

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

April 16, 2020

Jesus Lopez
Respec
5971 Jefferson St. NE
Albuquerque, NM 87109

RE: **Cottonwood Mall Pads
Grading & Drainage Plan
Engineer's Stamp Date: 4/16/20
Hydrology File- B14D004G**

Dear Mr. Lopez:

Based on the re-submittal received on 4/16/20, this project is approved for Building Permit. 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..

Prior to Certificate of Occupancy (For Information):

1. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

If you have any questions, you can contact me at 924-3986 or earmijo@cabq.gov.

Sincerely,

Ernest Armijo, P.E.
Principal Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: COTTONWOOD MALL PADS **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: TRACT B-4-A COTTONWOOD MALL
City Address: _____

Applicant: RESPEC **Contact:** _____
Address: 5971 Jefferson Street NE Suite 101 Albuquerque NM 87109
Phone#: (505) 253-9812 **Fax#:** _____ **E-mail:** Jesus.Lopez@respec.com

Owner: PEGASUS RETAIL **Contact:** ANTHONY JOHNSON
Address: 100 SUN AVENUE - SUITE 100
Phone#: 505-346-0022 **Fax#:** _____ **E-mail:** AJ@PEGASUSGROUPNM.COM

TYPE OF SUBMITTAL: _____ PLAT (____ # OF LOTS) _____ RESIDENCE ☒ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes ☒ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION ☒ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- _____ DRAINAGE MASTER PLAN
- _____ DRAINAGE REPORT
- _____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- _____ ELEVATION CERTIFICATE
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ TRAFFIC IMPACT STUDY (TIS)
- _____ 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: 03/18/2020

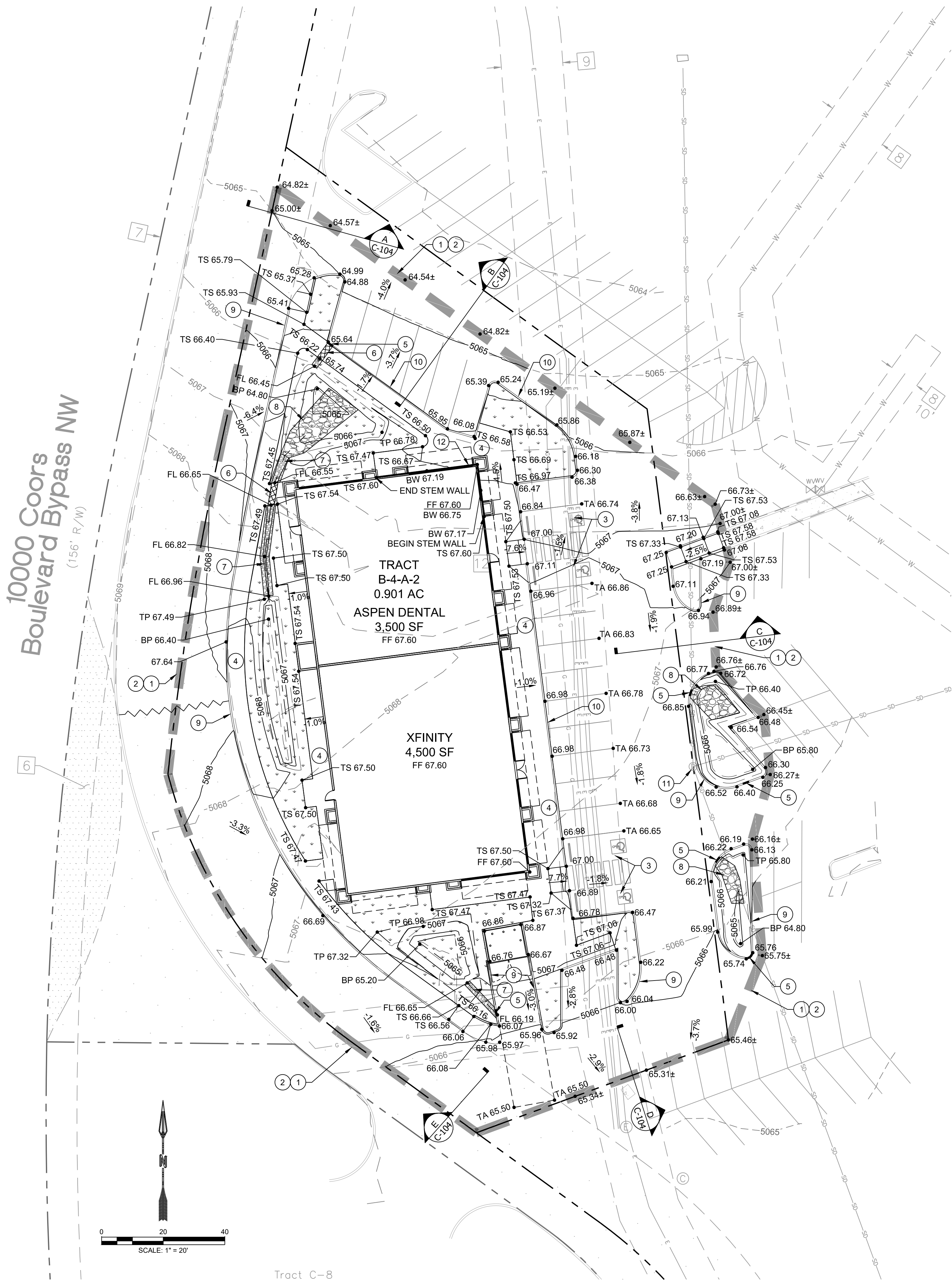
By:

Jesus Lopez

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



EASEMENT NOTES

- EXISTING 10' P.U.E. (1/6/1995, 95C-5)
- EXISTING 20' SANITARY SEWER EASEMENT (1/5/1995, BK. 95-1, PG. 2894-2900) [OUTSIDE OF LIMITS]
- EXISTING 7' MOUNTAIN BELL UNDERGROUND TELEPHONE EASEMENT (4/21/1965, MISC. R/W 143, Pg. 329) [OUTSIDE OF LIMITS]
- EXISTING 30' GAS TRANSMISSION LINE EASEMENT (9/19/1994, BK. MISC. 94-26, Pg. 9234-9339) [OUTSIDE OF LIMITS]
- EXISTING 50' SOUTHERN UNION EASEMENT (9/16/1930, BK. MISC. 112, PG. 515), (12/11/1931, BK. MISC. 123, PG. 152), (1/14/1946, BK. MISC. 220, PG. 547), (3/29/1956, BK. MISC. D346, PG. 356), AND (3/7/1961, BK. MISC. D585, PG. 409) [OUTSIDE OF LIMITS]
- EXISTING PUBLIC PEDESTRIAN ACCESS EASEMENT (1/6/1995, 95C-5) SHOWN HEREON AS
- EXISTING PERMANENT PRIVATE ACCESS EASEMENT (1/6/1995, 95C-5) SHOWN HEREON AS
- EXISTING WATERLINE EASEMENT, WIDTHS VARY, AS SHOWN HEREON (1/31/1997, 97C-33)
- EXISTING 20' P.U.E. (1/31/1997, 97C-33)
- EXISTING 25' X 16' PNM TRANSFORMER EASEMENT (1/31/1997, 97C-33) [OUTSIDE OF LIMITS]
- EXISTING 15' X 20' TRANSFORMER EASEMENT (7/18/95, 95C-263) [OUTSIDE OF LIMITS]
- EXISTING PRIVATE RECIPROCAL ACCESS, DRAINAGE AND UTILITY EASEMENT (1/6/95, 95C-5) (BLANKET)

KEYED NOTES

- LIMITS OF DISTURBANCE
- SAWCUT & MATCH GRADE AT EXISTING ASPHALT PAVEMENT
- 1.5% MIN. SLOPE 1.8% MAX. SLOPE ALL DIRECTIONS AT ACCESSIBLE PARKING SPACES
- 1.8% MAX. CROSS SLOPE AT ACCESSIBLE SIDEWALK
- INSTALL 2' CURB OPENING
- INSTALL 2' WIDE SIDEWALK CULVERT PER COA STD DWG 2236
- INSTALL 3' WIDE X 0.5' DEEP GRAVEL-LINED SWALE SEE DETAIL 1 THIS SHEET
- INSTALL RIP RAP PER SPECIFICATIONS THIS SHEET
- INSTALL CONCRETE CURB & GUTTER
- INSTALL CONCRETE CURB
- STORM DRAIN MANHOLE TO BE PROTECTED IN PLACE
- INSTALL STEM WALL 0.85' MAX HEIGHT

RIP RAP SPECIFICATIONS

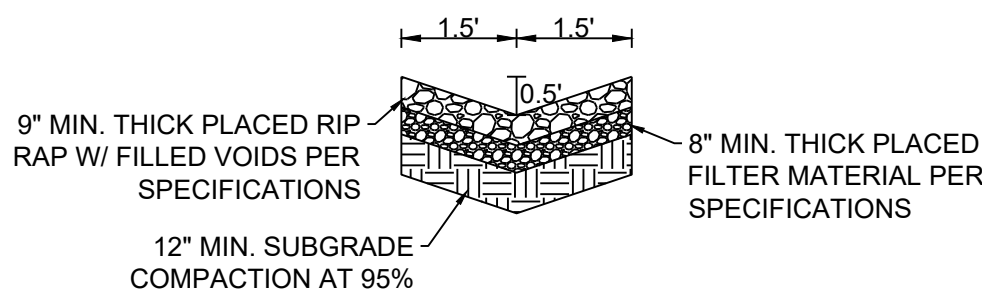
RIP RAP SHALL BE OVER FILTER MATERIAL AND CONSIST OF RIP RAP AND CRUSHED ROCK MEETING THE FOLLOWING GRADATION OR ENGINEER-APPROVED EQUAL:

MAX DIMENSION	% SMALLER
12"	100
9"	50-60
6"	35-45
3"	10

FILTER MATERIAL SHALL CONSIST OF CRUSHED ROCK MEETING THE FOLLOWING GRADATION OR ENGINEER-APPROVED EQUAL:

U.S. STANDARD SIEVE SIZE	% PASS BY WT
1"	100
3/4"	45-65
#4	25-45
#40	0-20
#200	0-5

FILTER MATERIAL SHALL BE PLACED UNDER THE RIP RAP CHANNEL AND COMPACTED INTO SURFACE VOIDS OF THE RIP RAP. THE SUBGRADE SHALL BE PROCESSED TO A 12" MIN. DEPTH AND COMPACTED TO 95% MIN. RELATIVE DENSITY PER ASTM D 1557. THE FILTER MATERIAL SHALL BE TAMPED AND SHAPED TO FORM A SMOOTH, EVEN, AND FIRM FOUNDATION FOR THE OVERLAYING RIP RAP. THE CONTRACTOR'S OPERATIONS AND METHODS OF PLACING SHALL PREVENT SEGREGATION OF THE MATERIALS. THE FILTER MATERIAL SHALL BE PLACED AND TAMPED IN THE VOIDS OF THE RIP RAP.



SPILLWAY RIP RAP RUNDOWN

SCALE: NTS

LEGEND

- EXISTING PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LIMITS OF GRADING
- PROPOSED HIGH POINT
- PROPOSED SWALE
- SLOPE ARROW
- PROPOSED STEM WALL
- PROPOSED 3/4" MINUS ALL FACED FRACTURED GRAVEL
- PROPOSED RIP RAP
- PROPOSED LANDSCAPE

GRADING NOTES

- CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING DRY AND WET UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES. UTILITY RELOCATION MAY BE REQUIRED.
- PARKING LOT STRIPING HAS BEEN SCREENED BACK FOR VISUAL CLARITY
- GRADES SHOWN ARE FINAL SURFACE GRADES AFTER COMPLETION OF SURFACE IMPROVEMENTS.
- GRADE AREAS AT SITE PERIMETER TO MATCH GRADES OF ADJACENT PARCELS.
- REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF PROPERLY IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- PROVIDE TEMPORARY GRADING FEATURES SUCH AS BERMS, SWALES, SUMPS AND BASINS TO MANAGE INTERIM STORM WATER RUNOFF DURING CONSTRUCTION PROCESS. STORM WATER RUNOFF LEAVING THE SITE SHALL MEET ALL FEDERAL, STATE AND LOCAL QUALITY REQUIREMENTS.
- ALL DISTURBED AREAS TO BE RE-SEEDDED PER LANDSCAPE PLAN PROVIDED BY OTHERS.
- ALL AREAS WITH SLOPES GREATER THAN 3:1 SHALL BE LANDSCAPED WITH 3/4" MINUS ALL FACED FRACTURED GRAVEL AND SEPARATION FABRIC.

SPOT ELEVATION SYMBOLS

- ALL SPOT ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE NOTED IN THE PLANS.
- TA 66.00 TOP OF ASPHALT
- 66.00± MATCH EX. GRADE ELEV. (APPROXIMATE)
- TP 66.00 TOP OF POND
- BP 66.00 BOTTOM OF POND
- TS 66.00 TOP OF SIDEWALK
- FL 66.00 FLOWLINE
- BW 66.00 BOTTOM WALL



RESPEC

5971 JEFFERSON STREET SUITE 101
ALBUQUERQUE, NEW MEXICO 87109
WATER & NATURAL RESOURCES
WWW.RESPEC.COM 505.253.9718

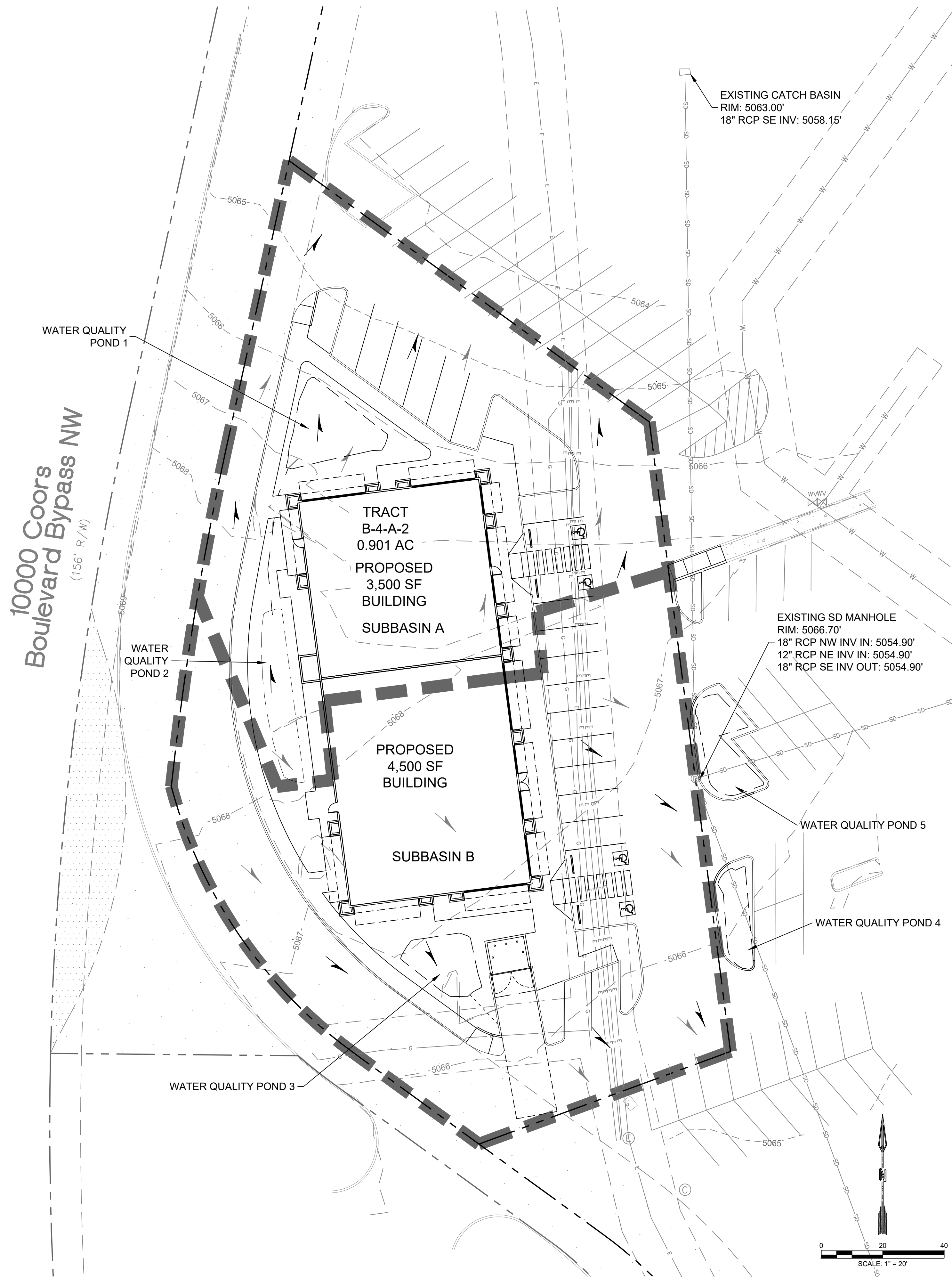
MODULUS ARCHITECTS
100 SUN AVENUE N.E., Ste 305
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE
COTTONWOOD MALL - PAD 1
10000 Coors Bypass NW
ALBUQUERQUE, NEW MEXICO 87114
PROJECT MANAGER
HUGH FLOYD
SHEET TITLE
GRADING PLAN

DATE
13Mar2020
SCALE
AS NOTED
sheet-
C-101
of.

REV	DATE	BY	REVISION
1	16Jan2020		
2	16Jan2020		
3	16Jan2020		
4	16Jan2020		
5	16Jan2020		



LEGEND

- SUBBASIN BOUNDARY
- EXISTING FLOW ARROW
- PROPOSED FLOW ARROW
- PROPOSED SWALE

DRAINAGE SUMMARY

Background

Tract B-4-A-2 contains approximately 0.9 acres. The site is located within the parking lot west of Cottonwood Mall and east of Coors Blvd Bypass NW. The site does not receive any offsite runoff from developed areas and, in general, surface drains towards the northeast and southeast. The existing site is an asphalt parking lot serving Cottonwood Mall. An 8,000 SF commercial building is proposed to be installed with asphalt paved parking lot and increased landscape area. The site is proposed to match existing drainage characteristics while reducing discharge flow rates due to the decrease in impervious areas.

Methodology

The development assumptions and criteria including land treatment types and impervious areas, as well as the hydrologic analyses for the site were performed in accordance with the City of Albuquerque Development Process Manual (DPM), AHYMO-S4 (April 2018) was used to develop peak flow rates for the 100-year 24-hour design storm in accordance with Section 22.2 of the DPM. Hydraulic calculations were performed per Section 22.3 of the DPM.

Existing Conditions

The site is currently a parking lot with asphalt surfacing serving the Cottonwood Mall. It contains approximately 96% impervious area. The site has mild slopes ranging from 1% to 5%. It is divided into two portions by an east-west high point near the center of the site. The northern portion of the site sheet flows towards the northeast to an existing offsite inlet within the Cottonwood Mall Parking lot. The southern portion also sheet flows towards the southeast to an existing offsite inlet. Per the Drainage Report for Cottonwood Mall dated April 1992, the majority of the Cottonwood Mall area drains to a storm drain system that ultimately discharges to the Calabacillas Arroyo.

Proposed Conditions

The proposed site development will consist of an 8,000 SF commercial building with asphalt paved parking surface and landscape areas. The intent of the proposed conditions is to maintain the existing drainage characteristics to minimize any potential impacts on the downstream stormwater conveyance system. The site's current high point will remain and stormwater runoff will be conveyed via surface sheet flow and swales towards the northeast and southeast inlets. The impervious areas will be reduced due to the implementation of landscaping, which will slightly reduce the flow rate under the proposed conditions. Several water quality ponds will be installed within parking medians and landscape areas around the building.

Subbasin A is 0.406 acres and generates 1.74 cfs. This subbasin consists of the northern portion of the site including part of the proposed building, landscaping, and asphalt parking lot. The site drainage will include surface sheet flow and swales and discharge stormwater to the northeast, matching existing conditions with eventual discharge into the storm drain system via an offsite inlet.

Subbasin B is 0.495 acres and generates 2.15 cfs. This subbasin consists of the southern portion of the site including part of the proposed building, landscaping, and asphalt parking lot. The site drainage will include surface sheet flow and swales and discharge stormwater to the southeast, matching existing conditions with eventual discharge into the storm drain system via an offsite inlet.

HYDROLOGY CALCULATIONS

AHYMO INPUT: EXISTING CONDITIONS									
Subbasin	Area (ac)	Treatment Type Area (ac)				Treatment Type Area (%)			
		A	B	C	D	A	B	C	D
Existing	0.901	0	0.021	0.021	0.859	0.00%	2.33%	2.33%	95.34%

AHYMO INPUT: PROPOSED CONDITIONS									
Subbasin	Area (ac)	Treatment Type Area (ac)				Treatment Type Area (%)			
		A	B	C	D	A	B	C	D
Subbasin A	0.406	0.000	0.000	0.041	0.365	0.0%	0.0%	10.0%	90.0%
Subbasin B	0.495	0.000	0.000	0.049	0.445	0.0%	0.0%	10.0%	90.0%

AHYMO OUTPUT: EXISTING CONDITIONS				
Subbasin	A (ac)	Q (cfs)	V (acft)	Q/A (cfs/ac)
Existing	0.901	3.93	0.177	4.4

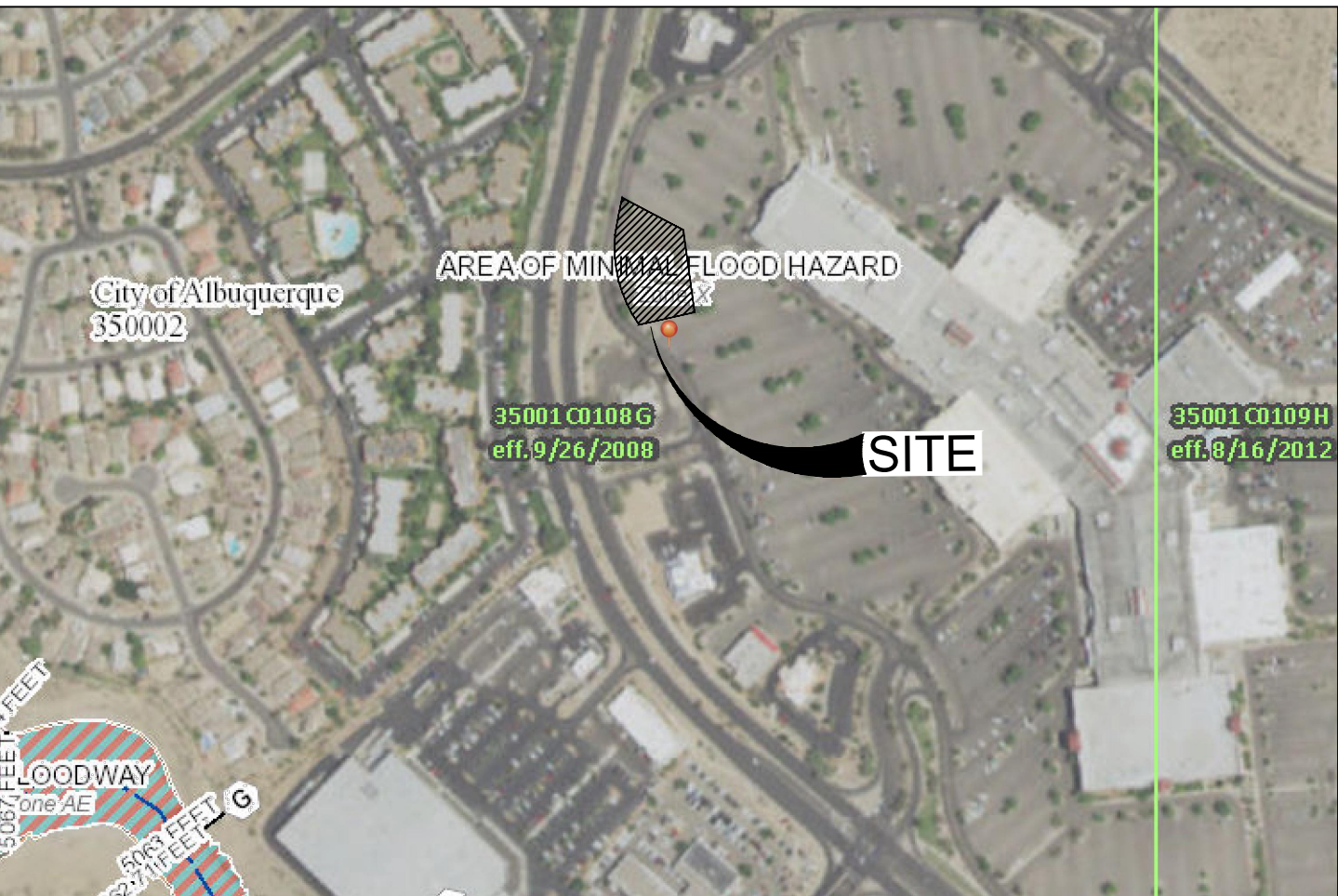
AHYMO OUTPUT: PROPOSED CONDITIONS				
Subbasin	A (ac)	Q (cfs)	V (acft)	Q/A (cfs/ac)
Subbasin A	0.406	1.74	0.077	4.3
Subbasin B	0.495	2.15	0.095	4.3

WATER QUALITY PONDING					
Area (ac)	% Imp.	Imp. Area (ac)	WQ Depth (in)	Required WQ Vol (cu ft)	Provided WQ Vol (cu ft)
0.901	90.0%	0.811	0.34	1001	1614

WATER QUALITY POND 1 VOLUME				
Elev.	Area (Sq. Ft.)	Vol (Cu. Ft.)	Cum. (Cu. Ft.)	Cum. (Ac. Ft.)
64.8	15	0	0	0.000
66.8	557	567	567	0.013

WATER QUALITY POND 2 VOLUME				
Elev.	Area (Sq. Ft.)	Vol (Cu. Ft.)	Cum. (Cu. Ft.)	Cum. (Ac. Ft.)
66.4	46	0	0	0.000
67.5	455	273	273	0.006

WATER QUALITY POND 3 VOLUME				
Elev.	Area (Sq. Ft.)	Vol (Cu. Ft.)	Cum. (Cu. Ft.)	Cum. (Ac. Ft.)
65.2	39	0	0	0.000
67.0	367	362	362	0.008



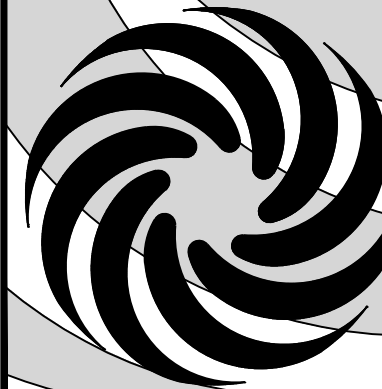
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LOCATION MAP
ZONE ATLAS MAP B-13-Z

FEMA FIRM NUMBER 35001C0108G

MODULUS ARCHITECTS

100 SUN AVENUE N.E., Ste. 305
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE
COTTONWOOD MALL - PAD 1

10000 Coors Bypass NW
ALBUQUERQUE, NEW MEXICO 87114

PROJECT MANAGER
HUGH FLOYD

JOB NO.
03974

DRAWN BY:
JL

SHEET TITLE
DRAINAGE PLAN

DATE
13Mar2020

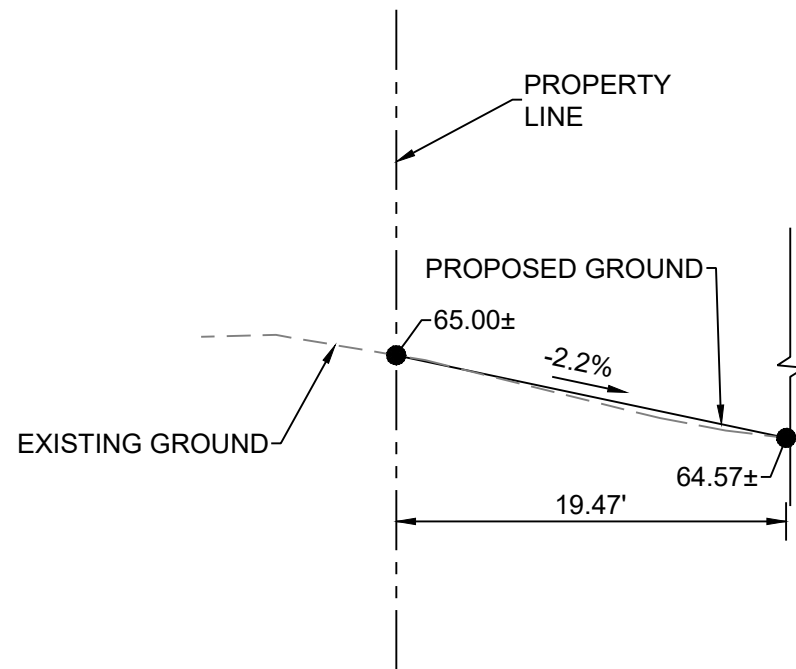
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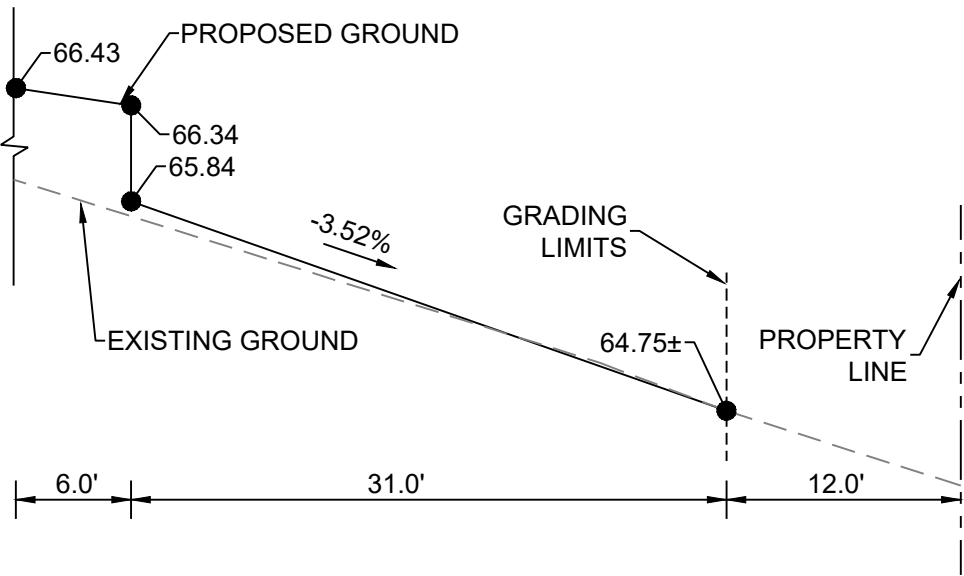


RESPEC

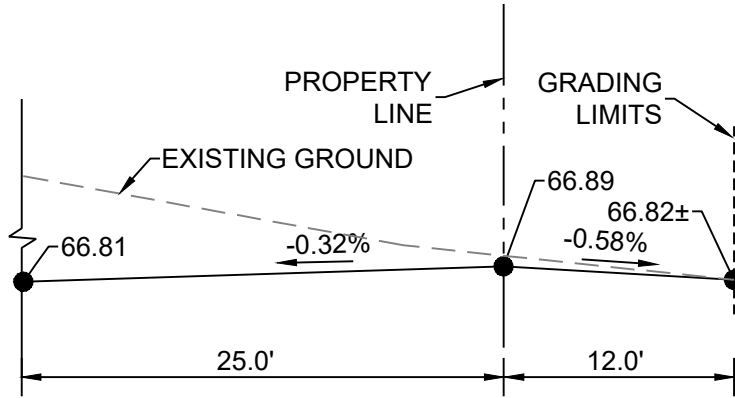
5971 JEFFERSON STREET SUITE 101
ALBUQUERQUE, NEW MEXICO 87109
WATER & NATURAL RESOURCES
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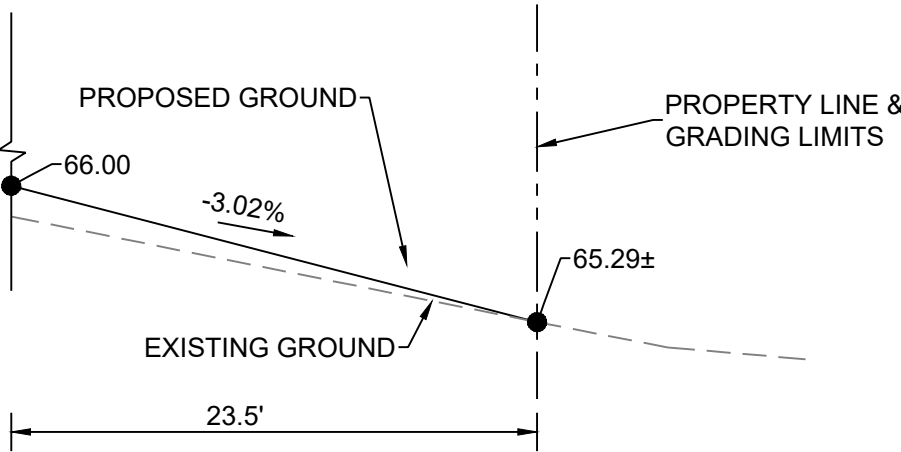
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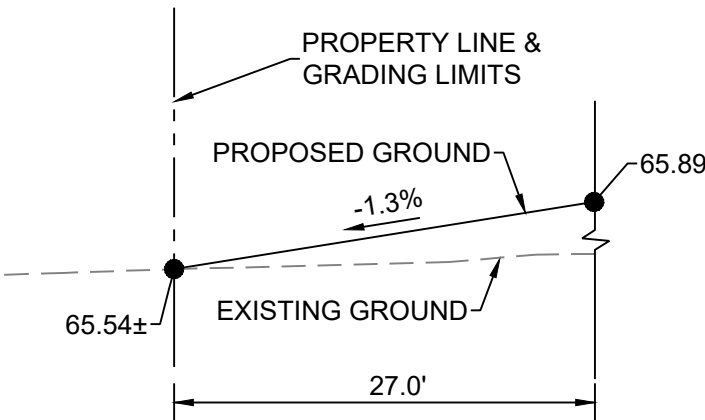
B NORTH PROPERTY LINE SECTION
SCALE: NTS



C EAST PROPERTY LINE SECTION
SCALE: NTS



D SOUTH PROPERTY LINE SECTION
SCALE: NTS



E SOUTHWEST ENTRANCE SECTION
SCALE: NTS



MODULUS ARCHITECTS
100 SUN AVENUE N.E., Ste. 305
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE COTTONWOOD MALL - PAD 1 10000 CARRS BYPASS NW ALBUQUERQUE, NEW MEXICO 87114			DRAWN BY: JL
PROJECT MANAGER HUGH FLOYD		JOB NO. 03974	
SHEET TITLE SECTIONS			

DATE: 13Mar2020	sheet: C-104
SCALE: AS NOTED	of:

REV	DATE	BY	REVISION
1	16.Mar.2020		
2	16.Mar.2020		
3	16.Mar.2020		
4	16.Mar.2020		
5	16.Mar.2020		
6	16.Mar.2020		