

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

December 30, 2025

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

**RE: 2103 Los Luceros Rd NW  
Grading and Drainage Plan  
Engineer's Stamp Date: 09/08/2025  
Hydrology File: H12D025  
Case # HYDR-2025-00324**

Dear Mr. Aldaz:

Based upon the information provided in your submittal received 12/27/2025, 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.

PO Box 1293

PRIOR TO CERTIFICATE OF OCCUPANCY:

Albuquerque

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please provide the Drainage Covenant with Exhibit A for the stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Please submit the original copies along with the \$ 25.00 recording fee check made payable to Bernalillo County to the Hydrology Section of Development Review Services on the Ground floor of Plaza de Sol. Electronic submittal in ABQ-PLAN is also required.

NM 87103

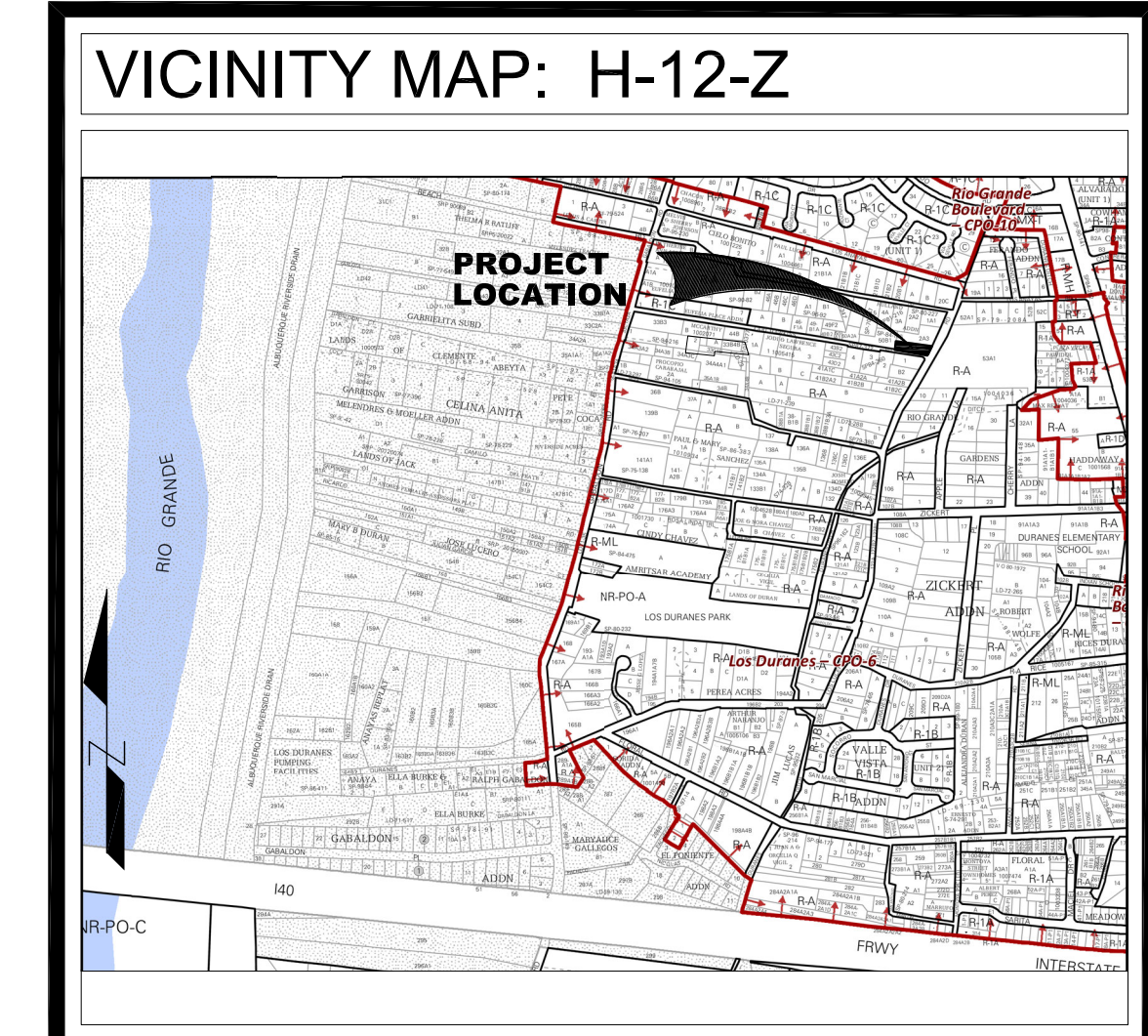
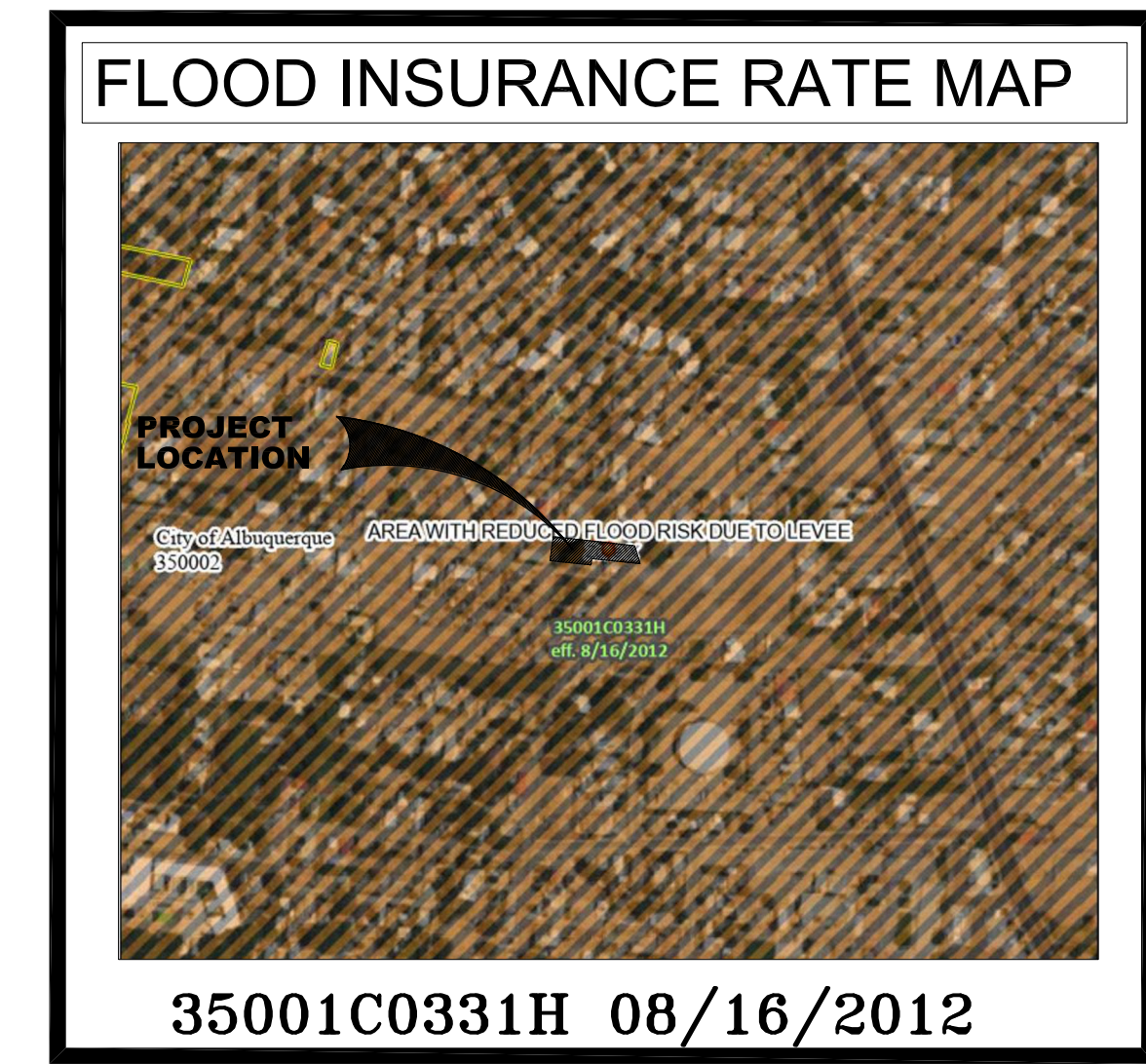
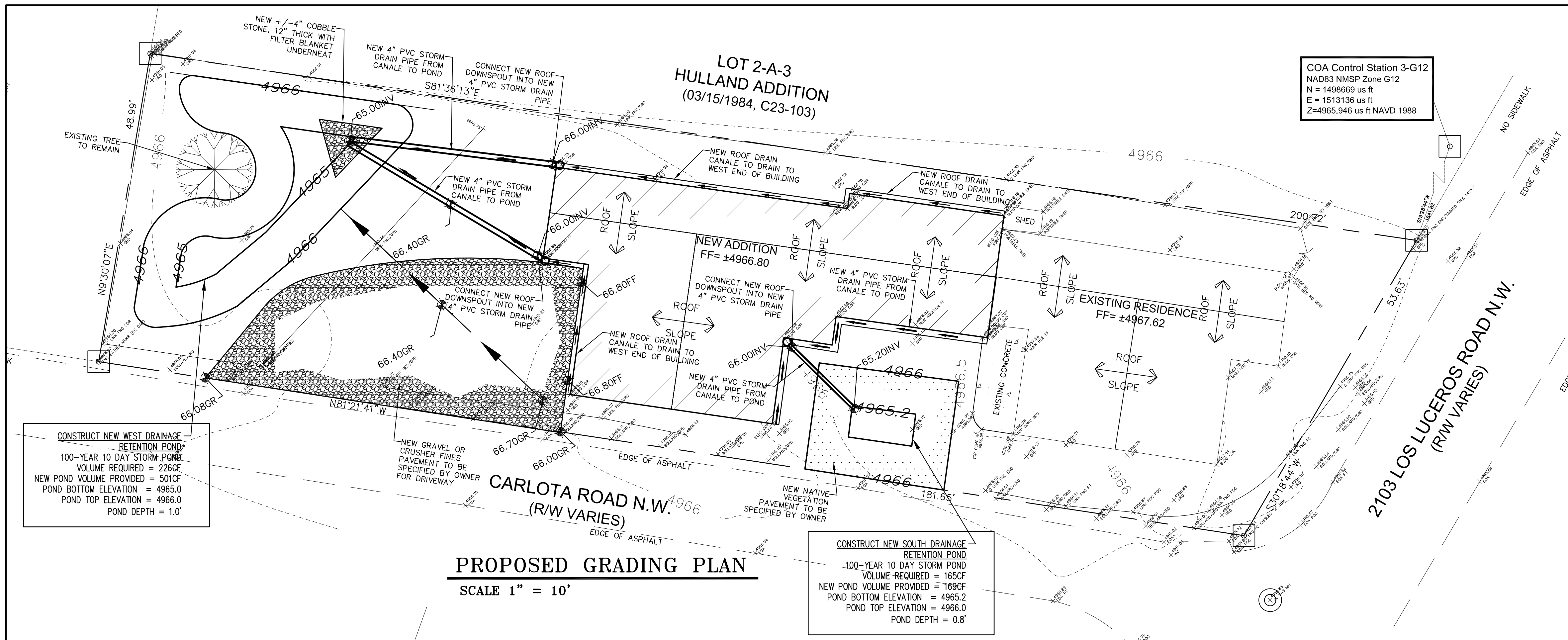
www.cabq.gov

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), 505-924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3314 or [amontoya@cabq.gov](mailto:amontoya@cabq.gov).

Sincerely,

Anthony Montoya, Jr., P.E. CFM  
Senior Engineer, Hydrology  
Planning Department, Development Review Services



**DRAINAGE PLAN**  
THE DRAINAGE AND GRADING PLAN IS FOR TRACT 51, M.R.G.C.D. MAP NO. 35 LOCATED AT 2103 LOS LUCEROS ROAD NW, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, CONTAINING THE FOLLOWING ITEMS FOR THE GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

- DRAINAGE CALCULATIONS
- VICINITY MAP (H-12-Z)
- FLOOD INSURANCE RATE MAP 35001 C0331G
- GRADING PLAN

**EXISTING CONDITIONS**  
AT THIS TIME THERE IS A NEW HOME UNDER CONSTRUCTION. IN ORDER TO ANALYZE THE EXISTING ORIGINAL CONDITION GOOGLE MAPS WAS UTILIZED TO DETERMINE IMPERVIOUS AREAS AND PERVIOUS AREAS. THE PLAN IS NOT TO RETAIN THE EXISTING CONDITIONS SINCE THIS AREA ALREADY DRAINS INTO EXISTING ADJACENT LOS LUCEROS ROAD NW AND CARLOTA ROAD NW.

THIS SITE IS NOT LOCATED WITHIN A 100-YEAR FLOODPLAIN. (SEE ATTACHED FIRM MAP 35001 C0118G.)

THE SITES EXISTING TOPOGRAPHY IS RELATIVELY FLAT THROUGHOUT THE TRACT HAVING AN EXISTING CONTOUR ELEVATION OF 4966 AROUND THE ENTIRE TRACT AS PER THE RECENT TOPOGRAPHIC SURVEY.

**OFFSITE FLOWS**  
BASED ON A FIELD VISIT AND TOPOGRAPHIC CONTOUR INFORMATION FROM THE CITY AGS SYSTEM THE ENTIRE AREA OF THE PART OF THE VALLEY IS RELATIVELY FLAT. THE EXISTING HOUSE FINISH FLOOR AND THE NEW HOUSE FINISH FLOOR ELEVATION IS 4966.80, WHICH IS ABOUT 0.87' ABOVE CARLOTTA ROAD NW AND LOS LUCEROS ROAD NW.

**DOWNSTREAM CAPACITY**  
THE WHOLE AREA OF THE VALLEY IS RELATIVELY FLAT AND CONTAINS NO DOWNSTREAM STORM DRAINS. THE PLAN IS TO CONTAIN THE INCREASE IN IMPERVIOUS FLOWS FROM ONLY THE NEW ADDITION IN ORDER TO NOT CREATE ADDITIONAL DOWNSTREAM VOLUME ISSUES.

**PROPOSED CONDITIONS**  
BASED ON THE SITE BEING RELATIVELY FLAT THE PLAN IS TO PROVIDE RETENTION PONDING FOR THE INCREASE OF IMPERVIOUS FLOWS FROM THE NEW HOUSE ADDITION UNDER CONSTRUCTION USING THE 100-YEAR 10 DAY STORM VOLUME STORM. THE PROPOSED CONDITION INCLUDES DEDUCTING THE EXISTING CONCRETE DRIVEWAY THAT WAS REMOVED TO ACCOMMODATE THE NEW HOUSE ADDITION.

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

**DRAINAGE CALCULATIONS**

- PRECIPITATION (ZONE 2)
- DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM:  
6-HOUR = 2.29 INCHES  
24-HOUR = 2.59 INCHES  
10 DAY = 3.42 INCHES
- PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, ZONE 2, TABLE 6.8:  
 $Q = 1.71 \text{ CFS/ACRE SOIL UNCOMPACTED "A"}$   
 $Q = 2.36 \text{ CFS/ACRE LANDSCAPED "B"}$   
 $Q = 3.05 \text{ CFS/ACRE COMPACTED SOIL "C"}$   
 $Q = 4.34 \text{ CFS/ACRE IMPERVIOUS AREA "D"}$   
FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES
- EXCESS PRECIPITATION, E (INCHES) FOR 100-YEAR, 6-HOUR STORM, ZONE 2, TABLE 6.7:  
 $E = 0.62 \text{ INCHES SOIL UNCOMPACTED "A"}$   
 $E = 0.80 \text{ INCHES LANDSCAPED "B"}$   
 $E = 1.03 \text{ INCHES COMPACTED SOIL "C"}$   
 $E = 2.33 \text{ INCHES IMPERVIOUS AREA "D"}$

5. EXISTING CONDITIONS ON-SITE FLOWS TO LOS LUCEROS ROAD NW AND CARLOTA ROAD NW:  
TOTAL AREA OF SITE = 0.2146 ACRES = 9,409SF  
TYPE "D" TREATMENT = EXISTING ROOF AREAS (1,224SF) + EXISTING CONC & SHED AREAS (1005F + 4695F + 765F) = 1,8695F = 0.043AC  
TYPE "C" TREATMENT = REMAINING DETURBED AREAS COMPACTED BY HUMAN ACTIVITY = 0.216AC - 0.043AC = 0.173AC = 7,534SF

TREATMENT	AREA(ACRES)
A	0
B	0
C	0.173
D	0.043

6. PROPOSED CONDITIONS ON-SITE:  
TOTAL AREA OF SITE = 0.2146 ACRES = 9,409SF  
TYPE "D" TREATMENT = PROPOSED HOUSE ADDITION AREAS (1,850SF) + EXISTING ROOF AREA (1,224SF) + EXISTING CONCRETE AREA (1005F) + EXISTING SHED (765F) = 2,2595F = 0.075AC  
TYPE "C" TREATMENT = REMAINING DETURBED AREAS COMPACTED BY HUMAN ACTIVITY = 0.216AC - 0.075AC = 0.141AC = 6,195SF

TREATMENT	AREA(ACRES)
A	0
B	0
C	0.141
D	0.075

7. DIFFERENCE BETWEEN PROPOSED AND EXISTING CONDITIONS:  
DELTA Q (100-YEAR 6-HOUR PEAK FLOW) = 0.74CFS (PROPOSED) - 0.71CFS (EXISTING) = 0.03CFS INCREASE IN FLOW  
DELTA V (100-YEAR 6-HOUR VOLUME) = 1.161CF (PROPOSED) - 1.011CF (EXISTING) = 0.150CF = 0.003AC-FT INCREASE IN VOLUME

8. INCLUDE ADDITIONAL VOLUME FOR 100-YEAR 10-DAY STORM FOR NEW HOUSE ADDITION:  
NEW HOUSE ADDITION IMPERVIOUS AREA = 1,850SF = 0.043AC  
 $V_{PROPOSED-10DAY} = V_{(6HR)} + (I_{(10DAY)} \times P_{(10DAY)} - P_{(6HR)}) / 128 \text{ FT}$   
 $V_{PROPOSED-10DAY} = 2.29 \text{ IN} \times (1.00 \text{ DAY}) = 3.42 \text{ IN}$   
 $V_{PROPOSED-10DAY} = 0.003AC-FT \text{ INCREASE IN VOLUME} + (0.043 \times (3.42 \text{ IN} - 2.29 \text{ IN}) / 128 \text{ FT}) = 0.008AC-FT \times 43.56 \text{ CFS/AC} = 358 \text{ CF POND VOLUME REQUIRED FOR PROPOSED CONDITIONS FOR A 10-DAY STORM}$

9. PROPOSED RETENTION POND VOLUME SOUTH SIDE OF ADDITION:  
NEW ADDITION ROOF AREA TO SOUTH SIDE = 780SF  
VOLUME REQUIRED FOR PONDING = (780SF / 1,850SF) X 358CF = 151CF REQUIRED

ELEVATION	AREA(SF)	AVG. AREA(SF)	DEPTH(FT)	VOLUME(CF-FT)
4965.2 BIM	50	212	0.8	169
4966.0 TOP	374			169CF

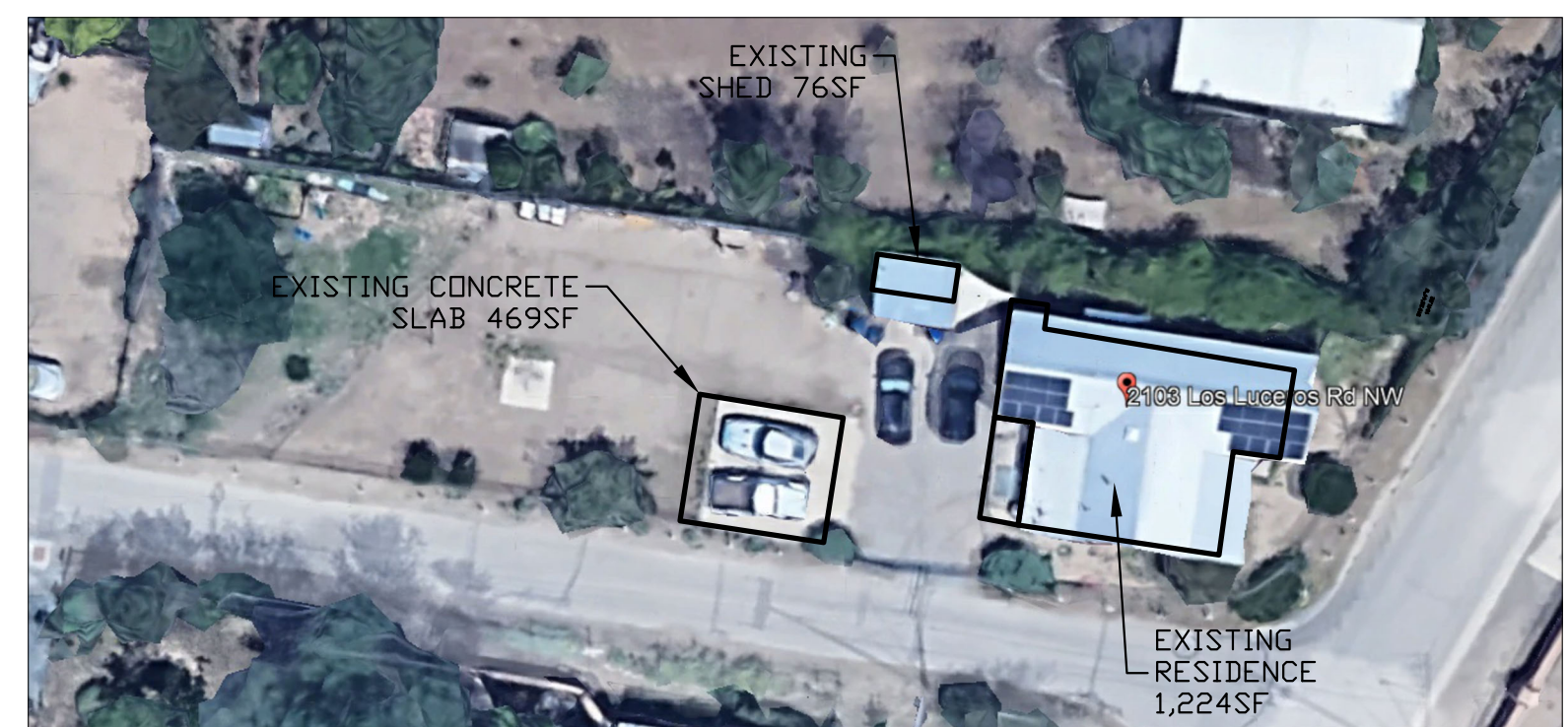
PROPOSED RETENTION POND VOLUME PROVIDED = 169CF > 151CF  
SOUTH RETENTION POND REQUIRED OK

10. PROPOSED RETENTION POND VOLUME WEST SIDE OF ADDITION:  
NEW ADDITION ROOF AREA TO WEST SIDE = 4975F + 5735F = 1,0710SF  
VOLUME REQUIRED FOR PONDING = (1,0710SF / 1,850SF) X 358CF = 207CF REQUIRED

ELEVATION	AREA(SF)	AVG. AREA(SF)	DEPTH(FT)	VOLUME(CF-FT)
4965.0 BIM	126		1.0	501
4966.0 TOP	877			501CF

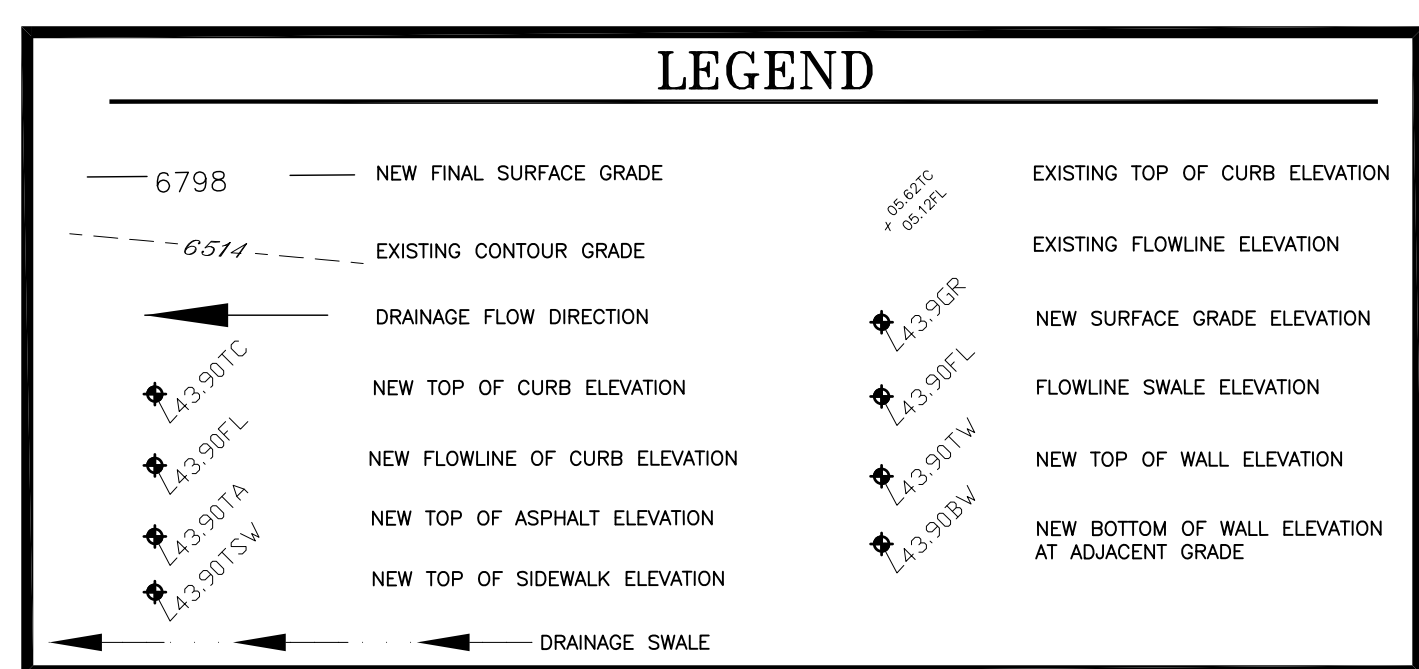
PROPOSED RETENTION POND VOLUME PROVIDED = 501CF > 207CF  
WEST RETENTION POND REQUIRED OK

11. SIZING OF PVC DRAIN FOR ROOF  
MANNINGS EQUATION:  $Q = (1.486/N) [A] (R^{2/3}) (S^{1/2})$   
 $Q_{PROPOSED-6HR} = 0.72 \text{ CFS}$ , 3'-4" PVC RPES,  $Q = +0.25 \text{ CFS}$   
 $A = \text{AREA OF PIPE} = \pi(D/2)^2$ ,  $D = 4" = 0.33'$ ,  $A = 3.14 \times (0.33/2)^2 = 0.0855 \text{ SF}$   
 $N = \text{MANNINGS ROUGHNESS} = 0.011$   
 $R = \text{HYDRAULIC RADIUS} = D/4 = 0.33/4 = 0.0825$   
 $S = \text{SLOPE} = (64.00 - 65.00) / 34 \text{ FT} = 0.0294 \text{ FT/FT WORST CASE}$   
 $Q = (1.486/N) [A] (R^{2/3}) (S^{1/2}) = (1.486/0.011) \times (0.0855)^{2/3} \times (0.0294)^{1/2} = 0.37 \text{ CFS} > 0.25 \text{ CFS REQUIRED USE 3'-4" PVC DRAINS CONNECTED TO DOWNPOUT LEADERS OK}$



EXISTING ORIGINAL CONDITIONS  
SCALE 1" = 30'

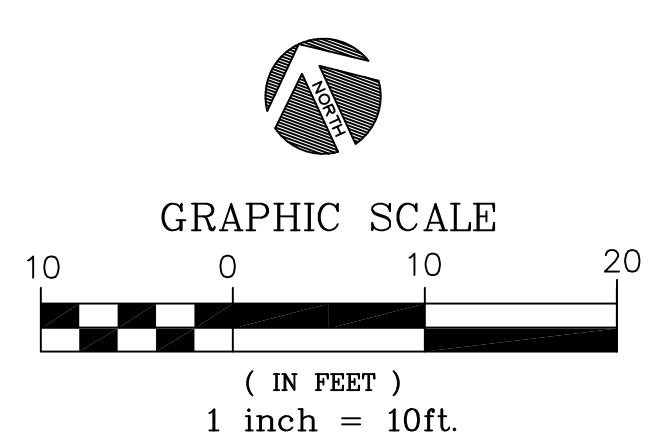
**MAINTENANCE NOTES:**  
OWNER SHALL INSPECT ROOF CANALES ONCE A YEAR AND CLEAN OUT ANY DEBRIS ALONG WITH VERIFYING THE PVC DRAINS ARE CLEAN FROM ANY SEDIMENT AND VEGETATION IN ORDER FOR THIS DRAINAGE PLAN TO BE EFFECTIVE IN THE FUTURE



City of Albuquerque  
Planning Department  
Development Review Services  
**HYDROLOGY SECTION**  
**APPROVED**  
DATE: 12/30/2025  
BY: [Signature]  
HydroTran # H12D025

THE APPROVAL OF THESE PLANS REPORTS SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCES OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTIONS FOR ERRORS OR OMISSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTION DOCUMENTS, SUCH APPROVED PLANS REPORTS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

THE APPROVAL OF THESE PLANS REPORTS SHALL EXPIRE TWO (2) YEARS AFTER THE APPROVAL DATE IF NO BUILDING PERMIT HAS BEEN FILED ON THE DEVELOPMENT.



**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: 250401  
GILBERT ALDAY  
STATE OF NEW MEXICO  
REGISTERED PROFESSIONAL ENGINEER  
09-08-2025

**GRADING AND DRAINAGE PLAN**  
2103 LOS LUCEROS ROAD NW  
ADRIAN OGLESBY

APPLIED Engineering & Surveying, Inc.  
1605 BLAIR DRIVE NE, ALBUQUERQUE  
NEW MEXICO 87112, galdaz47@yahoo.com, (505)480-8125

DATE/REVISIONS:  
SHEET NUMBER:  
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