

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

January 11, 2019

Richard Dourte, P.E.
RHD Engineering LLC
4305 Purple Sage Ave. NW
Albuquerque, New Mexico 87120

RE: **Lot 3 Block 3 Unit 22 SAD 228**
6328 Camino Alto NW
Volcano Cliffs Subdivision
Grading and Drainage Plan
Engineers Stamp Date 1/9/19 (D10D003R3)

Dear Mr. Dourte,

Based upon the information provided in your submittal received 1/10/19, this plan is approved for Grading Permit. Please inform the builder/owner to attach a copy of this approved plan and letter into the construction sets in the permitting process prior to sign-off by Hydrology.

Reiterate to the Owner/Contractor that a separate permit for a garden/retaining wall must be obtained, with the approved G&D plan.

Prior to building permit approval a pad certification will be required.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist of this plan 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 D10D003R3



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 6328 Camino Alto NW **Building Permit #:** _____ **Hydrology File #:** D10D003R3
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Lot 3, Block 3, Volcano Cliff unit 22
City Address: _____

Applicant: RHD Engineering, LLC **Contact:** Richard Dourte
Address: 4305 Purple Sage Ave. NW, Alb. NM, 87120
Phone#: 505.288.1621 **Fax#:** _____ **E-mail:** rhengineering@outlook.com

Other Contact: Candelaria Homes **Contact:** Diego Candelaria
Address: _____
Phone#: 505-248-5608 **Fax#:** _____ **E-mail:** _____

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) ☒ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL? ☒ Yes _____ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

_____ ENGINEER/ARCHITECT CERTIFICATION
_____ PAD CERTIFICATION
_____ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
_____ DRAINAGE REPORT
_____ DRAINAGE MASTER PLAN
_____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
_____ ELEVATION CERTIFICATE
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ STREET LIGHT LAYOUT
_____ 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: 1-10-19 **By:** Richard Dourte

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

January 9, 2019

Mr. James D. Hughes, PE
Mr. Rudy Rael, CFM
Development Review Services, Planning Dept.
600 Second Street
City of Albuquerque, NM 87102

RE: Lot 3, Block 3, Unit 22, Volcano Cliffs Subd., SAD 228 (D10D003R3)
6328 Camino Alto NW

Dear Mr. Hughes, Mr. Rael,

Subsequent to the approval of the drainage plan for this site, stamp dated 4/30/18, and the pad certification dated 7/10/18, the building layout has been changed. This plan reflects the new layout. The drainage pattern remains the same along with the FF and FP elevations. The drainage calculations and narrative incorporate the changes.

If you have any questions, please feel free to call me at 288-1621.

Sincerely,



Richard Dourte, PE
RHD Engineering, LLC

GENERAL NOTES:

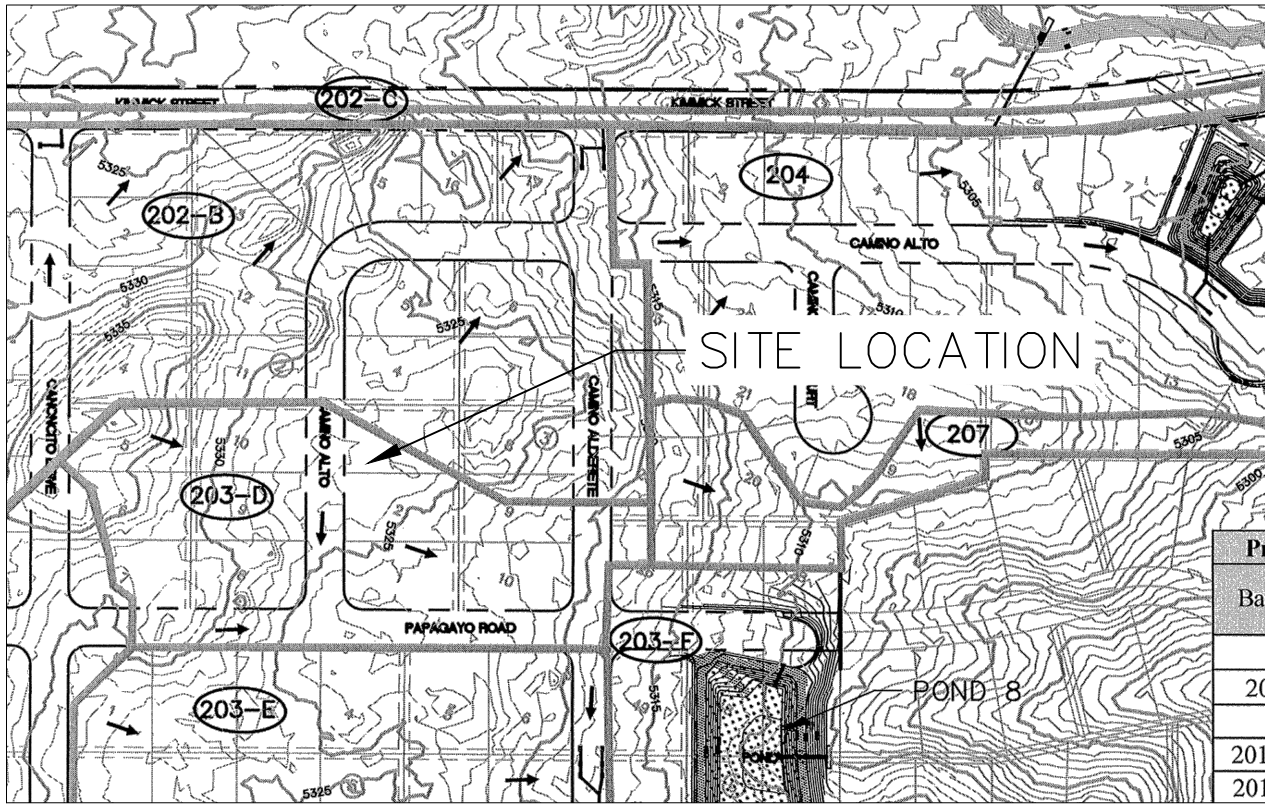
1. THIS SITE IS NOT LOCATED IN A FEMA FLOOD HAZARD ZONE (REFER TO THE FIRM MAP 35001C0012G, EXCERPT ATTACHED).
2. RHD ENGINEERING, LLC RECOMMENDS THAT THE OWNER OBTAIN A GEOTECHNICAL REPORT PRIOR TO DESIGN OF BUILDING FOOTING/FOUNDATION.
3. SLOPE STABILAZATION SHALL BE USED ON SLOPES GREATER THAN A 3:1 SLOPE, PER MANUFACTURER RECOMMENDATIONS.
4. MODIFICATIONS OR ADJUSTMENTS TO EXISTING DRAINAGE STRUCTURES/EROSION MITIGATION IMPROVEMENTS SHALL BE DONE IN THE SAME MANNER AS THE ORIGINAL IMPROVEMENT.
5. ALL SWPPP REQUIREMENTS SHALL BE ADHERED TO.
6. ALL WORK ON THIS PLAN SHALL BE DONE IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARDS. ALL APPLICABLE PERMITS SHALL BE OBTAINED PRIOR TO WORK COMMENCING.
7. ALL WORK IN THE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARDS.
8. THIS GRADING PLAN IS TO BE UTILIZED AND A COPY PROVIDED TO THE CITY WHEN APPLYING FOR THE CONSTRUCTION OF ANY GARDEN OR RETAINING WALLS, WITH RESPECT TO THIS SITE.
9. THE SURVEY INFORMATION WAS PROVIDED BYCONSTRUCTION SURVEYS TECHNOLOGIES, INC.
10. FOR SITE DIMENSIONS, BUILDING AND INFRASTRUCTURE LOCATION REFER TO THE SITE PLAN.

EROSION CONTROL NOTES:

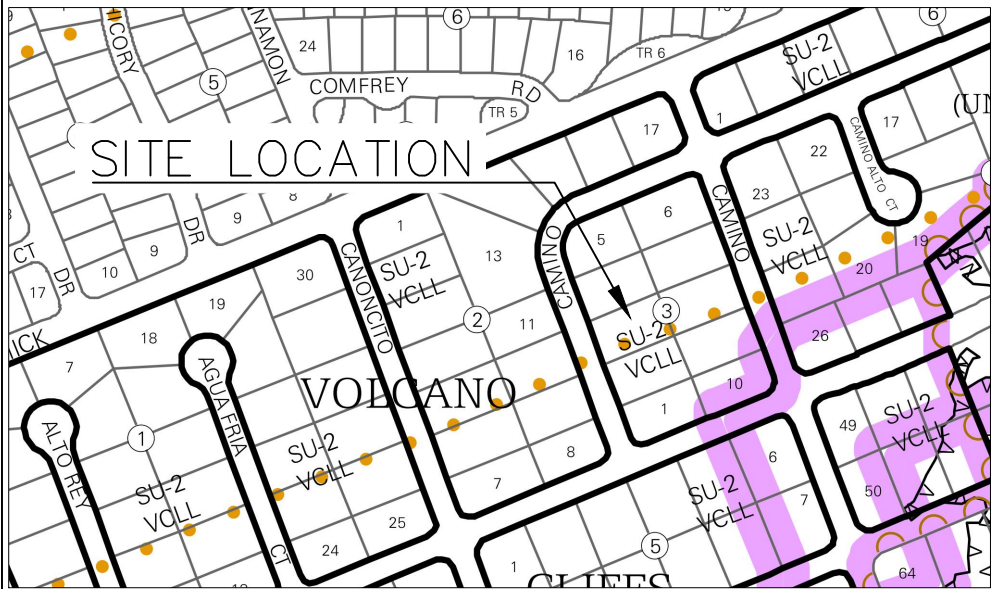
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

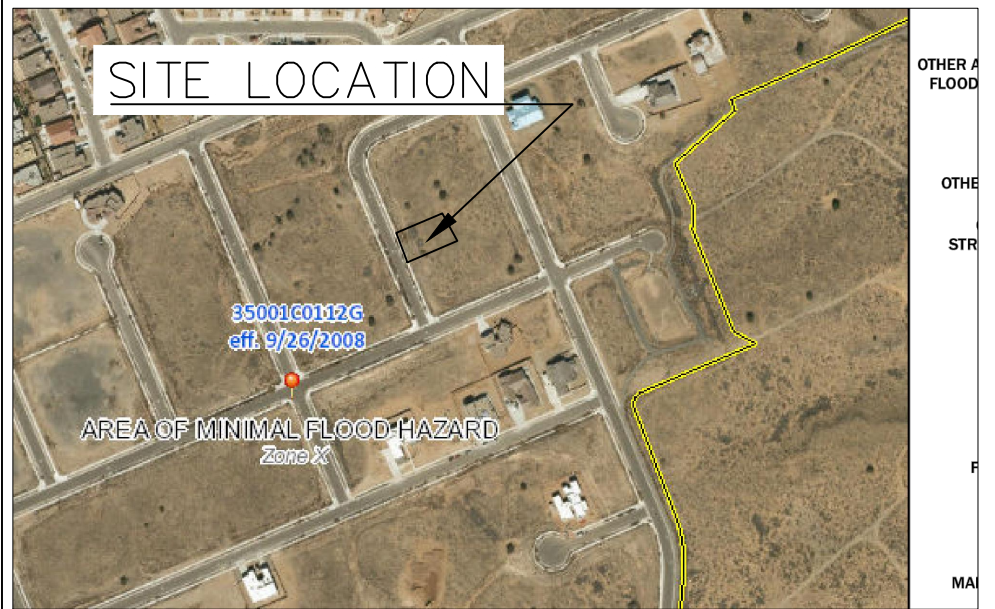


EXCERPT FROM SAD 228 DRAINAGE REPORT



VICINITY MAP:

D10-Z



FIRM MAP:

35001C00112G

LEGAL DESCRIPTION:

LOT 3, BLOCK 3, VOLCANO CLIFFS UNIT 22
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
2. RETAIN THE FIRST .46" OF STORM RUNOFF FROM ENTIRE DEVELOPMENT TO CONFORM TO THE WATER QUALITY REQUIREMENTS

LEGEND

TC=46.00 FL=46.00 TW=44.00	PROPOSED SPOT ELEVATION TOP OF WALL ELEVATION
-----5601-----	EXISTING CONTOUR
-----5600-----	EXISTING INDEX CONTOUR
-----5601-----	PROPOSED CONTOUR
-----5600-----	PROPOSED INDEX CONTOUR
-----	LOT LINE
-----	RIGHT-OF-WAY
-----	PROPOSED RETAINING WALL (DESIGN BY OTHERS)
-----	PROPOSED WALL
-----	EXISTING CURB AND GUTTER
-----	PROPOSED EDGE OF CONCRETE
-----	PROPOSED FLOWLINE
-----	EXISTING WALL
-----	PROPOSED BASIN BOUNDARY

Project: 6328 CAMINO ALTO NW				
Drainage Calculations - Zone 1				
Total Lot Area (ac) = 0.3099				

Zone	P60	P90	P1440	P4days	P10days
1	1.87	2.20	2.66	3.12	3.67

Weighted E= ((E _A *A _A)+(E _B *A _B)+(E _C *A _C)+(E _D *A _D))/(A _A +A _B +A _C +A _D)
V ₃₆₀ =(Weighted E *P ₃₆₀)/12 in/ft
V ₁₄₄₀ = V ₃₆₀ +A _D *(P ₁₄₄₀ -P ₃₆₀)/12in/ft
V _{4days} =V ₃₆₀ +A _D *(P _{4day} -P ₃₆₀)/12in/ft
V _{10days} =V ₃₆₀ +A _D *(P _{10days} -P ₃₆₀)/12in/ft

Excess Precipitation, E(inches) - 6 HR				
Zone	Treatment			
	A	B	C	D
1	0.44	0.67	0.99	1.97

Peak Discharge (CFS/ACRE) 100 YR				
Zone	Treatment			
	A	B	C	D
1	1.29	2.03	2.87	4.37

*****SAD 228 Permittable Design Conditions*****

Area	SQ. FT	Acres
(0%)A=	0	0.000
(10%)B=	1350	0.031
(40%)C=	5400	0.124
(50%)D=	6750	0.155
Total	13500	0.310
Weighted E=	1.448	

Design Flows (CFS)			
Area	SQ. FT	Acres	Peak Discharge (100 YR)
A=	0	0.000	0.00
B=	1349.9	0.031	0.06
C=	5399.7	0.124	0.36
D=	6749.6	0.155	0.68
Total (CFS)			1.10

	V ₃₆₀	V ₁₄₄₀	V _{4days}	V _{10days}
Cubic feet	1629.0	1887.7	2146.5	2455.8
Acre-ft	0.04	0.04	0.05	0.06

*****PROPOSED CONDITIONS*****

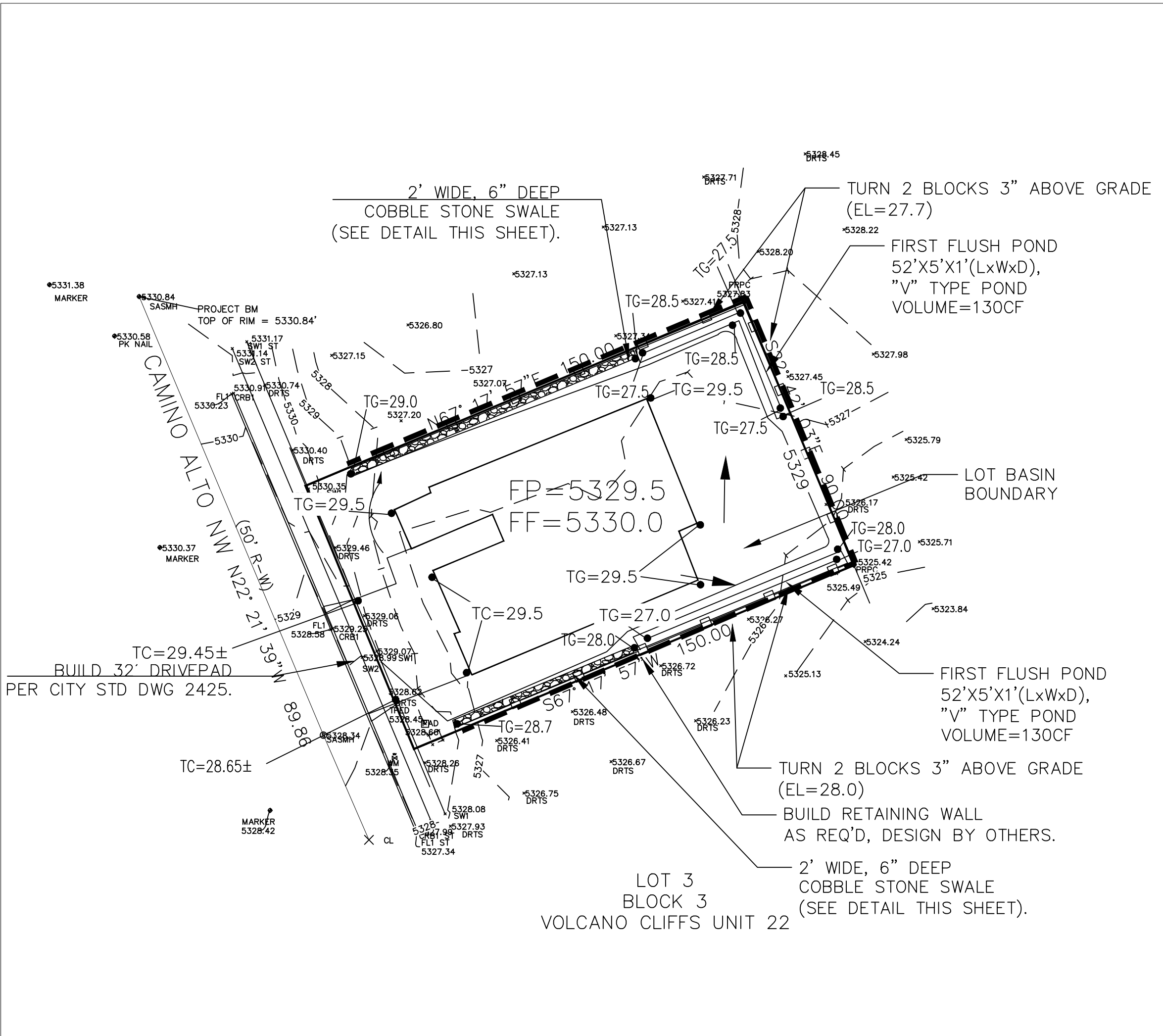
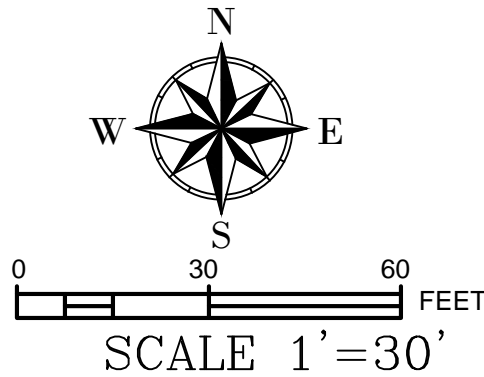
Area	SQ. FT	Acres
A=	0	0.000
B=	900	0.021
C=	6765	0.155
D=	5835	0.134
Total	13500	0.310
Weighted E=	1.392	

Design Flows (CFS)			
Area	SQ. FT	Acres	Peak Discharge (100 YR)
A=	0	0.000	0.00
B=	900	0.021	0.04
C=	6765	0.155	0.45
D=	6580	0.151	0.66
Total (CFS)			1.15

	V ₃₆₀	V ₁₄₄₀	V _{4days}	V _{10days}
Cubic feet	1566.3	1790.0	2013.6	2281.1
Acre-ft	0.04	0.04	0.05	0.05

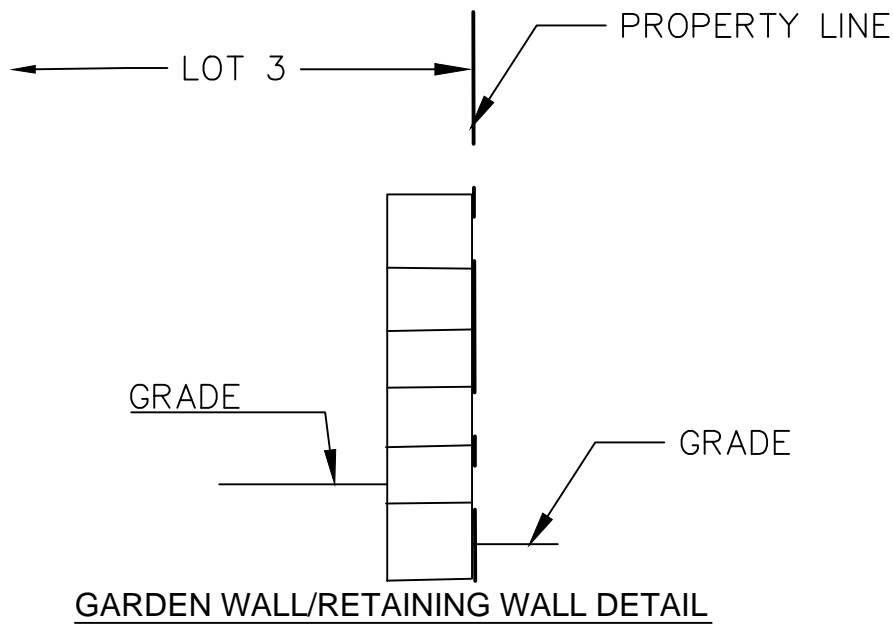
The 100 year peak flows for this developed site is 1.15 CFS and the SAD 228 permissible design flows are 1.1 CFS for an increase of 0.05CFS.

First Flush Ponding Requirement = A_D *0.34 in/12in/ft = 165 CF

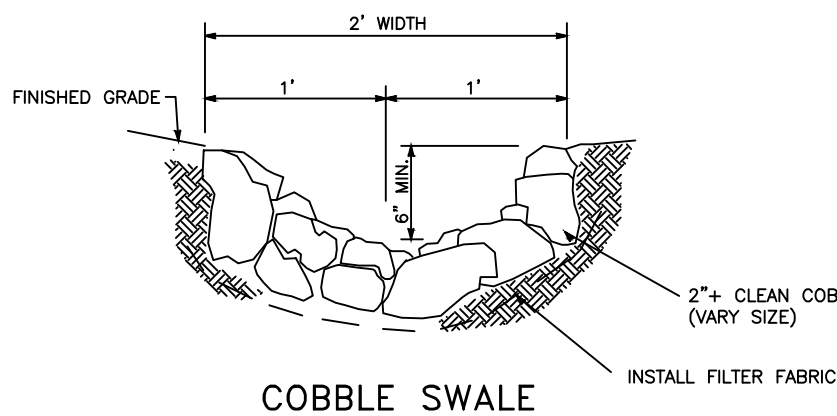


DRAINAGE NARRATIVE:

1. THIS SITE IS LOCATED WITHIN THE SAD 228 DRAINAGE MASTER PLAN AREA.
2. A DRAINAGE BASIN BOUNDARY IS LOCATED ON THIS SITE. APPROXIMATELY 1/2 OF THIS SITE IS TO DRAIN TO THE NORTHWEST AND THE OTHER PORTION IS TO DRAIN TO THE SOUTHEAST.
3. THE VOLUMES OF THE FIRST FLUSH PONDS ARE 130CF +130CF=260CF, THIS IS GREATER THAN THE REQUIRED PONDING OF 165CF.



1. ANY GARDEN WALL/RETAINING WALL IS TO BE BUILT ON-SITE (DESIGN OF THE GARDEN WALL/RETAINING WALL IS BY OTHERS).
2. A PERMIT IS REQUIRED FOR THE CONSTRUCTION OF THE RETAINING WALL AND ANY FUTURE GARDEN WALL. THIS IS THE PLAN TO FOLLOW (4-30-18) WHEN APPLYING FOR A PERIMETER BLOCK WALL.



I HAVE PERSONALLY INSPECTED THE PROPERTY ON 4-12-18. NO EARTHWORK HAS BEEN PERFORMED AND THE SITE IS CONSISTENT WITH THE TOPO SHOWN.
Richard Dourte
Richard Dourte P.E. #10854

ENGINEER'S SEAL	Title 6328 CAMINO ALTO NW	DRAWN BY
	GRADING AND DRAINAGE PLAN	DATE
		Day
		SHEET #
		1 of 1
		JOB #