05	.0	.0	.071	1.4	1.36	.97	1.951	.003	.998	.323	-.321	.0	.998	.083	-.081
.09	.1	.2	.045	2.7	2.03	1.54	2.924	.007	.996	.491	-.488	.1	.997	.416	-.413
.14	.3	.5	.037	4.6	2.23	1.88	3.210	.010	.995	.526	-.521	.3	.995	.481	-.476
.18	.6	1.2	.035	9.2	2.39	1.96	3.441	.011	.995	.551	-.546	.8	.994	.484	-.478
.23	1.1	2.6	.030	13.8	2.96	2.29	4.266	.013	.995	.621	-.616	1.8	.995	.584	-.579
.27	1.9	4.9	.026	18.4	3.48	2.65	5.018	.015	.995	.669	-.663	3.7	.995	.643	-.638
.32	2.8	8.5	.023	23.0	3.98	3.01	5.732	.018	.995	.704	-.698	6.6	.995	.685	-.679
.37	4.0	13.3	.021	27.6	4.48	3.36	6.455	.022	.994	.732	-.727	10.8	.994	.716	-.711
.41	5.3	19.8	.019	32.0	5.48	3.71	7.886	.023	.995	.776	-.770	16.5	.994	.745	-.739

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

.46	6.8	29.7	.016	32.1	7.24	4.35	10.423	.026	.996	.825	-.821	24.6	.996	.813	-.809
.50	8.3	41.0	.014	32.1	8.23	4.95	11.848	.031	.995	.845	-.840	35.2	.995	.836	-.831
.55	9.8	53.8	.013	32.1	9.16	5.52	13.186	.037	.995	.859	-.854	47.3	.995	.853	-.848
.60	11.2	68.0	.011	32.1	10.04	6.05	14.451	.042	.995	.871	-.865	60.7	.995	.865	-.860
.64	12.7	83.4	.011	32.2	10.87	6.56	15.657	.048	.994	.880	-.875	75.5	.994	.876	-.870
.69	14.2	100.0	.010	32.2	11.68	7.05	16.817	.053	.994	.888	-.882	91.5	.994	.884	-.879
.73	15.7	117.9	.009	36.4	11.21	7.49	16.149	.058	.993	.884	-.877	108.7	.994	.885	-.879
.78	17.5	137.3	.009	40.9	10.77	7.84	15.512	.062	.992	.879	-.872	127.4	.993	.881	-.874
.82	19.5	158.2	.009	45.5	10.45	8.12	15.055	.067	.992	.876	-.868	147.6	.992	.877	-.869
.87	21.7	180.7	.008	50.0	10.09	8.34	14.526	.072	.991	.872	-.863	169.3	.991	.874	-.866

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 3 OCCURRED 2 TIMES. AVERAGE NUMBER ITERATIONS = 1.0390

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME (HR)	WIDTH (FT)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.098	.0	.69	.45	1.000	.000	1.000	.000	.000	1.000	.000	.000
.05	.0	.0	.071	1.4	.70	.97	1.006	.006	.994	.006	.000	.0	.998	.002
.09	.1	.2	.045	2.7	.71	1.54	1.020	.020	.980	.020	.000	.1	.988	.012
.14	.3	.5	.037	4.6	.72	1.88	1.032	.032	.969	.031	.000	.3	.975	.025
.18	.6	1.2	.035	9.2	.72	1.96	1.036	.036	.966	.034	.000	.8	.968	.032
.23	1.1	2.6	.030	13.8	.73	2.29	1.051	.051	.951	.049	.000	1.8	.958	.042
.27	1.9	4.9	.026	18.4	.74	2.65	1.072	.072	.933	.067	.000	3.7	.942	.058
.32	2.8	8.5	.023	23.0	.76	3.01	1.097	.097	.912	.088	.000	6.6	.922	.078
.37	4.0	13.3	.021	27.6	.78	3.36	1.124	.124	.890	.110	.000	10.8	.901	.099
.41	5.3	19.8	.019	32.0	.80	3.71	1.154	.154	.866	.134	.000	16.5	.878	.122
.46	6.8	29.7	.016	32.1	.85	4.35	1.219	.219	.821	.179	.000	24.6	.843	.157
.50	8.3	41.0	.014	32.1	.89	4.95	1.286	.286	.777	.223	.000	35.2	.799	.201
.55	9.8	53.8	.013	32.1	.94	5.52	1.356	.356	.737	.263	.000	47.3	.757	.243
.60	11.2	68.0	.011	32.1	.99	6.05	1.427	.427	.701	.299	.000	60.7	.719	.281
.64	12.7	83.4	.011	32.2	1.04	6.56	1.498	.498	.668	.332	.000	75.5	.684	.316
.69	14.2	100.0	.010	32.2	1.09	7.05	1.570	.570	.637	.363	.000	91.5	.652	.348
.73	15.7	117.9	.009	36.4	1.10	7.49	1.587	.587	.630	.370	.000	108.7	.634	.366
.78	17.5	137.3	.009	40.9	1.11	7.84	1.602	.602	.624	.376	.000	127.4	.627	.373
.82	19.5	158.2	.009	45.5	1.12	8.12	1.619	.619	.618	.382	.000	147.6	.621	.379
.87	21.7	180.7	.008	50.0	1.14	8.34	1.636	.636	.611	.389	.000	169.3	.614	.386

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 2 OCCURRED 19 TIMES. AVERAGE NUMBER ITERATIONS = 1.0322

Equations solved with two passes; first using the Ponce correction to C1, second using the Fread correction to C1, C2 and C3

PRINT HYD ID=2 CODE=1

HYDROGRAPH FROM AREA Off_1A.9

RUNOFF VOLUME = 2.36826 INCHES = .6616 ACRE-Feet
PEAK DISCHARGE RATE = 5.02 CFS AT 1.900 HOURS BASIN AREA = .0052 SQ. MI.

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*
PUNCH HYD ID=2
*
COMPUTE NM HYD ID=1 HYD=Off_1C DA=0.0054 SQ MI
PER A=0 B=34 C=31.7 D=34.3
TP=0.13 HRS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 7.4982 CFS UNIT VOLUME = .9980 B = 526.28 P60 = 1.7990
AREA = .001852 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .116180HR TP = .130000HR K/TP RATIO = .893693 SHAPE CONSTANT, N = 3.967435
UNIT PEAK = 9.6335 CFS UNIT VOLUME = 1.000 B = 352.99 P60 = 1.7990
AREA = .003548 SQ MI IA = .42763 INCHES INF = 1.04735 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

*
*
PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA Off_1C

RUNOFF VOLUME = 1.43633 INCHES = .4137 ACRE-Feet
PEAK DISCHARGE RATE = 10.98 CFS AT 1.500 HOURS BASIN AREA = .0054 SQ. MI.

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*
ADD HYD ID=2 HYD=Off_1C.1 ID I=1 ID II=2
*
PRINT HYD ID=2 CODE=1

HYDROGRAPH FROM AREA Off_1C.1

RUNOFF VOLUME = 1.89503 INCHES = 1.0752 ACRE-Feet
PEAK DISCHARGE RATE = 14.08 CFS AT 1.500 HOURS BASIN AREA = .0106 SQ. MI.

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*
COMPUTE NM HYD ID=1 HYD=21ST DA=0.0010 SQ MI

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

PER A=0 B=0 C=10 D=90
TP=0.13 HRS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 3.6434 CFS UNIT VOLUME = .9965 B = 526.28 P60 = 1.7990
AREA = .000900 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .102465HR TP = .130000HR K/TP RATIO = .788191 SHAPE CONSTANT, N = 4.553549
UNIT PEAK = .30040 CFS UNIT VOLUME = .9613 B = 390.52 P60 = 1.7990
AREA = .000100 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

*
PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA 21ST

RUNOFF VOLUME = 2.45016 INCHES = .1307 ACRE-Feet
PEAK DISCHARGE RATE = 2.75 CFS AT 1.500 HOURS BASIN AREA = .0010 SQ. MI.

*
*
ADD HYD ID=2 HYD=21ST.1 ID I=1 ID II=2
*
PRINT HYD ID=2 CODE=1

HYDROGRAPH FROM AREA 21ST.1

RUNOFF VOLUME = 1.94270 INCHES = 1.2058 ACRE-Feet
PEAK DISCHARGE RATE = 16.84 CFS AT 1.500 HOURS BASIN AREA = .0116 SQ. MI.

*
*
COMPUTE RATING CURVE CID=1 VALLEY SECTION=1 NUMBER OF SEGMENTS=3

MINIMUM ELEV=99.13 FT MAXIMUM ELEV=100 FT
CHANNEL SLOPE=0.015 FLOOD PLAIN SLOPE=0.015
N=0.030 DIST=9 N=-0.017 DIST=41 N=0.030 DIST=50
DIST ELEV DIST ELEV DIST ELEV DIST ELEV
0.0 100.0 9.0 99.82 9.2 99.13 11 99.26
25.0 99.54 39.0 99.26 41.0 99.13 41.2 99.82
50.0 100.0

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
99.13	.60	.09	1.00
99.18	.03	.03	1.37
99.22	.13	.17	2.73
99.27	.28	.46	4.62
99.31	.60	1.02	9.22
99.36	1.13	2.24	13.83
99.40	1.87	4.28	18.43
99.45	2.82	7.34	23.04
99.50	3.98	11.56	27.65
99.54	5.35	17.17	32.04
99.59	6.82	25.70	32.07
99.63	8.28	35.55	32.09
99.68	9.75	46.62	32.12
99.73	11.23	58.85	32.15
99.77	12.70	72.19	32.17
99.82	14.17	86.58	32.20
99.86	15.74	102.09	36.42
99.91	17.51	118.86	40.95
99.95	19.49	136.96	45.48
100.00	21.67	156.47	50.00

ROUTE MCUNGE ID=3 HYD=21ST.9 INFLOW ID=2 DT=0.00
L=1800 NO VS=1 SLP=0.015

INFLOW END= 503
DT= .050000
WIDTH MED= 24.22
TABLE PTS= 20
QMED= 8.42 CKMED= 3.6367
NREACH= 6 DX= 300.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME (HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.814	.0	1.67	.39	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.05	.0	.0	.594	1.4	1.66	.84	.997	.003	.997	.000	.003	.0	1.000	.000	.000
.09	.1	.2	.374	2.7	1.76	1.34	1.055	.008	.993	.030	-.023	.1	.996	.011	-.007
.14	.3	.5	.308	4.6	1.93	1.63	1.158	.011	.989	.078	-.068	.3	.990	.018	-.008
.18	.6	1.0	.294	9.2	2.07	1.70	1.242	.012	.989	.113	-.102	.7	.987	.023	-.010
.23	1.1	2.2	.252	13.8	2.57	1.98	1.539	.014	.989	.217	-.206	1.6	.989	.161	-.149
.27	1.9	4.3	.218	18.4	3.02	2.30	1.811	.017	.988	.293	-.281	3.2	.988	.251	-.239
.32	2.8	7.3	.192	23.0	3.45	2.61	2.068	.021	.987	.353	-.339	5.7	.987	.320	-.307
.37	4.0	11.6	.172	27.6	3.88	2.91	2.329	.024	.986	.404	-.389	9.3	.986	.375	-.361

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed

AHYMO Output File

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME (HR)	WIDTH (FT)	CK (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.41	5.3	17.2	.156	32.0	4.74	3.21	2.846	.025	.987	.483	-.470	14.3	.985	.426	-.412
.46	6.8	25.7	.133	32.1	6.27	3.77	3.761	.028	.988	.582	-.571	21.3	.989	.557	-.546
.50	8.3	35.5	.117	32.1	7.13	4.29	4.275	.035	.987	.623	-.610	30.5	.988	.604	-.592
.55	9.8	46.6	.105	32.1	7.93	4.78	4.758	.041	.986	.655	-.641	40.9	.986	.640	-.627
.60	11.2	58.9	.095	32.1	8.69	5.24	5.215	.047	.985	.681	-.666	52.6	.985	.668	-.654
.64	12.7	72.2	.088	32.2	9.42	5.68	5.650	.053	.984	.702	-.686	65.4	.985	.692	-.675
.69	14.2	86.6	.082	32.2	10.11	6.11	6.068	.059	.983	.719	-.703	79.3	.984	.711	-.695
.73	15.7	102.1	.077	36.4	9.71	6.49	5.827	.064	.981	.710	-.691	94.2	.982	.713	-.696
.78	17.5	118.9	.074	40.9	9.33	6.79	5.597	.069	.979	.700	-.679	110.3	.980	.703	-.684
.82	19.5	137.0	.071	45.5	9.05	7.03	5.432	.074	.977	.693	-.670	127.8	.978	.695	-.673
.87	21.7	156.5	.069	50.0	8.74	7.22	5.242	.080	.975	.684	-.658	146.6	.976	.689	-.665

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 4 OCCURRED 1 TIMES. AVERAGE NUMBER ITERATIONS = 1.0819

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 2 OCCURRED 190 TIMES. AVERAGE NUMBER ITERATIONS = 1.0544
 Equations solved with two passes: first using the Ponce correction to C1, second using the Fread correction to C1, C2 and C3

* PRINT HYD ID=3 CODE=1

HYDROGRAPH FROM AREA 21ST.9

RUNOFF VOLUME = 1.93931 INCHES = 1.2037 ACRE-FEET
 PEAK DISCHARGE RATE = 16.40 CFS AT 1.800 HOURS BASIN AREA = .0116 SQ. MI.

 * *****

COMPUTE NM HYD ID=1 HYD=Off_1B DA=0.0056 SQ MI
 PER A=0 B=0 C=15 D=85
 TP=0.13 HRS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 19.270 CFS UNIT VOLUME = .9988 B = 526.28 P60 = 1.7990
 AREA = .004760 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .102465HR TP = .130000HR K/TP RATIO = .788191 SHAPE CONSTANT, N = 4.553549
 UNIT PEAK = 2.5234 CFS UNIT VOLUME = .9964 B = 390.52 P60 = 1.7990
 AREA = .000840 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

* PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA Off_1B

RUNOFF VOLUME = 2.37034 INCHES = .7079 ACRE-FEET
 PEAK DISCHARGE RATE = 15.09 CFS AT 1.500 HOURS BASIN AREA = .0056 SQ. MI.

*
 * PUNCH HYD ID=1
 *
 *S ROUTE Off_1B through existing pond
 *S Pond Exists in field; Total volume = 0.22 ac-ft
 *S limited flowrate to predevelopment level
 *S
 ROUTE RESERVOIR ID=17 HYD NO=P.Out INFLOW ID=1 CODE=4.2

OUTFLOW (CFS)	STORAGE (AF)	ELEV (FT)
0	0	1
1.60	0.0074	1.5
2.26	0.0166	2
2.77	0.0279	2.5
3.20	0.0414	3
3.57	0.0574	3.5

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

3.91	0.076	4
4.23	0.0976	4.5
4.52	0.1222	5
4.79	0.15	5.5
5.05	0.18	6.0
5.30	0.217	6.5
5.54	0.256	7.0
5.76	0.300	7.5

* * * * *

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

.00	.00	1.00	.000	.00
.20	.00	1.00	.000	.00
.40	.00	1.00	.000	.00
.60	.00	1.00	.000	.00
.80	.00	1.00	.000	.00
1.00	.11	1.01	.000	.04
1.20	.75	1.15	.002	.46
1.40	9.59	2.99	.041	3.19
1.60	9.95	6.03	.182	5.06
1.80	5.17	6.42	.211	5.26
2.00	3.47	6.20	.195	5.15
2.20	1.23	5.52	.151	4.80
2.40	.62	4.36	.091	4.14
2.60	.38	2.91	.039	3.12
2.80	.26	1.40	.006	1.29
3.00	.19	1.07	.001	.23
3.20	.16	1.05	.001	.16
3.40	.14	1.04	.001	.14
3.60	.13	1.04	.001	.13
3.80	.12	1.04	.001	.12
4.00	.11	1.04	.001	.12
4.20	.11	1.04	.001	.11
4.40	.11	1.03	.001	.11
4.60	.11	1.03	.001	.11
4.80	.11	1.03	.001	.11
5.00	.11	1.04	.001	.11
5.20	.12	1.04	.001	.11
5.40	.12	1.04	.001	.12
5.60	.12	1.04	.001	.12
5.80	.13	1.04	.001	.13
6.00	.13	1.04	.001	.13
6.20	.13	1.04	.001	.13
6.40	.13	1.04	.001	.14
6.60	.13	1.04	.001	.13
6.80	.13	1.04	.001	.13
7.00	.13	1.04	.001	.13
7.20	.13	1.04	.001	.13
7.40	.13	1.04	.001	.13
7.60	.12	1.04	.001	.13
7.80	.12	1.04	.001	.12
8.00	.12	1.04	.001	.12
8.20	.12	1.04	.001	.12
8.40	.12	1.04	.001	.12
8.60	.12	1.04	.001	.12
8.80	.12	1.04	.001	.12
9.00	.11	1.04	.001	.12
9.20	.11	1.04	.001	.11
9.40	.11	1.04	.001	.11
9.60	.11	1.03	.001	.11
9.80	.11	1.03	.001	.11
10.00	.11	1.03	.001	.11
10.20	.11	1.03	.000	.11
10.40	.11	1.03	.000	.11
10.60	.10	1.03	.000	.10
10.80	.10	1.03	.000	.10
11.00	.10	1.03	.000	.10

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

11.20	.10	1.03	.000	.10
11.40	.10	1.03	.000	.10
11.60	.10	1.03	.000	.10
11.80	.10	1.03	.000	.10
12.00	.10	1.03	.000	.10
12.20	.10	1.03	.000	.10
12.40	.10	1.03	.000	.10
12.60	.10	1.03	.000	.10
12.80	.09	1.03	.000	.09
13.00	.09	1.03	.000	.09
13.20	.09	1.03	.000	.09
13.40	.09	1.03	.000	.09
13.60	.09	1.03	.000	.09
13.80	.09	1.03	.000	.09
14.00	.09	1.03	.000	.09
14.20	.09	1.03	.000	.09
14.40	.09	1.03	.000	.09
14.60	.09	1.03	.000	.09
14.80	.09	1.03	.000	.09
15.00	.09	1.03	.000	.09

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15.20	.09	1.03	.000	.09
15.40	.08	1.03	.000	.08
15.60	.08	1.03	.000	.08
15.80	.08	1.03	.000	.08
16.00	.08	1.03	.000	.08
16.20	.08	1.03	.000	.08
16.40	.08	1.03	.000	.08
16.60	.08	1.03	.000	.08
16.80	.08	1.03	.000	.08
17.00	.08	1.02	.000	.08
17.20	.08	1.02	.000	.08
17.40	.08	1.02	.000	.08
17.60	.08	1.02	.000	.08
17.80	.08	1.02	.000	.08
18.00	.08	1.02	.000	.08
18.20	.08	1.02	.000	.08
18.40	.08	1.02	.000	.08
18.60	.07	1.02	.000	.08
18.80	.07	1.02	.000	.07
19.00	.07	1.02	.000	.07
19.20	.07	1.02	.000	.07
19.40	.07	1.02	.000	.07
19.60	.07	1.02	.000	.07
19.80	.07	1.02	.000	.07
20.00	.07	1.02	.000	.07
20.20	.07	1.02	.000	.07
20.40	.07	1.02	.000	.07
20.60	.07	1.02	.000	.07
20.80	.07	1.02	.000	.07
21.00	.07	1.02	.000	.07
21.20	.07	1.02	.000	.07
21.40	.07	1.02	.000	.07
21.60	.07	1.02	.000	.07
21.80	.07	1.02	.000	.07
22.00	.07	1.02	.000	.07
22.20	.07	1.02	.000	.07

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

22.40	.07	1.02	.000	.07
22.60	.07	1.02	.000	.07
22.80	.07	1.02	.000	.07
23.00	.07	1.02	.000	.07
23.20	.06	1.02	.000	.06
23.40	.06	1.02	.000	.06
23.60	.06	1.02	.000	.06
23.80	.06	1.02	.000	.06
24.00	.06	1.02	.000	.06
24.20	.02	1.01	.000	.03
24.40	.00	1.00	.000	.01
24.60	.00	1.00	.000	.00

PEAK DISCHARGE = 5.259 CFS - PEAK OCCURS AT HOUR 1.80
 MAXIMUM WATER SURFACE ELEVATION = 6.418
 MAXIMUM STORAGE = .2109 AC-FT INCREMENTAL TIME= .100000HRS

*
 PRINT HYD ID=17 CODE=1

HYDROGRAPH FROM AREA P.Out

RUNOFF VOLUME = 2.37246 INCHES = .7086 ACRE-Feet
 PEAK DISCHARGE RATE = 5.26 CFS AT 1.800 HOURS BASIN AREA = .0056 SQ. MI.

*
 *S *****DIVIDE HYD TO UNBULK BY 3% *****
 DIVIDE HYD ID=17 %=-97 ID I=17 HYD=P.Out.1
 ID II=52 HYD=SEDIMENT

*
 COMPUTE RATING CURVE CID=1 VALLEY SECTION=1 NUMBER OF SEGMENTS=3
 MINIMUM ELEV=99.13 FT MAXIMUM ELEV=100 FT
 CHANNEL SLOPE=0.02 FLOOD PLAIN SLOPE=0.02
 N=0.030 DIST=9 N=-0.017 DIST=41 N=0.030 DIST=50

DIST	ELEV	DIST	ELEV	DIST	ELEV	DIST	ELEV
0.0	100.0	9.0	99.82	9.2	99.13	11	99.26
25.0	99.54	39.0	99.26	41.0	99.13	41.2	99.82
50.0	100.0						

RATING CURVE VALLEY SECTION 1.0			
WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
99.13	.00	.00	.00
99.18	.03	.03	1.37
99.22	.13	.19	2.73
99.27	.28	.53	4.62
99.31	.60	1.18	9.22
99.36	1.13	2.58	13.83

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99.40	1.87	4.95	18.43
99.45	2.82	8.47	23.04
99.50	3.98	13.35	27.65
99.54	5.35	19.83	32.04
99.59	6.82	29.68	32.07
99.63	8.28	41.05	32.09
99.68	9.75	53.83	32.12
99.73	11.23	67.96	32.15
99.77	12.70	83.36	32.17
99.82	14.17	99.98	32.20
99.86	15.74	117.88	36.42
99.91	17.51	137.25	40.95
99.95	19.49	158.15	45.48
100.00	21.67	180.68	50.00

ROUTE MCUNGE

ID=2 HYD=Off_1B.9 INFLOW ID=17 DT=0.00
L=250 NO VS=1 SLP=0.02

INFLOW END= 248
DT= .100000
WIDTH MED=

TABLE PTS= 20
QMED= 2.55
NREACH= 1

CKMED= 2.6618
DX= 250.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.098	.0	.69	.45	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.05	.0	.0	.071	1.4	1.36	.97	1.951	.003	.998	.323	-.321	.0	.998	.083	-.081
.09	.1	.2	.045	2.7	2.03	1.54	2.924	.007	.996	.491	-.488	.1	.997	.416	-.413
.14	.3	.5	.037	4.6	2.23	1.88	3.210	.010	.995	.526	-.521	.3	.995	.481	-.476
.18	.6	1.2	.035	9.2	2.39	1.96	3.441	.011	.995	.551	-.546	.8	.994	.484	-.478
.23	1.1	2.6	.030	13.8	2.96	2.29	4.266	.013	.995	.621	-.616	1.8	.995	.584	-.579
.27	1.9	4.9	.026	18.4	3.48	2.65	5.018	.015	.995	.669	-.663	3.7	.995	.643	-.638
.32	2.8	8.5	.023	23.0	3.98	3.01	5.732	.018	.995	.704	-.698	6.6	.995	.685	-.679
.37	4.0	13.3	.021	27.6	4.48	3.36	6.455	.022	.994	.732	-.727	10.8	.994	.716	-.711
.41	5.3	19.8	.019	32.0	5.48	3.71	7.886	.023	.995	.776	-.770	16.5	.994	.745	-.739
.46	6.8	29.7	.016	32.1	7.24	4.35	10.423	.026	.996	.825	-.821	24.6	.996	.813	-.809
.50	8.3	41.0	.014	32.1	8.23	4.95	11.848	.031	.995	.845	-.840	35.2	.995	.836	-.831
.55	9.8	53.8	.013	32.1	9.16	5.52	13.186	.037	.995	.859	-.854	47.3	.995	.853	-.848
.60	11.2	68.0	.011	32.1	10.04	6.05	14.451	.042	.995	.871	-.865	60.7	.995	.865	-.860
.64	12.7	83.4	.011	32.2	10.87	6.56	15.657	.048	.994	.880	-.875	75.5	.994	.876	-.870
.69	14.2	100.0	.010	32.2	11.68	7.05	16.817	.053	.994	.888	-.882	91.5	.994	.884	-.879
.73	15.7	117.9	.009	36.4	11.21	7.49	16.149	.058	.993	.884	-.877	108.7	.994	.885	-.879
.78	17.5	137.3	.009	40.9	10.77	7.84	15.512	.062	.992	.879	-.872	127.4	.993	.881	-.874
.82	19.5	158.2	.009	45.5	10.45	8.12	15.055	.067	.992	.876	-.868	147.6	.992	.877	-.869
.87	21.7	180.7	.008	50.0	10.09	8.34	14.526	.072	.991	.872	-.863	169.3	.991	.874	-.866

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 3 OCCURRED 2 TIMES. AVERAGE NUMBER ITERATIONS = 1.0424

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.098	.0	.69	.45	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.05	.0	.0	.071	1.4	.70	.97	1.006	.006	.994	.006	.000	.0	.998	.002	.000
.09	.1	.2	.045	2.7	.71	1.54	1.020	.020	.980	.020	.000	.1	.988	.012	.000
.14	.3	.5	.037	4.6	.72	1.88	1.032	.032	.969	.031	.000	.3	.975	.025	.000
.18	.6	1.2	.035	9.2	.72	1.96	1.036	.036	.966	.034	.000	.8	.968	.032	.000
.23	1.1	2.6	.030	13.8	.73	2.29	1.051	.051	.951	.049	.000	1.8	.958	.042	.000
.27	1.9	4.9	.026	18.4	.74	2.65	1.072	.072	.933	.067	.000	3.7	.942	.058	.000
.32	2.8	8.5	.023	23.0	.76	3.01	1.097	.097	.912	.088	.000	6.6	.922	.078	.000
.37	4.0	13.3	.021	27.6	.78	3.36	1.124	.124	.890	.110	.000	10.8	.901	.099	.000
.41	5.3	19.8	.019	32.0	.80	3.71	1.154	.154	.866	.134	.000	16.5	.878	.122	.000
.46	6.8	29.7	.016	32.1	.85	4.35	1.219	.219	.821	.179	.000	24.6	.843	.157	.000
.50	8.3	41.0	.014	32.1	.89	4.95	1.286	.286	.777	.223	.000	35.2	.799	.201	.000
.55	9.8	53.8	.013	32.1	.94	5.52	1.356	.356	.737	.263	.000	47.3	.757	.243	.000
.60	11.2	68.0	.011	32.1	.99	6.05	1.427	.427	.701	.299	.000	60.7	.719	.281	.000
.64	12.7	83.4	.011	32.2	1.04	6.56	1.498	.498	.668	.332	.000	75.5	.684	.316	.000
.69	14.2	100.0	.010	32.2	1.09	7.05	1.570	.570	.637	.363	.000	91.5	.652	.348	.000
.73	15.7	117.9	.009	36.4	1.10	7.49	1.587	.587	.630	.370	.000	108.7	.634	.366	.000
.78	17.5	137.3	.009	40.9	1.11	7.84	1.602	.602	.624	.376	.000	127.4	.627	.373	.000
.82	19.5	158.2	.009	45.5	1.12	8.12	1.619	.619	.618	.382	.000	147.6	.621	.379	.000
.87	21.7	180.7	.008	50.0	1.14	8.34	1.636	.636	.611	.389	.000	169.3	.614	.386	.000

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 2 OCCURRED 16 TIMES. AVERAGE NUMBER ITERATIONS = 1.0271

Equations solved with two passes: first using the Ponce correction to C1, second using the Fread correction to C1, C2 and C3
PRINT HYD ID=2 CODE=1

HYDROGRAPH FROM AREA Off_1B.9

RUNOFF VOLUME = 2.37182 INCHES = .6871 ACRE-Feet
PEAK DISCHARGE RATE = 5.10 CFS AT 1.900 HOURS BASIN AREA = .0054 SQ. MI.

COMPUTE NM HYD

ID=1 HYD=Off_ID DA=0.0047 SQ MI
PER A=10 B=33 C=30 D=27
TP=0.13 HRS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 5.1373 CFS UNIT VOLUME = .9971 B = 526.28 P60 = 1.7990
AREA = .001269 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .122516HR TP = .130000HR K/TP RATIO = .942428 SHAPE CONSTANT, N = 3.751639
UNIT PEAK = 8.9274 CFS UNIT VOLUME = .9996 B = 338.26 P60 = 1.7990
AREA = .003431 SQ MI IA = .45890 INCHES INF = 1.13493 INCHES PER HOUR

06/17/04 7:18 AM

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B-14

Yucatan at Cabezon Subdivision-Cabezón Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

*
PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA Off_ID

RUNOFF VOLUME = 1.25884 INCHES = .3155 ACRE-FEET
PEAK DISCHARGE RATE = 8.75 CFS AT 1.500 HOURS BASIN AREA = .0047 SQ. MI.

*
ADD HYD ID=2 HYD=OffID.1 ID I=1 ID II=2

*
PRINT HYD ID=2 CODE=1

HYDROGRAPH FROM AREA OffID.1

RUNOFF VOLUME = 1.85535 INCHES = 1.0026 ACRE-FEET
PEAK DISCHARGE RATE = 11.92 CFS AT 1.500 HOURS BASIN AREA = .0101 SQ. MI.

*
COMPUTE NM HYD ID=1 HYD=22ND DA=0.0010 SQ MI
PER A=0 B=0 C=1.0 D=90
TP=0.13 HRS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 3.6434 CFS UNIT VOLUME = .9965 B = 526.28 P60 = 1.7990
AREA = .000900 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .102465HR TP = .130000HR K/TP RATIO = .788191 SHAPE CONSTANT, N = 4.552549
UNIT PEAK = .30040 CFS UNIT VOLUME = .9613 B = 390.52 P60 = 1.7990
AREA = .000100 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

*
PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA 22ND

RUNOFF VOLUME = 2.45016 INCHES = .1307 ACRE-FEET
PEAK DISCHARGE RATE = 2.75 CFS AT 1.500 HOURS BASIN AREA = .0010 SQ. MI.

*
ADD HYD ID=2 HYD=22ND.1 ID I=1 ID II=2

*
PRINT HYD ID=2 CODE=1

HYDROGRAPH FROM AREA 22ND.1

RUNOFF VOLUME = 1.90875 INCHES = 1.1332 ACRE-FEET
PEAK DISCHARGE RATE = 14.67 CFS AT 1.500 HOURS BASIN AREA = .0111 SQ. MI.

*
COMPUTE RATING CURVE CID=1 VALLEY SECTION=1 NUMBER OF SEGMENTS=3

MINIMUM ELEV=99.13 FT MAXIMUM ELEV=100 FT
CHANNEL SLOPE=0.02 FLOOD PLAIN SLOPE=0.02
N=0.030 DIST=9 N=-0.017 DIST=41 N=0.030 DIST=50
DIST ELEV DIST ELEV DIST ELEV DIST ELEV
0.0 100.0 9.0 99.82 9.2 99.13 11 99.26
25.0 99.54 39.0 99.26 41.0 99.13 41.2 99.82
50.0 100.0

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
99.13	.00	.00	.00
99.18	.03	.03	1.37
99.22	.13	.19	2.73
99.27	.28	.53	4.62
99.31	.60	1.18	9.22
99.36	1.13	2.58	13.83

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

99.40	1.87	4.95	18.43
99.45	2.82	8.47	23.04
99.50	3.98	13.35	27.65
99.54	5.35	19.83	32.04
99.59	6.82	29.68	32.07
99.63	8.28	41.05	32.09
99.68	9.75	53.83	32.12
99.73	11.23	67.96	32.15
99.77	12.70	83.36	32.17
99.82	14.17	99.98	32.20
99.86	15.74	117.88	36.42
99.91	17.51	137.25	40.95
99.95	19.49	158.15	45.48
100.00	21.67	180.68	50.00

ROUTE MCUNGE

ID=1 HYD=22ND.9 INFLOW ID=2 DT=0.00
L=250 NO VS=1 SLP=0.02

INFLOW END= 503 TABLE PTS= 20
DT= .050000 QMED= 7.34 CKMED= 3.7118
WIDTH MED= 21.56 NREACH= 1 DX= 250.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	CK (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.098	.0	1.39	.45	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.05	.0	.0	.071	1.4	1.38	.97	.997	.003	.997	.000	.003	.0	.999	.000	.001
.09	.1	.2	.045	2.7	2.03	1.54	1.462	.007	.994	.190	-.184	.1	.995	.097	-.092
.14	.3	.5	.037	4.6	2.23	1.88	1.605	.010	.992	.235	-.227	.3	.992	.177	-.170
.18	.6	1.2	.035	9.2	2.39	1.96	1.721	.011	.992	.268	-.260	.8	.990	.182	-.172
.23	1.1	2.6	.030	13.8	2.96	2.29	2.133	.013	.992	.364	-.356	1.8	.992	.313	-.304
.27	1.9	4.9	.026	18.4	3.48	2.65	2.509	.015	.991	.433	-.424	3.7	.991	.395	-.386
.32	2.8	8.5	.023	23.0	3.98	3.01	2.866	.018	.990	.485	-.476	6.6	.991	.457	-.447
.37	4.0	13.3	.021	27.6	4.48	3.36	3.227	.022	.990	.529	-.519	10.8	.990	.504	-.494
.41	5.3	19.8	.019	32.0	5.48	3.71	3.943	.023	.991	.597	-.588	16.5	.989	.549	-.538
.46	6.8	29.7	.016	32.1	7.24	4.35	5.212	.026	.992	.679	-.671	24.6	.992	.659	-.651
.50	8.3	41.0	.014	32.1	8.23	4.95	5.924	.031	.991	.712	-.704	35.2	.991	.697	-.688
.55	9.8	53.8	.013	32.1	9.16	5.52	6.593	.037	.990	.738	-.728	47.3	.991	.726	-.717
.60	11.2	68.0	.011	32.1	10.04	6.05	7.226	.042	.990	.758	-.748	60.7	.990	.749	-.739
.64	12.7	83.4	.011	32.2	10.87	6.56	7.829	.048	.989	.775	-.764	75.5	.990	.767	-.756
.69	14.2	100.0	.010	32.2	11.68	7.05	8.409	.053	.989	.789	-.777	91.5	.989	.782	-.771
.73	15.7	117.9	.009	36.4	11.21	7.49	8.074	.058	.987	.781	-.768	108.7	.988	.784	-.772
.78	17.5	137.3	.009	40.9	10.77	7.84	7.756	.062	.986	.773	-.759	127.4	.986	.776	-.762
.82	19.5	158.2	.009	45.5	10.45	8.12	7.527	.067	.985	.767	-.752	147.6	.985	.769	-.754
.87	21.7	180.7	.008	50.0	10.09	8.34	7.263	.072	.983	.760	-.743	169.3	.984	.764	-.748

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 3 OCCURRED 3 TIMES. AVERAGE NUMBER ITERATIONS = 1.0756
Equations solved using the Ponce correction to C2
PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA 22ND.9

RUNOFF VOLUME = 1.90904 INCHES = 1.1334 ACRE-Feet
PEAK DISCHARGE RATE = 14.42 CFS AT 1.550 HOURS BASIN AREA = .0111 SQ. MI.

COMPUTE NM HYD ID=2 HYD=Off_2B DA=0.0047 SQ MI
PER A=0 B=0 C=15 D=85
TP=0.13 HRS RAIN=-1

K = .070850HR TP = .130000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 16.173 CFS UNIT VOLUME = .9987 B = 526.28 P60 = 1.7990
AREA = .003995 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .102465HR TP = .130000HR K/TP RATIO = .788191 SHAPE CONSTANT, N = 4.553549
UNIT PEAK = 2.1178 CFS UNIT VOLUME = .9955 B = 390.52 P60 = 1.7990
AREA = .000705 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=2 CODE=1

HYDROGRAPH FROM AREA Off_2B

RUNOFF VOLUME = 2.37033 INCHES = .5942 ACRE-Feet
PEAK DISCHARGE RATE = 12.67 CFS AT 1.500 HOURS BASIN AREA = .0047 SQ. MI.

PUNCH HYD ID=2

*S ROUTE Off_2B through existing pond
*S Pond Exists in field, Total volume = 0.18 ac-ft
*S limited flowrate to predevelopment level

ROUTE RESERVOIR ID=17 HYD NO=P.Out INFLOW ID=2 CODE=4.2

06/17/04 7:18 AM

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B-16

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

OUTFLOW (CFS)	STORAGE (AF)	ELEV (FT)
0	0	1
1.60	0.0074	1.5
2.26	0.0166	2
2.77	0.0279	2.5
3.20	0.0414	3
3.57	0.0574	3.5
3.91	0.076	4
4.23	0.0976	4.5
4.52	0.1222	5
4.79	0.15	5.5
5.05	0.18	6.0
5.30	0.217	6.5
5.54	0.256	7.0
5.76	0.300	7.5

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	1.00	.000	.00
.20	.00	1.00	.000	.00
.40	.00	1.00	.000	.00
.60	.00	1.00	.000	.00
.80	.00	1.00	.000	.00
1.00	.09	1.01	.000	.03
1.20	.63	1.12	.002	.39
1.40	8.05	2.68	.033	2.92
1.60	8.35	5.40	.144	4.73
1.80	4.34	5.67	.160	4.88
2.00	2.91	5.32	.140	4.69
2.20	1.04	4.52	.099	4.24
2.40	.52	3.19	.047	3.34
2.60	.32	1.66	.010	1.81
2.80	.21	1.09	.001	.29
3.00	.16	1.05	.001	.17
3.20	.13	1.04	.001	.14
3.40	.11	1.04	.001	.12
3.60	.11	1.03	.001	.11
3.80	.10	1.03	.000	.10
4.00	.10	1.03	.000	.10
4.20	.09	1.03	.000	.09
4.40	.09	1.03	.000	.09
4.60	.09	1.03	.000	.09
4.80	.09	1.03	.000	.09
5.00	.10	1.03	.000	.09
5.20	.10	1.03	.000	.10
5.40	.10	1.03	.000	.10
5.60	.10	1.03	.000	.10
5.80	.11	1.03	.000	.11
6.00	.11	1.03	.001	.11
6.20	.11	1.03	.001	.11
6.40	.11	1.04	.001	.11
6.60	.11	1.04	.001	.11
6.80	.11	1.03	.001	.11
7.00	.11	1.03	.001	.11
7.20	.11	1.03	.001	.11
7.40	.11	1.03	.000	.11
7.60	.10	1.03	.000	.10
7.80	.10	1.03	.000	.10
8.00	.10	1.03	.000	.10
8.20	.10	1.03	.000	.10
8.40	.10	1.03	.000	.10
8.60	.10	1.03	.000	.10
8.80	.10	1.03	.000	.10
9.00	.10	1.03	.000	.10
9.20	.10	1.03	.000	.10
9.40	.09	1.03	.000	.09
9.60	.09	1.03	.000	.09
9.80	.09	1.03	.000	.09
10.00	.09	1.03	.000	.09
10.20	.09	1.03	.000	.09
10.40	.09	1.03	.000	.09
10.60	.09	1.03	.000	.09
10.80	.09	1.03	.000	.09
11.00	.09	1.03	.000	.09

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
11.20	.09	1.03	.000	.09
11.40	.09	1.03	.000	.09
11.60	.08	1.03	.000	.08
11.80	.08	1.03	.000	.08
12.00	.08	1.03	.000	.08
12.20	.08	1.03	.000	.08
12.40	.08	1.03	.000	.08
12.60	.08	1.03	.000	.08
12.80	.08	1.02	.000	.08
13.00	.08	1.02	.000	.08
13.20	.08	1.02	.000	.08
13.40	.08	1.02	.000	.08
13.60	.08	1.02	.000	.08

Yucatan at Cabezon Subdivision-Cabezon Redevelopment **100-Year 24-Hour Duration Storm-Developed** **AHYMO Output File**

13.80	.08	1.02	.000	.08
14.00	.08	1.02	.000	.08
14.20	.07	1.02	.000	.07
14.40	.07	1.02	.000	.07
14.60	.07	1.02	.000	.07
14.80	.07	1.02	.000	.07
15.00	.07	1.02	.000	.07
15.20	.07	1.02	.000	.07
15.40	.07	1.02	.000	.07
15.60	.07	1.02	.000	.07
15.80	.07	1.02	.000	.07
16.00	.07	1.02	.000	.07
16.20	.07	1.02	.000	.07
16.40	.07	1.02	.000	.07
16.60	.07	1.02	.000	.07
16.80	.07	1.02	.000	.07
17.00	.07	1.02	.000	.07
17.20	.07	1.02	.000	.07
17.40	.07	1.02	.000	.07
17.60	.07	1.02	.000	.07
17.80	.07	1.02	.000	.06
18.00	.06	1.02	.000	.06
18.20	.06	1.02	.000	.06
18.40	.06	1.02	.000	.06
18.60	.06	1.02	.000	.06
18.80	.06	1.02	.000	.06
19.00	.06	1.02	.000	.06
19.20	.06	1.02	.000	.06
19.40	.06	1.02	.000	.06
19.60	.06	1.02	.000	.06
19.80	.06	1.02	.000	.06
20.00	.06	1.02	.000	.06
20.20	.06	1.02	.000	.06
20.40	.06	1.02	.000	.06
20.60	.06	1.02	.000	.06
20.80	.06	1.02	.000	.06
21.00	.06	1.02	.000	.06
21.20	.06	1.02	.000	.06
21.40	.06	1.02	.000	.06
21.60	.06	1.02	.000	.06
21.80	.06	1.02	.000	.06
22.00	.06	1.02	.000	.06
22.20	.06	1.02	.000	.06

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
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22.40	.06	1.02	.000	.06
22.60	.05	1.02	.000	.06
22.80	.06	1.02	.000	.06
23.00	.05	1.02	.000	.05
23.20	.05	1.02	.000	.05
23.40	.05	1.02	.000	.05
23.60	.05	1.02	.000	.05
23.80	.05	1.02	.000	.05
24.00	.05	1.02	.000	.05
24.20	.01	1.01	.000	.02
24.40	.00	1.00	.000	.01
24.60	.00	1.00	.000	.00

PEAK DISCHARGE = 4.881 CFS - PEAK OCCURS AT HOUR 1.80
 MAXIMUM WATER SURFACE ELEVATION = 5.674
 MAXIMUM STORAGE = .1605 AC-FT INCREMENTAL TIME= .100000HRS

*
 PRINT HYD ID=17 CODE=1

HYDROGRAPH FROM AREA P.Out

RUNOFF VOLUME = 2.37213 INCHES = .5946 ACRE-Feet
 PEAK DISCHARGE RATE = 4.88 CFS AT 1.800 HOURS BASIN AREA = .0047 SQ. MI.

*
 *S *****DIVIDE HYD TO UNBULK BY 3% *****
 DIVIDE HYD ID=17 %=-97 ID I=17 HYD=P.Out.1
 ID II=52 HYD=SEDIMENT

*
 ADD HYD ID=2 HYD=Off2B.1 ID I=1 ID II=17

*
 PRINT HYD ID=2 CODE=1

HYDROGRAPH FROM AREA Off2B.1

RUNOFF VOLUME = 2.04352 INCHES = 1.7101 ACRE-Feet
 PEAK DISCHARGE RATE = 18.74 CFS AT 1.550 HOURS BASIN AREA = .0157 SQ. MI.

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

COMPUTE RATING CURVE CID=1 VALLEY SECTION=1 NUMBER OF SEGMENTS=3
 MINIMUM ELEV=99.13 FT MAXIMUM ELEV=100 FT
 CHANNEL SLOPE=0.015 FLOOD PLAIN SLOPE=0.015
 N=0.030 DIST=9 N=-0.017 DIST=41 N=0.030 DIST=50
 DIST ELEV DIST ELEV DIST ELEV DIST ELEV
 0.0 100.0 9.0 99.82 9.2 99.13 11 99.26
 25.0 99.54 39.0 99.26 41.0 99.13 41.2 99.82
 50.0 100.0

RATING CURVE VALLEY SECTION 1.0				
WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT	
99.13	.00	.00	.00	
99.18	.03	.03	1.37	
99.22	.13	.17	2.73	
99.27	.28	.46	4.62	
99.31	.60	1.02	9.22	
99.36	1.13	2.24	13.83	
99.40	1.87	4.28	18.43	
99.45	2.82	7.34	23.04	
99.50	3.98	11.56	27.65	
99.54	5.35	17.17	32.04	
99.59	6.82	25.70	32.07	
99.63	8.28	35.55	32.09	
99.68	9.75	46.62	32.12	
99.73	11.23	58.85	32.15	
99.77	12.70	72.19	32.17	
99.82	14.17	86.58	32.20	
99.86	15.74	102.09	36.42	
99.91	17.51	118.86	40.95	
99.95	19.49	136.96	45.48	
100.00	21.67	156.47	50.00	

ROUTE MCUNGE ID=1 HYD=OFF2B.9 INFLOW ID=2 DT=0.00
 L=1100 NO VS=1 SLP=0.015

INFLOW END= 503
 DT= .050000
 WIDTH MED= 25.26
 TABLE PTS= 20
 QMED= 9.37 CKMED= 3.6367
 NREACH= 4 DX= 275.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME (HR)	WIDTH (FT)	CK (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.497	.0	1.53	.39	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.05	.0	.0	.363	1.4	1.52	.84	.997	.003	.997	.000	.003	.0	1.000	.000	.000
.09	.1	.2	.229	2.7	1.76	1.34	1.151	.008	.992	.074	-.066	.1	.995	.027	-.023
.14	.3	.5	.188	4.6	1.93	1.63	1.264	.013	.989	.121	-.110	.3	.989	.061	-.051
.18	.6	1.0	.180	9.2	2.07	1.70	1.355	.013	.989	.155	-.144	.7	.987	.066	-.053
.23	1.1	2.2	.154	13.8	2.57	1.98	1.679	.015	.989	.258	-.246	1.6	.988	.203	-.191
.27	1.9	4.3	.133	18.4	3.02	2.30	1.975	.019	.988	.332	-.320	3.2	.988	.291	-.279
.32	2.8	7.3	.117	23.0	3.45	2.61	2.256	.022	.986	.390	-.376	5.7	.987	.358	-.345
.37	4.0	11.6	.105	27.6	3.88	2.91	2.541	.026	.985	.439	-.425	9.3	.985	.412	-.397
.41	5.3	17.2	.095	32.0	4.74	3.21	3.304	.027	.987	.516	-.503	14.3	.985	.461	-.446
.46	6.8	25.7	.081	32.1	6.27	3.77	4.103	.031	.988	.610	-.598	21.3	.989	.586	-.575
.50	8.3	35.5	.071	32.1	7.13	4.29	4.664	.038	.987	.649	-.636	30.5	.987	.631	-.619
.55	9.8	46.6	.064	32.1	7.93	4.78	5.190	.044	.986	.679	-.665	40.9	.986	.665	-.651
.60	11.2	58.9	.058	32.1	8.69	5.24	5.689	.051	.985	.703	-.688	52.6	.985	.692	-.677
.64	12.7	72.2	.054	32.2	9.42	5.68	6.164	.058	.984	.723	-.707	65.4	.984	.714	-.698
.69	14.2	86.6	.050	32.2	10.11	6.11	6.620	.064	.983	.740	-.723	79.3	.984	.732	-.715
.73	15.7	102.1	.047	36.4	9.71	6.49	6.357	.070	.981	.731	-.712	94.2	.982	.734	-.716
.78	17.5	118.9	.045	40.9	9.33	6.79	6.106	.075	.979	.722	-.701	110.3	.980	.725	-.705
.82	19.5	137.0	.043	45.5	9.05	7.03	5.926	.081	.977	.715	-.692	127.8	.978	.717	-.695
.87	21.7	156.5	.042	50.0	8.74	7.22	5.718	.087	.974	.706	-.681	146.6	.976	.711	-.687

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 3 OCCURRED 22 TIMES. AVERAGE NUMBER ITERATIONS = 1.0838

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME (HR)	WIDTH (FT)	CK (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.497	.0	1.53	.39	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.05	.0	.0	.363	1.4	1.52	.84	.997	.003	.997	.000	.003	.0	1.000	.000	.000
.09	.1	.2	.229	2.7	1.54	1.34	1.010	.010	.990	.010	.000	.1	.994	.006	.000
.14	.3	.5	.188	4.6	1.55	1.63	1.016	.016	.985	.015	.000	.3	.988	.012	.000
.18	.6	1.0	.180	9.2	1.55	1.70	1.017	.017	.983	.017	.000	.7	.984	.016	.000
.23	1.1	2.2	.154	13.8	1.57	1.98	1.025	.025	.976	.024	.000	1.6	.979	.021	.000
.27	1.9	4.3	.133	18.4	1.58	2.30	1.036	.036	.966	.034	.000	3.2	.970	.030	.000
.32	2.8	7.3	.117	23.0	1.60	2.61	1.048	.048	.954	.046	.000	5.7	.960	.040	.000
.37	4.0	11.6	.105	27.6	1.62	2.91	1.062	.062	.941	.059	.000	9.3	.947	.053	.000
.41	5.3	17.2	.095	32.0	1.65	3.21	1.079	.079	.927	.073	.000	14.3	.934	.066	.000
.46	6.8	25.7	.081	32.1	1.70	3.77	1.114	.114	.898	.102	.000	21.3	.912	.088	.000
.50	8.3	35.5	.071	32.1	1.76	4.29	1.153	.153	.868	.132	.000	30.5	.883	.117	.000
.55	9.8	46.6	.064	32.1	1.82	4.78	1.193	.193	.838	.162	.000	40.9	.853	.147	.000
.60	11.2	58.9	.058	32.1	1.89	5.24	1.235	.235	.810	.190	.000	52.6	.824	.176	.000
.64	12.7	72.2	.054	32.2	1.95	5.68	1.278	.278	.782	.218	.000	65.4	.796	.204	.000
.69	14.2	86.6	.050	32.2	2.02	6.11	1.323	.323	.756	.244	.000	79.3	.769	.231	.000
.73	15.7	102.1	.047	36.4	2.04	6.49	1.334	.334	.750	.250	.000	94.2	.753	.247	.000
.78	17.5	118.9	.045	40.9	2.05	6.79	1.343	.343	.745	.255	.000	110.3	.747	.253	.000
.82	19.5	137.0	.043	45.5	2.07	7.03	1.353	.353	.739	.261	.000	127.8	.742	.258	.000
.87	21.7	156.5	.042	50.0	2.08	7.22	1.364	.364	.733	.267	.000	146.6	.736	.264	.000

MAXIMUM NO. ITERATIONS FOR SOLUTION (KMAX) = 2 OCCURRED 150 TIMES. AVERAGE NUMBER ITERATIONS = 1.0644

Equations solved with two passes: first using the Ponce correction to C1, second using the Fread correction to C1, C2 and C3
 PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA OFF2B.9

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

RUNOFF VOLUME = 2.04142 INCHES = 1.7084 ACRE-FEET
PEAK DISCHARGE RATE = 18.45 CFS AT 1.700 HOURS BASIN AREA = .0157 SQ. MI.

*S HZI ANALYSIS FOR ON-SITE YUCATAN AT CABEZON TRACT 3

*S-----
*S COMPUTE DEVELOPED OFF-SITE BASIN 103 (SLOPE AREA ALONG UNSER)
COMPUTE NM HYD ID=11 HYD=103.H AREA=0.00236 SQ MI
%A=0 %B=50 %C=50 %D=0 TP=-0.133 HR
MASS RAINFALL=-1

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 6.2838 CFS UNIT VOLUME = .9991 B = 354.13 P60 = 1.7990
AREA = .002360 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=11 CODE=10

HYDROGRAPH FROM AREA 103.H

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.000	.0	2.000	.3	3.000	.0
.500	.0	1.500	3.8	2.500	.1		

RUNOFF VOLUME = .82952 INCHES = .1044 ACRE-FEET
PEAK DISCHARGE RATE = 3.78 CFS AT 1.500 HOURS BASIN AREA = .0024 SQ. MI.

*S-----
*S COMPUTE DEVELOPED OFF-SITE BASIN 104 (COMMERCIAL)
COMPUTE NM HYD ID=12 HYD=104.D AREA=0.01563 SQ MI
%A=0 %B=0 %C=15 %D=85 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 52.570 CFS UNIT VOLUME = .9989 B = 526.28 P60 = 1.7990
AREA = .013286 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .104829HR TP = .133000HR K/TP RATIO = .788191 SHAPE CONSTANT, N = 4.553549
UNIT PEAK = 6.8841 CFS UNIT VOLUME = .9999 B = 390.52 P60 = 1.7990
AREA = .002345 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=12 CODE=10

HYDROGRAPH FROM AREA 104.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.3	10.000	.3	15.000	.2	20.000	.2
.500	.0	5.500	.3	10.500	.3	15.500	.2	20.500	.2
1.000	.3	6.000	.4	11.000	.3	16.000	.2	21.000	.2
1.500	41.8	6.500	.4	11.500	.3	16.500	.2	21.500	.2
2.000	9.8	7.000	.4	12.000	.3	17.000	.2	22.000	.2
2.500	1.4	7.500	.4	12.500	.3	17.500	.2	22.500	.2
3.000	.6	8.000	.3	13.000	.3	18.000	.2	23.000	.2
3.500	.4	8.500	.3	13.500	.3	18.500	.2	23.500	.2
4.000	.3	9.000	.3	14.000	.3	19.000	.2	24.000	.2
4.500	.3	9.500	.3	14.500	.2	19.500	.2	24.500	.0

RUNOFF VOLUME = 2.37034 INCHES = 1.9759 ACRE-FEET
PEAK DISCHARGE RATE = 41.78 CFS AT 1.500 HOURS BASIN AREA = .0156 SQ. MI.

*S-----
*S COMPUTE DEVELOPED OFF-SITE BASIN 105 (COMMON AREA ALONG CABEZON)
COMPUTE NM HYD ID=13 HYD=105.D AREA=0.0003 SQ MI
%A=0 %B=50 %C=50 %D=0 TP=-0.133 HR
MASS RAINFALL=-1

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = .79879 CFS UNIT VOLUME = .9859 B = 354.13 P60 = 1.7990
AREA = .000300 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=13 CODE=10

HYDROGRAPH FROM AREA 105.D

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	1.000	.0	2.000	.0				
.500	.0	1.500	.5	2.500	.0				

RUNOFF VOLUME = .82952 INCHES = .0133 ACRE-FEET
PEAK DISCHARGE RATE = .49 CFS AT 1.500 HOURS BASIN AREA = .0003 SQ. MI.

*S-----
*S COMPUTE DEVELOPED OFF-SITE BASIN 106 (COMMON AREA)
COMPUTE NM HYD ID=14 HYD=106.D AREA=0.000766 SQ MI
%A=0 %B=50 %C=50 %D=0 TP=-0.133 HR
MASS RAINFALL=-1

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 2.0396 CFS UNIT VOLUME = .9946 B = 354.13 P60 = 1.7990
AREA = .000766 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=14 CODE=10

HYDROGRAPH FROM AREA 106.D

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	1.000	.0	2.000	.1	3.000	.0		
.500	.0	1.500	1.2	2.500	.0				

RUNOFF VOLUME = .82952 INCHES = .0339 ACRE-FEET
PEAK DISCHARGE RATE = 1.23 CFS AT 1.500 HOURS BASIN AREA = .0008 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 301
COMPUTE NM HYD ID=15 HYD=301.D AREA=0.00786 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 16.795 CFS UNIT VOLUME = .9985 B = 526.28 P60 = 1.7990
AREA = .004244 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 9.6270 CFS UNIT VOLUME = .9998 B = 354.13 P60 = 1.7990
AREA = .003616 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=15 CODE=10

HYDROGRAPH FROM AREA 301.D

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
1.000	.1	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.500	17.7	6.500	.1	11.500	.1	16.500	.1	21.500	.1
2.000	3.5	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.500	.5	7.500	.1	12.500	.1	17.500	.1	22.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = .7507 ACRE-FEET
PEAK DISCHARGE RATE = 17.72 CFS AT 1.500 HOURS BASIN AREA = .0079 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 302
COMPUTE NM HYD ID=16 HYD=ANLYPT.C AREA=0.00436 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 9.3163 CFS UNIT VOLUME = .9979 B = 526.28 P60 = 1.7990
AREA = .002354 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 5.3402 CFS UNIT VOLUME = .9988 B = 354.13 P60 = 1.7990
AREA = .002006 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=16 CODE=10

HYDROGRAPH FROM AREA ANLYPT.C

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.0	20.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0	20.500	.0
1.000	.1	6.000	.1	11.000	.1	16.000	.0	21.000	.0
1.500	9.8	6.500	.1	11.500	.0	16.500	.0	21.500	.0
2.000	1.9	7.000	.1	12.000	.0	17.000	.0	22.000	.0
2.500	.3	7.500	.1	12.500	.0	17.500	.0	22.500	.0
3.000	.1	8.000	.1	13.000	.0	18.000	.0	23.000	.0
3.500	.1	8.500	.1	13.500	.0	18.500	.0	23.500	.0
4.000	.1	9.000	.1	14.000	.0	19.000	.0	24.000	.0
4.500	.1	9.500	.1	14.500	.0	19.500	.0	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = .4164 ACRE-Feet
PEAK DISCHARGE RATE = 9.84 CFS AT 1.500 HOURS BASIN AREA = .0044 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 303
COMPUTE NM HYD ID=17 HYD=303.D AREA=0.00836 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 17.863 CFS UNIT VOLUME = .9985 B = 526.28 P60 = 1.7990
AREA = .004514 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 10.239 CFS UNIT VOLUME = 1.000 B = 354.13 P60 = 1.7990
AREA = .003846 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=17 CODE=10

HYDROGRAPH FROM AREA 303.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
1.000	.1	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.500	18.9	6.500	.1	11.500	.1	16.500	.1	21.500	.1
2.000	3.7	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.500	.6	7.500	.1	12.500	.1	17.500	.1	22.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = .7985 ACRE-Feet
PEAK DISCHARGE RATE = 18.85 CFS AT 1.500 HOURS BASIN AREA = .0084 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 304
COMPUTE NM HYD ID=18 HYD=ANLYPT.D AREA=0.00456 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 9.7436 CFS UNIT VOLUME = .9981 B = 526.28 P60 = 1.7990
AREA = .002462 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 5.5851 CFS UNIT VOLUME = .9991 B = 354.13 P60 = 1.7990
AREA = .002098 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=18 CODE=10

HYDROGRAPH FROM AREA ANLYPT.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.0	20.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0	20.500	.0

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

1.000	.1	6.000	.1	11.000	.1	16.000	.0	21.000	.0
1.500	10.3	6.500	.1	11.500	.1	16.500	.0	21.500	.0
2.000	2.0	7.000	.1	12.000	.1	17.000	.0	22.000	.0
2.500	.3	7.500	.1	12.500	.1	17.500	.0	22.500	.0
3.000	.1	8.000	.1	13.000	.0	18.000	.0	23.000	.0
3.500	.1	8.500	.1	13.500	.0	18.500	.0	23.500	.0
4.000	.1	9.000	.1	14.000	.0	19.000	.0	24.000	.0
4.500	.1	9.500	.1	14.500	.0	19.500	.0	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = .4355 ACRE-FEET
PEAK DISCHARGE RATE = 10.29 CFS AT 1.500 HOURS BASIN AREA = .0046 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 305
COMPUTE NM HYD ID=19 HYD=ANLYPT.E AREA=0.00934 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 19.957 CFS UNIT VOLUME = .9986 B = 526.28 P60 = 1.7990
AREA = .005044 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 11.440 CFS UNIT VOLUME = 1.000 B = 354.13 P60 = 1.7990
AREA = .004296 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=19 CODE=10

HYDROGRAPH FROM AREA ANLYPT.E

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
1.000	.1	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.500	21.1	6.500	.1	11.500	.1	16.500	.1	21.500	.1
2.000	4.1	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.500	.6	7.500	.1	12.500	.1	17.500	.1	22.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = .8921 ACRE-FEET
PEAK DISCHARGE RATE = 21.06 CFS AT 1.500 HOURS BASIN AREA = .0093 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 306
COMPUTE NM HYD ID=20 HYD=306.D AREA=0.00489 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 10.449 CFS UNIT VOLUME = .9981 B = 526.28 P60 = 1.7990
AREA = .002641 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 5.9893 CFS UNIT VOLUME = .9991 B = 354.13 P60 = 1.7990
AREA = .002249 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=20 CODE=10

HYDROGRAPH FROM AREA 306.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.0	20.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.0	20.500	.0
1.000	.1	6.000	.1	11.000	.1	16.000	.0	21.000	.0
1.500	11.0	6.500	.1	11.500	.1	16.500	.0	21.500	.0
2.000	2.2	7.000	.1	12.000	.1	17.000	.0	22.000	.0
2.500	.3	7.500	.1	12.500	.1	17.500	.0	22.500	.0
3.000	.1	8.000	.1	13.000	.1	18.000	.0	23.000	.0
3.500	.1	8.500	.1	13.500	.1	18.500	.0	23.500	.0
4.000	.1	9.000	.1	14.000	.1	19.000	.0	24.000	.0
4.500	.1	9.500	.1	14.500	.0	19.500	.0	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = .4671 ACRE-FEET
PEAK DISCHARGE RATE = 11.03 CFS AT 1.500 HOURS BASIN AREA = .0049 SQ. MI.

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

*S-----
*S COMPUTE DEVELOPED BASIN 307
COMPUTE NM HYD ID=21 HYD=307.D AREA=0.00895 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 19.124 CFS UNIT VOLUME = .9986 B = 526.28 P60 = 1.7990
AREA = .004833 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 10.962 CFS UNIT VOLUME = 1.000 B = 354.13 P60 = 1.7990
AREA = .004117 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.05000 AT PEAK FLOW.

PRINT HYD ID=21 CODE=10

HYDROGRAPH FROM AREA 307.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
1.000	.1	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.500	20.2	6.500	.1	11.500	.1	16.500	.1	21.500	.1
2.000	4.0	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.500	.6	7.500	.1	12.500	.1	17.500	.1	22.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = .8548 ACRE-FEET
PEAK DISCHARGE RATE = 20.18 CFS AT 1.500 HOURS BASIN AREA = .0090 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 308
COMPUTE NM HYD ID=22 HYD=308.D AREA=0.00584 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 12.479 CFS UNIT VOLUME = .9983 B = 526.28 P60 = 1.7990
AREA = .003154 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 7.1529 CFS UNIT VOLUME = .9994 B = 354.13 P60 = 1.7990
AREA = .002686 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.05000 AT PEAK FLOW.

PRINT HYD ID=22 CODE=10

HYDROGRAPH FROM AREA 308.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.0
1.000	.1	6.000	.1	11.000	.1	16.000	.1	21.000	.0
1.500	13.2	6.500	.1	11.500	.1	16.500	.1	21.500	.0
2.000	2.6	7.000	.1	12.000	.1	17.000	.1	22.000	.0
2.500	.4	7.500	.1	12.500	.1	17.500	.1	22.500	.0
3.000	.1	8.000	.1	13.000	.1	18.000	.1	23.000	.0
3.500	.1	8.500	.1	13.500	.1	18.500	.0	23.500	.0
4.000	.1	9.000	.1	14.000	.1	19.000	.0	24.000	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.0	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = .5578 ACRE-FEET
PEAK DISCHARGE RATE = 13.17 CFS AT 1.500 HOURS BASIN AREA = .0058 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 309
COMPUTE NM HYD ID=23 HYD=309.D AREA=0.01492 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 31.880 CFS UNIT VOLUME = .9988 B = 526.28 P60 = 1.7990
AREA = .008057 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 18.274 CFS UNIT VOLUME = 1.001 B = 354.13 P60 = 1.7990
AREA = .006863 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=23 CODE=10

HYDROGRAPH FROM AREA 309.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.1	20.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.1	20.500	.1
1.000	.2	6.000	.2	11.000	.2	16.000	.1	21.000	.1
1.500	33.6	6.500	.2	11.500	.2	16.500	.1	21.500	.1
2.000	6.6	7.000	.2	12.000	.2	17.000	.1	22.000	.1
2.500	1.0	7.500	.2	12.500	.2	17.500	.1	22.500	.1
3.000	.4	8.000	.2	13.000	.2	18.000	.1	23.000	.1
3.500	.2	8.500	.2	13.500	.2	18.500	.1	23.500	.1
4.000	.2	9.000	.2	14.000	.2	19.000	.1	24.000	.1
4.500	.2	9.500	.2	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = 1.4250 ACRE-FEET
PEAK DISCHARGE RATE = 33.63 CFS AT 1.500 HOURS BASIN AREA = .0149 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 310
COMPUTE NM HYD ID=24 HYD=ANLYPT.K AREA=0.01753 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 37.457 CFS UNIT VOLUME = .9989 B = 526.28 P60 = 1.7990
AREA = .009466 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 21.471 CFS UNIT VOLUME = 1.001 B = 354.13 P60 = 1.7990
AREA = .008064 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=24 CODE=10

HYDROGRAPH FROM AREA ANLYPT.K

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.2	20.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.2	20.500	.1
1.000	.2	6.000	.3	11.000	.2	16.000	.2	21.000	.1
1.500	39.5	6.500	.3	11.500	.2	16.500	.2	21.500	.1
2.000	7.7	7.000	.3	12.000	.2	17.000	.2	22.000	.1
2.500	1.2	7.500	.2	12.500	.2	17.500	.2	22.500	.1
3.000	.4	8.000	.2	13.000	.2	18.000	.2	23.000	.1
3.500	.3	8.500	.2	13.500	.2	18.500	.1	23.500	.1
4.000	.2	9.000	.2	14.000	.2	19.000	.1	24.000	.1
4.500	.2	9.500	.2	14.500	.2	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = 1.6743 ACRE-FEET
PEAK DISCHARGE RATE = 39.51 CFS AT 1.500 HOURS BASIN AREA = .0175 SQ. MI.

*S-----
*S COMPUTE DEVELOPED BASIN 311
COMPUTE NM HYD ID=25 HYD=311.D AREA=0.01095 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 23.397 CFS UNIT VOLUME = .9986 B = 526.28 P60 = 1.7990
AREA = .005913 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 13.412 CFS UNIT VOLUME = 1.000 B = 354.13 P60 = 1.7990
AREA = .005037 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=25 CODE=10

HYDROGRAPH FROM AREA 311.D

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
1.000	.1	6.000	.2	11.000	.1	16.000	.1	21.000	.1
1.500	24.7	6.500	.2	11.500	.1	16.500	.1	21.500	.1
2.000	4.8	7.000	.2	12.000	.1	17.000	.1	22.000	.1
2.500	.7	7.500	.2	12.500	.1	17.500	.1	22.500	.1
3.000	.3	8.000	.2	13.000	.1	18.000	.1	23.000	.1
3.500	.2	8.500	.1	13.500	.1	18.500	.1	23.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = 1.0459 ACRE-FEET
PEAK DISCHARGE RATE = 24.69 CFS AT 1.500 HOURS BASIN AREA = .0110 SQ. MI.

*S-----

*S COMPUTE DEVELOPED BASIN 312

COMPUTE NM HYD ID=26 HYD=312.D AREA=0.0142 SQ MI
%A=0 %B=23 %C=23 %D=54 TP=-0.133 HR
MASS RAINFALL=-1

K = .072485HR TP = .133000HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 30.342 CFS UNIT VOLUME = .9988 B = 526.28 P60 = 1.7990
AREA = .007668 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .118387HR TP = .133000HR K/TP RATIO = .890124 SHAPE CONSTANT, N = 3.984413
UNIT PEAK = 17.392 CFS UNIT VOLUME = 1.001 B = 354.13 P60 = 1.7990
AREA = .006532 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=26 CODE=10

HYDROGRAPH FROM AREA 312.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.1	20.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.1	20.500	.1
1.000	.2	6.000	.2	11.000	.2	16.000	.1	21.000	.1
1.500	32.0	6.500	.2	11.500	.2	16.500	.1	21.500	.1
2.000	6.3	7.000	.2	12.000	.2	17.000	.1	22.000	.1
2.500	1.0	7.500	.2	12.500	.2	17.500	.1	22.500	.1
3.000	.4	8.000	.2	13.000	.2	18.000	.1	23.000	.1
3.500	.2	8.500	.2	13.500	.1	18.500	.1	23.500	.1
4.000	.2	9.000	.2	14.000	.1	19.000	.1	24.000	.1
4.500	.2	9.500	.2	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79087 INCHES = 1.3563 ACRE-FEET
PEAK DISCHARGE RATE = 32.01 CFS AT 1.500 HOURS BASIN AREA = .0142 SQ. MI.

*S-----

*S NORTHERN PORTION OF CABEZON TRACT 3

*S-----
*S ADD 21st Off-Site Flow to 301
ADD HYD ID=27 HYD=ANLYPT.A IDi=3 IDi=15
PRINT HYD ID=27 CODE=10

HYDROGRAPH FROM AREA ANLYPT.A

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	.3	11.000	.3	16.500	.2	22.000	.2
.500	.0	6.000	.3	11.500	.2	17.000	.2	22.500	.2
1.000	.1	6.500	.3	12.000	.2	17.500	.2	23.000	.2
1.500	18.4	7.000	.3	12.500	.2	18.000	.2	23.500	.2
2.000	13.9	7.500	.3	13.000	.2	18.500	.2	24.000	.2
2.500	6.2	8.000	.3	13.500	.2	19.000	.2	24.500	.1
3.000	3.1	8.500	.3	14.000	.2	19.500	.2	25.000	.0
3.500	.4	9.000	.3	14.500	.2	20.000	.2		
4.000	.3	9.500	.3	15.000	.2	20.500	.2		
4.500	.3	10.000	.3	15.500	.2	21.000	.2		
5.000	.3	10.500	.3	16.000	.2	21.500	.2		

RUNOFF VOLUME = 1.87942 INCHES = 1.9544 ACRE-FEET
PEAK DISCHARGE RATE = 22.01 CFS AT 1.800 HOURS BASIN AREA = .0195 SQ. MI.

*S-----

*S ADD A TO 22nd St Off-Site Flow
ADD HYD ID=28 HYD=ANLYPT.B IDi=1 IDi=27
PRINT HYD ID=28 CODE=10

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

HYDROGRAPH FROM AREA ANLYPT.B

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	.5	11.000	.5	16.500	.4	22.000	.3
.500	.0	6.000	.6	11.500	.5	17.000	.4	22.500	.3
1.000	.1	6.500	.6	12.000	.5	17.500	.4	23.000	.3
1.500	21.8	7.000	.6	12.500	.5	18.000	.4	23.500	.3
2.000	27.1	7.500	.6	13.000	.4	18.500	.4	24.000	.3
2.500	15.1	8.000	.6	13.500	.4	19.000	.3	24.500	.1
3.000	5.9	8.500	.6	14.000	.4	19.500	.3	25.000	.0
3.500	.8	9.000	.5	14.500	.4	20.000	.3		
4.000	.6	9.500	.5	15.000	.4	20.500	.3		
4.500	.5	10.000	.5	15.500	.4	21.000	.3		
5.000	.5	10.500	.5	16.000	.4	21.500	.3		

RUNOFF VOLUME = 1.95163 INCHES = 3.6627 ACRE-FEET
PEAK DISCHARGE RATE = 39.96 CFS AT 1.750 HOURS BASIN AREA = .0352 SQ. MI.

```

*S-----
*S DIVIDE ANALYSIS PT. C
*S ID=30 IS FLOW INTO INLET
*S ID=31 IS BYPASSING INLET TO BASIN 303
DIVIDE HYD      ID=16 Q=10 ID I=30 HYD=C.TO.INLET
                  ID II=31 HYD=C.BYPASS.INLET
*S-----
*S DIVIDE ANALYSIS PT. D
*S ID=32 IS FLOW INTO INLET
*S ID=33 IS BYPASSING INLET TO BASIN 308
DIVIDE HYD      ID=18 Q=10 ID I=32 HYD=D.TO.INLET
                  ID II=33 HYD=D.BYPASS.INLET
*S-----
*S DIVIDE ANALYSIS PT. E
*S ID=34 IS FLOW INTO INLET
*S ID=35 IS BYPASSING INLET TO BASIN 308
DIVIDE HYD      ID=19 Q=20 ID I=34 HYD=E.TO.INLET
                  ID II=35 HYD=E.BYPASS.INLET
*S-----
*S ADD BYPASS FROM D TO BYPASS FROM E
ADD HYD          ID=36 HYD=BYP.DE IDI=33 IDII=35
PRINT HYD        ID=36 CODE=10
  
```

HYDROGRAPH FROM AREA BYP.DE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	.500	.0	1.000	.0	1.500	1.3

RUNOFF VOLUME = 1.79083 INCHES = .0056 ACRE-FEET
PEAK DISCHARGE RATE = 1.34 CFS AT 1.500 HOURS BASIN AREA = .0001 SQ. MI.

```

*S-----
*S ADD 306 TO 307
ADD HYD          ID=37 HYD=ANLYPT.F IDI=20 IDII=21
PRINT HYD        ID=37 CODE=10
  
```

HYDROGRAPH FROM AREA ANLYPT.F

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.1	20.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.1	20.500	.1
1.000	.2	6.000	.2	11.000	.2	16.000	.1	21.000	.1
1.500	31.2	6.500	.2	11.500	.2	16.500	.1	21.500	.1
2.000	6.1	7.000	.2	12.000	.2	17.000	.1	22.000	.1
2.500	.9	7.500	.2	12.500	.2	17.500	.1	22.500	.1
3.000	.3	8.000	.2	13.000	.1	18.000	.1	23.000	.1
3.500	.2	8.500	.2	13.500	.1	18.500	.1	23.500	.1
4.000	.2	9.000	.2	14.000	.1	19.000	.1	24.000	.1
4.500	.2	9.500	.2	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79082 INCHES = 1.3219 ACRE-FEET
PEAK DISCHARGE RATE = 31.21 CFS AT 1.500 HOURS BASIN AREA = .0138 SQ. MI.

```

*S-----
*S DIVIDE ANALYSIS PT. F
*S ID=38 IS FLOW INTO INLET
*S ID=39 IS BYPASSING INLET TO BASIN 308
DIVIDE HYD      ID=37 Q=30 ID I=38 HYD=F.TO.INLET
                  ID II=39 HYD=F.BYPASS.INLET
*S-----
*S ADD BYPASS FROM D,E TO BYPASS FROM F
ADD HYD          ID=40 HYD=BYP.DEF IDI=36 IDII=39
PRINT HYD        ID=40 CODE=10
  
```

HYDROGRAPH FROM AREA BYP.DEF

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	.500	.0	1.000	.0	1.500	2.6		

RUNOFF VOLUME = 1.79083 INCHES = .0106 ACRE-FEET
PEAK DISCHARGE RATE = 2.56 CFS AT 1.500 HOURS BASIN AREA = .0001 SQ. MI.

*S-----
*S ADD BYPASS FROM D,E,F TO 308
ADD HYD ID=41 HYD=ANLYPT.G IDi=22 IDii=40
PRINT HYD ID=41 CODE=10

HYDROGRAPH FROM AREA ANLYPT.G

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.0
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.0
1.000	.1	6.000	.1	11.000	.1	16.000	.1	21.000	.0
1.500	15.7	6.500	.1	11.500	.1	16.500	.1	21.500	.0
2.000	2.6	7.000	.1	12.000	.1	17.000	.1	22.000	.0
2.500	.4	7.500	.1	12.500	.1	17.500	.1	22.500	.0
3.000	.1	8.000	.1	13.000	.1	18.000	.1	23.000	.0
3.500	.1	8.500	.1	13.500	.1	18.500	.0	23.500	.0
4.000	.1	9.000	.1	14.000	.1	19.000	.0	24.000	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.0	24.500	.0

RUNOFF VOLUME = 1.79082 INCHES = .5683 ACRE-FEET
PEAK DISCHARGE RATE = 15.73 CFS AT 1.500 HOURS BASIN AREA = .0060 SQ. MI.

*S-----
*S DIVIDE ANALYSIS PT. G
*S ID=42 IS FLOW INTO INLET
*S ID=43 IS BYPASSING INLET TO BASIN 311
DIVIDE HYD ID=41 Q=15 ID I=42 HYD=G.TO.INLET
ID II=43 HYD=G.BYPASS.INLET

*S-----
*S ADD BYPASS FROM C TO 303
ADD HYD ID=44 HYD=ANLYPT.H IDi=17 IDii=31
PRINT HYD ID=44 CODE=10

HYDROGRAPH FROM AREA ANLYPT.H

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
1.000	.1	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.500	18.9	6.500	.1	11.500	.1	16.500	.1	21.500	.1
2.000	3.7	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.500	.6	7.500	.1	12.500	.1	17.500	.1	22.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79083 INCHES = .7985 ACRE-FEET
PEAK DISCHARGE RATE = 18.85 CFS AT 1.500 HOURS BASIN AREA = .0084 SQ. MI.

*S-----
*S ADD Q INTO INLET AT C AND D
ADD HYD ID=45 HYD=P.CD IDi=30 IDii=32
PRINT HYD ID=45 CODE=10

HYDROGRAPH FROM AREA P.CD

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	5.000	.1	10.000	.1	15.000	.1	20.000	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
1.000	.1	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.500	19.8	6.500	.1	11.500	.1	16.500	.1	21.500	.1
2.000	3.9	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.500	.6	7.500	.1	12.500	.1	17.500	.1	22.500	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79081 INCHES = .8508 ACRE-FEET
PEAK DISCHARGE RATE = 19.84 CFS AT 1.500 HOURS BASIN AREA = .0089 SQ. MI.

*S-----
*S ADD Q INTO INLET AT C,D TO B
ADD HYD ID=46 HYD=P.BCD IDi=28 IDii=45
PRINT HYD ID=46 CODE=10

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

HYDROGRAPH FROM AREA P.BCD

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	.7	11.000	.6	16.500	.5	22.000	.4
.500	.0	6.000	.7	11.500	.6	17.000	.5	22.500	.4
1.000	.2	6.500	.8	12.000	.6	17.500	.4	23.000	.4
1.500	41.7	7.000	.7	12.500	.6	18.000	.4	23.500	.4
2.000	31.0	7.500	.7	13.000	.5	18.500	.4	24.000	.4
2.500	15.7	8.000	.7	13.500	.5	19.000	.4	24.500	.1
3.000	6.1	8.500	.7	14.000	.5	19.500	.4	25.000	.0
3.500	.9	9.000	.7	14.500	.5	20.000	.4		
4.000	.7	9.500	.6	15.000	.5	20.500	.4		
4.500	.6	10.000	.6	15.500	.5	21.000	.4		
5.000	.6	10.500	.6	16.000	.5	21.500	.4		

RUNOFF VOLUME = 1.91915 INCHES = 4.5135 ACRE-FEET
PEAK DISCHARGE RATE = 47.39 CFS AT 1.750 HOURS BASIN AREA = .0441 SQ. MI.

*S-----
*S ADD Q INTO INLET AT B,C,D TO E
ADD HYD ID=47 HYD=P.BCDE IDI=34 IDII=46
PRINT HYD ID=47 CODE=10

HYDROGRAPH FROM AREA P.BCDE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	.8	11.000	.7	16.500	.5	22.000	.5
.500	.0	6.000	.8	11.500	.7	17.000	.5	22.500	.4
1.000	.3	6.500	.9	12.000	.7	17.500	.5	23.000	.4
1.500	61.7	7.000	.9	12.500	.7	18.000	.5	23.500	.4
2.000	35.1	7.500	.9	13.000	.6	18.500	.5	24.000	.4
2.500	16.3	8.000	.8	13.500	.6	19.000	.5	24.500	.1
3.000	6.4	8.500	.8	14.000	.6	19.500	.5	25.000	.0
3.500	1.0	9.000	.8	14.500	.6	20.000	.5		
4.000	.8	9.500	.8	15.000	.6	20.500	.5		
4.500	.7	10.000	.7	15.500	.6	21.000	.5		
5.000	.8	10.500	.7	16.000	.6	21.500	.5		

RUNOFF VOLUME = 1.89681 INCHES = 5.4012 ACRE-FEET
PEAK DISCHARGE RATE = 61.65 CFS AT 1.500 HOURS BASIN AREA = .0534 SQ. MI.

*S-----
*S ADD Q INTO INLET AT B,C,D,E TO F
ADD HYD ID=48 HYD=P.BCDEF IDI=38 IDII=47
PRINT HYD ID=48 CODE=10

HYDROGRAPH FROM AREA P.BCDEF

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	1.0	11.000	.9	16.500	.7	22.000	.6
.500	.0	6.000	1.1	11.500	.8	17.000	.7	22.500	.5
1.000	.5	6.500	1.1	12.000	.8	17.500	.7	23.000	.5
1.500	91.7	7.000	1.1	12.500	.8	18.000	.6	23.500	.5
2.000	41.3	7.500	1.1	13.000	.8	18.500	.6	24.000	.5
2.500	17.2	8.000	1.0	13.500	.8	19.000	.6	24.500	.1
3.000	6.7	8.500	1.0	14.000	.8	19.500	.6	25.000	.0
3.500	1.3	9.000	1.0	14.500	.7	20.000	.6		
4.000	1.0	9.500	.9	15.000	.7	20.500	.6		
4.500	.9	10.000	.9	15.500	.7	21.000	.6		
5.000	.9	10.500	.9	16.000	.7	21.500	.6		

RUNOFF VOLUME = 1.87506 INCHES = 6.7180 ACRE-FEET
PEAK DISCHARGE RATE = 91.65 CFS AT 1.500 HOURS BASIN AREA = .0672 SQ. MI.

*S-----
*S ADD Q INTO INLET AT B,C,D,E,F TO G
ADD HYD ID=49 HYD=P.BCDEF IDI=42 IDII=48
PRINT HYD ID=49 CODE=10

HYDROGRAPH FROM AREA P.BCDEF

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	1.1	11.000	.9	16.500	.7	22.000	.6
.500	.0	6.000	1.1	11.500	.9	17.000	.7	22.500	.6
1.000	.5	6.500	1.2	12.000	.9	17.500	.7	23.000	.6
1.500	106.7	7.000	1.2	12.500	.9	18.000	.7	23.500	.6
2.000	43.8	7.500	1.1	13.000	.8	18.500	.7	24.000	.6
2.500	17.6	8.000	1.1	13.500	.8	19.000	.7	24.500	.1
3.000	6.9	8.500	1.1	14.000	.8	19.500	.7	25.000	.0
3.500	1.3	9.000	1.0	14.500	.8	20.000	.6		
4.000	1.1	9.500	1.0	15.000	.8	20.500	.6		
4.500	1.0	10.000	1.0	15.500	.8	21.000	.6		
5.000	1.0	10.500	1.0	16.000	.7	21.500	.6		

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

RUNOFF VOLUME = 1.86824 INCHES = 7.2833 ACRE-FEET
PEAK DISCHARGE RATE = 106.65 CFS AT 1.500 HOURS BASIN AREA = .0731 SQ. MI.

*S-----
*S TOTAL Q INTO MAIN TRUNK LINE AT WESTERN HILLS
*S ADD Q INTO INLET AT B,C,D,E,F,G TO H
ADD HYD ID=50 HYD=TOT.WH IDI=44 IDII=49
PRINT HYD ID=50 CODE=10

HYDROGRAPH FROM AREA TOT.WH

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	1.2	11.000	1.0	16.500	.8	22.000	.7
.500	.0	6.000	1.3	11.500	1.0	17.000	.8	22.500	.7
1.000	.6	6.500	1.3	12.000	1.0	17.500	.8	23.000	.6
1.500	125.5	7.000	1.3	12.500	1.0	18.000	.8	23.500	.6
2.000	47.5	7.500	1.3	13.000	.9	18.500	.7	24.000	.6
2.500	18.2	8.000	1.2	13.500	.9	19.000	.7	24.500	.1
3.000	7.1	8.500	1.2	14.000	.9	19.500	.7	25.000	.0
3.500	1.5	9.000	1.1	14.500	.9	20.000	.7		
4.000	1.2	9.500	1.1	15.000	.9	20.500	.7		
4.500	1.1	10.000	1.1	15.500	.8	21.000	.7		
5.000	1.1	10.500	1.1	16.000	.8	21.500	.7		

RUNOFF VOLUME = 1.86030 INCHES = 8.0818 ACRE-FEET
PEAK DISCHARGE RATE = 125.50 CFS AT 1.500 HOURS BASIN AREA = .0815 SQ. MI.

*S-----
*S-----
*S SOUTHERN PORTION OF CABEZON TRACT 3
*S-----
*S-----
*S ADD 309 TO 311
ADD HYD ID=51 HYD=ANLYPT.J IDI=23 IDII=25
PRINT HYD ID=51 CODE=10

HYDROGRAPH FROM AREA ANLYPT.J

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.3	10.000	.3	15.000	.3	20.000	.2
.500	.0	5.500	.4	10.500	.3	15.500	.2	20.500	.2
1.000	.3	6.000	.4	11.000	.3	16.000	.2	21.000	.2
1.500	58.3	6.500	.4	11.500	.3	16.500	.2	21.500	.2
2.000	11.4	7.000	.4	12.000	.3	17.000	.2	22.000	.2
2.500	1.8	7.500	.4	12.500	.3	17.500	.2	22.500	.2
3.000	.7	8.000	.4	13.000	.3	18.000	.2	23.000	.2
3.500	.4	8.500	.3	13.500	.3	18.500	.2	23.500	.2
4.000	.3	9.000	.3	14.000	.3	19.000	.2	24.000	.2
4.500	.3	9.500	.3	14.500	.3	19.500	.2	24.500	.0

RUNOFF VOLUME = 1.79085 INCHES = 2.4709 ACRE-FEET
PEAK DISCHARGE RATE = 58.31 CFS AT 1.500 HOURS BASIN AREA = .0259 SQ. MI.

*S-----
*S DIVIDE ANALYSIS PT. J
*S ID=52 IS CFS INTO INLET
*S ID=53 IS CFS BYPASSING INLET TO BASIN 312
DIVIDE HYD ID=51 Q=34 ID I=52 HYD=J.TO.INLET
ID II=53 HYD=J.BYPASS.INLET

*S-----
*S DIVIDE ANALYSIS PT. K
*S ID=54 IS CFS INTO INLET
*S ID=55 IS CFS BYPASSING INLET TO BASIN 312
DIVIDE HYD ID=24 Q=30 ID I=54 HYD=K.TO.INLET
ID II=55 HYD=K.BYPASS.INLET

*S-----
*S ADD BYPASS FROM J AND K
ADD HYD ID=56 HYD=BYP.JK IDI=53 IDII=55
PRINT HYD ID=56 CODE=10

HYDROGRAPH FROM AREA BYP.JK

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	.500	.0	1.000	.0	1.500	33.8		

RUNOFF VOLUME = 1.79085 INCHES = .3468 ACRE-FEET
PEAK DISCHARGE RATE = 33.82 CFS AT 1.500 HOURS BASIN AREA = .0036 SQ. MI.

*S-----
*S ADD BYPASS FROM J,K TO 312
ADD HYD ID=57 HYD=ANLYPT.L IDI=26 IDII=56
PRINT HYD ID=57 CODE=10

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

HYDROGRAPH FROM AREA ANLYPT.1

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.1	20.000	.1
.500	.0	5.500	.2	10.500	.2	15.500	.1	20.500	.1
1.000	.2	6.000	.2	11.000	.2	16.000	.1	21.000	.1
1.500	65.8	6.500	.2	11.500	.2	16.500	.1	21.500	.1
2.000	6.3	7.000	.2	12.000	.2	17.000	.1	22.000	.1
2.500	1.0	7.500	.2	12.500	.2	17.500	.1	22.500	.1
3.000	.4	8.000	.2	13.000	.2	18.000	.1	23.000	.1
3.500	.2	8.500	.2	13.500	.1	18.500	.1	23.500	.1
4.000	.2	9.000	.2	14.000	.1	19.000	.1	24.000	.1
4.500	.2	9.500	.2	14.500	.1	19.500	.1	24.500	.0

RUNOFF VOLUME = 1.79085 INCHES = 1.7031 ACRE-FEET
PEAK DISCHARGE RATE = 65.83 CFS AT 1.500 HOURS BASIN AREA = .0178 SQ. MI.

*S-----
*S ADD Q INTO INLET J AND K
ADD HYD ID=58 HYD=P.JK IDI=52 IDII=54
PRINT HYD ID=58 CODE=10

HYDROGRAPH FROM AREA P.JK

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.6	10.000	.5	15.000	.4	20.000	.3
.500	.0	5.500	.6	10.500	.5	15.500	.4	20.500	.3
1.000	.5	6.000	.6	11.000	.5	16.000	.4	21.000	.3
1.500	64.0	6.500	.7	11.500	.5	16.500	.4	21.500	.3
2.000	19.2	7.000	.6	12.000	.5	17.000	.4	22.000	.3
2.500	2.9	7.500	.6	12.500	.5	17.500	.4	22.500	.3
3.000	1.1	8.000	.6	13.000	.5	18.000	.4	23.000	.3
3.500	.7	8.500	.6	13.500	.5	18.500	.4	23.500	.3
4.000	.6	9.000	.6	14.000	.4	19.000	.4	24.000	.3
4.500	.5	9.500	.5	14.500	.4	19.500	.4	24.500	.0

RUNOFF VOLUME = 1.79085 INCHES = 3.7984 ACRE-FEET
PEAK DISCHARGE RATE = 64.00 CFS AT 1.450 HOURS BASIN AREA = .0398 SQ. MI.

*S-----
*S TOTAL Q INTO MAIN TRUNK LINE AT CABEZON ROAD
*S ADD Q INTO INLET AT J,K TO L
ADD HYD ID=59 HYD=TOT.CAB IDI=57 IDII=58
PRINT HYD ID=59 CODE=10

HYDROGRAPH FROM AREA TOT.CAB

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.7	10.000	.7	15.000	.6	20.000	.5
.500	.0	5.500	.8	10.500	.7	15.500	.6	20.500	.5
1.000	.7	6.000	.9	11.000	.7	16.000	.5	21.000	.5
1.500	129.8	6.500	.9	11.500	.7	16.500	.5	21.500	.4
2.000	25.5	7.000	.9	12.000	.6	17.000	.5	22.000	.4
2.500	3.9	7.500	.8	12.500	.6	17.500	.5	22.500	.4
3.000	1.5	8.000	.8	13.000	.6	18.000	.5	23.000	.4
3.500	.9	8.500	.8	13.500	.6	18.500	.5	23.500	.4
4.000	.8	9.000	.8	14.000	.6	19.000	.5	24.000	.4
4.500	.7	9.500	.7	14.500	.6	19.500	.5	24.500	.0

RUNOFF VOLUME = 1.79085 INCHES = 5.5014 ACRE-FEET
PEAK DISCHARGE RATE = 129.83 CFS AT 1.500 HOURS BASIN AREA = .0576 SQ. MI.

*S-----
*S TOTAL STORM WATER RELEASED FROM CABEZON TRACT 3
*S-----
*S-----
*S ADD TOTAL NORTH TO TOTAL SOUTH
ADD HYD ID=62 HYD=TOT.1 IDI=50 IDII=59
PRINT HYD ID=62 CODE=10

HYDROGRAPH FROM AREA TOT.1

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	1.9	11.000	1.7	16.500	1.3	22.000	1.1
.500	.0	6.000	2.1	11.500	1.7	17.000	1.3	22.500	1.1
1.000	1.3	6.500	2.2	12.000	1.6	17.500	1.3	23.000	1.1
1.500	255.3	7.000	2.2	12.500	1.6	18.000	1.3	23.500	1.1
2.000	73.0	7.500	2.1	13.000	1.5	18.500	1.2	24.000	1.0
2.500	22.1	8.000	2.0	13.500	1.5	19.000	1.2	24.500	.2
3.000	8.6	8.500	1.9	14.000	1.5	19.500	1.2	25.000	.0
3.500	2.4	9.000	1.9	14.500	1.4	20.000	1.2		
4.000	1.9	9.500	1.8	15.000	1.4	20.500	1.1		
4.500	1.8	10.000	1.8	15.500	1.4	21.000	1.1		

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

5.000 1.9 10.500 1.7 16.000 1.4 21.500 1.1

RUNOFF VOLUME = 1.83153 INCHES = 13.5833 ACRE-FEET
PEAK DISCHARGE RATE = 255.33 CFS AT 1.500 HOURS BASIN AREA = .1391 SQ. MI.

*S-----
*S ADD TOTAL FROM 105 AND 106 - DIRECT DISCHARGE
ADD HYD ID=63 HYD=TOT.2 IDi=13 IDii=14
PRINT HYD ID=63 CODE=10

HYDROGRAPH FROM AREA TOT.2

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.000	.0	2.000	.2	3.000	.0		
.500	.0	1.500	1.7	2.500	.0				

RUNOFF VOLUME = .82931 INCHES = .0471 ACRE-FEET
PEAK DISCHARGE RATE = 1.72 CFS AT 1.500 HOURS BASIN AREA = .0011 SQ. MI.

*S-----
*S ADD TOTAL FROM CABEZON TRACT 3
ADD HYD ID=64 HYD=TOT.3 IDi=62 IDii=63
PRINT HYD ID=64 CODE=10

HYDROGRAPH FROM AREA TOT.3

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.500	1.9	11.000	1.7	16.500	1.3	22.000	1.1
.500	.0	6.000	2.1	11.500	1.7	17.000	1.3	22.500	1.1
1.000	1.3	6.500	2.2	12.000	1.6	17.500	1.3	23.000	1.1
1.500	257.1	7.000	2.2	12.500	1.6	18.000	1.3	23.500	1.1
2.000	73.1	7.500	2.1	13.000	1.5	18.500	1.2	24.000	1.0
2.500	22.1	8.000	2.0	13.500	1.5	19.000	1.2	24.500	.2
3.000	8.6	8.500	1.9	14.000	1.5	19.500	1.2	25.000	.0
3.500	2.4	9.000	1.9	14.500	1.4	20.000	1.2		
4.000	1.9	9.500	1.8	15.000	1.4	20.500	1.1		
4.500	1.8	10.000	1.8	15.500	1.4	21.000	1.1		
5.000	1.9	10.500	1.7	16.000	1.4	21.500	1.1		

RUNOFF VOLUME = 1.82390 INCHES = 13.6304 ACRE-FEET
PEAK DISCHARGE RATE = 257.05 CFS AT 1.500 HOURS BASIN AREA = .1401 SQ. MI.

*S-----
*S-----
*S-----
*S COMMERCIAL PORTION OF CABEZON TRACT 1
*S-----
*S-----
*S ADD 103 TO 104
ADD HYD ID=60 HYD=ANLYPT.M IDi=12 IDii=11
PRINT HYD ID=60 CODE=10

HYDROGRAPH FROM AREA ANLYPT.M

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.3	10.000	.3	15.000	.2	20.000	.2
.500	.0	5.500	.3	10.500	.3	15.500	.2	20.500	.2
1.000	.3	6.000	.4	11.000	.3	16.000	.2	21.000	.2
1.500	45.6	6.500	.4	11.500	.3	16.500	.2	21.500	.2
2.000	10.1	7.000	.4	12.000	.3	17.000	.2	22.000	.2
2.500	1.5	7.500	.4	12.500	.3	17.500	.2	22.500	.2
3.000	.6	8.000	.3	13.000	.3	18.000	.2	23.000	.2
3.500	.4	8.500	.3	13.500	.3	18.500	.2	23.500	.2
4.000	.3	9.000	.3	14.000	.3	19.000	.2	24.000	.2
4.500	.3	9.500	.3	14.500	.2	19.500	.2	24.500	.0

RUNOFF VOLUME = 2.16818 INCHES = 2.0803 ACRE-FEET
PEAK DISCHARGE RATE = 45.56 CFS AT 1.500 HOURS BASIN AREA = .0180 SQ. MI.

*S-----
*S-----
*S-----
*S INTERIM RETENTION PONDS BETWEEN PHASES 2 AND 3
*S-----
*S-----
*S COMPUTE RETENTION POND #1 (BASIN 306)
COMPUTE NM HYD ID=1 HYD=101.H AREA=0.0049 SQ MI
%A=0 %B=0 %C=100 %D=0 TP=-0.133 HR
MASS RAINFALL=-1

K = .104829HR TP = .133000HR K/TP RATIO = .788191 SHAPE CONSTANT, N = 4.553549
UNIT PEAK = 14.388 CFS UNIT VOLUME = 1.001 B = 390.52 P60 = 1.7990
AREA = .004900 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR

Yucatan at Cabezon Subdivision-Cabezon Redevelopment 100-Year 24-Hour Duration Storm-Developed AHYMO Output File

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=1 CODE=10

HYDROGRAPH FROM AREA 101.H

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.000	.0	2.000	1.0	3.000	.0		
.500	.0	1.500	9.2	2.500	.2	3.500	.0		

RUNOFF VOLUME = 1.01341 INCHES = .2648 ACRE-FEET
PEAK DISCHARGE RATE = 9.23 CFS AT 1.500 HOURS BASIN AREA = .0049 SQ. MI.

*S-----
*S COMPUTE RETENTION POND #2
COMPUTE NM HYD ID=2 HYD=102.H AREA=0.0704 SQ MI
%A=00 %B=0 %C=100 %D=0 TP=-0.133 HR
MASS RAINFALL=-1

K = .104858HR TP = .133000HR K/TP RATIO = .788409 SHAPE CONSTANT, N = 4.552135
UNIT PEAK = 206.67 CFS UNIT VOLUME = 1.002 B = 390.44 P60 = 1.7990
AREA = .070400 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.06000 AT PEAK FLOW.

PRINT HYD ID=2 CODE=10

HYDROGRAPH FROM AREA 102.H

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.000	.0	2.000	14.5	3.000	.5	4.000	.0
.500	.0	1.500	132.5	2.500	2.3	3.500	.1		

RUNOFF VOLUME = 1.01341 INCHES = 3.8050 ACRE-FEET
PEAK DISCHARGE RATE = 132.53 CFS AT 1.500 HOURS BASIN AREA = .0704 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 07:29:27
[s0p10h4099TU&16D

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 16:48:39
[s0p10h4099TU&16DD

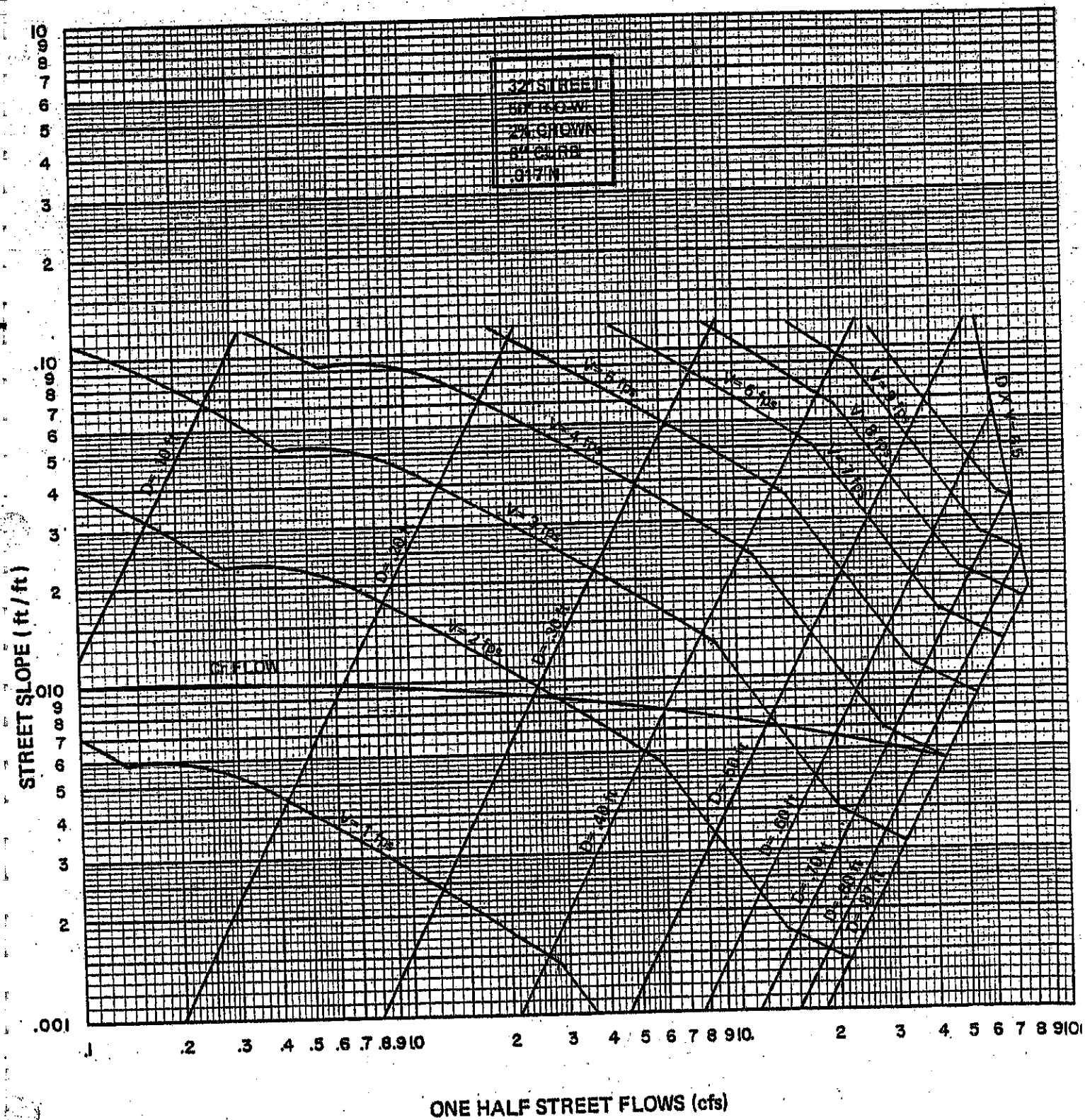
Yucatan at Cabezon - Tract 3 Final Drainage Study
Street Flow Analysis

Inlet #1					Inlet #2					Notes				
Analysis Point	Hydrograph ID	Q (cfs)	Road Slope	Q Half Street (cfs)	Flow Depth (ft)	Velocity (ft/s)	Depth x Velocity	Inlet Type	Q Inlet (cfs)		Q Bypass (cfs)	Inlet Type	Flow Depth (ft)	Q Inlet (cfs)
A	ANYLPT.A	22	0.5%	No Inlet										
B	ANYLPT.B	40	0.5%	20	0.63	3.4	2.1	Double C	14	6	C	0.43	6	0
C	ANYLPT.C	10	1.5%	10	0.43	3.3	1.4	Trip C*	10	0				*Double C collects 8 cfs - Use Triple C Assume no bypass
D	ANYLPT.D	10	1.5%	10	0.43	3.3	1.4	Trip C*	10	0				*Double C collects 8 cfs - Use Triple C
E	ANYLPT.E	21	2.0%	11	0.42	3.8	1.6	Trip C*	11	0				*Double C collects 8 cfs - Use Triple C Assume no bypass
F	ANYLPT.F	32	2.0%	16	0.45	4.5	2.0	Double C	8	8	Trip C*	0.38	8	0
G	ANYLPT.G	15	2.5%	8	0.38	3.8	1.4	Trip C*	7.5	0				*Double C collects 5.5 cfs - Use Triple C
H	ANYLPT.H	19	2.5%	9	0.4	4	1.6	Trip C*	9	0				*Double C collects 5.5 cfs - Use Triple C
J	ANYLPT.J	58	1.8%	29	0.55	7	3.9	Trip C*	17	12				*Double C collects 6.0 cfs - Use Triple C Assume no bypass
K	ANYLPT.K	40	1.5%	20	0.52	3.5	1.8	Trip C*	15	5				*Double C collects 12 cfs - Use Triple C Assume 17 cfs total
L	ANYLPT.L	66		33	Sum Condition									*Double C collects 11 cfs - Use Triple C Assume 15 cfs total

Assumptions

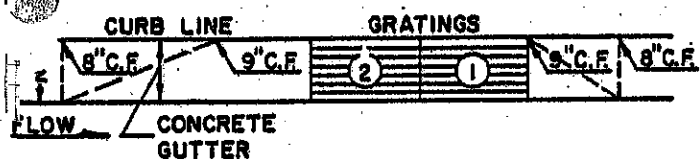
1. Street Flow Depths and Velocities taken from City of Albuquerque Plate 22.3 D-1
2. Double C Grate Capacities taken from City of Albuquerque Plate 22.3 D-6
3. Triple C Grate Capacities were extrapolated from the Double C Capacities.
4. All Grate Capacities do not account for curb opening inflow. Therefore, Inlet inflows shown are conservative and provide a safety factor for items such as inlet clogging

STREET CAPACITY

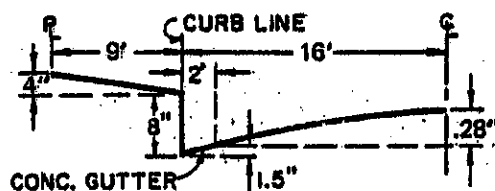
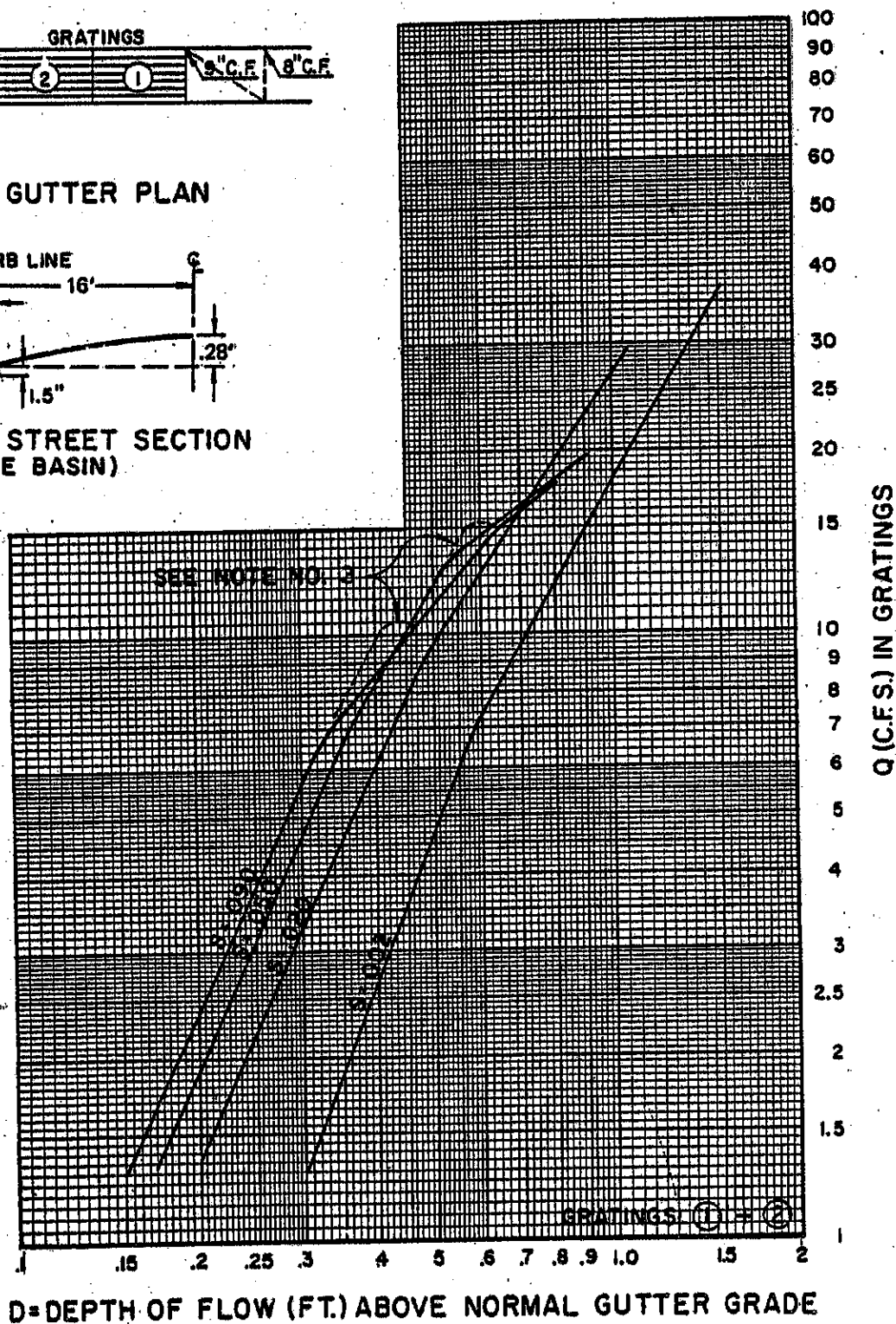


GRATING CAPACITIES FOR TYPE DOUBLE

"C," AND "D"



GRATING & GUTTER PLAN

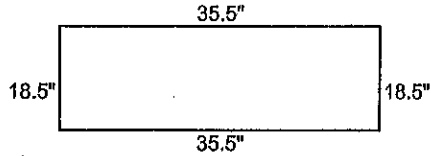
TYPICAL HALF STREET SECTION
(ABOVE BASIN)

Inlet Worksheet (Sump Condition) Analysis Point 'L'

Objective: Design a Quad C Inlet in Sump Condition for a 100-year flow of: 33 cfs

- 1 Inlet to collect discharge before overtopping curb.
Standard 8" curb and gutter.
Dmax=10.75 in (0.9 ft) - Not 8" because standard inlet has 10.75" depression.

- 2 Grate Dimensions



**Net dimensions of open area of a single grate.
(Total Area less Area of Bars)

Weir Perimeter - Quad 'C' = $2 \times 18.5" + 4 \times 35.5" = 14.92$ ft
Area of Orifice - Quad 'C' = $18.5" \times (4 \times 35.5") = 18.24$ sq ft

- 3 Calculate Orifice and Weir Flow into Grate at Design Depth (0.9 ft)

Orifice Equation	Weir Equation
$Q = 0.6 \times A \times (2 \times g \times h)^{1/2}$ Where $A = 18.240$ sq. ft. $g = 32.2$ ft ^{^2} /sec $h = 0.9$ ft Therefore $Q = 83.31827556$ cfs	$Q = 2.65 \times P \times H^{1/2}$ Where $P = 14.920$ ft $H = 0.9$ ft Therefore $Q = 38$ cfs

Weir Equation controls

Quad "C" Inlet flow @ TBC = 38 cfs

Scenario: Base

Pipe Report

Label	Total Flow (cfs)	Average Velocity (ft/s)	Constructed Slope (ft/ft)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Hydraulic Grade Line In (ft)	Upstream Ground Elevation (ft)	Hydraulic Grade Line Out (ft)	Downstream Ground Elevation (ft)	Length (ft)	Total System Flow (cfs)	Downstream Node	Upstream Node	Section Size
P-1	4.00	2.26	0.016129	5,352.50	5,352.00	5,354.20	5,358.26	5,354.15	5,358.17	31.00	4.00	J-1	I-1	18 inch
P-2	4.00	2.26	0.021739	5,352.50	5,352.00	5,354.19	5,358.09	5,354.15	5,358.17	23.00	4.00	J-1	I-2	18 inch
P-3	48.00	11.04	0.013433	5,351.00	5,350.10	5,353.27	5,358.17	5,352.54	5,357.22	67.00	48.00	J-2	J-1	30 inch
P-4	48.00	12.88	0.018846	5,350.00	5,348.54	5,350.02	5,357.22	5,348.66	5,352.60	260.00	48.00	J-4	J-2	30 inch
P-5	7.00	8.72	0.023000	5,349.00	5,348.54	5,350.02	5,354.21	5,349.94	5,354.23	20.00	7.00	J-3	I-3	18 inch
P-6	7.00	8.28	0.020000	5,349.00	5,348.54	5,350.02	5,354.21	5,349.94	5,354.23	23.00	7.00	J-3	I-4	18 inch
P-7	14.00	12.77	0.024051	5,347.00	5,345.10	5,348.80	5,354.23	5,348.66	5,352.60	79.00	14.00	J-4	J-3	24 inch
P-8	62.00	14.24	0.020000	5,345.00	5,340.10	5,347.54	5,352.60	5,345.20	5,347.30	245.00	62.00	J-6	J-4	36 inch
P-9	4.00	2.26	0.023810	5,342.50	5,342.00	5,346.70	5,348.05	5,346.66	5,347.62	21.00	4.00	J-5	I-5	18 inch
P-10	4.00	2.26	0.021739	5,342.50	5,342.00	5,346.70	5,347.93	5,346.66	5,347.62	23.00	4.00	J-5	I-6	18 inch
P-11	30.00	4.24	0.013684	5,340.62	5,340.10	5,345.27	5,347.62	5,345.20	5,347.30	38.00	30.00	J-6	J-5	36 inch
P-12	17.50	5.57	0.045000	5,308.00	5,307.10	5,310.14	5,314.61	5,310.02	5,314.20	20.00	17.50	J-14	I-12	24 inch
P-13	17.00	5.41	0.033333	5,308.00	5,307.10	5,310.17	5,314.72	5,310.02	5,314.20	27.00	17.00	J-14	I-13	24 inch
P-14	15.00	14.78	0.057692	5,310.00	5,308.50	5,311.40	5,315.80	5,310.40	5,316.03	26.00	15.00	J-12	I-14	24 inch
P-18	34.50	15.23	0.035897	5,307.00	5,305.60	5,308.91	5,314.20	5,309.18	5,314.00	39.00	34.50	J-15	J-14	36 inch
P-19	66.50	13.84	0.017521	5,305.50	5,301.40	5,308.06	5,314.00	5,306.41	5,309.40	234.00	66.50	J-16	J-15	42 inch
P-20	33.00	4.67	0.030189	5,303.00	5,301.40	5,306.54	5,309.67	5,306.41	5,309.40	53.00	33.00	J-16	I-16	36 inch
P-21	99.50	17.21	0.024000	5,301.30	5,300.70	5,304.32	5,309.40	5,304.06	5,309.17	25.00	99.50	I-26	J-16	48 inch
P-22	20.00	6.37	0.050000	5,354.00	5,353.10	5,357.54	5,359.56	5,357.40	5,359.42	18.00	20.00	J-17	I-18	24 inch
P-23	20.00	6.37	0.042857	5,354.00	5,353.10	5,357.57	5,359.46	5,357.40	5,359.42	21.00	20.00	J-17	I-19	24 inch
P-24	40.00	11.28	0.014754	5,353.00	5,352.10	5,355.38	5,359.42	5,354.85	5,358.99	61.00	40.00	J-18	J-17	30 inch
P-25	40.00	8.15	0.015254	5,352.00	5,351.10	5,354.71	5,358.99	5,354.15	5,358.17	59.00	40.00	J-1	J-18	30 inch
P-26	11.00	2.24	0.029412	5,343.50	5,343.00	5,348.30	5,349.07	5,348.29	5,349.04	17.00	11.00	J-19	I-20	30 inch
P-27	11.00	2.24	0.023810	5,343.50	5,343.00	5,348.30	5,349.07	5,348.29	5,349.04	21.00	11.00	J-19	I-21	30 inch
P-28	22.00	3.11	0.022857	5,342.00	5,340.72	5,346.73	5,349.04	5,346.66	5,347.62	56.00	22.00	J-5	J-19	36 inch
P-29	92.00	16.35	0.023444	5,340.00	5,335.78	5,342.86	5,347.30	5,339.21	5,342.68	180.00	92.00	J-20	J-6	36 inch
P-30	107.00	17.31	0.023200	5,335.68	5,334.52	5,338.81	5,342.68	5,337.67	5,341.42	50.00	107.00	J-7	J-20	48 inch
P-31	7.50	4.24	0.020000	5,337.00	5,336.68	5,339.29	5,342.60	5,339.21	5,342.68	16.00	7.50	J-20	I-22	18 inch
P-32	7.50	4.24	0.020000	5,337.00	5,336.68	5,339.32	5,342.74	5,339.21	5,342.68	21.00	7.50	J-20	I-23	18 inch
P-33	107.00	18.78	0.028846	5,334.42	5,333.67	5,337.55	5,341.42	5,337.40	5,340.57	26.00	107.00	J-8	J-7	48 inch
P-34	9.00	5.09	0.025000	5,334.00	5,333.50	5,337.73	5,339.27	5,337.58	5,338.96	20.00	9.00	J-21	I-24	18 inch
P-35	9.00	5.09	0.022727	5,334.00	5,333.50	5,337.74	5,339.27	5,337.58	5,338.96	22.00	9.00	J-21	I-25	18 inch
P-39	18.00	5.73	0.010133	5,331.96	5,331.20	5,336.49	5,338.96	5,336.01	5,337.32	75.00	18.00	J-26	J-21	24 inch
P-40	107.00	12.40	0.009753	5,333.57	5,331.20	5,337.25	5,340.57	5,336.01	5,337.32	243.00	107.00	J-26	J-8	48 inch
P-55	17.00	9.62	0.038462	5,309.00	5,308.50	5,310.74	5,314.80	5,310.40	5,316.03	13.00	17.00	J-12	I-15	18 inch

Scenario: Base

Pipe Report

Label	Total Flow (cfs)	Average Velocity (ft/s)	Constructed Slope (ft/ft)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Hydraulic Grade Line In (ft)	Upstream Ground Elevation (ft)	Hydraulic Grade Line Out (ft)	Downstream Ground Elevation (ft)	Length (ft)	Total System Flow (cfs)	Downstream Node	Upstream Node	Section Size
P-56	132.50	16.58	0.018151	5,300.60	5,298.44	5,304.04	5,309.17	5,301.06	5,309.00	119.00	132.50	J-23	I-26	48 inch
P-57	132.50	12.97	0.010000	5,298.44	5,298.17	5,301.88	5,309.00	5,301.38	5,309.00	27.00	132.50	O-4	J-23	48 inch
P-58	32.00	18.62	0.063043	5,308.40	5,305.50	5,310.29	5,316.03	5,309.18	5,314.00	46.00	32.00	J-15	J-12	24 inch
P-59	125.00	9.95	0.006220	5,331.10	5,330.31	5,334.77	5,337.32	5,333.67	5,337.06	127.00	125.00	O-5	J-26	48 inch

C-6

Scenario: Base



Scenario: Base



Title: Northern Portion of Tract 3
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Huitt-Zollars, Inc.
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Project Engineer: Jarrod Likar
StormCAD v5.5 [5.5003]
Page 1 of 1

C-8

Scenario: Base

