CITY OF ALBUQUERQUE

Planning Department David Campbell, Director



January 17, 2019

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

RE: Lot 35 Block 6 Unit 2 SAD 227 7904 Kibo NW Volcano Cliffs Subdivision Grading and Drainage Plan Engineers Stamp Date 1/10/19 (E10D056)

Dear Mr. Dourte,

Based upon the information provided in your submittal received 1/10/19, this plan cannot be approved for Grading Permit until the following comments are addressed.

PO Box 1293

Albuquerque

NM 87103

- Provide a scale and the north arrow.
- Provide the property line for the entire site.
- The driveway appears to be entering the site through another property, clarify.
- Provide a benchmark.

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.

www.cabq.gov

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 E10D056



City of Albuquerque

Planning Department Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

| Project Title: Lot35, Bk6, Volcano Cliffs | Building Permit #: | Hydrology File #: |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| DRB#: | _EPC#: | Work Order#: |
| Legal Description: Lot 35, Block 6, Volcano | Cliffs no. 2 | |
| City Address: _7904 Kibo Drive NW | | |
| Applicant: RHD Engineering, LLC | | Contact: Richard Dourte |
| Address: 4305 Purple Sage Ave. NW, | Alb. NM, 87120 | |
| Phone#: 505.288.1621 | Fax#: | E-mail: rhdengineering@outlook.com |
| | | Contact: Joe Simons |
| Address: PO Box 67408, Alb. NM 8719 | | |
| Phone#: | Fax#: | E-mail: joe@simonsarchitecture.com |
| TYPE OF DEVELOPMENT: PLAT (| # of lots) X RESIDENCE | DRB SITE ADMIN SITE |
| IS THIS A RESUBMITTAL? Yes | X No | |
| DEPARTMENT TRANSPORTATION | X HYDROLOGY/DRAINA | GE |
| Check all that Apply: TYPE OF SUBMITTAL: ENGINEER/ARCHITECT CERTIFICATION PAD CERTIFICATION CONCEPTUAL G & D PLAN | X BUILDING CERTIFICA | ROVAL/ACCEPTANCE SOUGHT: PERMIT APPROVAL ATE OF OCCUPANCY ARY PLAT APPROVAL N FOR SUB'D APPROVAL |
| X GRADING PLAN DRAINAGE REPORT DRAINAGE MASTER PLAN | SITE PLAN FINAL PLA | FOR BLDG. PERMIT APPROVAL AT APPROVAL |
| FLOODPLAIN DEVELOPMENT PERMIT A ELEVATION CERTIFICATE CLOMR/LOMR TRAFFIC CIRCULATION LAYOUT (TCL) TRAFFIC IMPACT STUDY (TIS) STREET LIGHT LAYOUT OTHER (SPECIFY) PRE-DESIGN MEETING? | SIA/ KELE FOUNDAT GRADING SO-19 APF PAVING P GRADING GRADING CLOMR/LO FLOODPLA OTHER (S | ERMIT APPROVAL / PAD CERTIFICATION DER APPROVAL |
| DATE SUBMITTED: <u>1-10-19</u> | | |
| COA STAFF: | ELECTRONIC SUBMITTAL RECEIVED: FEE PAID: | |

DRAINAGE NARRATIVE:

1. THIS SITE IS LOCATED WITHIN THE SAD 227 DRAINAGE PLAN. AN ALLOTMENT OF 3600SF OF IMPERVIOUS AREA PER LOT IS PERMITTED TO DRAIN TO THE SAD 227 STORM DRAIN SYSTEM. THIS SITE IS PROPOSED TO HAVE 3925SF OF IMPERVIOUS AREA. THE DIFFERENCE IN THE RUNOFF WILL NEED TO BE PONDED ONSITE. THIS SITE WOULD BE REQUIRED TO POND ONLY 26CF, SEE THE DRAINAGE CALCULATIONS BELOW. 2. BASIN N IS REQUIRED TO POND THE 100YR 6HR EVENT =391CF. THIS IS GREATER THAN THE FIRST FLUSH VOLUME OF 26CF. THE TWO PONDS FOR THIS AREA ARE 320CF+80CF= 400CF. THUS THE VOLUME PROVIDED IS GREATER THAN THE VOLUME REQUIRED.

3. BASIN S IS REQUIRED TO POND THE FIRST FLUSH VOLUME OF 86CF, THE POND VOLUME IS 100CF. THUS THE POND VOLUME PROVIDE IS GREATER THAN THE VOLUME REQUIRED.

| r | | | Project: L | - | - | | 5 no. 2 | | | | |
|-------------------------------------------------------------------------------------------------|-------------------------------|--------------|---------------|--------------------------|-------------|-----------------------------------------------|-----------------------------------------|----------|---------------------------------------|-----------|----------|
| L | | | Dra | iinage Calo | culations - | zone 1 | | | | | l |
| | Depth (inches) at 100yr Storm | | | | | | Excess Precipiation, E(inch Treatmen | | | |) - 6 HR |
| Zone | P60 | P360 | P1440 | P4days | P10days | 1 | Zone | A | В | C | D |
| 1 | 1.87 | 2.20 | 2.66 | 3.12 | 3.67 |] | 1 | 0.44 | 0.67 | 0.99 | 1.97 |
| 2 | 2.01 | 2.35 | 2.75 | 3.30 | 3.95 | | 2 | 0.53 | 0.78 | 1.13 | 2.12 |
| 3 | 2.14 | 2.60 | 3.10 | 3.95 | 4.90 | 4 | 3 | 0.66 | 0.92 | 1.29 | 2.36 |
| 4 | 2.23 | 2.90 | 3.65 | 4.70 | 5.95 | | 4 | 0.80 | 1.08 | 1.46 | 2.64 |
| Weighted E= ((EA*AA)+(EB*AB)+(Ec*Ac)+(ED*AD))/(AA+AB+Ac+AD) V360=(Weighted E *P360)/12 in/ft | | | | |] | Peak Discharge (CFS/ACRE) 100 YR Treatment | | | | | |
| V1440= V360+AD*(P1440-P360)/12in/ft | | | | | | | Zone | Α | В | С | D |
| V4days=V360+AD*(P4day-P360)/12in/ft | | | | | | | 1 | 1.29 | 2.03 | 2.87 | 4.37 |
| V10days=V360 | +AD*(P10days | -P360)/12in/ | /ft | | | | 2 | 1.56 | 2.28 | 3.14 | 4.70 |
| | | | | | | | 3 | 1.87 | 2.60 | 3.45 | 5.02 |
| | **** | ***** | ****** | **DESIGN | CRITERIA | ***** | 4 | 2.20 | 2.92 ***** | 3.73 | 5.25 |
| Area | SQ. | | Acres | % Total |] | | | | Flows (| CFS) | |
| A= | 0 | | 0.000 | 0% | | Area | SQ. FT | | Peak D | Discharge | (100 YR) |
| B= | 0 | | 0.000 | 0% | 4 | A= | | 0.000 | | 0.00 | |
| C= | 840 | | 0.193 | 70% | 4 | B= | | 0.000 | | 0.00 | |
| D= | 360 | | 0.083 | 30% | 4 | C= | | 0.193 | | 0.55 | |
| Total | 120 | | 0.275 | 100% | 4 | D= | | 0.083 | | 0.36 | |
| Weigh | ted E= | 1.2 | 284 | | J | | otal (CFS |) | | 0.91 | |
| | V3 | 50 | V14 | 40 | | V4days | | | V10day | s | |
| Cubic feet | 1284 | 4.0 | 142 | 2.0 | | 1560.0 | | | 1725.0 | | |
| Acre-ft | 0.0 |)3 | 0.0 |)3 | | 0.04 | | | 0.04 | | |
| | ***** | **** | **** | | | | ****** | ***** | ***** | ***** | |
| Area | SQ. | | Acres | % Total | | ASIN S | | | | | |
| Area A= | <u> </u> | | 0.000 | 0% | 4 | Area | | | Flows (CFS) Peak Discharge (100 YF | | |
| B= | 0 | | 0.000 | 0% | 1 | Area A= | | 0.000 | 0.00 | | |
| C= | 512 | | 0.118 | 63% | 1 | B= | | 0.000 | 0.00 | | |
| D= | 302 | 25 | 0.069 | 37% | 1 | C= | 5125 | 0.118 | 0.34 | | |
| Total | 815 | 50 | 0.187 | 100% | | D= | 3025 | 0.069 | | 0.30 | |
| Weigh | ted E= | 1.3 | 354 | | | Т | otal (CFS | 5) | | 0.64 | |
| | Va | -0 | V14 | 40 | | V4days | | | V10day | c | I |
| Cubic feet | 919 | | 1035.4 | | | 1151.3 | - | | 1290.0 | | |
| Acre-ft | 0.0 | | 0.0 | | | 0.03 | | | 0.03 | 5 | |
| Firs | t Flush Pond | ing Require | ment for Ba | sin S = A _D ' | *0.34 in/1 | 2in/ft = | 86 CF | | | | |
| | ***** | ***** | ****PROP(| OSED CON | DITIONS B | | ***** | ***** | ***** | **** | |
| | | | | | | | | | | | |
| Area | SQ. | FT | Acres | % Total | | | | Design | Flows (| CFS) | |
| A= | 0 | | 0.000 | 0% | | Area | SQ. FT | Acres | Peak D | Discharge | (100 YR) |
| B= | 0 | | 0.000 | 0% | 1 | A= | | 0.000 | | 0.00 | |
| C= | 295 | | 0.068 | 77% | 4 | B= | | 0.000 | | 0.00 | |
| D= | 90 | | 0.021 | 23% | 4 | C= | | 0.068 | | 0.19 | |
| Total | 385 | | 0.088 | 100% | 4 | D= | | 0.021 | | 0.09 | |
| Weigh | | 1.2 | | | | | otal (CFS | 5) | | 0.28 | |
| Cubi- fr - t | V36 | | | | V4days | | | V10day | | | |
| Cubic feet | 391 | | 411 | | 466.1 | | | | 501.4 | | |
| Acre-ft | 0.0 |)1 | 0.0 | 1 | | 0.01 | | | 0.01 | | |
| The 100 ye | ar peak flow | s for this d | eveloped site | e is 0.64CF | -S +.28CFS | =.92CF | S and the | design | flows a | re 0.91 | |

REPORT PRIOR TO DESIGN OF BUILDING FOOTING/FOUNDATION.

