

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

September 23, 2022

Fred C. Arfman, P.E.  
Isaacson & Arfman, P.A.  
128 Monroe St. N.E.  
Albuquerque, NM 87108

**RE: 1330 Avenida Cristo Rey NW**  
**Grading and Drainage Plan**  
**Engineer's Stamp Date: 09/01/22**  
**Hydrology File: F13D031**

Dear Mr. Arfman:

Based upon the information provided in your submittal received 09/12/2022, the Grading & Drainage Plan is approved for Grading Permit (earthwork can get started for the earth pad on the house).

**PRIOR TO BUILDING PERMIT:**

1. Once the grading is complete, a pad certification (meaning that the earthwork is complete) will be required. Please include a site photo with the submittal. Also, at the time of pad certification approval, Hydrology will concurrently approve the Grading & Drainage Plan for Building Permit.

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

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 (REV 11/2018)

**Project Title:** Finch Residence Building Permit #: \_\_\_\_\_ Hydrology File #: H13  
DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_  
Legal Description: Tract 209A1, MRGCD Map 31  
City Address: 1330 Avenida Cristo Rey NW - Albuquerque, NM 87107

**Applicant:** Isaacson & Arfman, Inc. Contact: Fred C. Arfman  
Bryan J. Bobrick  
Address: 128 Monroe Street NE - Albuquerque, NM 87108  
Phone#: (505) 268-8828 Fax#: \_\_\_\_\_ E-mail: freda@iacivil.com  
bryanb@iacivil.com  
**Owner:** \_\_\_\_\_ Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

**TYPE OF SUBMITTAL:** \_\_\_\_\_ PLAT (\_\_\_\_# OF LOTS) ☒ RESIDENCE \_\_\_\_\_ DRB SITE \_\_\_\_\_ ADMIN SITE

IS THIS A RESUBMITTAL?: \_\_\_\_\_ Yes ☒ No

**DEPARTMENT:** \_\_\_\_\_ TRAFFIC/ TRANSPORTATION ☒ HYDROLOGY/ DRAINAGE

Check all that Apply:

**TYPE OF SUBMITTAL:**

\_\_\_\_ 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  
\_\_\_\_ 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) \_\_\_\_\_

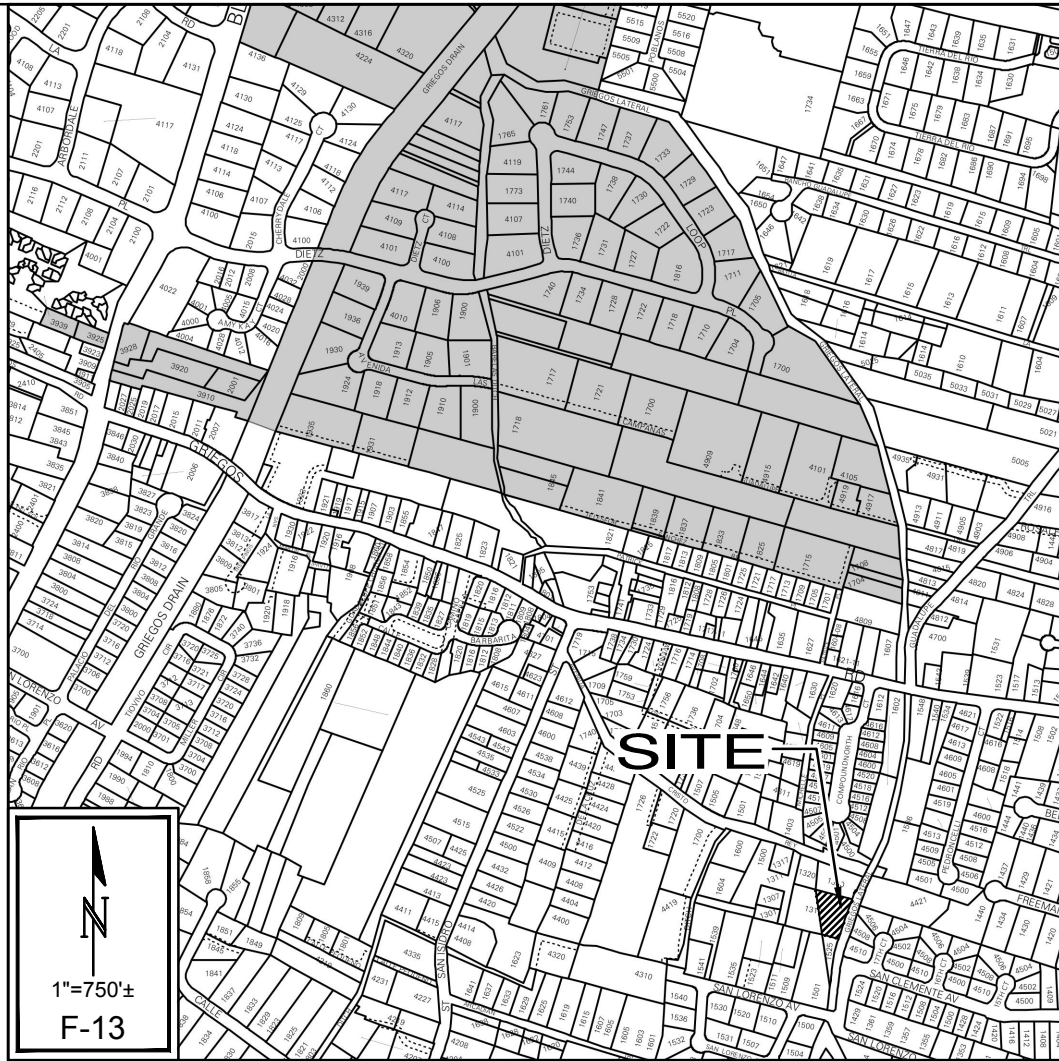
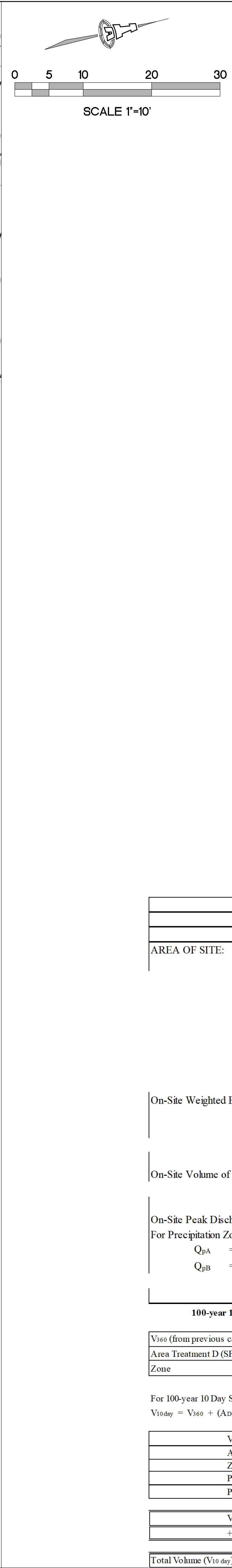
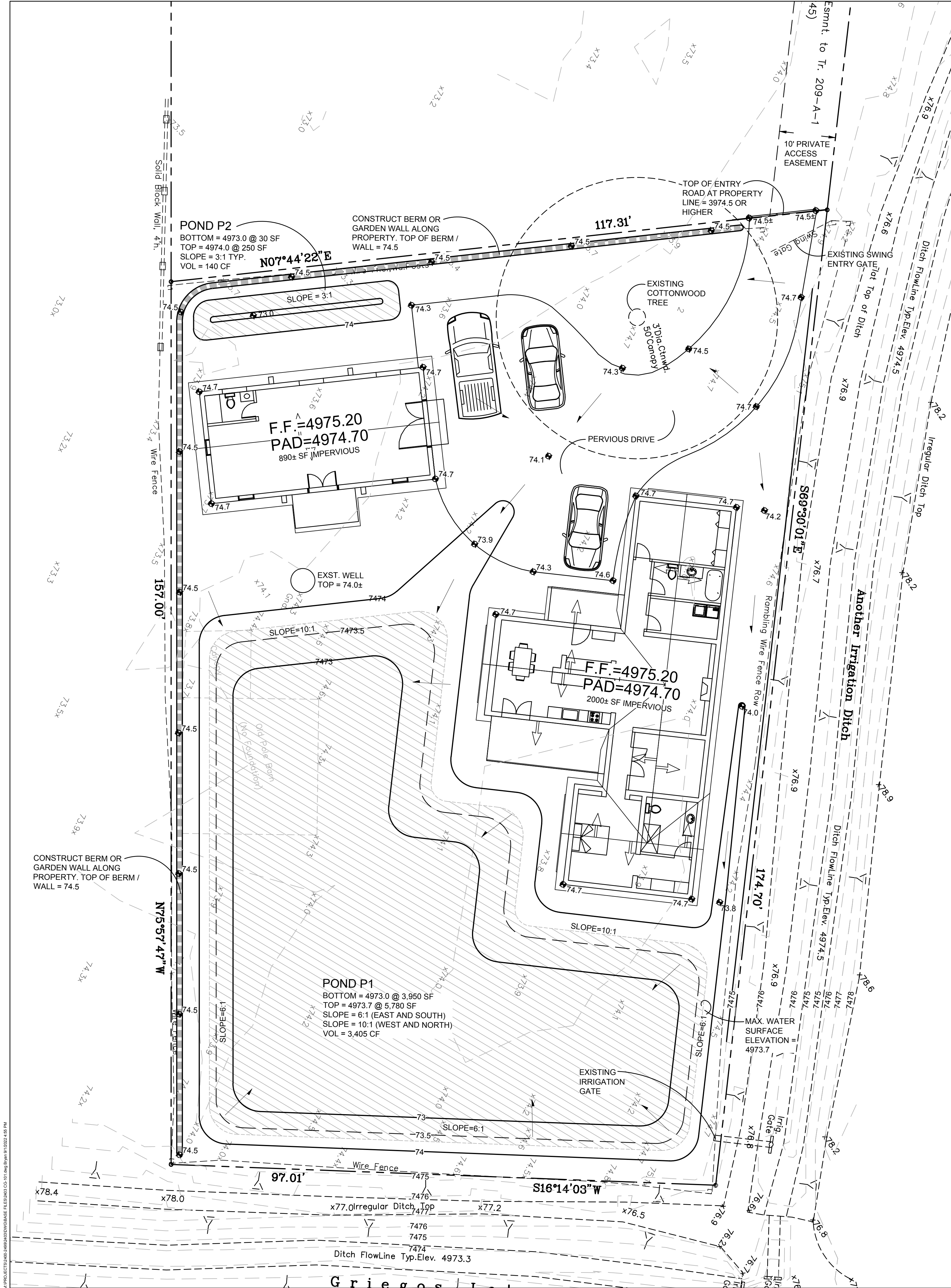
DATE SUBMITTED: September 1, 2022 By: Fred C. Arfman

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_





**PROJECT INFORMATION:**

**PROPERTY:** THE SITE IS (AN UNDEVELOPED) PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP F-13. THE SITE IS BOUND TO THE NORTH BY AN IRRIGATION DITCH, TO THE EAST BY THE GRIEGOS LATERAL IRRIGATION DITCH, TO THE SOUTH BY DEVELOPED RESIDENTIAL AND TO THE WEST BY AN UNDEVELOPED PROPERTY AND AVENIDA CRISTO REY N.W.

**PROPOSED IMPROVEMENTS:** THE PROPOSED IMPROVEMENTS INCLUDE A STUDIO/LOFT AND RESIDENCE WITH COMPACTED BASE COURSE ACCESS DRIVE PARKING AREA.

**LEGAL:** TR 209A1 MRGD MAP 31, ALBUQUERQUE, NM

**AREA:** 0.406 ACRES

**ADDRESS:** 1330 AVENIDA CRISTO REY NW ALBUQUERQUE NM 87107

**BENCHMARK:** ACS BM '17\_F13', A 1.75" DISK ON CURB AT NE QUADRANT OF GRIEGOS RD. & GUADALUPE TR. NW. ELEV. = 4973.249 (NAVD 1988)

**OFF-SITE:** NO OFF-SITE DRAINAGE AFFECTS THIS PROPERTY.

**FLOOD HAZARD:** PER FEMA FIRM MAP #35001C0118G, EFFECTIVE DATE 09/26/2008, THE SITE IS LOCATED WITHIN FLOODZONE 'X' SHADED, DESIGNATED AS AREAS OF 0.2-PERCENT-ANNUAL-CHANCE FLOODPLAIN, AREAS OF 1-PERCENT-ANNUAL-CHANCE (BASE FLOOD) SHEET FLOW FLOODING WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT, AREAS OF BASE FLOOD STREAM FLOODING WITH A CONTRIBUTING DRAINAGE AREA OF LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE BASE FLOOD BY LEVEES. NO BFES OR DEPTHS ARE SHOWN IN THIS ZONE.

**DRAINAGE PLAN CONCEPT:**

THE SITE IS A SINGLE LOT RESIDENTIAL PROPERTY LOCATED IN THE VALLEY AND WILL BE DEVELOPED WITH A FLAT GRADING SCHEME AS FOLLOWS:

- THE PROPOSED PAD(S) ELEVATION WILL BE 1' ABOVE THE 100-YEAR 10-DAY WATER SURFACE ELEVATION.
- THE EXISTING IRRIGATION DITCH SYSTEM SERVING THE PROPERTY WILL CONTINUE TO BE UTILIZED.
- FLOW WILL BE DIRECTED TO THE STORMWATER RETENTION PONDS.
- BERMS WILL BE CONSTRUCTED ON THE PROPERTY LINES AS SHOWN TO CONTAIN THE 100-YEAR 10-DAY RETENTION VOLUME.
- POND VOLUME PROVIDED EXCEEDS THE REQUIRED VOLUME TO ACCOMMODATE FUTURE CONSTRUCTION WITHIN THE NON-PONDING AREAS.

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**SURVEYOR:** REX J. VOGLER, N.M.P.S.  
RIO GRANDE SURVEYING CO.

**ENGINEER:** ISAACSON & ARFMAN, INC.  
FRED C. ARFMAN P.E.

**PROPOSED IMPERVIOUS AREA**

THE PROPOSED RESIDENCE = 2,000± SF IMPERVIOUS AREA.

THE PROPOSED LOFT = 890± SF IMPERVIOUS AREA.

TOTAL PLANNED MPERVIOUS AREA = 2,890 SF.

CALCULATIONS FOR THE 100-YEAR 10-DAY STORM VOLUME ARE BASED ON 20% IMPERVIOUS AREA (3,537 SF) TO PROVIDE EXCESS VOLUME FOR ADDITIONAL IMPERVIOUS AREA.

REQUIRED 100-YEAR 10-DAY VOLUME = 2,063 CF

POND VOLUME PROVIDED  
POND P1 = 3,405 CF  
POND P2 = 140 CF

NOTE: FINAL POND CONFIGURATION MAY VARY BASED ON OWNER'S FINAL SITE LAYOUT (ORCHARD LOCATION, GUEST PARKING, ETC.) AND CUT/FILL BALANCE. TOP OF POND AND BOTTOM OF POND ELEVATIONS WILL BE ADHERED TO PER THIS PLAN.

**LEGEND**

- 7476 — EXISTING CONTOUR
- x78.2 EXISTING SPOT ELEVATION
- 76 — PROPOSED 1.0' CONTOUR
- 65.4 PROPOSED SPOT ELEVATION
- FLOW DIRECTION
- FF = 4975.2 FINISH FLOOR ELEVATION
- PAD = 4974.7 PAD ELEVATION
- COMPACTED EARTH BERM

**Isaacson & Arfman, Inc.**  
Civil Engineering Consultants

128 Monroe Street NE  
Albuquerque, NM 87108  
505-268-8828 | www.iacivil.com

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**FRED C. ARFMAN**  
7322  
09/01/20  
Engineer

**Finch Residence**  
**1330 Avenida Cristo Rey NW**  
**City of Albuquerque**

| CONSTRUCTION DOCUMENT   | ISSUE:          | Description | No | Date |
|-------------------------|-----------------|-------------|----|------|
| PROJECT NUMBER: IA 2403 | FILE:           |             |    |      |
| DRAWN BY: BJB           | CHECKED BY: FCA |             |    |      |
| DATE: 09-01-2022        |                 |             |    |      |

**SHEET TITLE**

**SHEET NUMBER**

| CALCULATIONS: 2403 Finch Residence : Feb. 2, 2021                                                                                                                                     |                                                                       |                 |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------|----------------|
| Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020                                                                                                           |                                                                       |                 |                |
| 100-YEAR, 6-HOUR CALCULATIONS                                                                                                                                                         |                                                                       |                 |                |
| AREA OF SITE:                                                                                                                                                                         | 17685.36                                                              | SF              | = 0.41 ACRE    |
|                                                                                                                                                                                       | 100-year, 6-hour                                                      |                 |                |
| DEVELOPED FLOWS:                                                                                                                                                                      |                                                                       | EXCESS PRECIP:  |                |
|                                                                                                                                                                                       |                                                                       | Treatment SF    | % Precip. Zone |
| Area A                                                                                                                                                                                | =                                                                     | 0               | 0%             |
| Area B                                                                                                                                                                                | =                                                                     | 12026           | 68%            |
| Area C                                                                                                                                                                                | =                                                                     | 2122            | 12%            |
| Area D                                                                                                                                                                                | =                                                                     | 3537            | 20%            |
| Total Area                                                                                                                                                                            | =                                                                     | 17685           | 100%           |
| On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)                                                                                                                        |                                                                       |                 |                |
| Weighted E =                                                                                                                                                                          | $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$ |                 |                |
|                                                                                                                                                                                       | Developed E = 1.13 in.                                                |                 |                |
| On-Site Volume of Runoff: V <sub>360</sub> =                                                                                                                                          | $E \cdot A / 12$                                                      |                 |                |
|                                                                                                                                                                                       | Developed V <sub>360</sub> = 1671 CF                                  |                 |                |
| On-Site Peak Discharge Rate: Q <sub>p</sub> = Q <sub>pA</sub> A <sub>A</sub> +Q <sub>pB</sub> A <sub>B</sub> +Q <sub>pC</sub> A <sub>C</sub> +Q <sub>pD</sub> A <sub>D</sub> / 43,560 |                                                                       |                 |                |
| For Precipitation Zone 2                                                                                                                                                              |                                                                       |                 |                |
| Q <sub>pA</sub>                                                                                                                                                                       | = 1.71                                                                | Q <sub>pC</sub> | = 3.05         |
| Q <sub>pB</sub>                                                                                                                                                                       | = 2.36                                                                | Q <sub>pD</sub> | = 4.34         |
|                                                                                                                                                                                       | Developed Q <sub>p</sub> = 1.2 CFS                                    |                 |                |
| 100-year 10-day Storm Volume                                                                                                                                                          |                                                                       |                 |                |
| V <sub>360</sub> (from previous calculation)                                                                                                                                          | 1671                                                                  |                 |                |
| Area Treatment D (SF)                                                                                                                                                                 | 3537                                                                  |                 |                |
| Zone                                                                                                                                                                                  | 2                                                                     |                 |                |
| For 100-year 10 Day Storms:                                                                                                                                                           |                                                                       |                 |                |
| V <sub>10day</sub> = V <sub>360</sub> + (A <sub>D</sub> * (P <sub>10day</sub> - P <sub>360</sub> )/12" per foot)                                                                      |                                                                       |                 |                |
| V <sub>360</sub>                                                                                                                                                                      | =                                                                     | 1671            |                |
| Ad (SF)                                                                                                                                                                               | =                                                                     | 3537            |                |
| Zone                                                                                                                                                                                  | =                                                                     | 2               |                |
| P <sub>10day</sub>                                                                                                                                                                    | =                                                                     | 3.62            |                |
| P <sub>360</sub>                                                                                                                                                                      | =                                                                     | 2.29            |                |
| V <sub>360</sub>                                                                                                                                                                      | =                                                                     | 1671            |                |
| + imp. area                                                                                                                                                                           | =                                                                     | 392             |                |
| Total Volume (V <sub>10 day</sub> ) = 2063                                                                                                                                            |                                                                       |                 |                |
| POND P1                                                                                                                                                                               |                                                                       |                 |                |
| Contour                                                                                                                                                                               | Area                                                                  | Volume          |                |
| 4973.7                                                                                                                                                                                | 5780                                                                  |                 |                |
| 4973.0                                                                                                                                                                                | 3950                                                                  | 3405 CF         |                |
| POND VOLUME =                                                                                                                                                                         |                                                                       |                 | 3405 CF        |
| POND P2                                                                                                                                                                               |                                                                       |                 |                |
| Contour                                                                                                                                                                               | Area                                                                  | Volume          |                |
| 4974.0                                                                                                                                                                                | 250                                                                   |                 |                |
| 4973.0                                                                                                                                                                                | 30                                                                    | 140 CF          |                |
| POND VOLUME =                                                                                                                                                                         |                                                                       |                 | 140 CF         |