

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

October 1, 2024

Dave Thompson, P.E.  
Thompson Engineering Consultants  
P O Box 65760  
Albuquerque, NM 87193

**RE: Roses SW Papers**  
**TR D-6 PLAT OF TRACTS D-1 THRU D-7 MESA DEL SOL**  
**INNOVATIONPARK II**  
**Revised Grading and Drainage Plan**  
**Engineer's Stamp Date: 9/16/2024**  
**Hydrology File: Q16DA5000C**

Dear Mr. Thompson:

Based upon the information provided in your submittal received 9/19/2024, the Grading Plan is approved for 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.

PO Box 1293

**PRIOR TO CERTIFICATE OF OCCUPANCY:**

Albuquerque

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please provide the executed paper Drainage Covenant (latest revision) printed on one-side only with Exhibit A and a check for **\$25.00** made out to "**Bernalillo County**" for the stormwater quality pond per Article 6-15(C) of the DPM to Hydrology for review.

NM 87103

www.cabq.gov

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, [jhughes@cabq.gov](mailto:jhughes@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3695 or [tchen@cabq.gov](mailto:tchen@cabq.gov).

Sincerely,

Tiequan Chen, P.E.  
Principal Engineer, Hydrology  
Planning Department, Development Review Services



# City of Albuquerque

Planning Department  
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title: \_\_\_\_\_ Hydrology File # \_\_\_\_\_

Legal Description: \_\_\_\_\_

City Address, UPC, OR Parcel: \_\_\_\_\_

Applicant/Agent: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Email: \_\_\_\_\_

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: \_\_\_\_\_



City of Albuquerque  
Planning Department  
Development Review Services  
**HYDROLOGY SECTION**  
**APPROVED**  
DATE: 10/1/2024  
BY: *Lepus Cha*  
HydroTrans # Q16DA5000C  
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE  
CONSIDERED TO PREVENT VIOLATIONS OF ANY CITY  
ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT  
THE CITY OF ALBUQUERQUE FROM REQUESTING  
CORRECTION, OR LAROR OF DIMENSION 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.

GENERAL NOTES

- A. ALL DIMENSIONS ARE FACE OF CURB UNLESS OTHERWISE NOTED.  
B. FIELD VERIFY ALL DIMENSIONS.  
C. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, REQUEST CLARIFICATION FROM  
ARCHITECT BEFORE PROCEEDING.



ARCHITECT/ENGINEER



ROSES SOUTHWEST PAPERS

CRICK CROSSING  
ALBUQUERQUE, NEW MEXICO

BUILDING  
PERMIT SET

REVISION	DATE
1	VE REVISIONS 9/16/24

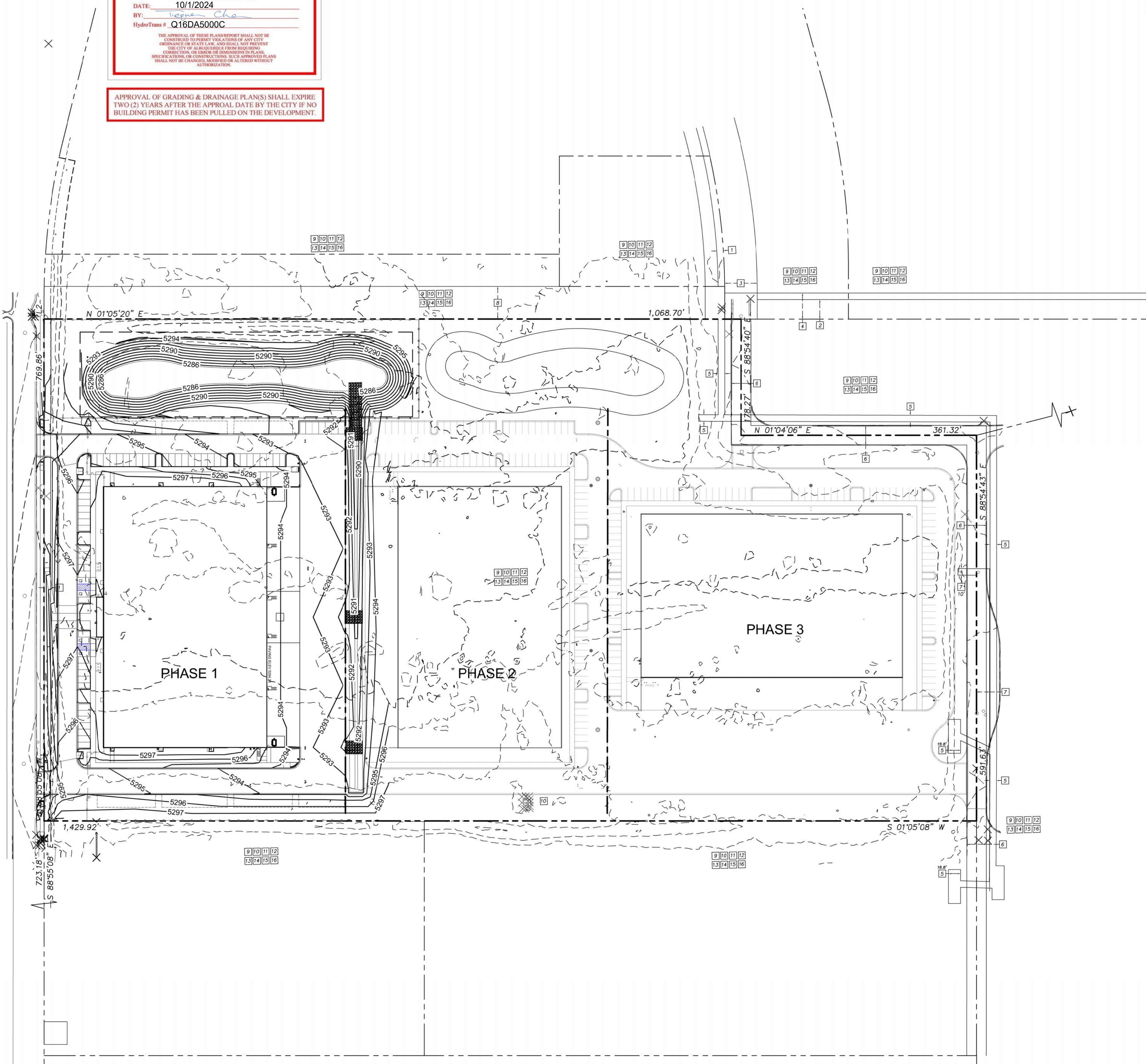
DATE 10/16/23

PROJECT NO

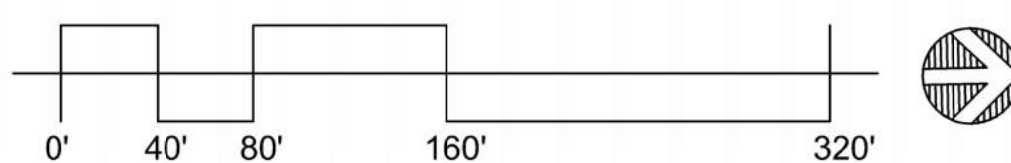
SITE GRADING  
PLAN -  
OVERALL

SHEET NO.

C201



**A1** SITE GRADING PLAN - OVERALL  
SCALE: 1" = 80'-0"



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P.O. BOX 65760 ALBUQUERQUE, NM 87193 PHONE: (505) 271-2199 FAX: (505) 830-9248



BUILDING  
PERMIT SET

REVISION	DATE
1	VE REVISIONS 9/16/24

DATE 10/16/23

PROJECT NO

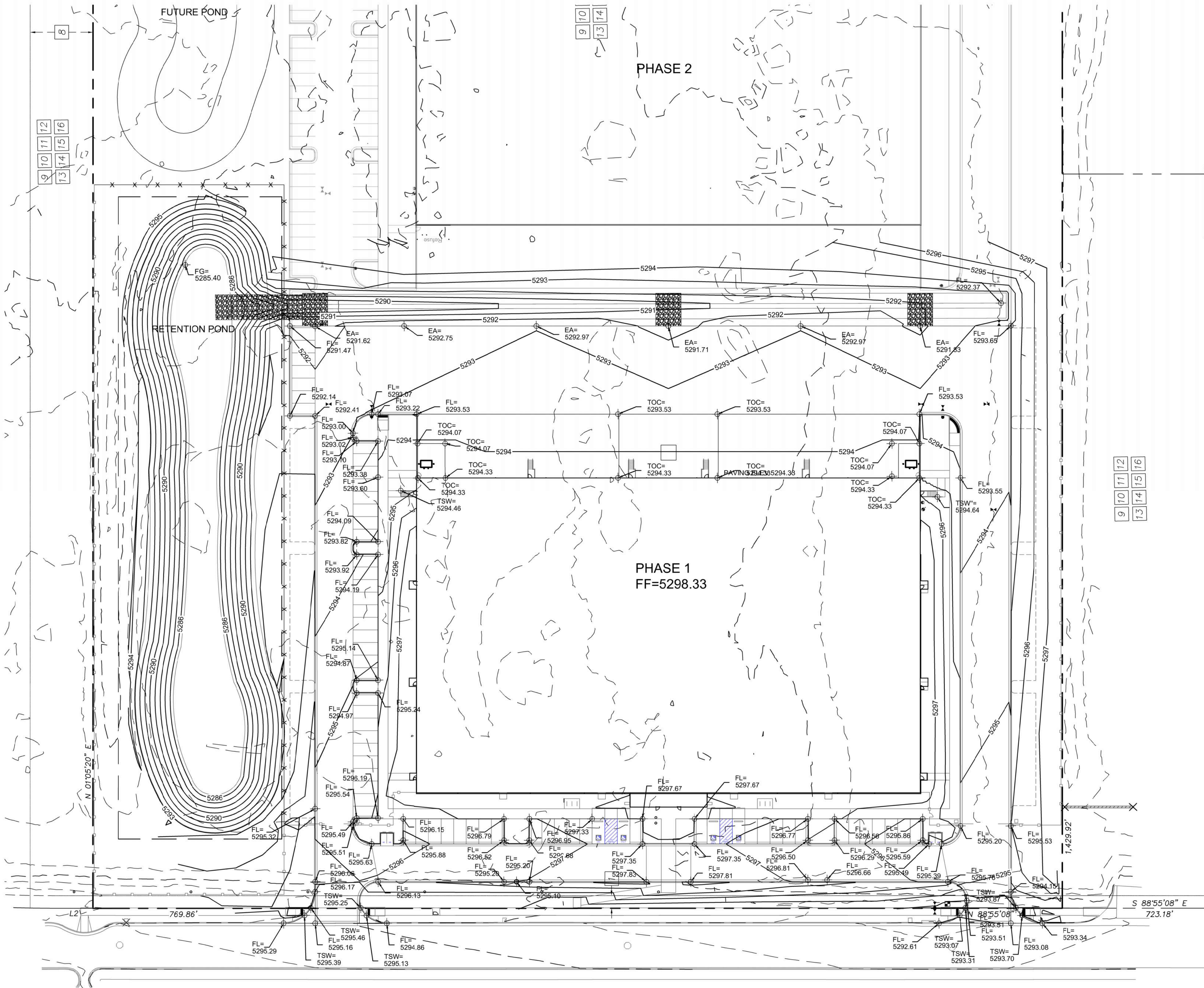
SITE GRADING  
PLAN -  
PHASE 1  
ENLARGED

SHEET NO.

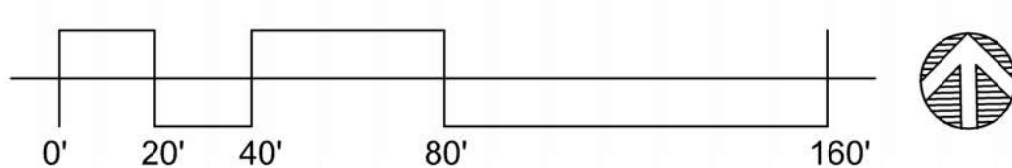
C202

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A1 SITE GRADING PLAN - PHASE 1 ENLARGED  
SCALE: 1" = 40'-0"





## GENERAL NOTES

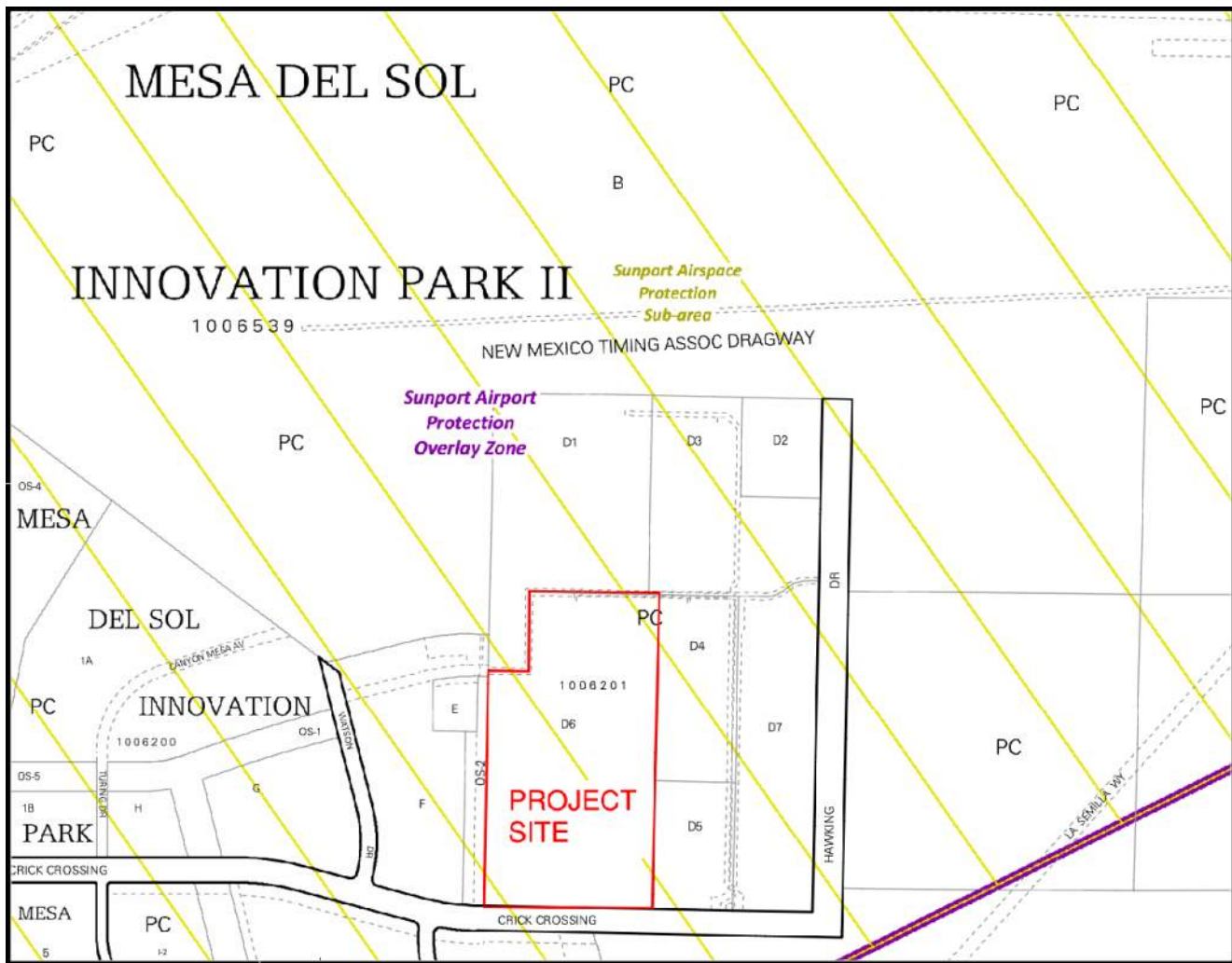
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- SEE PAGE 1 OF THE PLAT FOR EXCEPTIONS 9-31.

## Record and Measured Legal Description

TRACT LETTERED D-SIX (D-6), PLAT OF MESA DEL SOL INNOVATION PARK II, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT THEREOF RECORDED IN THE REAL PROPERTY RECORDS OF BERNALILLO COUNTY, NEW MEXICO ON DECEMBER 29, 2017, IN PLAT BOOK 2017C, PAGE 159, AS DOCUMENT NO. 2017124120.

## Flood Notes

BASED UPON SCALING, THIS PROPERTY LIES WITHIN FLOOD ZONE "X" WHICH IS DEFINED AS AN AREA OF MINIMAL FLOOD HAZARD AS DETERMINED BY F.E.M.A. AND SHOWN ON THE FLOOD INSURANCE RATE MAP NO. 35001C0363G, DATED SEPTEMBER 26, 2008.



**D1** ZONE ATLAS PAGE Q-16-Z  
NOT TO SCALE

ACS Monument "4-Q16"  
NAD 1983 CENTRAL ZONE  
X=1531376.793 \*  
Y=1457837.32 \*  
Z=5298.643 \* (NAVD 1988)  
G-C=0.999664091  
Mapping Angle=-0°12'32.02"  
\* U.S. SURVEY FOOT

## Benchmark -NAVD 88

ACS MONUMENT "4-Q16" HAVING AN ELEVATION OF 5298.64.

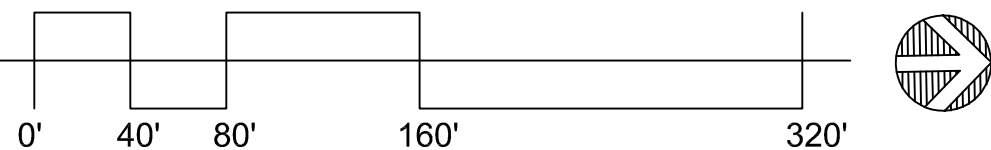
## Easement Notes

- EXISTING 10' P.U.E. (8/7/2008, 2008C-175) AND AS SHOWN ON PLAT (12/29/2017, 2017C-159)
- EXISTING 30' PUBLIC PEDESTRIAN ACCESS EASEMENT (8/7/2008, 2008C-175) AND AS SHOWN ON PLAT AND AS SHOWN ON PLAT (12/29/2017, 2017C-159)
- EXISTING 50' PUBLIC ROADWAY EASEMENT (8/7/2008, 2008C-175) AND AS SHOWN ON PLAT (12/29/2017, 2017C-159)
- EXISTING 40' PNM TRANSMISSION LINE EASEMENT (8/7/2008, 2008C-175) AND AS SHOWN ON PLAT (12/29/2017, 2017C-159)
- EXISTING 10' PNM EASEMENT (10/16/2008, DOC. NO. 2008113343) AND AS SHOWN ON PLAT (12/29/2017, 2017C-159)
- EXISTING 30' PERMANENT PRIVATE ACCESS EASEMENT (12/29/2017, 2017C-159) AND AS SHOWN ON PLAT (12/29/2017, 2017C-159) SEE REPAIR AND MAINTENANCE AGREEMENT (2/21/2020, DOC. NO. 2020016464)
- EXISTING 20' PRIVATE UTILITY EASEMENT (12/29/2017, 2017C-159) AND AS SHOWN ON PLAT (12/29/2017, 2017C-159)
- EXISTING 50' PNM TRANSMISSION LINE EASEMENT (8/7/2008, 2008C-175) AND AS SHOWN ON PLAT (12/29/2017, 2017C-159)
- EXISTING NON-EXCLUSIVE ACCESS EASEMENT OVER COMMON AREAS (4/16/2008, AS DOC. NO. 2008043398) AND RESTATED WITHIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR MESA DEL SOL (12/28/2010, DOC. NO. 2010132684)
- EXISTING PERPETUAL NON-EXCLUSIVE UTILITY ACCESS EASEMENT (4/16/2008, AS DOC. NO. 2008043398) AND RESTATED WITHIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR MESA DEL SOL (12/28/2010, DOC. NO. 2010132684)
- EXISTING EASEMENT FOR MAINTENANCE, EMERGENCY AND ENFORCEMENT OF UTILITIES AND STRUCTURES (4/16/2008, AS DOC. NO. 2008043398) AND RESTATED WITHIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR MESA DEL SOL (12/28/2010, DOC. NO. 2010132684)
- EXISTING TEMPORARY CONSTRUCTION EASEMENTS OVER COMMON AREAS FOR INGRESS/EGRESS, SLOPE AND INSTALLATION OF DRAINAGE, WATER, STORM DRAINAGE, SANITARY SEWER AND OTHER UTILITIES AS WELL AS EQUIPMENT, MATERIALS AND SUPPLY STORAGE (4/16/2008, AS DOC. NO. 2008043398) AND RESTATED WITHIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR MESA DEL SOL (12/28/2010, DOC. NO. 2010132684)
- EXISTING RECIPROCAL, APPURTENANT EASEMENTS OF ENCROACHMENTS, AND MAINTENANCE USE OF ALL PERMITTED ENCROACHMENTS (4/16/2008, AS DOC. NO. 2008043398) AND RESTATED WITHIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR MESA DEL SOL (12/28/2010, DOC. NO. 2010132684)
- EXISTING RECIPROCAL, APPURTENANT EASEMENTS OVER, UNDER, ACROSS AND BETWEEN PARCELS AND COMMON AREAS FOR THE INSTALLATION AND MAINTENANCE OF FOOTINGS, FOUNDATION SUPPORT SYSTEMS, SHEETING ETC. (4/16/2008, AS DOC. NO. 2008043398) AND RESTATED WITHIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR MESA DEL SOL (12/28/2010, DOC. NO. 2010132684)
- EXISTING RECIPROCAL APPURTENANT EASEMENT OVER AND BETWEEN PARCELS AND COMMON AREAS FOR THE USE OF AIR SPACE (4/16/2008, AS DOC. NO. 2008043398) AND RESTATED WITHIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR MESA DEL SOL (12/28/2010, DOC. NO. 2010132684)
- EXISTING SIGHTLINE EASEMENT FOR THE PURPOSE OF PRESERVING OR PROTECTING VIEWS FROM OR TO PARTICULAR PARCELS (4/16/2008, AS DOC. NO. 2008043398) AND RESTATED WITHIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR MESA DEL SOL (12/28/2010, DOC. NO. 2010132684)

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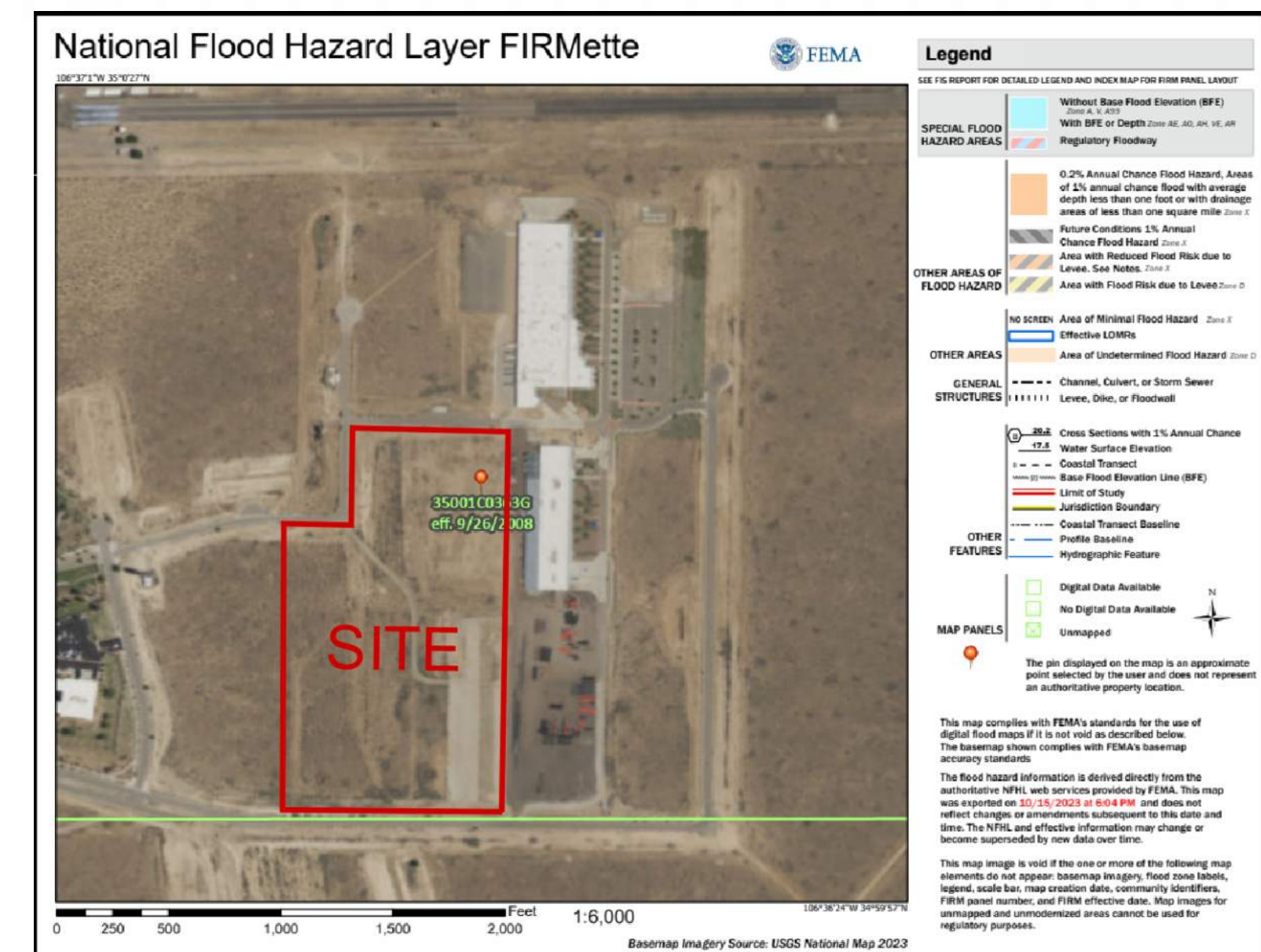
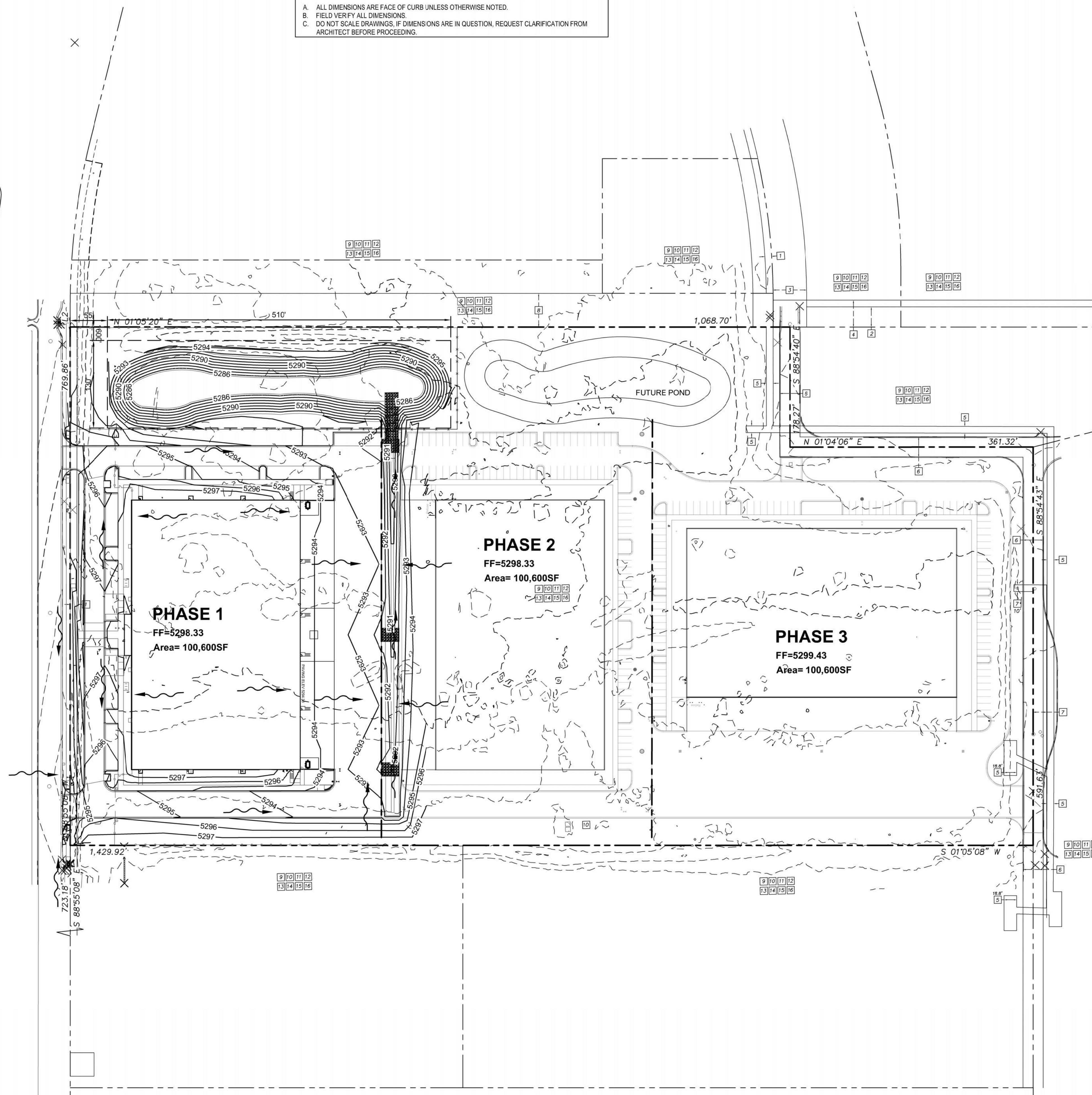
## A1 DRAINAGE PLAN - EXISTING CONDITIONS

SCALE: 1" = 80'-0"



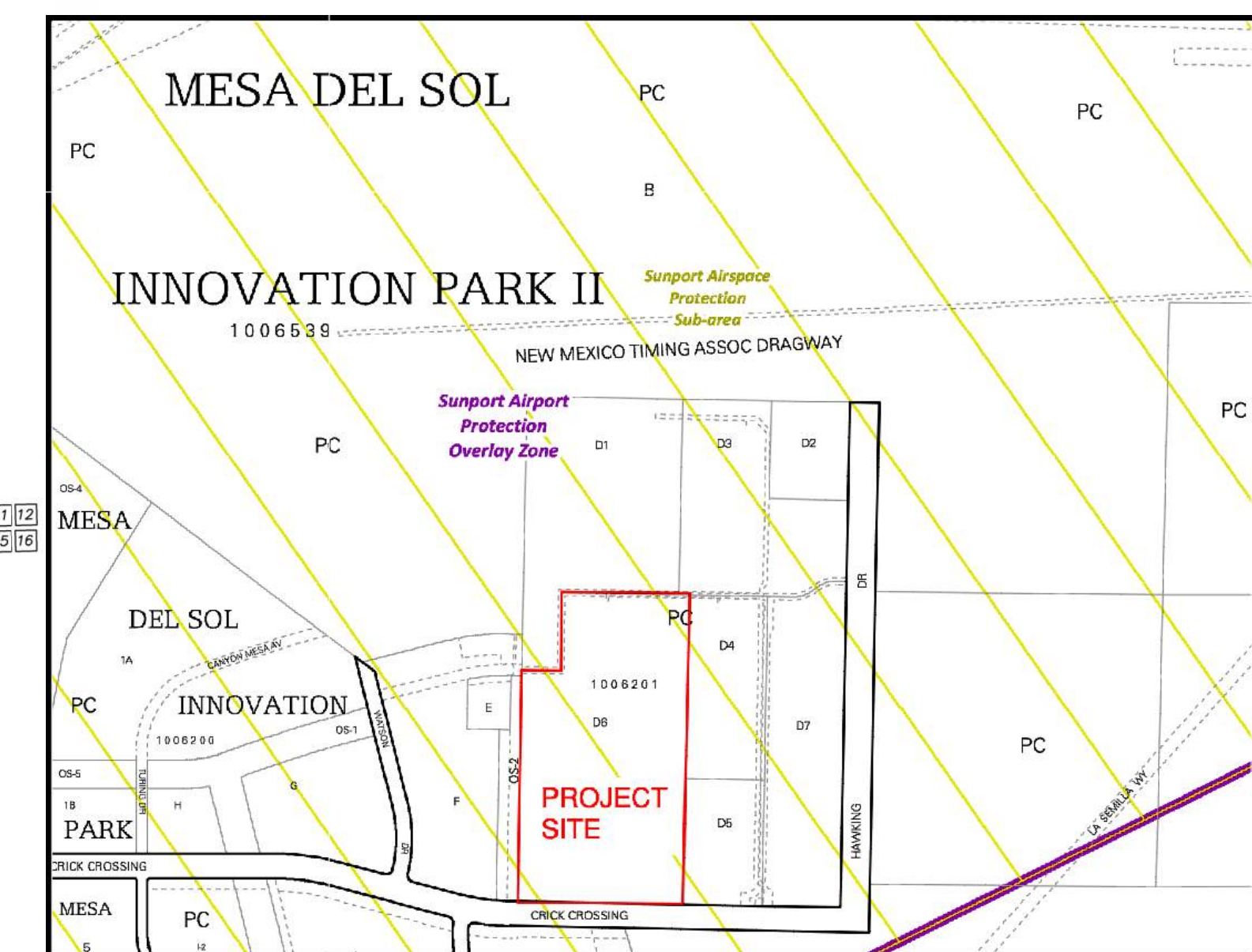


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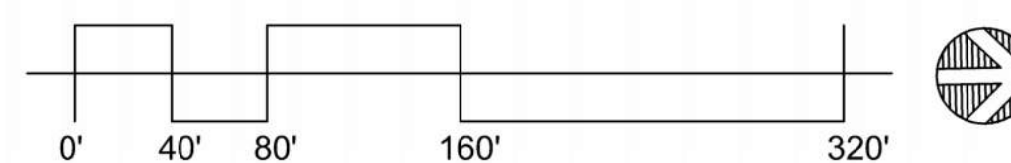


**D4** FEMA FIRMETTE  
NOT TO SCALE

BASED UPON SCALING, THIS PROPERTY LIES WITHIN FLOOD ZONE "X" WHICH IS DEFINED AS AN AREA OF MINIMAL FLOOD HAZARD AS DETERMINED BY F.E.M.A. AND SHOWN ON THE FLOOD INSURANCE RATE MAP NO. 35001C0363G, DATED SEPTEMBER 26, 2008.



**D1** ZONE ATLAS PAGE Q-16-Z  
NOT TO SCALE



ARCHITECT/ ENGINEER



**ROSES SOUTHWEST PAPERS**

CRICK CROSSING  
ALBUQUERQUE, NEW MEXICO

BUILDING  
PERMIT SET

REVISION		DATE
1	VE REVISIONS	9/16/24

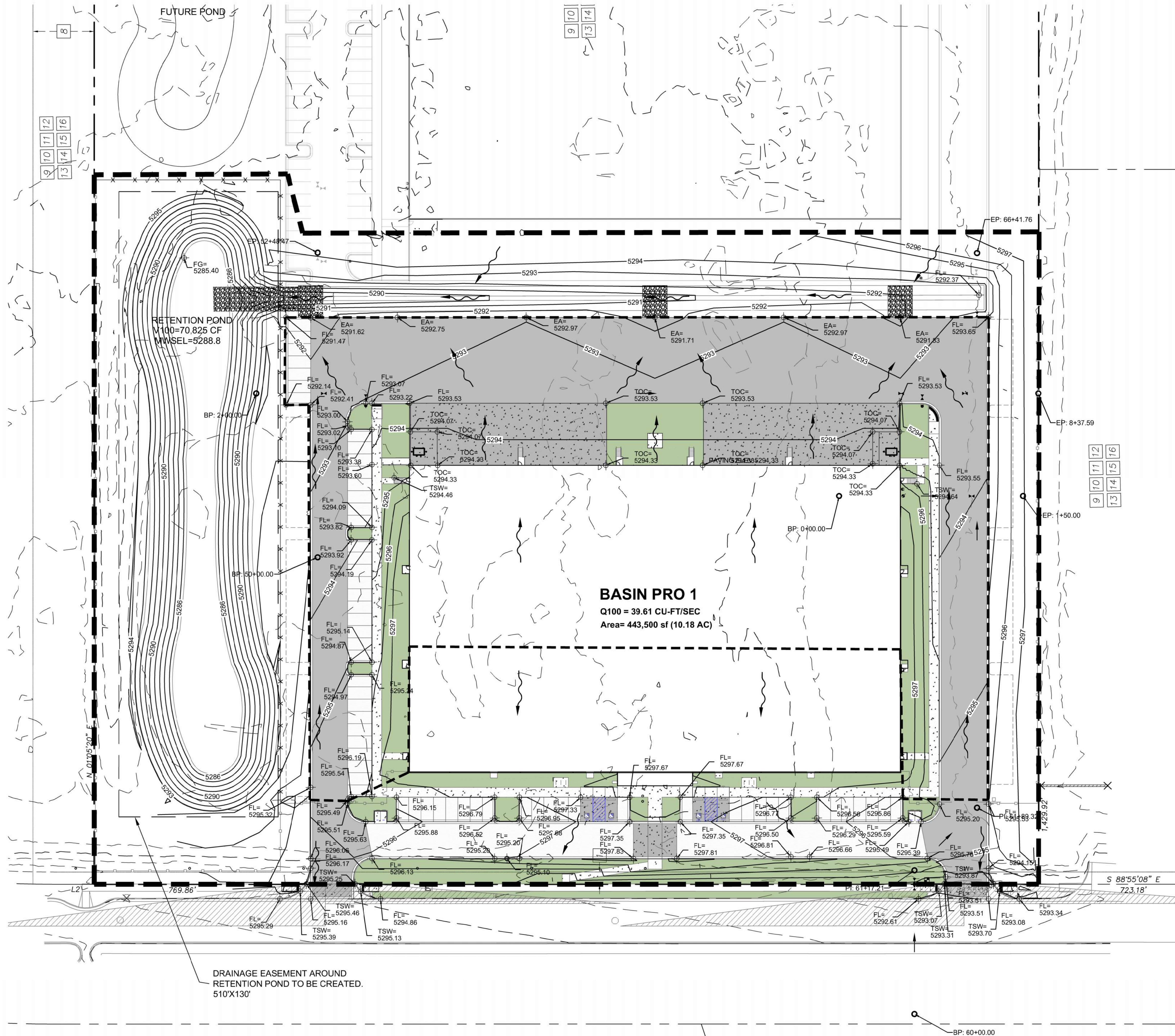
DATE 10/16/23

DRAINAGE  
PLAN -  
OVERALL

SHEET NO.

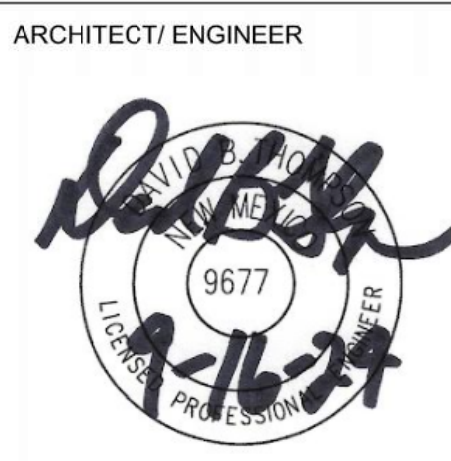
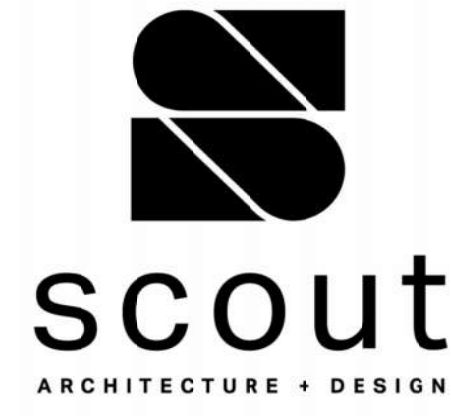
CD-1





**GENERAL NOTES**

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**ROSES SOUTHWEST PAPERS**  
CRICK CROSSING  
ALBUQUERQUE, NEW MEXICO

MATERIAL LEGEND	
	HEAVY DUTY ASPHALT PER DETAIL D1/C-501
	PARKING LOT ASPHALT PER DETAIL D1/C-501
	HEAVY DUTY CONCRETE PAVEMENT PER DETAIL D4/C-501
	4" THICK CONCRETE SIDEWALK PER DETAIL B4/C-501
	RIPRAP EROSION PROTECTION, SEE GRADING AND DRAINAGE PLANS (SHEET C-201 AND C-202)
	EARTHEN POND, SEE GRADING AND DRAINAGE PLANS (SHEET C-201 AND C-202)
	LANDSCAPING AREA.

**BUILDING  
PERMIT SET**

REVISION	DATE
1	VE REVISIONS 9/16/24

DATE 10/16/23  
PROJECT NO.

**DRAINAGE  
PLAN -  
PHASE 1  
ENLARGED**

SHEET NO.  
**CD-2**

Thompson  
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A1

DRAINAGE PLAN - PHASE 1 ENLARGED

SCALE: 1" = 40'-0"

0'

20'

40'

80'

160'

6/1/2023 10:07:53 PM



I. PURPOSE AND SCOPE

THE PURPOSE OF THIS DRAINAGE PLAN IS TO PRESENT THE EXISTING AND PROPOSED DRAINAGE CONDITIONS FOR THE PROPOSED ROSES SOUTHWEST PAPERS PROJECT. THE NEW BUILDING IS LOCATED ON CRICK CROSSING SW, IN MESA DEL SOL, IN SOUTHWEST ALBUQUERQUE. THE ZONE ATLAS PAGE FOR THE SITE IS Q-16-Z.

II. SITE DESCRIPTION AND HISTORY

THE PROJECT SITE IS LOCATED ON THE NORTH SIDE OF CRICK AVENUE SW, WEST OF HAWKING DRIVE SW, IN MESA DEL SOL. THE SITE IS CURRENTLY VACANT. PROPERTIES TO THE EAST AND NORTH HAVE BEEN DEVELOPED AND CONTAIN STORMWATER MANAGEMENT PONDS TO CONTROL RUNOFF. THE MESA DEL SOL COMMUNITY MASTER PLAN REQUIRES THAT ALL PARCELS CONTAIN THE 100 YEAR STORM RUNOFF EVENT IN RETENTION PONDS.

III. COMPUTATIONAL PROCEDURES

HYDROLOGIC ANALYSIS WAS PERFORMED UTILIZING THE DESIGN CRITERIA BASED ON CHAPTER 6, HYDROLOGY, OF THE DEVELOPMENT PROCESS MANUAL RELEASED 2020. TABLES WITHIN CHAPTER 6, WERE USED TO AID IN THE STUDY OF THE SITE HYDROLOGY.

IV. PRECIPITATION

THE STORM EVENT USED FOR THE FOLLOWING CALCULATIONS IS THE 100YR-24HR STORM. THE PROJECT SITE IS LOCATED IN ZONE 3 (EAST OF RIO GRANDE, SOUTH OF I40 AND WITHIN TOWNSHIP 4E).

V. EXISTING DRAINAGE CONDITIONS

THE SITE IS CURRENTLY UNDEVELOPED. THE SITE TO THE EAST IS FULLY DEVELOPED. THE SITE IS BOUNDED ON THE NORTH BY A PRIVATE DRIVE THAT IS UTILIZED BY KAIROS POWER FOR ACCESS. THE SITE IS BOUNDED ON THE SOUTH BY CRICK CROSSING THAT HAS THE NORTH HALF STREET SECTION DEVELOPED. NO RUNOFF FROM ADJACENT SITES IS ANTICIPATED.

THE SITE GENERALLY DRAINS FROM EAST TO WEST BUT HAS VERY LITTLE SLOPE. A MAJORITY OF EXCESS RUNOFF WOULD CURRENTLY BE CAUGHT IN LOCAL DEPRESSION AND ALLOWED TO SOAK INTO THE GROUND. INFILTRATION RATES WERE MEASURED BY THE GEOTECHNICAL ENGINEER AT 6" PER HOUR.

CRICK CROSSING CONTAINS PUBLIC STORMWATER COLLECTION AND CONVEYANCE PIPING BUT DISCHARGE INTO THE SYSTEM IF LIMITED TO THE ROADWAY AND MINOR DISCHARGES AT DRIVEWAYS. AS MENTIONED IN THE SITE DESCRIPTION AND HISTORY PORTION, THE MASTER PLAN FOR MESA DEL SOL REQUIRES THAT ALL PARCELS PROVIDE FULL RETENTION OF EXCESS FOR OFF FOR THE 100 YEAR - 24 HOUR STORM RUNOFF EVENT (PROVIDED INFILTRATION WILL DRAIN THE POND PRIOR TO THE NEXT STORM EVENT).

VI. PROPOSED DRAINAGE CONDITIONS

THE NEW BUILDING WILL BE 100,600 SF WAREHOUSE/MANUFACTURING BUILDING. THE FRONT AND SIDES WILL BE GENERALLY BE AT GRADE TO ALLOW FOR EASY ACCESS FOR PEDESTRIANS, AND DUE TO NFPA REQUIRING ACCESS DOORS AT 100' INTERVALS. THE NORTH SIDE OF THE BUILDING WILL BE A LOADING DOCK, SO THERE WILL BE A 4' DROP FROM FINISHED FLOOR TO DOCK GRADE.

THE SITE FOR PHASE 1, ALL DRAINS TO THE RETENTION POND ON THE WEST SIDE OF THE SITE. THE ROOF WILL DRAIN BOTH NORTH AND SOUTH. 60% OF THE ROOF WILL DRAIN TO THE DOCK SIDE. ALONG THE SOUTH SIDE OF THE SITE IN THE PARKING AREA, A CONCRETE VALLEY GUTTER WILL CONVEY RUNOFF TO THE ACCESS DRIVES THAT DRAIN NORTH. A WATER BLOCK HAS BEEN SET AT CLOSE AS POSSIBLE TO THE DRIVEWAYS TO CAPTURE STORM RUNOFF. A SMALL AREA AT EACH DRIVEWAY WILL SPILL OUT INTO CRICK CROSSING AND WILL BE COLLECTED IN THE SUMP CONDITION TYPE A CATCH BASIN NEAR THE EASTERN ENTRANCE DRIVE. THE INCREASE TO THE STREET RUNOFF IS LESS THAN 2,000 SF AND THEREFORE LESS THAN 0.1 CFS. THIS IS A NEGLIGIBLE INCREASE. AN 18" HDPE STORM PIPE WILL CONVEY THE STORM RUNOFF FROM THE FOUR CATCH BASINS TO THE RETENTION POND.

NORTHERN (60% OF ROOF) ROOF RUNOFF WILL BE COLLECTED IN INTERNAL ROOF DRAINS AND ROUTED INTERNALLY TO DISCHARGE THROUGH THE 4' TALL STEM WALL AT THE LOADING DOCK. FROM THERE THE RUNOFF WILL SHEET FLOW OVER TO AN EARTHEN CHANNEL THAT IS JUST BEYOND THE PHASE 1 PAVING LIMITS. IN THE SUBSEQUENT PHASE, AN UNDERGROUND CONVEYANCE SYSTEM WILL BE DESIGNED AND INSTALLED TO CONVEY STORM RUNOFF TO THE RETENTION POND TO THE WEST.

THE EARTHEN CHANNEL WILL HAVE A 3' WIDE BOTTOM AND 3:1 SIDE SLOPE AND DRAIN TO THE WEST WITH A 0.8% SLOPE. CAPACITY OF THE OVERALL CHANNEL IS 140CFS. DEPTH WILL BE APPROXIMATELY 1.2-FEET TO CONVEY THE 100-YEAR, 6-HOUR STORM EVENT RUNOFF OF 39.61CFS.

INFILTRATION WAS CONFIRMED BY THE GEOTECHNICAL ENGINEER AS 6" PER HOUR. THE EXCESS RUNOFF FROM THE 100 YEAR 6 HOUR EVENT IS 39.61 CFS. THE RUNOFF VOLUME AS REQUIRED BY THE MESA DEL SOL COMMUNITY MASTERPLAN IS 2.1 ACRE-FEET FOR THE 100 YEAR - 24 HOUR EVENT. THE PROPOSED POND IS 3.0' DEEP TO THE MWSEL (PLUS OVER 2 OF FREEBOARD). THE INFILTRATION OF 6" PER HOUR (4.16 CFS) WOULD REQUIRED OVER 11.2 HOURS TO SOAK IN COMPLETELY. THEREFORE THE POND HAS BEEN SIZED TO CONTAIN SINGLE 100 YEAR. THE EXCESS RUNOFF VOLUME ENTERING THE POND IS 2.1 ACRE FEET.

VII. CONCLUSIONS

THE SITE HAS BEEN DESIGNED TO COLLECT AND CONVEY THE 100-YEAR, 6-HOUR PEAK RUNOFF RATE OF 39.61 CFS. THE FULL RETENTION POND AS REQUIRED BY THE MESA DEL SOL COMMUNITY MASTER PLAN HAS BEEN SIZED TO FULLY CONTAIN SINGLE 100-YEAR EVENT SINCE THE INFILTRATION RATE IS 6" PER HOUR AND WILL BE FULLY ABSORBED PRIOR TO THE NEXT POTENTIAL MONSOON EVENT.

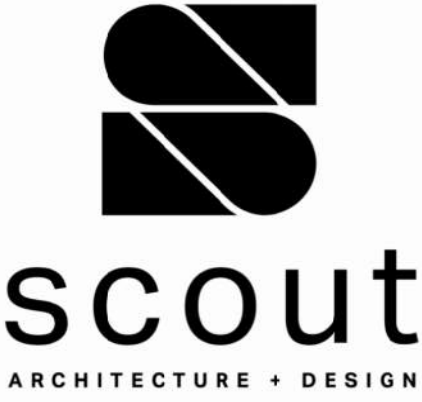
FUTURE PHASES WILL REQUIRE THE EXPANSION OF THE STORM POND. COMPUTATIONS HAVE BEEN INCLUDED FOR THE FULL BUILDOUT AS CURRENTLY PLANNED, AND THE FULL RETENTION POND CAN EASILY BE ACCOMMODATED.

Pond Routing and Volumes		Full Buildout	Phase 1		
Incoming Flow Rate	Qin	94.93	39.61	cfs	
Allowable Discharge Rate	Qout	3.5	4.19	cfs	
Hyrdology Zone		3	3	per Figure A-1	
Area Total	At	23.792	10.181	acres	
Area Type A	Aa	0	0	%	
Area Type B	Ab	25	30	%	
Area Type C	Ac	0	0	%	
Area Type D Impervious	Ad	75	70	%	
Excess runoff rates	A	0.67	0.67		
	B	0.86	0.86		
	C	1.09	1.09		
	D	2.58	2.58		
Weighted E (Exces Runoff)		2.15	2.06		
Time of Concentration		0.2	0.2	hours	
Time to Peak		0.211	0.215	hours	
=0.7*Tc + ((1.6-(Ad/At)/12)					
Time of Base		0.948	0.943	hours	
=2.107*E*At/Qp-(.25*Ad/At)					
Duration of Peak		0.188	0.175	hours	
Time for end of peak		0.398	0.390	hours	
Time when storage begins		0.008	0.023	hours	
Time incoming is less that discharge		0.928	0.884	hours	
Volume Required during storm	acre-inch	50.926	18.648	acre inch	
Volume Required during storm	cf	184,862	67,691	cubic feet	
Volume Stored in Pond during storm	cf	220,780	70,825	cubic feet	

TABLE 6.2.7 Precipitation Zones	
Zone	Location
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank, North of Interstate 40 and between San Mateo and the East boundary of Range 4 East, South of Interstate 40
4	East of Eubank, North of Interstate 40 and East of the East boundary of Range 4 East, South of Interstate 40
Not including the Cibola National Forest	

Infiltration Rates		
Per GeoMAT Report Perc Rate	6" per hour	inches per hour
	.5 ft / hour	ft/ hour
	0.0001389	ft/sec
Pond area	29,931	sf
Infiltration Flow Rate	4.16	cfs

Drainage Summary				
Project:	Roses Southwest Papers			
Project Numbe:	TEC Roses SW Papers			
Date:	09/16/23			
By:	MTD			
Site Location				
Precipitaion Zone	3 Per COA DPM Chapter 6			
Existing summary				
Basin Name	Ex Basin 1			
Area (sf)	1036392.4			
Area (acres)	23.79			
%A Land treatment	0			
%B Land treatment	80			
%C Land treatment	20			
%D Land treatment	0			
Soil Treatment (acres)				
Area "A"	0.00			
Area "B"	19.03			
Area "C"	4.76			
Area "D"	0.00			
Excess Runoff (acre-feet)				
100yr. 6hr.	1.7963	acre-ft.		
10yr. 6hr.	0.7455	acre-ft.		
2yr. 6hr.	0.1546	acre-ft.		
100yr. 24hr.	1.7963	acre-ft.		
Peak Discharge (cfs)				
100 yr.	62.48	cfs		
10yr.	28.41	cfs		
2yr.	6.23	cfs		
Proposed summary				
Basin Name	Overall Site	Phase 1	North SubBasin	
Area (sf)	1036392.4	443500	168977.5	
Area (acres)	23.792	10.181	3.879	
%A Land treatment				
%B Land treatment	25	30	10	
%C Land treatment				
%D Land treatment	75	70	90	
Soil Treatment (acres)				
Area "A"	0.00	0.00	0.00	
Area "B"	5.95	3.05	0.39	
Area "C"	0.00	0.00	0.00	
Area "D"	17.84	7.13	3.49	
Excess Runoff (acre-feet)				
100yr. 6hr.	4.2628	1.7512	0.7784	ac re-ft.
10yr. 6hr.	2.6072	1.0606	0.4881	ac re-ft.
2yr. 6hr.	1.5862	0.6363	0.3071	ac re-ft.
100yr. 24hr.	5.1342	2.0992	0.9489	ac re-ft.
100yr. 10day	6.7461	2.7430	1.2643	ac re-ft.
Peak Discharge (cfs)				
100 yr.	94.93	39.61	16.64	c fs
10yr.	56.51	23.29	10.23	c fs
2yr.	31.76	12.79	6.10	c fs
Water Quality Ponding Voulme (cf)	22023.3	8796.1	4308.9	cf
Wter Quality Acre Feet	0.5056	0.2019	0.0989	acre-ft



ARCHITECT/ ENGINEER



ROSES SOUTHWEST PAPERS  
CRICK CROSSING  
ALBUQUERQUE, NEW MEXICO

BUILDING  
PERMIT SET

REVISION	DATE
1	VE REVISIONS 9/16/24

DATE 10/16/23

PROJECT NO

SITE DRAINAGE  
PLAN -  
NARRATIVE AND  
CALCULATIONS

SHEET NO.

CD-3

