CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

July 12, 2024

David Soule, P.E.
Rio Grande Engineering
P.O. Box 93924
Albuquerque, NM 87199

RE: 3815 Mourning Dove Place NW
2nd Revised Grading and Drainage Plans
Engineer's Stamp Date: 07/05/24
Hydrology File: G11D014D1

Dear Mr. Soule:

Based upon the information provided in your submittal received 07/08/2024, the 2nd Revised Grading and Drainage Plans are approved for Building Permit and Grading Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PRIOR TO CERTIFICATE OF OCCUPANCY:

1. Engineer's Certification, per the DPM Part 6-14 (F): Engineer's Certification Checklist For Non-Subdivision is required.

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

Sincerely,

Renée C. Brissette

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title: 3815 MOURNING DOVE Hydrology File # _____
Legal Description: LOT 54 PI OXBOW
City Address, UPC, OR Parcel: 3815 MOURNING DOVE

Applicant/Agent: RIO GRANDE ENGINEERING Contact: DAVID
Address: PO BOX 93924 ALB NM 87199 Phone: 505.321.9099
Email: DAVID@RIO GRANDE ENGINEERING.COM

Applicant/Owner: _____ Contact: _____
Address: _____ Phone: _____
Email: _____

(Please note that a DFT SITE is one that needs Site Plan Approval & ADMIN SITE is one that does not need it.)

TYPE OF DEVELOPMENT: ☐ PLAT (#of lots) _____ ☑ RESIDENCE
☐ DFT SITE ☐ ADMIN SITE

RE-SUBMITTAL: ☑ YES ☐ NO

DEPARTMENT: ☐ TRANSPORTATION ☑ HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G&D PLAN
- ☑ GRADING & DRAINAGE PLAN
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE MASTER PLAN
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE
- ☐ TRAFFIC CIRCULATION LAYOUT FOR DFT APPROVAL
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ STREET LIGHT LAYOUT
- ☐ OTHER (SPECIFY)_____

TYPE OF APPROVAL SOUGHT:

- ☑ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ CONCEPTUAL TCL DFT APPROVAL
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ SITE PLAN FOR BLDG PERMIT DFT 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
- ☐ OTHER (SPECIFY)_____

DATE SUBMITTED: 7/5/24

REV. 09/13/23

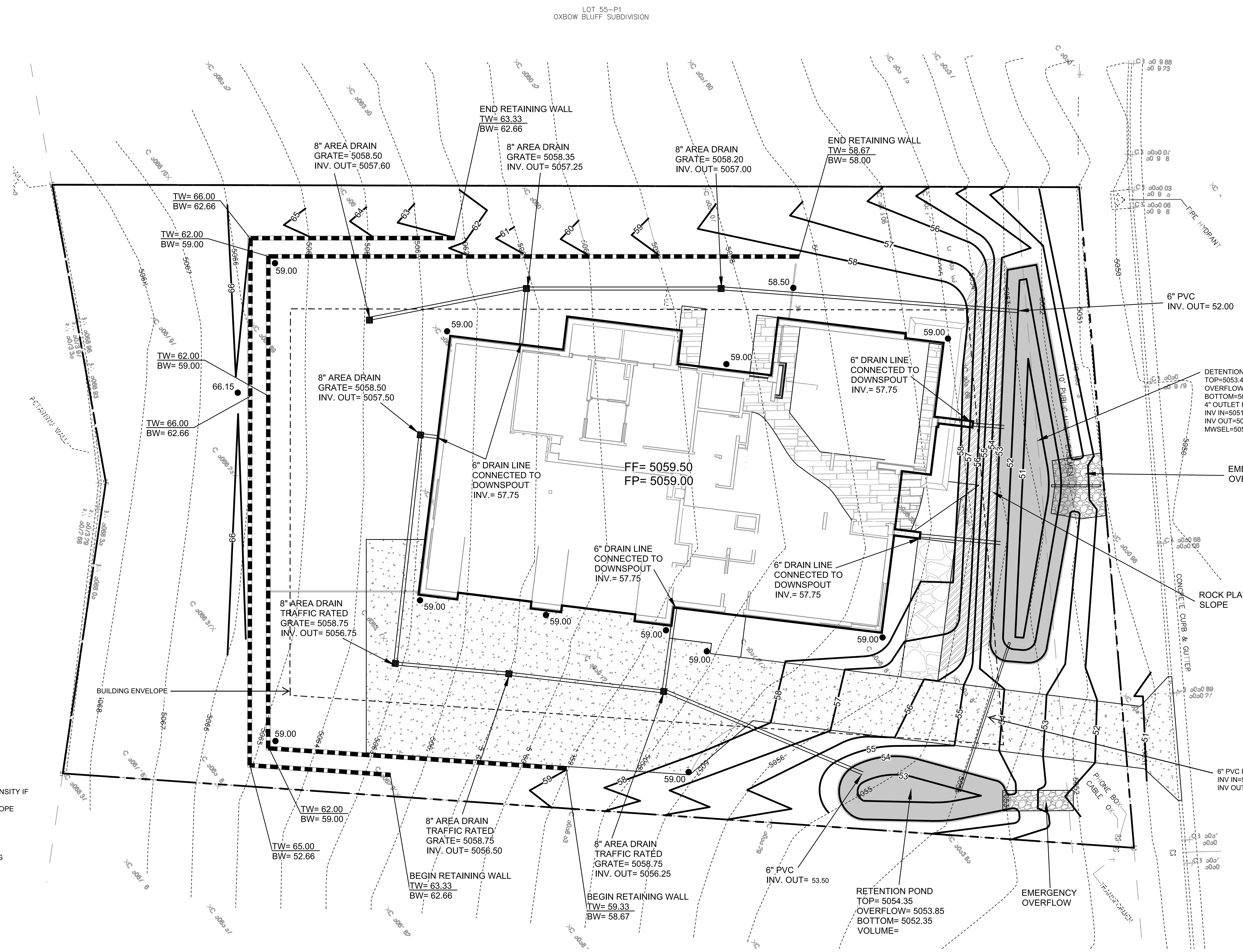
City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 07/12/24
BY: Renée C. Brissette
HydroTrans # G11D014D1

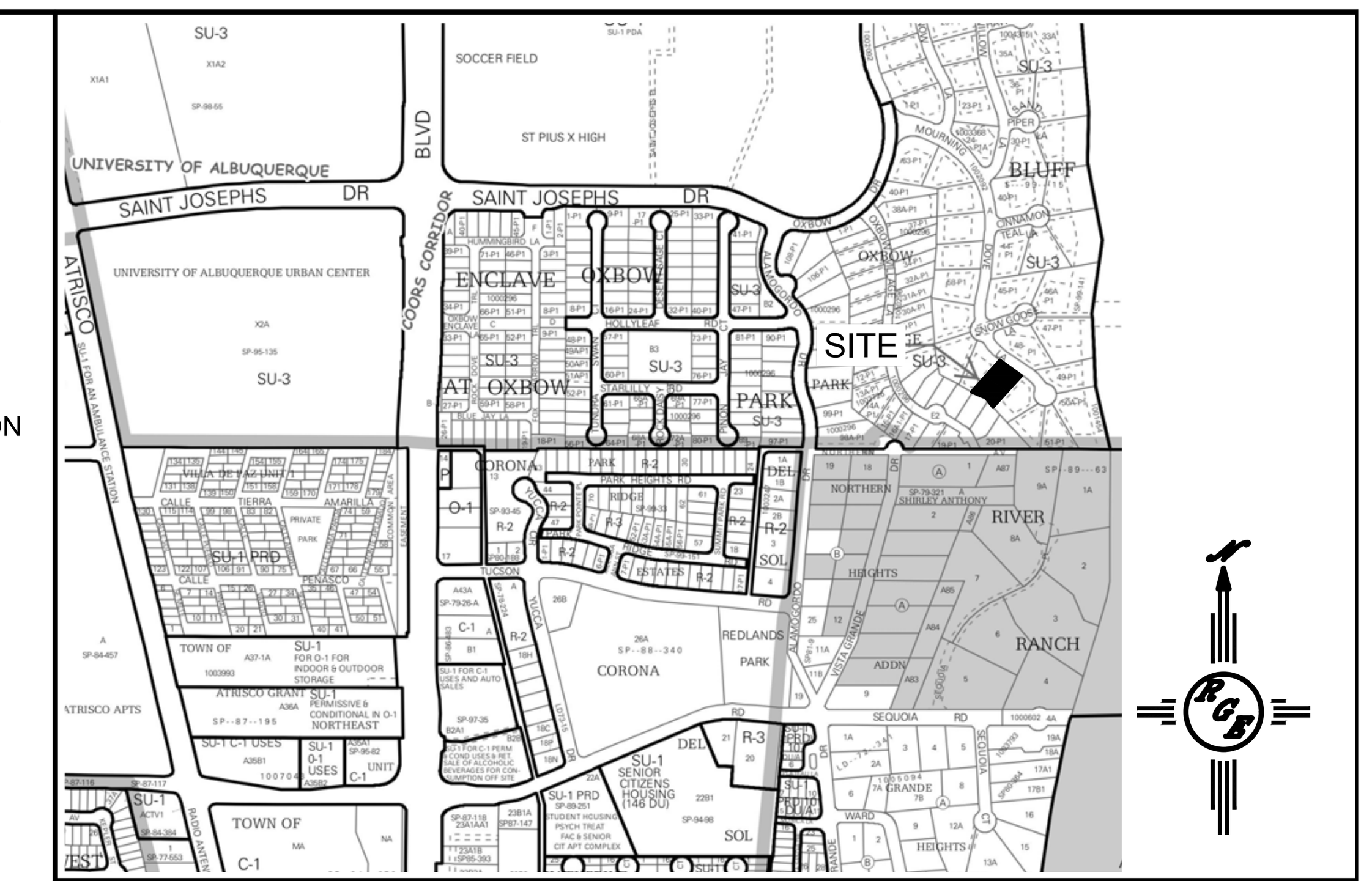
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED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

APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE TWO (2) YEARS AFTER THE APPROAL DATE BY THE CITY IF NO BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.

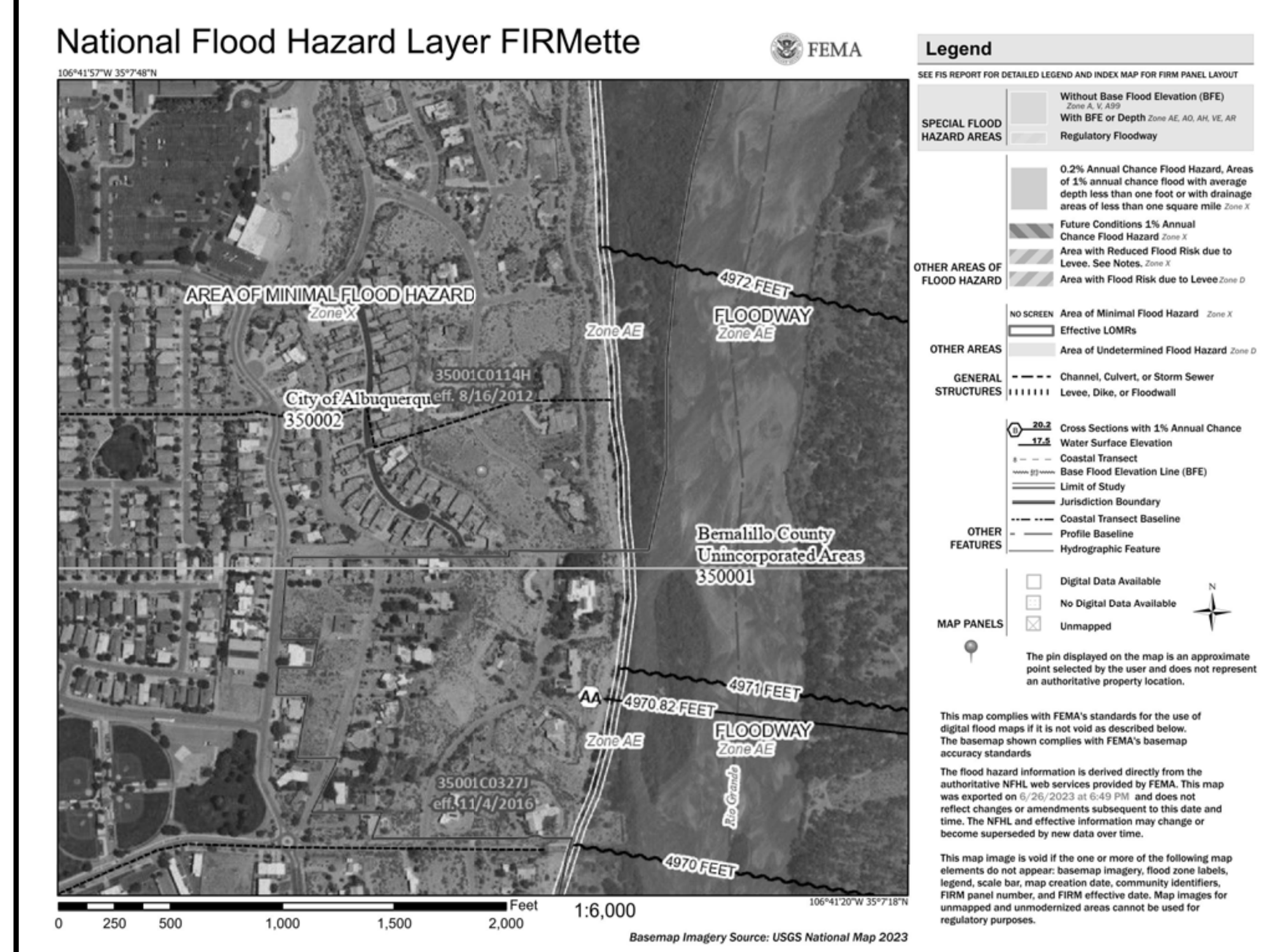
EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.





VICINITY MAP: G-11-Z



FIRM MAP:

LEGAL DESCRIPTION:

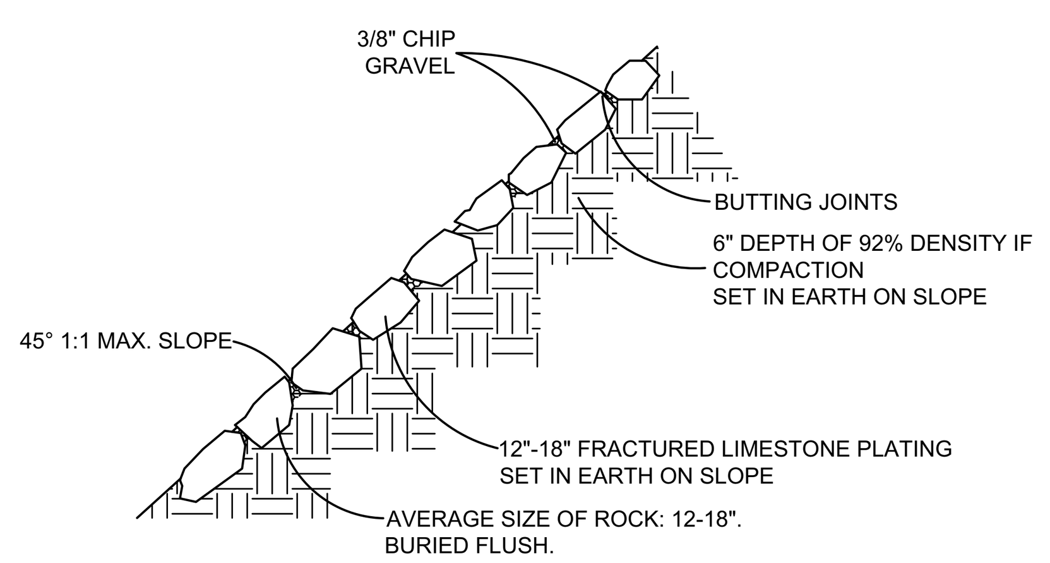
LOT 54-P1, OXBOW SUBDIVISION
CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
2. ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.
3. ANY PERIMETER WALLS MUST BE PERMITED SEPARATELY ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.
4. SURVEY INFORMATION PROVIDED BY COMMUNITY SCIENCES CORPORATION USING NAVD DATUM 1988.
5. A PAD ELEVATION CERTIFICATION SHALL BE REQUIRED PRIOR TO RELEASE OF BUILDING PERMIT.

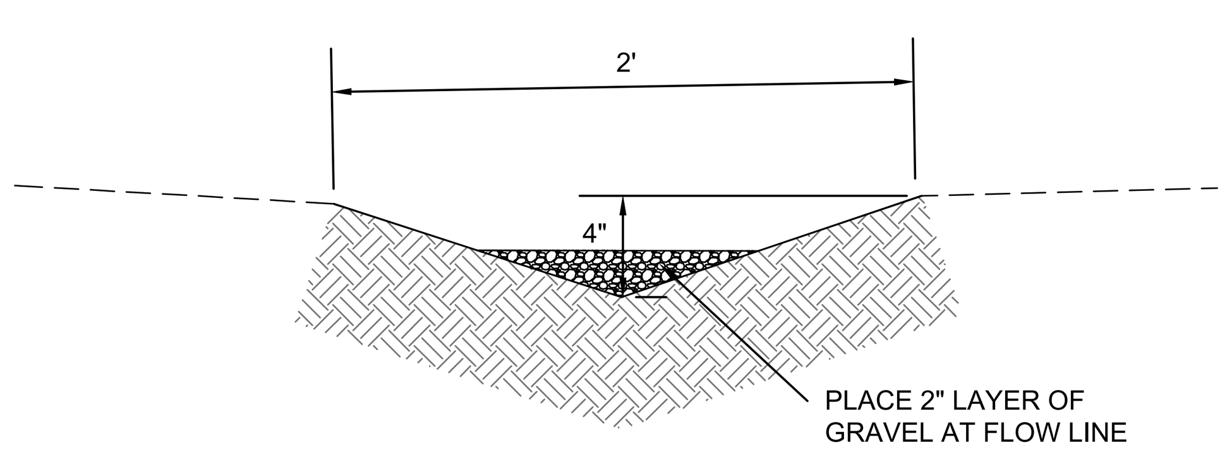
LEGEND

- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- BOUNDARY
- ADJACENT BOUNDARY
- EXISTING CURB AND GUTTER
- PROPOSED EARTHEN SWALE
- PROPOSED RETAINING WALL
- PROPOSED CONCRETE
- PROPOSED PONDING
- PROPOSED NATURAL ROCK LANDSCAPE WALL

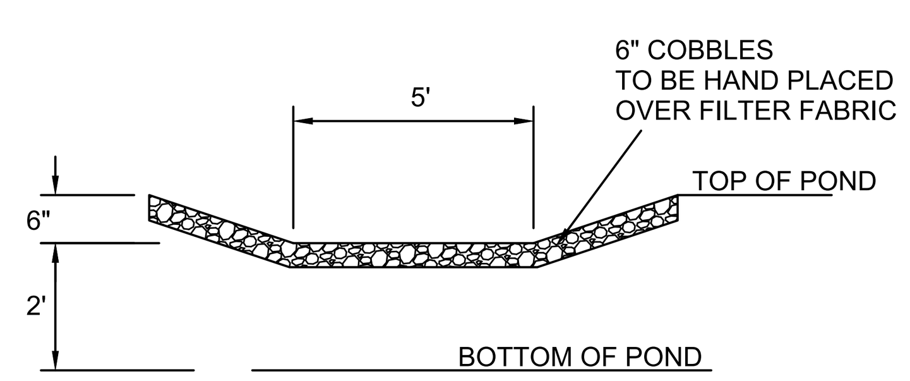


ROCK PLATING DETAIL
NTS

CONSTRUCT ALL SWALES AND EROSION PROTECTION (SHOWN HATCHED) BELOW ADJACENT GRADE TO ENSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY.



EARTHEN SWALE
NTS



EMERGENCY OVERFLOW DETAIL
NTS

CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

10 5 0 5 10
SCALE: 1"=10'

ENGINEER'S SEAL	3815 MOURNING DOVE	DRAWN BY DEM
DAVID SOULE · NEW MEXICO · 14522 · REGISTERED PROFESSIONAL ENGINEER · 7/5/24	GRADING AND DRAINAGE PLAN	DATE 6-27-23
		3815 MOURNING DOVE .DWG
DAVID SOULE P.E. #14522	Rio Grande Engineering · PO BOX 93924 · ALBUQUERQUE, NM 87199 · (505) 321-9099	SHEET # C1
		JOB #

BASIN DATA

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	Q100 GENERATED	V100 GENERATED	Q100 DISCHARGED
SITE TO POND	15800	0.363	0%	0.2955	18.0%	0.1214	29.0%	0.1384	53%	0.0527	1.11	2091	0.32
SITE NOT TO POND	1136	0.026	0%	0.0156	5.0%	0.0747	25.0%	0.0762	70%	0.0527	0.09	144	0.09
TOTAL SITE HISTORIC	16936	0.389	72%	0.2799	12.0%	0.0467	16.0%	0.0622	0%	0.0000	0.48	749	0.48
											HISTORICAL		0.48
											PROPOSED		0.37

VOLUME CALCULATIONS

pond b

	ACTUAL ELEV.	DEPTH (FT)	AREA SF	VOLUME PER UNIT	VOLUME CUMULATIVI	VOLUME AC-FT	Q (CFS)
	50.50	0.00	135.00	840.00	84	0.000	0.00
OUTFALL	51.25	0.00	225.00	180.00	264.00	0.006	0.00
	52.50	1.25	599.00	412.00	676.00	0.016	0.26
	53.75	2.50	905.00	940.00	1616.00	0.037	0.37

Orifice Equation

Q = CA SQRT(2gH)

0

C =	0.6
Diameter (in)	3
Area (ft^2)=	0.049087385
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

AHYMO.OUT

AHYMO PROGRAM (AHYMO-S4) - Version: S4.01a - Rel: 01a
RUN DATE (MON/DAY/YR) = 07/05/2024
START TIME (HR:MIN:SEC) = 13:06:45 USER NO.= RioGrandeSingleA41963517
INPUT FILE = nts and Settings\Owner\Desktop\2023 JOBS\2023144-mourningdove\pondrout041524.txt

```
"S    AHYMO -  DETENTION-MOURNING
"S             POND ROUTING

START              TIME=0.0   PUNCH CODE=0

RAINFALL           TYPE=2
                   QUARTER=0.0    ONE= 1.69 IN
                   SIX=2.17 IN    DAY= 2.49 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	0.0032	0.0065	0.0100	0.0138	0.0178	0.0222	
0.0285	0.0385	0.0492	0.0603	0.0723	0.0845	0.0971	
0.1101	0.1233	0.1379	0.1531	0.1696	0.1914	0.2158	
0.2486	0.2857	0.3315	0.3926	0.4614	0.5802	0.7649	
1.0813	1.3037	1.4791	1.5672	1.6444	1.6999	1.7441	
1.7826	1.8108	1.8366	1.8580	1.8754	1.8909	1.9048	
1.9178	1.9294	1.9403	1.9510	1.9613	1.9698	1.9746	
1.9793	1.9839	1.9882	1.9925	1.9967	2.0008	2.0048	
2.0087	2.0124	2.0162	2.0198	2.0234	2.0269	2.0303	
2.0336	2.0369	2.0402	2.0433	2.0464	2.0495	2.0525	
2.0555	2.0584	2.0613	2.0642	2.0670	2.0698	2.0725	
2.0753	2.0780	2.0806	2.0833	2.0859	2.0884	2.0910	
2.0935	2.0960	2.0985	2.1009	2.1033	2.1057	2.1081	
2.1104	2.1128	2.1151	2.1173	2.1196	2.1218	2.1240	
2.1262	2.1284	2.1306	2.1327	2.1348	2.1369	2.1390	
2.1410	2.1431	2.1451	2.1471	2.1491	2.1511	2.1530	
2.1550	2.1569	2.1588	2.1607	2.1626	2.1645	2.1663	
2.1682	2.1700	2.1709	2.1718	2.1727	2.1736	2.1744	
2.1753	2.1762	2.1771	2.1780	2.1789	2.1798	2.1807	
2.1816	2.1824	2.1833	2.1842	2.1851	2.1860	2.1869	
2.1878	2.1887	2.1896	2.1904	2.1913	2.1922	2.1931	
2.1940	2.1949	2.1958	2.1967	2.1976	2.1984	2.1993	
2.2002	2.2011	2.2020	2.2029	2.2038	2.2047	2.2056	
2.2064	2.2073	2.2082	2.2091	2.2100	2.2109	2.2118	
2.2127	2.2136	2.2144	2.2153	2.2162	2.2171	2.2180	
2.2189	2.2198	2.2207	2.2216	2.2224	2.2233	2.2242	
2.2251	2.2260	2.2269	2.2278	2.2287	2.2296	2.2304	
2.2313	2.2322	2.2331	2.2340	2.2349	2.2358	2.2367	
2.2376	2.2384	2.2393	2.2402	2.2411	2.2420	2.2429	
2.2438	2.2447	2.2456	2.2464	2.2473	2.2482	2.2491	
2.2500	2.2509	2.2518	2.2527	2.2536	2.2544	2.2553	
2.2562	2.2571	2.2580	2.2589	2.2598	2.2607	2.2616	
2.2624	2.2633	2.2642	2.2651	2.2660	2.2669	2.2678	
2.2687	2.2696	2.2704	2.2713	2.2722	2.2731	2.2740	
2.2749	2.2758	2.2767	2.2776	2.2784	2.2793	2.2802	
2.2811	2.2820	2.2829	2.2838	2.2847	2.2856	2.2864	
2.2873	2.2882	2.2891	2.2900	2.2909	2.2918	2.2927	
2.2936	2.2944	2.2953	2.2962	2.2971	2.2980	2.2989	
2.2998	2.3007	2.3016	2.3024	2.3033	2.3042	2.3051	
2.3060	2.3069	2.3078	2.3087	2.3096	2.3104	2.3113	
2.3122	2.3131	2.3140	2.3149	2.3158	2.3167	2.3176	
2.3185	2.3193	2.3202	2.3211	2.3220	2.3229	2.3238	
2.3247	2.3256	2.3265	2.3273	2.3282	2.3291	2.3300	
2.3309	2.3318	2.3327	2.3336	2.3345	2.3353	2.3362	
2.3371	2.3380	2.3389	2.3398	2.3407	2.3416	2.3425	
2.3433	2.3442	2.3451	2.3460	2.3469	2.3478	2.3487	
2.3496	2.3505	2.3513	2.3522	2.3531	2.3540	2.3549	
2.3558	2.3567	2.3576	2.3585	2.3593	2.3602	2.3611	
2.3620	2.3629	2.3638	2.3647	2.3656	2.3665	2.3673	
2.3682	2.3691	2.3700	2.3709	2.3718	2.3727	2.3736	

AHYMO.OUT

2.3745	2.3753	2.3762	2.3771	2.3780	2.3789	2.3798	
2.3807	2.3816	2.3825	2.3833	2.3842	2.3851	2.3860	
2.3869	2.3878	2.3887	2.3896	2.3905	2.3913	2.3922	
2.3931	2.3940	2.3949	2.3958	2.3967	2.3976	2.3985	
2.3993	2.4002	2.4011	2.4020	2.4029	2.4038	2.4047	
2.4056	2.4065	2.4073	2.4082	2.4091	2.4100	2.4109	
2.4118	2.4127	2.4136	2.4145	2.4153	2.4162	2.4171	
2.4180	2.4189	2.4198	2.4207	2.4216	2.4225	2.4233	
2.4242	2.4251	2.4260	2.4269	2.4278	2.4287	2.4296	
2.4305	2.4313	2.4322	2.4331	2.4340	2.4349	2.4358	
2.4367	2.4376	2.4385	2.4393	2.4402	2.4411	2.4420	
2.4429	2.4438	2.4447	2.4456	2.4465	2.4473	2.4482	
2.4491	2.4500	2.4509	2.4518	2.4527	2.4536	2.4545	
2.4553	2.4562	2.4571	2.4580	2.4589	2.4598	2.4607	
2.4616	2.4625	2.4633	2.4642	2.4651	2.4660	2.4669	
2.4678	2.4687	2.4696	2.4705	2.4713	2.4722	2.4731	
2.4740	2.4749	2.4758	2.4767	2.4776	2.4785	2.4793	
2.4802	2.4811	2.4820	2.4829	2.4838	2.4847	2.4856	
2.4865	2.4873	2.4882	2.4891	2.4900			

```
"OVERALL SITE EXISTING
COMPUTE NM HYD       ID=1  HYD NO=101  DA= .0006074954 SQ MI
                     PER A=100  PER B=0 PER C=0 PER D=0
                     TP=-.170  MASSRAIN=-1
```

K = 0.214536HR TP = 0.170000HR K/TP RATIO = 1.261977 SHAPE CONSTANT, N = 2.829292
UNIT PEAK = 0.95628 CFS UNIT VOLUME = 0.9845 B = 267.60 P60 = 1.6900
AREA = 0.000607 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

```
PRINT HYD            ID=1  CODE=3
```

PARTIAL HYDROGRAPH 101.00

FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS
0.0	0.000	0.0	0.750	0.0	1.500	0.4	2.250
	3.000	0.0					
0.0	0.150	0.0	0.900	0.0	1.650	0.4	2.400
	3.150	0.0					
0.0	0.300	0.0	1.050	0.0	1.800	0.2	2.550
	3.300	0.0					
0.0	0.450	0.0	1.200	0.0	1.950	0.1	2.700
	3.450	0.0					
0.0	0.600	0.0	1.350	0.0	2.100	0.1	2.850
	3.600	0.0					

RUNOFF VOLUME = 0.53126 INCHES = 0.0172 ACRE-FEET
PEAK DISCHARGE RATE = 0.48 CFS AT 1.550 HOURS BASIN AREA = 0.0006 SQ. MI.

```
"BASIN TO POND
COMPUTE NM HYD       ID=2  HYD NO=102  DA= .0005667477 SQ MI
                     PER A=0  PER B=18 PER C=29 PER D=53
                     TP=-.170  MASSRAIN=-1
```

K = 0.092650HR TP = 0.170000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.92989 CFS UNIT VOLUME = 0.9881 B = 526.28 P60 = 1.6900
AREA = 0.000300 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

AHYMO.OUT

K = 0.147235HR TP = 0.170000HR K/TP RATIO = 0.866087 SHAPE CONSTANT, N = 4.103405
UNIT PEAK = 0.56722 CFS UNIT VOLUME = 0.9764 B = 362.01 P60 = 1.6900
AREA = 0.000266 SQ MI IA = 0.40745 INCHES INF = 0.99085 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

```
PRINT HYD            ID=2  CODE=3
```

PARTIAL HYDROGRAPH 102.00

FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS
0.0	0.000	0.0	4.950	0.0	9.900	0.0	14.850
	19.800	0.0					
0.0	0.150	0.0	5.100	0.0	10.050	0.0	15.000
	19.950	0.0					
0.0	0.300	0.0	5.250	0.0	10.200	0.0	15.150
	20.100	0.0					
0.0	0.450	0.0	5.400	0.0	10.350	0.0	15.300
	20.250	0.0					
0.0	0.600	0.0	5.550	0.0	10.500	0.0	15.450
	20.400	0.0					
0.0	0.750	0.0	5.700	0.0	10.650	0.0	15.600
	20.550	0.0					
0.0	0.900	0.0	5.850	0.0	10.800	0.0	15.750
	20.700	0.0					
0.0	1.050	0.1	6.000	0.0	10.950	0.0	15.900
	20.850	0.0					
0.0	1.200	0.1	6.150	0.0	11.100	0.0	16.050
	21.000	0.0					
0.0	1.350	0.3	6.300	0.0	11.250	0.0	16.200
	21.150	0.0					
0.0	1.500	1.0	6.450	0.0	11.400	0.0	16.350
	21.300	0.0					
0.0	1.650	0.9	6.600	0.0	11.550	0.0	16.500
	21.450	0.0					
0.0	1.800	0.4	6.750	0.0	11.700	0.0	16.650
	21.600	0.0					
0.0	1.950	0.2	6.900	0.0	11.850	0.0	16.800
	21.750	0.0					
0.0	2.100	0.1	7.050	0.0	12.000	0.0	16.950
	21.900	0.0					
0.0	2.250	0.1	7.200	0.0	12.150	0.0	17.100
	22.050	0.0					
0.0	2.400	0.1	7.350	0.0	12.300	0.0	17.250
	22.200	0.0					
0.0	2.550	0.2	7.500	0.0	12.450	0.0	17.400
	22.350	0.0					
0.0	2.700	0.2	7.650	0.0	12.600	0.0	17.550
	22.500	0.0					
0.0	2.850	0.2	7.800	0.0	12.750	0.0	17.700
	22.650	0.0					
0.0	3.000	0.1	7.950	0.0	12.900	0.0	17.850
	22.800	0.0					
0.0	3.150	0.1	8.100	0.0	13.050	0.0	18.000
	22.950	0.0					
0.0	3.300	0.1	8.250	0.0	13.200	0.0	18.150
	23.100	0.0					
0.0	3.450	0.1	8.400	0.0	13.350	0.0	18.300
	23.250	0.0					
0.0	3.600	0.0	8.550	0.0	13.500	0.0	18.450
	23.400	0.0					
0.0	3.750	0.0	8.700	0.0	13.650	0.0	18.600
	23.550	0.0					
0.0	3.900	0.0	8.850	0.0	13.800	0.0	18.750
	23.700	0.0					
0.0	4.050	0.0	9.000	0.0	13.950	0.0	18.900
	23.850	0.0					
0.0	4.200	0.0	9.150	0.0	14.100	0.0	19.050
	24.000	0.0					
0.0	4.350	0.0	9.300	0.0	14.250	0.0	19.200

AHYMO.OUT

0.0	24.150	0.0					
	4.500	0.0	9.450	0.0	14.400	0.0	19.350
0.0	4.650	0.0	9.600	0.0	14.550	0.0	19.500
0.0	4.800	0.0	9.750	0.0	14.700	0.0	19.650

RUNOFF VOLUME = 1.58963 INCHES = 0.0480 ACRE-FEET
PEAK DISCHARGE RATE = 1.11 CFS AT 1.550 HOURS BASIN AREA = 0.0006 SQ. MI.

```
"Basin NOT TO POND
COMPUTE NM HYD       ID=3  HYD NO=103  DA= .0000407484 SQ MI
                     PER A=00 PER B=25 PER C=25  PER D=50
                     TP=-.170  MASSRAIN=-1
```

K = 0.092650HR TP = 0.170000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.63073E-01CFS UNIT VOLUME = 0.8988 B = 526.28 P60 = 1.6900
AREA = 0.000020 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.151760HR TP = 0.170000HR K/TP RATIO = 0.892706 SHAPE CONSTANT, N = 3.971978
UNIT PEAK = 0.42343E-01CFS UNIT VOLUME = 0.8781 B = 353.30 P60 = 1.6900
AREA = 0.000020 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

```
PRINT HYD            ID=3  CODE=3
```

PARTIAL HYDROGRAPH 103.00

FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS
0.0	0.000	0.0	0.600	0.0	1.200	0.0	1.800
	2.400	0.0					
0.0	0.150	0.0	0.750	0.0	1.350	0.0	1.950
	2.550	0.0					
0.0	0.300	0.0	0.900	0.0	1.500	0.1	2.100
	0.450	0.0	1.050	0.0	1.650	0.1	2.250

RUNOFF VOLUME = 1.53524 INCHES = 0.0033 ACRE-FEET
PEAK DISCHARGE RATE = 0.09 CFS AT 1.550 HOURS BASIN AREA = 0.0000 SQ. MI.

```
* ROUTE THE BASIN TO POND FLOW THROUGH THE PROPOSED RESERVOIR
ROUTE RESERVOIR      ID=4   HYD NO=104   INFLOW=2   CODE=3
                     OUTFLOW(CFS)    STORAGE(AC-FT)    ELEV(FT)
                          0.00             0.006          51.25
                          0.26             0.016          52.50
                          0.37             0.037          53.75

  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
```


AHYMO.OUT

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	51.25	0.006	0.00
0.15	0.00	51.25	0.006	0.00
0.30	0.00	51.25	0.006	0.00
0.45	0.00	51.25	0.006	0.00
0.60	0.00	51.25	0.006	0.00
0.75	0.00	51.25	0.006	0.00
0.90	0.03	51.28	0.006	0.01
1.05	0.06	51.33	0.007	0.02
1.20	0.11	51.41	0.007	0.03
1.35	0.27	51.59	0.009	0.07
1.50	1.01	52.34	0.015	0.23
1.65	0.86	52.98	0.024	0.30
1.80	0.41	53.20	0.028	0.32
1.95	0.22	53.19	0.028	0.32
2.10	0.14	53.08	0.026	0.31
2.25	0.09	52.94	0.023	0.30
2.40	0.06	52.78	0.021	0.28
2.55	0.04	52.62	0.018	0.27
2.70	0.02	52.38	0.015	0.24
2.85	0.01	52.09	0.013	0.17
3.00	0.01	51.87	0.011	0.13
3.15	0.01	51.71	0.010	0.10
3.30	0.01	51.59	0.009	0.07
3.45	0.01	51.50	0.008	0.05
3.60	0.01	51.44	0.008	0.04
3.75	0.01	51.40	0.007	0.03
3.90	0.01	51.36	0.007	0.02
4.05	0.01	51.34	0.007	0.02
4.20	0.01	51.32	0.007	0.01
4.35	0.01	51.31	0.006	0.01
4.50	0.01	51.30	0.006	0.01
4.65	0.01	51.29	0.006	0.01
4.80	0.01	51.29	0.006	0.01
4.95	0.01	51.29	0.006	0.01
5.10	0.01	51.28	0.006	0.01
5.25	0.01	51.28	0.006	0.01
5.40	0.01	51.28	0.006	0.01
5.55	0.01	51.28	0.006	0.01
5.70	0.01	51.28	0.006	0.01
5.85	0.01	51.28	0.006	0.01
6.00	0.01	51.28	0.006	0.01
6.15	0.01	51.28	0.006	0.01
6.30	0.00	51.28	0.006	0.01
6.45	0.00	51.28	0.006	0.01
6.60	0.00	51.27	0.006	0.00

PEAK DISCHARGE = 0.323 CFS - PEAK OCCURS AT HOUR 1.85
MAXIMUM WATER SURFACE ELEVATION = 53.213
MAXIMUM STORAGE = 0.0280 AC-FT INCREMENTAL TIME= 0.050000HRS

```
* ADD OUTFALL OF POND A TO BASIN NOT TO POND FOR TOTAL PROPOSED FLOW
ADD HYD              ID=5   HYD NO=105  ID I=3  ID II=4

PRINT HYD            ID=5 CODE=3
```

PARTIAL HYDROGRAPH 105.00

FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS
0.0	0.000	0.0	4.950	0.0	9.900	0.0	14.850
	19.800	0.0					
0.0	0.150	0.0	5.100	0.0	10.050	0.0	15.000
	19.950	0.0					
0.0	0.300	0.0	5.250	0.0	10.200	0.0	15.150
	20.100	0.0					
0.0	0.450	0.0	5.400	0.0	10.350	0.0	15.300
	20.250	0.0					
0.0	0.600	0.0	5.550	0.0	10.500	0.0	15.450
	20.400	0.0					
0.0	0.750	0.0	5.700	0.0	10.650	0.0	15.600
	20.550	0.0					
0.0	0.900	0.0	5.850	0.0	10.800	0.0	15.750
	20.700	0.0					
0.0	1.050	0.1	6.000	0.0	10.950	0.0	15.900
	20.850	0.0					
0.0	1.200	0.1	6.150	0.0	11.100	0.0	16.050
	21.000	0.0					
0.0	1.350	0.3	6.300	0.0	11.250	0.0	16.200
	21.150	0.0					
0.0	1.500	1.0	6.450	0.0	11.400	0.0	16.350
	21.300	0.0					
0.0	1.650	0.9	6.600	0.0	11.550	0.0	16.500
	21.450	0.0					
0.0	1.800	0.4	6.750	0.0	11.700	0.0	16.650
	21.600	0.0					
0.0	1.950	0.2	6.900	0.0	11.850	0.0	16.800
	21.750	0.0					
0.0	2.100	0.1	7.050	0.0	12.000	0.0	16.950
	21.900	0.0					
0.0	2.250	0.1	7.200	0.0	12.150	0.0	17.100
	22.050	0.0					
0.0	2.400	0.1	7.350	0.0	12.300	0.0	17.250
	22.200	0.0					
0.0	2.550	0.2	7.500	0.0	12.450	0.0	17.400
	22.350	0.0					
0.0	2.700	0.2	7.650	0.0	12.600	0.0	17.550
	22.500	0.0					
0.0	2.850	0.2	7.800	0.0	12.750	0.0	17.700
	22.650	0.0					
0.0	3.000	0.1	7.950	0.0	12.900	0.0	17.850
	22.800	0.0					
0.0	3.150	0.1	8.100	0.0	13.050	0.0	18.000
	22.950	0.0					
0.0	3.300	0.1	8.250	0.0	13.200	0.0	18.150
	23.100	0.0					
0.0	3.450	0.1	8.400	0.0	13.350	0.0	18.300
	23.250	0.0					
0.0	3.600	0.0	8.550	0.0	13.500	0.0	18.450
	23.400	0.0					
0.0	3.750	0.0	8.700	0.0	13.650	0.0	18.600
	23.550	0.0					
0.0	3.900	0.0	8.850	0.0	13.800	0.0	18.750
	23.700	0.0					
0.0	4.050	0.0	9.000	0.0	13.950	0.0	18.900
	23.850	0.0					
0.0	4.200	0.0	9.150	0.0	14.100	0.0	19.050
	24.000	0.0					
0.0	4.350	0.0	9.300	0.0	14.250	0.0	19.200
	24.150	0.0					
0.0	4.500	0.0	9.450	0.0	14.400	0.0	19.350
	24.300	0.0					
0.0	4.650	0.0	9.600	0.0	14.550	0.0	19.500
	24.450	0.0					
0.0	4.800	0.0	9.750	0.0	14.700	0.0	19.650
	24.600	0.0					

RUNOFF VOLUME = 1.56960 INCHES = 0.0509 ACRE-FEET
PEAK DISCHARGE RATE = 0.37 CFS AT 1.650 HOURS BASIN AREA = 0.0006 SQ. MI.

```
FINISH

     NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 13:06:45
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City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 07/12/24
BY: Renée C. Brissette
HydroTrans # G11D014D1

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

APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE TWO (2) YEARS AFTER THE APPROAL DATE BY THE CITY IF NO BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.

ENGINEER'S SEAL

DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER

7/5/24

DAVID SOULE
P.E. #14522

3815 MOURNING DOVE

GRADING AND DRAINAGE PLAN CALCULATIONS

Rio Grande Engineering
PO BOX 93924
ALBUQUERQUE, NM 87199
(505) 321-9099

DRAWN BY DEM
DATE 6-27-23
3815 MOURNING DOVE .DWG
SHEET # C2
JOB #