DRAINAGE REPORT

for

Heritage Marketplace
Southeast Corner Unser and Ladera
Albuquerque, New Mexico

Prepared by:

Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, New Mexico 87109

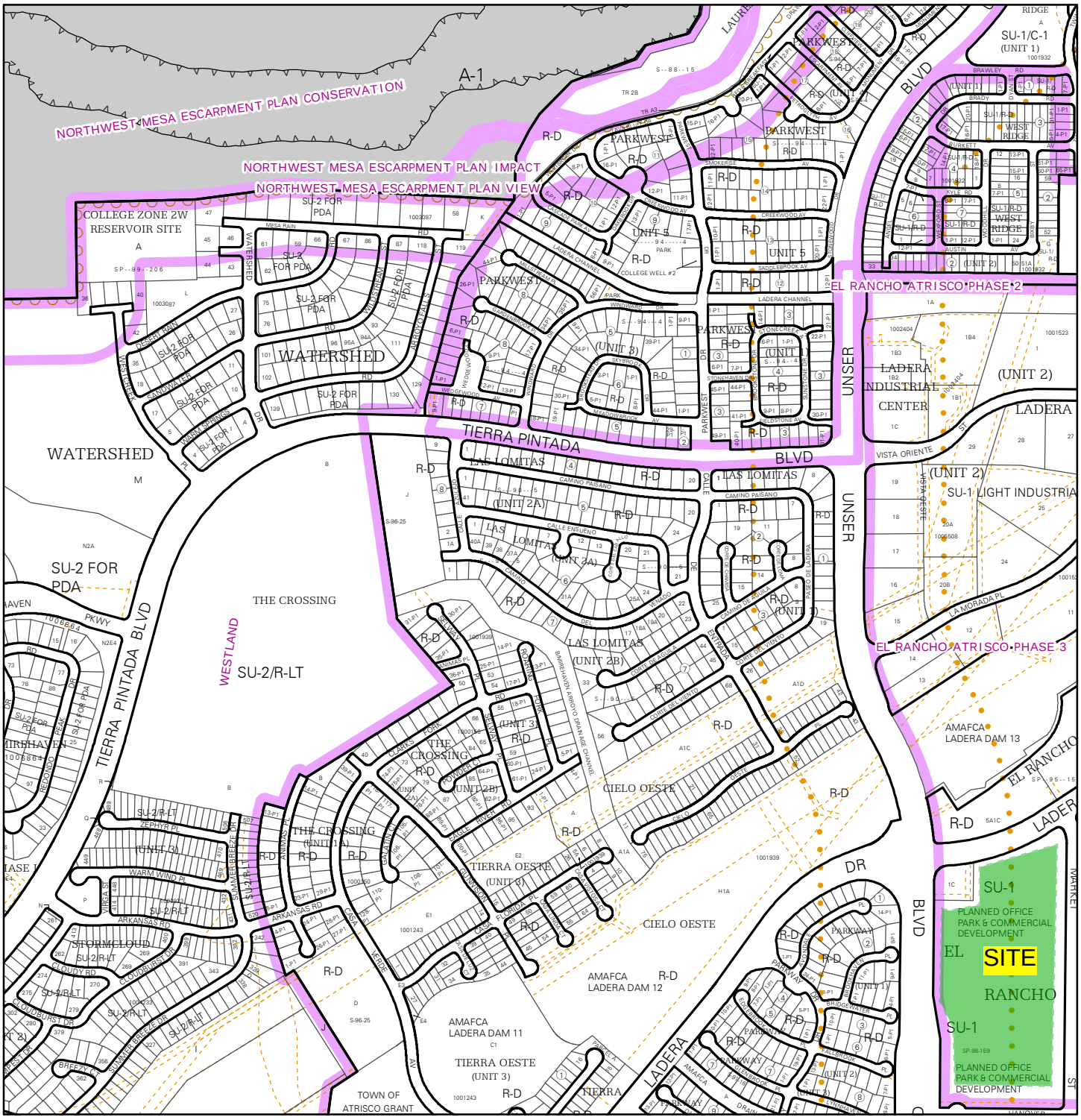
February 2015

I certify that this report was prepared under my supervision, and I am a registered professional engineer in the State of New Mexico in good standing.

Joel D. Hernandez, PE
P.E.NO. 17893

Job No 2014038

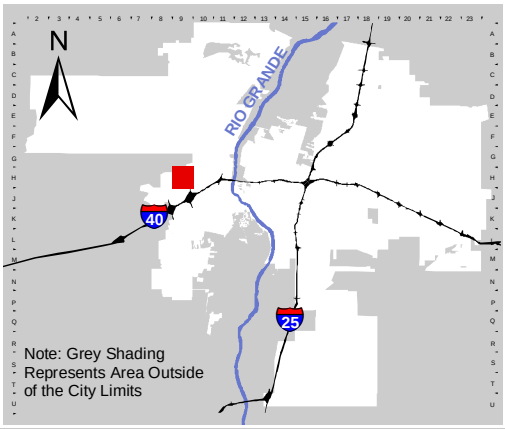
EXHIBIT A - VICINITY MAP



For more current information and details visit: http://www.cabq.gov/gis

Albuquerque Geographic Information System

Map amended through: 9/2/2014



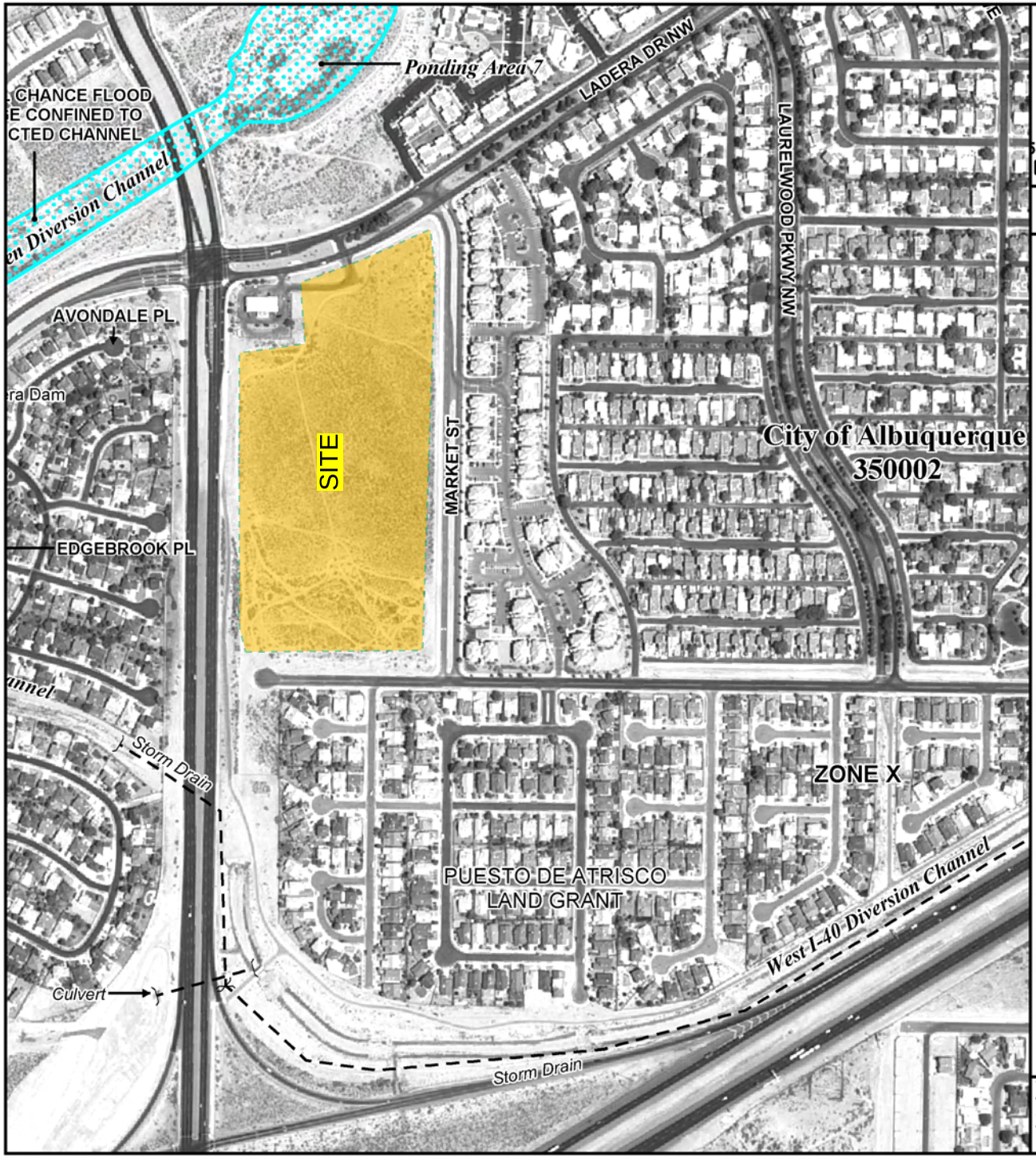
Zone Atlas Page:

H-09-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet



MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0326H

FIRM

FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY, NEW MEXICO

AND INCORPORATED AREAS

PANEL 326 OF 825

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ALBUQUERQUE, CITY OF	350002	0326	H
BERNALILLO COUNTY UNINCORPORATED AREAS	350001	0326	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
35001C0326H

MAP REVISED
AUGUST 16, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

EXHIBIT B

PURPOSE

The purpose of this report is to demonstrate the proposed grading and drainage scheme is consistent with the capacity assumptions of existing infrastructure constructed with SAD 212 (Hanover Storm Sewer) and to determine the required pond volumes and storm drain sizing necessary to connect to this existing infrastructure. The as-built drawing for the portion of the Hanover Storm Sewer to which this project connects is included in Appendix B of this report.

FLOOD PLAIN

The site is not within a floodplain as shown on FIRM Map 35001c0326H. See Exhibit B for location of site.

EXISTING CONDITIONS

The property over which the shopping center project will be constructed is currently undeveloped, with the exception of the existing Valero service station at the southeast corner of Unser Boulevard and Ladera Drive. An existing 42 inch RCP storm drain pipe anticipated to accept runoff from the site was constructed with SAD 212 and runs within a drainage easement along the north side of Hanover Road which borders the southerly portion of the site. The property generally drains from the northwest to the southeast into an existing inlet connected to the Hanover Road Storm Sewer.

The site is bordered by Unser Boulevard to the west, which conveys flows within the curbed roadway to the south; on the north by Ladera Drive which conveys flows within the curbed roadway to the east; Market Street to the east which conveys flows within the curbed roadway to Hanover Road to the south, which in turn flows to the east. There are no offsite basins draining onto the site other than the existing Valero service station.

The SAD 212 improvements are configured to accept 50 CFS of runoff from the project property of approximately 20.8 acres (average rate of 2.4 CFS/acre). Flows from Market Street are contained within the public right-of-way and do not drain into this segment of the SAD 212 storm sewer.

PROPOSED CONDITIONS

The initial phase of the project anticipates onsite grading and drainage improvements necessary to grade the commercial tract pads (all tracts with the exception of Basin B4), two interconnected detention ponds, and internal driveways. Offsite improvements are proposed on Unser Boulevard for a deceleration and right-turn lane, median left-turn lane, and right-in driveway; a right-turn lane on Ladera Drive at the southwest portion of the intersection with Unser Boulevard; and median driveway cuts on Market Street.

Onsite drainage improvements are configured to not exceed the 50 SFS allowable flow into the SAD 212 storm sewer. The commercial northerly/upstream basins (Basin A1-A5, inclusive) are configured to be routed through two interconnected detention ponds and generate a peak flow of 19.91 CFS as calculated using AHYMO. Basin A6, downstream of the ponds, generates 1.86 CFS and enters the proposed storm drain through a curb inlet. The total flow from the northerly commercial pads routed through the basins and the addition of Basin A6 produce a total of 21.77 CFS which equates to an average rate of 2.39 CFS/acre.

The southerly commercial pads corresponding to basins B1 and B2 will each be limited to 2.1 CFS when they develop in the future. Flows from these commercial pads combined with the 2.3 developed flow from the portion of the driveway encompassed by Basin B3 will not exceed 6.5 CFS, which also corresponds to an average rate of 2.4 CFS/acre.

The total flows (28.3 CFS) from all onsite “commercial” drainage basins (excluding Basin B4) will be conveyed in a proposed private storm drain connecting to the SAD 212 storm sewer

in Hanover Road. Basin B4, slated for future residential or office development, will be limited to 21.7 CFS (2.4 CFS/acre) so as not to exceed the total allowable 50 CFS.

A hydrologic analysis was run using AHYMO to demonstrate the proposed pond volumes are adequate to restrict the flows as discussed above. A hydraulic analysis to size the major pipe network was run using Flowmaster. A section of 24-inch and 30-inch RCP will be required to convey flows through the future residential parcel to the existing 42-inch RCP. Calculations are included in Appendix A of this report.

STORMWATER CONTROL MEASURES

Stormwater Control Measures are incorporated in the design to the extent practicable and will provide management of the 90th Percentile Storm. The primary design measure is the retention/detention pond which will serve to retain the 90th Percentile Storm which was quantified per the Drainage Ordinance requirement of 0.44 inches and reduced by 0.1 inch to account for the initial impervious abstraction as listed in Table A-6 of Section 22 of the DPM. Detailed pond volume design tabulations are included in Appendix A.

SUMMARY

Following a detailed analysis of existing and proposed drainage conditions guided by DPM Section 22 – Weighted E Method, storm water discharge resulting from the 100-year, 6-hr storm event indicates that the proposed redevelopment and corresponding grading and drainage design will accommodate the proposed development, and correspondingly not increase run-off volumes or alter historic discharge locations. It is therefore recommended that this plan be approved for Site Development Plan for Building Permit and Site Development Plan for Subdivision based upon these findings.

Northerly Deveveloped Basins (Routed Through Grocery Store Ponds)

Basin Descriptions												100-Year, 6-Hr			10-Year, 6-Hr			2-Year, 6-Hr		
Basin	Area (sf)	Area (acres)	Area (sq miles)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
A1 Store	217,349	4.990	0.00780	0%	0	0%	0.000	29%	1.427732	71%	3.562	1.690	0.703		1.011	0.420	12.42	0.548	0.228	6.69
A2 Pad C	36,334	0.834	0.00130	0%	0	0%	0.000	43%	0.362718	57%	0.471	1.544	0.107		0.892	0.062	1.90	0.459	0.032	0.97
A3 Valero	37,460	0.860	0.00134	0%	0	0%	0.000	22%	0.187052	78%	0.673	1.757	0.126		1.066	0.076	2.22	0.589	0.042	1.23
A4 Pad E	39,708	0.912	0.00142	0%	0	0%	0.000	20%	0.182277	80%	0.729	1.774	0.135		1.080	0.082	2.38	0.600	0.046	1.32
A5 Roof*	40,601	0.932	0.00146	0%	0	0%	0.000	0%	0	100%	0.932	1.970	0.153		1.240	0.096	2.69	0.720	0.056	1.58
subtotal														19.91**						
A6 Drive*	19,719	0.453	0.00071	0%	0	0%	0.000	17%	0.076957	83%	0.376	1.803	0.068	1.86	1.104	0.042	1.20			
Total	**371,452**	**8.527**	**0.01332**											**21.77**						

*Notes: Basin not routed through ponds.

** AHYMO peak runoff subtotal

SOUTHERLY Developed Basins

Basin Descriptions												100-Year, 6-Hr			10-Year, 6-Hr			2-Year, 6-Hr		
Basin	Area (sf)	Area (acres)	Area (sq miles)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
B1 Pad A	48,870	1.122	0.00175	0%	0	0%	0.000	100%	1.121901	0%	0.000	0.990	0.093	2.1*	0.440	0.041	1.67	0.120	0.011	0.53
B2 Pad B	46,933	1.077	0.00168	0%	0	0%	0.000	100%	1.077433	0%	0.000	0.990	0.089	2.1*	0.440	0.040	1.61	0.120	0.011	0.51
B3 Drive	23,035	0.529	0.00083	0%	0	0%	0.000	0%	0	100%	0.529	1.970	0.087	2.31	1.240	0.055	1.53	0.720	0.032	0.89
B4 Res	394,392	9.054	0.01415	0%	0	98%	8.873	2%	0.18108	0%	0.000	0.676	0.510	21.7*	0.224	0.169	7.01			
Total	**513,230**	**11.782**	**0.01841**										**0.779**	**28.20**		**0.305**	**11.82**		**0.054**	**1.93**

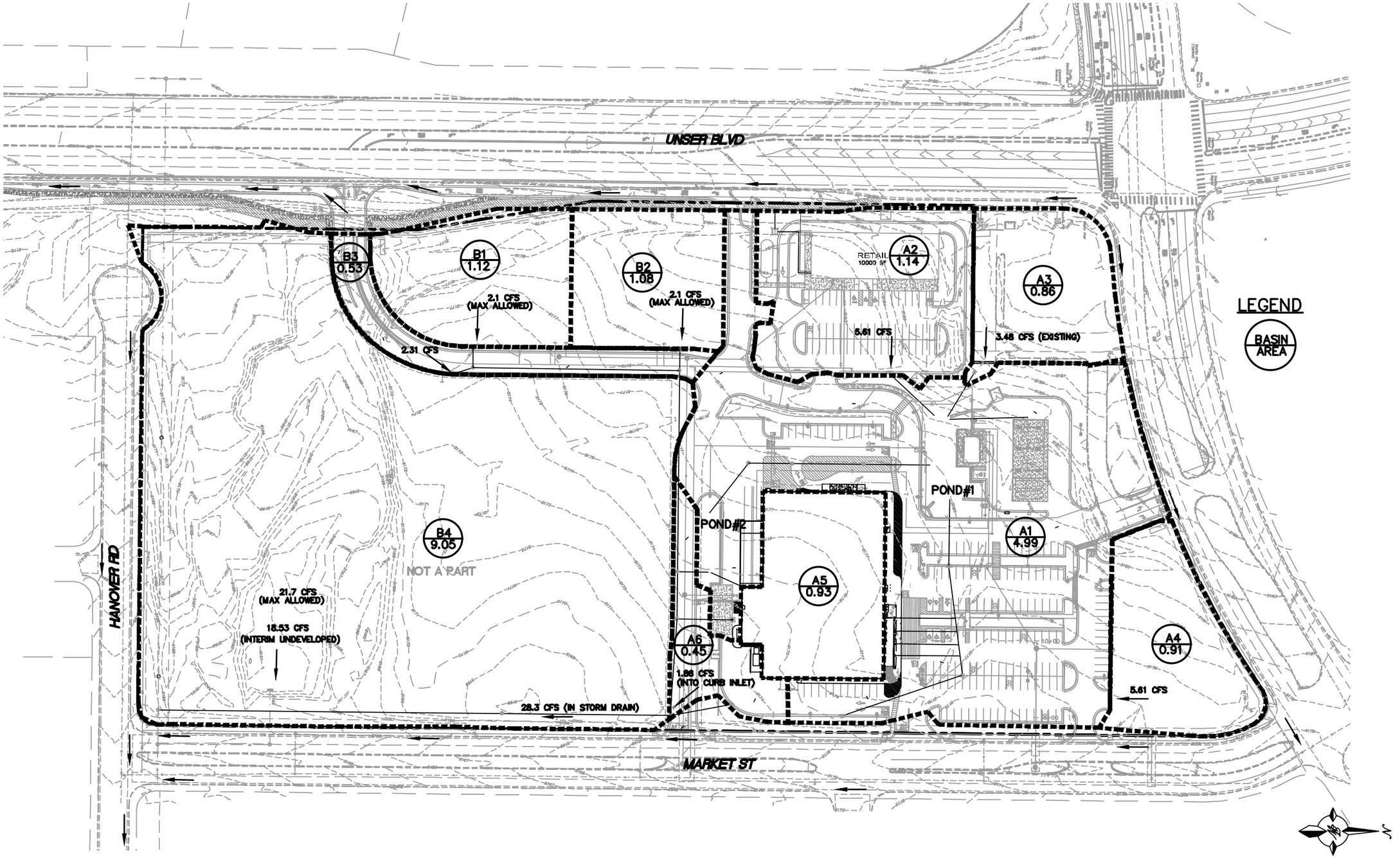
*Notes: Max allowable Q100.

Equations:

Weighted E = $E_a*A_a + E_b*A_b + E_c*A_c + E_d*A_d$ / (Total Area)

Volume = Weighted D * Total Area

Flow = $Q_a * A_a + Q_b * A_b + Q_c * A_c + Q_d * A_d$



Xref Z:\2014\2014038 Heritage Plaza Frontera\dwg\OTB\2014038-TITLE.dwg

BASIN MAP
DRAINAGE PLAN

First Flush and Pond Volume Calculations

POND 1 VOLUME CALCULATIONS

ELEVATION (ft)	AREA (sf)	VOLUME (cf)	CUMULATIVE VOLUME (cf)
5170	2213	0	0
5171	3173	2693	2693
5172	4197	3685	6378
5173	5295	4746	11124
5174	6410	5852.5	16977
5175	7568	6989	23966
			23966
			23966
			23966

POND 2 VOLUME CALCULATIONS

ELEVATION (ft)	AREA (sf)	VOLUME (cf)	CUMULATIVE VOLUME (cf)
5170	0	0	0
5171	399	199.5	199.5
5172	933	666	865.5
5173	1539	1236	2101.5
5174	2217	1878	3979.5
5175	2967	2592	6571.5
			6571.5

TOTAL POND VOLUME **30537**

ACTUAL ELEV.	DEPTH (FT)	VOLUME (CF)	Q (CFS)	VOLUME (AC-FT)
70	0	0	0.0000	
71.00	0.00	2893	0.0000	0.06640266
72.00	0.00	7244	0.0000	0.16628788
73.00	1.00	13226	3.3237	0.3036157
74.00	2.00	20956	13.7041	0.48108356
75.00	3.00	30537	19.0934	0.70103306

Orifice Equation

Q = CA SQRT(2gH)

C = 0.6
Diameter (ir 22.5
Area (ft^2)= 2.761
g = 32.2
H (Ft) = Depth of water above center of orifice
Q (CFS)= Flow

FIRST FLUSH CALCULATIONS

Total Retention Vol Provided= **7244** cubic feet (ELEV 5170 TO 5172)

Volume Required = A_d * (0.44in-0.1in)

A_d=4.49 acres = 195758 SQ FT

Vol Req'd 5546 cubic feet< Vol Provided, Therefore **OK**

Worksheet for 30" RCP Capacity Check

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00600	ft/ft
Diameter	2.50	ft
Discharge	28.53	ft^3/s

Results

Normal Depth	1.85	ft
Flow Area	3.90	ft^2
Wetted Perimeter	5.18	ft
Hydraulic Radius	0.75	ft
Top Width	2.19	ft
Critical Depth	1.82	ft
Percent Full	74.0	%
Critical Slope	0.00624	ft/ft
Velocity	7.32	ft/s
Velocity Head	0.83	ft
Specific Energy	2.68	ft
Froude Number	0.97	
Maximum Discharge	34.18	ft^3/s
Discharge Full	31.77	ft^3/s
Slope Full	0.00484	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	74.03	%
Downstream Velocity	Infinity	ft/s

Worksheet for 24" RCP Capacity Check

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01710	ft/ft
Diameter	2.00	ft
Discharge	28.93	ft³/s

Results

Normal Depth	1.60	ft
Flow Area	2.70	ft²
Wetted Perimeter	4.43	ft
Hydraulic Radius	0.61	ft
Top Width	1.60	ft
Critical Depth	1.85	ft
Percent Full	80.0	%
Critical Slope	0.01418	ft/ft
Velocity	10.73	ft/s
Velocity Head	1.79	ft
Specific Energy	3.39	ft
Froude Number	1.46	
Maximum Discharge	31.82	ft³/s
Discharge Full	29.58	ft³/s
Slope Full	0.01636	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	80.04	%
Downstream Velocity	Infinity	ft/s

Worksheet for 24" RCP at 1.29%

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01290	ft/ft
Diameter	2.00	ft
Discharge	24.74	ft³/s

Results

Normal Depth	1.58	ft
Flow Area	2.66	ft²
Wetted Perimeter	4.37	ft
Hydraulic Radius	0.61	ft
Top Width	1.63	ft
Critical Depth	1.76	ft
Percent Full	78.8	%
Critical Slope	0.01080	ft/ft
Velocity	9.31	ft/s
Velocity Head	1.35	ft
Specific Energy	2.92	ft
Froude Number	1.29	
Maximum Discharge	27.64	ft³/s
Discharge Full	25.69	ft³/s
Slope Full	0.01196	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	78.82	%
Downstream Velocity	Infinity	ft/s

Worksheet for 18" RCP 0.4% Capacity Check

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00400	ft/ft
Diameter	1.50	ft
Discharge	5.53	ft³/s

Results

Normal Depth	1.05	ft
Flow Area	1.31	ft²
Wetted Perimeter	2.96	ft
Hydraulic Radius	0.44	ft
Top Width	1.38	ft
Critical Depth	0.91	ft
Percent Full	69.7	%
Critical Slope	0.00600	ft/ft
Velocity	4.21	ft/s
Velocity Head	0.27	ft
Specific Energy	1.32	ft
Froude Number	0.76	
Maximum Discharge	7.15	ft³/s
Discharge Full	6.64	ft³/s
Slope Full	0.00277	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	69.68	%
Downstream Velocity	Infinity	ft/s

Worksheet for 18" RCP 0.6% Capacity Check

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00600	ft/ft
Diameter	1.50	ft
Discharge	8.62	ft³/s

Results

Normal Depth	1.33	ft
Flow Area	1.66	ft²
Wetted Perimeter	3.69	ft
Hydraulic Radius	0.45	ft
Top Width	0.95	ft
Critical Depth	1.14	ft
Percent Full	88.8	%
Critical Slope	0.00791	ft/ft
Velocity	5.20	ft/s
Velocity Head	0.42	ft
Specific Energy	1.75	ft
Froude Number	0.69	
Maximum Discharge	8.75	ft³/s
Discharge Full	8.14	ft³/s
Slope Full	0.00673	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	88.83	%
Downstream Velocity	Infinity	ft/s

```
**************************************************************
*               Heritage Plaza, ALBUQUERQUE, NM              *
**************************************************************
* 100-YEAR, 24-HR STORM  (UNDER PROPOSED CONDITIONS) W/ routing *
**************************************************************
*
START               TIME=0.0
*
*
RAINFALL            TYPE=2 RAIN QUARTER=0.0 IN
                    RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                    RAIN DAY=2.66 IN DT=0.05 HR
*DEVELOPED CONDITIONS
*
*BASIN A1
*
COMPUTE NM HYD      ID=1 HYD NO=100.1 AREA=0.00780 SQ MI
                    PER A=0.00 PER B=0.00 PER C=28.0 PER D=72.00
                    TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=1 CODE=1
*
*
*BASIN A2
*
COMPUTE NM HYD      ID=2 HYD NO=100.2 AREA=0.00220 SQ MI
                    PER A=0.00 PER B=0.00 PER C=26.0 PER D=74.00
                    TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=2 CODE=1
*
*
*BASIN A3
*
COMPUTE NM HYD      ID=3 HYD NO=100.3 AREA=0.00134 SQ MI
                    PER A=0.00 PER B=0.00 PER C=22.0 PER D=78.00
                    TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=3 CODE=1
*
*
*BASIN A4
*
COMPUTE NM HYD      ID=4 HYD NO=100.4 AREA=0.00142 SQ MI
                    PER A=0.00 PER B=0.00 PER C=20.0 PER D=80.00
                    TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=4 CODE=1
*
*
*BASIN A5 - ROOF
*
COMPUTE NM HYD      ID=5 HYD NO=100.5 AREA=0.00146 SQ MI
                    PER A=0.00 PER B=0.00 PER C=0.0 PER D=100.00
                    TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=5 CODE=1
*
*
*BASIN A6 - DRIVE
*
COMPUTE NM HYD      ID=6 HYD NO=100.6 AREA=0.00071 SQ MI
                    PER A=0.00 PER B=0.00 PER C=17.0 PER D=83.00
                    TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=6 CODE=1
*
*
ADD HYD             ID=50 HYD NO=100.21 ID=1 ID=2
ADD HYD             ID=50 HYD NO=100.21 ID=50 ID=3
ADD HYD             ID=50 HYD NO=100.21 ID=50 ID=4
*
```

```
PRINT HYD           ID=50 CODE=1
*
*
*ROUTE BASIN 1,2,3 & 4 THROUGH DETENTION PONDS
ROUTE RESERVOIR     ID=55 HYD NO=200.1 INFLOW ID=50 CODE=24
                    OUTFLOW (CFS) STORAGE(AC-FT) ELEVATION(FT)
                    0.0           0.0            70.00
                    0.010         0.0664         71.00
                    0.0100        0.1662         72.00
                    3.3237        0.3036         73.00
                    13.704        0.4810         74.00
                    19.093        0.7010         75.00
*
PRINT HYD           ID=55  CODE=1
*
*
ADD HYD             ID=56 HYD NO=100.22 ID=55 ID=5
PRINT HYD           ID=56 CODE=1
*
*
ADD HYD             ID=57 HYD NO=100.23 ID=56 ID=6
PRINT HYD           ID=57 CODE=1
*
*
FINISH
```

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             START TIME (HR:MIN:SEC) = 10:52:52     USER NO.=
TierraWest-SiteA99368577
             INPUT FILE = C:\Users\Joel\Desktop\Heritage.01.15 North
Basins.txt

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

    *               Heritage Plaza, ALBUQUERQUE, NM                    *

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

    * 100-YEAR, 24-HR STORM  (UNDER PROPOSED CONDITIONS) W/ routing *

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

    *

    START               TIME=0.0

    *

    *

    RAINFALL            TYPE=2 RAIN QUARTER=0.0 IN

                        RAIN ONE=1.87 IN RAIN SIX=2.20 IN

                        RAIN DAY=2.66 IN DT=0.05 HR


                      24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR
CONVECTIVE AREAS (NM & AZ) - D1
                      DT =   0.050000 HOURS       END TIME =    24.000002 HOURS
                        0.0000  0.0022  0.0045  0.0069  0.0096  0.0123  0.0154
                        0.0197  0.0264  0.0336  0.0412  0.0494  0.0578  0.0664
                        0.0753  0.0844  0.0946  0.1052  0.1168  0.1387  0.1657
                        0.2020  0.2430  0.2937  0.3614  0.4375  0.5689  0.7733
                        1.1234  1.3695  1.5635  1.6610  1.7465  1.8079  1.8568
                        1.8994  1.9306  1.9592  1.9828  1.9979  2.0087  2.0183
                        2.0273  2.0352  2.0426  2.0499  2.0568  2.0625  2.0659
                        2.0692  2.0724  2.0754  2.0784  2.0813  2.0842  2.0870
                        2.0896  2.0923  2.0949  2.0974  2.0999  2.1023  2.1046
                        2.1069  2.1092  2.1115  2.1136  2.1158  2.1179  2.1199
                        2.1220  2.1240  2.1260  2.1280  2.1299  2.1318  2.1337
                        2.1356  2.1374  2.1392  2.1411  2.1428  2.1446  2.1463
                        2.1481  2.1498  2.1514  2.1531  2.1548  2.1564  2.1580
                        2.1596  2.1612  2.1628  2.1643  2.1658  2.1674  2.1689
                        2.1704  2.1718  2.1733  2.1747  2.1762  2.1776  2.1790
                        2.1804  2.1818  2.1832  2.1845  2.1859  2.1872  2.1885
                        2.1899  2.1912  2.1925  2.1937  2.1950  2.1963  2.1975
                        2.1988  2.2000  2.2013  2.2026  2.2038  2.2051  2.2064
                        2.2077  2.2089  2.2102  2.2115  2.2128  2.2141  2.2153
                        2.2166  2.2179  2.2192  2.2204  2.2217  2.2230  2.2243
                        2.2256  2.2268  2.2281  2.2294  2.2307  2.2319  2.2332
                        2.2345  2.2358  2.2371  2.2383  2.2396  2.2409  2.2422
                        2.2434  2.2447  2.2460  2.2473  2.2486  2.2498  2.2511
                        2.2524  2.2537  2.2549  2.2562  2.2575  2.2588  2.2601
                        2.2613  2.2626  2.2639  2.2652  2.2664  2.2677  2.2690
                        2.2703  2.2716  2.2728  2.2741  2.2754  2.2767  2.2779
                        2.2792  2.2805  2.2818  2.2831  2.2843  2.2856  2.2869
                        2.2882  2.2894  2.2907  2.2920  2.2933  2.2946  2.2958
                        2.2971  2.2984  2.2997  2.3009  2.3022  2.3035  2.3048
```

2.3061	2.3073	2.3086	2.3099	2.3112	2.3124	2.3137
2.3150	2.3163	2.3176	2.3188	2.3201	2.3214	2.3227
2.3239	2.3252	2.3265	2.3278	2.3291	2.3303	2.3316
2.3329	2.3342	2.3354	2.3367	2.3380	2.3393	2.3406
2.3418	2.3431	2.3444	2.3457	2.3469	2.3482	2.3495
2.3508	2.3521	2.3533	2.3546	2.3559	2.3572	2.3584
2.3597	2.3610	2.3623	2.3636	2.3648	2.3661	2.3674
2.3687	2.3699	2.3712	2.3725	2.3738	2.3750	2.3763
2.3776	2.3789	2.3802	2.3814	2.3827	2.3840	2.3853
2.3865	2.3878	2.3891	2.3904	2.3917	2.3929	2.3942
2.3955	2.3968	2.3980	2.3993	2.4006	2.4019	2.4032
2.4044	2.4057	2.4070	2.4083	2.4095	2.4108	2.4121
2.4134	2.4147	2.4159	2.4172	2.4185	2.4198	2.4210
2.4223	2.4236	2.4249	2.4262	2.4274	2.4287	2.4300
2.4313	2.4325	2.4338	2.4351	2.4364	2.4377	2.4389
2.4402	2.4415	2.4428	2.4440	2.4453	2.4466	2.4479
2.4492	2.4504	2.4517	2.4530	2.4543	2.4555	2.4568
2.4581	2.4594	2.4607	2.4619	2.4632	2.4645	2.4658
2.4670	2.4683	2.4696	2.4709	2.4722	2.4734	2.4747
2.4760	2.4773	2.4785	2.4798	2.4811	2.4824	2.4837
2.4849	2.4862	2.4875	2.4888	2.4900	2.4913	2.4926
2.4939	2.4952	2.4964	2.4977	2.4990	2.5003	2.5015
2.5028	2.5041	2.5054	2.5067	2.5079	2.5092	2.5105
2.5118	2.5130	2.5143	2.5156	2.5169	2.5182	2.5194
2.5207	2.5220	2.5233	2.5245	2.5258	2.5271	2.5284
2.5297	2.5309	2.5322	2.5335	2.5348	2.5360	2.5373
2.5386	2.5399	2.5412	2.5424	2.5437	2.5450	2.5463
2.5475	2.5488	2.5501	2.5514	2.5527	2.5539	2.5552
2.5565	2.5578	2.5590	2.5603	2.5616	2.5629	2.5642
2.5654	2.5667	2.5680	2.5693	2.5705	2.5718	2.5731
2.5744	2.5757	2.5769	2.5782	2.5795	2.5808	2.5820
2.5833	2.5846	2.5859	2.5872	2.5884	2.5897	2.5910
2.5923	2.5935	2.5948	2.5961	2.5974	2.5987	2.5999
2.6012	2.6025	2.6038	2.6050	2.6063	2.6076	2.6089
2.6102	2.6114	2.6127	2.6140	2.6153	2.6165	2.6178
2.6191	2.6204	2.6217	2.6229	2.6242	2.6255	2.6268
2.6280	2.6293	2.6306	2.6319	2.6332	2.6344	2.6357
2.6370	2.6383	2.6395	2.6408	2.6421	2.6434	2.6447
2.6459	2.6472	2.6485	2.6498	2.6510	2.6523	2.6536
2.6549	2.6562	2.6574	2.6587	2.6600		

```
    *DEVELOPED CONDITIONS
    *
    *BASIN A1
    *
    COMPUTE NM HYD      ID=1 HYD NO=100.1 AREA=0.00780 SQ MI
                        PER A=0.00 PER B=0.00 PER C=28.0 PER D=72.00
                        TP=-0.1333 HR MASS RAINFALL=-1

         K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000
SHAPE CONSTANT, N =  7.106428
         UNIT PEAK =   22.172    CFS   UNIT VOLUME =   0.9986       B =
526.28      P60 = 1.8700
         AREA =     0.005616 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000
```

K = 0.105867HR TP = 0.133300HR K/TP RATIO = 0.794199
SHAPE CONSTANT, N = 4.514592
UNIT PEAK = 6.3592 CFS UNIT VOLUME = 0.9999 B = 388.14 P60 = 1.8700
AREA = 0.002184 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 100.10

RUNOFF VOLUME = 2.04333 INCHES = 0.8500 ACRE-FEET
PEAK DISCHARGE RATE = 20.48 CFS AT 1.500 HOURS BASIN AREA = 0.0078 SQ. MI.

*

*

*BASIN A2

*

COMPUTE NM HYD ID=2 HYD NO=100.2 AREA=0.00220 SQ MI

PER A=0.00 PER B=0.00 PER C=26.0 PER D=74.00

TP=-0.1333 HR MASS RAINFALL=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000
SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 6.4274 CFS UNIT VOLUME = 0.9975 B = 526.28 P60 = 1.8700
AREA = 0.001628 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.105867HR TP = 0.133300HR K/TP RATIO = 0.794199
SHAPE CONSTANT, N = 4.514592
UNIT PEAK = 1.6655 CFS UNIT VOLUME = 0.9941 B = 388.14 P60 = 1.8700
AREA = 0.000572 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=2 CODE=1

PARTIAL HYDROGRAPH 100.20

RUNOFF VOLUME = 2.06992 INCHES = 0.2429 ACRE-FEET
PEAK DISCHARGE RATE = 5.83 CFS AT 1.500 HOURS BASIN AREA = 0.0022 SQ. MI.

```
    *
    *
    *BASIN A3
    *
    COMPUTE NM HYD      ID=3 HYD NO=100.3 AREA=0.00134 SQ MI
                        PER A=0.00 PER B=0.00 PER C=22.0 PER D=78.00
                        TP=-0.1333 HR MASS RAINFALL=-1

         K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000
SHAPE CONSTANT, N =  7.106428
         UNIT PEAK =   4.1265    CFS   UNIT VOLUME =   0.9966       B =
526.28      P60 = 1.8700
         AREA =     0.001045 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000


         K =  0.105867HR    TP =  0.133300HR    K/TP RATIO =  0.794199
SHAPE CONSTANT, N =  4.514592
         UNIT PEAK =  0.85838    CFS   UNIT VOLUME =   0.9874       B =
388.14      P60 = 1.8700
         AREA =     0.000295 SQ MI    IA =   0.35000 INCHES    INF =   0.83000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

    PRINT HYD           ID=3 CODE=1


                                      PARTIAL HYDROGRAPH   100.30


        RUNOFF VOLUME =     2.12311 INCHES     =       0.1517 ACRE-FEET
        PEAK DISCHARGE RATE =       3.60 CFS  AT   1.500 HOURS   BASIN AREA =
0.0013 SQ. MI.


    *
    *
    *BASIN A4
    *
    COMPUTE NM HYD      ID=4 HYD NO=100.4 AREA=0.00142 SQ MI
                        PER A=0.00 PER B=0.00 PER C=20.0 PER D=80.00
                        TP=-0.1333 HR MASS RAINFALL=-1

         K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000
SHAPE CONSTANT, N =  7.106428
         UNIT PEAK =   4.4850    CFS   UNIT VOLUME =   0.9966       B =
526.28      P60 = 1.8700
```

AREA = 0.001136 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.105867HR TP = 0.133300HR K/TP RATIO = 0.794199 SHAPE CONSTANT, N = 4.514592
UNIT PEAK = 0.82693 CFS UNIT VOLUME = 0.9874 B = 388.14 P60 = 1.8700
AREA = 0.000284 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

```
PRINT HYD           ID=4 CODE=1
```

PARTIAL HYDROGRAPH 100.40

RUNOFF VOLUME = 2.14971 INCHES = 0.1628 ACRE-FEET
PEAK DISCHARGE RATE = 3.84 CFS AT 1.500 HOURS BASIN AREA = 0.0014 SQ. MI.

```
*
*
*BASIN A5 - ROOF
*
COMPUTE NM HYD      ID=5 HYD NO=100.5 AREA=0.00146 SQ MI
                    PER A=0.00 PER B=0.00 PER C=0.0 PER D=100.00
                    TP=-0.1333 HR MASS RAINFALL=-1
```

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 5.7642 CFS UNIT VOLUME = 0.9971 B = 526.28 P60 = 1.8700
AREA = 0.001460 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

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

PARTIAL HYDROGRAPH 100.50

RUNOFF VOLUME = 2.41566 INCHES = 0.1881 ACRE-FEET
PEAK DISCHARGE RATE = 4.19 CFS AT 1.500 HOURS BASIN AREA = 0.0015 SQ. MI.

```
*
*
```

```
    *BASIN A6 - DRIVE
    *
    COMPUTE NM HYD      ID=6 HYD NO=100.6 AREA=0.00071 SQ MI
                        PER A=0.00 PER B=0.00 PER C=17.0 PER D=83.00
                        TP=-0.1333 HR MASS RAINFALL=-1

         K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000
SHAPE CONSTANT, N =  7.106428
         UNIT PEAK =   2.3266    CFS   UNIT VOLUME =   0.9941       B =
526.28      P60 = 1.8700
         AREA =     0.000589 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

         K =  0.105867HR    TP =  0.133300HR    K/TP RATIO =  0.794199
SHAPE CONSTANT, N =  4.514592
         UNIT PEAK =  0.35145    CFS   UNIT VOLUME =   0.9649       B =
388.14      P60 = 1.8700
         AREA =     0.000121 SQ MI    IA =   0.35000 INCHES    INF =   0.83000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD -
DT =  0.050000

    PRINT HYD           ID=6 CODE=1

                                        PARTIAL HYDROGRAPH   100.60

        RUNOFF VOLUME =     2.18960 INCHES     =       0.0829 ACRE-FEET
        PEAK DISCHARGE RATE =       1.95 CFS  AT   1.500 HOURS   BASIN AREA =
0.0007 SQ. MI.


    *
    *
    ADD HYD                         ID=50 HYD NO=100.21 ID=1 ID=2
    ADD HYD                         ID=50 HYD NO=100.21 ID=50 ID=3
    ADD HYD                         ID=50 HYD NO=100.21 ID=50 ID=4
    *
    PRINT HYD           ID=50 CODE=1

                                        PARTIAL HYDROGRAPH   100.21

        RUNOFF VOLUME =     2.06804 INCHES     =       1.4074 ACRE-FEET
        PEAK DISCHARGE RATE =      33.75 CFS  AT   1.500 HOURS   BASIN AREA =
0.0128 SQ. MI.
```

*

*

*ROUTE BASIN 1,2,3 & 4 THROUGH DETENTION PONDS

ROUTE RESERVOIR ID=55 HYD NO=200.1 INFLOW ID=50 CODE=24

OUTFLOW (CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.0	0.0	70.00
0.010	0.0664	71.00
0.0100	0.1662	72.00
3.3237	0.3036	73.00
13.704	0.4810	74.00
19.093	0.7010	75.00

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	70.00	0.000	0.00
1.20	4.26	70.73	0.049	0.01
2.40	1.08	72.97	0.300	3.24
3.60	0.05	72.12	0.183	0.40
4.80	0.08	72.03	0.170	0.10
6.00	0.15	72.03	0.171	0.12
7.20	0.16	72.04	0.172	0.15
8.40	0.16	72.04	0.172	0.16
9.60	0.15	72.04	0.172	0.16
10.80	0.16	72.04	0.172	0.16
12.00	0.16	72.04	0.172	0.16
13.20	0.15	72.04	0.172	0.16
14.40	0.16	72.04	0.172	0.16
15.60	0.15	72.04	0.172	0.16
16.80	0.15	72.04	0.172	0.16
18.00	0.16	72.04	0.172	0.16
19.20	0.15	72.04	0.172	0.16
20.40	0.15	72.04	0.172	0.16
21.60	0.16	72.04	0.172	0.16
22.80	0.15	72.04	0.172	0.16
24.00	0.15	72.04	0.172	0.16
25.20	0.00	72.00	0.167	0.02
26.40	0.00	72.00	0.166	0.01
27.60	0.00	72.00	0.166	0.01
28.80	0.00	72.00	0.166	0.01
30.00	0.00	72.00	0.166	0.01
31.20	0.00	72.00	0.166	0.01
32.40	0.00	72.00	0.166	0.01
33.60	0.00	72.00	0.166	0.01
34.80	0.00	72.00	0.166	0.01
36.00	0.00	72.00	0.166	0.01
37.20	0.00	72.00	0.166	0.01
38.40	0.00	72.00	0.166	0.01
39.60	0.00	72.00	0.166	0.01
40.80	0.00	72.00	0.166	0.01
42.00	0.00	72.00	0.166	0.01
43.20	0.00	72.00	0.166	0.01

44.40	0.00	72.00	0.166	0.01
45.60	0.00	72.00	0.166	0.01
46.80	0.00	72.00	0.166	0.01
48.00	0.00	72.00	0.166	0.01
49.20	0.00	72.00	0.166	0.01
50.40	0.00	72.00	0.166	0.01
51.60	0.00	72.00	0.166	0.01
52.80	0.00	72.00	0.166	0.01
54.00	0.00	72.00	0.166	0.01
55.20	0.00	72.00	0.166	0.01
56.40	0.00	72.00	0.166	0.01
57.60	0.00	72.00	0.166	0.01
58.80	0.00	72.00	0.166	0.01
60.00	0.00	72.00	0.166	0.01
61.20	0.00	72.00	0.166	0.01
62.40	0.00	72.00	0.166	0.01
63.60	0.00	72.00	0.166	0.01
64.80	0.00	72.00	0.166	0.01
66.00	0.00	72.00	0.166	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
67.20	0.00	72.00	0.166	0.01
68.40	0.00	72.00	0.166	0.01
69.60	0.00	72.00	0.166	0.01
70.80	0.00	72.00	0.166	0.01
72.00	0.00	72.00	0.166	0.01
73.20	0.00	72.00	0.166	0.01
74.40	0.00	72.00	0.166	0.01
75.60	0.00	72.00	0.166	0.01
76.80	0.00	72.00	0.166	0.01
78.00	0.00	72.00	0.166	0.01
79.20	0.00	72.00	0.166	0.01
80.40	0.00	72.00	0.166	0.01
81.60	0.00	72.00	0.166	0.01
82.80	0.00	72.00	0.166	0.01
84.00	0.00	72.00	0.166	0.01
85.20	0.00	72.00	0.166	0.01
86.40	0.00	72.00	0.166	0.01
87.60	0.00	72.00	0.166	0.01
88.80	0.00	72.00	0.166	0.01
90.00	0.00	72.00	0.166	0.01
91.20	0.00	72.00	0.166	0.01
92.40	0.00	72.00	0.166	0.01
93.60	0.00	72.00	0.166	0.01
94.80	0.00	72.00	0.166	0.01
96.00	0.00	72.00	0.166	0.01
97.20	0.00	72.00	0.166	0.01
98.40	0.00	72.00	0.166	0.01
99.60	0.00	72.00	0.166	0.01
100.80	0.00	72.00	0.166	0.01
102.00	0.00	72.00	0.166	0.01
103.20	0.00	72.00	0.166	0.01
104.40	0.00	72.00	0.166	0.01
105.60	0.00	72.00	0.166	0.01
106.80	0.00	72.00	0.166	0.01
108.00	0.00	72.00	0.166	0.01
109.20	0.00	72.00	0.166	0.01
110.40	0.00	72.00	0.166	0.01
111.60	0.00	72.00	0.166	0.01
112.80	0.00	72.00	0.166	0.01
114.00	0.00	72.00	0.166	0.01
115.20	0.00	72.00	0.166	0.01
116.40	0.00	72.00	0.166	0.01
117.60	0.00	72.00	0.166	0.01

118.80	0.00	72.00	0.166	0.01
120.00	0.00	72.00	0.166	0.01
121.20	0.00	72.00	0.166	0.01
122.40	0.00	72.00	0.166	0.01
123.60	0.00	72.00	0.166	0.01
124.80	0.00	72.00	0.166	0.01
126.00	0.00	72.00	0.166	0.01
127.20	0.00	72.00	0.166	0.01
128.40	0.00	72.00	0.166	0.01
129.60	0.00	72.00	0.166	0.01
130.80	0.00	72.00	0.166	0.01
132.00	0.00	72.00	0.166	0.01
133.20	0.00	72.00	0.166	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
134.40	0.00	72.00	0.166	0.01
135.60	0.00	72.00	0.166	0.01
136.80	0.00	72.00	0.166	0.01
138.00	0.00	72.00	0.166	0.01
139.20	0.00	72.00	0.166	0.01
140.40	0.00	72.00	0.166	0.01
141.60	0.00	72.00	0.166	0.01
142.80	0.00	72.00	0.166	0.01
144.00	0.00	72.00	0.166	0.01
145.20	0.00	72.00	0.166	0.01
146.40	0.00	71.00	0.066	0.01
147.60	0.00	70.98	0.065	0.01
148.80	0.00	70.97	0.064	0.01
150.00	0.00	70.96	0.063	0.01
151.20	0.00	70.94	0.063	0.01
152.40	0.00	70.93	0.062	0.01
153.60	0.00	70.91	0.061	0.01
154.80	0.00	70.90	0.060	0.01
156.00	0.00	70.89	0.059	0.01
157.20	0.00	70.87	0.058	0.01
158.40	0.00	70.86	0.057	0.01
159.60	0.00	70.85	0.056	0.01
160.80	0.00	70.84	0.055	0.01
162.00	0.00	70.82	0.055	0.01
163.20	0.00	70.81	0.054	0.01
164.40	0.00	70.80	0.053	0.01
165.60	0.00	70.79	0.052	0.01
166.80	0.00	70.78	0.051	0.01
168.00	0.00	70.76	0.051	0.01
169.20	0.00	70.75	0.050	0.01
170.40	0.00	70.74	0.049	0.01
171.60	0.00	70.73	0.048	0.01
172.80	0.00	70.72	0.048	0.01
174.00	0.00	70.71	0.047	0.01
175.20	0.00	70.70	0.046	0.01
176.40	0.00	70.69	0.046	0.01
177.60	0.00	70.68	0.045	0.01
178.80	0.00	70.67	0.044	0.01
180.00	0.00	70.66	0.044	0.01
181.20	0.00	70.65	0.043	0.01
182.40	0.00	70.64	0.042	0.01
183.60	0.00	70.63	0.042	0.01
184.80	0.00	70.62	0.041	0.01
186.00	0.00	70.61	0.041	0.01
187.20	0.00	70.60	0.040	0.01
188.40	0.00	70.59	0.039	0.01
189.60	0.00	70.58	0.039	0.01
190.80	0.00	70.57	0.038	0.01
192.00	0.00	70.57	0.038	0.01

```
      193.20       0.00     70.56       0.037      0.01
      194.40       0.00     70.55       0.037      0.01
      195.60       0.00     70.54       0.036      0.01
      196.80       0.00     70.53       0.035      0.01
      198.00       0.00     70.53       0.035      0.01
      199.20       0.00     70.52       0.034      0.01
     PEAK DISCHARGE =       16.124 CFS - PEAK OCCURS AT HOUR    1.70
     MAXIMUM WATER SURFACE ELEVATION =       74.449
     MAXIMUM STORAGE =        0.5798 AC-FT      INCREMENTAL TIME=
0.050000HRS

    *

    PRINT HYD           ID=55  CODE=1


                                       PARTIAL HYDROGRAPH   200.10


        RUNOFF VOLUME =     2.01798 INCHES     =       1.3733 ACRE-FEET
        PEAK DISCHARGE RATE =      16.12 CFS  AT   1.700 HOURS   BASIN AREA =
0.0128 SQ. MI.



    *

    *

    ADD HYD                          ID=56 HYD NO=100.22 ID=55 ID=5

    PRINT HYD           ID=56 CODE=1


                                       PARTIAL HYDROGRAPH   100.22


        RUNOFF VOLUME =     2.05879 INCHES     =       1.5614 ACRE-FEET
        PEAK DISCHARGE RATE =      18.42 CFS  AT   1.650 HOURS   BASIN AREA =
0.0142 SQ. MI.



    *

    *

    ADD HYD                          ID=57 HYD NO=100.23 ID=56 ID=6

    PRINT HYD           ID=57 CODE=1


                                       PARTIAL HYDROGRAPH   100.23


        RUNOFF VOLUME =     2.06499 INCHES     =       1.6443 ACRE-FEET
        PEAK DISCHARGE RATE =      19.91 CFS  AT   1.600 HOURS   BASIN AREA =
0.0149 SQ. MI.

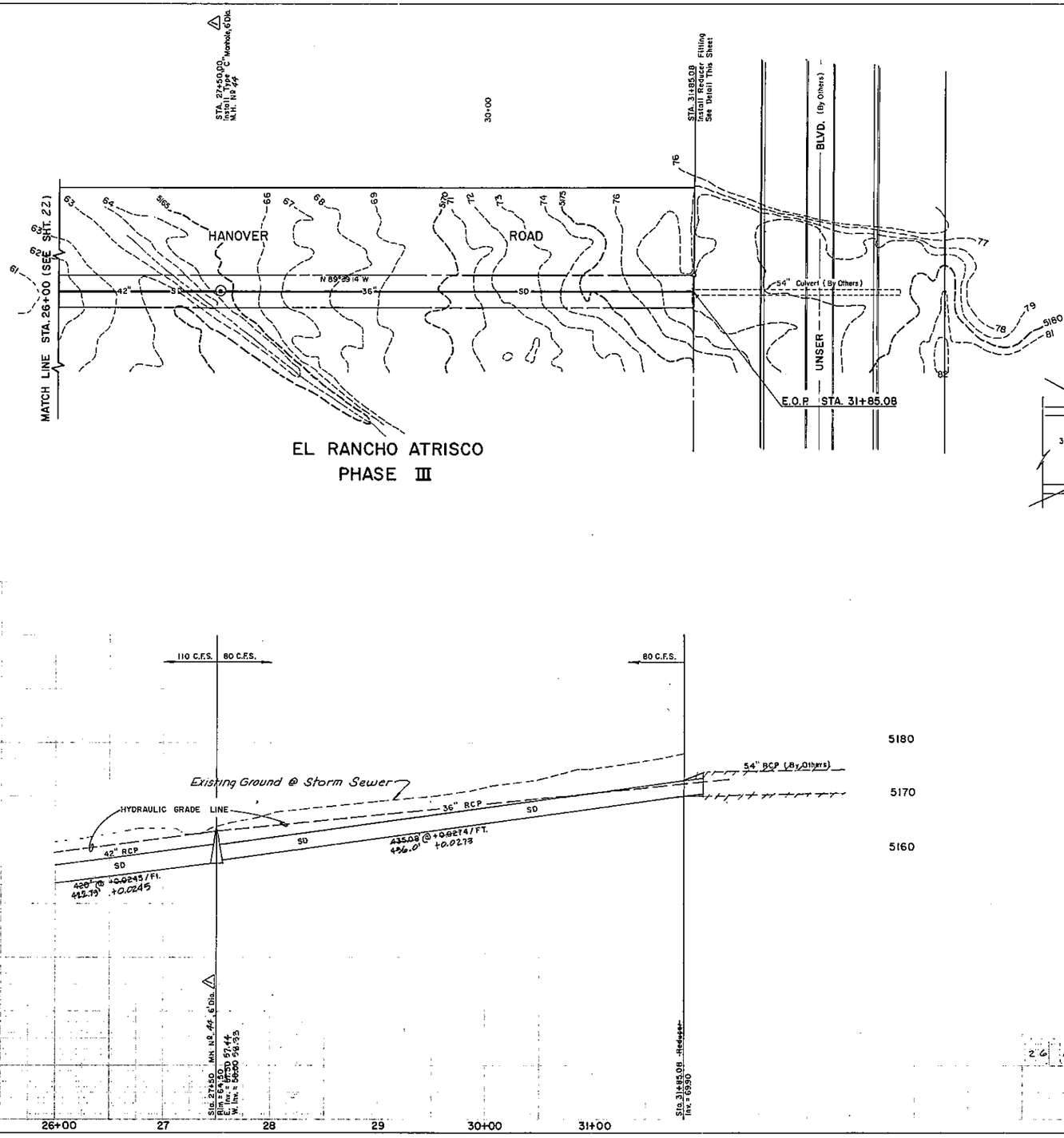


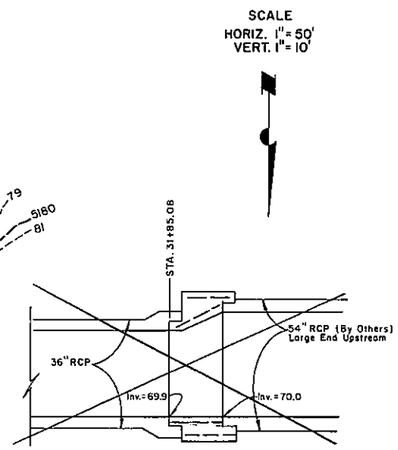
    *

    *

    FINISH
```

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:52:52





SCALE
HORIZ. 1" = 50'
VERT. 1" = 10'

NOTES:
1. The Fittings shown shall be Prefabricated by the Concrete Pipe Manufacturer with Shop Drawings to be Approved by the Engineer
2. If 54" RCP is not in place at the time of Construction, Contractor shall Install Fittings and Construct one Joint of 54" RCP to the West and Cap.

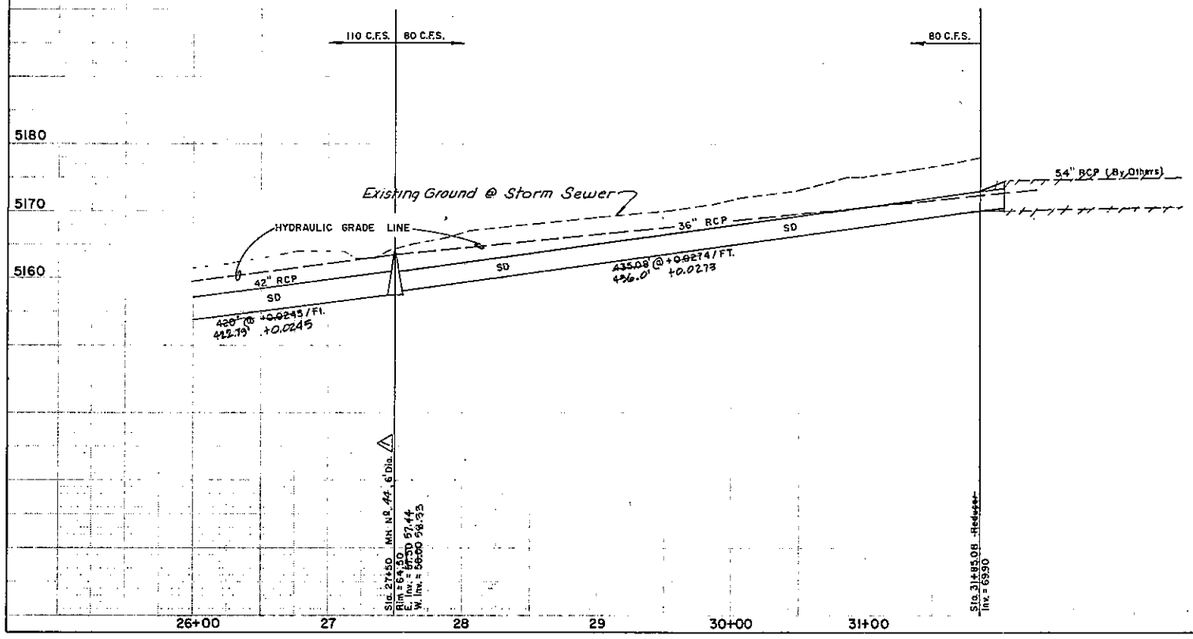
NOTE:
36" R.C.P EXTENDED BEYOND PROPERTY LINE APPROX. 42.0' AND TIED INTO EXISTING 54" C.M.P. SEE DETAIL THIS SHEET

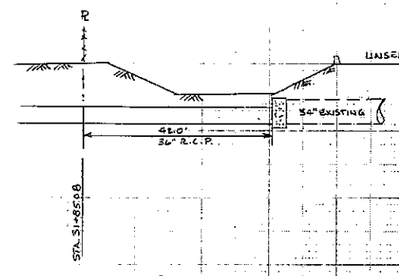
RECORD DRAWING

THE DRAWINGS HAVE BEEN REVISED IN ACCORDANCE WITH INFORMATION FURNISHED BY THE SURVEY, HUSTON AND ASSOCIATES, INC. THROUGH CONSTRUCTION STAKING AND CONSTRUCTION ADMINISTRATION AND BRUCE CONSTRUCTION COMPANY, INC., CONTRACTOR, TO REFLECT THE CONSTRUCTION AS ACTUALLY ACCOMPLISHED, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WILLIAM F. COLEMAN P.E. 5945 — DATE 2/21/86

SHORT R.C.P. REDUCER FITTING
N.T.S.





SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

AS BUILT INFORMATION
CONTRACTOR BRUCE CONSTRUCTION
A.C.S. BRASS CAP 4-H10, E&W=5129.20, Inter- — STAKED BY ESTEP, HUSTON — DATE
section of I-40 and Coors N.W., North on Coors — INSPECTORS — DATE
0.4 Mile to Ouray Road, West on Ouray about — FIELD — DATE
0.7 Mile to end of Pavement, cont. West 0.2 — CONSTRUCTION ENGR. — DATE
Mile to top of Detention Dam, go S.E. along — CORRECTED BY ESTEP, HUSTON — DATE
top of Dam about .85ℓ to a dirt Road on the lt., turn lt., go South 0.4 Mile to the Station on the lt.
MICRO-FILM INFORMATION
RECORDED BY — DATE — NO

REFERENCES
L.G. — MAP NO. H-10, I-10
Bur.S. — EST. NO. — W.O. NO.

NO.	DATE	REMARKS
		REVISIONS
1	8/23/83	Manhole Changed to 6' Dia.
2	3/84	CHANGE ORDER ITEM No.

DESIGN — DATE 4/83
DESIGNED BY J.A.
DRAWN BY L.G. — DATE 6/83
CHECKED BY L.G.J. — DATE 7/83

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: SAD Nº 212
HANOVER STORM SEWER

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquic Waste	H.A. James J.	8-31-83
A.C.E.- Design			Traffic	H.A. Estep	
A.C.E.-Hydrology	Fred Hogan	8/1/83	Water	H.A. James J.	8-31-83

APPROVED FOR CONSTRUCTION
C.A. Hayward 11/16/83
CITY ENGINEER — DATE

DRAWING NO. 15772 — SHEET 23 OF 43

D.G.A. JOB Nº 602.11