

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

October 4, 2023

Jackie McDowell, P.E.
McDowell Engineering, Inc.
7820 Beverly Hills Ave. NE
Albuquerque, NM 87122

RE: 512 Tres Lagunas Ln NE
Grading and Drainage Plan
Engineer's Certification Date: 9/27/2023
Engineer's Stamp Date: 6/16/2022
Hydrology File: E16D016

Dear Ms. McDowell:

PO Box 1293

Based on the Certification received 9/29/2023 and site visit on 10/4/2023, this letter serves as a "green tag" from Hydrology Section for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

Albuquerque

If you have any questions, please contact me at 924-3695 or tchen@cabq.gov.

Sincerely,

NM 87103

www.cabq.gov

Tiequan Chen, P.E.
Principal Engineer, Hydrology
Planning Department, Development Review Services



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Quality Builders - Lujan - 512 Tres Lagunas **Building Permit #:** _____ **Hydrology File #:** E16D016
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: LOT 3, TRES LAGUNAS SUBDIVISION
City Address: 512 TRES LAGUNAS LN NE ALBUQUERQUE NM 87113

Applicant: MCDOWELL ENGINEERING, INC. **Contact:** JACKIE MCDOWELL
Address: 7820 BEVERLY HILLS AVE. NE
Phone#: 505-828-2430 **Fax#:** 505-821-4857 **E-mail:** jackmcdowell@comcast.net

Other Contact: Mike Martinez, Quality Builders **Contact:** Mike Martinez
Address: PO Box 951, Peralta, NM 87042
Phone#: 505-869-9075 **Fax#:** 505-869-9085 **E-mail:** qualitybldg@comcast.net

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: 9-27-23 **By:** JACKIE MCDOWELL

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

PROPERTY LINE WALLS AND GARDEN WALLS SHALL HAVE TURNED BLOCKS FOR DRAINAGE. ALL OPENINGS IN THE WALLS SHALL BE 3" ABOVE GRADE, TYP.

A PAD CERTIFICATION IS REQUIRED BEFORE THE BUILDING PERMIT IS RELEASED.

SURVEY NOTES

- LEGAL DESCRIPTION

Note: Elevations in NAVD 88. Northings & Eastings are New Mexico State Plane (3002 NM C).

COA EROSION CONTROL NOTES:

- EROSION AND SEDIMENT CONTROL:
PROVIDE SILT FENCING OR BERM AT
DOWNSTREAM SIDE OF SITE DURING
CONSTRUCTION TO PREVENT DEBRIS
FROM ENTERING THE CITY STREET
RIGHT-OF-WAY DURING CONSTRUCTION.

This plan shall be used for the Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) which is required to be submitted by the owner/contractor to the Stormwater Quality Engineer (Doug Hughes, PE, hughes@cabq.gov 505-924-3420) 14 days prior to any earth disturbance.

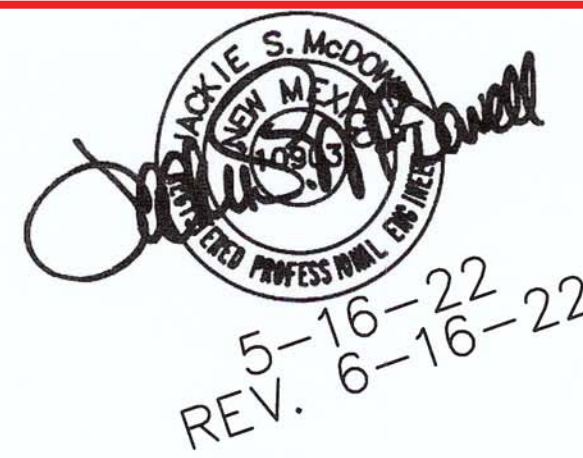
QUALITY BUILDERS TO PROVIDE UPDATED SITE PLAN SHOWING AS-BUILT LOCATIONS OF INTERIOR PRIVACY/GARDEN WALLS AND ROOF DRAINAGE GUTTERS. REAR POND PLAN VOLUME TO BE EXCAVATED UPON COMPLETION OF PRIVACY/GARDEN WALL.

AS-BUILT SPOT ELEVATIONS BY CHRISTOPHER J. DEHLER.
NMRLS 7923, TAKEN ON SEPTEMBER 25 & 26, 2023.

CHRISTOPHER J. DEHLER NMRLS 7923 9/27/23
DATE



I, Jackie McDowell, NMPE #10903, of the firm McDowell Engineering, Inc., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 6-16-22. The record information edited onto the original design document has been obtained by the surveyor. I further certify that I have personally visited the project site on September 27, 2023 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Certificate of Occupancy. The record information presented herein is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.



9-27-23 ENGR CERT FOR CO

I, Jackie S. McDowell, hereby certify that I personally inspected the site shown on this plan on May 10, 2022 and as of that date it appeared that no filling, grading, or excavation had occurred thereon since completion of the topographic survey used to prepare this plan. A few debris piles exist which will be removed with this project effort.

512 TRES LAGUNAS LN NE ALBUQUERQUE NM 87113

CITY OF ALBUQUERQUE, BERNALILLO COUNTY NEW MEXICO

LOT 3
TRES LAGUNAS SUBDIVISION

McDowell Engineering, Inc.

7820 BEVERLY HILLS AVE. NE, ALBUQUERQUE, NM 87122
TELE: 505-828-2430 EMAIL: JackMcDowell@comast.net

Designed	JSM	Drawn	STAFF	Checked	JSM	Sheet	of
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File	Date	1	1
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QUA0122L	MAY,2022		
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[illegible]

3. It is recommended that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This plan recommends positive drainage away from all structures to prohibit ponding of runoff adjacent to the structure. Future alterations of the grades next to the structures are not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Irrigation water adjacent to the structures could cause settlement.
4. This plan establishes on-site drainage and assumes no responsibility for subsurface analysis, foundation or structural design, or utility design.
5. Local codes may require all footings to be placed in natural undisturbed soil. If the contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer is recommended.
6. It is recommended that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
7. The property boundary shown on this plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey.
8. All work shall be constructed in accordance with the City of Albuquerque Standard Specifications for Public Works Construction with updates.
9. All work on this project shall be performed in accordance with applicable Federal, State, and Local laws, rules, and regulations concerning construction safety and health.
10. Contactor shall ensure that no site soils/sediment or silt enters the right-of-ways during construction.
11. Areas disturbed due to construction shall be restored per City of Albuquerque Spec. 1012 native seed mix.

SCOPE:

Pursuant to the latest City of Albuquerque and Bernalillo County Ordinances, the Drainage Plan shown herein outlines the drainage management criteria for controlling developed runoff on and exiting the project site. This project includes a home with associated driveway, landscaping, and utilities. There is a master drainage plan for the site identified as "E16-D16_TRES LAGUNAS SUBD_PLANS_No." in the City files which shows the required ponding locations and as-built conditions for the entire site. This plan includes water harvesting/first flush ponding for the site for best practices.

Presently, the 1.53 acre site is undeveloped but has been graded according to the master grading plan. The site is bounded on the east, south, and west by private property, and on the north by Tres Lagunas Lane NE. The site slopes from south to north. As shown on FEMA Panel #136G, dated September 26, 2008, the site is not located in a 100 year flood plain.

As shown by the plan, the site will drain around the home to ponding areas and will mostly follow the existing grades. No off-site flows enter the site due to existing grades and walls on adjacent lots. Per the Master Grading & Drainage plan for Tres Lagunas Subdivision, the site is not required to have additional ponding, but First Flush ponding is provided for best practices.

Supplemental calculations are shown as part of this Grading and Drainage plan.

CALCULATIONS:

The calculations shown hereon define the 100 year-6 hour design storm falling within the project area under existing and developed conditions.

PROPERTY ADDRESS:

512 TRES LAGUNAS LN NE ALBUQUERQUE NM 87113

TOPOGRAPHY:

Topographic information provided by Christopher Dehler, dated May 9, 2022.

Precipitation Zone = 2 WEST BASIN				POND VOLUME PROVIDED:			
Areas (acres)	Existing	Proposed	ELEV	AREA	VOL (CF)		
Treatment A	0.31	0.00	5020	1211			
Treatment B	0.00	0.15					
Treatment C	0.00	0.07	5019.5	832	510.75		
Treatment D	0.00	0.09					
Total (acres) =	0.31	0.31		TOTAL	510.75		

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.014	0.023	0.003	0.017	0.000	0.007
Volume (cubic-feet) =	595	1,054	149	723	0	307

FIRST FLUSH POND VOL = 0.34*(12/PI)*PI*0.31 AC * 43560 SF/AC = 383 CF

Total Cbty, cfs:	100 year Existing gip/gA	100 year Proposed gip/gA	10 year Existing gip/gA	10 year Proposed gip/gA	2 year Existing gip/gA	2 year Proposed gip/gA
Treatment A	0.48	0.00	0.12	0.00	0.00	0.00
Treatment B	0.00	0.34	0.00	0.14	0.00	0.01
Treatment C	0.00	0.22	0.00	0.12	0.00	0.04
Treatment D	0.00	0.42	0.00	0.28	0.00	0.17
Total (cbs) =	0.48	0.98	0.12	0.54	0.00	0.22

Precipitation Zone = 2		NE BASIN		POND VOLUME PROVIDED:			
Areas: (acres)				ELEV	AREA	VOL	CF
	Existing	Proposed		5022	1075		
Treatment A	0.66	0.28					
Treatment B	0.00	0.15					871
Treatment C	0.00	0.07					
Treatment D	0.00	0.16		5021	667		
Total (acres)	0.66	0.66			TOTAL		871

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet)	0.029	0.057	0.007	0.027	0.000	0.012
Volume (cubic feet)	1.270	2.452	311	1.165	0	508

FIRST FLUSH POND VOL = $0.34^{**}(12^{**}10^{**}0.86 \text{ AC} - 43560 \text{ SF/AC}) = 815 \text{ CF}$

Total Qcp, cfs:	100 year Existing Qcp/74	100 year Proposed Qcp/74	10 year Existing Qcp/74	10 year Proposed Qcp/74	2 year Existing Qcp/74	2 year Proposed Qcp/74
Treatment A	1.03	0.44	0.25	0.11	0.00	0.00
Treatment B	0.34	0.34	0.00	0.14	0.00	0.01
Treatment C	0.00	0.22	0.00	0.12	0.00	0.04
Treatment D	0.00	0.75	0.00	0.50	0.00	0.30
Total Q (cfs)	1.03	1.75	0.25	0.87	0.00	0.35

Precipitation Zone = 2									
SOUTH BASIN									
Areas (acres)				POND VOLUME PROVIDED:					
		Existing	Proposed	ELEV	AREA	VOL. (CF)			
Treatment A		0.56	0.00		5024	2581			
Treatment B		0.00	0.20				1032.25		
Treatment C		0.00	0.15		5023.5	1548			
Treatment D		0.00	0.21						
Total (acres) =		0.56	0.56			TOTAL	1032.25		

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.025	0.054	0.009	0.035	0.000	0.010
Volume (cubic-feet) =	1,077	2,768	254	1,508	0	698

FIRST FLUSH POND VOL = $0.34^{*}(12)^{*}(12)^{*}0.56 \text{ AC} = 43595 \text{ SF/AC} = 891 \text{ CF}$

Total Q _{avg} , cfs:	100 year Existing Q _{avg} /A	100 year Proposed Q _{avg} /A	10 year Existing Q _{avg} /A	10 year Proposed Q _{avg} /A	2 year Existing Q _{avg} /A	2 year Proposed Q _{avg} /A
Treatment A	0.87	0.00	0.21	0.00	0.00	0.00
Treatment B	0.00	0.46	0.00	0.19	0.00	0.02
Treatment C	0.00	0.47	0.00	0.26	0.00	0.09
Treatment D	0.00	0.29	0.00	0.46	0.00	0.38
Total (cfs) =	0.87	1.91	0.21	1.11	0.00	0.50

GRADING
5-1-22
1=30
QUA0122L