

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

July 26, 2023

Stephen Marcum, P.E.
Skyline Civil Group, LLC
4414 82nd Street, STE 212-140
Lubbock, TX 79424

**RE: McDonald's at Ventana Square
Grading and Drainage Plans
Engineer's Stamp Date: 07/07/23
Hydrology File: B10D003C3B**

Dear Mr. Marcum:

PO Box 1293

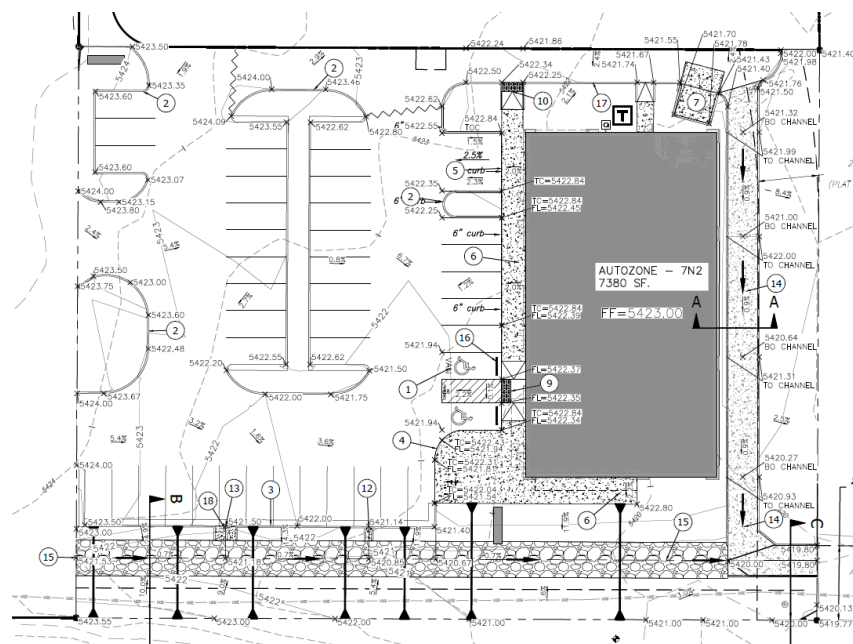
Based upon the information provided in your submittal received 07/11/2023, the Grading & Drainage Plans **are not** approved for Building Permit and Grading Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

NM 87103

www.cabq.gov

1. The City of Albuquerque has an approved Grading and Drainage Plan for Autozone on the adjacent lot. This site layout and this project's does not match up. Please verify if Autozone is still moving forward with their project. Coordination may be needed to build some of the access drive. Please see attached approved G&D for Autozone.



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- Please provide written. Signed, and notarized permission from the adjoining property owner (Autozone) for work on their property.
- Please contact Transportation Section for the parking off Ventana Square's access drive. This should be part of the Traffic Impact Study approve that they give on the project. I do not believe that this is allowed.
- Sheet C8.0. Please add a not in the Existing Conditions or Proposed Conditions that this site is within the Ventana Square Drainage Master Plan and that this site has an allowable discharge of 4.48 cfs. I have attached the approved Ventana Square Drainage Master Plan for your use.
- Sheet C8.0. Please use the procedure for 40 acre and smaller basins as outlined in Development Process Manual (DPM) Article 6-2(a). Please provide both the existing conditions and proposed conditions for the 100 year-6 hour storm event. The approved Ventana Square Drainage Master Plan has a great example of these calculations.

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100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	100-YEAR PRECIPITATION				
		A (%)	B (%)	C (%)	D (%)		V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(10-day) (acre-ft)	V(10-day) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
A	1.3516	0.00	0.00	100.00	0.00	0.99	0.11	4,857	0.11	4,857	3.88
B	0.9707	0.00	0.00	100.00	0.00	0.99	0.08	3,488	0.08	3,488	2.79
C	0.8607	0.00	0.00	100.00	0.00	0.99	0.07	3,093	0.07	3,093	2.47
D	0.1126	0.00	0.00	100.00	0.00	0.99	0.01	405	0.01	405	0.32
E	1.2271	0.00	0.00	100.00	0.00	0.99	0.10	4,410	0.10	4,410	3.52
F	1.2502	0.00	0.00	100.00	0.00	0.99	0.10	4,493	0.10	4,493	3.59
G	1.0982	0.00	0.00	100.00	0.00	0.99	0.09	3,947	0.09	3,947	3.15
H	0.2714	0.00	0.00	100.00	0.00	0.99	0.02	975	0.02	975	0.78
I	0.2126	0.00	0.00	100.00	0.00	0.99	0.02	764	0.02	764	0.61
J	0.6009	0.00	0.00	100.00	0.00	0.99	0.05	2,159	0.05	2,159	1.72
TOTAL RUNOFF	7.9560						0.66	28,591	0.66	28,591	22.83
FULL DEVELOPMENT CONDITIONS											
A	1.3516	0.00	7.50	7.50	85.00	1.80	0.20	8,826	0.37	16,041	5.52
B	0.9707	0.00	7.50	7.50	85.00	1.80	0.15	6,339	0.26	11,521	3.96
C	0.8607	0.00	7.50	7.50	85.00	1.80	0.13	5,621	0.23	10,215	3.51
D	0.1126	0.00	7.50	7.50	85.00	1.80	0.02	735	0.03	1,336	0.46
E	1.2271	0.00	7.50	7.50	85.00	1.80	0.18	8,013	0.33	14,564	5.01
F	1.2502	0.00	7.50	7.50	85.00	1.80	0.19	8,164	0.34	14,838	5.10
G	1.0982	0.00	7.50	7.50	85.00	1.80	0.16	7,172	0.30	13,034	4.48
H	0.2714	0.00	15.00	0.00	85.00	1.78	0.04	1,749	0.07	3,197	1.09
I	0.2126	0.00	5.00	0.00	95.00	1.91	0.03	1,470	0.06	2,739	0.90
J	0.6009	0.00	25.00	13.00	62.00	1.52	0.08	3,310	0.13	5,650	2.16
TOTAL RUNOFF	7.9560						1.18	51,400	2.14	93,134	32.20
EXCESS PRECIP.		0.44	0.67	0.99	1.97	E _i (in)					
PEAK DISCHARGE		1.29	2.03	2.87	4.37	Q _{pi} (cfs)					
<div>WEIGHTED E (in) = (E_A)(%A) + (E_B)(%B) + (E_C)(%C) + (E_D)(%D) V_{6-HR} (acre-ft) = (WEIGHTED E)(AREA)/12 V_{10DAY} (acre-ft) = V_{6-HR} + (A_D)(P_{10DAY} - P_{6-HR})/12 Q (cfs) = (Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)</div> <div>ZONE = 1 P_{6-HR} (in.) = 2.17 P_{24-HR} (in.) = 2.49 P_{10DAY} (in.) = 3.90</div>											

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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, 924-3420) 14 days prior to any earth disturbance.

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 (REV 6/2018)

Project Title: McDonald's at Ventana Square **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: TR H-10 PLAT OF TRACTS H-1 THRU H-11 VENTANA SQUARE
ATVENTANA RANCH A REPLAT OF TRACT H-A VENTANA RANCHCONT 1.0656 AC
City Address: 9500 Universe Boulevard NW Albuquerque, NM 87114

Applicant: Skyline Civil Group, LLC **Contact:** Stephen Marcum, P.E.
Address: 4414 82nd Street, STE 212-140 Lubbock, TX 79424
Phone#: 432-685-1226 **Fax#:** _____ **E-mail:** smarcum@skylinecivilgroup.com

Other Contact: Consensus Planning **Contact:** Jonathan Turner
Address: 302 Eighth Street NW
Phone#: 505-764-9801 x109 **Fax#:** _____ **E-mail:** turner@consensusplanning.com

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: 7/11/23 **By:** Jonathan Turner

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

D:\SKY 2020\2020 1035 - McDONALD'S USA, LLC 30-0280 - NEW BUILD (UNIVERSE & PASO DEL NORTE, ALBUQUERQUE, NM)\DRAWINGS\C8.0 DRAINAGE PLAN.DWG

IDF - DPM Table 6.2.8 Zone 1	
Time	Depth (in)
5 Min	0.538
15 Min	1.02
1 Hr	1.69
2 Hr	1.92
3 Hr	2
6 Hr	2.17
12 Hr	2.3
1 D	2.49

HEC-HMS Output				
Sub Basin	Point of Analysis	Area (acres)	Impervious Cover	Peak Discharge (100YR) cfs
EX-1	A	1.065	0%	0.7
PR POA A				
PR-1	A	0.112	78%	2.7
Bio Retention Pond 1				
PR-2	A	0.953	78%	0.3
PR POA A				
Increase in Runoff (cfs)				0.6
Lag Time = 0.6*12min				-0.1

Curve Number Calculation				
	Impervious Cover	Soil Group	Impervious Cover CN	Pervious Cover CN
EX-1	0%	A	98	68
PR-1	78%	A	98	49
PR-2	78%	A	98	49

Bio Retention Pond 1 Stage Storage Volume				
	Elevation	Area	Avg. Area	Inc. Depth
	5422	229.0	588.0	1
	5423	947.0	1242.0	1
	5424	1537	1537.0	0.5
SW QV	5424.5	1537.0		
Required Volume : (36,185.3 Imp SF * 0.42" = 1,266.5 Cu.Ft.)				

SWQV - Volume Calculations		
	SF	ac
Total Impervious Area =	36185.3	0.83
Req'd Retention Volume (0.42"/acre) =	1266.5	cf
Retention Volume Provided =	2589.5	cf

PRE VS. POST DRAINAGE NOTES

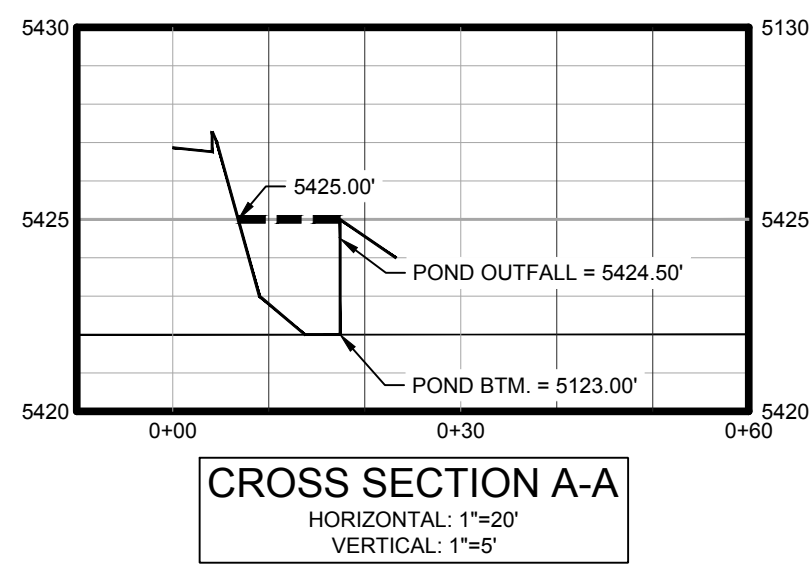
SITE LOCATION - THE SITE IS LOCATED ON AN APPROXIMATELY 1.065ACRE TRACT AT THE NORTHEAST CORNER OF LADERA DR NW AND UNSER BLVD NW. THIS SITE WILL INCLUDE A MCDONALD'S RESTAURANT AND ASSOCIATED PAVING, GRADING, LANDSCAPING, UTILITY, AND STORM WATER MANAGEMENT INFRASTRUCTURE.

METHODOLOGY - THE PROPOSED STORM WATER MANAGEMENT WAS EVALUATED IN ACCORDANCE TO CHAPTER 6 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL. THE PEAK DISCHARGE RATE AND RUNOFF VOLUMES WERE CALCULATED USING HEC-HMS. THE 100 YEAR 24 HOUR EVENT WAS OBTAINED FROM THE NOAA ATLAS 14, PRECIPITATION - FREQUENCY ATLAS OF THE UNITED STATES, VOL. 1 VERSION 5 SEMIARID SOUTHWEST, PER SECTION 6-2(C)(3) OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL. THE TIME OF CONCENTRATION IS ASSUMED TO BE 12 MINUTES AND THE LAG TIME IS ASSUMED TO BE 0.6 * 12 MINUTES = 7.2 MINUTES.

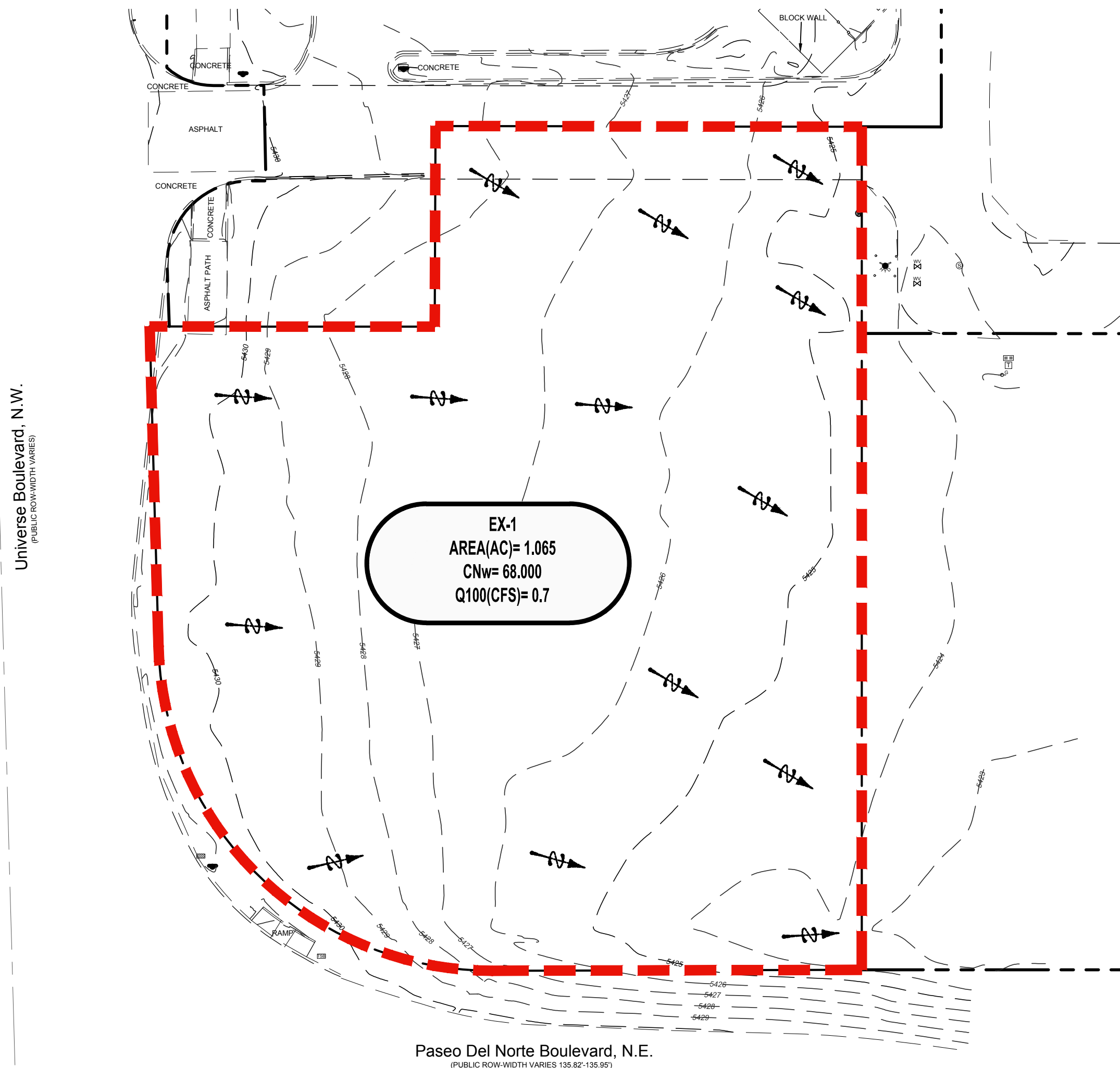
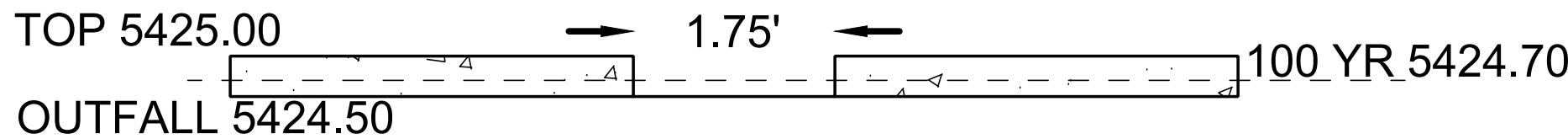
EXISTING CONDITIONS - REFER TO THE PRE-DEVELOPMENT DRAINAGE PLAN. STORM WATER RUNOFF GENERALLY DRAINS FROM THE WEST TO EAST ACROSS THE SITE UNDER EXISTING CONDITIONS. ONE DRAINAGE AREAS IS IDENTIFIED. AREA EX-1 IS 1.065 ACRES AND DRAINS SOUTHEAST TOWARDS THE NEWLY INSTALLED ASPHALT DRIVE AND ONTO THE LANDERA RIGHT OF WAY. PEAK DISCHARGE RATES FOR EXISTING CONDITIONS (0.7CFS) ARE PROVIDED ON THE HEC-HMS TABLES ON THIS SHEET.

PROPOSED CONDITIONS - REFER TO THE POST-DEVELOPMENT DRAINAGE PLAN. 2 DRAINAGE BASINS ARE IDENTIFIED FOR THE SITE UNDER PROPOSED CONDITIONS. AREA PR-1 IS 0.953 ACRES AND DRAINS INTO THE PROPOSED BIO RETENTION POND 1. AFTER THE FIRST 0.42" OF RUNOFF, ADDITIONAL OVERFLOW DISCHARGES TO THE EASTERN ASPHALT DRIVE AND ONTO LADERA RIGHT OF WAY. AREA PR-2 IS 0.112 ACRES AND DRAINS INTO THE EASTERN ASPHALT DRIVE AND ONTO LADERA RIGHT OF WAY. THE TOTAL FLOW OFFSITE AT THE 100 YEAR STORM EVENT (0.6 CFS) IS LESS THAN THE EXISTING FLOW OF 0.7 CFS TOTAL. THE TOTAL REQUIRED BIO RETENTION (0.42") IS 1,266.5 CUBIC FEET WITH AND 2,598.5 CUBIC FEET HAS BEEN PROVIDED.

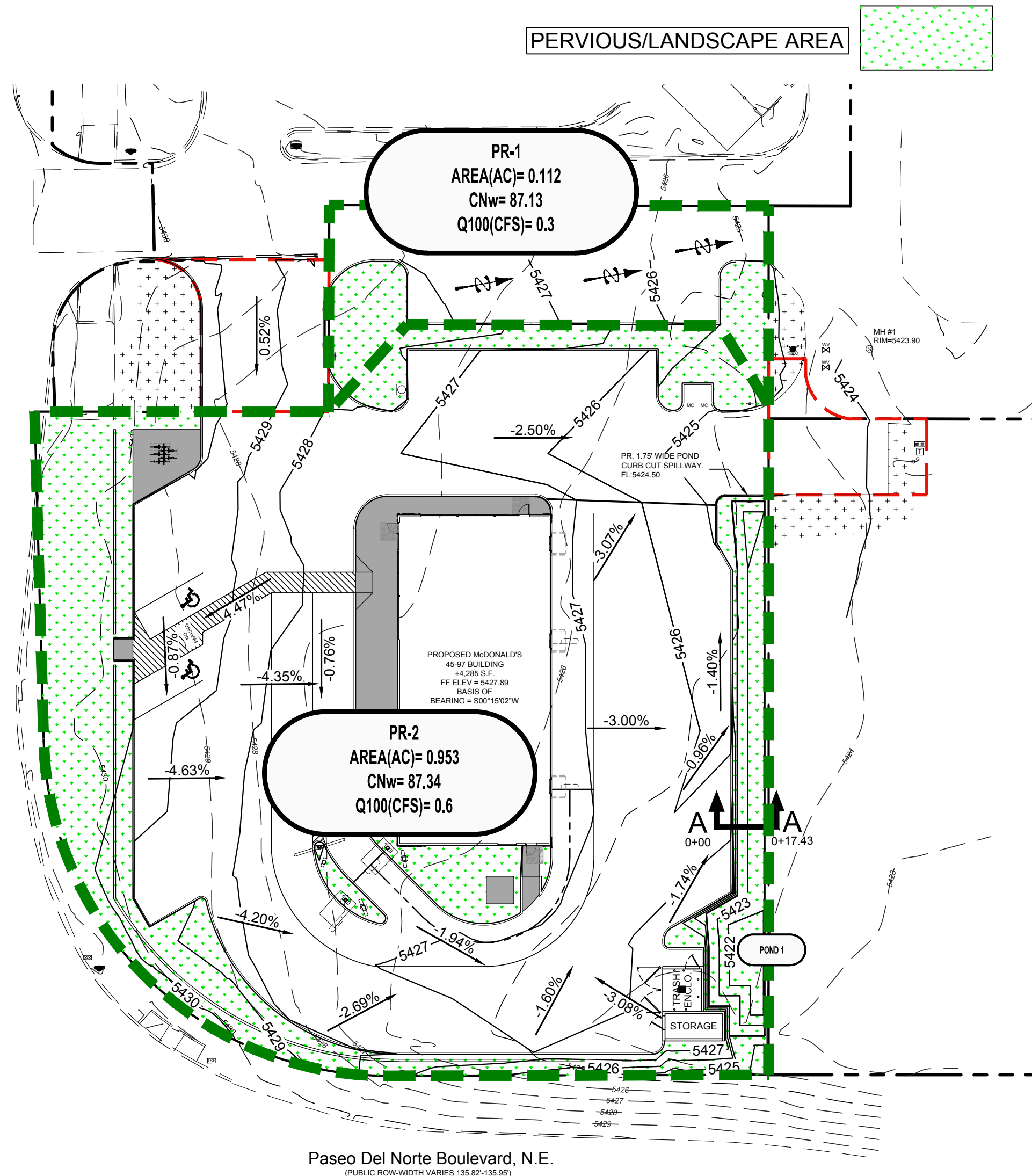
CONCLUSIONS - THE OVERALL AMOUNT OF IMPERVIOUS COVER AT THE SITE IS INCREASED UNDER THE PROPOSED CONDITIONS. WITH THE USE OF THE DETENTION POND, THE POST DEVELOPMENT RUNOFF HAS BEEN CONTROLLED TO EQUAL THE EXISTING OFFSITE FLOWS AT BOTH POINTS OF ANALYSIS.



SWQV POND 1



PRE DEV. DRAINAGE MAP AND CALCULATIONS



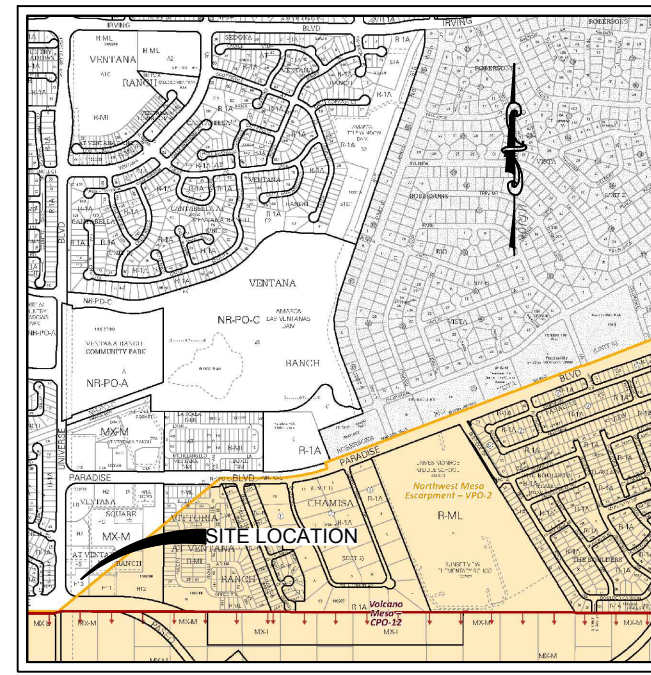
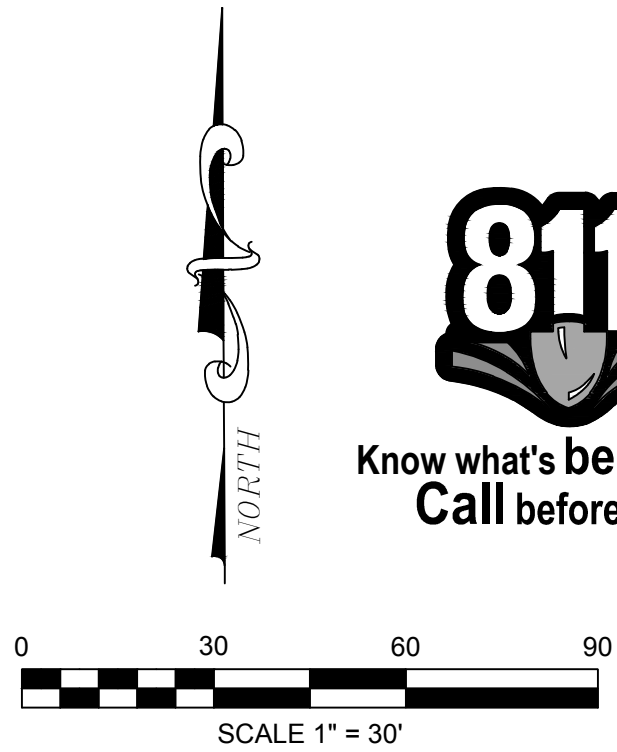
POST DEV. DRAINAGE MAP AND CALCULATIONS

BENCHMARK

RE: ALTA SURVEY BY PRECISION SURVEYS, INC. - JOB NO. 228302ALT
SET CP-CHISELED "X"
N=1,524,701.25
E=1,497,986.48
EL=5424.88

LEGAL DESCRIPTION

TRACT H-10 OF THE PLAT OF VENTANA SQUARE AT VENTANA RANCH, A REPLAT OF TRACT H-A VENTANA RANCH, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO



VICINITY MAP
N.T.S.

THESE PLANS ARE SUBJECT TO REVIEW & APPROVAL BY JURISDICTIONAL ENTITIES



Skyline CIVIL GROUP
Skyline Civil Group, LLC • Lubbock Address: 4414 82nd Street, STE 212-40, Lubbock, TX 79424
Midland Address: 3523 N. Midland Drive, STE 113-106, Midland, TX 79707
• Firm No. # AZ - 72662-0, KS - E3126, IA - E000692, OK - 4542, TX - 17171
• U: (817) 465-1226 • www.skylinecivilling.com

C8.0 DRAINAGE PLAN

	ISSUE FOR PERMIT	C.L.C. S.T.M.
1	06/19/2023	C.L.C. S.T.M.
2	07/07/2023	GSD/HYDROLOGY - ISSUE FOR PERMIT

OFFICE LONG BEACH FIELD OFFICE
ADDRESS 1556 JAMBURGE ROAD, STE. B50, IRVINE, CA 92612
PREPARED FOR: ©

McDonald's USA, LLC

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Universe Blvd and Pasco Del Norte
Albuquerque, NM

PLAN APPROVALS		DATE
SIGNATURE (2 REQUIRED)		
REGIONAL MGR.		
CONST. MGR.		
OPERATIONS DEPT.		
REAL ESTATE DEPT.		
CO-SIGN SIGNATURES		
CONTRACTOR		
OWNER		
DRAWN BY	C.L.C.	
CHECKED BY	S.T.M.	
DATE	JULY 2023	
SHEET NO.	10 OF XX	
FILE NO.	SKY2020.1035	