

CITY OF ALBUQUERQUE

Planning Department

Suzanne Lubar, Director



Mayor Richard J. Berry

August 22, 2017

James Lopez, P.E.
Wilson & Company
4900 Lang Ave NE
Rio Rancho, New Mexico 87109

RE: **SAD 227 lot 6-1A Block 12, Volcano Cliffs Unit 5**
6520 Jade Dr. NW
Grading and Drainage Plan
Engineers Stamp Date 8/17/17 (E10D032)

Dear Mr. Lopez,

Based upon the information provided in your submittal received 8/18/17, this plan is approved for Grading Permit. Please attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology.

Prior to building Permit approval a pad certification is required.

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,

James D. Hughes, P.E.
Principal Engineer, Hydrology
Planning Department

RR/JDH
C: File

Introduction

Lots 6-A shown hereon is a residential lot located on 6520 Jade Drive Albuquerque, NM. The drainage report has been prepared in accordance with the latest revision to Volume 2 Section 22.2 of the City of Albuquerque Process Manual.

The site is an undrained 0.31-acre lot. The site is bounded by Jade Drive to the southwest, Oxygyn Court to the northeast, and undeveloped residential lots to the northwest and southeast. The northwest boundary has a CML block wall between the properties. The lot was graded when the lot was subdivided and has minimal vegetation. The runoff on this lot runs from the west corner to the east corner of the lot and continues to flow to the undeveloped lot to the southeast and eventually onto Oxygyn Court. The site is not located in a flood plain (see firm map #35001C0111G, Revised March 25, 2010). No off-site runoff contributes to the lot.

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Improvements to 6–7, includes a new residence being built within a 3,580 square foot building envelope. The building envelope, driveway, and sidewalk have a total land treatment of a mere 5.32 acre. The majority of usable land will now flow from northeast to southwest. The lot will have a series of small retention ponds as well as a new CMLB edge of wall which will prevent flows from discharging to the southeast. At two ponds will be placed along the southeast edge of the lot and will capture the runoff in accordance with the MS4 permitting the existing detention pond will have to store the first 0.44 of rainfall. Since the site is retaining the MS4 requirements are being met. The ponds will have the capacity to hold the 10 day event. Based on NCCS soil survey data, the Madawak River association gently sloping all the site are deep and well-drained, which will increase infiltration and reduce ponding time.

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The Calculations shown below represent the flows for a 100-year 6-hour design event. The hydrology is per the 'Sector 22.2 of the Development Process Manual for the City of Albuquerque, New Mexico, latest revision.

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Basin Data: COA Zone: 2

Basin	A		B		C		D		Peak Discharge Q	Excess Precip. (Weighted)	Volume (km^3 , acre-ft)	Volume (24hr , acre-ft)	Volume (10day , acre-ft)
	Total Area (Ac)	% Ac	% Ac	% Ac	% Ac	% Ac							
101	0.310	0	0	0	100	0.31	0	0.00	0.9	0.0266	0.0266	0.0266	

Basin	A		B		C		D		Peak Discharge Q	Excess Precip. (Weighted)	Volume (km^3 , acre-ft)	Volume (24_{hr} , acre-ft)	Volume (10_{day} , acre-ft)
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101	0.310	0	0	0	100	0.31	0	0.00	0.9	0.0266	0.0266	0.0266	

Basin	A				B				C				D				Pak	Excess Precip.	Volume ($6m_{avg}$, acre-ft)	Volume ($24m_{avg}$, acre-ft)	Volume ($10m_{avg}$, acre-ft)
	%	Ac	%	Ac	%	Ac	%	Ac	%	Ac	%	Ac	%	Ac	Discharge, Q (Weighted)						
201	0.179	0	0.00	0	0.00	72	0.13	28	0.05						0.6	1.26	0.0189	0.0208	0.0250		
202	0.133	0	0.00	0	0.00	45	0.06	55	0.07						0.5	1.53	0.0169	0.0198	0.0259		

Basin	A		B		C		D		Pak	Excess Precip.	Volume (6m _{avg} , acre-ft)	Volume (24m _{avg} , acre-ft)	Volume (10m _{avg} , acre-ft)	
	%	Ac	%	Ac	%	Ac	%	Ac						
201	0.179	0	0.00	0	0.00	72	0.13	28	0.05	0.6	1.26	0.0189	0.0208	0.0250
202	0.133	0	0.00	0	0.00	45	0.06	55	0.07	0.5	1.53	0.0169	0.0198	0.0259

POND 1					
Elevation	Depth	Area		AVolume	Total Volume
(ft)	(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)
5326	0	78	0.002	0	0.000
5327	1	219	0.006	0.004	0.004
5328	2	610	0.014	0.010	0.014
5329	3	1425	0.033	0.023	0.038

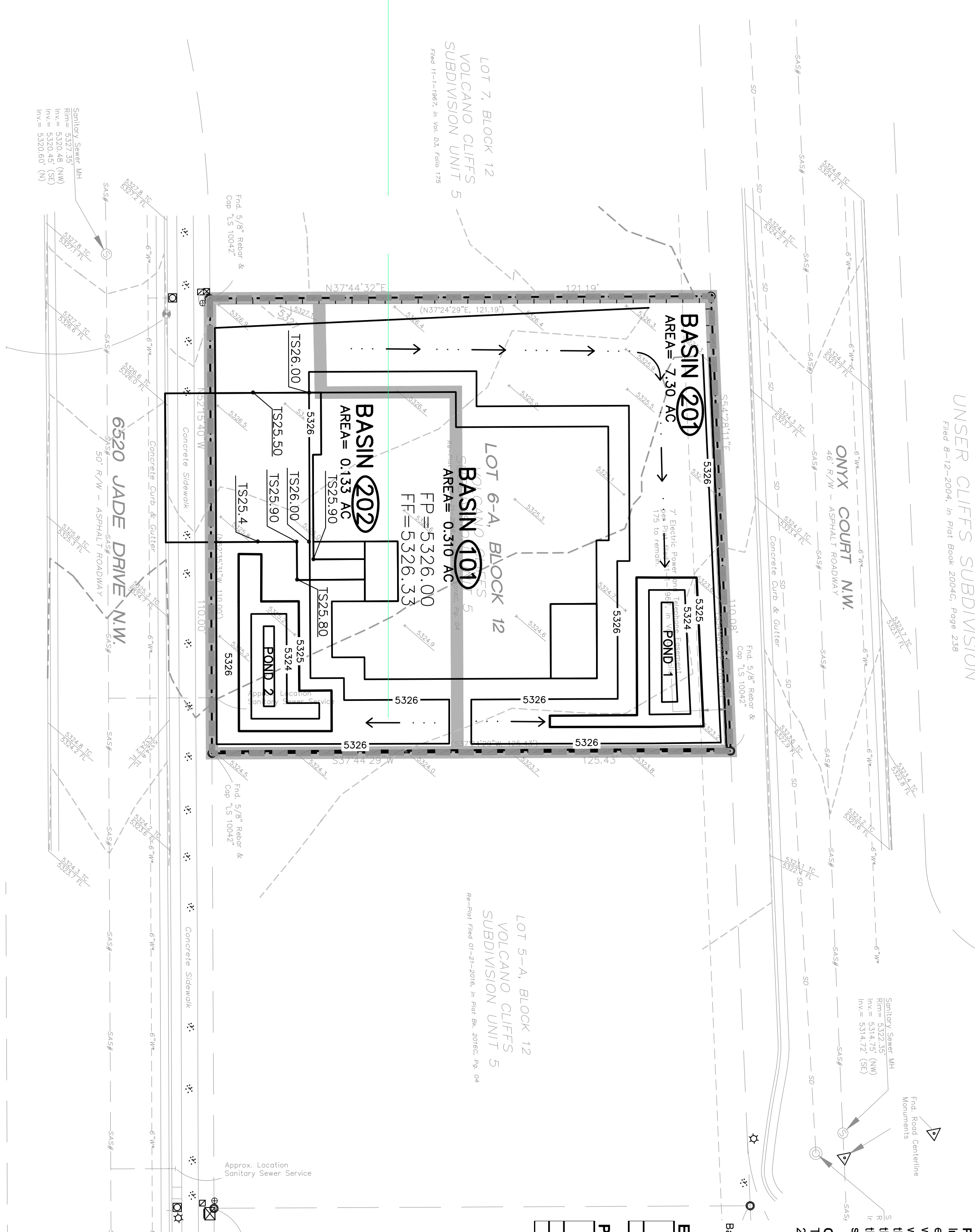
Pond 2					
Elevation	Depth	Area		Δ Volume	Total Volume
(ft)	(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)
5326	0	50	0.001	0	0.000
5327	1	247	0.006	0.003	0.003
5328	2	534	0.012	0.009	0.012
5329	3	1145	0.026	0.019	0.032

The diagram shows a cross-section of a road with the following features from top to bottom:

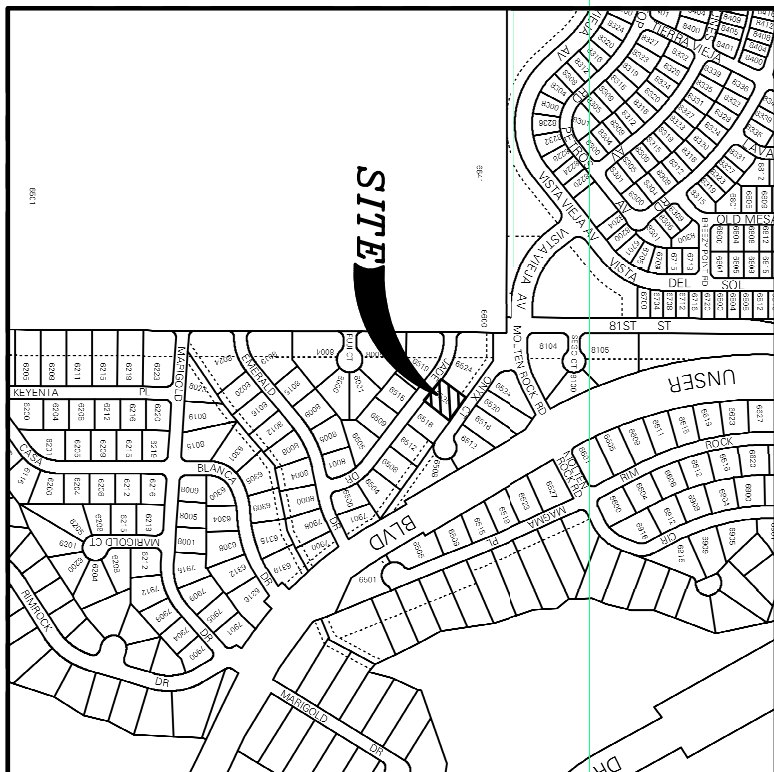
- A thick solid line labeled **5450** with the text **PROPOSED INDEX CONTOUR** below it.
- A thin solid line with the text **EXISTING INTERMEDIATE CONTOUR** below it.
- A dashed line labeled **5440** with the text **EXISTING INDEX CONTOUR** below it.
- A thin solid line with the text **EXISTING PROPERTY LINE** below it.

(IN FEET)
1 inch = 10 ft.

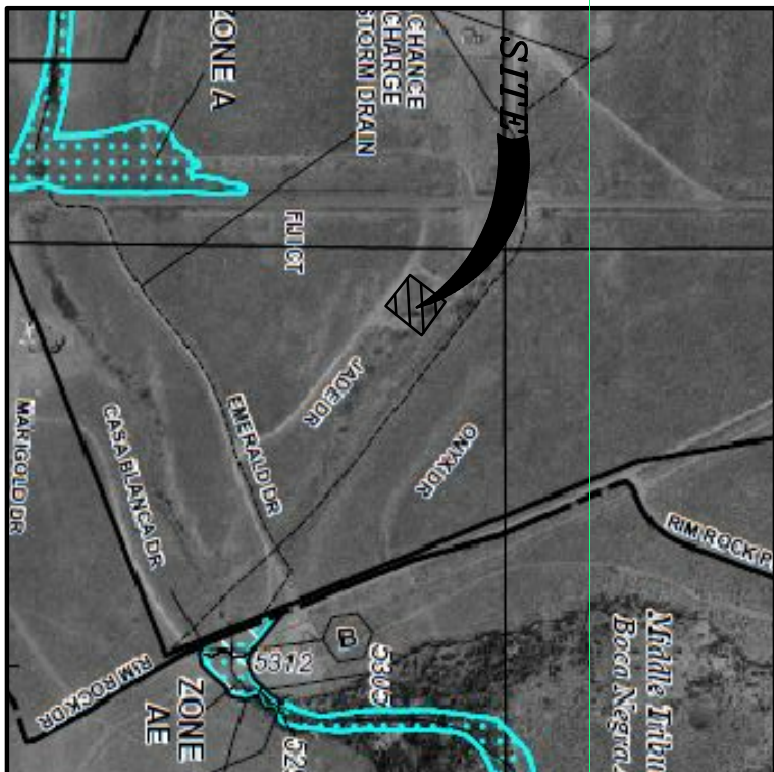
1. GRADING ACTIVITIES ON ADJACENT PROPERTIES OR RIGHT-OF-WAY WITHOUT WRITTEN PERMISSION FROM THE OWNER IS NOT PERMITTED.
2. UNPROTECTED SLOPES SHALL BE NO STEEPER THAN 4H:1V PER COR CODE. IF THERE IS SUFFICIENT SLOPE PROTECTION (I.E. PLANTINGS, ROCK COVER, SHOTCRETE/CONCRETE) SLOPES MAY BE NO STEEPER THAN 3H:1V.
3. A SEPARATE WALL PERMIT MUST BE OBTAINED FROM CORP BUILDING DEPARTMENT.
4. POND SLOPES SHALL BE TREATED FOR SLOPE PROTECTION, USE XERISCAPE TREATMENT.



ZONE ATLAS MAP NO. D-10/E-10



FIRM #35001C0111G



NRCS WEB SOIL SURVEY, BERNALILLO COUNTY



CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DEVELOPMENT DIVISION

GRADING & DRAINAGE PLAN

Mo./Day/Yr.	Mo./Day/Yr.
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Upd		

st		

p. No.	Sheet	Of
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[illegible][illegible]

CONTRACTOR	DATE
WORK STAKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE

RECORDED BY	DATE
NO.	