

# 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 10  
9012 El Ojito Court NW  
Grading and Drainage Plan  
Engineer's Stamp Date: 02/01/24  
Hydrology File: C12D003B3A**

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

1. 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](mailto:jhughes@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

Sincerely,

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





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 DESIGNATED 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:

- PRECIPITATION ZONE = 1
- DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM TABLE 6.2  
6-HOUR = 2.17 INCHES  
24-HOUR = 2.49 INCHES  
10 DAY = 3.90 INCHES
- PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, TABLE 6.8  
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"
- EXISTING CONDITIONS ONSITE FLOWS  
TOTAL AREA OF SITE = 0.17 ACRES  
IMPERVIOUS AREA "D" = 0 ACRES  
SOIL COMPACTED BY HUMAN ACTIVITY "C" = 0.17 ACRES  
Q[EXISTING-6HR] = (2.87 X 0.17) = 0.49 CFS (6HR) EXISTING 100-YEAR ONSITE FLOW RATE INTO EL OJITO COURT AND PAVED PRIVATE ACCESS  
V[PROPOSED-6HR] = [(0.95 X 0.017)/ 12] = 0.0135 AC-FT = 586 CF EXISTING 100-YEAR ONSITE FLOW VOLUME INTO EL OJITO COURT AND PAVED PRIVATE ACCESS
- PROPOSED CONDITIONS ONSITE FLOWS IN EL OJITO COURT DRAINAGE BASIN INTO EL OJITO COURT  
TOTAL AREA = 1.133 SF = 0.026 ACRES  
DRIVEWAY AREA, TYPE "D" = 796 SF = 0.018 ACRES  
SOIL COMPACTED BY HUMAN ACTIVITY "C" = 337 SF = 0.007 ACRES  

TREATMENT	AREA (ACRES)
A	0
B	0
C	0.007
D	0.018

  
Q[PROPOSED-6HR] = (2.87 X 0.007) + [(4.12 X 0.018) = 0.09 CFS (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] = 0.003 AC-FT = 149 CF PROPOSED 100 YEAR ONSITE FLOW VOLUME INTO EL OJITO COURT NW
- PROPOSED CONDITIONS ONSITE FLOWS IN PAVED PRIVATE DRIVE DRAINAGE BASIN INTO PAVED PRIVATE DRIVE  
TOTAL AREA = 6.272 SF = 0.144 ACRES  
BUILDING AREA, TYPE "D" = 3.640 SF = 0.083 ACRES  
SOIL COMPACTED BY HUMAN ACTIVITY "C" = 2.632 SF = 0.060 ACRES  

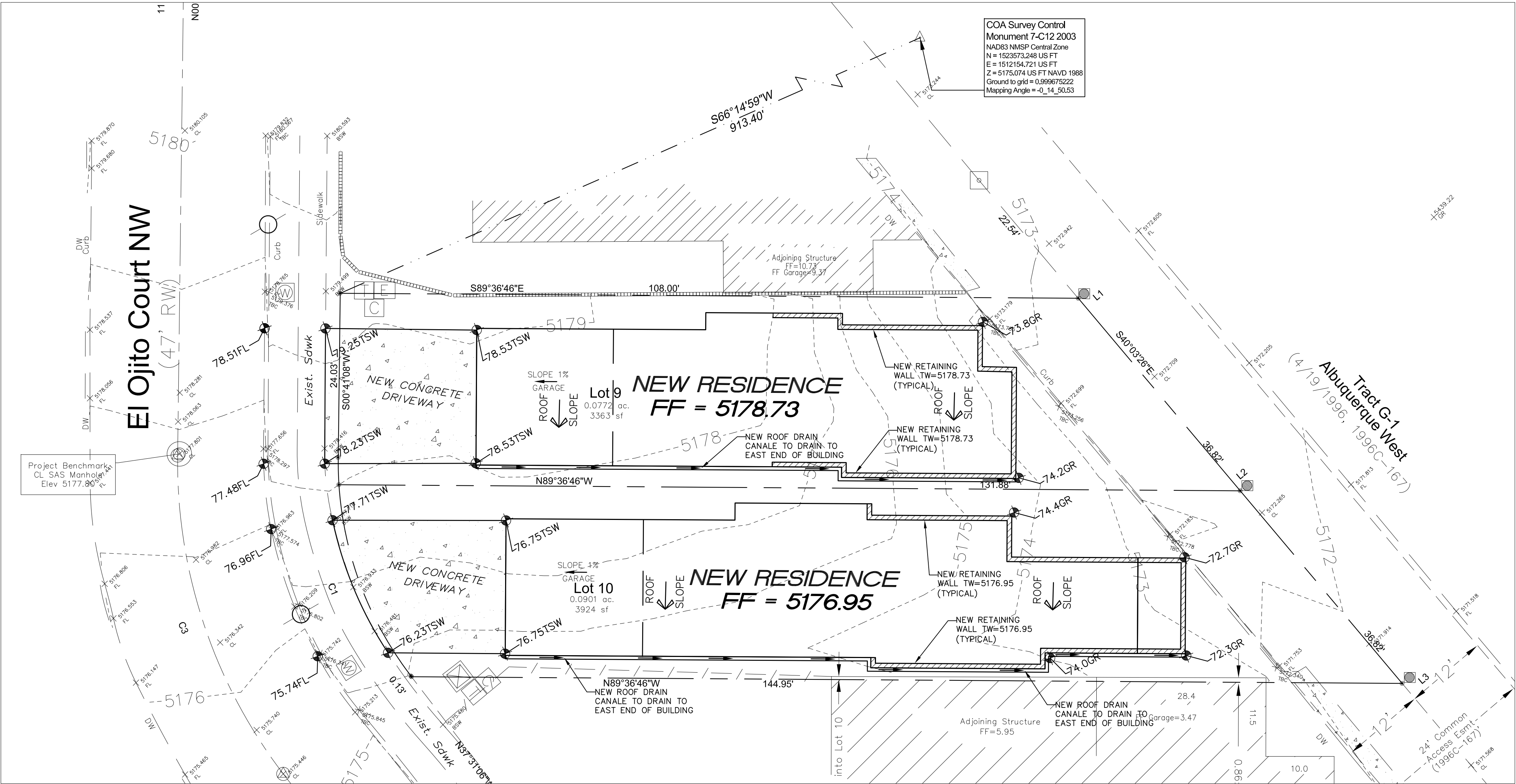
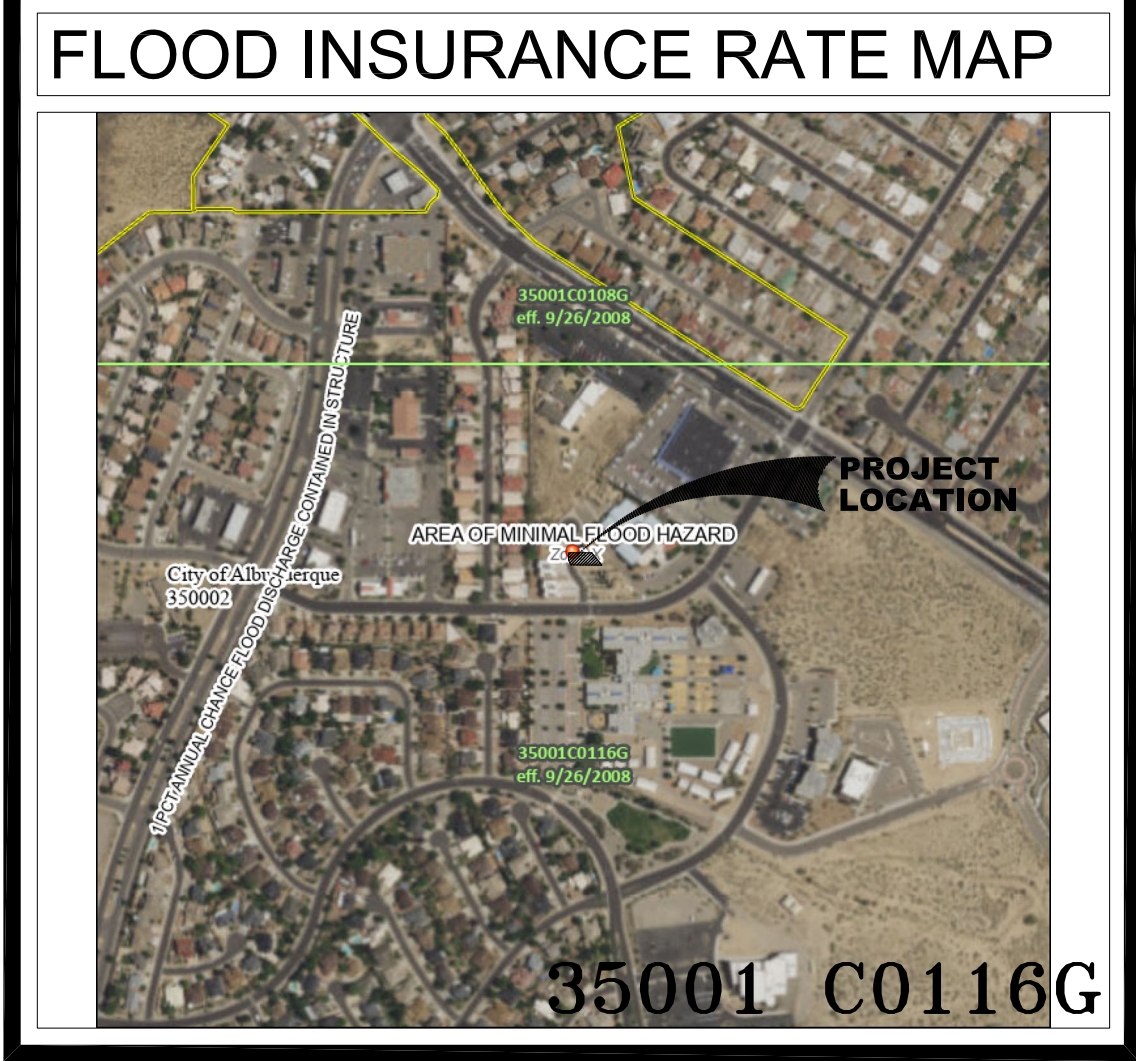
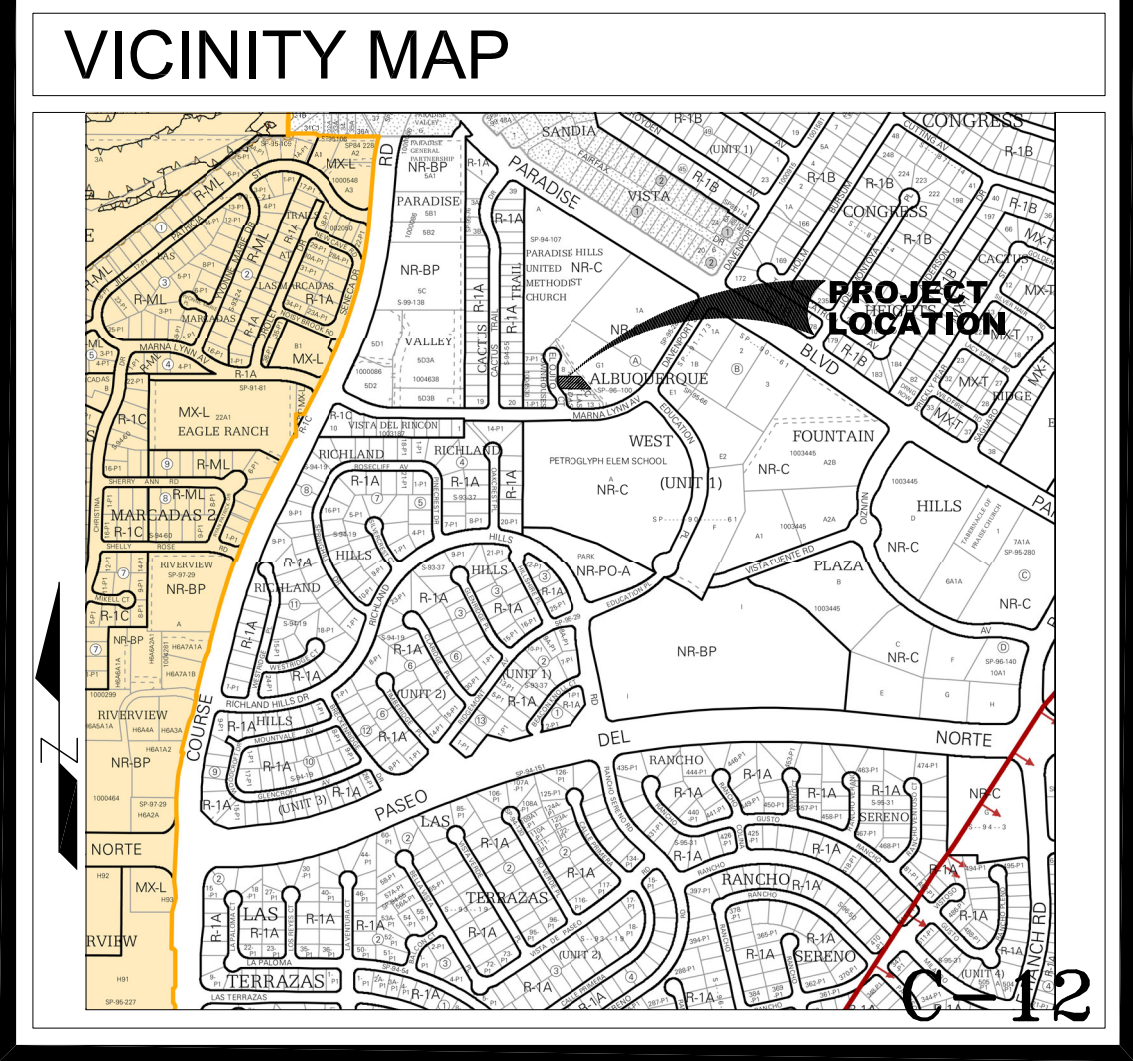
TREATMENT	AREA (ACRES)
A	0
B	0
C	0.083
D	0.060

  
Q[PROPOSED-6HR] = (2.87 X 0.083) + [(4.12 X 0.060) = 0.49 CFS (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] = 0.018 AC-FT = 774 CF PROPOSED 100 YEAR ONSITE FLOW VOLUME INTO EL OJITO COURT NW

City of Albuquerque  
Planning Department  
Development Review Services  
HYDROLOGY SECTION  
**APPROVED**  
DATE: 01/31/24  
BY: *[Signature]*  
HydroTeam # C12D003B3A & C12D003B3B

THE APPROVAL OF THESE PLANS/PROJECT SHALL NOT BE  
CONSIDERED TO BE A GUARANTEE OF ANY CITY  
ENGINEER OR PLANNING OFFICIAL, AND SHALL NOT BE USED  
FOR ANY OTHER PURPOSES. THE CITY OF ALBUQUERQUE  
PLANNING DEPARTMENT, OR ANY OF ITS EMPLOYEES, IS NOT  
RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY  
RESULTING FROM THE USE OF THESE PLANS/PROJECTS.  
SPECIFICATIONS OR CONSTRUCTION SHALL BE APPROVED BY THE  
CITY OF ALBUQUERQUE PLANNING DEPARTMENT.  
THESE PLANS/PROJECTS SHALL NOT BE ALTERED WITHOUT  
AUTHORIZATION.

APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE  
TWO (2) YEARS AFTER THE APPROVAL DATE BY THE CITY IF NO  
BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.



GRADING PLAN

SCALE 1" = 10'

LEGEND

6798

6514

NEW FINAL SURFACE GRADE

EXISTING CONTOUR GRADE

6798

6514

DRAINAGE FLOW DIRECTION

DRAINAGE SWALE

6798

6514

NEW TOP OF CURB ELEVATION

NEW FLOWLINE OF CURB ELEVATION

NEW TOP OF ASPHALT ELEVATION

NEW TOP OF SIDEWALK ELEVATION

6798

6514

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:

IF THE 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 STATUTES PERTAINING TO THE LOCATION OF THESE LINES IN PLANNING AND CONDUCTING EXCAVATION WORK.

FILE: 240101

GUERT ALBAZ  
STATE  
REGISTERED PROFESSIONAL ENGINEER  
2021-2024

DRAINAGE PLAN  
LOTS 9 & 10  
LAS MIRADAS TOWNHOUSES

APPLIED Engineering & Surveying, Inc.  
1605 BLAIR DRIVE NE  
ALBUQUERQUE, NEW MEXICO 87112 PH: (505)480-8125

DATE/REVISIONS:

SHEET NUMBER:  
1