

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

July 15, 2021

Jackie McDowell, PE
McDowell Engineering, Inc.
7820 Beverly Hills Ave NE
Albuquerque, NM 87121

RE: **High Desert**
5501 Barranca Oso Ct. NE
Grading and Drainage Plan
Engineers Stamp Date 6/24/2021
(F23D015)

Ms. McDowell,

Based upon the information provided in your submittal received 7/1/2021, this plan is approved for Grading Permit.

PO Box 1293

Prior to Building permit approval a Pad Certification will be required, provided by the Engineer or a registered Land Surveyor.

Albuquerque

Please inform the builder/owner to attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology.

NM 87103

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 earmijo@cabq.gov.

Sincerely,

Ernest Armijo, P.E.
Principal Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Raissy - 5501 BARRANCA OSO CT , High Desert **Building Permit #:** BP2021- 24657 **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: LT 27-A PLAT OF LOTS 1-A THRU 27-A WILDERNESS ESTATES AT HIGH DESERT
City Address: 5501 BARRANCA OSO CT NE ALBUQUERQUE NM 87111

Applicant: MCDOWELL ENGINEERING, INC. **Contact:** JACKIE MCDOWELL
Address: 7820 BEVERLY HILLS AVE. NE, ALBUQUERQUE, NM 87122
Phone#: 505-828-2430 **Fax#:** 505-821-4857 **E-mail:** jackmcdowell@comcast.net
Owner: RAISSY-DEHKORDI MOHSEN & HEIDARIAN-RAISSY HENGAMEH **Contact:** MOHSEN RAISSY
Address: 8100 WYOMING BLVD NE #M4-127 ALBUQUERQUE NM 87113-1947
Phone#: 505-620-7219 **Fax#:** _____ **E-mail:** mohsenraissy@yahoo.com

TYPE OF SUBMITTAL: _____ PLAT (_____ # OF LOTS) ☒ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION ☒ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

_____ ENGINEER/ARCHITECT CERTIFICATION
_____ PAD CERTIFICATION
_____ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
_____ DRAINAGE MASTER PLAN
_____ DRAINAGE REPORT
_____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
_____ ELEVATION CERTIFICATE
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ 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: 6-30-21 **By:** JACKIE MCDOWELL

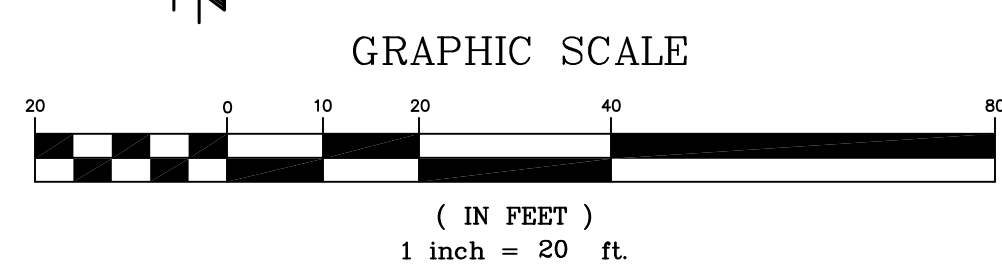
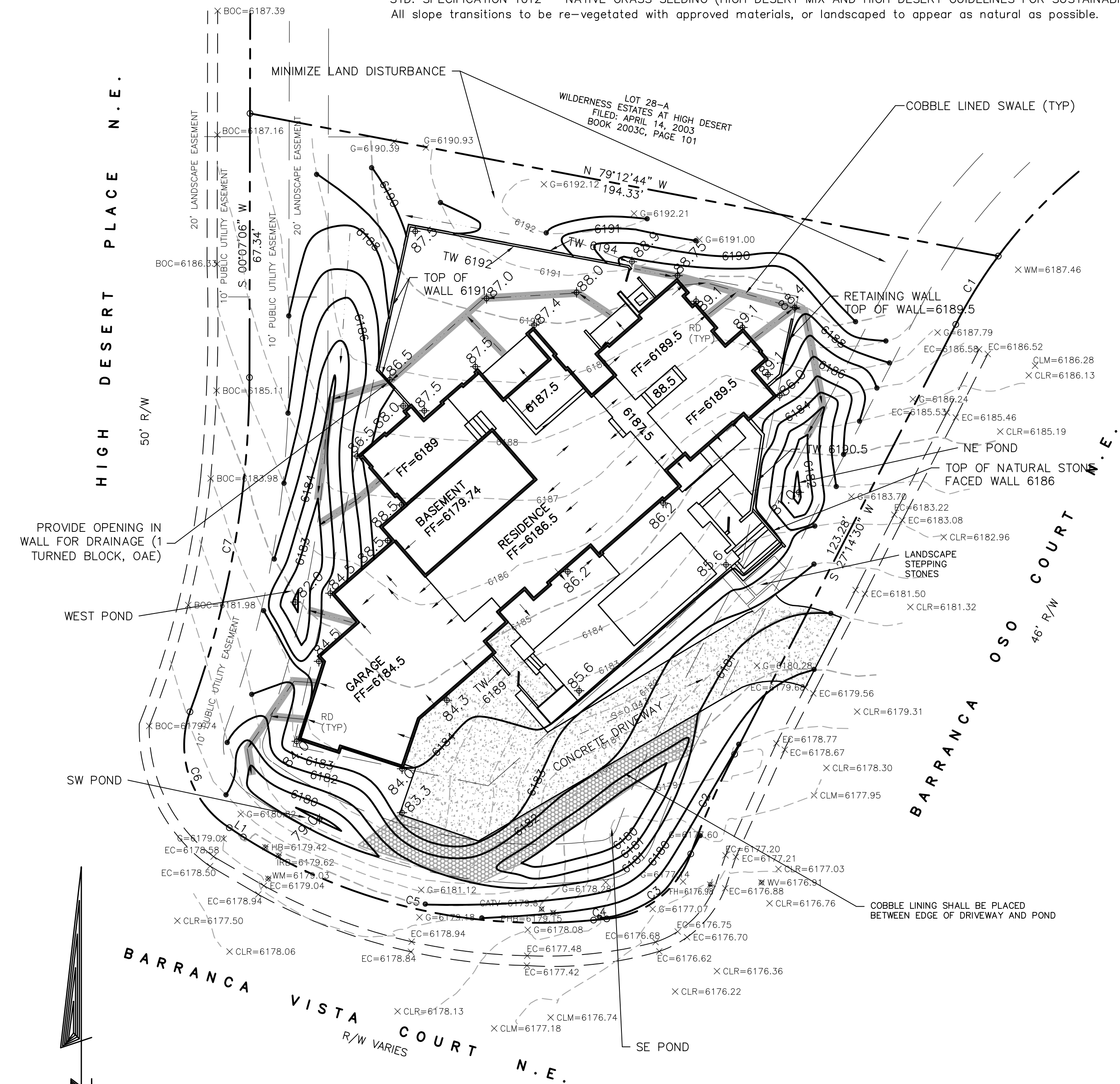
COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

STANDARD GRADING NOTE:

1. THE MAXIMUM GRADED SIDE SLOPE SHALL NOT EXCEED 3 FEET (HORIZONTALLY) TO 1 FOOT (VERTICALLY).
2. AREAS DISTURBED DUE TO GRADING SHALL BE RESEDED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STD. SPECIFICATION 1012 – NATIVE GRASS SEEDING (HIGH DESERT MIX AND HIGH DESERT GUIDELINES FOR SUSTAINABILITY). All slope transitions to be re-vegetated with approved materials, or landscaped to appear as natural as possible.



GENERAL GRADING NOTES:

1. THE CONTRACTOR SHALL OBTAIN A TOP SOIL DISTURBANCE PERMIT FROM THE CITY OF ALBUQUERQUE, ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS TO REFER TO THE EARTHWORK SPECIFICATIONS NOTED IN THE GEOTECHNICAL INVESTIGATION REPORT PREPARED FOR THIS LOT AND CAN BE OBTAINED BY THE OWNER.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS, PERMITS AND APPROVALS.
4. PVC DRAINAGE PIPES MAY REQUIRE FIELD ADJUSTMENT DUE TO SUBSURFACE ROCK. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE TO INLET/STREET.
5. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY CONDITIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
6. TWO WORKING DAYS PRIOR TO EXCAVATION THE CONTRACTOR SHALL CONTACT NEW MEXICO ONE CALL SYSTEM (811) FOR LOCATION OF EXISTING UTILITIES.
7. CONTRACTOR SHALL PROVIDE DOUBLE CLEAN-OUTS AT ALL BENDS IN DRAINAGE PIPE.
8. THE TOPSOIL SHOULD BE SAVED AND PUT ASIDE FOR RE-USE IN FILLING DISTURBED AREAS AWAY FROM THE STRUCTURE.
9. ALL DISTURBED AREAS ON THE LOT SHALL BE RESEDED WITH NATIVE SEEDING MATERIAL (HIGH DESERT MIX).
10. COBBLE SPLASH MATERIAL UNDER CANALES. OAE

DRAINAGE PLAN

SCOPE:

This plan is in accordance with the City of Drainage Ordinance. The Drainage Plan shown hereon outlines the drainage management criteria for controlling developed runoff on and exiting the project site. A single family home is proposed on the lot, with associated access, landscaping, and utility improvements.

EXISTING CONDITIONS:

Presently, the site contains approximately 0.65 acres of undeveloped property. The site is bounded on the north by a residential lot, on the west by High Desert Place, on the south by Barranca Vista Court, and on the east by Barranca Oso Court NE. The site is well vegetated with desert grasses and shrubs. Site topography slopes from the north to the south.

PROPOSED CONDITIONS:

As shown by the Plan, the building is located within the designated building envelope. Storm water will continue to sheet flow in the same existing manner. Storm water flow inside the building envelope will flow away from the building to the west, east, and south existing flow paths and new water harvesting ponds. Access will be taken Barranca Oso Court.

Supplemental calculations are shown.

CALCULATIONS:

The calculations shown hereon define the 100 year/6 hour design storm falling within the project area under existing and developed conditions. The Hydrology is per the Development Process Manual for the City of Albuquerque, New Mexico.

Existing Treatment Types:

Treatment A = 0.65 acres

Proposed Treatment Types:

Treatment A = 0.11 acres
Treatment B = 0.17 acres
Treatment C = 0.12 acres
Treatment D = 0.25 acres

PROPERTY ADDRESS:

5501 BARRANCA OSO CT. NE

LEGAL DESCRIPTION:

Lot 27-A, Wilderness Estates at High Desert.

SURVEY:

Topographic information provided by Anthony Harris dated 11-18-14.

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED

DATE: 7/15/2021
BY: Ernest Amigo
HydroTrans # F23D015

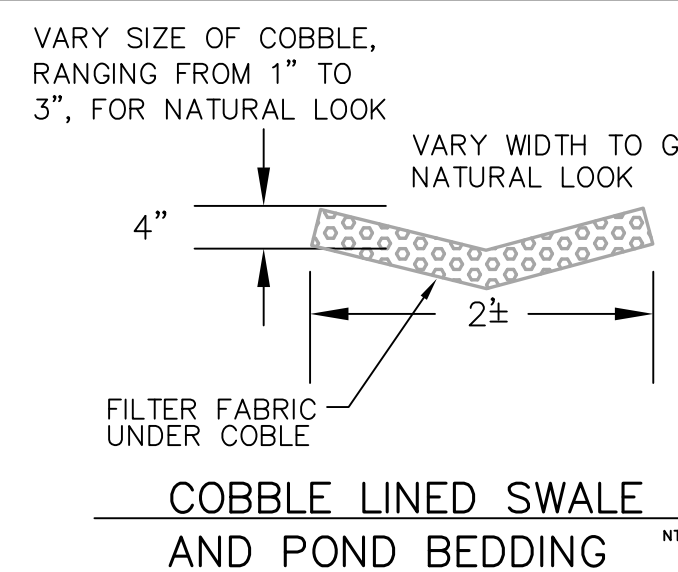
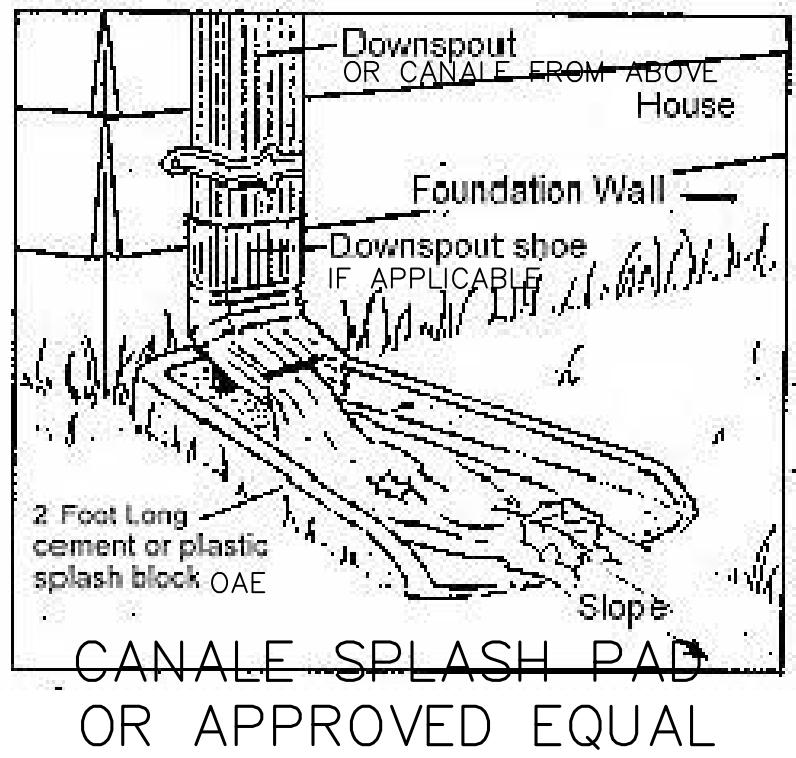
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSIDERED TO BE A GUARANTEE OF THE ACCURACY OF THE INFORMATION OR DATA PROVIDED HEREON, NOR SHALL IT BE A GUARANTEE OF THE CITY OF ALBUQUERQUE'S LIABILITY FOR ANY DAMAGE, LOSS, OR INJURY, OR FOR ANY OTHER REASON, ARISING OUT OF OR FROM THE USE OF THESE PLANS/REPORT.

CURVE TABLE

NUMBER	DELTA ANGLE	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH
C1	09°34'20"	S 31°52'17" W	123.00	20.55	20.53
C2	07°51'02"	S 23°44'45" W	203.00	27.81	27.79
C3	65°36'36"	N 52°17'44" E	25.00	28.63	27.09
C4	01°07'03"	S 84°37'11" W	173.00	3.37	3.37
C5	39°00'57"	S 76°39'19" E	141.00	93.55	91.85
C6	77°16'48"	S 18°45'57" E	25.00	33.72	31.22
C7	19°56'53"	N 10°05'32" E	250.00	87.04	86.60

SURVEY GENERAL NOTES:

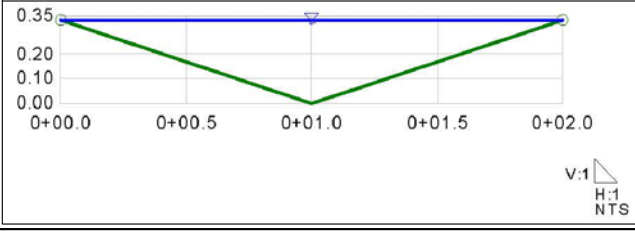
1. CONTOUR INTERVAL IS ONE (1) FOOT.
2. ELEVATIONS ARE BASED ON CENTERLINE MONUMENT HAVING AN ELEVATION OF 6152.08, NAVD88, PROVIDED BY THE HIGH DESERT ASSOCIATION
3. UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
4. THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN IS FROM PREVIOUS SURVEY REFERENCE HEREON



POND TREATMENT SHALL BE THE SAME AS SWALE OR RESEDED AS NOTED

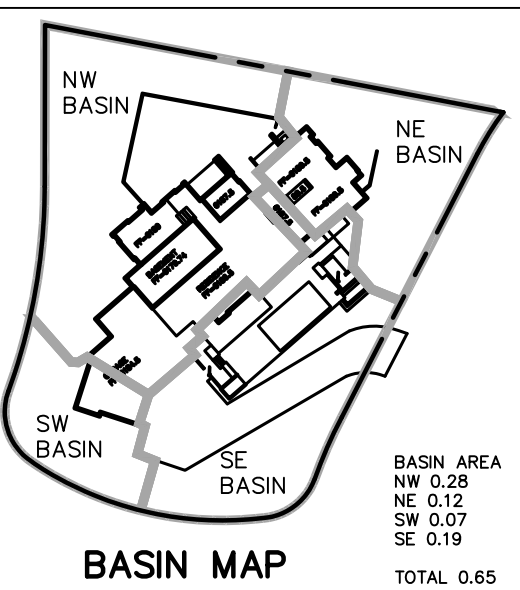
ALL ROOF DRAIN SWALES SHALL HAVE A MINIMUM SLOPE OF 1% FROM ROOF DRAIN TO POND

Swale Capacity – Section Data
Mannings Coefficient 0.035
Slope 0.010000 ft/ft
Water Surface Elevation 0.33 ft
Elevation Range 0.00 to 0.33
Discharge 0.41 cfs



SURVEY LEGEND

- EC = EDGE OF CONCRETE
- CLR = CENTERLINE OF ROAD
- CLM = CENTERLINE MONUMENT
- HB = HOT BOX
- IRB = IRRIGATION BOX
- WM = WATER METER
- PHB = PHONE BOX
- CATV = CABLE BOX
- FH = FIRE HYDRANT
- WV = WATER VALVE
- RB = REBAR
- G = GROUND



LEGEND

	EXISTING	PROPOSED
CONTOUR	5900	5850
PROPERTY LINE		
ROAD		
SETBACK		
COURT YARD WALL		
WATER METER		
SANITARY SEWER		
SAS LATERAL AND PLUG		
SPOT ELEVATION	X G=6183.70	TG(E) XXXX TG(W) XXXX TW XXX(MIN)
COBBLE LINED SWALE		

NOTE:
CONTRACTOR SHALL USE AN ESTABLISHED BENCH MARK TO SET BUILDING ELEVATIONS. CENTERLINE MONUMENTATION ELEVATIONS ARE AVAILABLE FROM HIGH DESERT CORP.

5-5-21
REV. 5-27-21
REV. 6-24-21

Precipitation Zone = 4 NO EXIST SLOPE CONSIDERATION

Areas: (acres)	Existing	Proposed
Treatment A	0.65	0.11
Treatment B	0.00	0.17
Treatment C	0.00	0.12
Treatment D	0.00	0.25
Total (acres) =	0.65	0.65

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.04	0.10	0.01	0.06	0.00	0.04
Volume (cubic feet) =	1,793	4,443	560	2,561	0	1,813

FIRST FLUSH POND VOLUME REQUIRED = 0.65*0.34/12*43560 = 802 CF

Total Q (cfs):	100 year Existing Q(p)*A	100 year Proposed Q(p)*A	10 year Existing Q(p)*A	10 year Proposed Q(p)*A	2 year Existing Q(p)*A	2 year Proposed Q(p)*A
Treatment A	1.36	0.23	0.46	0.08	0.00	0.00
Treatment B	0.00	0.46	0.00	0.22	0.00	0.05
Treatment C	0.00	0.41	0.00	0.23	0.00	0.10
Treatment D	0.00	1.20	0.00	0.76	0.00	0.47
Total Q (cfs) =	1.36	2.30	0.46	1.28	0.00	0.62

Precipitation Zone = 4 EXIST SLOPE CONSIDERATION

Areas: (acres)	Existing	Proposed
Treatment A	0.13	0.11
Treatment B	0.52	0.17
Treatment C	0.00	0.12
Treatment D	0.00	0.25
Total (acres) =	0.65	0.65

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.05	0.10	0.02	0.06	0.01	0.04
Volume (cubic feet) =	2,152	4,443	892	2,561	529	1,813

FIRST FLUSH POND VOLUME REQUIRED = 0.65*0.34/12*43560 = 802 CF

Total Q (cfs):	100 year Existing Q(p)*A	100 year Proposed Q(p)*A	10 year Existing Q(p)*A	10 year Proposed Q(p)*A	2 year Existing Q(p)*A	2 year Proposed Q(p)*A
Treatment A	0.27	0.23	0.09	0.08	0.00	0.00
Treatment B	1.42	0.46	0.67	0.22	0.15	0.05
Treatment C	0.00	0.41	0.00	0.23	0.00	0.10
Treatment D	0.00	1.20	0.00	0.76	0.00	0.47
Total Q (cfs) =	1.69	2.30	0.76	1.28	0.15	0.62

WEST POND VOLUME PROVIDED:

ELEV	AREA	VOL
6184	492	329
6183	165	83
6182	0	0
SUB TOTAL	411	CF

NE POND VOLUME PROVIDED:

ELEV	AREA	VOL
6183	295	202
6182	109	55
6181	0	0
SUB TOTAL	257	CF

SW POND VOLUME PROVIDED:

ELEV	AREA	VOL
6180	200	104
6179	8	104
SUB TOTAL	104	CF

SE POND VOLUME PROVIDED:

ELEV	AREA	VOL
6181	627	457
6180	287	457
SUB TOTAL	457	CF

TOTAL ALL PONDS 1229 CF

FF POND VOL FF POND VOL PROVIDED

BASIN	AREA	REQUIRED	VOL PROVIDED
NW	0.28	346	411
NE	0.12	148	257
SW	0.07	86	104
SE	0.18	234	457
TOTAL	0.65	802	1229

5501 BARRANCA OSO CT NE, ALBUQUERQUE, NM 87111

CITY OF ALBUQUERQUE, BERNALILLO COUNTY NEW MEXICO

LOT #27-A
WILDERNESS ESTATES AT HIGH DESERT

RAISSY (MIKE CABBER, DESIGNER) – GRADING & DRAINAGE PLAN

McDowell Engineering, Inc.

7820 Beverly Hills Ave. NE, Albuquerque, NM 87122

Tele: 505-828-2430

Designed JSM	Drawn STAFF	Checked JSM	Sheet of
File RAO121L	Date APRIL, 2021		1 1