

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

August 3, 2020

Dennis Lorenz, P.E.
Lorenz Design & Consulting
2501 Rio Grande NW
Albuquerque, NM 87104

RE: 6800 Blanket Flower Place NE
Grading & Drainage Plan
Engineer's Stamp Date: 07/20/20
Hydrology File: E23D036

Dear Mr. Lorenz:

PO Box1293

Based upon the information provided in your submittal received 07/07/20, the Grading and Drainage Plan is approved for Building Permit.

Albuquerque

Once the grading is complete, a pad certification will be required prior to release of Building Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter and the pad certification approval letter.

NM 87103

Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

www.cabq.gov

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

Sincerely,

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



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: RITCHIE HOME **Building Permit #:** BP2020-24541 **Hydrology File #:** -
DRB#: - **EPC#:** - **Work Order#:** -
Legal Description: LOT 9A WEST HIGHLANDS AT HIGH DESERT
City Address: 6800 BLANKET FLOWER PL NE
Applicant: LORENZ DESIGN + CONSULTING **Contact:** D. LORENZ
Address: 2501 RIO GRANDE NW #A ABQ NM 87104
Phone#: 505 220 0869 **Fax#:** - **E-mail:** DENNISLORENZNM.COM
Other Contact: WASZAK ENTERPRISES **Contact:** D. WASZAK
Address: 2000 LOS POBLANOS NW, LOS RANCHOS NM 87107
Phone#: 505-250-1888 **Fax#:** - **E-mail:** WASZAKBUILDS@MSN.COM

TYPE OF DEVELOPMENT: PLAT (# of lots) X **RESIDENCE** DRB SITE ADMIN SITE

IS THIS A RESUBMITTAL? Yes X **No**

DEPARTMENT TRANSPORTATION X **HYDROLOGY/DRAINAGE**

Check all that Apply:

TYPE OF SUBMITTAL:

ENGINEER/ARCHITECT CERTIFICATION
PAD CERTIFICATION
CONCEPTUAL G & D PLAN
X **GRADING PLAN**
X **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:

X **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: 2-1-2020

By: DENNIS LORENZ

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED:

FEE PAID:

July 30, 2020

Mr. Rob Montoya
NCC High Desert Homeowners Association
Albuquerque, NM

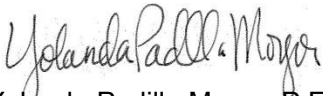
Re: Lot 9A– West Highlands (6800 Blanket Flower)
Review of the Lot Specific Grading and Drainage

Dear Rob:

Based on the revised grading and drainage plan for the above referenced Lot stamped dated 07-20-2020 by Dennis Lorenz, it appears that all the comments have been addressed. However, the erosion control provided at the turn blocks and downspouts is not adequate for estate type lots. This approval has a condition that secondary swales from the turn blocks and downspouts be install from those location to the primary swale to eliminate any erosion. The installation of these swales shall be verified at grading certification. A copy of the plan is attached.

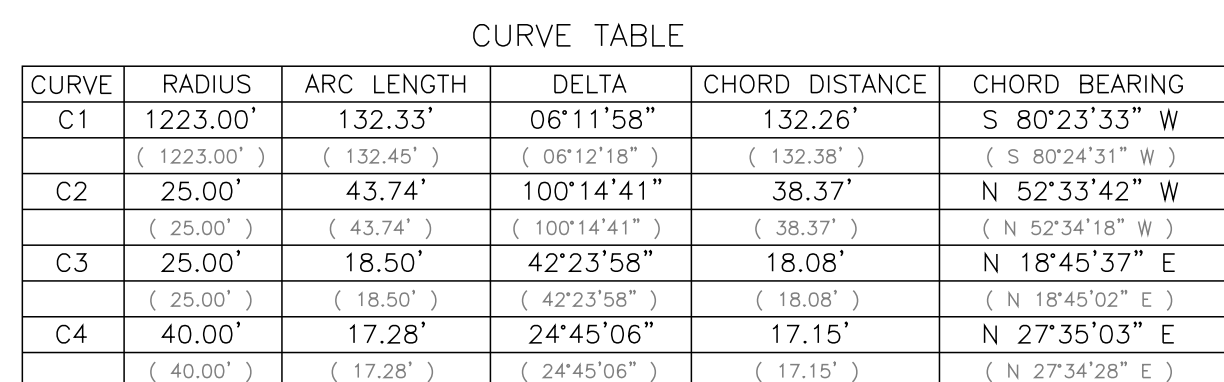
Please let me know if you have any comments or concerns.

Sincerely,



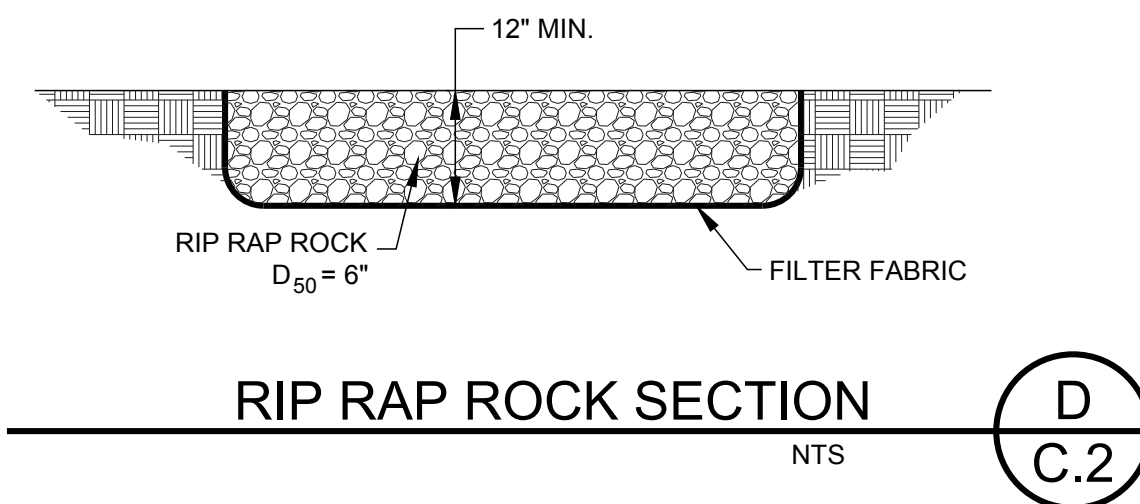
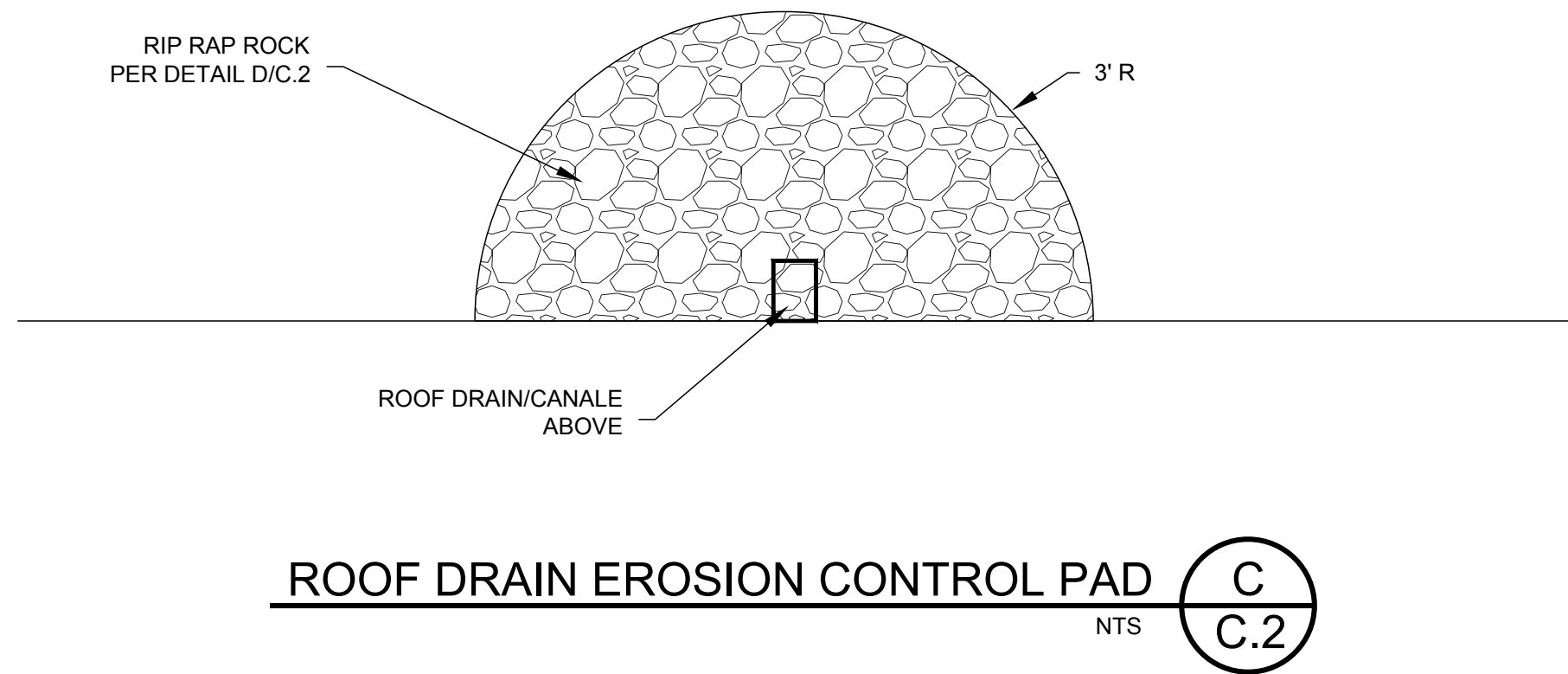
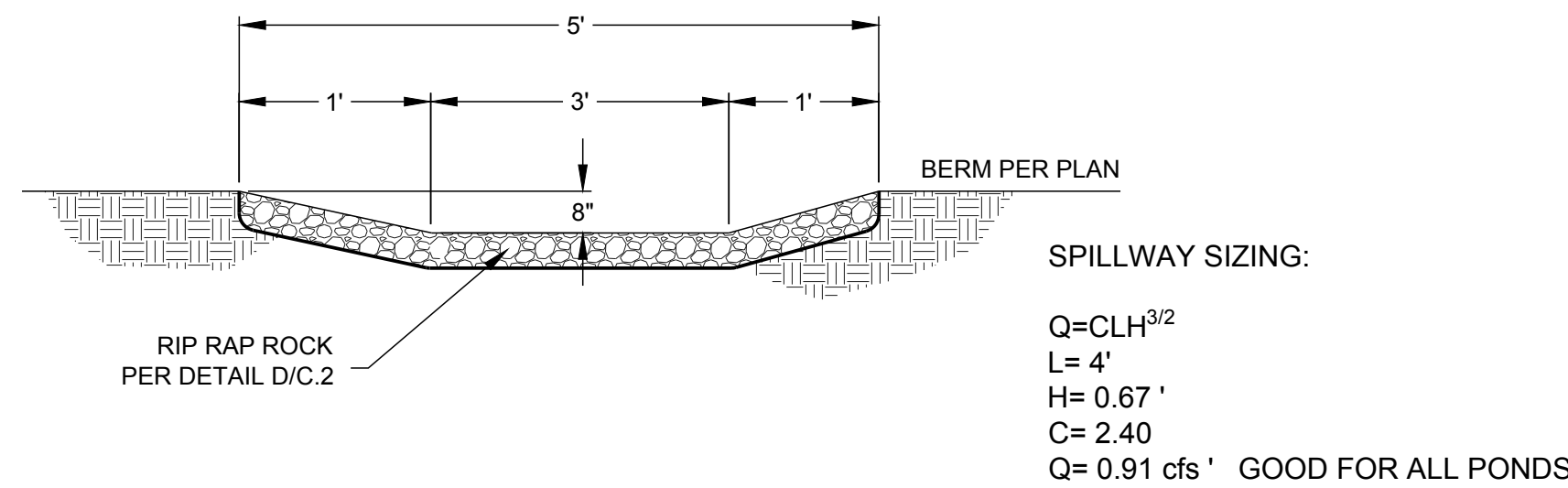
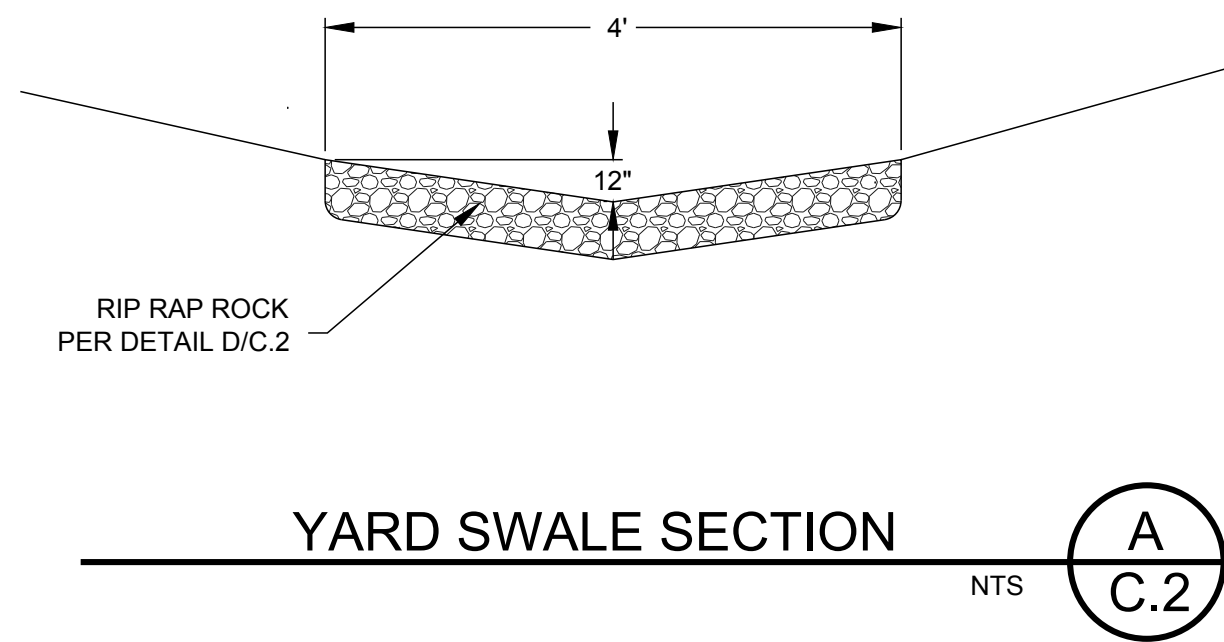
Yolanda Padilla Moyer, P.E.
Vice President
Community Development and Planning

Cc\Dennis Lorenz



1. EXISTING STANDARD CURB & GUTTER.
2. EXISTING RUNDOWN CURB.
3. EXISTING WATER METER.
4. EXISTING DRY UTILITIES.
5. EXISTING DRIVEWAY WITH CONCRETE CURB.
6. CONSTRUCT CONCRETE DRIVE.
7. CONSTRUCT CONCRETE SIDEWALK.
8. CONSTRUCT LANDSCAPED DETENTION POND.
9. CONSTRUCT OVERFLOW SPILLWAY AT EACH POND. SEE DETAIL B/C.2.
10. CONSTRUCT 4" WIDE GRAVEL LINED SWALE. SEE SECTION A/C.2.
11. CONSTRUCT 12" SIDEWALK CULVERT.
12. CONSTRUCT EROSION CONTROL PAD AT CANALES AND DOWNSPOUTS. SEE DETAIL C/C.2.
13. TURNLINE CMU BLOCK 90° FOR DRAINAGE THRU WALL WITH EROSION CONTROL PAD. SEE DETAIL C/C.2.
14. CONSTRUCT 8" STORM DRAIN WITH END SECTION AT POND. CONNECT TO ROOF DRAINS AT GARAGE.
15. CONSTRUCT 4" STORM DRAIN WITH END SECTIONS.
16. CONSTRUCT 4" CURB PENETRATION PER COA STD DWG 2235.
17. CONSTRUCT 8" CULVERT UNDER SIDEWALK.
18. NATIVE LANDSCAPING. SEE LANDSCAPE PLAN.

C.1



FIRST FLUSH CRITERIA

By ordinance the site is required to retain the 90th percentile rainfall depth. In order to comply with this criterion, where practical, all surface areas will be routed through landscaped areas before release to downstream public drainage facilities. In addition to the volume within the landscaped areas, excess runoff will be routed through 2 Onsite Detention Ponds that drain to the adjoining public streets. Storage in excess of the 90th percentile rainfall will be provided as illustrated below.

90 th percentile depth	0.44"
Less initial abstraction	0.10"
Total retained depth	0.34"

Site Area Type D = 0.12 ac.
Storage requirement = Ad(0.34") = 0.12 ac(43,560 sf/ac)(0.34"/12"/ft) =148 cf

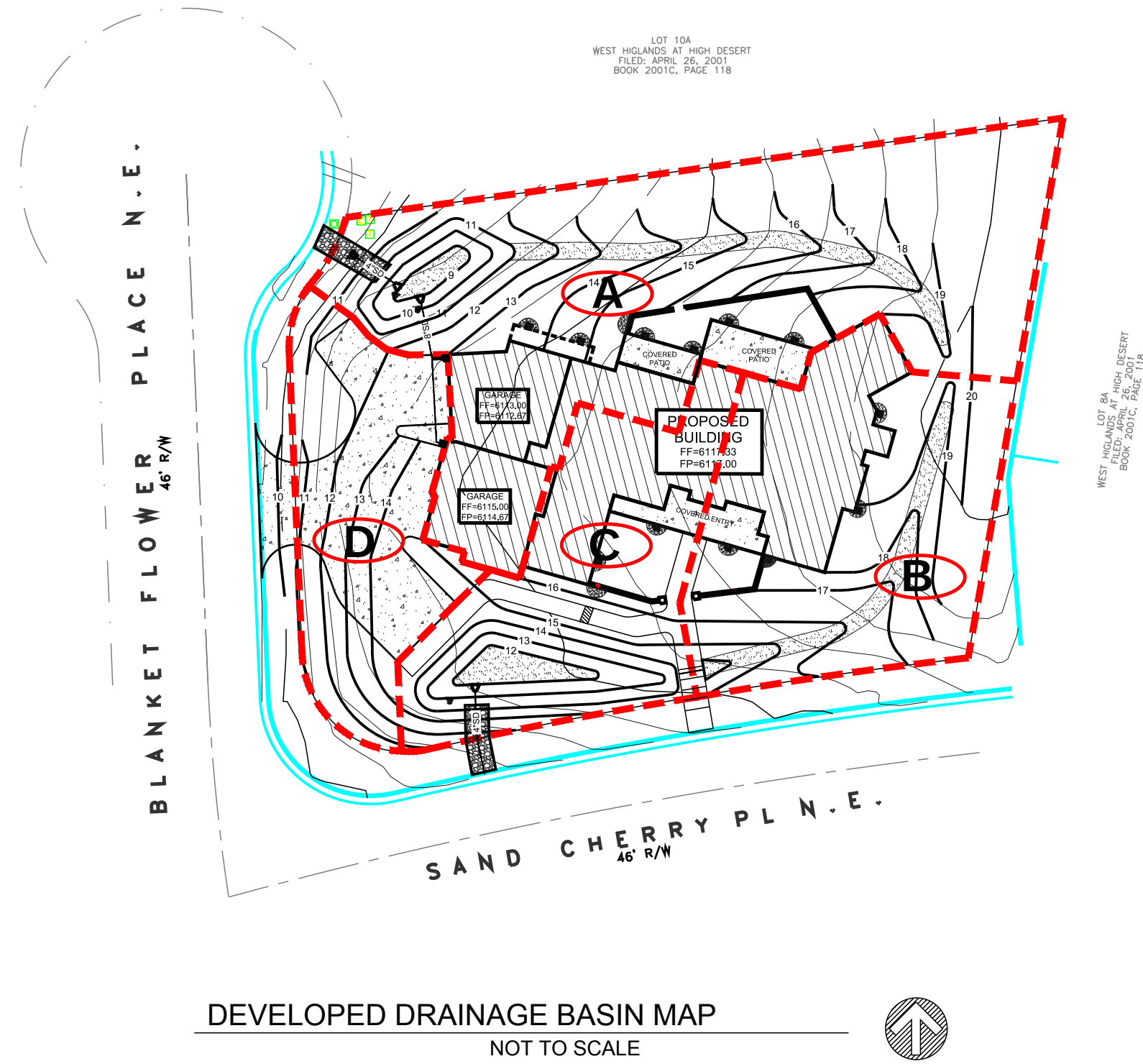
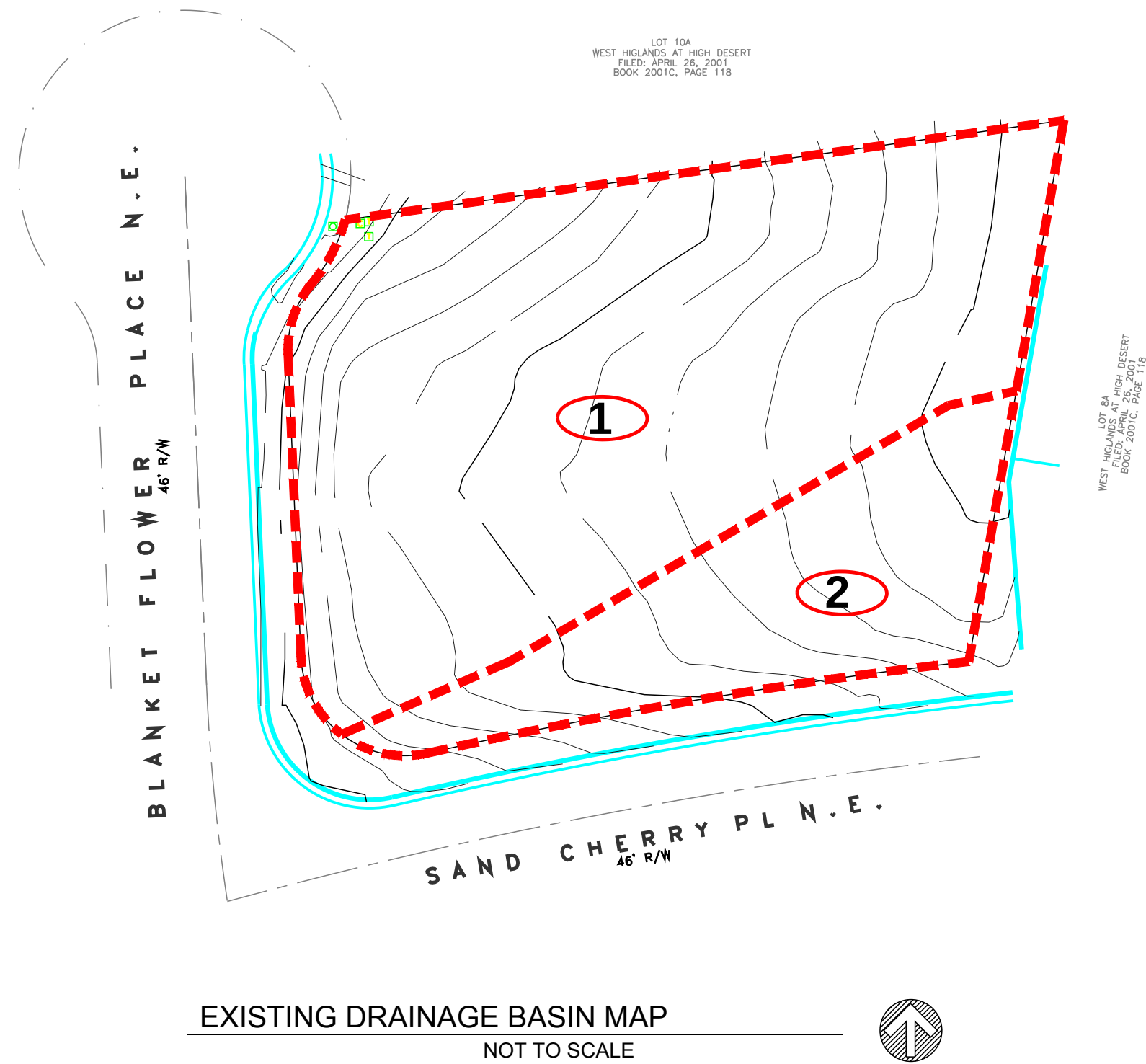
First flush storage to be provided within the landscaped Detention Ponds.

Detention Pond 1 Volume = 51 cf
Detention Pond 2 Volume = 97.5 cf

Total storage provided = 148.5 cf

**Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-19")**

1. An excavation permit will be required before beginning any work within City Right-Of-Way.
2. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
3. Two working days prior to any excavation, the contractor must contact New Mexico One Call, dial "811" [or (505) 260-1990] for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets may be required on a 24-hour basis.
8. Contractor must contact Augie Armijo at (505) 857-8607 and Construction Coordination at 924-3416 to schedule an inspection.



LOT 9A
WEST HIGHLANDS AT HIGH DESERT
GRADING AND DRAINAGE PLAN

LORENZ
DESIGN & CONSULTING, LLC
Civil Engineering | Construction Management
2501 Rio Grande Blvd NW, Suite A
Albuquerque, New Mexico 87104
Ph: 505-888-6088

DRAWN BY: DAL	DATE: April 2020
CHECKED BY: DAL	C.2
FILE: 20-006 G&D Plan	

AHYMO PROGRAM (AHYMO-S4) - Version: S4.02a - Rel: 02a
 RUN DATE (MON/DAY/YR) = 06/22/2020
 START TIME (HR:MIN:SEC) = 21:03:11 USER NO.= AHYMO-S4TempUser05901704
 INPUT FILE = C:\Users\dennis\Desktop\Ahymo\LOT 9A.txt

 * LOT 9A WEST HIGHLANDS AT HIGH DESERT
 * PROJECT HYDROLOGY

START TIME=0.0 PUNCH CODE=0
 LOCATION ALBUQUERQUE
 City of Albuquerque soil infiltration values (LAND FACTORS) used for computations.

Land Treatment	Initial Abstr.(in)	Unif. Infilt.(in/hour)
A	0.65	1.67
B	0.50	1.25
C	0.35	0.83
D	0.10	0.04

RAINFALL TYPE=1 RAIN QUARTER=0.0 RAIN ONE=2.23
 RAIN SIX=2.90 RAIN DAY=3.65 DT=0.03333 HRS

6-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE AREAS (NM & AZ) - D1
 DT = 0.033330 HOURS END TIME = 5.999400 HOURS

0.0000	0.0030	0.0059	0.0091	0.0123	0.0156	0.0193
0.0229	0.0268	0.0310	0.0351	0.0444	0.0537	0.0635
0.0739	0.0842	0.0954	0.1066	0.1181	0.1298	0.1415
0.1537	0.1660	0.1789	0.1925	0.2061	0.2214	0.2366
0.2550	0.2765	0.2980	0.3267	0.3556	0.3901	0.4304
0.4707	0.5311	0.5917	0.6740	0.7785	0.8829	1.1605
1.4389	1.6557	1.8099	1.9642	2.0421	2.1196	2.1829
2.2317	2.2806	2.3145	2.3483	2.3777	2.4025	2.4272
2.4460	2.4648	2.4814	2.4958	2.5101	2.5230	2.5359
2.5478	2.5585	2.5693	2.5792	2.5892	2.5990	2.6086
2.6182	2.6227	2.6271	2.6315	2.6358	2.6401	2.6441
2.6481	2.6521	2.6560	2.6598	2.6636	2.6674	2.6710
2.6746	2.6782	2.6816	2.6851	2.6885	2.6918	2.6952
2.6984	2.7016	2.7048	2.7079	2.7110	2.7140	2.7171
2.7201	2.7230	2.7259	2.7287	2.7315	2.7343	2.7371
2.7399	2.7426	2.7453	2.7480	2.7507	2.7534	2.7560
2.7586	2.7612	2.7637	2.7663	2.7688	2.7713	2.7738
2.7763	2.7787	2.7811	2.7836	2.7859	2.7883	2.7907
2.7930	2.7954	2.7977	2.8000	2.8022	2.8045	2.8067
2.8090	2.8112	2.8134	2.8156	2.8178	2.8199	2.8221
2.8242	2.8263	2.8284	2.8305	2.8326	2.8347	2.8367
2.8388	2.8408	2.8428	2.8448	2.8468	2.8488	2.8507
2.8527	2.8546	2.8566	2.8585	2.8604	2.8623	2.8642
2.8661	2.8680	2.8698	2.8717	2.8735	2.8753	2.8772
2.8790	2.8808	2.8826	2.8843	2.8861	2.8879	2.8896
2.8914	2.8931	2.8948	2.8966	2.8983	2.9000	

* EXISTING CONDITIONS *

* SITE - 0.50 ACRES

COMPUTE NM HYD ID=1 HYD NO=EX-SITE DA=0.00078 SQ MI
PER A=80 PER B=20 PER C=0 PER D=0
TP=0.1333 HR MASS RAIN=-1

K = 0.154593HR TP = 0.133300HR K/TP RATIO = 1.159737 SHAPE CONSTANT, N = 3.056137
UNIT PEAK = 1.6757 CFS UNIT VOLUME = 0.9911 B = 286.37 P60 = 2.2300
AREA = 0.000780 SQ MI IA = 0.62000 INCHES INF = 1.58600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

PRINT HYD ID=1 CODE=20

HYDROGRAPH FROM AREA EX-SITE

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	0.667	0.0	1.333	0.1	2.000	0.1	2.666	0.0

RUNOFF VOLUME = 0.99960 INCHES = 0.0416 ACRE-FEET
PEAK DISCHARGE RATE = 1.36 CFS AT 1.533 HOURS BASIN AREA = 0.0008 SQ. MI.

* EXIST BASIN 1 - 0.38 ACRES

COMPUTE NM HYD ID=2 HYD NO=EX-BASIN-1 DA=0.00059 SQ MI
PER A=80 PER B=20 PER C=0 PER D=0
TP=0.1333 HR MASS RAIN=-1

K = 0.154593HR TP = 0.133300HR K/TP RATIO = 1.159737 SHAPE CONSTANT, N = 3.056137
UNIT PEAK = 1.2675 CFS UNIT VOLUME = 0.9882 B = 286.37 P60 = 2.2300
AREA = 0.000590 SQ MI IA = 0.62000 INCHES INF = 1.58600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

PRINT HYD ID=2 CODE=20

HYDROGRAPH FROM AREA EX-BASIN-1

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	0.667	0.0	1.333	0.1	2.000	0.1	2.666	0.0

RUNOFF VOLUME = 0.99960 INCHES = 0.0315 ACRE-FEET
PEAK DISCHARGE RATE = 1.03 CFS AT 1.533 HOURS BASIN AREA = 0.0006 SQ. MI.

* EXIST BASIN 2 - 0.12 ACRES

COMPUTE NM HYD ID=3 HYD NO=EX-BASIN-2 DA=0.00019 SQ MI
PER A=80 PER B=20 PER C=0 PER D=0
TP=0.1333 HR MASS RAIN=-1

K = 0.154593HR TP = 0.133300HR K/TP RATIO = 1.159737 SHAPE CONSTANT, N = 3.056137
UNIT PEAK = 0.40818 CFS UNIT VOLUME = 0.9657 B = 286.37 P60 = 2.2300
AREA = 0.000190 SQ MI IA = 0.62000 INCHES INF = 1.58600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

PRINT HYD ID=3 CODE=20

HYDROGRAPH FROM AREA EX-BASIN-2

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	0.667	0.0	1.333	0.0	2.000	0.0	2.666	0.0

RUNOFF VOLUME = 0.99960 INCHES = 0.0101 ACRE-FEET
PEAK DISCHARGE RATE = 0.34 CFS AT 1.533 HOURS BASIN AREA = 0.0002 SQ. MI.

* DEVELOPED CONDITIONS *

* SITE - 0.50 ACRES

COMPUTE NM HYD ID=4 HYD NO=DEV-SITE DA=0.00078 SQ MI
PER A=0 PER B=32 PER C=28 PER D=40
TP=0.1333 HR MASS RAIN=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 1.2318 CFS UNIT VOLUME = 0.9897 B = 526.28 P60 = 2.2300
AREA = 0.000312 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

K = 0.123162HR TP = 0.133300HR K/TP RATIO = 0.923944 SHAPE CONSTANT, N = 3.829969
UNIT PEAK = 1.2066 CFS UNIT VOLUME = 0.9890 B = 343.68 P60 = 2.2300
AREA = 0.000468 SQ MI IA = 0.43000 INCHES INF = 1.05400 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

PRINT HYD ID=4 CODE=20

HYDROGRAPH FROM AREA DEV-SITE

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	1.333	0.5	2.666	0.0	4.000	0.0	5.333	0.0

0.667 0.0 2.000 0.3 3.333 0.0 4.666 0.0 5.999 0.0

RUNOFF VOLUME = 1.82993 INCHES = 0.0761 ACRE-FEET
PEAK DISCHARGE RATE = 2.15 CFS AT 1.533 HOURS BASIN AREA = 0.0008 SQ. MI.

* BASIN A - 0.21 ACRES

COMPUTE NM HYD ID=5 HYD NO=EXIST-A DA=0.00033 SQ MI
PER A=0 PER B=38 PER C=38 PER D=24
TP=0.1333 HR MASS RAIN=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.31269 CFS UNIT VOLUME = 0.9610 B = 526.28 P60 = 2.2300
AREA = 0.000079 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

K = 0.122335HR TP = 0.133300HR K/TP RATIO = 0.917739 SHAPE CONSTANT, N = 3.857209
UNIT PEAK = 0.65012 CFS UNIT VOLUME = 0.9794 B = 345.54 P60 = 2.2300
AREA = 0.000251 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

PRINT HYD ID=5 CODE=20

HYDROGRAPH FROM AREA EXIST-A

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	1.333	0.2	2.666	0.0	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.1	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 1.61944 INCHES = 0.0285 ACRE-FEET
PEAK DISCHARGE RATE = 0.86 CFS AT 1.533 HOURS BASIN AREA = 0.0003 SQ. MI.

* BASIN B - 0.12 ACRES

COMPUTE NM HYD ID=6 HYD NO=DEV-B DA=0.00019 SQ MI
PER A=0 PER B=33 PER C=33 PER D=34
TP=0.1333 HR MASS RAIN=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.25504 CFS UNIT VOLUME = 0.9546 B = 526.28 P60 = 2.2300
AREA = 0.000065 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

K = 0.122335HR TP = 0.133300HR K/TP RATIO = 0.917739 SHAPE CONSTANT, N = 3.857209
UNIT PEAK = 0.32506 CFS UNIT VOLUME = 0.9607 B = 345.54 P60 = 2.2300

AREA = 0.000125 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

PRINT HYD ID=6 CODE=20

HYDROGRAPH FROM AREA DEV-B

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.333	0.1	2.666	0.0	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.1	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 1.75406 INCHES = 0.0178 ACRE-FEET
PEAK DISCHARGE RATE = 0.53 CFS AT 1.533 HOURS BASIN AREA = 0.0002 SQ. MI.

* BASIN C - 0.09 ACRES

COMPUTE NM HYD ID=7 HYD NO=DEV-C DA=0.00014 SQ MI
PER A=0 PER B=33 PER C=22 PER D=45
TP=0.1333 HR MASS RAIN=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.24873 CFS UNIT VOLUME = 0.9546 B = 526.28 P60 = 2.2300
AREA = 0.000063 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

K = 0.124816HR TP = 0.133300HR K/TP RATIO = 0.936354 SHAPE CONSTANT, N = 3.776846
UNIT PEAK = 0.19641 CFS UNIT VOLUME = 0.9294 B = 340.01 P60 = 2.2300
AREA = 0.000077 SQ MI IA = 0.44000 INCHES INF = 1.08200 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

PRINT HYD ID=7 CODE=20

HYDROGRAPH FROM AREA DEV-C

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.333	0.1	2.666	0.0	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.0	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 1.88885 INCHES = 0.0141 ACRE-FEET
PEAK DISCHARGE RATE = 0.41 CFS AT 1.533 HOURS BASIN AREA = 0.0001 SQ. MI.

* BASIN D - 0.08 ACRES

COMPUTE NM HYD ID=8 HYD NO=DEV-D DA=0.00013 SQ MI
PER A=0 PER B=12 PER C=0 PER D=88

TP=0.1333 HR MASS RAIN=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.45166 CFS UNIT VOLUME = 0.9751 B = 526.28 P60 = 2.2300
AREA = 0.000114 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

K = 0.134742HR TP = 0.133300HR K/TP RATIO = 1.010815 SHAPE CONSTANT, N = 3.492078
UNIT PEAK = 0.37421E-01CFS UNIT VOLUME = 0.8679 B = 319.76 P60 = 2.2300
AREA = 0.000016 SQ MI IA = 0.50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.033330

PRINT HYD ID=8 CODE=20

HYDROGRAPH FROM AREA DEV-D

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	1.333	0.1	2.666	0.0	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.1	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 2.46656 INCHES = 0.0171 ACRE-FEET
PEAK DISCHARGE RATE = 0.44 CFS AT 1.500 HOURS BASIN AREA = 0.0001 SQ. MI.

* ADD BASINS B AND C

ADD HYD ID=9 HYD NO=POND.2 ID I=6 ID II=7
PRINT HYD ID=9 CODE=20

HYDROGRAPH FROM AREA POND.2

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	1.333	0.2	2.666	0.0	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.1	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 1.81046 INCHES = 0.0319 ACRE-FEET
PEAK DISCHARGE RATE = 0.94 CFS AT 1.533 HOURS BASIN AREA = 0.0003 SQ. MI.

* ROUTE DEVELOPED BASIN A THROUGH DETENTION POND 1 *
* THRU 4 INCH SD TO STORM INLET *

ROUTE RESERVOIR ID=10 HYD NO=POND.1.OUT INFLOW ID=5 CODE=10
OUT (CFS) STORAGE (AC-FT) ELEV (FT)
0.0 0 09.00

0.40	0.0046	10.00
0.59	0.0146	11.00

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	9.00	0.000	0.00
0.33	0.00	9.00	0.000	0.00
0.67	0.01	9.00	0.000	0.00
1.00	0.02	9.04	0.000	0.02
1.33	0.18	9.20	0.001	0.08
1.67	0.52	10.43	0.009	0.48
2.00	0.09	9.74	0.003	0.30
2.33	0.04	9.18	0.001	0.07
2.67	0.01	9.05	0.000	0.02
3.00	0.00	9.01	0.000	0.01
3.33	0.00	9.01	0.000	0.00

PEAK DISCHARGE = 0.481 CFS - PEAK OCCURS AT HOUR 1.67
 MAXIMUM WATER SURFACE ELEVATION = 10.428
 MAXIMUM STORAGE = 0.0089 AC-FT INCREMENTAL TIME= 0.033330HRS

PRINT HYD ID=10 CODE=20

HYDROGRAPH FROM AREA POND.1.OUT

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.333	0.1	2.666	0.0	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.3	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 1.61892 INCHES = 0.0285 ACRE-FEET
 PEAK DISCHARGE RATE = 0.48 CFS AT 1.667 HOURS BASIN AREA = 0.0003 SQ. MI.

 * ROUTE DEVELOPED BASINS B AND C THROUGH DETENTION POND 2 *
 * THRU 4 INCH SD *

ROUTE RESERVOIR ID=11 HYD NO=POND.2.OUT INFLOW ID=9 CODE=10
 OUT (CFS) STORAGE (AC-FT) ELEV (FT)
 0.0 0 12.00
 0.40 0.0083 13.00
 0.59 0.0251 14.00

* * * * *

TIME	INFLOW	ELEV	VOLUME	OUTFLOW
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(HRS)	(CFS)	(FEET)	(AC-FT)	(CFS)
0.00	0.00	12.00	0.000	0.00
0.33	0.00	12.00	0.000	0.00
0.67	0.01	12.00	0.000	0.00
1.00	0.03	12.05	0.000	0.02
1.33	0.22	12.20	0.002	0.08
1.67	0.55	13.23	0.012	0.44
2.00	0.10	12.90	0.008	0.36
2.33	0.03	12.33	0.003	0.13
2.67	0.01	12.11	0.001	0.04
3.00	0.01	12.04	0.000	0.02
3.33	0.00	12.02	0.000	0.01
3.67	0.00	12.01	0.000	0.01
4.00	0.00	12.01	0.000	0.00

PEAK DISCHARGE = 0.446 CFS - PEAK OCCURS AT HOUR 1.70
 MAXIMUM WATER SURFACE ELEVATION = 13.240
 MAXIMUM STORAGE = 0.0123 AC-FT INCREMENTAL TIME= 0.033330HRS

PRINT HYD ID=11 CODE=20

HYDROGRAPH FROM AREA POND.2.OUT

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.333	0.1	2.666	0.0	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.4	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 1.81046 INCHES = 0.0319 ACRE-FEET
 PEAK DISCHARGE RATE = 0.45 CFS AT 1.700 HOURS BASIN AREA = 0.0003 SQ. MI.

* ADD PONDS 1 AND 2 TO BASIN D FOR TOTAL SITE DISCHARGE
 ADD HYD ID=12 HYD NO=PONDS.OUT ID I=10 ID II=11
 PRINT HYD ID=12 CODE=20

HYDROGRAPH FROM AREA PONDS.OUT

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.333	0.2	2.666	0.1	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.7	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 1.71376 INCHES = 0.0603 ACRE-FEET
 PEAK DISCHARGE RATE = 0.93 CFS AT 1.700 HOURS BASIN AREA = 0.0007 SQ. MI.

ADD HYD ID=13 HYD NO=TOTAL.SITE ID I=8 ID II=12

PRINT HYD ID=13 CODE=20

HYDROGRAPH FROM AREA TOTAL.SITE

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	1.333	0.3	2.666	0.1	4.000	0.0	5.333	0.0
0.667	0.0	2.000	0.7	3.333	0.0	4.666	0.0	5.999	0.0

RUNOFF VOLUME = 1.83737 INCHES = 0.0774 ACRE-FEET
PEAK DISCHARGE RATE = 1.27 CFS AT 1.567 HOURS BASIN AREA = 0.0008 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 21:03:11

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RUN DATE (MON/DAY/YR) =06/22/2020
USER NO.= AHYMO-S4TempUser05901704

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