

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Interim Director



Mayor Timothy M. Keller

September 3, 2019

Jeffrey T. Wooten, P.E.
Wooten Engineering
1005 21st Street SE, Suite 13
Rio Rancho, NM 87124

**RE: Academy Dental Center
6421 Holly Ave NE
Grading and Drainage Plan
Engineer's Stamp Date: 08/22/19
Hydrology File: C18D038A**

Dear Mr. Wooten:

PO Box 1293

Based upon the information provided in your submittal received 08/20/2019, the Grading and Drainage Plan is approved for Building Permit.

Albuquerque

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

NM 87103

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.

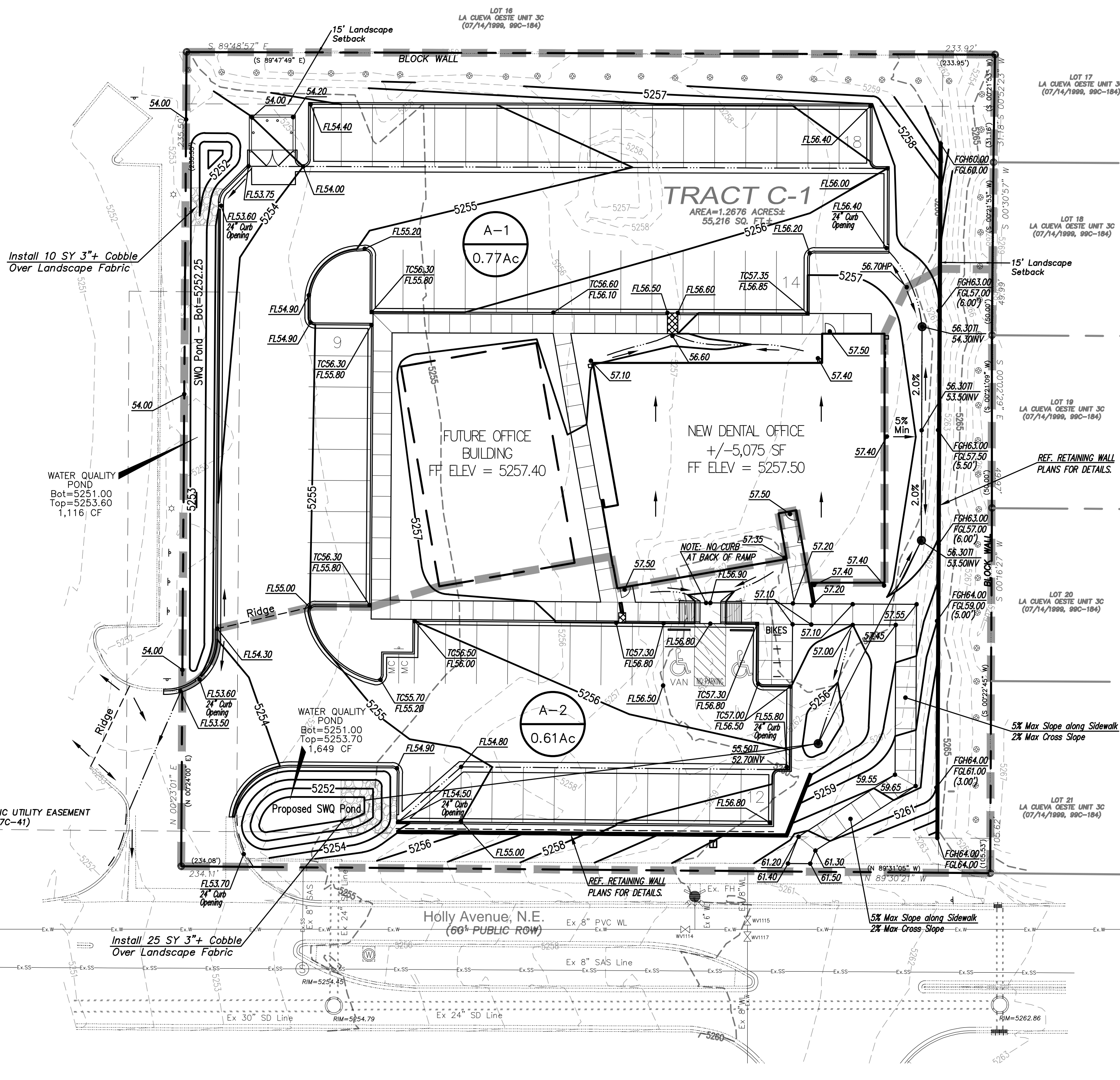
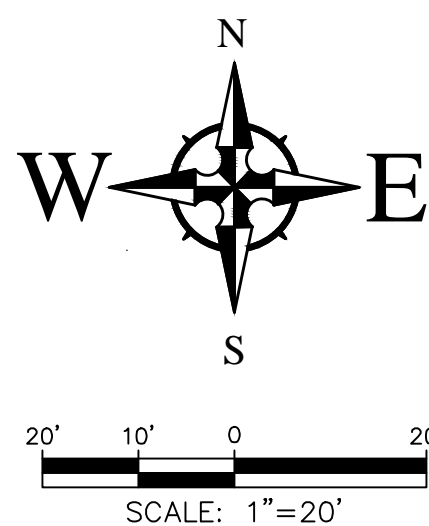
www.cabq.gov

Please provide Drainage Covenant per Chapter 17 of the DPM prior to Permanent Release of Occupancy for the stormwater quality ponds. Please submit these to the 4th floor of Plaza de Sol. A \$25 fee for each will be required.

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



- LEGEND**
- FLOW ARROW
 - PROPOSED TOP OF GRADE/PVMT ELEVATIONS
 - PROPOSED FLOW LINE/GUTTER ELEVATIONS
 - PROPOSED TOP OF CURB ELEVATIONS
 - PROPOSED TOP OF SIDEWALK ELEVATION
 - FINISHED GRADE AT TOP OF WALL
 - FINISHED GRADE AT BOTTOM OF WALL
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - EXISTING STORM DRAIN

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

GRADING NOTES

- EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
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- EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
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- PAVING AND ROADWAY GRADES SHALL BE +/- 0.05' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR PAVEMENT, MEDIANS, AND ISLANDS.
- VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION (IF APPLICABLE) PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE THE SWPPP DOCUMENT (IF NECESSARY) AND SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.

DRAINAGE MANAGEMENT PLAN

INTRODUCTION

The purpose of this submittal is to provide a final grading plan and drainage management plan for the subject Building Permit for a new Dental office located at 6421 Holly Ave NE. The overall development contains approximately 1.37 acres and is located approximately 800 feet east of the NEC of San Pedro and Holly in Albuquerque, NM.

EXISTING HYDROLOGIC CONDITIONS

The site is currently undeveloped and drains from east to west onto the existing TLC Laser Eye Care Center site. Per the prior approved Grading Plan by Wooten Engineering for the TLC Laser Eye Care facility (File Number C018D038 dated 5/28/2008), the subject site was to surface drain directly onto Holly Ave.

PROPOSED HYDROLOGIC CONDITIONS

The proposed grading plans redirects the existing flows from draining onto the TLC facility and will be redirected to Holly Ave per the prior approved plan. Reference the Drainage Calculations table this sheet. There are two basins located on site, both of which will be routed through new stormwater quality ponds to capture the required water quality volume. Reference the Stormwater Quality Pond Calculations table and the Stormwater Quality Pond Volumes Calculations tables this sheet. Basin A-1 is required to capture 843 CF and the volume provided is 1,116 CF. Basin A-2 is required to capture 563 CF and the volume provided is 1,649 CF.

CONCLUSION

This drainage management plan provides for grading and drainage elements which are capable of safely passing the 100 year storm and meet city requirements. The proposed improvements for the site should not have any negative impacts to facilities downstream. With this submittal, we are requesting approval of the Building Permit for this project.

BENCH MARKS

A.C.S. MONUMENT "9-c18"
MONUMENT "HEAVEN"
NEW MEXICO STATE PLANE COORDINATES
(CENTRAL ZONE-N.A.D. 1983)
N=1,521,497.624
E=1,542,501.428
PUB. EL=5232.47 NAVD 1988
GROUND TO GRID FACTOR=0.999664563
DELTA ALPHA ANGLE = -0°11'19.69"

Existing Academy Dental Drainage Calculations												
This table is based on the COA DPM Section 22.2, Zone: 3												
BASIN	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WT E (inches)	V(100) ₃₆₀ (CF)	V(100) ₁₄₄₀ (CF)	V(100) _{10day} (CF)
A-1	33389	0.77	0.0%	0.0%	100.0%	0.0%	3.45	2.64	1.29	3589	3589	3589
A-2	26439	0.61	0.0%	0.0%	100.0%	0.0%	3.45	2.09	1.29	2842	2842	2842
TOTAL	59828	1.37						4.74		6432	6432	6432

Proposed Academy Dental Drainage Calculations												
Ultimate Development Conditions Basin Data Table												
This table is based on the COA DPM Section 22.2, Zone: 3												
BASIN	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WT E (inches)	V(100) ₃₆₀ (CF)	V(100) ₁₄₄₀ (CF)	V(100) _{10day} (CF)
A-1	33389	0.77	0.0%	0.0%	27.0%	73.0%	4.60	3.52	2.07	5763	6575	9013
A-2	26439	0.61	0.0%	0.0%	39.0%	61.0%	4.41	2.68	1.94	4280	4818	6431
TOTAL	59828	1.37						6.20		10043	11393	15441

STORMWATER QUALITY POND CALCULATIONS

BASIN A-1

TOTAL NEW IMPERVIOUS AREA = 24,089 SF
SWQ VOLUME REQ'D = 24,089 * 0.42" / 12 = **843 CF**
TOTAL VOLUME PROVIDED = **1,116 CF**

BASIN A-2

TOTAL NEW IMPERVIOUS AREA = 16,074 SF
SWQ VOLUME REQ'D = 16,074 * 0.42" / 12 = **563 CF**
TOTAL VOLUME PROVIDED = **1,649 CF**

24" CURB OPENING WEIR CALCULATION

WEIR EQUATION

$$Q = C * L * (H^3)$$

Given:

C = 2.87 (Weir Coefficient)

L = 2 feet (Width of Flow)

H = 0.50 feet (Depth of Flow)

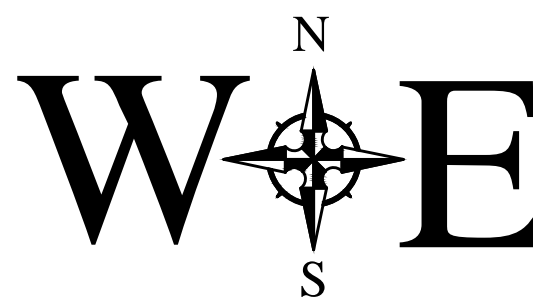
$$Q = 2.87 * 2 * (0.50^3)$$

$$Q = 2.87 * 2 * 0.63$$

$$Q_{cap} = 3.62 \text{ cfs}$$

Stormwater Quality Pond Volume Calculations

Elevation (ft)	Area (sq.ft)	Volume (cu-ft)	Volume Sum (cu-ft)
BASIN A-1			
5251.0	12	0.0	0.0
5252.0	88	50.0	50.0
5253.0	802	426.0	476.0
5253.6	1,332	640.0	1,166.0
BASIN 7			
5251.0	226	0.0	0.0
5252.0	426	326.0	326.0
5253.0	666	546.0	872.0
5253.7	888	777.0	1,649.0



Wooten Engineering
1005 21st St SE, Suite 13
Rio Rancho, N.M. 87124
Phone: (505) 980-3560

JOE
ARCHITECT
1433 delaney street, suite 121 denver co | 720.944.3228

Academy Dental Center

6421 Holly Ave. NE
Albuquerque, NM



REVISIONS		
#	Date	Description

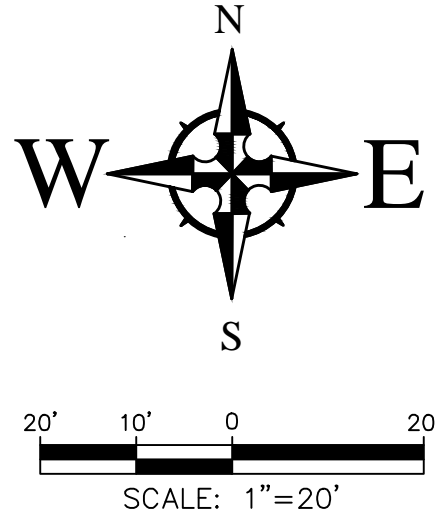
DATE:	AUGUST 22, 2019
PROJECT NO:	2018038
DRAWN BY:	OG
ISSUED FOR:	SD

Grading Plan

C2.0

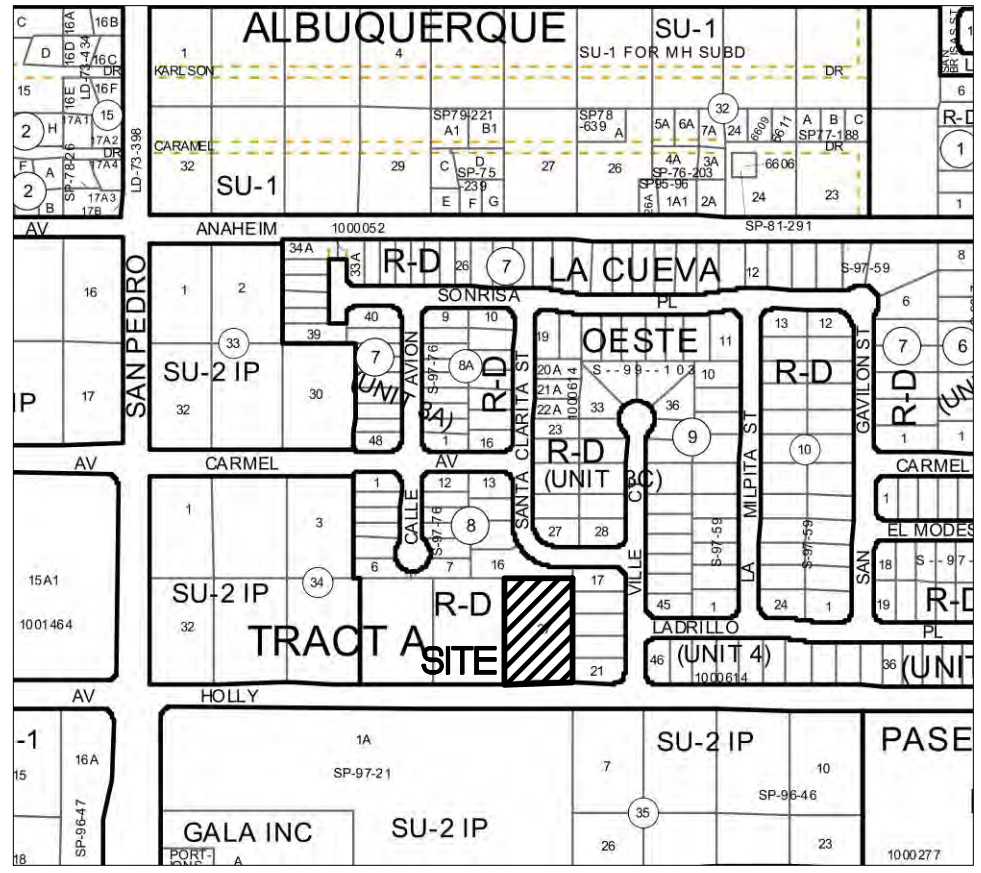
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LEGEND

- FLOW ARROW
- 27.8
FL27.8
TC27.8
TS27.8
- FGH83.40
FGL83.40
- 515
- 515
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING STORM DRAIN



VICINITY MAP - Zone Map C-18-Z

LEGAL DESCRIPTION:

Tract C-1, Paseo Nuevo 2, Albuquerque,
Bernalillo County, 1.268 Acres.

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Academy Dental Center

6421 Holly Ave. NE
Albuquerque, NM



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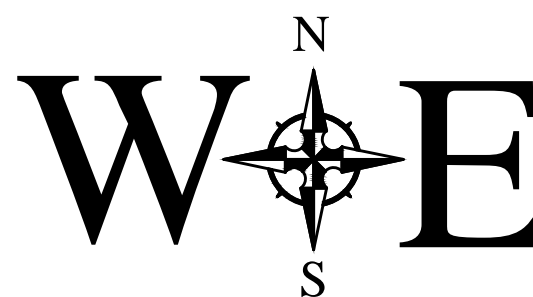
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ISSUED FOR: SD

Storm Drain Plan

C2.1



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