

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

August 28, 2018

Ron Hensley, P.E.
GND Engineering
11032 Dreamy Way Dr. NW
Albuquerque, NM 87114

**RE: St Joseph on the Rio Grande Church
5901 St Joseph Dr NW
Grading and Drainage Plan
Engineer's Stamp Date: 8/21/18
Hydrology File: G11D014A**

Dear Mr. Hensley:

PO Box 1293

Based on the submittal received on 8/22/18, the Grading and Drainage Plan cannot be approved for Building Permit until the following are corrected:

Prior to Building Permit:

Albuquerque

NM 87103

www.cabq.gov

1. Remove all "Conceptual/Not for construction" markings (sheet 2).
2. Correct the topography around the existing inlet, namely the 5113' contour. Demonstrate that the water surface elevation (WSE) is contained on the property.
3. All drainage structures (pipes, inlets spillways, ponds, outfalls, etc...) need to be sized and detailed in a drainage report including:
 - a. Delineation of on-site and off-site contributing watersheds and/or drainage basins is required and needs to be included in this drainage report.
 - b. Hydrology Calculations per DPM 22.2. The accuracy of the AHYMO model cannot be evaluated without the supporting drainage basin map.
 - c. Hydraulic Calculations per DPM 22.3 documenting:
 - i. Inlet and pipe capacity, including 2x capacity for inlets in sump condition or a suitably sized overland flow path and profiles and HGL calculations. No inlet capacity calculations are provided.
 - ii. Channel capacity, channel details, and typical sections for any overland flowpaths/spillways. No information has been provided for the overflow channel; this

CITY OF ALBUQUERQUE

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will need to be designed to accommodate the 100-yr peak inflow. No detail is provided for the overflow weir.

- iii. Details of each pond including typical sections, dimensions, and spot elevations. Typical sections are missing.
- iv. Pond routing calculations with hydraulic modeling and rating curves must be provided. No credit is given for infiltration into the pond bottom; this needs to be removed from the storage/discharge table and pond routing calculations.
- v. Both the first flush WSE and the 100-yr WSE must be shown; include the ponding areas in the parking lots.
- vi. Details of all pond outfall structures, including typical sections, dimensions, and spot elevations. No information has been provided for the turned-block outfall for pond B. This will need to be designed to accommodate the 100-yr peak inflow.

- 4. The site must demonstrate adequate downstream capacity per § 14-5-2-12(G) of the Albuquerque Code of Ordinances. Provide the Easement or the written and signed permission allowing this site to discharge to the property to the east.

PO Box 1293

Prior to Work Order (For Information):

Albuquerque

- 5. The sidewalk culverts will need to call-out std dwg 2236 and provide the culvert width; the diamond plates will need to be extended 1' past edge of sidewalk to avoid a drop-off. Because this is work in the ROW, no adjustments to the private grading plan are needed, but the work order plans will need to show these corrections.

NM 87103

- 6. A Bernalillo County Recorded [Agreement and Covenant](#) is required for the stormwater control pond (Atrisco Pond A2). The original notarized form, exhibit A, exhibit B (legible on 8.5x11 paper), and recording fee (\$25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process.

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- 7. A public drainage easement is required for the stormwater control pond (Atrisco Pond A2) as it will be conveying public water.

Prior to Certificate of Occupancy (For Information):

- 8. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.
- 9. The Drainage Covenant must be recorded with Bernalillo County and a copy included with the Engineer's Certification.

CITY OF ALBUQUERQUE

Planning Department
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10. City acceptance and close-out of the public Work Order will be required.
 11. Payment of Fee-in-Lieu will be required for any ponding areas not constructed and certified.
- If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,



Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

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City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

ST. JOSEPH ON THE

Project Title: RIO GRANDE CHURCH Building Permit #: _____ Hydrology File #: G11D014A

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: TRACT X-1-A1 PLAT OF TRACTS X-1-A1 & X-1-A2 UNIV. OF ALB. URBAN CENTER

City Address: 5901 ST JOSEPH DR NW

Applicant: ST. JOSEPH ON THE RIO GRANDE CHURCH Contact: Del Dixon

Address: 4000 ST JOSEPHS PL NW ALBUQUERQUE NM 87120-1714

Phone#: 505-843-9639 Fax#: _____ E-mail: _____

Other Contact: GND LLC Contact: Ron Hensley

Address: 11032 Dreamy Way Dr. NW Albuquerque, NM 87114

Phone#: 505-410-1622 Fax#: _____ E-mail: ron@thegroup.cc

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? ☒ Yes _____ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

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

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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

DATE SUBMITTED: 8/21/2018 By: Ron Hensley - GND LLC

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

DRAINAGE SUPPLEMENT

FOR

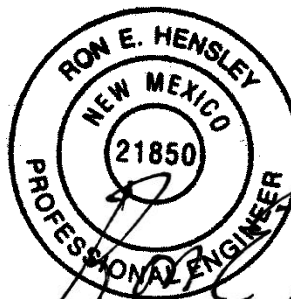
ST. JOSEPH'S ON THE RIO GRANDE

August 21, 2018

PREPARED FOR:

Studio Southwest Architects, Inc.
2101 Mountain Road NW
Albuquerque NM 87104

PREPARED BY:



8/21/18

GND, LLC

CONSULTING ENGINEERS

11032 Dreamy Way Dr. NW.
Albuquerque, New Mexico 87114
Cell: (505) 264-0472

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PURPOSE

This report supplements the Basin & Drainage Plan and the Grading Plan of the ST. Joseph's on the Rio Grande Nazareth Center and provides a description and analyses of the design for the mitigation of runoff from the site.

DRAINAGE INFORMATION

The drainage from the site is controlled with the construction of a detention / retention pond with an overflow discharge to the pond on the adjacent property. For the purposes of this analysis the historic rate is based on no development having occurred on the entire 10 acres and the developed flow rate is based on full development of the site.

Site flow from the parking lot is directed to two inlets that discharge to the pond. The existing and proposed inlets have a grate elevation of 5111.9. The existing inlet for the south end of the site discharges through a 30' CMP. The proposed inlet will discharge via 18" RCP.

At the time of peak flow (1.55 hrs.), the WSEL of the pond will be 5111.00, and inlets become submerged at 1.80 hrs. to extend ponding above the inlets to an elevation of 5112.22. Prior to submergence the existing inlet has a capacity of 12.09 cfs. Given the HGL at peak flow; the new sump inlet will accommodate the initial flow and flow to 10.70 cfs. Flow in excess of 10.70 cfs (0.75 cfs) will overflow through an 11 foot curb opening that has capacity of 20.09 cfs (see below) and discharges directly to the pond.

Depth	Q	Area	Veloc	Wp	Yc	TopWidth	Energy
(ft)	(cfs)	(sqft)	(ft/s)	(ft)	(ft)	(ft)	(ft)
0.5	20.09	5.75	3.49	12.41	0.47	12	0.69

Wier of 11 ft. Curb Opening

The detention pond stage storage / discharge table shown below depicts the performance of the pond and discharge.

Pond B Storage / Discharge Table				
Elevation	Area	Volume	Infiltration	Overflow
	sq.ft.	ac.Ft.	cfs	cfs
5106.00	1037			
5107.00	1653	0.0305	0.04	
5108.00	2369	0.0759	0.05	
5109.00	3185	0.1386	0.07	
5110.00	4103	0.2209	0.09	
5111.00	17492	0.4453	0.10	
5111.50	22442	0.6828	0.52	
5112.00	27393	0.9793	0.63	
5112.27	32912	1.1530	0.76	6.06
5112.50	38612	1.3053	0.89	16.34
5112.67	44222	1.4205	1.02	24.29
5113.00	49831	1.6505	1.05	33.00
5113.50	71178	2.0319	1.65	45.00

The pond overflow discharge of 5.09 cfs flows through a wier of 10 wall openings with an opening elevation of 5112.00 through 5112.67. The outlet would funtcion as an orifice opening at higher water surface elvations.

SUMMARY

As shown in the information provided, the site discharge and operation are in compliance with the applicable requirements. The discharge rate is significantly below the historic rate and comparable in volume to historic discharge.

AHYMO

SUMMARY

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 = 1	NOTATION
*S ST JOSEPHS ON THE RIO GRANDE											
*S 100 year 24 hour rainfall											
RAINFALL TYPE= 2											RAIN24= 2.660
*S											
*S PROPOSED CONDITIONS											
*S											
*S OFFSITE BASINS											
*S COMPUTE HYD BASIN A1											
COMPUTE NM HYD	101.00	-	1	.00233	5.55	.284	2.28382	1.550	3.723	PER IMP=	90.00
*S COMPUTE HYD BASIN A2											
COMPUTE NM HYD	102.00	-	2	.00455	9.61	.480	1.98084	1.550	3.302	PER IMP=	74.78
*S COMPUTE HYD BASIN A3											
COMPUTE NM HYD	103.00	-	3	.00028	.47	.016	1.06478	1.550	2.601	PER IMP=	5.00
*S COMPUTE HYD BASIN A4											
COMPUTE NM HYD	104.00	-	4	.00177	2.88	.100	1.06478	1.550	2.549	PER IMP=	5.00
*S ADD A1 AND A2											
ADD HYD	201.00	1& 2	10	.00688	15.16	.764	2.08333	1.550	3.445		
*S ADD A3 AND A4											
ADD HYD	202.00	3& 4	11	.00205	3.35	.116	1.06082	1.550	2.556		
*S ADD HYD 201 AND 202 TO CITY POND											
ADD HYD	203.00	10&11	12	.00892	18.51	.880	1.84873	1.550	3.241		
*S											
*S ONSITE BASINS											
*S											
*S COMPUTE HYD BASIN B1											
COMPUTE NM HYD	101.00	-	1	.00732	17.09	.864	2.21211	1.550	3.645	PER IMP=	85.00
*S COMPUTE HYD BASIN B2											
COMPUTE NM HYD	102.00	-	2	.00398	9.30	.470	2.21212	1.550	3.648	PER IMP=	85.00
*S COMPUTE HYD BASIN B3											
COMPUTE NM HYD	103.00	-	3	.00076	1.87	.096	2.35553	1.550	3.816	PER IMP=	95.00
*S COMPUTE HYD BASIN B4											
COMPUTE NM HYD	104.00	-	4	.00222	4.31	.186	1.56674	1.550	3.030	PER IMP=	40.00
*S COMPUTE HYD BASIN B5											
COMPUTE NM HYD	105.00	-	5	.00087	2.15	.113	2.42724	1.550	3.866	PER IMP=	100.00
*S ADD B5 AND B2 FLOW TO INLET											
ADD HYD	101.00	5& 2	10	.00485	11.45	.582	2.25054	1.550	3.688		
*S ADD B3 AND B4											
ADD HYD	102.00	3& 4	11	.00299	6.17	.282	1.76837	1.550	3.231		
*S ADD HYD 101 AND 102											
ADD HYD	203.00	10&11	12	.00784	17.62	.864	2.06689	1.550	3.514		
*S ADD HYD 12 AND 1 POND INFLOW											
ADD HYD	104.00	12& 1	13	.01516	34.71	1.728	2.13702	1.550	3.577		
*S ROUTING OF POND B											
ROUTE RESERVOIR	301.00	13	20	.01516	5.84	1.425	1.76216	2.150	.602	AC-FT=	1.123
FINISH											

INPUT FILE

```
*S ST JOSEPHS ON THE RIO GRANDE
*S 100 year 24 hour rainfall
RAINFALL          TYPE=2  RAIN QUARTER=0
                  RAIN ONE=1.87 IN  RAIN SIX=2.20 IN
                  RAIN DAY=2.66 IN  DT=0.05 HRS
*****
*S
*S  PROPOSED CONDITIONS
*S
*S  OFFSITE BASINS
*S  COMPUTE HYD BASIN A1
COMPUTE NM HYD      ID=1  HYDNO=101  AREA=0.002328SQ MI
                   PER A=0 PER B=0 PER C=10 PER D=90
                   TP=.1667 HR MASS RAIN=-1
PRINT HYD           ID=1  CODE=5
*****
*S  COMPUTE HYD BASIN A2
COMPUTE NM HYD      ID=2  HYDNO=102  AREA=0.004547SQ MI
                   PER A=15 PER B=0 PER C=14 PER D=86
                   TP=.1667 HR MASS RAIN=-1
PRINT HYD           ID=2  CODE=5
*****
*S  COMPUTE HYD BASIN A3
COMPUTE NM HYD      ID=3  HYDNO=103  AREA=0.000281SQ MI
                   PER A=0 PER B=0 PER C=95 PER D=5
                   TP=.1667 HR MASS RAIN=-1
PRINT HYD           ID=3  CODE=5
*****
*S  COMPUTE HYD BASIN A4
COMPUTE NM HYD      ID=4  HYDNO=104  AREA=0.001766SQ MI
                   PER A=0 PER B=0 PER C=95 PER D=5
                   TP=.1667 HR MASS RAIN=-1
PRINT HYD           ID=4  CODE=5
*****
*S  ADD A1 AND A2
ADD HYD              ID=10 HYDNO=201
                   ID=1  ID=2
PRINT HYD            ID=10 CODE=5
*****
*S  ADD A3 AND A4
ADD HYD              ID=11 HYDNO=202
                   ID=3  ID=4
PRINT HYD            ID=11 CODE=5
*****
*S  ADD HYD 201 AND 202 TO CITY POND
ADD HYD              ID=12 HYDNO=203
                   ID=10 ID=11
PRINT HYD            ID=12 CODE=5
*****
*S
*S  ONSITE BASINS
*S
*S  COMPUTE HYD BASIN B1 FLOW TO INLET
COMPUTE NM HYD      ID=1  HYDNO=101  AREA=0.007323SQ MI
                   PER A=0 PER B=0 PER C=15 PER D=85
                   TP=.1667 HR MASS RAIN=-1
PRINT HYD           ID=1  CODE=5
*****
*S  COMPUTE HYD BASIN B2
COMPUTE NM HYD      ID=2  HYDNO=102  AREA=0.003982SQ MI
                   PER A=0 PER B=0 PER C=15 PER D=85
                   TP=.1667 HR MASS RAIN=-1
PRINT HYD           ID=2  CODE=5
*****
*S  COMPUTE HYD BASIN B3
COMPUTE NM HYD      ID=3  HYDNO=103  AREA=0.000764SQ MI
```

```

PER A=0 PER B=0 PER C=5 PER D=95
TP=.1667 HR MASS RAIN=-1
PRINT HYD      ID=3    CODE=5
*****
*S COMPUTE HYD BASIN B4
COMPUTE NM HYD  ID=4    HYDNO=104 AREA=0.002221SQ MI
PER A=0 PER B=0 PER C=60 PER D=40
TP=.1667 HR MASS RAIN=-1
PRINT HYD      ID=4    CODE=5
*****
*S COMPUTE HYD BASIN B5
COMPUTE NM HYD  ID=5    HYDNO=105 AREA=0.000870SQ MI
PER A=0 PER B=0 PER C=0 PER D=100
TP=.1667 HR MASS RAIN=-1
PRINT HYD      ID=5    CODE=5
*****
*S ADD B5 AND B2 FLOW TO INLET
ADD HYD          ID=10 HYDNO=101
ID=5 ID=2
PRINT HYD        ID=10 CODE=5
*S ADD B3 AND B4
ADD HYD          ID=11 HYDNO=102
ID=3 ID=4
PRINT HYD        ID=11 CODE=5
*****
*S ADD HYD 101 AND 102
ADD HYD          ID=12 HYDNO=203
ID=10 ID=11
PRINT HYD        ID=12 CODE=5

*S ADD HYD 12 AND 1 POND INFLOW
ADD HYD          ID=13 HYDNO=104
ID=12 ID=1
PRINT HYD        ID=13 CODE=5

*****
*S ROUTING OF POND B
*****
ROUTE RESERVOIR  ID=20 HYD=301 INFLOW ID=13 CODE=1
OUTFLOW          STORAGE      ELEV
(CFS)            (AC-FT)      (FT)
0.00             0.0000       5106
0.04             0.0305       5107
0.05             0.0759       5108
0.07             0.1386       5109
0.09             0.2209       5110
0.40             0.4453       5111
0.52             0.6828       5111.5
0.63             0.9793       5112
6.92             1.1530       5112.27
16.34            1.3053       5112.5
24.29            1.4205       5112.67
33.00            1.6505       5113.0
45.00            2.0319       5113.5

PRINT HYD        ID=20 CODE=5
*****
*****
FINISH

```

OUTPUT

AHYMO PROGRAM (AHYMO_97) - - Version: 1997.02c
RUN DATE (MON/DAY/YR) = 08/21/2018
START TIME (HR:MIN:SEC) = 13:06:25 USER NO.= AHYMO-I-9702c01000Q29-AH
INPUT FILE = F:\Sheldon\SJRG\SJA938-1.HMI

*S ST JOSEPHS ON THE RIO GRANDE

*S 100 year 24 hour rainfall

RAINFALL TYPE=2 RAIN QUARTER=0
RAIN ONE=1.87 IN RAIN SIX=2.20 IN
RAIN DAY=2.66 IN DT=0.05 HRS

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

.0000	.0025	.0050	.0076	.0103	.0131	.0160
.0190	.0222	.0254	.0289	.0324	.0362	.0401
.0443	.0487	.0534	.0584	.0637	.0695	.0758
.0837	.0924	.1176	.1773	.2798	.4384	.6668
.9790	1.2253	1.3366	1.4295	1.5109	1.5836	1.6495
1.7096	1.7648	1.8156	1.8624	1.9057	1.9458	1.9548
1.9631	1.9708	1.9780	1.9848	1.9912	1.9973	2.0031
2.0087	2.0140	2.0191	2.0240	2.0287	2.0333	2.0377
2.0420	2.0462	2.0502	2.0542	2.0580	2.0617	2.0653
2.0689	2.0724	2.0757	2.0791	2.0823	2.0855	2.0886
2.0916	2.0946	2.0976	2.1005	2.1033	2.1061	2.1088
2.1115	2.1142	2.1168	2.1193	2.1219	2.1244	2.1268
2.1293	2.1316	2.1340	2.1363	2.1386	2.1409	2.1431
2.1453	2.1475	2.1497	2.1518	2.1539	2.1560	2.1580
2.1601	2.1621	2.1641	2.1660	2.1680	2.1699	2.1718
2.1737	2.1756	2.1774	2.1793	2.1811	2.1829	2.1847
2.1864	2.1882	2.1899	2.1916	2.1933	2.1950	2.1967
2.1984	2.2000	2.2020	2.2039	2.2059	2.2078	2.2097
2.2117	2.2136	2.2155	2.2174	2.2193	2.2212	2.2231
2.2249	2.2268	2.2287	2.2305	2.2324	2.2342	2.2361
2.2379	2.2398	2.2416	2.2434	2.2452	2.2470	2.2488
2.2506	2.2524	2.2542	2.2559	2.2577	2.2595	2.2612
2.2630	2.2647	2.2665	2.2682	2.2700	2.2717	2.2734
2.2751	2.2768	2.2785	2.2802	2.2819	2.2836	2.2853
2.2870	2.2887	2.2903	2.2920	2.2937	2.2953	2.2970
2.2986	2.3002	2.3019	2.3035	2.3051	2.3068	2.3084
2.3100	2.3116	2.3132	2.3148	2.3164	2.3180	2.3196
2.3212	2.3227	2.3243	2.3259	2.3274	2.3290	2.3305
2.3321	2.3336	2.3352	2.3367	2.3383	2.3398	2.3413
2.3428	2.3444	2.3459	2.3474	2.3489	2.3504	2.3519
2.3534	2.3549	2.3563	2.3578	2.3593	2.3608	2.3622
2.3637	2.3652	2.3666	2.3681	2.3695	2.3710	2.3724
2.3739	2.3753	2.3767	2.3782	2.3796	2.3810	2.3824
2.3839	2.3853	2.3867	2.3881	2.3895	2.3909	2.3923
2.3937	2.3951	2.3965	2.3978	2.3992	2.4006	2.4020
2.4033	2.4047	2.4061	2.4074	2.4088	2.4101	2.4115

2.4128	2.4142	2.4155	2.4168	2.4182	2.4195	2.4208
2.4222	2.4235	2.4248	2.4261	2.4274	2.4287	2.4300
2.4314	2.4327	2.4340	2.4352	2.4365	2.4378	2.4391
2.4404	2.4417	2.4430	2.4442	2.4455	2.4468	2.4480
2.4493	2.4506	2.4518	2.4531	2.4543	2.4556	2.4568
2.4581	2.4593	2.4606	2.4618	2.4630	2.4643	2.4655
2.4667	2.4680	2.4692	2.4704	2.4716	2.4728	2.4740
2.4753	2.4765	2.4777	2.4789	2.4801	2.4813	2.4825
2.4837	2.4849	2.4860	2.4872	2.4884	2.4896	2.4908
2.4919	2.4931	2.4943	2.4955	2.4966	2.4978	2.4990
2.5001	2.5013	2.5024	2.5036	2.5047	2.5059	2.5070
2.5082	2.5093	2.5105	2.5116	2.5127	2.5139	2.5150
2.5161	2.5172	2.5184	2.5195	2.5206	2.5217	2.5229
2.5240	2.5251	2.5262	2.5273	2.5284	2.5295	2.5306
2.5317	2.5328	2.5339	2.5350	2.5361	2.5372	2.5383
2.5394	2.5404	2.5415	2.5426	2.5437	2.5448	2.5458
2.5469	2.5480	2.5490	2.5501	2.5512	2.5522	2.5533
2.5544	2.5554	2.5565	2.5575	2.5586	2.5596	2.5607
2.5617	2.5628	2.5638	2.5649	2.5659	2.5669	2.5680
2.5690	2.5700	2.5711	2.5721	2.5731	2.5741	2.5752
2.5762	2.5772	2.5782	2.5792	2.5803	2.5813	2.5823
2.5833	2.5843	2.5853	2.5863	2.5873	2.5883	2.5893
2.5903	2.5913	2.5923	2.5933	2.5943	2.5953	2.5963
2.5973	2.5982	2.5992	2.6002	2.6012	2.6022	2.6031
2.6041	2.6051	2.6061	2.6070	2.6080	2.6090	2.6099
2.6109	2.6119	2.6128	2.6138	2.6148	2.6157	2.6167
2.6176	2.6186	2.6195	2.6205	2.6214	2.6224	2.6233
2.6243	2.6252	2.6261	2.6271	2.6280	2.6290	2.6299
2.6308	2.6318	2.6327	2.6336	2.6346	2.6355	2.6364
2.6373	2.6383	2.6392	2.6401	2.6410	2.6419	2.6428
2.6438	2.6447	2.6456	2.6465	2.6474	2.6483	2.6492
2.6501	2.6510	2.6519	2.6528	2.6537	2.6546	2.6555
2.6564	2.6573	2.6582	2.6591	2.6600		

*S

*S PROPOSED Conditions

*S

*S OFFSITE BASINS

*S COMPUTE HYD BASIN A1

COMPUTE NM HYD ID=1 HYDNO=101 AREA=0.002328SQ MI
 PER A=0 PER B=0 PER C=10 PER D=90
 TP=.1667 HR MASS RAIN=-1

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 6.6146 CFS UNIT VOLUME = .9979 B = 526.28 P60 = 1.8700
 AREA = .002095 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .132393HR TP = .166700HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
 UNIT PEAK = .54205 CFS UNIT VOLUME = .9781 B = 388.14 P60 = 1.8700

AREA = .000233 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=1 CODE=5

PARTIAL HYDROGRAPH 101.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0	20.000	.0
.250	.0	5.250	.0	10.250	.0	15.250	.0	20.250	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0	20.500	.0
.750	.0	5.750	.0	10.750	.0	15.750	.0	20.750	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0	21.000	.0
1.250	.3	6.250	.1	11.250	.0	16.250	.0	21.250	.0
1.500	5.4	6.500	.1	11.500	.0	16.500	.0	21.500	.0
1.750	2.7	6.750	.1	11.750	.0	16.750	.0	21.750	.0
2.000	1.6	7.000	.1	12.000	.0	17.000	.0	22.000	.0
2.250	.6	7.250	.0	12.250	.0	17.250	.0	22.250	.0
2.500	.3	7.500	.0	12.500	.0	17.500	.0	22.500	.0
2.750	.1	7.750	.0	12.750	.0	17.750	.0	22.750	.0
3.000	.1	8.000	.0	13.000	.0	18.000	.0	23.000	.0
3.250	.1	8.250	.0	13.250	.0	18.250	.0	23.250	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0	23.500	.0
3.750	.0	8.750	.0	13.750	.0	18.750	.0	23.750	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0	24.000	.0
4.250	.0	9.250	.0	14.250	.0	19.250	.0	24.250	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0	24.500	.0
4.750	.0	9.750	.0	14.750	.0	19.750	.0		

RUNOFF VOLUME = 2.28382 INCHES = .2836 ACRE-FEET
 PEAK DISCHARGE RATE = 5.55 CFS AT 1.550 HOURS BASIN AREA = .0023 SQ. MI.

*S COMPUTE HYD BASIN A2

COMPUTE NM HYD ID=2 HYDNO=102 AREA=0.004547SQ MI

PER A=15 PER B=0 PER C=14 PER D=86

TP=.1667 HR MASS RAIN=-1

*****WARNING***** SUM OF TREATMENT TYPES DOES NOT EQUAL 100 PERCENT OR TOTAL AREA

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 10.735 CFS UNIT VOLUME = .9986 B = 526.28 P60 = 1.8700
 AREA = .003400 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .169792HR TP = .166700HR K/TP RATIO = 1.018546 SHAPE CONSTANT, N = 3.465635
 UNIT PEAK = 2.1861 CFS UNIT VOLUME = .9944 B = 317.81 P60 = 1.8700
 AREA = .001147 SQ MI IA = .50517 INCHES INF = 1.26448 INCHES PER HOUR

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

PRINT HYD ID=2 CODE=5

PARTIAL HYDROGRAPH 102.00

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
.250	.0	5.250	.1	10.250	.1	15.250	.1	20.250	.0
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.0
.750	.0	5.750	.1	10.750	.1	15.750	.1	20.750	.0
1.000	.0	6.000	.1	11.000	.1	16.000	.1	21.000	.0
1.250	.5	6.250	.1	11.250	.1	16.250	.1	21.250	.0
1.500	9.4	6.500	.1	11.500	.1	16.500	.1	21.500	.0
1.750	4.7	6.750	.1	11.750	.1	16.750	.0	21.750	.0
2.000	2.7	7.000	.1	12.000	.1	17.000	.0	22.000	.0
2.250	1.0	7.250	.1	12.250	.1	17.250	.0	22.250	.0
2.500	.5	7.500	.1	12.500	.1	17.500	.0	22.500	.0
2.750	.3	7.750	.1	12.750	.1	17.750	.0	22.750	.0
3.000	.2	8.000	.1	13.000	.1	18.000	.0	23.000	.0
3.250	.1	8.250	.1	13.250	.1	18.250	.0	23.250	.0
3.500	.1	8.500	.1	13.500	.1	18.500	.0	23.500	.0
3.750	.1	8.750	.1	13.750	.1	18.750	.0	23.750	.0
4.000	.1	9.000	.1	14.000	.1	19.000	.0	24.000	.0
4.250	.1	9.250	.1	14.250	.1	19.250	.0	24.250	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.0	24.500	.0
4.750	.1	9.750	.1	14.750	.1	19.750	.0	24.750	.0

RUNOFF VOLUME = 1.98084 INCHES = .4804 ACRE-FEET
PEAK DISCHARGE RATE = 9.61 CFS AT 1.550 HOURS BASIN AREA = .0045 SQ. MI.

*S COMPUTE HYD BASIN A3

COMPUTE NM HYD ID=3 HYDNO=103 AREA=0.000281SQ MI
PER A=0 PER B=0 PER C=95 PER D=5
TP=.1667 HR MASS RAIN=-1

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = .44356E-01CFS UNIT VOLUME = .9020 B = 526.28 P60 = 1.8700
AREA = .000014 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .132393HR TP = .166700HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
UNIT PEAK = .62156 CFS UNIT VOLUME = .9808 B = 388.14 P60 = 1.8700
AREA = .000267 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=3 CODE=5

PARTIAL HYDROGRAPH 103.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	.750	.0	1.500	.4	2.250	.0		
.250	.0	1.000	.0	1.750	.2	2.500	.0		
.500	.0	1.250	.0	2.000	.1	2.750	.0		

RUNOFF VOLUME = 1.06478 INCHES = .0160 ACRE-FEET
 PEAK DISCHARGE RATE = .47 CFS AT 1.550 HOURS BASIN AREA = .0003 SQ. MI.

*S COMPUTE HYD BASIN A4

COMPUTE NM HYD ID=4 HYDNO=104 AREA=0.001766SQ MI
 PER A=0 PER B=0 PER C=95 PER D=5
 TP=.1667 HR MASS RAIN=-1

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = .27877 CFS UNIT VOLUME = .9606 B = 526.28 P60 = 1.8700
 AREA = .000088 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .132393HR TP = .166700HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
 UNIT PEAK = 3.9063 CFS UNIT VOLUME = .9974 B = 388.14 P60 = 1.8700
 AREA = .001678 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

*PRINT HYD

ID=4 CODE=5

*S ADD A1 AND A2

ADD HYD

ID=10 HYDNO=201

ID=1 ID=2

PRINT HYD

ID=10 CODE=5

PARTIAL HYDROGRAPH 201.00

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
.250	.0	5.250	.1	10.250	.1	15.250	.1	20.250	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
.750	.0	5.750	.1	10.750	.1	15.750	.1	20.750	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.250	.9	6.250	.1	11.250	.1	16.250	.1	21.250	.1
1.500	14.8	6.500	.1	11.500	.1	16.500	.1	21.500	.1
1.750	7.4	6.750	.1	11.750	.1	16.750	.1	21.750	.1
2.000	4.3	7.000	.1	12.000	.1	17.000	.1	22.000	.1

2.250	1.5	7.250	.1	12.250	.1	17.250	.1	22.250	.1
2.500	.7	7.500	.1	12.500	.1	17.500	.1	22.500	.1
2.750	.4	7.750	.1	12.750	.1	17.750	.1	22.750	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.250	.2	8.250	.1	13.250	.1	18.250	.1	23.250	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
3.750	.1	8.750	.1	13.750	.1	18.750	.1	23.750	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.250	.1	9.250	.1	14.250	.1	19.250	.1	24.250	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0
4.750	.1	9.750	.1	14.750	.1	19.750	.1	24.750	.0

RUNOFF VOLUME = 2.08333 INCHES = .7639 ACRE-FEET
 PEAK DISCHARGE RATE = 15.16 CFS AT 1.550 HOURS BASIN AREA = .0069 SQ. MI.

*S ADD A3 AND A4

ADD HYD ID=11 HYDNO=202

ID=3 ID=4

PRINT HYD ID=11 CODE=5

PARTIAL HYDROGRAPH 202.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0	20.000	.0
.250	.0	5.250	.0	10.250	.0	15.250	.0	20.250	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0	20.500	.0
.750	.0	5.750	.0	10.750	.0	15.750	.0	20.750	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0	21.000	.0
1.250	.0	6.250	.0	11.250	.0	16.250	.0	21.250	.0
1.500	3.2	6.500	.0	11.500	.0	16.500	.0	21.500	.0
1.750	1.6	6.750	.0	11.750	.0	16.750	.0	21.750	.0
2.000	.6	7.000	.0	12.000	.0	17.000	.0	22.000	.0
2.250	.2	7.250	.0	12.250	.0	17.250	.0	22.250	.0
2.500	.1	7.500	.0	12.500	.0	17.500	.0	22.500	.0
2.750	.1	7.750	.0	12.750	.0	17.750	.0	22.750	.0
3.000	.0	8.000	.0	13.000	.0	18.000	.0	23.000	.0
3.250	.0	8.250	.0	13.250	.0	18.250	.0	23.250	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0	23.500	.0
3.750	.0	8.750	.0	13.750	.0	18.750	.0	23.750	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0	24.000	.0
4.250	.0	9.250	.0	14.250	.0	19.250	.0		
4.500	.0	9.500	.0	14.500	.0	19.500	.0		
4.750	.0	9.750	.0	14.750	.0	19.750	.0		

RUNOFF VOLUME = 1.06082 INCHES = .1158 ACRE-FEET
 PEAK DISCHARGE RATE = 3.35 CFS AT 1.550 HOURS BASIN AREA = .0020 SQ. MI.

*S ADD HYD 201 AND 202 TO CITY POND
 ADD HYD ID=12 HYDNO=203
 ID=10 ID=11
 PRINT HYD ID=12 CODE=5

PARTIAL HYDROGRAPH 203.00

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
.250	.0	5.250	.1	10.250	.1	15.250	.1	20.250	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
.750	.0	5.750	.1	10.750	.1	15.750	.1	20.750	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.250	.9	6.250	.1	11.250	.1	16.250	.1	21.250	.1
1.500	18.0	6.500	.1	11.500	.1	16.500	.1	21.500	.1
1.750	9.0	6.750	.1	11.750	.1	16.750	.1	21.750	.1
2.000	4.9	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.250	1.8	7.250	.1	12.250	.1	17.250	.1	22.250	.1
2.500	.8	7.500	.1	12.500	.1	17.500	.1	22.500	.1
2.750	.4	7.750	.1	12.750	.1	17.750	.1	22.750	.1
3.000	.3	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.250	.2	8.250	.1	13.250	.1	18.250	.1	23.250	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
3.750	.1	8.750	.1	13.750	.1	18.750	.1	23.750	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.250	.1	9.250	.1	14.250	.1	19.250	.1	24.250	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0
4.750	.1	9.750	.1	14.750	.1	19.750	.1	24.750	.0

RUNOFF VOLUME = 1.84873 INCHES = .8797 ACRE-FEET
 PEAK DISCHARGE RATE = 18.51 CFS AT 1.550 HOURS BASIN AREA = .0089 SQ. MI.

*S
 *S ONSITE BASINs
 *S
 *S COMPUTE HYD BASIN B1
 COMPUTE NM HYD ID=1 HYDNO=101 AREA=0.007323SQ MI
 PER A=0 PER B=0 PER C=15 PER D=85
 TP=.1667 HR MASS RAIN=-1

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 19.651 CFS UNIT VOLUME = .9991 B = 526.28 P60 = 1.8700
 AREA = .006225 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .132393HR TP = .166700HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
 UNIT PEAK = 2.5576 CFS UNIT VOLUME = .9958 B = 388.14 P60 = 1.8700
 AREA = .001098 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD

ID=1 CODE=5

PARTIAL HYDROGRAPH 101.00

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
.250	.0	5.250	.1	10.250	.1	15.250	.1	20.250	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
.750	.0	5.750	.1	10.750	.1	15.750	.1	20.750	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.250	1.0	6.250	.1	11.250	.1	16.250	.1	21.250	.1
1.500	16.7	6.500	.2	11.500	.1	16.500	.1	21.500	.1
1.750	8.3	6.750	.2	11.750	.1	16.750	.1	21.750	.1
2.000	4.9	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.250	1.7	7.250	.1	12.250	.1	17.250	.1	22.250	.1
2.500	.8	7.500	.1	12.500	.1	17.500	.1	22.500	.1
2.750	.4	7.750	.1	12.750	.1	17.750	.1	22.750	.1
3.000	.3	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.250	.2	8.250	.1	13.250	.1	18.250	.1	23.250	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
3.750	.1	8.750	.1	13.750	.1	18.750	.1	23.750	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.250	.1	9.250	.1	14.250	.1	19.250	.1	24.250	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0
4.750	.1	9.750	.1	14.750	.1	19.750	.1	24.750	.0

RUNOFF VOLUME = 2.21211 INCHES = .8640 ACRE-FEET
 PEAK DISCHARGE RATE = 17.09 CFS AT 1.550 HOURS BASIN AREA = .0073 SQ. MI.

*S COMPUTE HYD BASIN B2

COMPUTE NM HYD ID=2 HYDNO=102 AREA=0.003982SQ MI
 PER A=0 PER B=0 PER C=15 PER D=85
 TP=.1667 HR MASS RAIN=-1

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 10.686 CFS UNIT VOLUME = .9986 B = 526.28 P60 = 1.8700
 AREA = .003385 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .132393HR TP = .166700HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
 UNIT PEAK = 1.3907 CFS UNIT VOLUME = .9914 B = 388.14 P60 = 1.8700
 AREA = .000597 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR

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

PRINT HYD ID=2 CODE=5

PARTIAL HYDROGRAPH 102.00

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
.250	.0	5.250	.1	10.250	.1	15.250	.1	20.250	.0
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.0
.750	.0	5.750	.1	10.750	.1	15.750	.1	20.750	.0
1.000	.0	6.000	.1	11.000	.1	16.000	.1	21.000	.0
1.250	.5	6.250	.1	11.250	.1	16.250	.1	21.250	.0
1.500	9.1	6.500	.1	11.500	.1	16.500	.1	21.500	.0
1.750	4.5	6.750	.1	11.750	.1	16.750	.0	21.750	.0
2.000	2.7	7.000	.1	12.000	.1	17.000	.0	22.000	.0
2.250	.9	7.250	.1	12.250	.1	17.250	.0	22.250	.0
2.500	.4	7.500	.1	12.500	.1	17.500	.0	22.500	.0
2.750	.2	7.750	.1	12.750	.1	17.750	.0	22.750	.0
3.000	.1	8.000	.1	13.000	.1	18.000	.0	23.000	.0
3.250	.1	8.250	.1	13.250	.1	18.250	.0	23.250	.0
3.500	.1	8.500	.1	13.500	.1	18.500	.0	23.500	.0
3.750	.1	8.750	.1	13.750	.1	18.750	.0	23.750	.0
4.000	.1	9.000	.1	14.000	.1	19.000	.0	24.000	.0
4.250	.1	9.250	.1	14.250	.1	19.250	.0	24.250	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.0	24.500	.0
4.750	.1	9.750	.1	14.750	.1	19.750	.0	24.750	.0

RUNOFF VOLUME = 2.21212 INCHES = .4698 ACRE-FEET
PEAK DISCHARGE RATE = 9.30 CFS AT 1.550 HOURS BASIN AREA = .0040 SQ. MI.

*S COMPUTE HYD BASIN B3

COMPUTE NM HYD ID=3 HYDNO=103 AREA=0.000764SQ MI
PER A=0 PER B=0 PER C=5 PER D=95
TP=.1667 HR MASS RAIN=-1

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 2.2914 CFS UNIT VOLUME = .9945 B = 526.28 P60 = 1.8700
AREA = .000726 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .132393HR TP = .166700HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
UNIT PEAK = .88944E-01CFS UNIT VOLUME = .8844 B = 388.14 P60 = 1.8700
AREA = .000038 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=3 CODE=5

PARTIAL HYDROGRAPH 103.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0	20.000	.0
.250	.0	5.250	.0	10.250	.0	15.250	.0	20.250	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0	20.500	.0
.750	.0	5.750	.0	10.750	.0	15.750	.0	20.750	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0	21.000	.0
1.250	.1	6.250	.0	11.250	.0	16.250	.0	21.250	.0
1.500	1.8	6.500	.0	11.500	.0	16.500	.0	21.500	.0
1.750	.9	6.750	.0	11.750	.0	16.750	.0	21.750	.0
2.000	.5	7.000	.0	12.000	.0	17.000	.0	22.000	.0
2.250	.2	7.250	.0	12.250	.0	17.250	.0	22.250	.0
2.500	.1	7.500	.0	12.500	.0	17.500	.0	22.500	.0
2.750	.0	7.750	.0	12.750	.0	17.750	.0	22.750	.0
3.000	.0	8.000	.0	13.000	.0	18.000	.0	23.000	.0
3.250	.0	8.250	.0	13.250	.0	18.250	.0	23.250	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0	23.500	.0
3.750	.0	8.750	.0	13.750	.0	18.750	.0	23.750	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0	24.000	.0
4.250	.0	9.250	.0	14.250	.0	19.250	.0	24.250	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0		
4.750	.0	9.750	.0	14.750	.0	19.750	.0		

RUNOFF VOLUME = 2.35553 INCHES = .0960 ACRE-FEET
 PEAK DISCHARGE RATE = 1.87 CFS AT 1.550 HOURS BASIN AREA = .0008 SQ. MI.

*S COMPUTE HYD BASIN B4

COMPUTE NM HYD ID=4 HYDNO=104 AREA=0.002221SQ MI
 PER A=0 PER B=0 PER C=60 PER D=40
 TP=.1667 HR MASS RAIN=-1

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 2.8047 CFS UNIT VOLUME = .9953 B = 526.28 P60 = 1.8700
 AREA = .000888 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

K = .132393HR TP = .166700HR K/TP RATIO = .794199 SHAPE CONSTANT, N = 4.514851
 UNIT PEAK = 3.1028 CFS UNIT VOLUME = .9969 B = 388.14 P60 = 1.8700
 AREA = .001333 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=4 CODE=5

PARTIAL HYDROGRAPH 104.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0	20.000	.0
.250	.0	5.250	.0	10.250	.0	15.250	.0	20.250	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0	20.500	.0
.750	.0	5.750	.0	10.750	.0	15.750	.0	20.750	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0	21.000	.0
1.250	.1	6.250	.0	11.250	.0	16.250	.0	21.250	.0
1.500	4.1	6.500	.0	11.500	.0	16.500	.0	21.500	.0
1.750	2.1	6.750	.0	11.750	.0	16.750	.0	21.750	.0
2.000	1.0	7.000	.0	12.000	.0	17.000	.0	22.000	.0
2.250	.4	7.250	.0	12.250	.0	17.250	.0	22.250	.0
2.500	.2	7.500	.0	12.500	.0	17.500	.0	22.500	.0
2.750	.1	7.750	.0	12.750	.0	17.750	.0	22.750	.0
3.000	.1	8.000	.0	13.000	.0	18.000	.0	23.000	.0
3.250	.0	8.250	.0	13.250	.0	18.250	.0	23.250	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0	23.500	.0
3.750	.0	8.750	.0	13.750	.0	18.750	.0	23.750	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0	24.000	.0
4.250	.0	9.250	.0	14.250	.0	19.250	.0	24.250	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0		
4.750	.0	9.750	.0	14.750	.0	19.750	.0		

RUNOFF VOLUME = 1.56674 INCHES = .1856 ACRE-FEET
 PEAK DISCHARGE RATE = 4.31 CFS AT 1.550 HOURS BASIN AREA = .0022 SQ. MI.

*S COMPUTE HYD BASIN B5

COMPUTE NM HYD ID=5 HYDNO=105 AREA=0.000870SQ MI
 PER A=0 PER B=0 PER C=0 PER D=100
 TP=.1667 HR MASS RAIN=-1

K = .090852HR TP = .166700HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 2.7466 CFS UNIT VOLUME = .9953 B = 526.28 P60 = 1.8700
 AREA = .000870 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .050000

PRINT HYD ID=5 CODE=5

PARTIAL HYDROGRAPH 105.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0	20.000	.0
.250	.0	5.250	.0	10.250	.0	15.250	.0	20.250	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0	20.500	.0
.750	.0	5.750	.0	10.750	.0	15.750	.0	20.750	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0	21.000	.0
1.250	.1	6.250	.0	11.250	.0	16.250	.0	21.250	.0
1.500	2.1	6.500	.0	11.500	.0	16.500	.0	21.500	.0

1.750	1.0	6.750	.0	11.750	.0	16.750	.0	21.750	.0
2.000	.6	7.000	.0	12.000	.0	17.000	.0	22.000	.0
2.250	.2	7.250	.0	12.250	.0	17.250	.0	22.250	.0
2.500	.1	7.500	.0	12.500	.0	17.500	.0	22.500	.0
2.750	.1	7.750	.0	12.750	.0	17.750	.0	22.750	.0
3.000	.0	8.000	.0	13.000	.0	18.000	.0	23.000	.0
3.250	.0	8.250	.0	13.250	.0	18.250	.0	23.250	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0	23.500	.0
3.750	.0	8.750	.0	13.750	.0	18.750	.0	23.750	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0	24.000	.0
4.250	.0	9.250	.0	14.250	.0	19.250	.0	24.250	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0		
4.750	.0	9.750	.0	14.750	.0	19.750	.0		

RUNOFF VOLUME = 2.42724 INCHES = .1126 ACRE-FEET
PEAK DISCHARGE RATE = 2.15 CFS AT 1.550 HOURS BASIN AREA = .0009 SQ. MI.

*S ADD B5 AND B2 FLOW TO INLET
ADD HYD ID=10 HYDNO=101
ID=5 ID=2
PRINT HYD ID=10 CODE=5

PARTIAL HYDROGRAPH 101.00

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
.250	.0	5.250	.1	10.250	.1	15.250	.1	20.250	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1
.750	.0	5.750	.1	10.750	.1	15.750	.1	20.750	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.250	.7	6.250	.1	11.250	.1	16.250	.1	21.250	.1
1.500	11.2	6.500	.1	11.500	.1	16.500	.1	21.500	.1
1.750	5.6	6.750	.1	11.750	.1	16.750	.1	21.750	.1
2.000	3.3	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.250	1.2	7.250	.1	12.250	.1	17.250	.1	22.250	.1
2.500	.5	7.500	.1	12.500	.1	17.500	.1	22.500	.1
2.750	.3	7.750	.1	12.750	.1	17.750	.1	22.750	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.250	.1	8.250	.1	13.250	.1	18.250	.1	23.250	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.0
3.750	.1	8.750	.1	13.750	.1	18.750	.1	23.750	.0
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.0
4.250	.1	9.250	.1	14.250	.1	19.250	.1	24.250	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0
4.750	.1	9.750	.1	14.750	.1	19.750	.1	24.750	.0

RUNOFF VOLUME = 2.25054 INCHES = .5824 ACRE-FEET

PEAK DISCHARGE RATE = 11.45 CFS AT 1.550 HOURS BASIN AREA = .0049 SQ. MI.

*S ADD B3 AND B4

ADD HYD

ID=11 HYDNO=102

ID=3 ID=4

PRINT HYD

ID=11 CODE=5

PARTIAL HYDROGRAPH 102.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.0	10.000	.0	15.000	.0	20.000	.0
.250	.0	5.250	.0	10.250	.0	15.250	.0	20.250	.0
.500	.0	5.500	.0	10.500	.0	15.500	.0	20.500	.0
.750	.0	5.750	.0	10.750	.0	15.750	.0	20.750	.0
1.000	.0	6.000	.0	11.000	.0	16.000	.0	21.000	.0
1.250	.3	6.250	.0	11.250	.0	16.250	.0	21.250	.0
1.500	6.0	6.500	.0	11.500	.0	16.500	.0	21.500	.0
1.750	3.0	6.750	.0	11.750	.0	16.750	.0	21.750	.0
2.000	1.6	7.000	.0	12.000	.0	17.000	.0	22.000	.0
2.250	.6	7.250	.0	12.250	.0	17.250	.0	22.250	.0
2.500	.3	7.500	.0	12.500	.0	17.500	.0	22.500	.0
2.750	.1	7.750	.0	12.750	.0	17.750	.0	22.750	.0
3.000	.1	8.000	.0	13.000	.0	18.000	.0	23.000	.0
3.250	.0	8.250	.0	13.250	.0	18.250	.0	23.250	.0
3.500	.0	8.500	.0	13.500	.0	18.500	.0	23.500	.0
3.750	.0	8.750	.0	13.750	.0	18.750	.0	23.750	.0
4.000	.0	9.000	.0	14.000	.0	19.000	.0	24.000	.0
4.250	.0	9.250	.0	14.250	.0	19.250	.0	24.250	.0
4.500	.0	9.500	.0	14.500	.0	19.500	.0		
4.750	.0	9.750	.0	14.750	.0	19.750	.0		

RUNOFF VOLUME = 1.76837 INCHES = .2815 ACRE-FEET

PEAK DISCHARGE RATE = 6.17 CFS AT 1.550 HOURS BASIN AREA = .0030 SQ. MI.

*S ADD HYD 101 AND 102

ADD HYD

ID=12 HYDNO=203

ID=10 ID=11

PRINT HYD

ID=12 CODE=5

PARTIAL HYDROGRAPH 203.00

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
.250	.0	5.250	.1	10.250	.1	15.250	.1	20.250	.1
.500	.0	5.500	.1	10.500	.1	15.500	.1	20.500	.1

.750	.0	5.750	.1	10.750	.1	15.750	.1	20.750	.1
1.000	.0	6.000	.1	11.000	.1	16.000	.1	21.000	.1
1.250	.9	6.250	.1	11.250	.1	16.250	.1	21.250	.1
1.500	17.2	6.500	.1	11.500	.1	16.500	.1	21.500	.1
1.750	8.6	6.750	.1	11.750	.1	16.750	.1	21.750	.1
2.000	4.9	7.000	.1	12.000	.1	17.000	.1	22.000	.1
2.250	1.7	7.250	.1	12.250	.1	17.250	.1	22.250	.1
2.500	.8	7.500	.1	12.500	.1	17.500	.1	22.500	.1
2.750	.4	7.750	.1	12.750	.1	17.750	.1	22.750	.1
3.000	.2	8.000	.1	13.000	.1	18.000	.1	23.000	.1
3.250	.2	8.250	.1	13.250	.1	18.250	.1	23.250	.1
3.500	.1	8.500	.1	13.500	.1	18.500	.1	23.500	.1
3.750	.1	8.750	.1	13.750	.1	18.750	.1	23.750	.1
4.000	.1	9.000	.1	14.000	.1	19.000	.1	24.000	.1
4.250	.1	9.250	.1	14.250	.1	19.250	.1	24.250	.0
4.500	.1	9.500	.1	14.500	.1	19.500	.1	24.500	.0
4.750	.1	9.750	.1	14.750	.1	19.750	.1	24.750	.0

RUNOFF VOLUME = 2.06689 INCHES = .8639 ACRE-FEET
PEAK DISCHARGE RATE = 17.62 CFS AT 1.550 HOURS BASIN AREA = .0078 SQ. MI.

*S ADD HYD 12 AND 1 POND INFLOW
ADD HYD ID=13 HYDNO=104
ID=12 ID=1
PRINT HYD ID=13 CODE=5

PARTIAL HYDROGRAPH 104.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	5.000	.2	10.000	.2	15.000	.2	20.000	.2
.250	.0	5.250	.2	10.250	.2	15.250	.2	20.250	.2
.500	.0	5.500	.2	10.500	.2	15.500	.2	20.500	.2
.750	.0	5.750	.2	10.750	.2	15.750	.2	20.750	.2
1.000	.0	6.000	.3	11.000	.2	16.000	.2	21.000	.2
1.250	1.9	6.250	.3	11.250	.2	16.250	.2	21.250	.2
1.500	33.9	6.500	.3	11.500	.2	16.500	.2	21.500	.2
1.750	16.9	6.750	.3	11.750	.2	16.750	.2	21.750	.1
2.000	9.8	7.000	.3	12.000	.2	17.000	.2	22.000	.1
2.250	3.5	7.250	.3	12.250	.2	17.250	.2	22.250	.1
2.500	1.6	7.500	.3	12.500	.2	17.500	.2	22.500	.1
2.750	.9	7.750	.3	12.750	.2	17.750	.2	22.750	.1
3.000	.5	8.000	.3	13.000	.2	18.000	.2	23.000	.1
3.250	.3	8.250	.3	13.250	.2	18.250	.2	23.250	.1
3.500	.3	8.500	.3	13.500	.2	18.500	.2	23.500	.1
3.750	.2	8.750	.3	13.750	.2	18.750	.2	23.750	.1
4.000	.2	9.000	.3	14.000	.2	19.000	.2	24.000	.1
4.250	.2	9.250	.3	14.250	.2	19.250	.2	24.250	.0
4.500	.2	9.500	.3	14.500	.2	19.500	.2	24.500	.0

4.750 .2 9.750 .2 14.750 .2 19.750 .2 24.750 .0

RUNOFF VOLUME = 2.13702 INCHES = 1.7278 ACRE-FEET
 PEAK DISCHARGE RATE = 34.71 CFS AT 1.550 HOURS BASIN AREA = .0152 SQ. MI.

*S ROUTING OF POND B

ROUTE RESERVOIR	ID=20 HYD=301	INFLOW ID=13	CODE=5
	OUTFLOW	STORAGE	ELEV
	(CFS)	(AC-FT)	(FT)
	0.00	0.0000	5106
	0.04	0.0305	5107
	0.05	0.0759	5108
	0.07	0.1386	5109
	0.09	0.2209	5110
	0.40	0.4453	5111
	0.52	0.6828	5111.5
	0.63	0.9793	5112
	6.92	1.1530	5112.27
	16.34	1.3053	5112.5
	24.29	1.4205	5112.67
	33.00	1.6505	5113.0
	45.00	2.0319	5113.5

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5106.00	.000	.00
.25	.00	5106.00	.000	.00
.50	.00	5106.00	.000	.00
.75	.00	5106.00	.000	.00
1.00	.00	5106.00	.000	.00
1.25	1.90	5106.19	.006	.01
1.50	33.91	5110.45	.322	.23
1.75	16.85	5111.81	.867	.59
2.00	9.83	5112.17	1.089	4.61
2.25	3.46	5112.21	1.114	5.50
2.50	1.59	5112.13	1.066	3.77
2.75	.86	5112.08	1.028	2.38
3.00	.52	5112.04	1.003	1.47
3.25	.34	5112.01	.987	.91
3.50	.26	5112.00	.978	.63
3.75	.23	5111.98	.970	.63
4.00	.21	5111.97	.961	.62
4.25	.20	5111.96	.953	.62

4.50	.20	5111.94	.944	.62
4.75	.20	5111.93	.935	.61
5.00	.21	5111.91	.927	.61
5.25	.21	5111.90	.919	.61
5.50	.23	5111.88	.911	.60
5.75	.24	5111.87	.903	.60
6.00	.25	5111.86	.896	.60
6.25	.29	5111.85	.889	.60
6.50	.30	5111.84	.883	.59
6.75	.29	5111.83	.876	.59
7.00	.29	5111.82	.870	.59
7.25	.29	5111.81	.864	.59
7.50	.28	5111.79	.858	.58
7.75	.28	5111.78	.851	.58
8.00	.27	5111.77	.845	.58
8.25	.27	5111.76	.839	.58
8.50	.27	5111.75	.832	.58
8.75	.26	5111.74	.826	.57
9.00	.26	5111.73	.819	.57
9.25	.25	5111.72	.813	.57
9.50	.25	5111.71	.806	.57
9.75	.24	5111.70	.800	.56
10.00	.24	5111.69	.793	.56
10.25	.24	5111.67	.787	.56
10.50	.24	5111.66	.780	.56
10.75	.23	5111.65	.773	.55
11.00	.23	5111.64	.767	.55
11.25	.23	5111.63	.760	.55
11.50	.22	5111.62	.753	.55
11.75	.22	5111.61	.747	.54
12.00	.22	5111.60	.740	.54
12.25	.22	5111.59	.733	.54
12.50	.21	5111.57	.727	.54
12.75	.21	5111.56	.720	.53
13.00	.21	5111.55	.713	.53
13.25	.20	5111.54	.707	.53
13.50	.20	5111.53	.700	.53
13.75	.20	5111.52	.693	.52

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
14.00	.20	5111.51	.687	.52
14.25	.20	5111.49	.680	.52
14.50	.20	5111.48	.673	.52
14.75	.19	5111.47	.667	.51
15.00	.19	5111.45	.660	.51
15.25	.19	5111.44	.654	.51
15.50	.19	5111.42	.647	.50
15.75	.19	5111.41	.641	.50
16.00	.18	5111.40	.634	.50
16.25	.18	5111.38	.628	.49

16.50	.18	5111.37	.621	.49
16.75	.18	5111.36	.615	.49
17.00	.18	5111.34	.609	.48
17.25	.18	5111.33	.602	.48
17.50	.17	5111.32	.596	.48
17.75	.17	5111.30	.590	.47
18.00	.17	5111.29	.584	.47
18.25	.17	5111.28	.577	.47
18.50	.17	5111.27	.571	.46
18.75	.16	5111.25	.565	.46
19.00	.16	5111.24	.559	.46
19.25	.16	5111.23	.553	.45
19.50	.16	5111.21	.547	.45
19.75	.16	5111.20	.541	.45
20.00	.16	5111.19	.535	.45
20.25	.16	5111.18	.529	.44
20.50	.16	5111.16	.523	.44
20.75	.15	5111.15	.517	.44
21.00	.15	5111.14	.512	.43
21.25	.15	5111.13	.506	.43
21.50	.15	5111.12	.500	.43
21.75	.15	5111.10	.494	.42
22.00	.15	5111.09	.489	.42
22.25	.15	5111.08	.483	.42
22.50	.15	5111.07	.477	.42
22.75	.15	5111.06	.472	.41
23.00	.14	5111.04	.466	.41
23.25	.14	5111.03	.461	.41
23.50	.14	5111.02	.455	.41
23.75	.14	5111.01	.450	.40
24.00	.14	5111.00	.445	.40
24.25	.04	5110.97	.438	.39
24.50	.01	5110.94	.431	.38
24.75	.00	5110.90	.423	.37
25.00	.00	5110.87	.416	.36
25.25	.00	5110.84	.408	.35
25.50	.00	5110.80	.401	.34
25.75	.00	5110.77	.394	.33
26.00	.00	5110.74	.388	.32
26.25	.00	5110.71	.381	.31
26.50	.00	5110.69	.375	.30
26.75	.00	5110.66	.369	.29
27.00	.00	5110.63	.363	.29
27.25	.00	5110.61	.357	.28
27.50	.00	5110.58	.351	.27
27.75	.00	5110.56	.346	.26

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
28.00	.00	5110.53	.340	.26
28.25	.00	5110.51	.335	.25

28.50	.00	5110.49	.330	.24
28.75	.00	5110.46	.325	.23
29.00	.00	5110.44	.320	.23
29.25	.00	5110.42	.316	.22
29.50	.00	5110.40	.311	.21
29.75	.00	5110.38	.307	.21

PEAK DISCHARGE = 5.840 CFS - PEAK OCCURS AT HOUR 2.15
 MAXIMUM WATER SURFACE ELEVATION = 5112.224
 MAXIMUM STORAGE = 1.1232 AC-FT INCREMENTAL TIME= .050000HRS

PRINT HYD ID=20 CODE=5

HYDROGRAPH FROM AREA 301.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	6.000	.6	12.000	.5	18.000	.5	24.000	.4
.250	.0	6.250	.6	12.250	.5	18.250	.5	24.250	.4
.500	.0	6.500	.6	12.500	.5	18.500	.5	24.500	.4
.750	.0	6.750	.6	12.750	.5	18.750	.5	24.750	.4
1.000	.0	7.000	.6	13.000	.5	19.000	.5	25.000	.4
1.250	.0	7.250	.6	13.250	.5	19.250	.5	25.250	.3
1.500	.2	7.500	.6	13.500	.5	19.500	.5	25.500	.3
1.750	.6	7.750	.6	13.750	.5	19.750	.4	25.750	.3
2.000	4.6	8.000	.6	14.000	.5	20.000	.4	26.000	.3
2.250	5.5	8.250	.6	14.250	.5	20.250	.4	26.250	.3
2.500	3.8	8.500	.6	14.500	.5	20.500	.4	26.500	.3
2.750	2.4	8.750	.6	14.750	.5	20.750	.4	26.750	.3
3.000	1.5	9.000	.6	15.000	.5	21.000	.4	27.000	.3
3.250	.9	9.250	.6	15.250	.5	21.250	.4	27.250	.3
3.500	.6	9.500	.6	15.500	.5	21.500	.4	27.500	.3
3.750	.6	9.750	.6	15.750	.5	21.750	.4	27.750	.3
4.000	.6	10.000	.6	16.000	.5	22.000	.4	28.000	.3
4.250	.6	10.250	.6	16.250	.5	22.250	.4	28.250	.2
4.500	.6	10.500	.6	16.500	.5	22.500	.4	28.500	.2
4.750	.6	10.750	.6	16.750	.5	22.750	.4	28.750	.2
5.000	.6	11.000	.6	17.000	.5	23.000	.4	29.000	.2
5.250	.6	11.250	.5	17.250	.5	23.250	.4	29.250	.2
5.500	.6	11.500	.5	17.500	.5	23.500	.4	29.500	.2
5.750	.6	11.750	.5	17.750	.5	23.750	.4	29.750	.2

RUNOFF VOLUME = 1.76216 INCHES = 1.4248 ACRE-FEET
 PEAK DISCHARGE RATE = 5.84 CFS AT 2.150 HOURS BASIN AREA = .0152 SQ. MI.

 FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 13:06:25

HGL CALCULATIONS

PipeSize	Q	Inv ElevDn	HGLDn	DepthDn	AreaDn	VelocDn	Vel HdDn	EGLDn	SfDn	LineLength	Inv ElevUp	HGLUp	DepthUp	AreaUp	VelocUp	Vel HdUp	EGLUp	SfUp	SfAve	EnergyLoss	JLCCoeff	MinorLoss	Line ID
(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)	
30	17.09	5106	5111.04	2.5	4.91	3.48	0.19	5111.23	0.148	66.98	5108.11	5111.14	2.5	4.91	3.48	0.19	5111.33	0.148	0.148	0.099	0.56	0.11	30 TO POND
30	17.09	5108.11	5111.25	2.5	4.91	3.48	0.19	5111.43	0.231	600	5109.4	5112.63	2.5	4.91	3.48	0.19	5112.82	0.231	0.231	1.387	1	0.19	30 FROM INLET
18	10.7	5108.5	5111.04	1.5	1.77	6.06	0.57	5111.61	0.885	11.33	5108.56	5111.14	1.5	1.77	6.05	0.57	5111.71	0.885	0.885	0.1	0.44	0.25	18 TO POND
18	10.7	5108.56	5111.39	1.5	1.77	6.06	0.57	5111.96	0.885	213.85	5109.62	5113.28	1.5	1.77	6.05	0.57	5113.85	0.885	0.885	1.892	1	0.57	18 FROM INLET

A Bicycle Path, Open Space Trail Link And Landscape Easement granted by plat filed March 12, 1998, in Plat Book 98C, Page 68.

1. ALL WORK IN CITY RIGHT OF WAY WILL REQUIRE CITY WORK ORDER SUBMITTAL.

3. THE EROSION PROTECTION SPECIFIED ON THIS PLAN IS THE MINIMUM RECOMMENDED. THE OWNER IS ENCOURAGED TO INCORPORATE EROSION RESISTANT LANDSCAPING ON AREAS WHERE EROSION MAY OCCUR SUCH AS SLOPES AND SWALES. THE OWNER IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL FEATURES NECESSARY TO PRESERVE THE DESIGN INTENT OF THE GRADING PLAN.

4. THE DRAINAGE INFRASTRUCTURE SHOWN ON THIS PLAN IS THE RESPONSIBILITY OF THE PROPERTY OWNER.

5. ALL DISTURBED AREAS OUTSIDE THE BUILDING PAD MUST BE RESEEDING OR LANDSCAPED

6. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, (260-1990) FOR LOCATION OF EXISTING UTILITIES.

7. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS AND EXISTING PAVEMENT. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.

I.D.#	DESCRIPTION
①	NEW ASPHALT PAVING EDGE. CONTRACTOR TO SAW CUT EXISTING WITH EDGE TREATMENT FOR SMOOTH TRANSITION
②	ASPHALT REMOVAL AND UNSUITABLE FILL MATERIALS SHALL BE WASTED ON SITE IN NONSTRUCTURAL AREAS
③	INSTALL STANDARD CURB AND GUTTER PER DETAIL
④	INSTALL SPILL TYPE CURB AND GUTTER
⑤	INSTALL MOUNTABLE CURB AND GUTTER
⑥	INSTALL 10" - TURNED BLOCK WALL OPENINGS @ 48" O.C. OPENING LENGTH = 5112.00
⑦	INSTALL VALLEY GUTTER AND CURB RETURNS PER CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS
⑧	INSTALL STANDARD CURB AND GUTTER PER CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS
⑨	12" CATCH BASIN
⑩	11' CURB OPENING - INLET OVERFLOW SPILLWAY

OWNER SHALL BE RESPONSIBLE FOR MAINTAINING FIRST FLUSH RUNOFF
RETENTION INDICATED. THE TOTAL VOLUME SHALL BE EQUAL TO:
IMPERVIOUS AREA * (0.44-0.10)/12 IN CUBIC FEET.

REQUIRED VOLUME = $350,710 * (0.44-0.10)/12 = 9,937$ CU.FT.
WSEL OF REQUIRED VOLUME ≈ 5110
RETENTION VOLUME PROVIDED = 43,891 CU.FT.

Legend:

- TOP OF CURB ELEVATION
- BOTTOM OF CURB ELEVATION
- PROPOSED ELEVATION
- EXISTING ELEVATION
- GRADE BREAK
- EXISTING CONTOUR
- EXISTING CONTOUR
- PROPOSED EASEMENT
- PROPOSED GRADE
- EXISTING WALL
- PROPOSED WALL

DRB No.

11032 Dreamy Way Dr. NW
Albuquerque, NM 87114
Phone: (505)-264-0472

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
ST. JOSEPH'S ON THE RIO GRANDE NAZARETH CENTER
SITE GRADING & DRAINAGE
GRADING PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	ITE	Mo./DAY/YR.	Mo./DAY/YR.
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CITY PROJECT No.	ZONE MAP NO.	SHEET	OF
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DATE: MAR 1981	SHEET: 2	OF: 2
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