CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

December 22, 2023

Robert Fierro, P.E.
Fierro & Company
6300 Montano Rd. NW
Albuquerque, NM 87120

RE: Luna Residence
9115 Riverdale Lane NW
Permanent C.O. – Accepted
Engineer's Certification Date: 12/21/23
Engineer's Stamp Date: 11/18/21
Hydrology File: C13D027G

Dear Mr. Fierro:

Based on the Certification received 12/20/2023 and site visit on 12/21/2023, 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.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Luna Residence Building Permit #: _____ Hydrology File #: C13D027G

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Lot 19 of the Plat of Black Farm Estates Unit I

City Address: 9515 Riverside LN NW, Albuquerque, NM 87120

Applicant: Fierro & Company, LLC Contact: Robert Fierro

Address: 3201 4th Street NW, Suite C, Albuquerque, NM 87017

Phone#: (505) 352-8930 Fax#: _____ E-mail: rfierro@fierrocompany.com

Owner: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL: _____ PLAT (___# OF LOTS) ____ RESIDENCE ____ DRB SITE X ___ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes X _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION X____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

X 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?

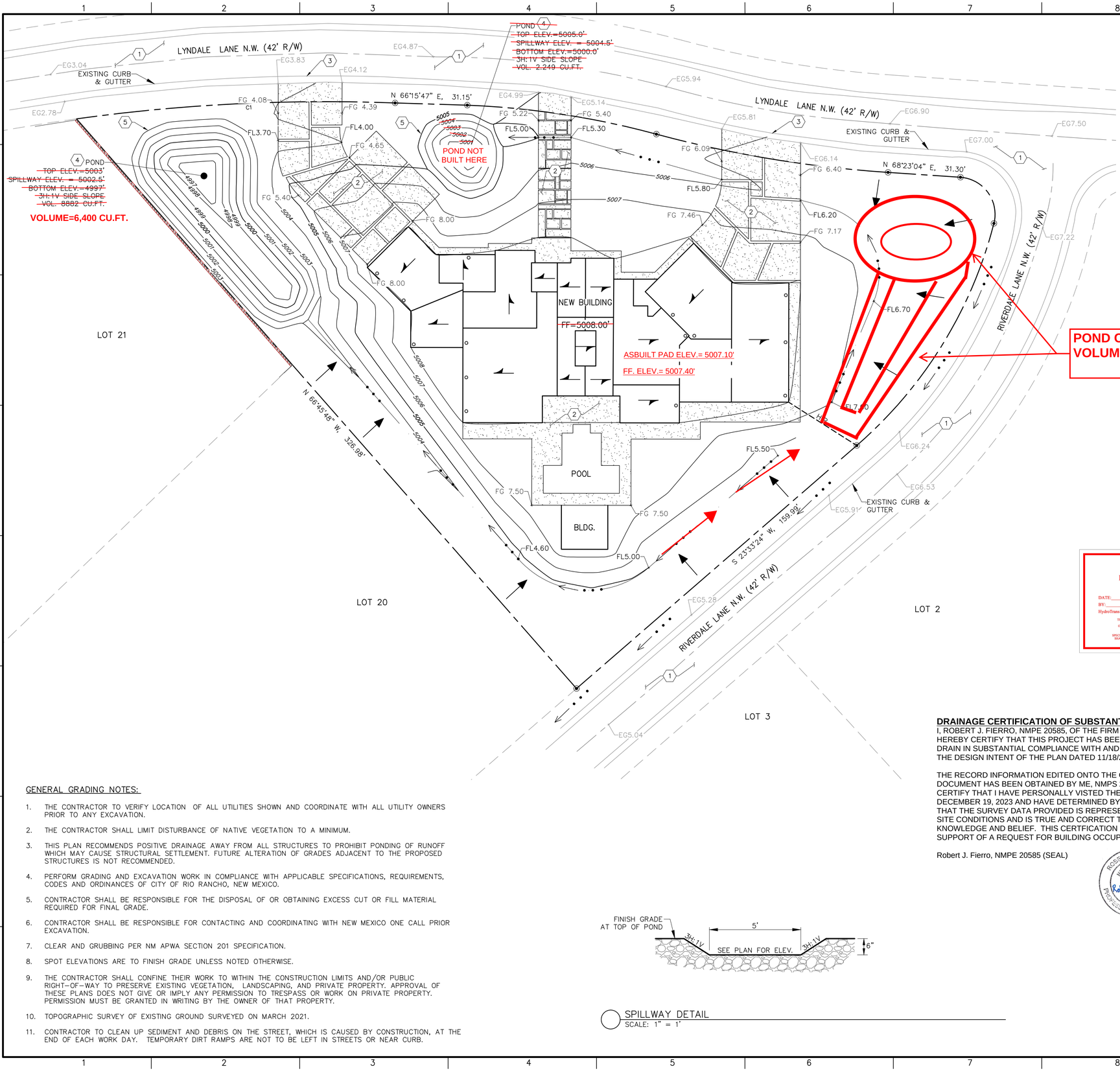
TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
X 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: 12/19/2023 By: Robert Fierro

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



KEYED NOTES:

1. EXISTING ASPHALT.
2. NEW CONCRETE.
3. CONSTRUCT DRIVEWAY PER CORR. STD. DWG. DW-01.
4. CONSTRUCT POND. STABILIZE DETENTION POND SIDE SLOPES WITH NATIVE GRASS SEED WITH AGGREGATE MULCH OR EQUAL. (MUST SATISFY THE "FINAL STABILIZATION CRITERIA (GP 2.2.14.6)".
5. CONSTRUCT SPILLWAY PER DETAIL X/C-X.

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 11/24/21
BY: Renée C. Brissette
HydroTrans # C13D027G

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY FROM REQUIRING THE CORRECTION OF ERRORS IN THE CORRECTION, OR ERROR OF DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

0 20' 40'

LEGEND

- APPARENT PROPERTY BOUNDARY
- APPARENT ADJOINING PROPERTY LINE
- APPARENT PROPERTY CORNER
- FLOW PATH
- FLOW DIRECTION
- ROOF FLOW DIRECTION
- 3905 EXISTING MAJOR CONTOUR
- 05 EXISTING MINOR CONTOUR
- 3905 PROPOSED MAJOR CONTOUR
- 3904 PROPOSED MINOR CONTOUR
- FG 26.29 FINISHED GRADE
- TOC TOP OF CONCRETE
- FL FLOW LINE
- H.P. HIGH POINT
- BLDG. BUILDING
- NEW CONCRETE
- POND W/ RIP-RAP

DRAINAGE CERTIFICATION OF SUBSTANTIAL COMPLIANCE

I, ROBERT J. FIERRO, NMPE 20585, OF THE FIRM FIERRO & COMPANY, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE PLAN DATED 11/18/2021.

THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME, NMPS 22909. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISTED THE PROJECT SITE ON DECEMBER 19, 2023 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTURAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR BUILDING OCCUPANY.

Robert J. Fierro, NMPE 20585 (SEAL)

ROBERT J. FIERRO NEW MEXICO 20585 PROFESSIONAL ENGINEER 12-4-2023

SPILLWAY DETAIL
SCALE: 1" = 1'

GENERAL GRADING NOTES:

1. THE CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES SHOWN AND COORDINATE WITH ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL LIMIT DISTURBANCE OF NATIVE VEGETATION TO A MINIMUM.
3. THIS PLAN RECOMMENDS POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES TO PROHIBIT PONDING OF RUNOFF WHICH MAY CAUSE STRUCTURAL SETTLEMENT. FUTURE ALTERATION OF GRADES ADJACENT TO THE PROPOSED STRUCTURES IS NOT RECOMMENDED.
4. PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF CITY OF RIO RANCHO, NEW MEXICO.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF OR OBTAINING EXCESS CUT OR FILL MATERIAL REQUIRED FOR FINAL GRADE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH NEW MEXICO ONE CALL PRIOR EXCAVATION.
7. CLEAR AND GRUBBING PER NM APWA SECTION 201 SPECIFICATION.
8. SPOT ELEVATIONS ARE TO FINISH GRADE UNLESS NOTED OTHERWISE.
9. THE CONTRACTOR SHALL CONFINE THEIR WORK TO WITHIN THE CONSTRUCTION LIMITS AND/OR PUBLIC RIGHT-OF-WAY TO PRESERVE EXISTING VEGETATION, LANDSCAPING, AND PRIVATE PROPERTY. APPROVAL OF THESE PLANS DOES NOT GIVE OR IMPLY ANY PERMISSION TO TRESPASS OR WORK ON PRIVATE PROPERTY. PERMISSION MUST BE GRANTED IN WRITING BY THE OWNER OF THAT PROPERTY.
10. TOPOGRAPHIC SURVEY OF EXISTING GROUND SURVEYED ON MARCH 2021.
11. CONTRACTOR TO CLEAN UP SEDIMENT AND DEBRIS ON THE STREET, WHICH IS CAUSED BY CONSTRUCTION, AT THE END OF EACH WORK DAY. TEMPORARY DIRT RAMPS ARE NOT TO BE LEFT IN STREETS OR NEAR CURB.

Fierro&Company
ENGINEERING | SURVEYING
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ALBUQUERQUE, NEW MEXICO 87120
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL

ROBERT J. FIERRO NEW MEXICO 20585 PROFESSIONAL ENGINEER 11-18-2021

PROJECT NAME

LUNA RESIDENCE
9515 RIVERDALE LN N.W.
ALBUQUERQUE, NEW MEXICO

BY	DESCRIPTION	DATE	REV.

PROJECT NO:	21082
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	NOVEMBER 2021

SHEET TITLE

GRADING

SHEET NO:

C-1

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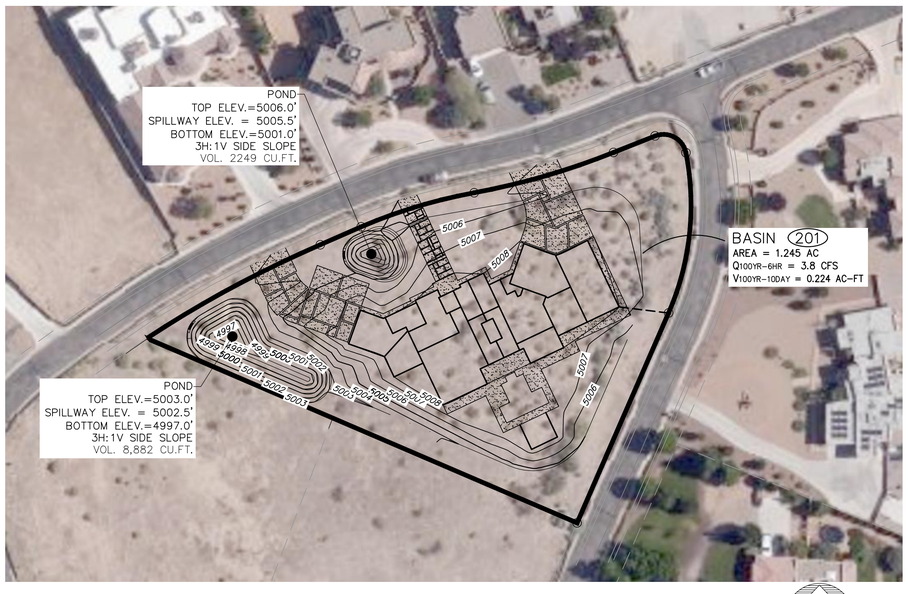
EXISTING BASIN MAP

FLOOD INSURANCE RATE MAP
MAP NO. 35001C0108G
EFFECTIVE DATE: 09/26/2008

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
11/24/21
DATE:
BY: Renée Brissette
HydroTrans #: C13D027G
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW. NEITHER THE APPROVAL BY THE CITY OF ALBUQUERQUE FROM SUCH CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTION. ALL APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.



PROPOSED BASIN MAP

HYDROLOGY SUMMARY										
Basin	Total Area (acres)	Land Treatement (%) A	B	C	D	Q_{100} (cfs)	$V_{100yr-6hr}$ (ac-ft)	$V_{100yr-24hr}$ (ac-ft)	$V_{100yr-4day}$ (ac-ft)	$V_{100yr-10day}$ (ac-ft)
100	1.245	90.0	0.0	10.0	0.0	2.1	0.061	0.061	0.061	0.061
200	1.245	0.0	55.0	0.0	45.0	3.8	0.146	0.161	0.191	0.227

HYDROLOGY SUMMARY

TOTAL NEW LAND TREATMENT "D" AREA = 2,700 SQ.FT.
WATER QUALITY STORAGE REQ. (NEW DEVELOPMENT)=24,412 SQ.FT.*(.42")*(1'/12")=854 CU.FT.=0.0196 AC.FT.

STORMWATER QUALITY VOLUME POND (0.62" STORM)

TOTAL RETENTION POND VOL. REQUIRED = SWQV + $\Delta V_{100-YR,10-DAY}$
= 854 CU.FT. + 9892 CU.FT = 10,746 CU.FT.

TOTAL DETENTION POND VOL. PROVIDED = POND 1(VOL.) + POND 2(VOL.)
= 8882 + 2249 = 11,131 CU.FT.

PROVIDED VOL. EXCEEDS REQUIRED RETENTION VOLUME.

DETENTION POND SUMMARY

POND No. 1 WSEL = 5002.5'
POND NO. 2 WSEL = 5005.5'

WATER SURFACE ELEVATION

Introduction
The site is 1.25 acres and is Lot 19 of Black Farm Estates. Lot 19 is located at the intersection of Lyndale Lane and Riverdale Lane. Proposed improvements include a residential building with a footprint of 10,000 sq.ft., two driveways with connections to Lyndale Lane, and two ponds. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the existing and proposed condition, 2) satisfy the requirements from the approved Black Farms Drainage Report, 3) satisfy the Stormwater Quality Volume requirement, and 3) seek approval from City of Albuquerque's Hydrology Department.

Methodology
Hydrologic procedures presented in Chapter 6 of City of Albuquerque's the Development Process Manual, effective as of June 8, 2020 were followed.

Existing Condition
Lot 19 is vacant. The lot isn't flat and has a slope of approximately 1% from the high point at the northeast corner to the lowest elevation at the most westerly corner of the site, which is caused by Riverdale being higher in elevation than Lyndale Road. Due to the flat grading scheme of Black Farms runoff from the road may enter the site during the 100-year, 10-day storm.

Proposed Condition
Proposed improvements include a residential building with a footprint of 10,000 sq.ft., two driveways with connections to Lyndale Lane, and two ponds. The site will retain the combined runoff volume from the 100-year, 10-day storm and storm water quality volume within two ponds located along Lyndale Lane. Runoff from the backyard will flow to the front yard to one of the two ponds. The flat grading scheme does not work on Lot 19, since Riverdale is higher in elevation than Lyndale Road. Due to the difference in road elevations, runoff from the front yard cannot drain to the back yard. The ponds are located as designated in Black Farms master drainage plan. The proposed impervious improvement is approximately 35%; however, the site will retain the site's 100-year, 10-day storm with the imperious cover at 45%. Runoff from Pond 2 will overtop and flow to Pond 1. Runoff from precipitation greater than the 100-year, 10-day storm will overtop Pond 1 and flow to Lyndale Lane.

Conclusion
The proposed development meets the drainage requirements from Black Farms Drainage Master Plan and the City's Stormwater Quality Volume. This drainage report seeks COA's Hydrology and approval.

DRAINAGE REPORT

LEGEND
- PROPERTY BOUNDARY
- FLOW PATH
- ROOF FLOW
- SURFACE DRAINAGE
- UTILITY EASEMENT LINE
- FLOWLINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED BASIN
- EXISTING BASIN

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ENGINEER'S SEAL
ROBERT J. FIERRO
NEW MEXICO
20588
PROFESSIONAL ENGINEER
11-18-2021

PROJECT NAME
LUNA RESIDENCE
9515 RIVERDALE LN N.W.
ALBUQUERQUE, NEW MEXICO

REV.	DATE	DESCRIPTION	BY

PROJECT NO:	21082
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	NOVEMBER 2021

SHEET TITLE
DRAINAGE PLAN

SHEET NO:
C-2

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