CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



February 9, 2024

Ted L. Barber, P.E. Incline Engineering 236 Tano Road Santa Fe. NM 887506

RE: 9101 Central Ave NW

Grading and Drainage Plans Engineer's Stamp Date: 02/09/24

Hydrology File: K09D002

Dear Mr. Barber:

Based upon the information provided in your submittal received 01/31/2024, the Grading & Drainage Plans are approved for Building Permit, Grading Permit and SO-19 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.

NM 87103

2. Please provide the executed paper Drainage Covenant (latest revision) printed on one-side only with Exhibit A and a check for \$25.00 made out to "Bernalillo County" for the stormwater quality pond per Article 6-15(C) of the DPM to Hydrology for review at Plaza de Sol.

www.cabq.gov

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, P.E. CFM Senior Engineer, Hydrology Planning Department

Renée C. Brissette

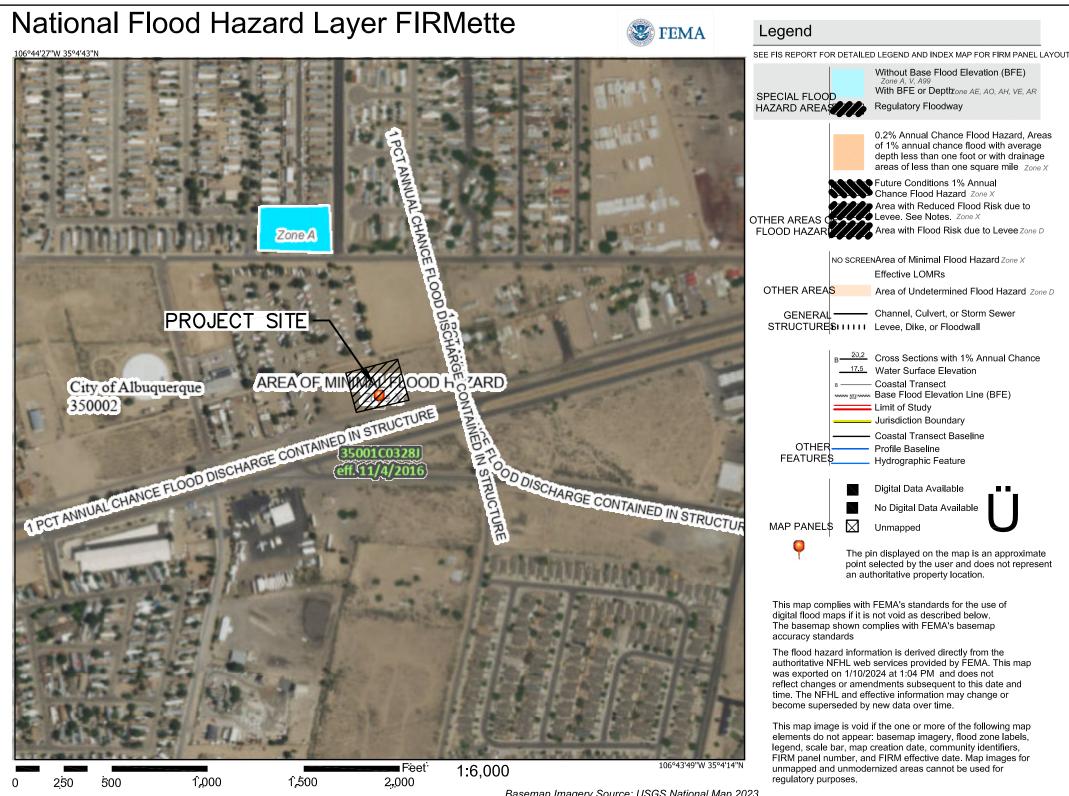


City of Albuquerque

Planning Department
Development & Building Services Division

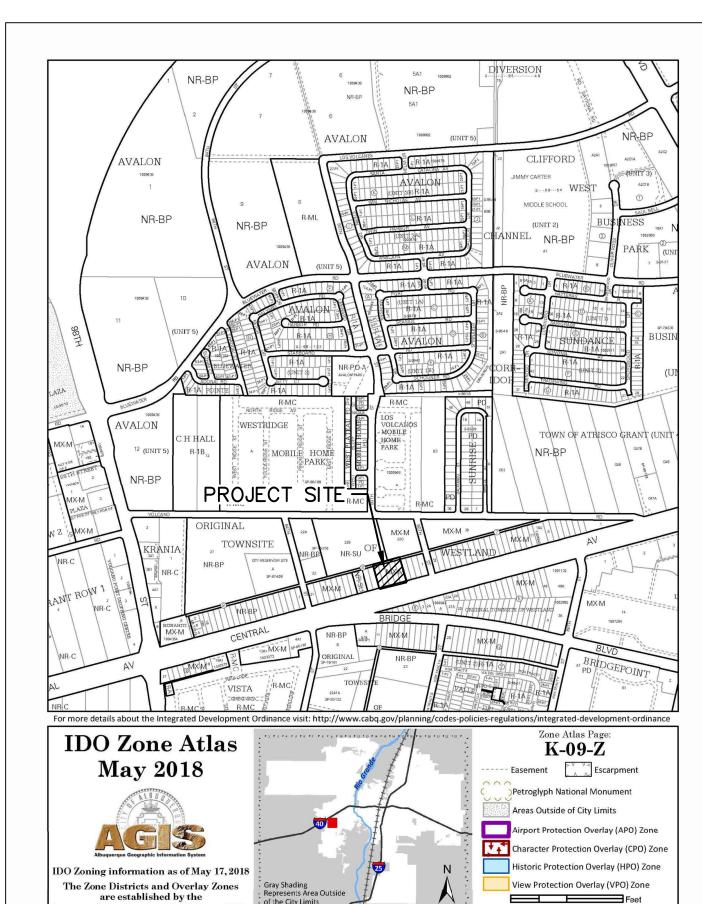
DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title:		Hydrology File #	
Legal Description:			
City Address, UPC, OR Parcel	:		
Applicant/Agent:		Contact:	
Address:			
Email:			
Applicant/Owner:		Contact:	
Address:		Phone:	
Email:			
(Please note that a DFT SITE is or	ne that needs Site Plan A	pproval & ADMIN SITE is one that does not need it.)	
TYPE OF DEVELOPMENT:	PLAT (#of lots)	RESIDENCE	
	DFT SITE	ADMIN SITE	
RE-SUBMITTAL: YES	NO		
DED A DEMENT. TO A NI	SDODT A TION	HVDDOLOGV/DD A DIA CE	
DEPARTMENT: TRANS	SPORTATION	HYDROLOGY/DRAINAGE	
Check all that apply under Both	the Type of Submittal	and the Type of Approval Sought:	
TYPE OF SUBMITTAL:		TYPE OF APPROVAL SOUGHT:	
ENGINEER/ARCHITECT CERTIFICATION		BUILDING PERMIT APPROVAL	
PAD CERTIFICATION		CERTIFICATE OF OCCUPANCY	
CONCEPTUAL G&D PLAN		CONCEPTUAL TCL DFT APPROVAL	
GRADING & DRAINAGE PLAN		PRELIMINARY PLAT APPROVAL	
DRAINAGE REPORT		FINAL PLAT APPROVAL	
DRAINAGE MASTER PLAN		SITE PLAN FOR BLDG PERMIT DFT	
CLOMR/LOMR		APPROVAL	
TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE		SIA/RELEASE OF FINANCIAL GUARANTEE	
		FOUNDATION PERMIT APPROVAL	
TRAFFIC CIRCULATION LAYOUT FOR DFT APPROVAL		GRADING PERMIT APPROVAL	
TRAFFIC IMPACT STUDY (TIS)		SO-19 APPROVAL	
STREET LIGHT LAYOUT		PAVING PERMIT APPROVAL	
OTHER (SPECIFY)		GRADING PAD CERTIFICATION	
- 111211 (C1 2011 1)		WORK ORDER APPROVAL	
		CLOMR/LOMR	
		OTHER (SPECIFY)	
DATE SUBMITTED:			



SCALE: NOT TO SCALE

Basemap Imagery Source: USGS National Map 2023 FLOOD ZONE/OFF SITE BASIN MAP



GENERAL NOTES:

With BFE or Depthrone AE, AO, AH, VE, AF

Future Conditions 1% Annual

hance Flood Hazard Zone 2 Area with Reduced Flood Risk due to

evee. See Notes. Zone X

IO SCREENArea of Minimal Flood Hazard Zone X

_B—20.2 Cross Sections with 1% Annual Chance

The pin displayed on the map is an approximate

point selected by the user and does not represent

Hydrology (COA DPM Part 6-2(A) Procedure for 40-Acre and Smaller Basins)

Precipatation Depth (in) (as per COA DPM Chapter 6 TABLE 6.2.8) 100 yr storm

6-HOUR Excess Precipitation, E (in.) (as per COA DPM Chapter 6 TABLE 6.2.13)

| Wier Design Flow (COA DPM Chapter 6 6-16(A)) = | 2.7 | x | 4

Peak Discharge (as per COA DPM Chapter 6 6.2.14) 100 yr storm

Precipatation Zone (as per COA DPM Chapter 6 FIGURE 6.2.3 Precipitation Zones) = Zone 1

Area of Undetermined Flood Hazard Zone D

Effective LOMRs

— 17.5 Water Surface Elevation

Coastal Transect

Jurisdiction Boundary

Coastal Transect Baseline

an authoritative property location.

This map complies with FEMA's standards for the use of

The flood hazard information is derived directly from the

time. The NFHL and effective information may change or

become superseded by new data over time.

eflect changes or amendments subsequent to this date and

This map image is void if the one or more of the following map

elements do not appear: basemap imagery, flood zone labels FIRM panel number, and FIRM effective date. Map images for

Existing Conditions

Basin Area (acre)

Full Development Conditions

Weighted $E_W = E_A A_A + E_B A_B + E_C A_C + E_D A_D$ $A_A + A_B + A_C + A_D$

First Flush Calculations (as per COA DPM 6-12)

Required Water Quality Retention Pond Volume=

Area

(sqft)

328

328

328

328

328

328

 $V_{1440} = V_{360} + A_D * (P_{1440} - P_{360}) / 12 in/ft$ $Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

V₃₆₀= E_W * A / 12 in/ft

Pond Rating Table

Elev

(ft)

5144.5

5145.5

5146.5

5147.5

5148.5

5149

digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap

accuracy standards

Limit of Study

OTHER Profile Baseline

FEATURE\$_____ Hydrographic Feature

ատորյատ Base Flood Elevation Line (BFE

GENERAL — Channel, Culvert, or Storm Sewe

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile zone

- 1. EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY THE OWNERS. ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION. CONSTRUCTION PROJECT PROFESSIONAL SURVEYOR SHALL VERIFY EXISTING GRADES AND CONTROL PRESENTED ON THESE PLANS.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE DISTURBED AREA FOR CONSTRUCTION IS OVER ONE ACRE, THEREFORE THE CONTRACTOR IS RESPONSIBLE FOR PREPARING EROSION AND SEDIMENT CONTROL (ESC) PLAN AND OWNER'S CERTIFIED NOTICE OF INTENT (NOI). CONTRACTOR SHALL SUBMIT THE ESC PLAN AND NOI TO THE COA STORMWATER QUALITY ENGINEER (DOUG HUGHES, PE, jhuges@cabq.gov, 505-924-3420) 14 DAYS PRIOR TO ANY EARTH DISTURBANCE.
- 3. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
- 4. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- 5. ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
- 6. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 7. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
- 8. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.

P100-6 =

 E_w (in)

H^{3/2}(Ht. of

flow = 7")

0.45

0.55

2.02

Land Treatment A

0.95

0.42

Depth required =

Depth provided=

984

1312

1476

Area Pond =

Excess Precipitation(in) E 0.55

0.20

L (crest

Cum

Volume | Volume

0.95 x

Volume

0.0075 | 0.0000 | 0

0.0075 | 0.0075 | 0.0075

0.0075 | 0.0075 | 0.0151

0.0075 | 0.0075 | 0.0226

0.0075 | 0.0075 | 0.0301

0.0038 | 0.0038 | 0.0339 |

(acre) | (acre-ft) | (acre-ft) | (cf)

Land Treatment Area (arce) A

1.15 1.15

 $A_A \mid A_B \mid A_C \mid A_D$

 Q_{PA} (cfs/ac) Treatment A =

 Q_{PB} (cfs/ac) Treatment B =

Q_{PC} (cfs/ac) Treatment C =

 Q_{PD} (cfs/ac) Treatment D =

0.73

V₃₆₀ (acft)

0.053

0.193

4.8

1448 cuft

328 sqft

4.4 ft

4.5 ft

9. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORM WATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.

2.17 P100-24 =

1.54

2.16 2.87

4.12

0.053

0.219

cfs

2.24

Q₃₆₀ (cfs)

1.77

4.49

0.95

V₁₄₄₀ (acft)

- 10. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE
- 11. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS ON THE GRADING AND DRAINAGE PLAN.
- 12. SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.
- 13. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
- 14. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
- 15. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
- 16. THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION
- 17. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS (UPDATE 8, AMENDMENT 1).
- 18. ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.
- 19. ALL PAVING AND BASE COURSE WORK ON THE PROJECT SHALL COMPLY WITH CITY OF ALBUQUERQUE PUBLIC WORKS CONSTRUCTION SPECIFICATION INCLUDING ALL RELATED SECTIONS.

HYDROLOGY

SITE LEGAL DESCRIPTION

PLAT OF LOTS 4 THROUGH 8 BLOCK 8 LANDS OF COSME. Y LETICIA JAQUEZ, WITHIN TOWN OF ATRISCO GRANT, PROJECTED SECTION 21, TOWNSHIP 10 NORTH, RANGE 2 EAST, N.M.P.M., CITY OF ALBUQUERQUE, BERNAILLO COUNTY, NEW MEXICO, JANUARY 2020

SITE LOCATION

The existing site is an approximate 1.15-acre site located at 9101 Central Ave. NW. The site is bounded on the south side by Central Ave, the north by existing development, and the east and west side by a vacant lots. This site can be accessed by going on I-40 west, taking the Coors exit south, and then turning right on Central Ave. (see vicinity map this sheet).

EXISTING CONDITIONS

The existing site is estimated at 1.15 acres and has natural vegetation on the land. There is currently no development on the site. The runoff from this site is 1.77 cfs for the 100-vr 6-hour storm under existing conditions. This site is within the Amole-Hubbell Master Drainage Plan by Wilson (2013) and has a discharge rate of 4.11 csf/ac.

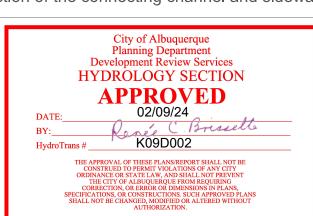
The site does not lie within a 100 year FEMA floodplain (see FEMA panel on this sheet). The site is not adversely impacted by offsite flows. The site currently slopes from west to east.

PROPOSED CONDITIONS

The proposed project will consist of a new building and paved parking lot. The site impervious area under proposed conditions will be 41579 sf or 0.95 ac. The new parking lot will be graded to drain south and east toward a new drainage pond located on the southeast corner of the site. The drainage calculations for proposed conditions are indicated on this sheet.

CONCLUSIONS

When fully developed as indicated on the grading and drainage plan, the runoff from the site is estimated at 4.49 cfs for the 100-year, 6-hour storm. The first flush pond volume for the new impervious area is 1448 cf. A new retention pond (volume 1476 cf) will be provided on the southeast corner of the site which will retain the first flush storm event. The 100-year, 6-hour storm flow of 4.49 cfs will inter the SWQ pond through an inlet weir with a capacity of 4.8 cfs. The pond outlet weir is designed the same as the inlet and will convey the design storm flow adequately. A double 24" (B=7") sidewalk culvert and connecting concrete channel will convey the flow from the property to the Central Ave NW ROW. The cross section of the connecting channel and sidewalk culvert are of greater cross section than the weirs.



APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE WO (2) YEARS AFTER THE APPROAL DATE BY THE CITY IF NO UILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMEN

No. Date Issue / Description IT IS THE CLIENTS RESPONSIBILITY PRIOR TO OR DURING CONSTRUCTION TO NOTIFY THE ARCHITECT IN WRITING OF ANY PERCENCED ERRORS OR OMISSIONS IN THE PLANS AND SPECIFICATIONS OF WHICH A CONTRACTOR THOROUGHLY MOMENDEGREUE WITH THE BULDING CODES AND METHODS OF CONSTRUCTION SHOULD REASONALLY BE AWARE, WRITING INSTRUCTIONS ADDRESSING SUCH PERCENCED BROKES OR OMISSIONS SHALL BE RECENCED FROM THE ARCHITECT PRIOR TO THE CLIENT OR CLIENTS SUBCONTRICTORS PROCEEDING WITH THE WORK. THE CLIENT WILL BE RESPONSIBLE FOR MAY DEFECTS IN CONSTRUCTION IF THESE PROCEDURES ARE NOT FOLLOWED.

> NEW CONSTRUCTION

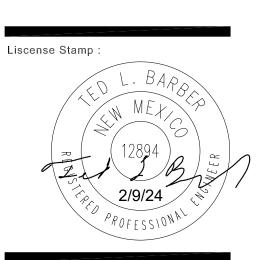
> > FOR

9101 CENTRAL **AVENUE NW**

ALBUQUERQUE NEW MEXICO







TED L. BARBER, PE INCLINE ENGINEERING 236 TANO ROAD SANTA FE, NM 505-577-6747

HYDROLOGY PLAN

C-100

