

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

March 23, 2023

Robert Fierro, P.E.
Fierro & Company
6300 Montano Rd NW
Albuquerque NM, 87104

**RE: The Varela Residence Volcano Cliffs Unit 18
6505 Pato Rd NW, S.A.D. 228, Lot 21 Block 6
Grading and Drainage Plan Date 12/27/16 (D10D003M21)
Pad Certification Date 1/25/17
CO Approval Date 6/2/2020
Revised G&D plan for pool Date: 3/20/2023**

Mr. Fierro:

Based upon the information provided in your submittal received 3/23/2023, this plan for Certificate of Occupancy cannot be approved until the following comment is addressed.

PO Box 1293

- Provide new land treatment amounts.
- Provide new pond size if needed.

Albuquerque

If you should have any questions please contact me at 505-924-3695 or Rudy E. Rael at 505-924-3977.

NM 87103

Sincerely,

www.cabq.gov

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

RR/TC
File D10D003M21



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

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:

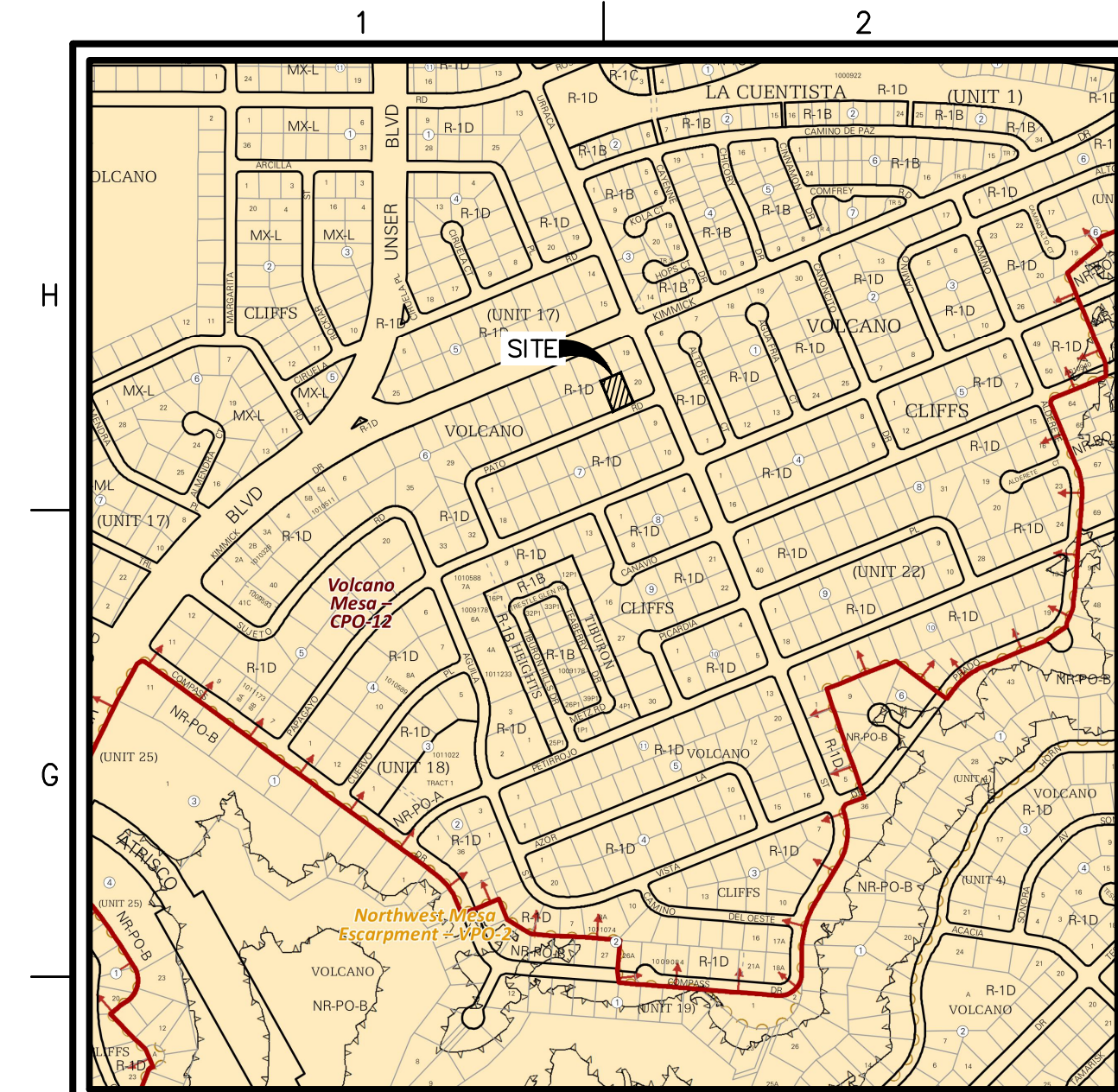
- _____ BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY
- _____ PRELIMINARY PLAT APPROVAL
- _____ SITE PLAN FOR SUB'D APPROVAL
- _____ SITE PLAN FOR BLDG. PERMIT APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ SIA/ RELEASE OF FINANCIAL GUARANTEE
- _____ FOUNDATION PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ SO-19 APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ GRADING/ PAD CERTIFICATION
- _____ WORK ORDER APPROVAL
- _____ CLOMR/LOMR
- _____ FLOODPLAIN DEVELOPMENT PERMIT
- _____ OTHER (SPECIFY) _____

DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



LOCATION MAP
ZONE ATLAS MAP: D-10-Z

BASIN 100 (ALLOWABLE)			BASIN 200 (PROPOSED)		
Area of Treatment A	=	0.000 ft ²	Area of Treatment A	=	0.000 ft ²
Area of Treatment B	=	1700.00 ft ²	Area of Treatment B	=	1700.00 ft ²
Area of Treatment C	=	6800.00 ft ²	Area of Treatment C	=	8048.00 ft ²
Area of Treatment D	=	8500.00 ft ²	Area of Treatment D	=	7252.00 ft ²
Total Area	=	17000.00 ft ²	Total Area	=	17000.00 ft ²
		0.390 ac			0.390 ac
Volumetric Flow			Volumetric Flow		
Weighted E	=	1.448 inches	Weighted E	=	1.376 inches
Volume (6hr)	=	0.047 acre-ft	Volume (6hr)	=	0.045 acre-ft
Volume (24hr)	=	0.055 acre-ft	Volume (24hr)	=	0.051 acre-ft
Volume (4days)	=	0.062 acre-ft	Volume (4days)	=	0.058 acre-ft
Volume (10days)	=	0.071 acre-ft	Volume (10days)	=	0.065 acre-ft
Peak Rate of Discharge			Peak Rate of Discharge		
Q ₁₀₀	=	1.380 cfs	Q ₁₀₀	=	1.337 cfs

HYDROLOGY FROM APPROVED PLAN D10D003M21

INTRODUCTION

A SWIMMING POOL WITH DECK IS BEING PROPOSED. THE RESIDENCE ON THIS PROPERTY WAS CONSTRUCTED IN 2020 ALONG WITH TWO EXISTING STORM WATER QUALITY PONDS. THE PURPOSE OF THIS GRADING & DRAINAGE PLAN IS TO SATISFY THE FIRST FLUSH REQUIREMENT AND SEEK APPROVAL FOR THE CONSTRUCTION OF THE PROPOSED SWIMMING POOL.

METHODOLOGY

HYDROLOGIC PROCEDURES PRESENTED IN THE HYDROLOGY SECTION OF THE DMP, ARTICLE 6-2(A), APPROVED JUNE 8, 2020 WERE FOLLOWED. PRECIPITATION ZONE 1 DATA WAS USED IN THE HYDROLOGIC COMPUTATIONS.

EXISTING CONDITION

THE SITE'S LOT DIMENSION IS 100'X145'. THE LOT DOES NOT RECEIVE OFFSITE RUNOFF. THE PROPERTY WAS DEVELOPED IN 2020. THERE ARE TWO EXISTING STORM WATER QUALITY PONDS WHICH ARE SHOWN ON THE DRAINAGE CERTIFICATION WITH ENGINEER STAMP DATE 6/2/2020 AND APPROVED UNDER HYDROLOGY FILE D10D003M21.

PROPOSED CONDITION

A SWIMMING POOL WITH DECK IS PROPOSED WHICH WILL BE AN ADDITIONAL 1,000 SQ.FT. OF IMPERVIOUS AREA. THE RUNOFF FROM THE ADDITIONAL IMPERVIOUS AREA WILL DISCHARGE TO THE EAST STORM WATER QUALITY POND. THE EAST STORM WATER QUALITY POND WILL BE RECONSTRUCTED TO STORE ALL REQUIRED STORM WATER QUALITY VOLUME GENERATED FROM EXISTING AND PROPOSED IMPERVIOUS AREA WHICH DISCHARGE TO THIS POND. NO IMPROVEMENTS ARE REQUIRED TO THE WEST POND. DRAINAGE PATTERN WILL NOT BE ALTERED. HYDROLOGIC CALCULATIONS WERE NOT PERFORMED UNDER THIS GRADING PLAN OTHER THAN CALCULATING THE STORM WATER QUALITY REQUIREMENT. DISCHARGE RATE CALCULATIONS ARE SHOWN ON THE PREVIOUSLY APPROVED GRADING PLAN.

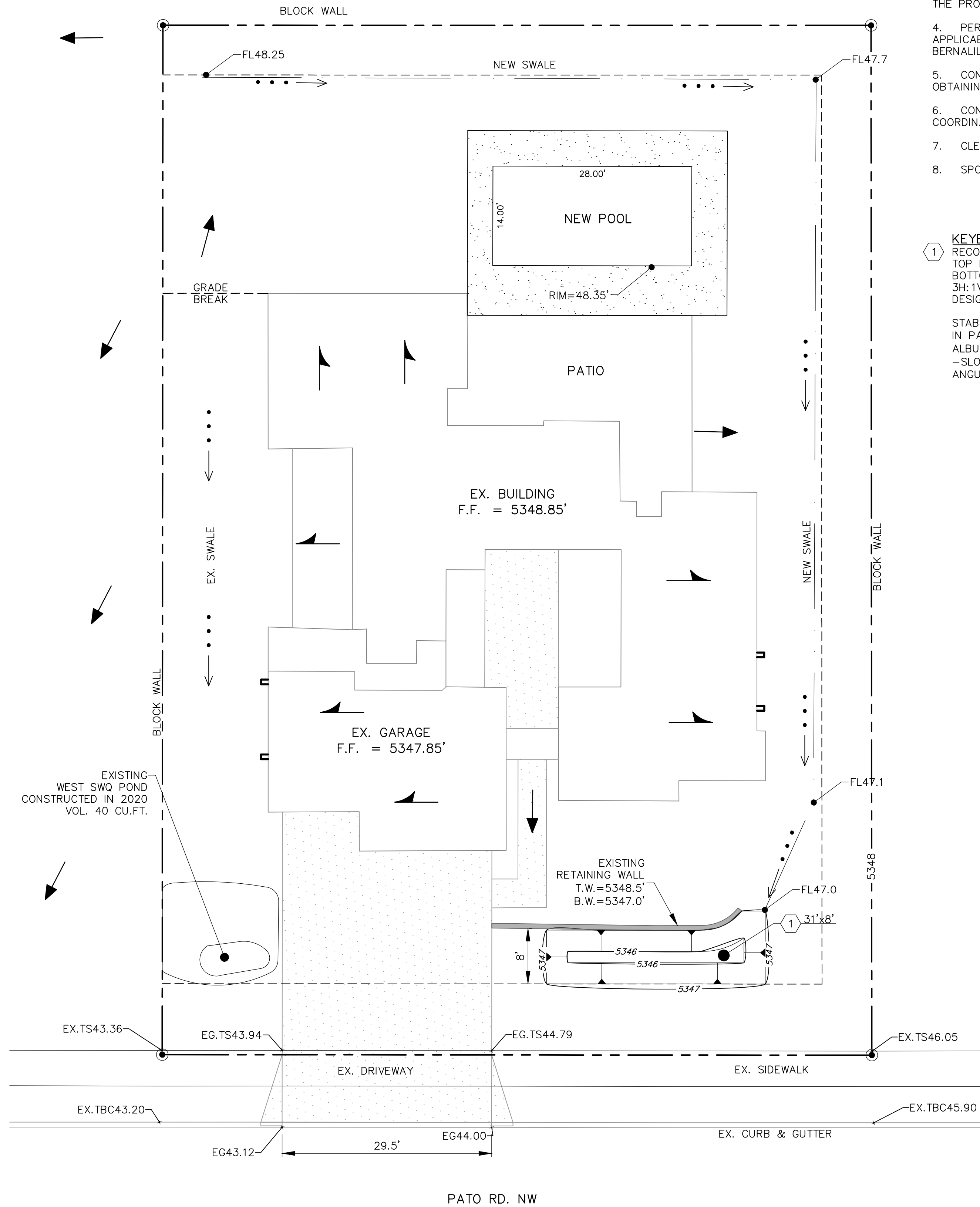
REQUIRED STORMWATER QUALITY VOLUME:

TOTAL LAND TREATMENT "D" AREA = 6,450 SQ.FT.
WATER QUALITY STORAGE REQUIRED = 6,450 SQ.FT.*(0.34)*(1'/12")=183 CU.FT.

PROVIDED POND STORMWATER QUALITY VOLUME:

TOTAL REQUIRED VOL. = (EAST SWQP. + WEST SWQP.)
= (40 cu.ft. + 144 cu.ft.)= 184 cu.ft.

THEREFORE, STORMWATER QUALITY VOLUME REQUIREMENT IS MET.
POND STORAGE CAPACITY IS GREATER THAN REQUIRED VOLUME.
WATER SURFACE ELEVATION OF POND = 5347.0



LEGAL DESCRIPTION
LOT 21, BLOCK, 6, VOLCANO CLIFFS UNIT 18

GENERAL GRADING NOTES:

1. THE CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES SHOWN AND COORDINATE WITH ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL LIMIT DISTURBANCE OF NATIVE VEGETATION TO A MINIMUM.
3. THIS PLAN RECOMMENDS POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES TO PROHIBIT PONDING OF RUNOFF WHICH MAY CAUSE STRUCTURAL SETTLEMENT. FUTURE ALTERATION OF GRADES ADJACENT TO THE PROPOSED STRUCTURES IS NOT RECOMMENDED.
4. PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF BERNALILLO COUNTY, NEW MEXICO.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF OR OBTAINING EXCESS CUT OR FILL MATERIAL REQUIRED FOR FINAL GRADE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH NEW MEXICO ONE CALL PRIOR EXCAVATION.
7. CLEAR AND GRUBBING PER NM APWA SECTION 201 SPECIFICATION.
8. SPOT ELEVATIONS ARE TO FINISH GRADE UNLESS NOTED OTHERWISE.

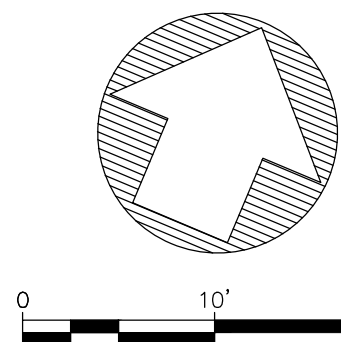
KEYED NOTES:

1. RECONSTRUCT EAST STORM WATER QUALITY POND
TOP ELEV.=5147.0
BOTTOM ELEV. = 5146.0
3H:1V SIDE SLOPE
DESIGN VOLUME=144 CU.FT.

STABILIZE SLOPES PER THE FOLLOWING CRITERIA AS LISTED BELOW AND IN PART 6-4(E) MEANS OF EROSION CONTROL OF CITY OF ALBUQUERQUE'S DEVELOPMENT PROCESS MANUAL.
-SLOPES BETWEEN 2.5H:1V TO 3H:1V PROTECT WITH 1.5" ANGULAR ROCK
ANGULAR HAND-PLACED WITH NO LANDSCAPE FABRIC

LEGEND

---	PROPERTY BOUNDARY
---	FLOW PATH
---	FLOW DIRECTION
---	SURFACE DRAINAGE
●	PROPERTY CORNER
@	WATER METER
TEL	TELEPHONE PEDESTAL
TV	TV PEDESTAL
CE	ELECTRICAL PEDESTAL
---	UTILITY EASEMENT LINE
---	FLOWLINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
EX.	EXISTING
EG	EXISTING GRADE
FG	FINISH GRADE
FL	FLOW LINE
TBC	TOP BACK OF CURB
TS	TOP OF SIDEWALK



Fierro & Company
ENGINEERING | SURVEYING
3201 4TH STREET NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352-8930
www.fierrocompany.com



THE SISNEROS RESIDENCE
6505 PATO RD. NW
ALBUQUERQUE, NM

PROJECT NAME

BY	DESCRIPTION	DATE	REV.

PROJECT NO:	162055
DESIGNED BY:	RJF
DRAWN BY:	STAFF
CHECKED BY:	RJF
DATE:	MARCH 2023

SHEET TITLE

GRADING
PLAN

SHEET NO:

C-1.0