

CITY OF ALBUQUERQUE

Planning Department
Suzanne Lubar, Director



Mayor Richard J. Berry

November 9, 2016

David Soule, P.E.
Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

RE: Abrazo Homes
Lot 4 Block 10 Unit 22 Volcano Cliffs SAD 228
6420 Petrojo NW
Grading and Drainage Plan
Engineers Stamp Date 11/3/16 (D10D003F4)

Dear Mr. Soule,

Based upon the information provided in your submittal received 11/4/16, this plan is approved for Grading Permit and Building Permit.

Please inform the builder to attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology. Also, notify the owner/contractor that a separate permit for the fence is required.

Prior to construction of the home, a pad certification will be required. A hold on the property will be placed until this certification has been approved.

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,

Abiel Carrillo, P.E.
Principal Engineer, Hydrology
Planning Department

RR/AC
C: File



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

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) _____

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) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

| 6420 PETIRROJO | | | | | | | | | |
|-------------------|--------------|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------|--------------------------------------|-------------|
| Weighted E Method | | | | | | | | | |
| Basin | Area (sf) | Area (acres) | Treatment A % (acres) | Treatment B % (acres) | Treatment C % (acres) | Treatment D % (acres) | Weighted (ac-ft) | 100-Year, 6-hr. Volume (ac-ft) | Flow cfs |
| NATIVE | 15409.00 | 0.354 | 80% | 0.283 | 10% | 0.035 | 0% | 0.000 | 0.518 |
| ALLOWED | 15409.00 | 0.354 | 0% | 0% | 10% | 0.035 | 40% | 0.1415 | 0.745 |
| PROPOSED | 15409.00 | 0.354 | 0% | 0% | 28% | 0.099 | 35% | 0.1238 | 1.25 |
| UPLAND | 5920.00 | 0.136 | 0% | 0% | 10% | 0.014 | 40% | 0.0544 | 0.48 |
| total | | | | | | | | | |

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

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

Ea= 0.44
Eb= 0.67
Ec= 0.89
Ed= 1.97

Qa= 1.29
Qb= 2.03
Qc= 2.87
Qd= 4.37

ONSITE Conditions

FIRST FLUSH WATER QUALITY VOL

REQUIRED (CF)

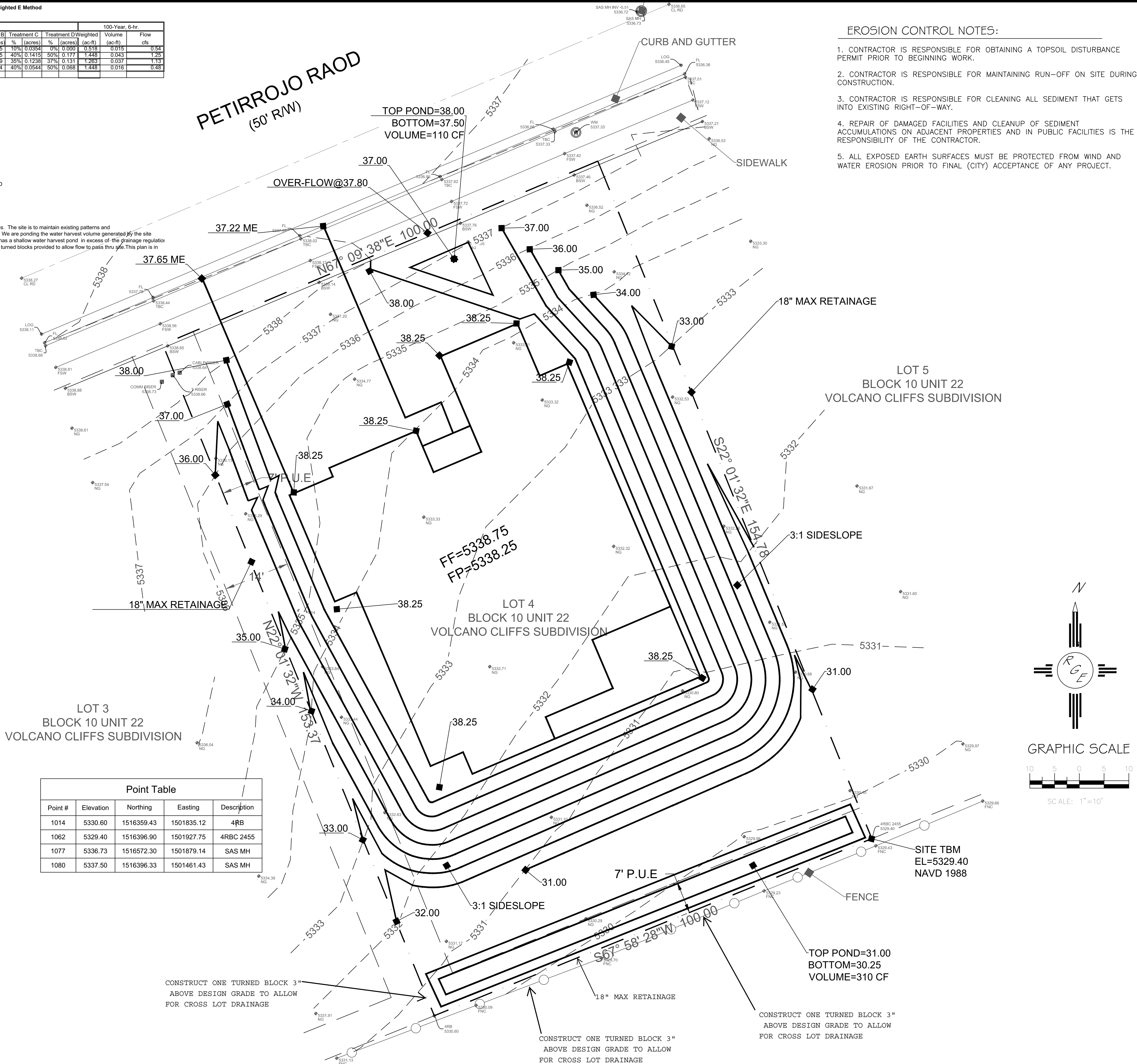
WATER QUALITY 162

PROVIDED (CF)

420

Narrative

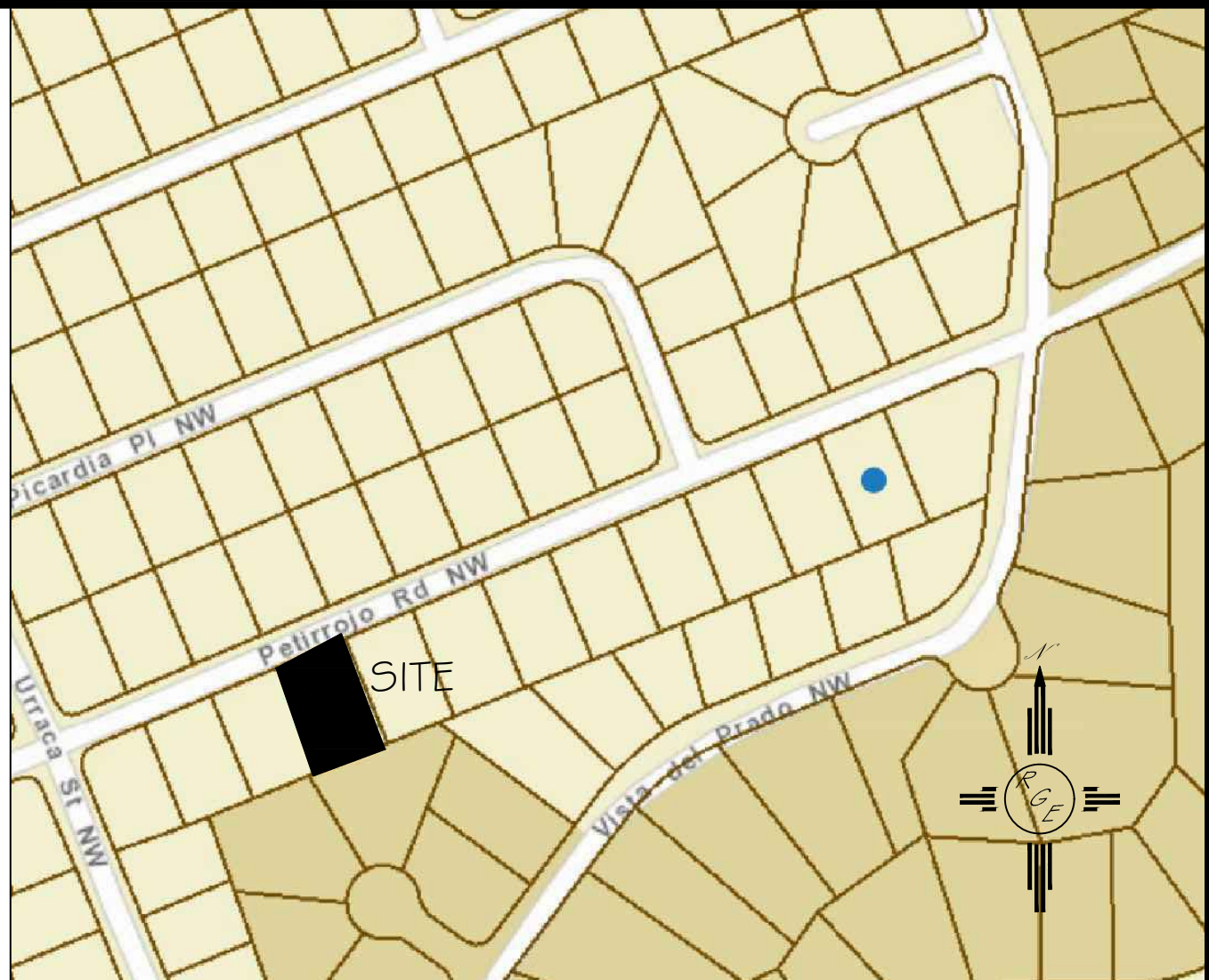
This site is within the SAD 228 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the adjacent property per the master drainage plan. We are ponding the water harvest volume generated by the site we are allowing the upland flow to pass thru the site. This plan has 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:

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.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.



VICINITY MAP:



FIRM MAP:

FM35001C0112G

LEGAL DESCRIPTION:

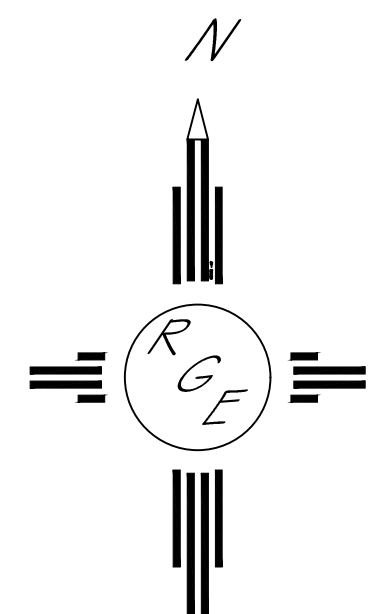
LOT 4, BLOCK 10, UNIT 22, VOLCANO CLIFFS

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.
3. IN THE EVENT THAT COMMON WALLS SHOWN ON THIS PLAN ARE NOT CONSTRUCTED AT THE TIME OF CERTIFICATION, THEY MUST BE CONSTRUCTED IN CONFORMANCE TO THIS PLAN. ANY WALLS CONSTRUCTED SHALL BE ACCOMPANIED BY THIS PLAN AT TIME OF PERMITTING.
4. A PAD CERTIFICATION BY THE ENGINEER IS REQUIRED PRIOR TO PLUMBING INSPECTION.


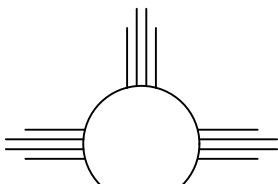
LEGEND

- 5411--- EXISTING CONTOUR
- 5410--- EXISTING INDEX CONTOUR
- 5411--- PROPOSED CONTOUR
- 5410--- PROPOSED INDEX CONTOUR
- FLOW DIRECTION-SWALE
- PROPOSED SPOT (FLOW-LINE)



GRAPHIC SCALE

SCALE: 1"=10'

| | | |
|---|--|--------------------|
| ENGINEER'S SEAL  11/3/16 | LOT 4, BLOCK 10, UNIT 22 VOLCANO CLIFFS SUBDIVISION | DRAWN BY JDG |
| | GRADING AND DRAINAGE PLAN | DATE 10-26-2016 |
| DAVID SOULE P.E. #14522 |  Rio Grande Engineering 1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0999 | SHEET # 1 OF 1 |
| | | JOB # |

Weighted E Method

6420 PETIRROJO

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

Equations:

Weighted E = $E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d$ / (Total Area)

Volume = Weighted D * Total Area

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

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

| | |
|----------|----------|
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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