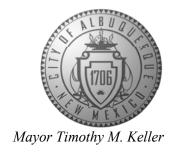
## CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



March 13, 2024

David Thompson, PE Thompson Engineering Consultants, Inc. PO Box 65760 Albuquerque, NM 87193

RE: Ventana Square Self Storage Grading and Drainage Plans Engineer's Stamp Date: 02/20/24 Hydrology File: B10D003C3C

Dear Mr. Thompson:

PO Box 1293

Based upon the information provided in your submittal received 02/21/2024, the Grading & Drainage Plans are approved for Building Permit, Grading Permit, action by the Development Facilitation Team (DFT) on Site Plan for Building Permit and action by Development Hearing Officer (DHO) on Preliminary Plat. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

Albuquerque

#### PRIOR TO CERTIFICATE OF OCCUPANCY:

NM 87103

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

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 (Dough Hughes, PE, <a href="mailto:jhughes@cabq.gov">jhughes@cabq.gov</a>, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or <a href="mailto:rbrissette@cabq.gov">rbrissette@cabq.gov</a>.

Sincerely, Renée C. Brissette

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

Planning Department



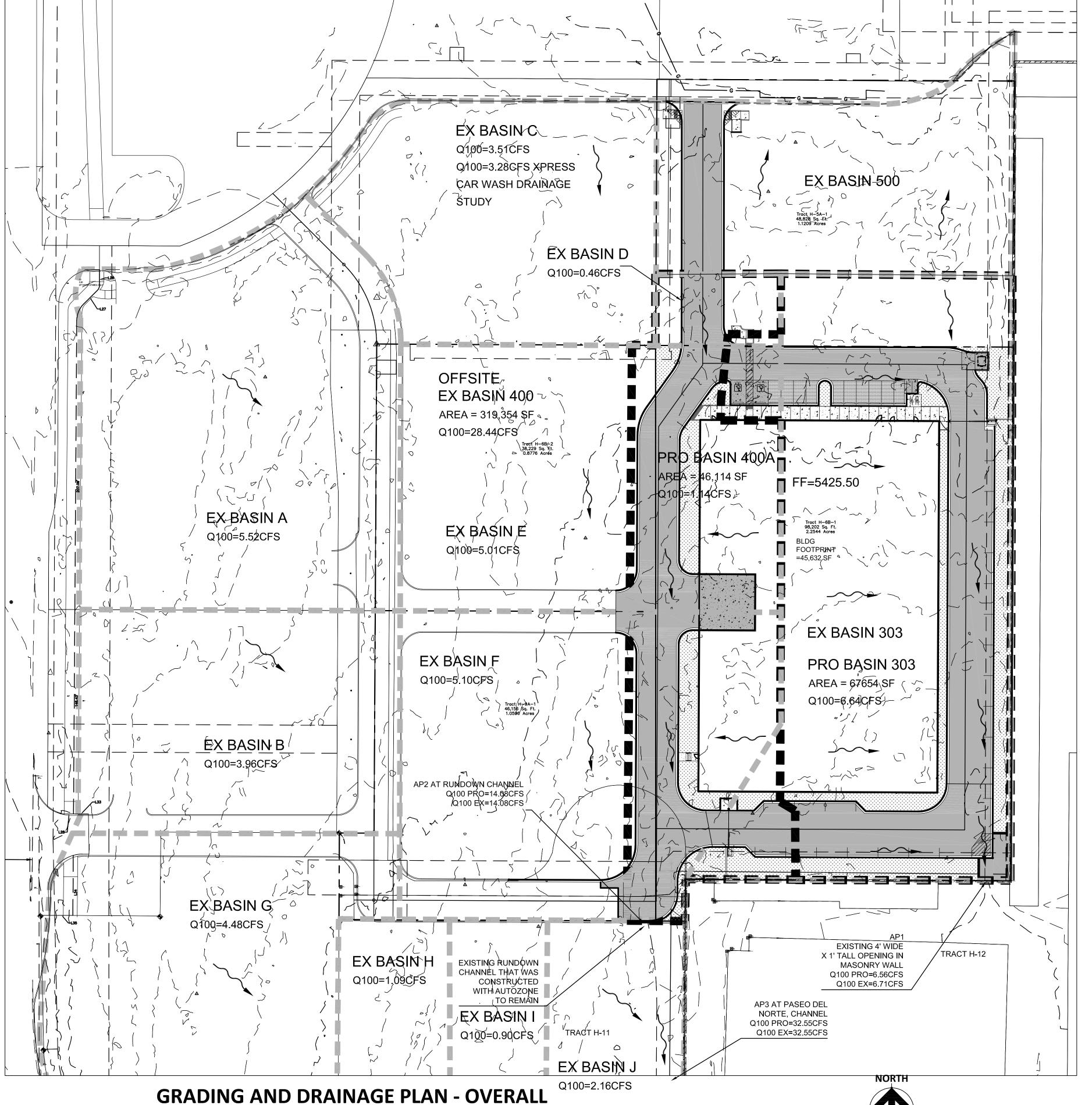
# City of Albuquerque Planning Department

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:									
		Phone:									
Email:											
Applicant/Owner:		Contact:									
		Phone:									
Email:											
(Please note that a DFT SITE is on	e that needs Site Plan A	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										
	110										
<b>DEPARTMENT:</b> TRANS	SPORTATION	HYDROLOGY/DRAINAGE									
Check all that apply under Both	the Type of Submittal	and the Type of Approval Sought:									
TYPE OF SUBMITTAL:		TYPE OF APPROVAL SOUGHT:									
ENGINEER/ARCHITECT CERTIFICATION		BUILDING PERMIT APPROVAL									
PAD CERTIFICATION  CONCEPTUAL G&D PLAN  GRADING & DRAINAGE PLAN  DRAINAGE REPORT		CERTIFICATE OF OCCUPANCY CONCEPTUAL TCL DFT APPROVAL PRELIMINARY PLAT APPROVAL FINAL PLAT APPROVAL									
						DRAINAGE MASTER PLAN		SITE PLAN FOR BLDG PERMIT DFT			
						CLOMR/LOMR		APPROVAL			
						TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE  TRAFFIC CIRCULATION LAYOUT FOR DFT APPROVAL  TRAFFIC IMPACT STUDY (TIS) STREET LIGHT LAYOUT		SIA/RELEASE OF FINANCIAL GUARANTEE			
FOUNDATION PERMIT APPROVAL											
GRADING PERMIT APPROVAL											
SO-19 APPROVAL PAVING PERMIT APPROVAL											
			OTHER (SPECIFY)		GRADING PAD CERTIFICATION						
official (of Eon 1)		WORK ORDER APPROVAL									
		CLOMR/LOMR									
		OTHER (SPECIFY)									
DATE SUBMITTED:											

REV. 09/13/23



## I. PURPOSE AND SCOPE

THE PURPOSE OF THIS DRAINAGE PLAN IS TO PRESENT THE EXISTING AND PROPOSED DRAINAGE CONDITIONS FOR THE PROPOSED VENTANA SQUARE SELF-STORAGE PROJECT. THE NEW BUILDING IS LOCATED AT THE NORTH EAST CORNER OF PASEO DEL NORTE AND UNIVERSE BOULEVARD IN NORTHWEST ALBUQUERQUE. THE ZONE ATLAS PAGE FOR THE SITE IS Q-16-Z.

#### II. SITE DESCRIPTION AND HISTORY

SITE IS CURRENTLY VACANT. PROPERTIES TO THE EAST AND SOUTH HAVE BEEN DEVELOPED AND CONTAIN SELF STORAGE UNITS. A SHARED STORMWATER POND HAS BEEN CONSTRUCTED TO THE SOUTH EAST OF VENTANA SQUARE ALONG PASEO DEL NORTE. THE POND HAS BEEN SIZED TO ACCEPT RUNOFF FROM THE PROJECT SITE, INCLUDING WATER QUALITY VOLUMES.

#### 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 1 (WEST OF RIO GRANDE).

#### **V. EXISTING DRAINAGE CONDITIONS**

THE SITE IS CURRENTLY UNDEVELOPED. THE SITE TO THE EAST AND SOUTH IS FULLY DEVELOPED AS A SELF STORAGE FACILITY. RUNOFF FROM THIS SITE UNDER THE PRIOR DRAINAGE PLAN (DRAINAGE REPORT FOR VENTANA SQUARE DATED DECEMBER 2020, PREPARED BY THIS OFFICE) ALLOWS FOR 6.71CFS TO BE DISCHARGED AT THE SOUTHEAST CORNER OF THE PROJECT SITE. THIS RUNOF WILL PASS THROUGH THE ADJACENT DEVELOPMENT TO REACH THE WATER QUALITY AND RETENTION POND ALONG PASEO DEL NORTE

THROUGH THE PROJECT SITE. THE PARCEL TO THE WEST DRAINS SOUTH AND WILL JOIN RUNOFF WITH OTHER PARCELS AS PART OF A 8.39 ACRE DRAINAGE BASIN. THE PEAK FLOW RATE FROM BASIN 400 IS 32.55CFS. BASIN 400 WILL ALSO DRAIN TO

THE EXISTING BASIN MAP ALSO INCLUDES THE REFINED SUB-BASINS FROM A PRIOR DRAINAGE STUDY FROM 2021. BASIN WITH LETTERS ARE DERIVED FROM THAT STUDY. THE SUMMATION OF THE LETTERED SUB-BASIN EQUAL THE MASTERPLANNED DRAINAGE BASIN #400.

PASEO DEL NORTE CONTAINS STORMWATER COLLECTION AND CONVEYANCE CHANNELS AND PIPING THAT DISCHARGE INTO THE LARGE STORMWATER RETENTION POND. AS MENTIONED IN THE SITE DESCRIPTION AND HISTORY PORTION, THE DRAINAGE MASTER PLAN FOR VENTANA SQUARE REQUIRES THAT THE FLOW RATE OFF THE SITE MATCH THE 6.71CFS AND 32.55CFS RESPECTIVELY

#### VI. PROPOSED DRAINAGE CONDITIONS

BUILDING. THE ROOF WILL HAVE A CENTER RIDGE AND WILL SLOPE BOTH EAST AND WEST. ROOF DOWNSPOUTS WILL CONVEY RUNOFF TO THE GROUND, WHERE SPLASH BLOCKS AND RIPRAP RUNDOWNS WILL CONVEY RUNOFF TO THE SURROUNDING STREET NETWORK.

THE ROOF RIDGE IS SLIGHTLY ALTERED FROM THE MASTERPLAN FOR BASIN 303 AND ADDITIONAL PARKING RUNOFF HAS BEEN ADDED TO THE BASIN TO MAINTAIN A SIMILAR FLOWRATE. FLOWRATE AT THE SOUTHEAST CORNER IS REDUCED BY 0.15CFS AT ANALYSIS POINT AP1.

THE WESTERN PART OF THE SITE HAS BEEN IDENTIFIED AT SUB-BASIN PRO BASIN 400A. PRO BASIN 400A GENERATES A PEAK RUNOFF OF 4.11CFS. PRO BASIN 400A WHEN COMBINED WITH OFFSITE PRO BASIN 400 FROM THE PRIOR DRAINAGE STUDY THAT CONTAINS THE REMAINING 28.44 CFS (WILL EQUAL THE DEFINED FLOW RATE OF 32.55CFS). THE LANDSCAPING PERCENTAGE IS SLIGHTY HIGHER THAN UTILIZED IN THE PRIOR DRAINAGE MASTERPLAN. CONSERVATIVE VALUES FOLLOWING THE MASTER DRAINAGE PLAN HAVE BEEN USED, 7.5% FOR TYPE B AND TYPE C SOILS, AS THIS IS A SUBBASIN WITHIN THE 8.39 ACRE BASIN 400

THE DISCHARGE RATE AT THE ENTRANCE OF THE CHANNEL (AP2) ON THE EAST SIDE OF AUTOZONE WILL REMAIN AS PREVIOUSLY DESIGNED AT 14.08 CFS. THE DISCHARGE RATE AT ANALYSIS POINT 3 (AP3) REMAINS THE SAME AS THE DRAINAGE REPORT FOR VENTANA SQUARE DATED DECEMBER 2020 AT 32.55CFS AT THE SOUTH WEST CORNER OF TRACT H-11 WHERE RUNOFF ENTERS THE CONCRETE CHANNEL THAT CONVEYS RUNOFF TO THE DETENTION POND. WATER QUALITY VOLUMES WERE COMPUTED FOR 85% IMPERVIOUS FOR THE 98,202SF LOT ARE 2,365CF. THE SITE DOES NOT CONTAIN A LOCATION FOR RETENTION OF THE WATER QUALITY VOLUME. PER THE "DRAINAGE REPORT FOR

VENTANA SQUARE" DATED DECEMBER 2020 THE ADJACENT POND ALONG PASEO DEL NORTE DOES CONTAIN SUFFICIENT VOLUME TO CONTAIN AND INFILTRATE THE 2,365CF OF RUNOFF TO SATISFY THE WATER QUALITY REQUIREMENTS. PER THE 2020 REPORT THE FULL BUILD OUT DEPTH WILL BE 0.80' DEEP IN THE SHARED RETENTION POND.

### VII. CONCLUSIONS

THIS DRAINAGE STUDY HAS BEEN PREPARED IN ACCORDANCE WITH THE DRAINAGE REPORT FOR VENTANA SQUARE DATED DECEMBER 2020. RUNOFF FROM THE PROJECT SITE WILL DRAIN OUT AT ANALYSIS POINTS AP1 AND AP2 AT THE OR SLIGHTLY REDUCED FROM THE PRIOR STUDY.

NO CHANGES ARE REQUIRED TO DOWNSTREAM USERS, AS THIS PROJECT WILL NOT CAUSE AN INCREASE IN FLOWRATE, WATER QUALITY VOLUME OR EXCESS RUNOFF VOLUME FROM THE DRAINAGE REPORT FOR VENTANA SQUARE DATED DECEMBER



PPROVAL 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

# VENTANA SQUARE SELF-STORAGE

NEC OF PASEO DEL NORTE BLVD AND UNIVERSE BLVD ALBUQUERQUE, NM 87114 DATE: 01-10-2024 (PRELIMINARY)

RKAA# 22116.00 OF THE ARCHITECT. DRAINAGE PLAN

MATERIAL LEGEND

HEAVY DUTY ASPHALT

**EROSION PROTECTION,** 

LANDSCAPING AREA.

SEE GRADING AND

DRAINAGE PLANS

**HEAVY DUTY** 

CONCRETE

PAVEMENT

4" THICK

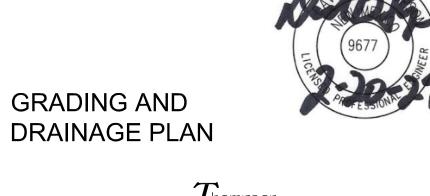
CONCRETE SIDEWALK

tecnm@yahoo.com P.O. BOX 65760 PHONE: (505) 271-2199

FAX: (505) 830-9248

ALBUQUERQUE, NM 87 193

# G&D 1





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, VENTANA

**ZONE ATLAS PAGE B-10Z** 

NOT TO SCALE

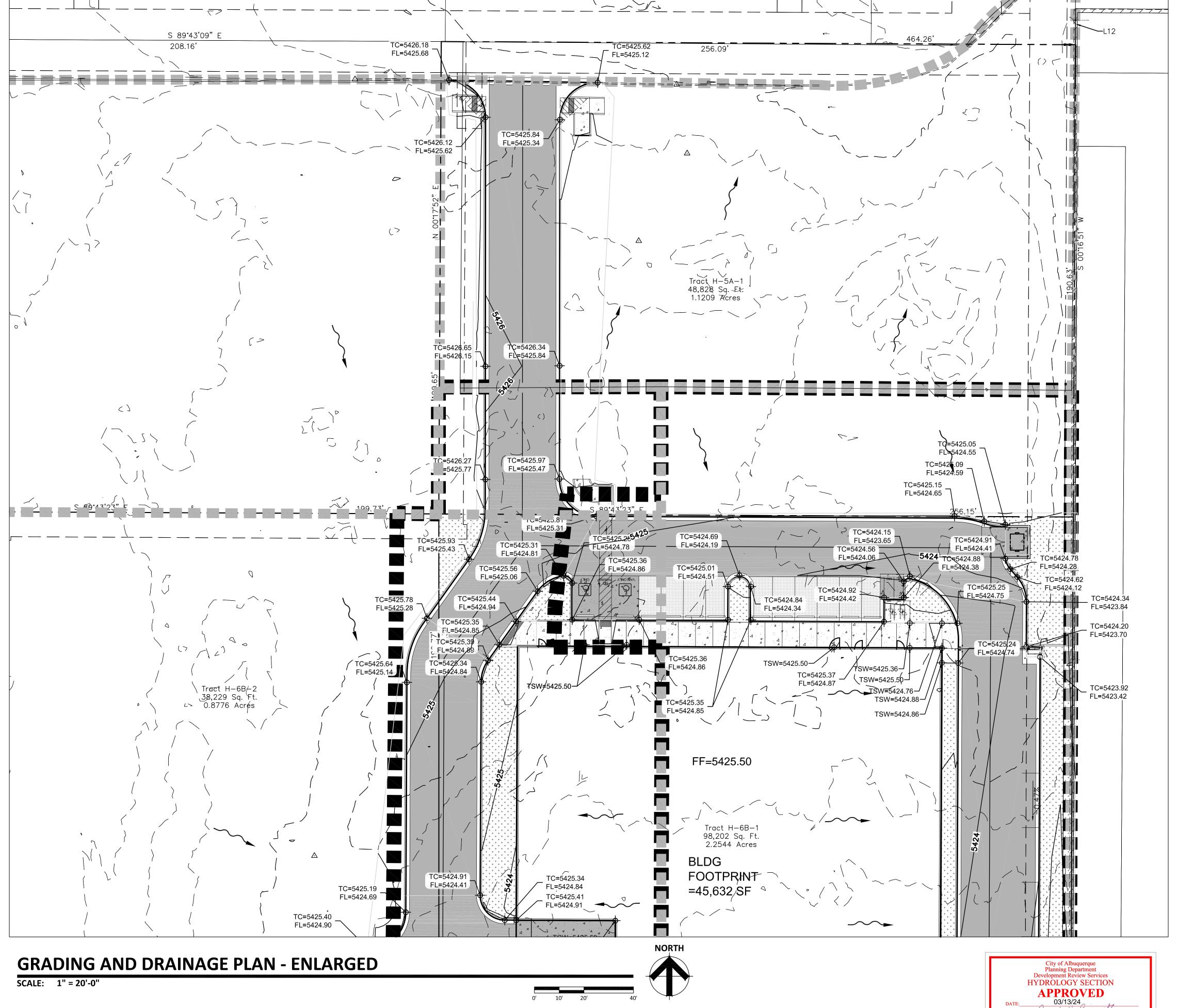
NOT TO SCALE

AT VENTANA

FEMA FLOOD ZONE MAP 35001C0103H



SCALE: 1" = 40'-0"





NEC OF PASEO DEL NORTE BLVD AND UNIVERSE BLVD ALBUQUERQUE, NM 87114 DATE: 01-10-2024 (PRELIMINARY)

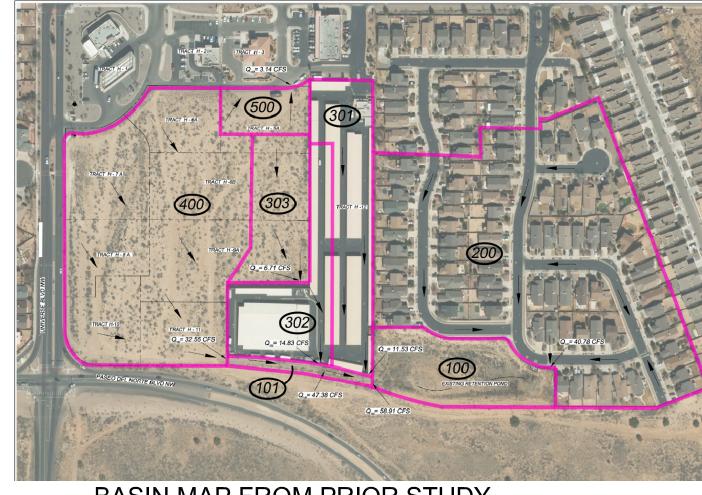




TWO (2) YEARS AFTER THE APPROAL DATE BY THE CITY IF NO UILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT G&D 2

RKAA# 22116.00

tecnm@yahoo.com P.O. BOX 65760 PHONE: (505) 271-2199 ALBUQUERQUE, NM 87 193 FAX: (505) 830-9248



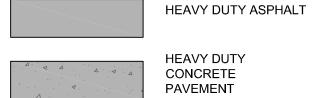
BASIN MAP FROM PRIOR STUDY

BASIN	Area	100yr-6hr	100yr-10 day	Land Treatment
	(acres)	Peak Flow (cfs)	Runoff Volume (ac-ft)	
100	2.16	4.67	0.13	100%B
101	0.27	1.11	0.09	100%D
200	12.06	40.78	2.54	23%B, 23%C, 54%D
301	2.92	11.53	0.88	5%B, 6%C, 89%D
302	1.97	8.12	0.65	100%D
303	1.73	6.71	0.50	7.5%B, 7.5%C, 85%D
400	8.39	32.55	2.45	7.5%B, 7.5%C, 85%D
500	0.81	3.14	0.24	7.5%B, 7.5%C, 85%D

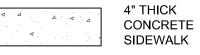
BASIN CALCULATIONS FROM PRIOR STUDY

	Drainag	e Summary			
Project: Project Numbe: Date: By:	Ventana Square Self-Storage Ventana Square Self-Storage 01/21/24 MTD				
Site Location					
Precipitaion Zone	1 Per COA DPM Chapter 6				
Existing summary					
Basin Name	EX 303	EX 400	EX 500		
Area (sf)	75450	365468.4	35283.6		
Area (acres)  %A Land treatment  %B Land treatment  %C Land treatment  %D Land treatment	1.73 0 7.5 7.5 85	8.39 0 7.5 7.5 85	0.81 0 7.5 7.5 85		
Soil Treatment (acres) Area "A" Area "B" Area "C" Area "D"	0.00 0.13 0.13 1.47	0.00 0.63 0.63 7.13	0.00 0.06 0.06 0.69		
Excess Runoff (acre-feet) 100yr. 6hr. 10yr. 6hr. 2yr. 6hr. 100yr. 24hr.	0.2930 0.1829 0.1144 0.3323	1.4193 0.8860 0.5541 1.6095	0.1370 0.0855 0.0535 0.1554	acre-ft. acre-ft. acre-ft. acre-ft.	
<b>Peak Discharge (cfs)</b> 100 yr. 10yr. 2yr.	6.72 4.08 2.36	32.55 19.76 11.45	3.14 1.91 1.11	cfs cfs cfs	

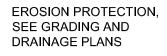
### MATERIAL LEGEND













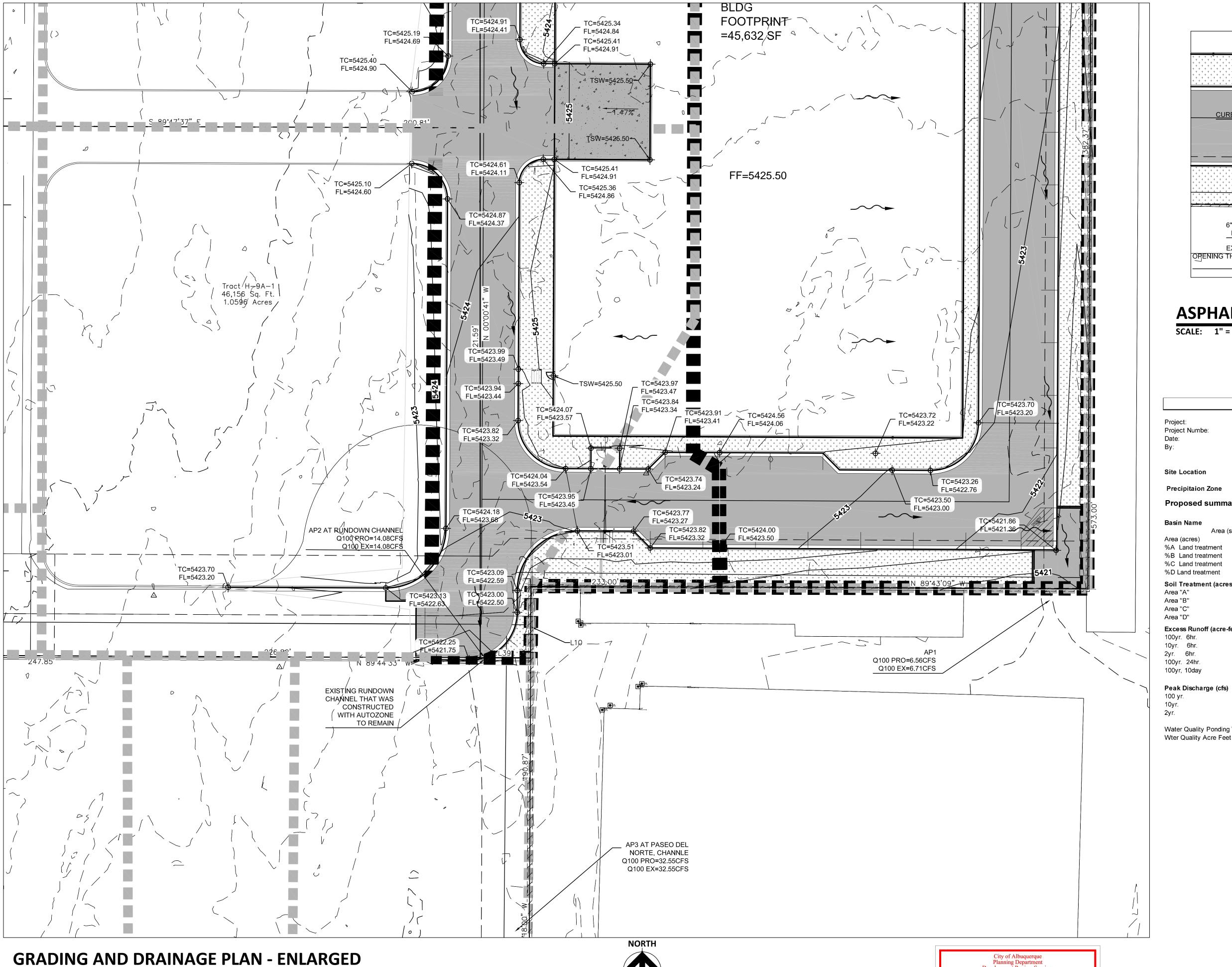


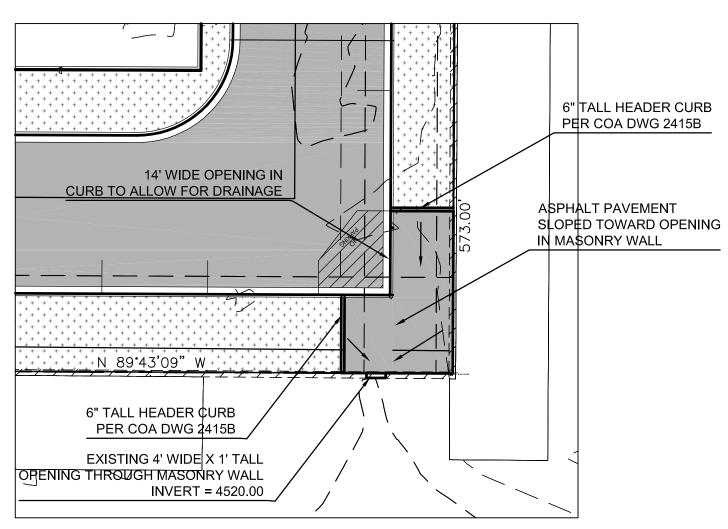
LANDSCAPING AREA.



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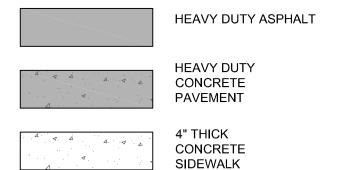
#### **Drainage Summary**

Ventana Square Self-Storage Ventana Square Self-Storage Project: Project Numbe: 01/21/24 Date: MTD

#### Site Location

Precipitaion Zone	e 1 Per COA DPM Chapter 6						
Proposed summary							
	OFFSITE						
Basin Name	PRO 303	PRO 400	PRO 400A	PRO 501			
Area (sf)	73652	319354	46114	32286			
Area (acres)	1.691	7.331	1.059	0.741			
%A Land treatment	0	0	0	0			
%B Land treatment	7.5	7.5	7.5	7.5			
%C Land treatment	7.5	7.5	7.5	7.5			
%D Land treatment	85	85	85	85			
Soil Treatment (acres)							
Area "A"	0.00	0.00	0.00	0.00			
Area "B"	0.13	0.55	0.08	0.06			
Area "C"	0.13	0.55	0.08	0.06			
Area "D"	1.44	6.23	0.90	0.63			
Excess Runoff (acre-feet)							
100yr. 6hr.	0.2860	1.2402	0.1791	0.1254	acre-ft.		
10yr. 6hr.	0.1786	0.7742	0.1118	0.0783	acre-ft.		
2yr. 6hr.	0.1117	0.4842	0.0699	0.0489	acre-ft.		
100yr. 24hr.	0.2860	1.2402	0.1791	0.1254	acre-ft.		
100yr, 10day	0.4932	2.1386	0.3088	0.2162	acre-ft.		
Peak Discharge (cfs)							
100 yr.	6.56	28.44	4.11	2.88	cfs		
10yr.	3.98	17.26	2.49	1.75	cfs		
2yr.	2.31	10.01	1.45	1.01	cfs		
Water Quality Ponding Voulme (cf)	1773.8	7691.1	1110.6	777.6	of		

#### MATERIAL LEGEND



EROSION PROTECTION, SEE GRADING AND DRAINAGE PLANS LANDSCAPING AREA.

0.0255



0.0179 acre-ft

### **GRADING AND** DRAINAGE PLAN



**APPROVED** DATE: 03/13/24
BY: B10D003C3C

RKAA# 22116.00

G&D 3

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ALBUQUERQUE, NM 87 193 FAX: (505) 830-9248



ARCHITECTS, INC

SCALE: 1" = 20'-0"

# VENTANA SQUARE SELF-STORAGE

NEC OF PASEO DEL NORTE BLVD AND UNIVERSE BLVD ALBUQUERQUE, NM 87114 DATE: 01-10-2024 (PRELIMINARY)

APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRI TWO (2) YEARS AFTER THE APPROAL DATE BY THE CITY IF N BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT

Development Review Services

**HYDROLOGY SECTION**