

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

April 7, 2025

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

**RE: Lands of Joe Grady
3815 Pedroncelli Rd. NW
Grading & Drainage Plan
Engineer's Stamp Date: 04/02/2025
Hydrology File: F13D038
Case # HYDR-2025-00095**

Dear Mr. Aldaz:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based upon the information provided in your submittal received 04/02/2025, the Grading & Drainage Plan is approved for Grading Permit, Building Permit, or action by the DFT/DHO for platting action. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PRIOR TO CERTIFICATE OF OCCUPANCY:

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.

As a reminder, 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, 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.

CITY OF ALBUQUERQUE

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Mayor Timothy M. Keller

Sincerely,

A handwritten signature in black ink, appearing to read 'Anthony Montoya, Jr.', is positioned above the typed name.

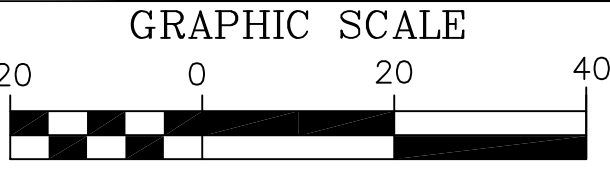
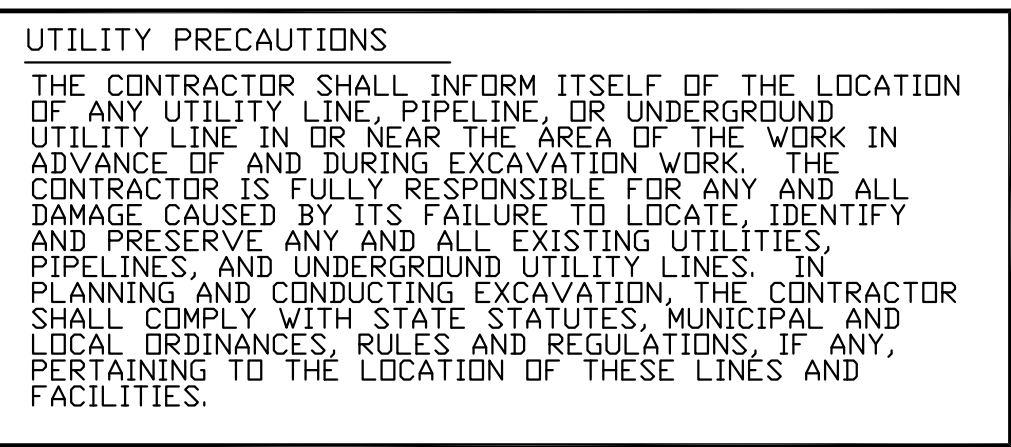
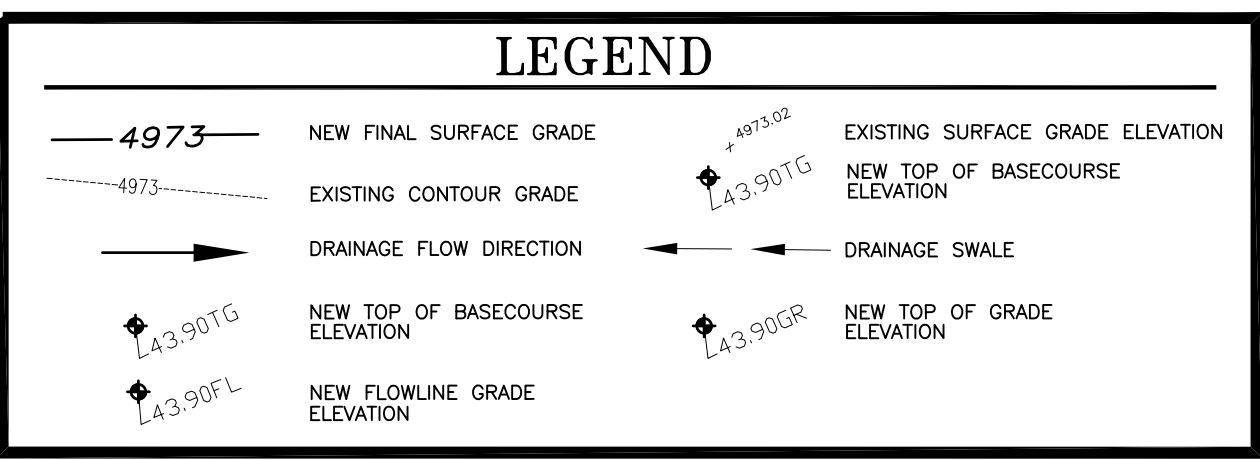
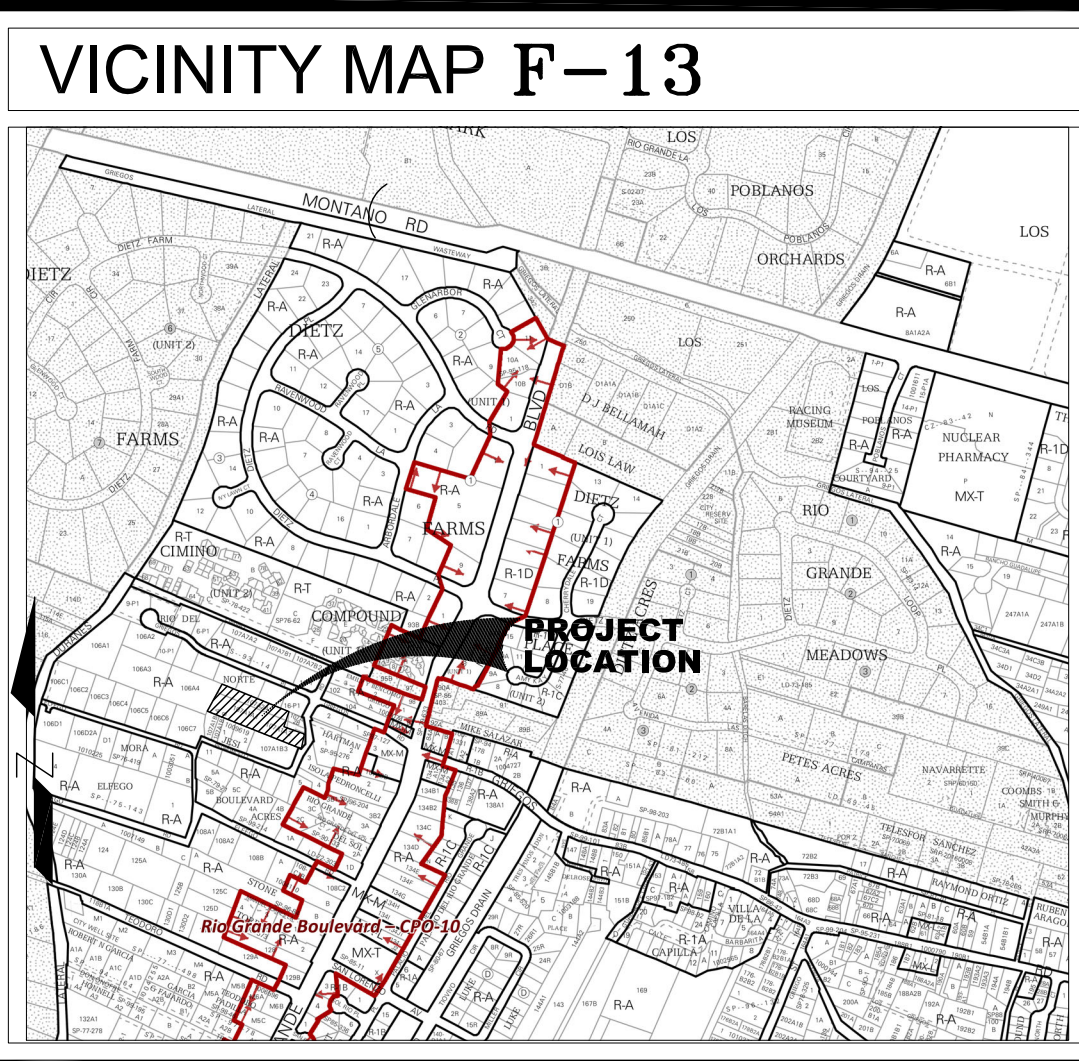
Anthony Montoya, Jr., P.E.
Senior Engineer, Hydrology
Planning Department, Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



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|--|--|---|--|--|
| APPLIED ENGINEERING AND SURVEYING, INC. ENGINEERS AND PLANNERS 1605 Blair Drive NE Omaha (402) 237-1445 | | Albuquerque, New Mexico 87112 (505) 237-1442 | | |
| CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP | | | | |

TITLE: GRADING PLAN
LANDS OF JOE GRADY

| | | | |
|-------------------------|------------------------|---------------|------------|
| Design Review Committee | City Engineer Approval | Design Update | Mo./Day/Yr |
| FOR INFORMATION ONLY | | | |
| | | | |
| | | | |
| | | | |

| | | |
|------------------|--------------|-------|
| City Project No. | Zone Map No. | Sheet |
| TBD | F-13 | TI |

| SURVEY INFORMATION | | BENCH MARKS | | A.S. BUILT INFORMATION | |
|--------------------|---|-------------|----|--|--|
| NO. | FIELD NOTES | DATE | BY | CONTRACTOR | DATE |
| | BENCHMARK IS AN A.C.S. MONUMENT "3-G12", ELEVATION = 4963.294, (NAVD 29) THE STATION MARK IS A STANDARD A.C.S. BRASS TABLET, STAMPED "3-G12", SET IN TOP OF A CONCRETE POST AT THE WEST SIDE OF THE INTERSECTION OF RIO GRANDE BLVD. N.W. AND MATTHEW AVE. N.W. | | | WORK INSPECTED BY ACCEPTANCE BY VERIFICATION BY DRAWINGS CORRECTED BY MICRO-FILM INFORMATION RECORDED BY NO. | DATE DATE DATE DATE DATE DATE DATE |

04-02-2025

[illegible]

04-02-2025

DRAINAGE PLAN
THIS DRAINAGE PLAN IS FOR A NEW 3 LOT SUBDIVISION AT 3815 PEDROCELLI ROAD NW, CONSISTING OF LOTS 1-3, LANDS OF JOE GRADY BEING A REPLAT OF TRACTS 107A1A1 & 107A2A, MRGCD MAP 31, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, CONTAINING THE FOLLOWING ITEMS FOR THE GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

- EXISTING CONDITIONS**
- AS SHOWN BY THE GRADING PLAN, THE SITE CONTAINS APPROXIMATELY 1.2324 ACRES, THE EAST LOT 1 CURRENTLY HAS 2 EXISTING HOMES AND A FUTURE SMALL HOME IS PROPOSED. THIS LOT HAS SOME SMALL AREAS OF IMPERVIOUS SIDEWALKS. LOTS 2 AND 3 ARE CURRENTLY UNDEVELOPED AND HAS COMPACTED DIRT. THIS SITE IS NOT LOCATED WITHIN A 100-YEAR FLOODPLAIN. (SEE ATTACHED FIRM MAP 35001 C0118G.

THE SITE'S EXISTING TOPOGRAPHY IS RELATIVELY FLAT WITH SLOPES LESS THAN 0.5 % FROM A WEST TO EAST DIRECTION TOWARDS PEDRONCELLI ROAD. THE ADJACENT PROPERTY TO THE NORTH, WEST AND EAST CONSIST OF RESIDENTIAL PROPERTY WITH PEDRONCELLI ROAD ON THE EAST END.

OFFSITE FLOWS
BASED ON A FIELD VISIT AND TOPOGRAPHIC CONTOUR INFORMATION FROM THE CITY AGIS SYSTEM THE ENTIRE AREA OF THIS PART OF THE VALLEY IS RELATIVELY FLAT. THE PLAN IS TO ELEVATE THE STRUCTURES ABOVE THE 100 YEAR 10 DAY STORM IN ORDER TO FLOODPROF THE POTENTIAL OF ANY OFFSITE FLOWS ENTERING THE STRUCTURES.

DOWNSTREAM CAPACITY
BASED ON THE SITE BEING RELATIVELY FLAT THE PLAN IS TO ACCOMMODATE IMPERVIOUS AND PERVIOUS DRAINAGE FLOWS FROM EACH LOT AND NOT RELEASE FLOWS TO ADJACENT PROPERTIES.

PROPOSED CONDITIONS
AS SHOWN BY THE GRADING PLAN PREPARED FOR THIS SITE, THE INTENT IS TO PROVIDE PONDING ONSITE FOR EACH LOT IN ORDER TO ACCOMMODATE THE 100 YEAR 10 DAY VOLUME.

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
1. PRECIPITATION ZONE = 2

2. DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM
6-HOUR = 2.29 INCHES
24-HOUR = 2.59 INCHES
10 DAY = 3.62 INCHES

3. PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, ZONE 2, TABLE 6.8
 Q = 1.71 CFS/ACRE SOIL UNCOMPACTED "A"
 Q = 2.36 CFS/ACRE LANDSCAPED "B"
 Q = 3.05 CFS/AC COMPACTED SOIL "C"
 Q = 4.34 CFS/ACRE IMPERVIOUS AREA "D"
 FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES

4. EXCESS PRECIPITATION, E (INCHES), FOR 100-YEAR, 6 HOUR STORM, ZONE 2, TABLE 6.7:
 E = 0.62 INCHES SOIL UNCOMPACTED "A"
 E = 0.80 INCHES LANDSCAPED "B"
 E = 1.03 INCHES COMPACTED SOIL "C"
 E = 2.33 INCHES IMPERVIOUS AREA "D"

- #### 5. EXISTING CONDITIONS ONSITE FLOWS TO AMAFCA NORTH DIVERSION CHANNEL

TOTAL AREA OF SITE = 1.232ACRES
 TYPE "D" TREATMENT = EXISTING ROOF AREAS (2.912SF) + EXISTING CONCRETE AND PAVED AREAS (1.206SF) = 4.112SF = 0.094AC
 TYPE "C" TREATMENT = REMAINING DISTURBED AREAS COMPACTED BY HUMAN ACTIVITY = 1.138AC = 49.871SF

| TREATMENT | AREA(ACRES) |
|-----------|-------------|
| A | 0 |

| | |
|---|-------|
| C | 1.138 |
| D | 0.094 |

$Q(\text{EXISTING-6HR}) = (3.05 \times 1.138) + (4.34 \times 0.094) = \underline{3.87 \text{ CFS (6HR) EXISTING ONSITE FLOW}}$
 $V(\text{EXISTING-6HR}) = ((1.03 \times 1.138) + (2.33 \times 0.094)) / 12 = 0.116 \text{ AC-FT} = \underline{5.039 \text{ CFS EXISTING VOLUME}}$

PROPOSED CONDITIONS ONSITE
LOT 2
 TOTAL AREA OF LOT = 0.341 ACRES
 TYPE "D" TREATMENT = PROPOSED ROOF AREAS (3.805SF) + PROPOSED CONCRETE AND PAVED AREAS (2.003SF) = 5.809SF = 0.129ACRES
 TYPE "E" TREATMENT = RESIDUAL DISTURBED AREAS COMPACTED BY HIGHLY ACTIVE SOILS = 0.341AC - 0.129 = 0.212AC
 AREAS (ACRES)
 A
 0
 B
 0
 C
 0.21
 D
 0.13
 E
 0.01
 TOTAL = 0.341 ACRES
 (0.05 ± 0.02) × (4.34 × 0.13) = 1.205E6 (HR) PROPOSED ONSITE FLOW
 V(PROPOSED-10DAY) = [(10.0 ± 0.21) × (2.33 × 10.13)/12] - 0.043AC-FT = 1.885C PROPOSED VOLUME
 V(PROPOSED-10DAY) = [(WQ + (A)PM) × (10.13 × 10.13) / (P(10DAY) / (2)INFT) / (2)INFT] = 2.29N, P(10DAY) = 3.62IN
 V(PROPOSED-10DAY) = 0.043AC-FT + [(10.13 × 10.13) (8.62 - 2.29IN) / (2)INFT] = 0.52AC-FT
 V(PROPOSED-10DAY) = 0.057AC-FT + 43.565C-FT = 2.500CF DAILY VOLUME REQUIRED FOR DEVELOPED CONDITIONS FOR 10-DAY

| PROPOSED RETENTION POND VOLUME PROVIDED FOR LOT 3: | | | | |
|--|----------|---------------|-----------|---------------|
| ELEV. | AREA(SF) | AVG. AREA(SF) | DEPTH(FT) | VOLUME(CF-FT) |
| 4973.3 BTM | 1,945 | | | |
| | | 3,993 | 0.7 | 2,795 |

PROPOSED RETENTION POND VOLUME PROVIDED = 2,795CF > 2,500CF
RETENTION POND REQUIRED FOR LOT 3 OK

TYPE "D" TREATMENT = PROPOSED ROOF AREAS (3.6005SF) + PROPOSED CONCRETE AND PAVED AREAS (2.0005SF) = 5.6005SF = 0.129AC
TYPE "C" TREATMENT = REMAINING DISTURBED AREAS COMPACTED BY HUMAN ACTIVITY = 0.442AC - 0.129 = 0.313AC

| TREATMENT | AREA[ACRES] |
|-----------|-------------|
| A | 0 |
| B | 0 |
| C | 0.31 |
| D | 0.13 |

Q[PROPOSED-6HR] = [(3.05 X 0.31) + (4.34 X 0.13)] = 1.51CFS (6-HR) PROPOSED ONSITE FLOW
V[PROPOSED-6HR] = [(1.03 X 0.31) + (2.33 X 0.13)] / 12 = 0.0252AC-FT

| PROPOSED RETENTION POND VOLUME PROVIDED FOR LOT 2 | | | | |
|---|----------|---------------|-----------|---------------|
| ELEV. | AREA(SF) | AVG. AREA(SF) | DEPTH(FT) | VOLUME(CF-FT) |
| 4972.2 BTM | 3,479 | | | |
| | | 4,989 | 0.8 | 3,991 |
| 4973.0 TOP | 6,499 | | | |

PROPOSED RETENTION POND VOLUME PROVIDED = 3,991CF > 2,892CF
RETENTION POND REQUIRED FOR LOT 2 OK

LOT 3:
TOTAL AREA OF LOT = 0.442ACRES, WILL USE ONLY AREA OF PROPOSED RESIDENCE = 0.140ACRES
TYPE "D" TREATMENT + PROPOSED ROOF AREAS (1.480SF) + PROPOSED CONCRETE AND PAVED AREAS (1.000SF) = 2.680SF = 0.062AC
TREATMENT + REMAINING DISTURBED AREAS COMPACTED BY HUMAN ACTIVITY = 0.140AC - 0.062 = 0.078AC

| TREATMENT | AREA(ACRES) |
|-----------|-------------|
| A | 0 |
| B | 0 |
| C | 0.08 |
| D | 0.06 |

| PROPOSED RETENTION POND VOLUME PROVIDED FOR LOT 2 | | | | |
|---|----------|---------------|-----------|---------------|
| ELEV. | AREA(SF) | AVG. AREA(SF) | DEPTH(FT) | VOLUME(CF-FT) |
| 4972.0 BTM | 582 | | | |
| | | 1.366 | 1.0 | 1.366 |
| 4973.0 TOP | 2,151 | | | |

PROPOSED RETENTION POND VOLUME PROVIDED = 1,366CF > 1,117CF
RETENTION POND REQUIRED FOR LOT 3 OK

① INSTALL 6" THICK GRAVEL BASE COURSE PER CITY SPECIFICATIONS.

- ② GRADE SWALE ADJACENT TO EXISTING RESIDENCE TO DRAIN INTO NEW POND ON EAST SIDE.
- ③ CONSTRUCT RETENTION POND APPROXIMATELY 100CF.
- ④ GRADE SWALE ADJACENT TO EXISTING WALL TO DRAIN INTO NEW POND ON WEST SIDE.

**City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
4/7/2025**

DATE: _____
BY: *Quentin Wilson*
HydroTrans # _____ **F13D0338**

THE APPROVAL OF THESE PLANS/REPORTS SHALL NOT CONSTITUTE TO PERMIT VIOLATIONS OF ANY FEDERAL OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUESTING CORRECTIONS OR REVISIONS TO ANY PART OF THE PLANS. ANY SUCH CORRECTIONS OR REVISIONS SHALL BE REQUESTED IN WRITING. ANY SUCH CORRECTIONS 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.

UTILITY PRECAUTIONS

THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE, EITHER PUBLIC OR PRIVATE, BEFORE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO SUCH UTILITIES, PIPELINES, OR UNDERGROUND UTILITY LINES, AND SHALL BE RESPONSIBLE TO REPAIR AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.