

Rael, Rudy E.

From: Rael, Rudy E.
Sent: Tuesday, November 01, 2016 9:11 AM
To: 'David Soule (david@riograndeengineering.com)'
Cc: Carrillo, Abiel X.
Subject: 6420 Petirrojo NW

Mr. Soule,

This email is being sent in lieu of an attached comment letter in order to expedite our response to previous comments.

Response to comments should continue to be included in the resubmittal. A reply to these comments via email will not be considered a resubmittal.

Based upon the information provided in your submittal received 10/26/16, the above referenced Grading and Drainage plan dated 10/26/16 cannot be approved for Grading Permit or Building Permit until the following comments are addressed:

- Enlarge the drainage calcs or provide on a separate sheet with the proper font size. Once submitted the calculations will be checked.
- Remove the statement, turn block every 20'.... This lot drains half toward the front and half toward the rear, going through a water Quality pond first.
- Provide a note stating the requirement that a separate wall permit must be provided when the fence is being built, at time of Building permit or later. This plan needs to accompany the wall permit set, otherwise will not be approved.
- Provide a statement for the requirement of a pad certification before the concrete slab is poured or before rough in occurs.

If you should have any questions feel free to contact me or Abiel Carrillo at 924-3986.

Rudy E. Rael, CE, CFM
Engineer Associate, Hydrology
Planning Department
600 2nd St. NW Suite 201
Albuquerque NM 87102
(505) 924-3977



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: _____
City Address: _____

Engineering Firm: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Architect: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

- HYDROLOGY/ DRAINAGE
- TRAFFIC/ TRANSPORTATION
- MS4/ EROSION & SEDIMENT CONTROL

CHECK 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
- PRE-DESIGN MEETING
- OTHER (SPECIFY) _____

TYPE OF SUBMITTAL:

- ENGINEER/ ARCHITECT CERTIFICATION
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- DRAINAGE MASTER PLAN
- DRAINAGE REPORT
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- TRAFFIC IMPACT STUDY (TIS)
- EROSION & SEDIMENT CONTROL PLAN (ESC)
- OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: Yes No

DATE SUBMITTED: _____ By: _____

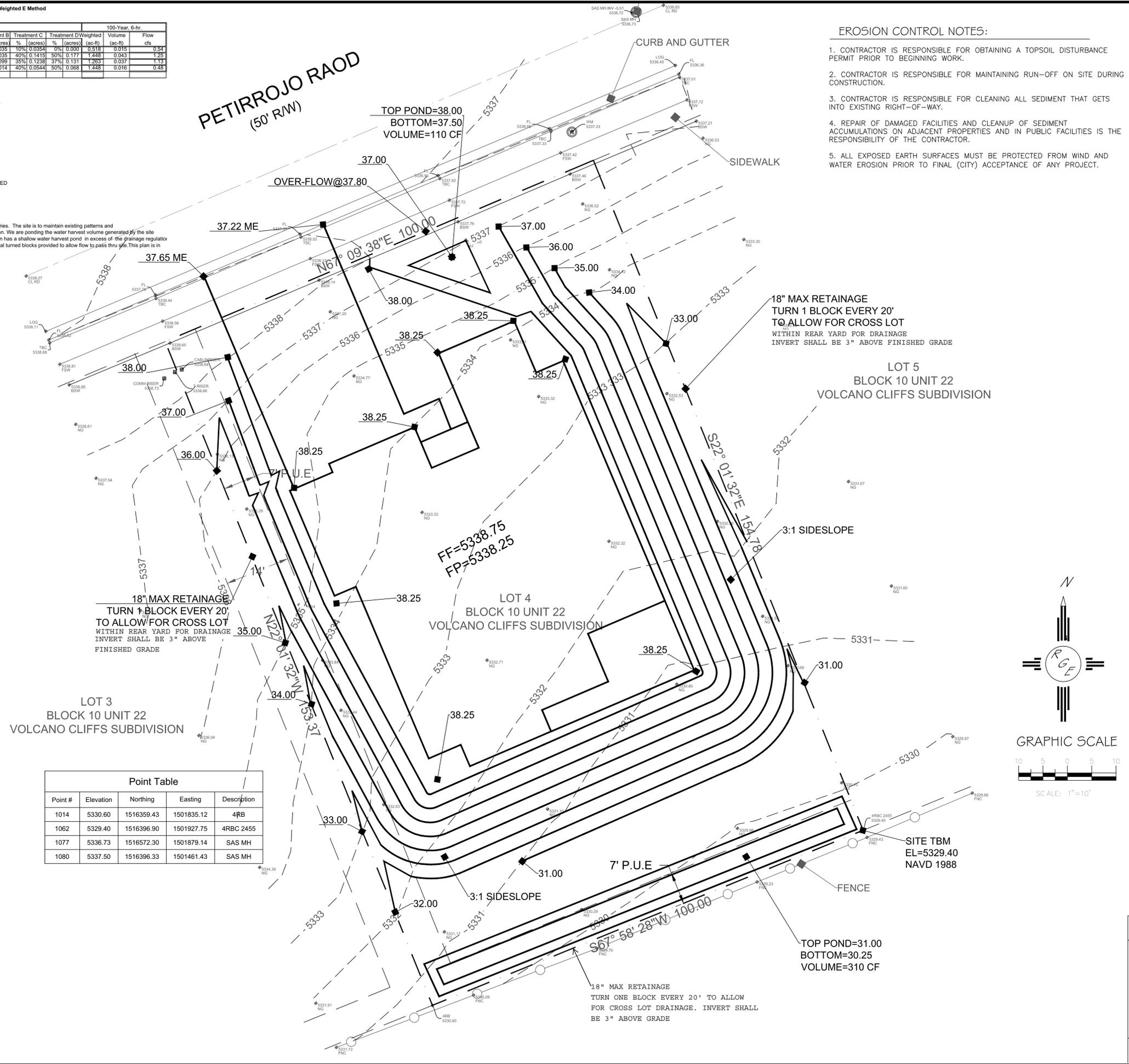
COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment B %	Treatment C %	Treatment D %	Weighted (ac-ft)	Volume (ac-ft)	Flow (cfs)			
NATIVE ALLOWED	15409.00	0.354	0%	10%	0.035	40%	0.1415	50%	0.177	1.448	0.043	1.25
PROPOSED	15409.00	0.354	0%	28%	0.099	35%	0.1238	37%	0.131	1.263	0.037	1.13
UPLAND	5920.00	0.136	0%	10%	0.014	40%	0.0544	50%	0.068	1.448	0.016	0.48
total												

EQUATIONS:
 Weighted E = Ea**A*a + Eb**A*b + Ec**A*c + Ed**A*d / (Total Area)
 Volume = Weighted E * Total Area
 Flow = Qa * *A*a + Qb * *A*b + Qc * *A*c + Qd * *A*d
 Where for 100-year, 6-hour storm, zone 1
 Ea= 0.44 Qa= 1.29
 Eb= 0.67 Qb= 2.03
 Ec= 0.99 Qc= 2.87
 Ed= 1.97 Qd= 4.37

ONSITE Conditions
 FIRST FLUSH WATER QUALITY VOL. REQUIRED (CF) 162 PROVIDED (CF) 420
 WATER QUALITY

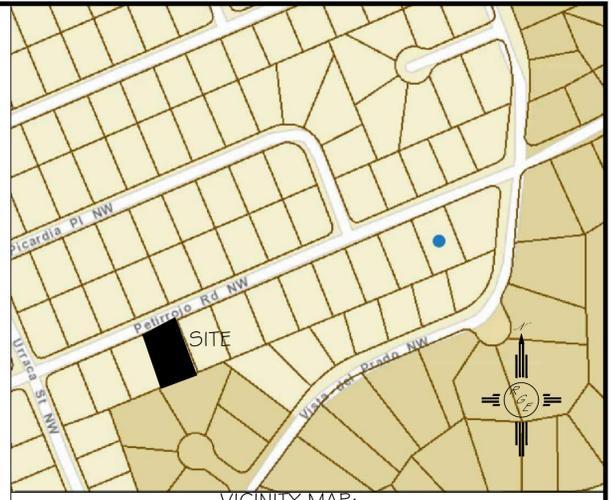
Narrative
 This site is within the SAD 228 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the adjacent property per the master drainage plan. We are ponding the water harvest volume generated by the site we are allowing the upland flow to pass thru the site. This plan has a shallow water harvest pond in excess of the drainage regulation. The upland flow is such that the pad was raised and additional turned blocks provided to allow flow to pass thru site. This plan is in conformance to the master drainage plan.



Point Table

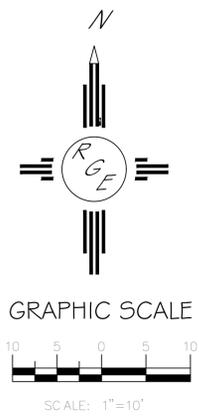
Point #	Elevation	Northing	Easting	Description
1014	5330.60	1516359.43	1501835.12	4RB
1062	5329.40	1516396.90	1501927.75	4RBC 2455
1077	5336.73	1516572.30	1501879.14	SAS MH
1080	5337.50	1516396.33	1501461.43	SAS MH

- EROSION CONTROL NOTES:**
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
 - CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
 - CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
 - REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.



LEGAL DESCRIPTION:
 LOT 4, BLOCK 10, UNIT 22, VOLCANO CLIFFS

NOTES:
 1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
 2. TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS PLAN WAS OBTAINED BY CONSTRUCTION SURVEY TECHNOLOGIES, DAVID ACOSTA PLS 21081, OCTOBER 2016



LEGEND

---	EXISTING CONTOUR
- - - -	EXISTING INDEX CONTOUR
---	PROPOSED CONTOUR
- - - -	PROPOSED INDEX CONTOUR
→	FLOW DIRECTION-SWALE
■	PROPOSED SPOT (FLOW-LINE)

ENGINEER'S SEAL	LOT 4, BLOCK 10, UNIT 22 VOLCANO CLIFFS SUBDIVISION	DRAWN BY JDG
	GRADING AND DRAINAGE PLAN	DATE 10-26-2016
		SHEET # 1 OF 1
10/26/16	DAVID SOULE P.E. #14522	JOB #



Proposed Conditions Model-Sub-Basin Data				
Basin	Area (ac)	cfs/ac	Q ₁₀₀ (cfs)	V ₁₀₀₋₂₄ (ac-ft)
Basin 200 (Discharge to Pond 4)				
200	13.12	2.44	32.02	1.546
Basin 201 (Discharge to Pond 5)				
201-A	7.48	1.97	14.72	0.965
201-B	6.62	1.97	13.03	0.854
201-C	5.12	1.97	10.08	0.661
201-D	2.47	1.97	4.86	0.319
201-E	1.53	1.97	3.01	0.197
201-F	8.73	1.97	17.18	1.127
201-G	8.54	1.97	16.81	1.102
201-H	8.88	1.97	17.47	1.146
201-I	6.09	1.97	11.98	0.786
201-J	8.51	1.97	16.75	1.098
201-K	3.75	1.97	7.38	0.484
201-L	11.78	1.97	23.18	1.520
201-M	5.17	1.97	10.17	0.667
201-N	5.27	1.97	10.37	0.680
201-O	3.16	1.97	6.22	0.408
201-P	2.20	1.97	4.33	0.284
Total	95.30		187.54	12.300
Basin 202 (Discharge to La Cuentista Pond)				
202-A	8.57	3.20	27.44	1.104
202-B	10.72	3.20	34.32	1.382
Total	19.29		61.76	2.486
202-C	1.33	2.62	3.50	0.235
Basin 203 (Discharge to Pond 8)				
203-A	6.51	2.99	19.47	0.841
203-B	9.99	2.99	29.87	1.290
203-C	5.24	2.99	15.67	0.677
203-D	4.18	2.99	12.50	0.540
203-E	9.89	2.99	29.57	1.277
203-F	3.02	2.99	9.03	0.390
Total	38.83		116.11	5.014
Basin 204 (Discharge to Pond 7)				
204	8.98	3.20	28.73	1.156
Basin 205 (Discharge to Pond 6)				
205-A	10.29	2.73	28.11	1.328
205-B	10.06	2.73	27.49	1.298
205-C	5.66	2.73	15.46	0.730
205-D	3.22	2.73	8.80	0.416
205-E	5.75	2.73	15.71	0.742
205-F	6.88	2.73	18.80	0.888
Total	41.86		114.37	5.402
Basin 206-A (Discharge to Pond 9)				
206-A	4.01	3.19	12.79	0.514
Basin 206-B (Free Discharge)				
206-B	1.01	3.19	3.22	0.130
Total	5.02		16.01	0.644
Basin 207 (Free Discharge)				
207	1.85	3.22	5.96	0.240

UPLAND BASIN
5920 SF
48 CFS
697 CF

- LEGEND
- 202-E BASIN ID
 - SUB-BASIN BOUNDARY
 - ~ INDEX CONTOUR
 - ~ INTERMEDIATE CONTOUR



WILSON & COMPANY
4900 LANG AVE. NE
ALBUQUERQUE, NM 87109
(505) 348-4000

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

SAD 228
DRAINAGE REPORT

PROPOSED SUB-BASIN BOUNDARY PLAN
UNIT 18, 19 & 20

Weighted E Method

6420 PETIRROJO

Basin	Area (sf)	Area (acres)	100-Year, 6-hr.								Weighted (ac-ft)	Volume (ac-ft)	Flow cfs
			Treatment A		Treatment B		Treatment C		Treatment D				
			%	(acres)	%	(acres)	%	(acres)	%	(acres)			
NATIVE	15409.00	0.354	80%	0.283	10%	0.035	10%	0.0354	0%	0.000	0.518	0.015	0.54
ALLOWED	15409.00	0.354	0%	0	10%	0.035	40%	0.1415	50%	0.177	1.448	0.043	1.25
PROPOSED	15409.00	0.354	0%	0	28%	0.099	35%	0.1238	37%	0.131	1.263	0.037	1.13
UPLAND	5920.00	0.136	0%	0	10%	0.014	40%	0.0544	50%	0.068	1.448	0.016	0.48
total													

Equations:

Weighted E = $E_a * A_a + E_b * A_b + E_c * A_c + E_d * A_d / (\text{Total Area})$

Volume = Weighted D * Total Area

Flow = $Q_a * A_a + Q_b * A_b + Q_c * A_c + Q_d * A_d$

Where for 100-year, 6-hour storm- zone 1

- | | |
|----------|----------|
| Ea= 0.44 | Qa= 1.29 |
| Eb= 0.67 | Qb= 2.03 |
| Ec= 0.99 | Qc= 2.87 |
| Ed= 1.97 | Qd= 4.37 |

ONSITE Conditions

FIRST FLUSH WATER QUALITY VOL	REQUIRED	PROVIDED
	(CF)	(CF)
WATER QUALITY	162	420

Narrative

This site is within the SAD 228 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the the adjacent property per the master drainage plan. We are ponding the water harvest volume generated by the site we are allowing the upland flow to pass thru the site. This plan has a shallow water harvest pond in excess of the drainage regulation. The upland flow is such that the pad was raised and additional turned blocks provided to allow flow to pass thru site. This plan is in conformance to the master drainage plan