

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

June 24, 2021

Mike Walla, P.E.
Walla Engineering
6501 Americas Pwky NE, Suite 301
Albuquerque, NM 87110

RE: 210 Clayton St. SW
Grading & Drainage Plan
Engineer's Stamp Date: 06/02/21
Hydrology File: J13D103

Dear Mr. Walla:

Based upon the information provided in your submittal received 06/02/2021, the Grading and Drainage Plan is approved for Grading Permit (earthwork can get started for the earth pad on the house and the footers for the garden wall).

Once the grading is complete, a pad certification (meaning that the earthwork is complete) will be required prior to release from Hydrology during the Building Permit process. Also, at the time of pad certification approval, Hydrology will concurrently approve the Grading & Drainage Plan for Building Permit.

Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

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

Sincerely,

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 6/2018)

Project Title: FIERRO RESIDENCE **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: LOT 12-B, BLOCK 1, WEST PARK ADDITION, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
City Address: 210 CLAYTON ST. SW, ALBUQUERQUE, NEW MEXICO

Applicant: WALLA ENGINEERING **Contact:** MIKE WALLA
Address: 6501 AMERICAS PARKWAY NE, SUITE 301, ALBUQUERQUE, NM 87110
Phone#: 505-881-3008 **Fax#:** 505-881-4025 **E-mail:** mikew@wallaengineering.com

Other Contact: ECO TERRA DEVELOPMENT **Contact:** CATHERINE MARSHALL
Address: 8100 WYOMING BLVD. NE, ALBUQUERQUE, NM 87103
Phone#: 505-934-7639 **Fax#:** _____ **E-mail:** kaye@ecoterrallc.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes ☒ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE MASTER PLAN
- ☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ☐ ELEVATION CERTIFICATE
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ STREET LIGHT LAYOUT
- ☐ 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: 6-2-21 **By:** MIKE WALLA

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

HYDROLOGY CALCULATIONS

210 CLAYTON - SITE AREA = 0.106 ACRES
DESIGN CRITERIA: CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL - JUNE 2020
CHAPTER 6 DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL
PROCEDURE FOR 40-ACRE AND SMALLER BASINS
VALLEY DRAINAGE CRITERIA, ARTICLE 6-5 OF THE DPM
PRECIPITATION ZONE 2 PER SECTION 6-2(A)(1), TABLE 6.2.7 AND FIGURE 6.2.3
EXCESS PRECIPITATION, E, PER TABLE 6.2.13
PEAK DISCHARGE FOR SMALL WATERSHEDS: PER TABLE 6.2.14

PREDEVELOPED CONDITIONS

| LAND TREATMENT | AREA (AC) | EXCESS PRECIP. "E" (IN) | PEAK Q (CFS/AC) | COEFFICIENT C |
|----------------|-----------|-------------------------|-----------------|---------------|
| A | 0.106 | 0.55 | 1.71 | 0.36 |
| B | 0.000 | 0.73 | 2.36 | 0.49 |
| C | 0.000 | 0.95 | 3.05 | 0.63 |
| D | 0.000 | 2.24 | 3.41 | 0.90 |

WEIGHTED E: = 0.55 IN
V360 = 0.55 X 0.106 X 43560/12 = 211 CF
TOTAL QP = (0.106 X 1.71) = 0.181 CFS

DEVELOPED CONDITIONS

| LAND TREATMENT | AREA (AC) | EXCESS PRECIP. "E" (IN) | PEAK Q (CFS/AC) | COEFFICIENT C |
|----------------|-----------|-------------------------|-----------------|---------------|
| A | 0.000 | 0.55 | 1.71 | 0.36 |
| B | 0.056 | 0.73 | 2.36 | 0.49 |
| C | 0.006 | 0.95 | 3.05 | 0.63 |
| D | 0.044 | 2.24 | 3.41 | 0.90 |

WEIGHTED E: [(0.056 X 0.73) + (0.006 X 0.95) + (0.044 X 2.24)]/0.106 = 1.378 IN
V360 = 1.378 X 0.106 X 43560/12 = 530 CF
TOTAL QP = (0.056 X 2.36) + (0.006 X 3.05) + (0.044 X 3.41) = 0.301 CFS

RATIONAL METHOD CHECK: 12-MINUTE PEAK INTENSITY, I = 4.58 IN/HR
Q = CIA = (0.49 X 4.58 X 0.056) + (0.63 X 4.58 X 0.006) + (0.9 X 4.58 X 0.044) = 0.324 CFS OK

WATER HARVESTING VOLUME REQUIRED: 0.5" X 1910 SF (IMPERVIOUS AREA) = 80 CF

WATER HARVESTING POND VOLUME: NORTH POND

| CONTOUR | AREA | VOLUME |
|---------|--------|--------|
| 53.00 | 302 SF | |
| 52.50 | 100 SF | 101 CF |
| TOTAL | | 101 CF |

SOUTH POND:

| CONTOUR | AREA | VOLUME |
|--------------|--------|--------|
| 53.50 | 143 SF | |
| 53.00 | 28 SF | 43 CF |
| TOTAL VOLUME | | 43 CF |

TOTAL WATER HARVESTING VOLUME = 144 CF > 80 CF OK

GRADING & DRAINAGE DESIGN NARRATIVE

SUBJECT PROPERTY: 210 CLAYTON STREET SW, LOT 12B, BLOCK 1, WEST PARK ADDITION, CITY OF ALBUQUERQUE

DEVELOPED SITE AREA: 4,600 SF OR 0.106 ACRE

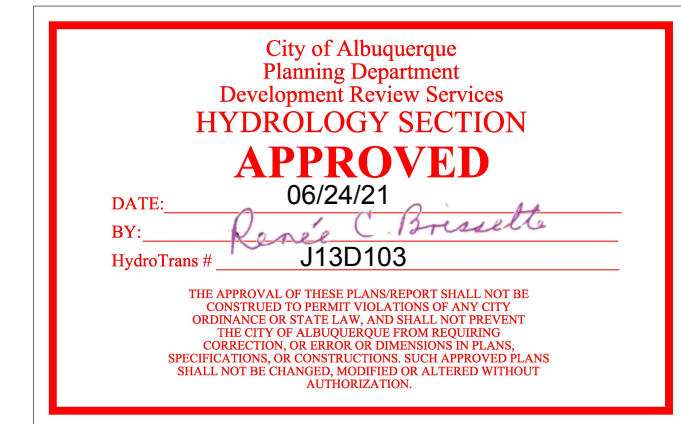
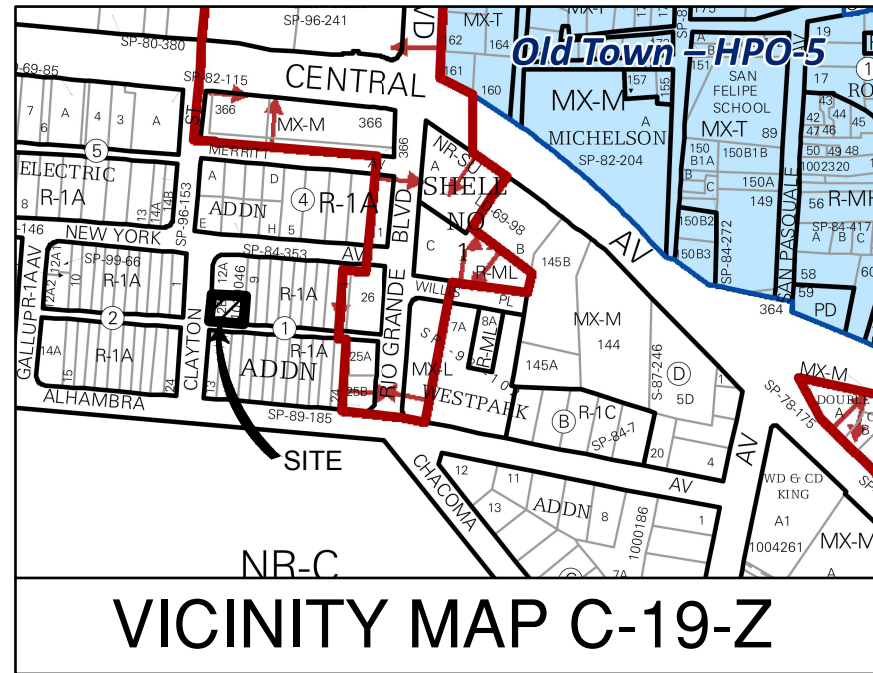
REFERENCE: CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), JUNE 2020

METHODOLOGY: VALLEY DRAINAGE CRITERIA, ARTICLE 6-5 OF THE DPM

PROJECT DESCRIPTION: LOT 12B IS AN APPROXIMATELY 0.106 ACRE, UNDEVELOPED LOT IN ALBUQUERQUE'S NEAR SOUTH VALLEY. THIS PROJECT WILL INCLUDE A NEW SINGLE FAMILY, TWO STORY RESIDENCE BUILT WITHIN THE CONFINES OF AN EXISTING SHORT PERIMETER WALL AROUND THE PROPERTY BORDER. THE RESIDENCE WILL HAVE SMALL COVERED PATIOS AT THE FRONT AND REAR OF THE HOME.

UNDEVELOPED CONDITIONS: THE SUBJECT SITE IS QUITE FLAT WITH BASICALLY NO SLOPE IN ANY DIRECTION. CURRENT FINISHED GRADE ELEVATION IS NO MORE THAN A FOOT ABOVE ADJACENT STREET PAVING.

DEVELOPED RUNOFF: THE NEW FINISHED FLOOR ELEVATION WILL BE SET AT LEAST 18" ABOVE THE HIGHEST ADJACENT PAVED STREET SURFACE IN ORDER TO COMPLY WITH THE DPM VALLEY DRAINAGE CRITERIA. SITE WATER HARVESTING IS DESIGNED TO CAPTURE 1/2" DEEP STORM RUNOFF VOLUME FROM THE PROPOSED IMPERVIOUS SURFACES OF AS RECOMMENDED IN THE DPM. THIS WILL BE ACCOMPLISHED WITH ONSITE PONDING AREAS AS DESCRIBED ON THE PLAN. SWALES WILL BE CONSTRUCTED TO DIRECT ROOF RUNOFF TO THE PONDS. THE SITE GRADING WILL PREVENT ANY STORM RUNOFF IMPACT TO ADJACENT PROPERTIES.



BASIS OF ELEVATIONS

G-424, NAVD 1988, ELEVATION 4952.51

LEGAL DESCRIPTION

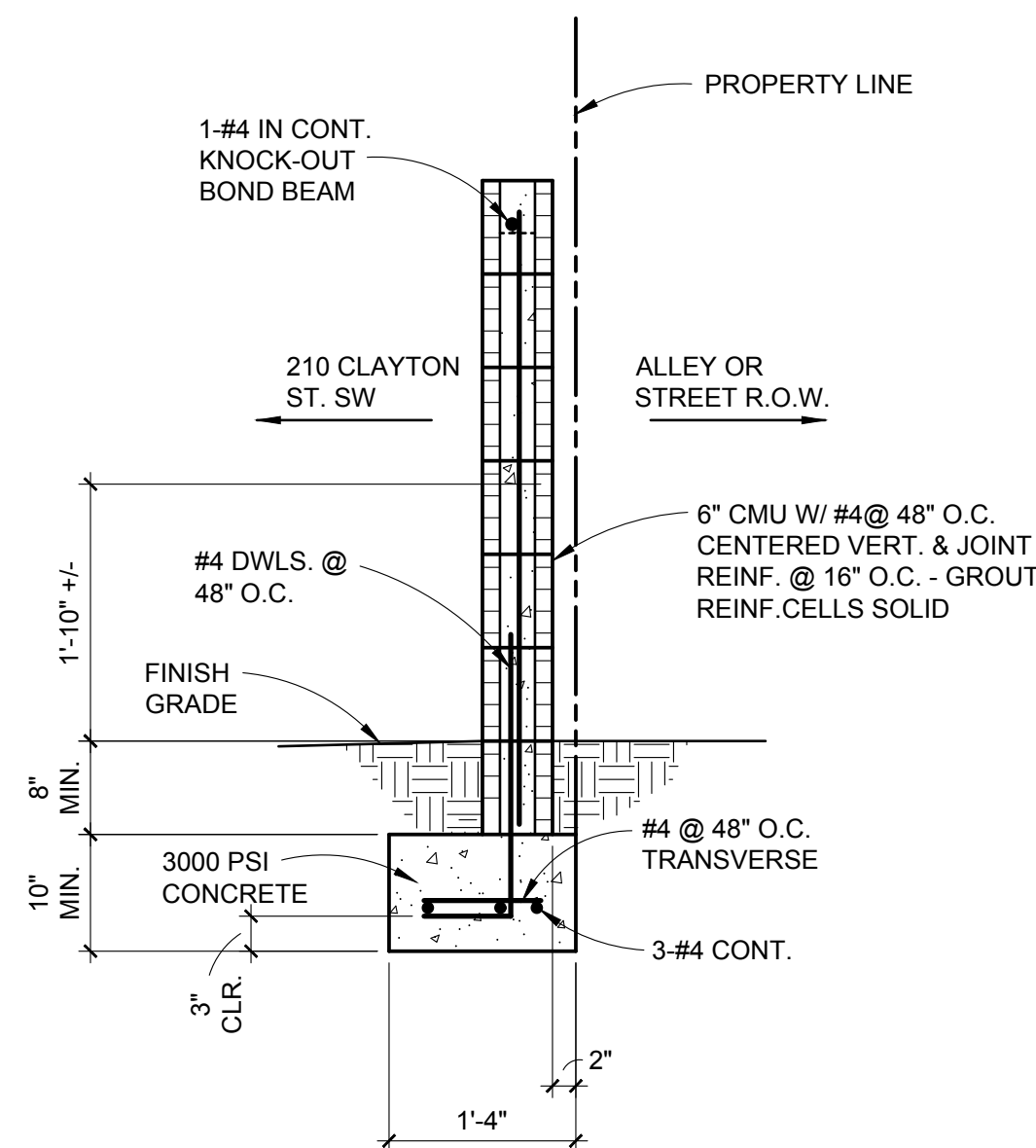
LOT 12-B, BLOCK 1, WEST PARK ADDITION, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

LEGEND

| | |
|---------------|-------------------------|
| --- | PROPERTY LINE |
| ---4953.50--- | EXISTING CONTOUR |
| ⊕ 4953.72 | EXISTING SPOT ELEVATION |
| 03.00 ↗ | NEW SPOT ELEVATION |
| --- | NEW CONTOUR |
| TC | TOP OF CONCRETE |
| FG | FINISHED GRADE |
| FF | FINISHED FLOOR |
| GS | GRAVEL SURFACE |
| ▶ | ROOF DRAIN |
| → | FLOW DIRECTION |
| ▲ | DRAINAGE SWALE |
| ▬ | NEW CONCRETE PAVING |
| ▬ | NEW GRAVEL SURFACE |

SHEET KEYNOTES

- 1 WATER HARVESTING POND - CAPACITY = 101 CF
- 2 WATER HARVESTING POND - CAPACITY = 43 CF
- 3 GRAVEL DRIVE
- 4 GRAVEL WALKWAY
- 5 EXISTING CMU WALL
- 6 NEW CMU WALL PER DETAIL A2/C-101
- 7 DRAIN BLOCK IN CMU WALL WITH INVERT AT ±53.50



A2

3/4"=1'-0"



A1

GRADING AND DRAINAGE PLAN

1" = 10'



CONSULTANT



ENGINEER

FIERRO RESIDENCE
210 CLAYTON ST. SW
ALBUQUERQUE,
NEW MEXICO

MARK DATE REVISION

PROJECT NO: E27-0121

CAD DWG FILE:

DRAWN BY: LEK

CHECKED BY: MJW

SHEET TITLE

**GRADING and
DRAINAGE PLAN**

C-101