CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



Mayor Timothy M. Keller

January 31, 2024

Gilbert Aldaz, P.E. Applied Engineering & Surveying, Inc. 1605 Blair Drive NE Albuquerque, NM 87112

RE: Las Miradas Townhouses – Lot 9 9016 El Ojito Court NW Grading and Drainage Plan Engineer's Stamp Date: 02/01/24 Hydrology File: C12D003B3B

Dear Mr. Aldaz:

PO Box 1293 Based upon the information provided in your submittal received 01/25/2024, the Grading & Drainage Plan is approved for Building Permit, and Grading Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

Albuquerque

PRIOR TO CERTIFICATE OF OCCUPANCY:

- NM 87103
 Engineer's Certification, per the DPM Part 6-14 (F): Engineer's Certification Checklist For Non-Subdivision is required.
- www.cabq.gov If the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

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

Sincerely,

Renée C. Brissette

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



City of Albuquerque

Planning Department Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title:	Hydrology File #
City Address, UPC, OR Parcel:	
Applicant/Agent:	Contact:
	Phone:
Email:	
Applicant/Owner:	Contact:
Address:	Phone:
Email:	
(Please note that a DFT SITE is one that need	ds Site Plan Approval & ADMIN SITE is one that does not need it.)
TYPE OF DEVELOPMENT: PLAT	(#of lots) RESIDENCE
DFT	SITE ADMIN SITE
RE-SUBMITTAL: YES NO	
DEPARTMENT: TRANSPORTA	TION HYDROLOGY/DRAINAGE
Check all that apply under Both the Type	of Submittal and the Type of Approval Sought:
TYPE OF SUBMITTAL:	TYPE OF APPROVAL SOUGHT:
ENGINEER/ARCHITECT CERTIFICA	TION BUILDING PERMIT APPROVAL
PAD CERTIFICATION	CERTIFICATE OF OCCUPANCY
CONCEPTUAL G&D PLAN	CONCEPTUAL TCL DFT APPROVAL
GRADING & DRAINAGE PLAN	PRELIMINARY PLAT APPROVAL
DRAINAGE REPORT	FINAL PLAT APPROVAL
DRAINAGE MASTER PLAN	SITE PLAN FOR BLDG PERMIT DFT
CLOMR/LOMR	APPROVAL
TRAFFIC CIRCULATION LAYOUT (7	SIA/RELEASE OF FINANCIAL GUARANTEE
ADMINISTRATIVE	FOUNDATION PERMIT APPROVAL
TRAFFIC CIRCULATION LAYOUT F APPROVAL	OR DFT GRADING PERMIT APPROVAL
TRAFFIC IMPACT STUDY (TIS)	SO-19 APPROVAL
STREET LIGHT LAYOUT	PAVING PERMIT APPROVAL
OTHER (SPECIFY)	GRADING PAD CERTIFICATION
omer(billen i)	WORK ORDER APPROVAL
	CLOMR/LOMR
	OTHER (SPECIFY)

DATE SUBMITTED: ____

DRAINAGE CALCULATIONS

DRAINAGE PLAN

THIS DRAINAGE PLAN IS FOR TWO NEW TOWNHOUSES ON EL OJITO COURT NW WITHIN LOTS 9 & 10 LAS MIRADAS TOWNHOUSES PROJECTED SECTION 13, TOWNSHIP 11 NORTH, RANGE 2 EAST, N.M.P.M. TOWN OF ALAMEDA GRANT, CITY OF ALBUQUERQUE,BERNALILLO COUNTY, NEW MEXICO, CONTAINING THE FOLLOWING ITEMS FOR THE GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

1. DRAINAGE CALCULATIONS

2. VICINITY MAP (C-12) 3. FLOOD INSURANCE RATE MAP 35001 C0116G 4. GRADING PLAN

EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, THE SITE CONTAINS APPROXIMATELY 0.17 ACRES AND IS WITHIN AN EXISTING SUBDIVISION AND THESE 2 LOTS REMAIN UNDEVELOPED. THERE IS AN EXISTING GRADING AND DRAINAGE PLAN (C12D003B3) DEVELOPED FOR THE ORIGINAL SUBDIVISION IN 2006 WHICH WAS APPROVED BY THE CITY OF ALBUQUERQUE HYDROLOGY DEPARTMENT.

THE EXISTING TOPOGRAPHY HAS THE WEST HALF SLOPING TOWARDS THE ASPHALT PAVED EL OJITO COURT FOR THE WEST ENTRY AREA AND THE EAST HALF OF THE SITE SLOPES TO A PAVED PRIVATE ACCESS ON THE EAST SIDE OF THE LOTS 9 AND 10. THIS SITE IS LOCATED WITHIN FLOOD ZONE X, AREA OF MINIMAL FLOOD HAZARD AND IS NOT WITHIN A DESIGINATED 100-YEAR FLOODPLAIN, (SEE ATTACHED FIRM MAP 35001 C0116G).

THERE IS AN EXISTING RESIDENCE ON THE NORTH SIDE OF LOT 9 AND AN EXISTING RESIDENCE ON THE SOUTH SIDE OF LOT 10.

OFFSITE FLOWS

BASED ON A FIELD VISIT AND TOPOGRAPHIC CONTOUR INFORMATION ON THE NORTH SIDE OF LOT 9, IT APPEARS THE EXISTING RESIDENCE HAS SOME ROOF DRAINAGE THAT MAY COME INTO THIS SITE, A DRAINAGE SWALE WILL BE PROVIDED TO DIVERT ANY FLOWS AWAY FROM THE PROPOSED RESIDENCE FOR LOT 9.

PROPOSED CONDITIONS

AS SHOWN BY THE PLAN, THE PROJECT CONSISTS OF 2 NEW TOWNHOUSES. THE PLAN IS TO HAVE THE GARAGES FACE THE FRONTAGE OF EL OJITO COURT NW. THE FINISH FLOOR ELEVATION WILL BE AT THE SAME GRADE FOR EACH RESIDENCE AND NOT AS A SPLIT LEVEL AS WAS SHOWN ON THE ORIGINAL GRADING PLAN. A RETAINING WALL WILL BE REQUIRED ALONG THE EAST HALF OF THE RESIDENCE IN ORDER TO PROVIDE A SINGLE FINISH FLOOR ELEVATION, SEE GRADING PLAN FOR GRADES.

THE ROOF DRAINAGE WILL BE DIVERTED TO THE EAST END USING A ROOF DRAIN CANALE AND WILL BE DISCHARGED INTO THE PAVED PRIVATE DRIVE ON THE EAST SIDE. THE DRIVEWAY WILL BE GRADED TO DRAIN TO THE WEST AND ONTO EL OJITO COURT NW. PER THE ORIGINAL APPROVED GRADING AND DRAINAGE PLAN (C12D003B3) FREE DISCHARGE IS APPROPRIATE FOR THESE TWO LOTS.

THE CALCULATIONS WHICH APPEAR HEREON, ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6 HOUR RAINFALL RUNOFF FOR PEAK FLOWS AND STORM DURATION FOR VOLUME REQUIREMENTS. THE PROCEDURE WILL FOLLOW THE DEVELOPMENT PROCESS MANUAL (DPM), CHAPTER 6 (DRAINAGE, FLOOD AND EROSION CONTROL) FOR CALCULATIONS AND DRAINAGE REQUIREMENTS.

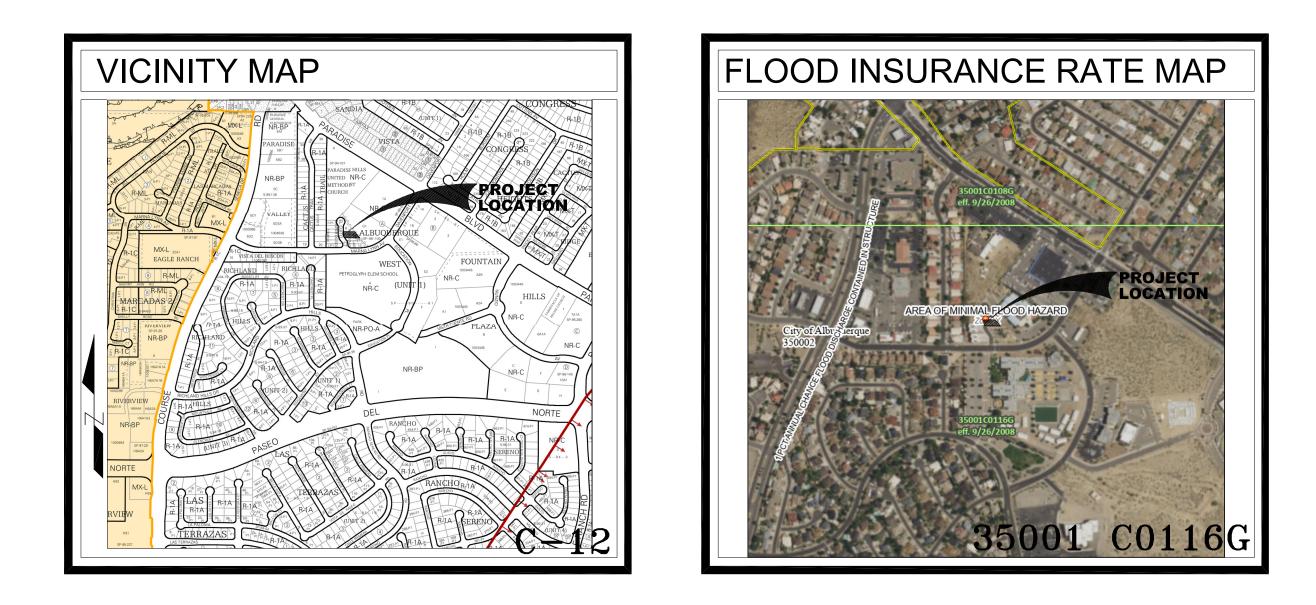
DRAINAGE CALCULATIONS:

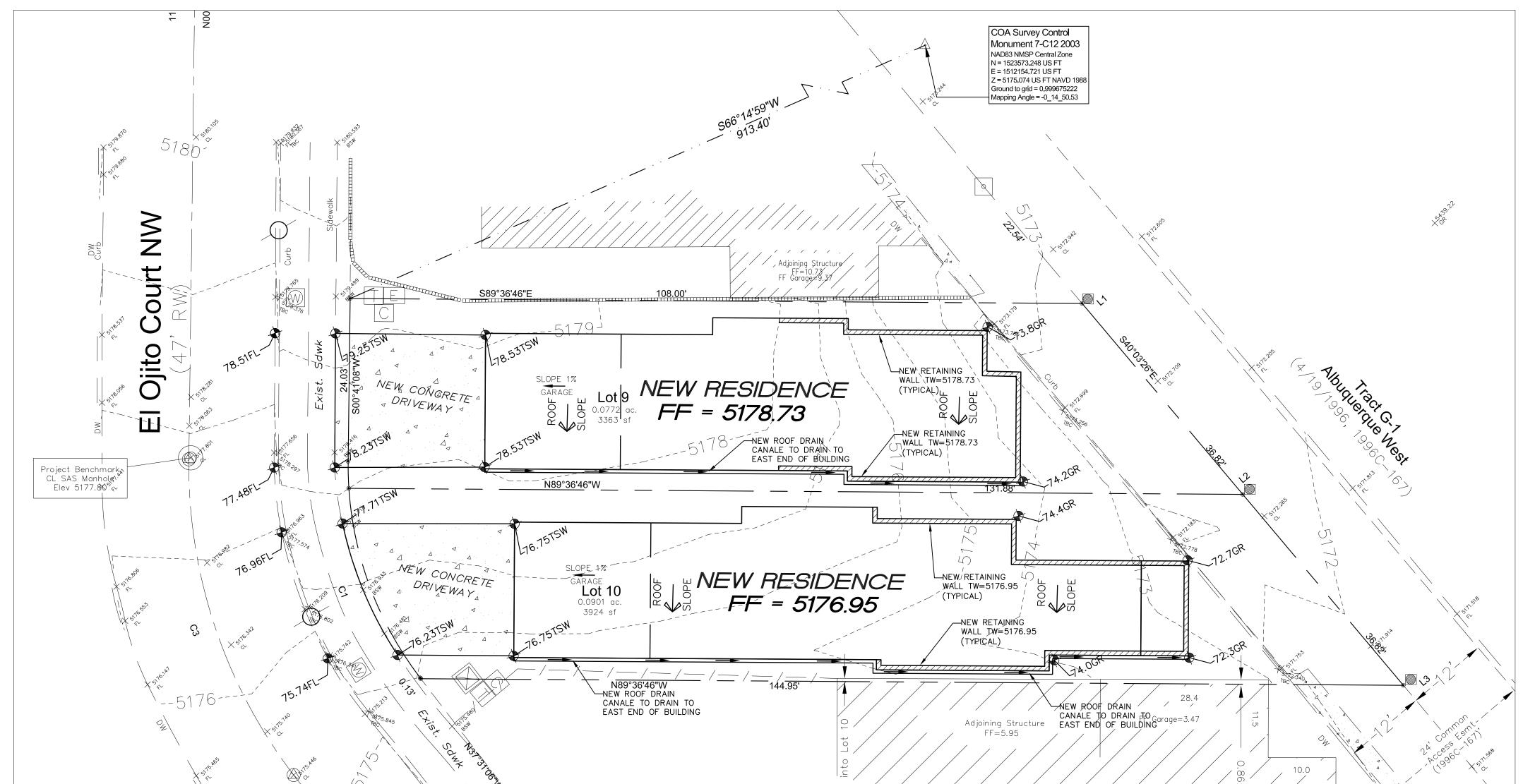
1. <u>PRECIPITATION ZONE = 1</u>

2. <u>DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM TABLE 6.2</u> 6-HOUR = 2.17 INCHES 24-HOUR = 2.49 INCHES 10 DAY = 3.90 INCHES
3. <u>PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, TABLE 6.8</u> Q = 1.54 CFS/ACRE SOIL UNCOMPACTED "A" Q = 2.16 CFS/ACRE LANDSCAPED "B" Q = 2.87 CFS/AC COMPACTED SOIL "C" Q = 4.12 CFS/ACRE IMPERVIOUS AREA "D" FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES
 EXCESS PRECIPITATION, E (INCHES), FOR 100-YEAR, TABLE 6.7 E = 0.55 INCHES SOIL UNCOMPACTED "A" E = 0.73 INCHES LANDSCAPED "B" E = 0.95 INCHES COMPACTED SOIL "C" E = 2.24 INCHES IMPERVIOUS AREA 'D"
5. EXISTING CONDITIONS ONSISTE FLOWS TOTAL AREA OF SITE = 0.17ACRES IMPERVIOUS AREA "D" = 0 ACRES SOIL COMPACTED BY HUMAN ACTIVITY "C" = 0.17ACRES Q(EXISTING-6HR) = (2.87 X 0.17) = 0.49CFS (6HR) EXISTING 100-YEAR ONSITE FLOW RATE INTO EL OJITO COURT AND PAVED PRIVATE ACCESS V(PROPOSED-6HR) = ((0.95 X 0.0.17)/ 12) = 0.0135AC-FT = <u>586CF</u> EXISTING 100-YEAR ONSITE FLOW VOLUME INTO EL OJITO COURT AND PAVED PRIVATE ACCESS
6. PROPOSED CONDITIONS ONSITE FLOWS IN EL OJITO COURT DRAINAGE BASIN INTO EL OJITO COURT TOTAL AREA = 1,133SF = 0.026ACRES DRIVEWAY AREA, TYPE "D" = 796SF = 0.018ACRES SOIL COMPACTED BY HUMAN ACTIVITY "C" = 337SF = 0.007ACRES $\frac{\text{TREATMENT}}{A} \qquad \frac{\text{AREA}(ACRES)}{0}$ B 0 C 0.007 D 0.018
Q(PROPOSED-6HR) = (2.87 X 0.007) + ((4.12 X 0.018) = <u>0.09CFS</u> (6HR) PROPOSED 100-YEAR ONSITE FLOW RATE INTO EL OJITO COURT NW V(PROPOSED-6HR) = ((0.95 X 0.007) + (2.24 X 0.018))/ 12) = 0.003AC-FT = <u>149CF</u> PROPOSED 100 YEAR ONSITE VOLUME INTO EL OJITO COURT NW
7.PROPOSED CONDITIONS ONSITE FLOWS IN PAVED PRIVATE DRIVE DRAINAGE BASIN INTO PAVED PRIVATE DRIVE TOTAL AREA = $6,272SF = 0.144ACRES$ BUILDING AREA, TYPE "D" = $3,640SF = 0.083ACRES$ SOIL COMPACTED BY HUMAN ACTIVITY "C" = $2,632SF = 0.060ACRES$ SOIL COMPACTED BY HUMAN ACTIVITY "C" = $2,632SF = 0.060ACRES$ AIREATMENT BAREA(ACRES) CA0B0C0.083D0.060
Q(PROPOSED-6HR) = (2.87 X 0.083) + ((4.12 X 0.060) = <u>0.49CFS</u> (6HR) PROPOSED 100-YEAR ONSITE FLOW RATE INTO EL OJITO COURT NW V(PROPOSED-6HR) = ((0.95 X 0.083) + (2.24 X 0.060))/ 12) = 0.018AC-FT = <u>774CF</u> PROPOSED 100 YEAR ONSITE VOLUME INTO EL OJITO COURT NW

	LEGEND	
<u> </u>		5961 VI
6514	EXISTING CONTOUR GRADE	x or
	- DRAINAGE FLOW DIRECTION	€ ³⁹⁶
 € 43.90°C € 43.90°C € 43.90°C € 43.90°C € 43.90°C € 43.90°C 	NEW TOP OF CURB ELEVATION	€_3.90
◆ 43.90FT	NEW FLOWLINE OF CURB ELEVATION	موجع الم
◆ 5.90TA	NEW TOP OF ASPHALT ELEVATION	+ 2.90
◆ A3.9015	NEW TOP OF SIDEWALK ELEVATION	1 x)
	DRAINAGE SWALE	



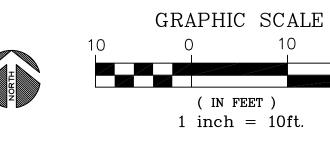




EXISTING TOP OF CURB ELEVATION EXISTING FLOWLINE ELEVATION NEW SURFACE GRADE ELEVATION FLOWLINE SWALE ELEVATION NEW TOP OF WALL ELEVATION NEW BOTTOM OF WALL ELEVATION AT ADJACENT GRADE

EXCAVATION/UTILITY NOTES:

ITHE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE OR TYPE OF EXISTING ABOVE AN UNDERGROUND UTILITIES, OR EXISTING PIPELINES. THE ENGINEER MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM HIMSELF OF THE LOCATION OF ANY EXISTING ABOVE AND UNDERGROUND UTILITIES, AND EXISTING PIPELINES, IN AND NEAR THE AREA OF THE WORK, IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY HIS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING ABOVE AND UNDERGROUND UTILITIES, AND EXISTING PIPELINES. THE CONTRACT SHALL COMPLY WITH STATE STATUES PERTAINING TO THE LOCATION OF THESE LINES IN PLANNING AND CONDUCTING EXCAVATION WORK.



GRADING PLAN

