CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Interim Director

Mayor Timothy M. Keller

January 10, 2022

Jacob Chavez, P.E.
7212 Via Contenta Dr. NE
Albuquerque, NM 87113

RE: Chavez Residence
8750 Eagle Rock NE
Grading and Drainage Plan
Engineer's Stamp Date: 12/23/21
Hydrology File: C20D088

Dear Mr. Chavez:

Based upon the information provided in your submittal received 12/23/2021, the Grading and 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 (the earth pad is done for the house), please attach a **site photo** with the Hydrology submittal for Pad Certification and Building Permit approval.

2. An Engineer's Certification of the compacted pad and grading (Pad Certification), per the DPM Part 6-14 (G): Engineer's Certification Checklist for Subdivision and Part 6-14 (H): Required Certification Language is required prior to issuing Building Permit.

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

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

Sincerely,

Renée C. Brissette

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Chavez Residence on Eagle Rock Building Permit #: _____ Hydrology File #: _____

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Lot 9 Block 2 Tract 3 Unit 3 North Albuquerque Acres, Bernalillo County, NM

City Address: Not Established Yet (~8750 Eagle Rock Ave, NE Albuquerque NM 87122)

Applicant: Jacob Chavez Contact: 505-363-4845

Address: 7212 Via Contenta Dr. NE Albuquerque NM 87113

Phone#: 505-363-4845 Fax#: _____ E-mail: jc3lobo@yahoo.com

Owner: Jacob Chavez Contact: 505-363-4845

Address: 7212 Via Contenta Dr. NE Albuquerque NM 87113

Phone#: 505-363-4845 Fax#: _____ E-mail: jc3lobo@yahoo.com

TYPE OF SUBMITTAL: ____ PLAT (___# OF LOTS) _X_ RESIDENCE ____ DRB SITE ____ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes ___X___ No

DEPARTMENT: ____ TRAFFIC/ TRANSPORTATION _X_ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
_X_ 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:

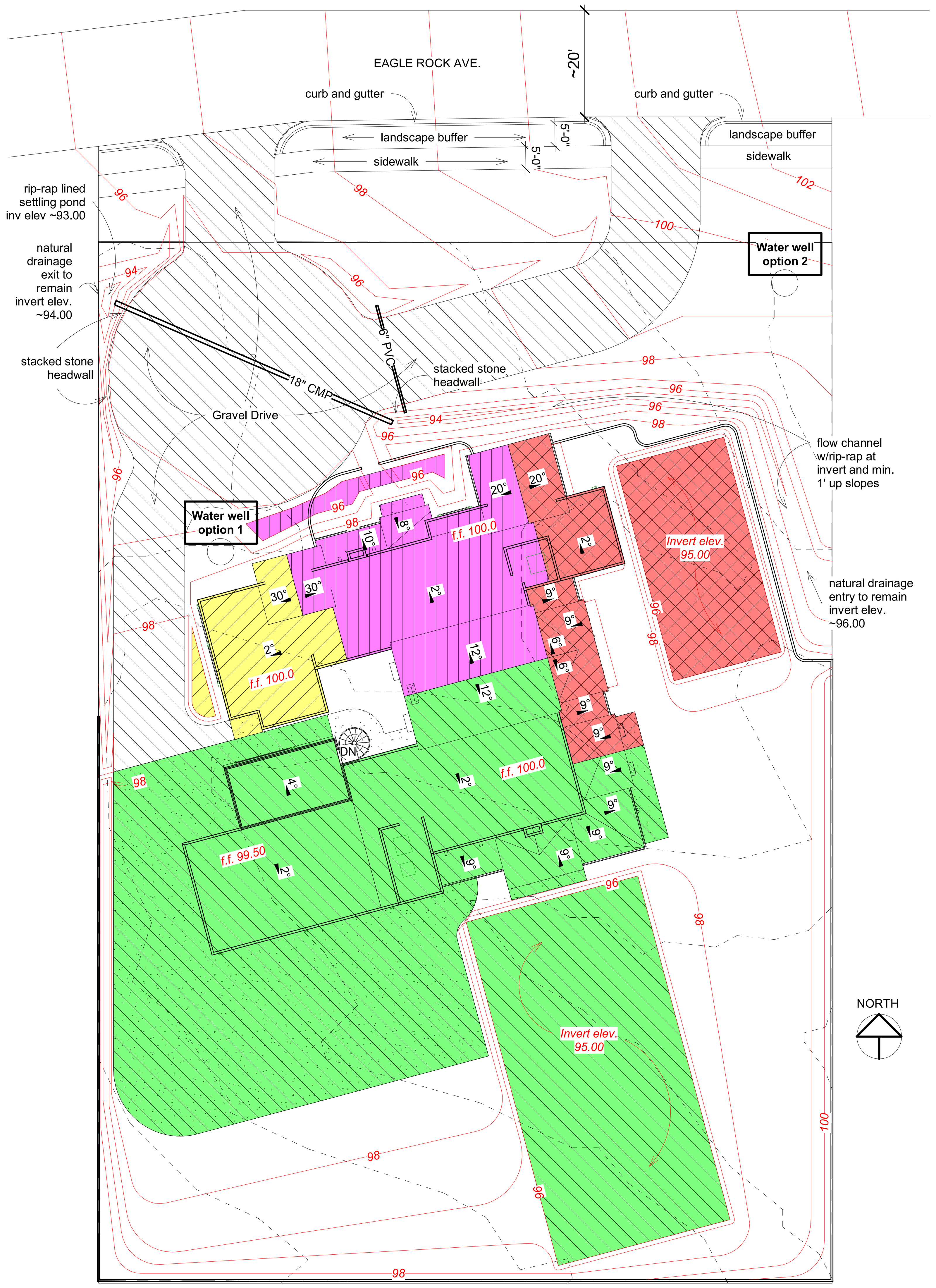
_X_ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY
____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
____ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL
____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 23 Dec 2021 By: Jacob Chavez

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

Legal Description:
Lot 9 Block 2 Tract 3 Unit 3 North Albuquerque Acres Bernalillo County NM
UPC: 102006414046320424



2 Grading and Drainage Plan
1" = 20'-0"

Legal Description: Lot 9, Block 2, Tract 3, unit 3, North Albuquerque Acres, Bernalillo County, NM

Hydrology

Narrative:

EXISTING CONDITIONS: This Property is located on Eagle Rock Ave. NE between Barstow Street and Ventura Street. The 100 year rainfall intensity for a 12 minute partial duration is 4.58 in/hr (table 6.2.8). The 100 year, 6 hour storm precipitation depth is 2.17 inches (table 6.2.8). Under exisitng conditions this lot is all land treatment A. Per section 6-2(A)(5), under current site conditions, the peak rate of discharge during a 100 year storm is 1.64 cfs. PROPOSED CONDITIONS: The Property has been divided into 4 drainage systems as highlighted on the plan. Since the property and house are slightly skewed from true north the front door will be considered to be on the north side with the largest pond residing on the south side of the property. The majority of the excess precipitation will be stored in the south pond accepting runoff from most of the roof and the surface pavements as indicated. The remaining runoff will be stored in the east, west and north ponds. Analysis of the roof plan and pavements shows that 69% of the runoff from the impermeable areas will flow to the south pond, 16% to the north, 8% to the east, and 7% to the west. The ponds are designed to retain a total of ~0.112 ac-ft, a volume larger than the excess precipitation of 0.106 ac-ft. This volume does not include nominal storage in settling ponds, channels, or other natural site storage. The proposed design shows a new channel that will enter and exit the property at the pre-exisiting locations. The channel will match the natural drainage pattern but divert it sightly to allow for more site development. This slight change in fow path will create new unvegetated slopes which will be protected by rip-rap channel lining. A 6" PVC pipe will be used to allow for drainage from the front of the property to the channel. The main channel will be mostly open channel flow except where conveyed through a 18" CMP to pass under the proposed gravel driveway. The 18" CMP is larger than the adjacent upstream property's main pipe which is 16" and shows no signs of overflow damage or abutment deterioration. Though large storms are not expected to overcome the 18" CMP, any overflow will pass over a gravel protected drive which is expected to limit potential erosion from moving to the downstream property. The finished floor elevation of the home will be 100.0, higher than the adjacent drainage features. Due to Eagle Rock's relatively steep slope, raising the finished floor above the enitre roadway is not feasible but will be maximized while balancing drainage features and available fill on site. UP-STREAM OFF-SITE DRAINAGE ANALYSIS: Review of the exisiting site conditions indicates a drainage pattern that enters from the east at the front of the property and meanders along the north, crossing the property and discharging to the property at the west. Other minor flows appear to cross the property on the south side and travel directly to the west, exiting via horizontal CMU blocks in the neighboring wall.

Flood Hazard Statement:
FEMA FIRM Panel 35001C0141G indicates a flood hazard Zone X for this property which is an area determined to be outside the 500 year floodplain.

Total Area = 0.89 ac
0.272 ac = 11,841 sf = 7,331 sf under roof plus ~4,510 sf of concrete slab not under roof (treatment D). Also proposed is a ~6,480 sf permeable gravel drive (treatment C).

	Existing Conditions:	Proposed Conditions:
Land Treatment A	0.89 ac	0.495 ac
Land Treatment C	0 ac	0.123 ac
Land Treatment D	0 ac	0.272 ac

Weighted excess precipitation for proposed condition is:
E = ((0.495 x 0.67) + (0.123 x 1.09) + (0.272 x 2.58))/(0.89) = 1.311 in

Runoff volume based on excess precipitation:
V360 = 1.311 x 0.89 / 12 = 0.0972 ac-ft
V1440 = 0.0972 ac-ft + 0.272 x (2.84 - 2.43) / 12 = 0.106 ac-ft

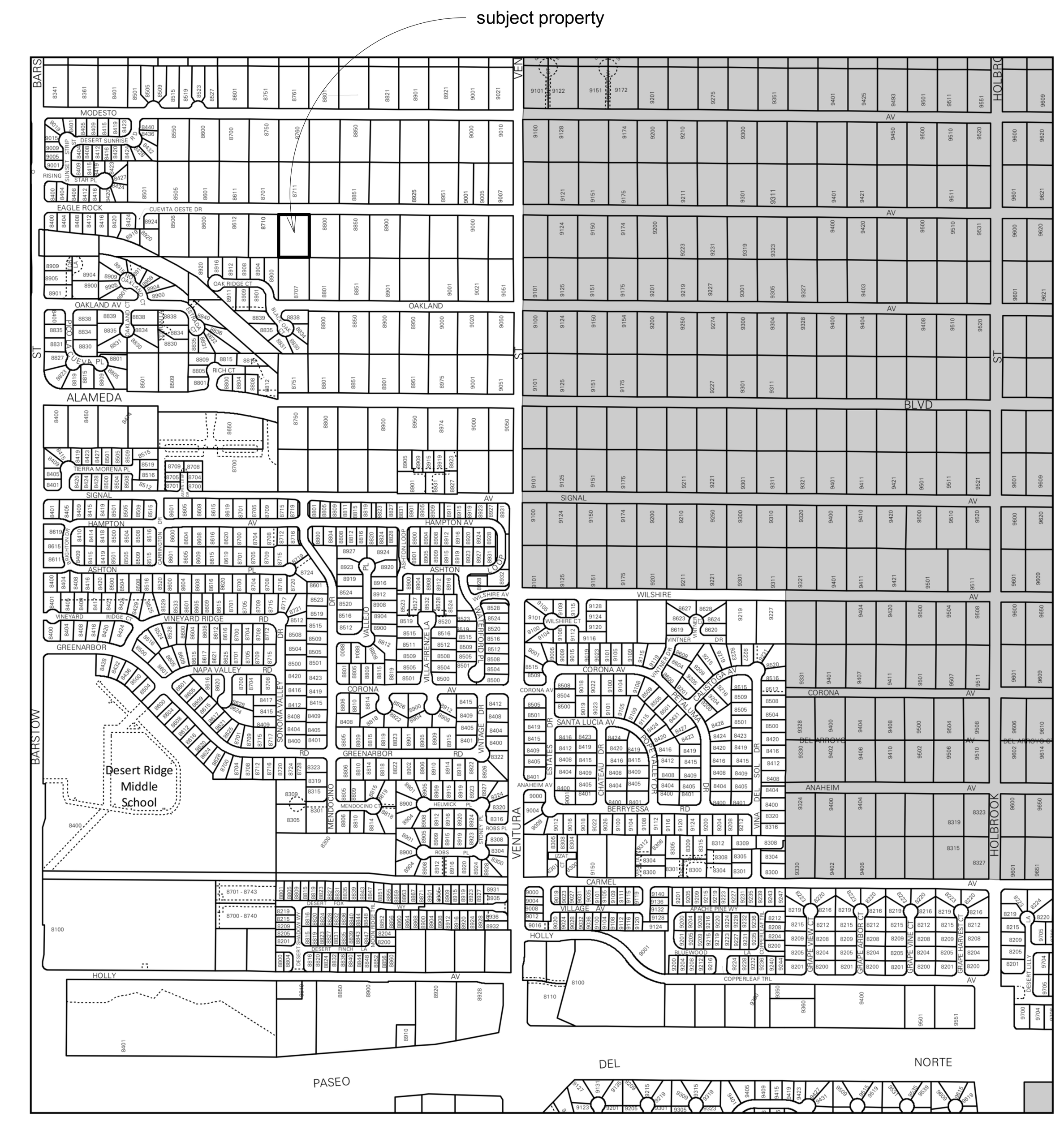
Peak rate of discharge:	Existing Conditions:	Proposed Conditions:
	Q = 1.84 x 0.89	1.84 x 0.495 + 3.17 x 0.123 + 4.49 x 0.272
	Q = 1.64 cfs	2.52 cfs

Pond Calculations:

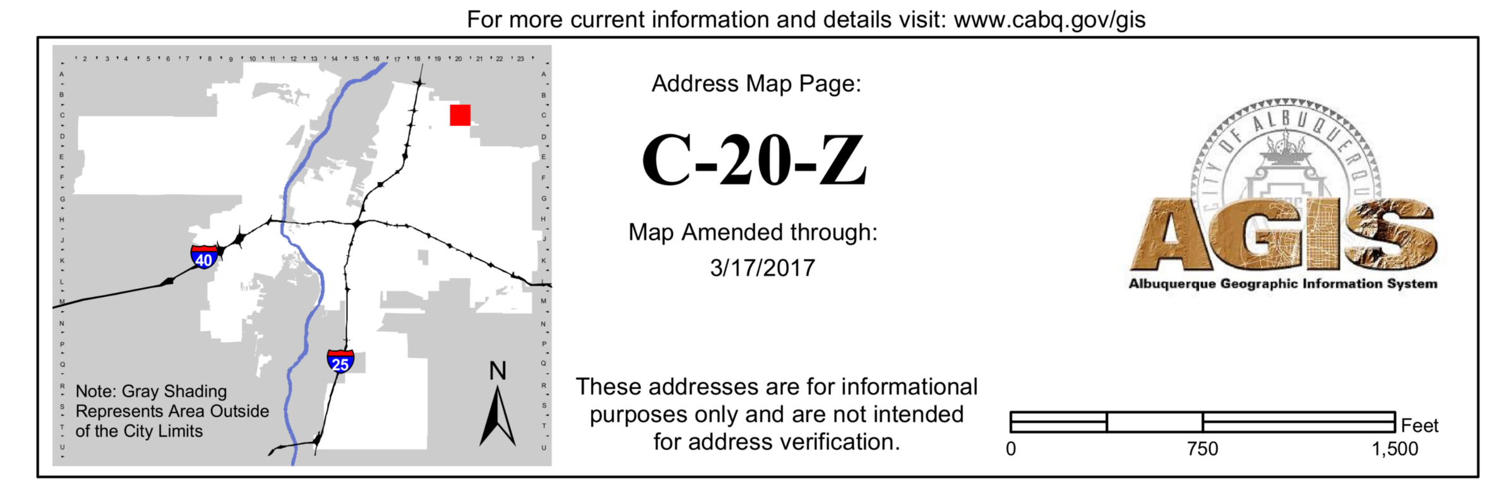
	Elevation	Area	Average Area sf	Volume ac-ft
East:	95	1250		
			1325	0.03042
	96	1400		
North:	96	175		
			187.5	0.00430
	97	200		

	Elevation	Area	Average Area sf	Volume ac-ft
South:	95	3200		
			3300	0.075758
	96	3400		
West:	96	53		
			56.5	0.001297
	97	60		

Total pond storage capacity: 0.112 ac-ft



For more current information and details visit: www.cabq.gov/gis



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 01/10/22
BY: [signature]
HydroTrans # C20D088

12/23/21

Date: 31 Dec 2021
Drawn by: Author

Chavez Residence on Eagle Rock

Grading & Drainage Plan | 1 of 1
Scale 1" = 20'-0"

1/8/2022 3:40:58 PM