

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

December 18, 2020

Jesse J Luehring, P.E.
Critical View Engineering
11501 Modesto Ave NE
Albuquerque, New Mexico 87122

RE: **Lot 27, Block 9, Unit 18 S.A.D. 228**
6519 Picardia Pl. NW
Grading and Drainage Plan
Engineers Stamp Date 12/13/2020 (D10D003I27)

Mr. Luehring,

Based upon the information provided in your submittal received 12/17/2020, this plan is approved for Grading Permit.

PO Box 1293

A pad certification is required before concrete is poured, either by a letter from you stating that the pad is built according to the plan submitted or by an as-built with elevations plotted.

Albuquerque

Please attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology.

NM 87103

Also, please advise the owner/contractor that a separate wall permit must be obtained and this approved grading plan must be provided with the wall permit application.

www.cabq.gov

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, please contact me at 924-3986 or Rudy Rael at 924-3977.

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: G & D for 6519 Picardia PI Residence **Building Permit #:** _____ **Hydrology File #:** TBD
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Lot 27, Block 9, Volcano Cliffs Unit 18
City Address: 6519 Picardia PI NW

Applicant: Critical View Engineering **Contact:** Jesse Luehring
Address: 11501 Modesto Ave NE, Albuquerque NM 87122
Phone#: 505-321-5917 **Fax#:** _____ **E-mail:** criticalviewabq@gmail.com
Owner: Owner **Contact:** Adam Garcia
Address: 2404 Maiden Grass Rd NW, Albuquerque NM 87120
Phone#: 505-620-4042 **Fax#:** _____ **E-mail:** adamagarcia@comcast.net

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:

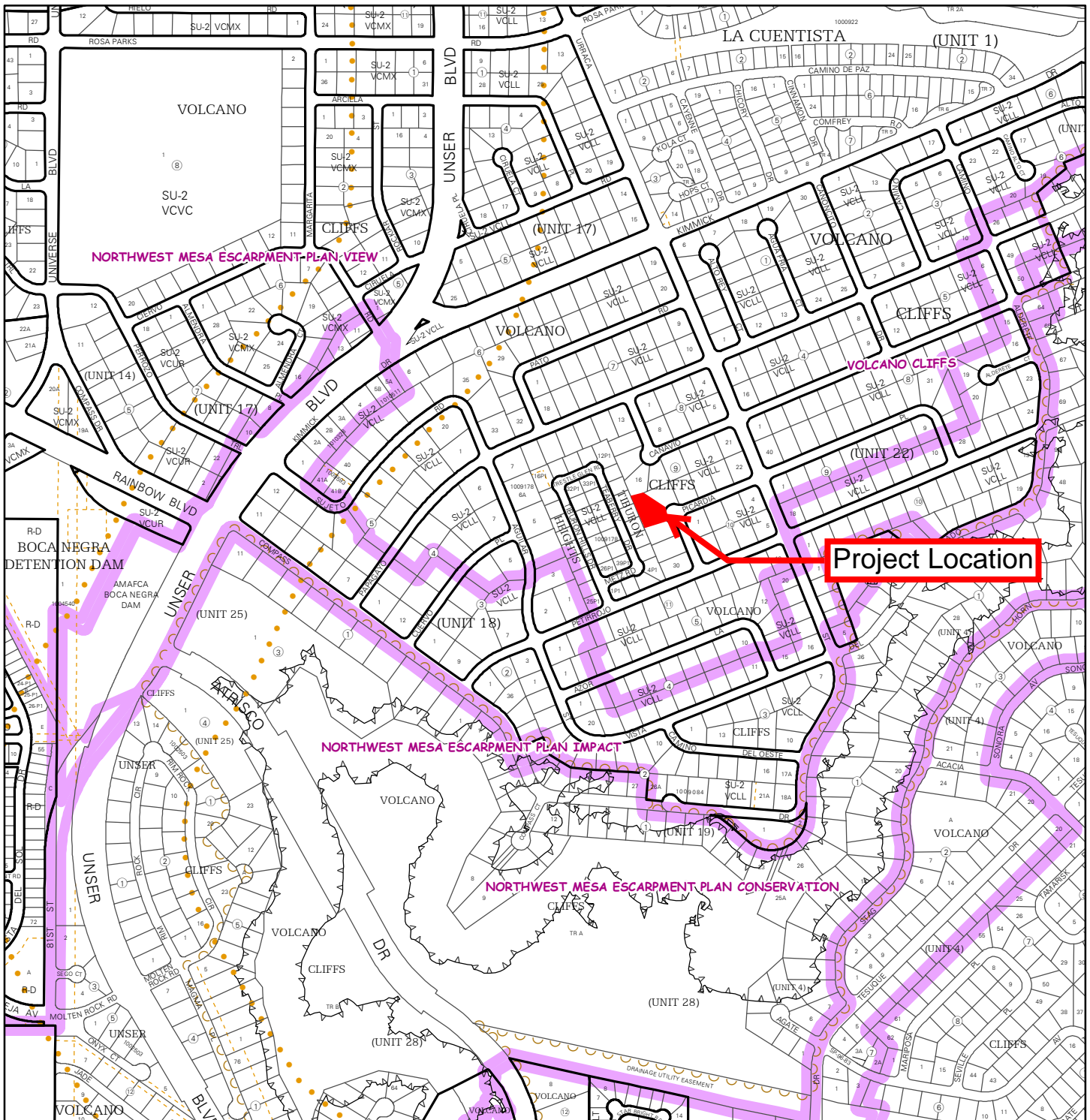
- _____ BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY
- _____ PRELIMINARY PLAT APPROVAL
- _____ SITE PLAN FOR SUB'D APPROVAL
- _____ SITE PLAN FOR BLDG. PERMIT APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ SIA/ RELEASE OF FINANCIAL GUARANTEE
- _____ FOUNDATION PERMIT APPROVAL
- ☒ GRADING PERMIT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

DATE SUBMITTED: _____ **By:** Jesse Luehring, PE

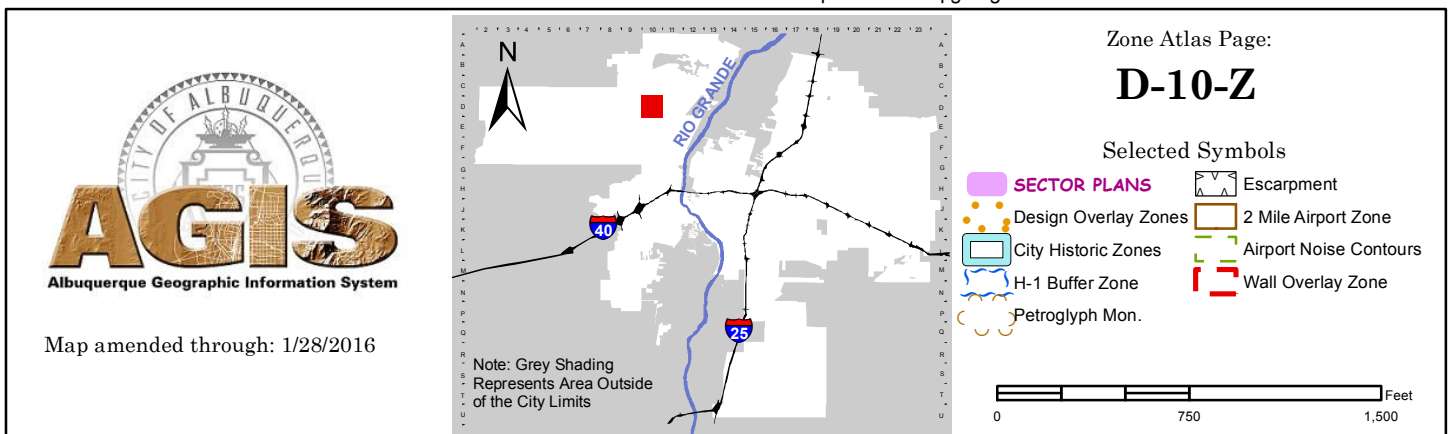
COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

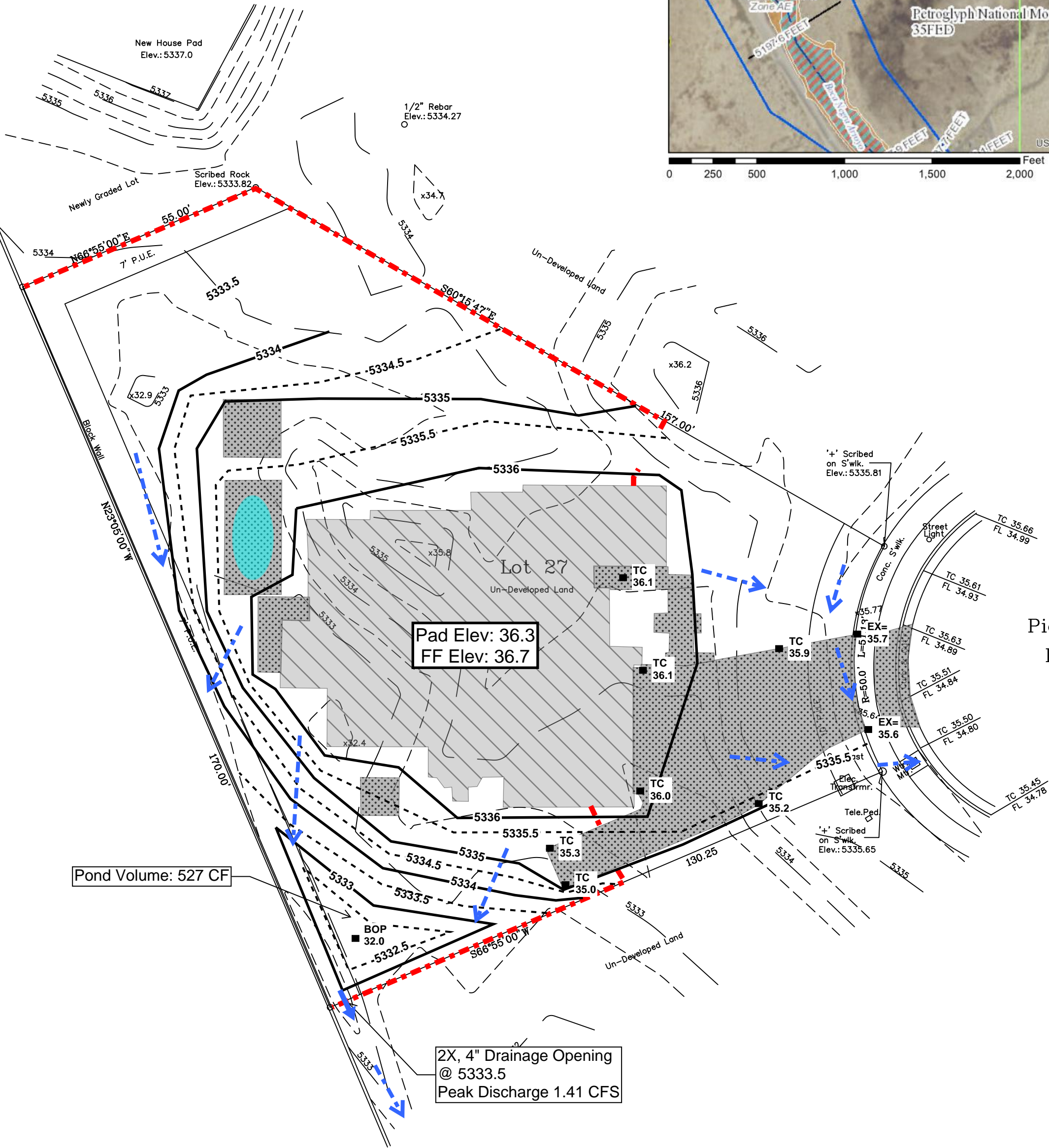
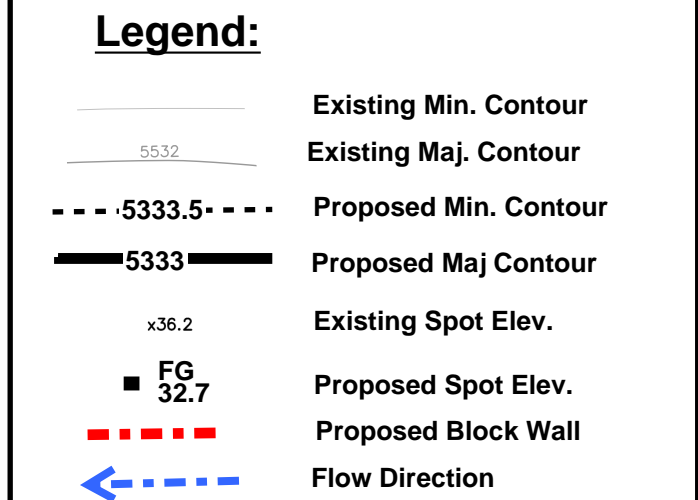
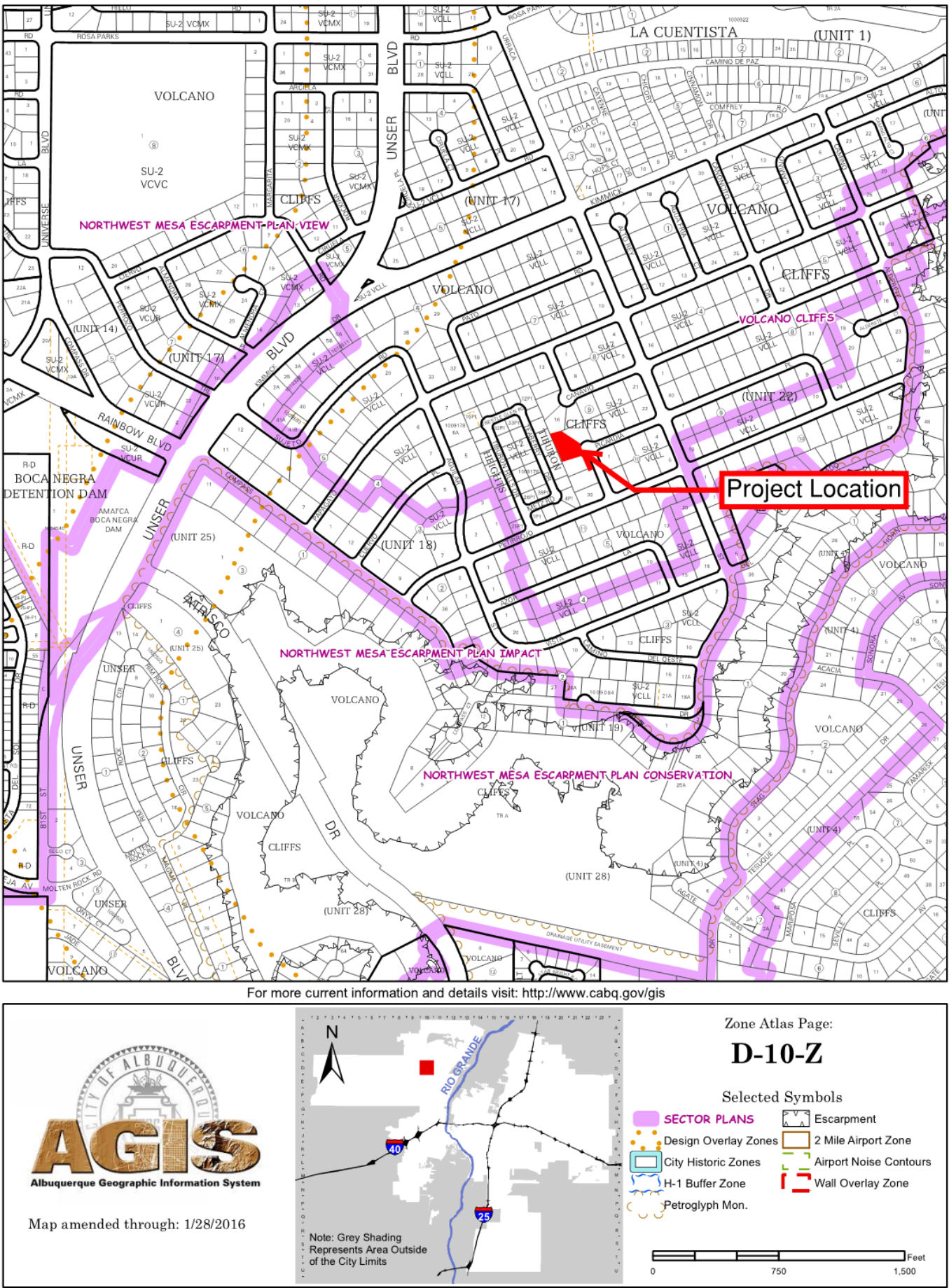
FEE PAID: _____



For more current information and details visit: <http://www.cabq.gov/gis>



Vicinity/Zone Atlas Map



Overflow Orifice Calcs

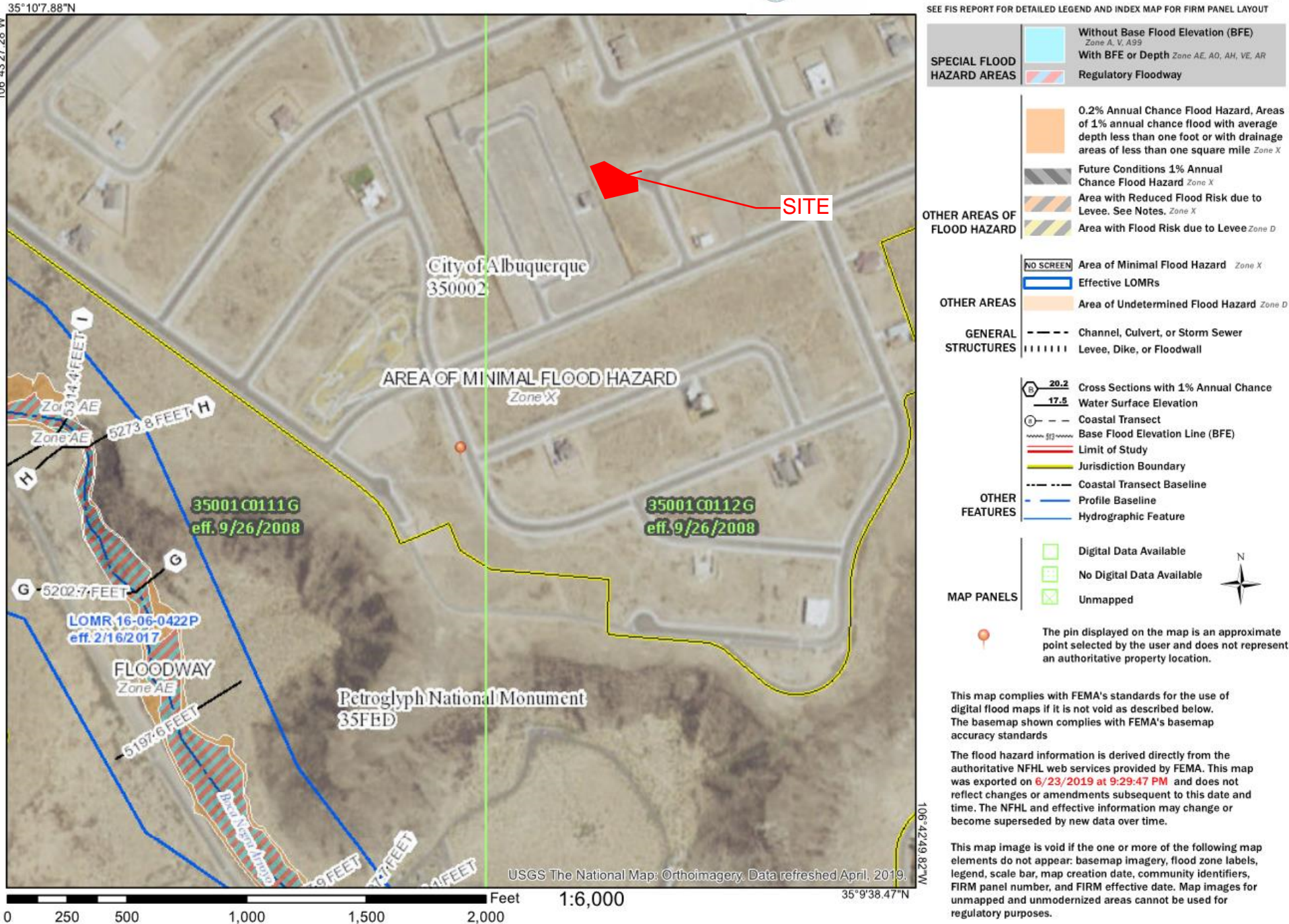
Pipe diameter	4 in.
Material	Plastic
Roughness coefficient	150
Pipe length	8 in.
Drop	1 in.
Flow velocity	13.44 ft/s
Flow discharge	1.173 cu ft/s
x2 = 2.3 CFS	

Drainage Calculations

Lot 27, Block 9, Volcano Cliffs Unit 18									
Land Type	Area Lot (SF)	Property Area %	SAD 228 DMP %	100-Yr Storm Inch Depth (6 hr)	Excess Precip (In)	Peak Discharge CFS/AC	Peak Rate of Discharge (CFS)	100-Yr Storm Volume (Ac-Ft)	First Flush Volume (Ac-Ft)
Type D	7139	38%	50%	2.20	1.97	4.37	0.72	0.027	0.004644
Type C	7409	39%	40%	2.20	0.99	2.87	0.49	0.014	0.001276
Type B	4348	23%	10%	2.20	0.67	2.03	0.20	0.006	0.000749
	18896	100%	100%				1.41	0.047	0.006668
						ALLOWED Peak Discharge:	1.55 CFS		
						ACTUAL Peak Discharge:	1.41 CFS		
Total Drainage Basin Area:		18896 SF 0.434 AC				First Flush Volume:	290 Cubic Ft		
						100-Yr Storm Volume	2026 Cubic Ft		

FEMA Flood Map

National Flood Hazard Layer FIRMette



General Notes

- All perimeter walls shall be permitted separately
- No grading shall be allowed on adjacent properties
- A pad certification is required before the building permit is issued
- An as-built certification is required before certificate of occupancy is issued.
- All disturbed areas shall be stabilized with concrete, gravel, asphalt, or native seed mix
- It is recommended to contract with a licensed geotechnical engineer for all aspects of earthwork and engineered fill material
- Driveway cutout shown in concept form only, and shall comply with NM Standard Specs for Public Works Construction, specifically Std Detail 2425
- Any sideyard gates shall allow drainage conveyance

Narrative:

This is a grading and drainage Plan for the construction of the building pad for the Lot at address 6519 Picardia Pl (Lot #27, Block #9, Volcano Cliffs Subdivision Unit 18, a part of Special Assessment District 228)

The purpose of this plan is to establish the first floor elevation, house layout, site improvements layout, wall locations, and general lot drainage of the site. This drainage plan has been prepared in accordance with the latest revision to the City of Albuquerque Development Process Manual, and in accordance with the SAD 228 Drainage Report dated November 2011. There are negligible offsite flows entering this property. The site is located in rainfall 'Zone 1' per the DPM.

Drainage Intent:

Existing Conditions: This lot is an 0.4338 acre vacant land property, that is bound on the South and North East by undeveloped lots, developed lots on the North and West, with street frontage to Picardia Pl to the East. The lot is lower than the elevation of the road, and generally drains to the South, with negligible offsite flows entering the property. The SAD 228 DMP places this property in drainage basin 201-L, and assumes that onsite flows will drain south, eventually discharging into Pond 5 at the West end of SAD 228 development.

Proposed Conditions: Improvements to the lot include a new residence, concrete driveway, and future pool that will add approximately 7139 SF of impervious area, or 38% of the property area (SAD 228 DMP allows up to 50%). The lot is designed to drain to the Southwest corner, in accordance with the SAD 228 DMP and approved G&D plan D10D003A.

A water quality detention pond with a volume of 527 Cu. Ft. is designed to capture the 'first flush' of approximately 290 Cu. Ft. The existing sandy loam soils at the site are well drained (hydrologic soil group 'B') which will ensure a short retention time. Larger storm event flows will overflow through the wall drainage opening at the SW corner of the lot, at a peak rate of 1.41 CFS.

Additional improvements will include the construction of approximately 230 LF of 6 ft tall garden wall. These walls may retain up to 2' of soil. Drainage will traverse through any location of gates on the sideyard, and gates will be a minimum of 6" above grade.

First Flush:

The initial 'First Flush' to be managed on this lot is 0.44" less 0.10" initial abstraction, resulting in a net of 0.34" rainfall, or 290 cubic feet of detention storage for this property. The initial storage on site will be collected and held in the 527 cubic foot capacity landscape pond near the SW corner of the property as shown on the Plan.

Engineer's Certification

I, Jesse Luehring, hereby certify that I have inspected the site, and that all existing grades are accurately reflected in the topographic survey obtained to develop this grading and drainage plan.

Jesse Luehring, PE #21684