

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Interim Director



Mayor Timothy M. Keller

October 28, 2021

Scott McGee, P.E.
9700 Sand Verbena Trail NE
Albuquerque, NM 87122

**RE: Element Hotel
2440 Louisiana Blvd. NE
Grading and Drainage Plan
Engineer's Stamp Date: 10/05/21
Hydrology File: H19D087**

Dear Mr. McGee:

Based upon the information provided in your submittal received 09/04/2021, the Grading & Drainage Plan is approved for Grading Permit and Building Permit. 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 Drainage Covenant for the underground detention system per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Please submit an electronic file of the Covenant and Exhibit for completeness to Marion G. Velasquez at mgvelasquez@cabq.gov. Once the electronic file is approved for completeness, please submit the original copies along with the \$ 25.00 recording fee check made payable to Bernalillo County to Marion on the 4th floor of Plaza de Sol. Please note that Hydrology will need a pdf copy of the recorded Drainage Covenant prior to Hydrology's approval of Permanent Release of Occupancy.
3. Prior to the backfill of the underground detention system, please composed an Engineer Certification letter for the underground detention system with construction photos. This letter must be included in the Grading & Drainage submittal for Permanent Release of Occupancy.

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.

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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

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City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

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

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF DEVELOPMENT: _____ 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: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

DRAINAGE ANALYSIS

ADDRESS: 2440 Louisiana Blvd NE, Albuquerque, NM

LEGAL DESCRIPTION: TRACT 6-A-1-C-1-A, BLOCK 'C' LOUISIANA SUBDIVISION

SITE AREA: 66,172 SF (1.519 acres)

BENCHMARK: City of Albuquerque Station '15-H18' being a brass cap.
ELEV= 5303.391 (NAVD 1988)

SURVEYOR: Survey Office LLC, dated July 2019

PRECIPITATION ZONE: 3

FLOOD HAZARD: From FEMA Map 35001C0352H (8/16/12), this site is identified as being within Zone 'X' which is determined to be of minimal flood hazard.

OFFSITE FLOW: The site does accept offsite flows from two tracts adjacent to the east as shown on the plan. The total Q=3.44 CFS will continue to be accepted onsite and carried south toward Cutler per the historic flow pattern.

EXISTING CONDITIONS: The site is a fully developed portion of an existing site with asphalt parking and some landscaping. The prior drainage file (H16-D1) was revised by BHI in 1984 and again by Larry Read in 2004, This site has an allowable discharge rate of 1.6 CFS. The site slopes down slightly to the southwest at approximately 1.5% and runoff discharges to the public R/W of Cutler Ave NE.

PROPOSED IMPROVEMENTS: The proposed redevelopment of the site includes a new 7-story hotel, a swimming pool, associated paved access and parking, and landscaping.

DRAINAGE APPROACH: The site drainage pattern will follow historic conditions and include the onsite retention of the Storm Water Quality (SWQ) volume. Private storm drains will be extended onsite to provide for catch basins to intercept site runoff with underground retention chambers proposed.

Existing land treatment: 10% C and 90% D
 $Q = [(0.10)(3.45) + (0.90)(5.02)](1.52) = 7.4 \text{ CFS}$

Proposed land treatment: 2% B, 2% C and 96% D
 $Q = [(0.02)(2.60) + (0.02)(3.45) + (0.96)(5.02)](1.52) = 7.5 \text{ CFS}$

Redevelopment SWQ V= (63,525)(0.26/12)= 1,376 CF
The Hydrograph for Q=3.44+7.5=10.94 CFS and allowable Q=1.6 CFS (peak time of 11.4 mins and base time of 24.7 mins) gives a required V=11,124 CF.

Total underground detention volume provided onsite is 8,428 CF (49 chambers x 162.6 CF/EA)+(4 end caps x 115.3 CF/EA) using 9" deep stone base= 8,248.6 CF
Surface storage volume is 2,700 CF at water surface elevation 5295.1

The proposed detention (8,428+2,700)=11,128 CF will contain the SWQ volume and restrict discharge to 1.7 CFS. Site runoff will increase from historic but the proposed onsite retention storage will reduce runoff rate to the allowable rate.

Orifice equation for H=5.0' and 5" diameter orifice:
 $Q = KxA(2gh)^{1/2} = (0.7)(0.136)(17.9) = 1.7 \text{ CFS}$

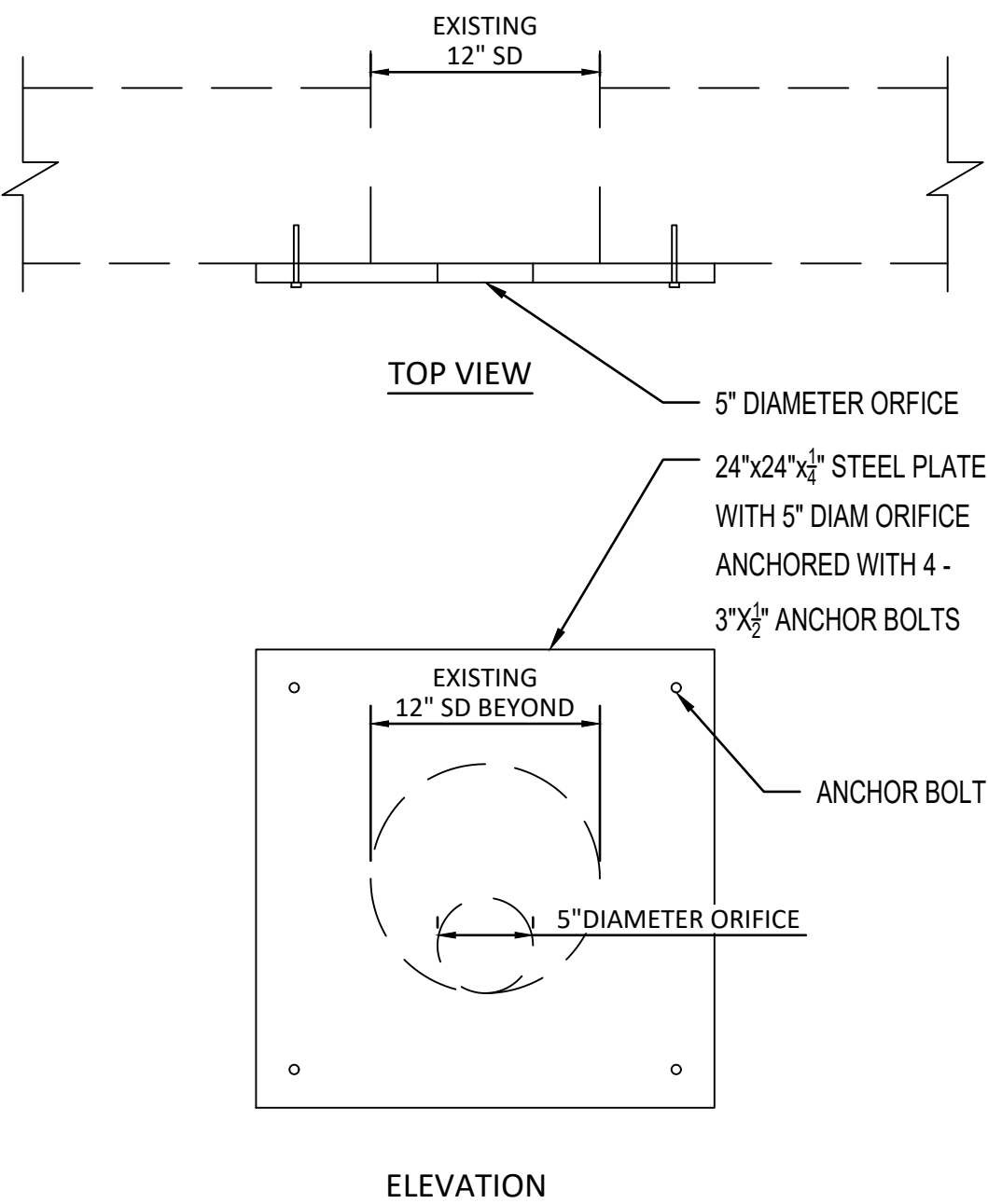


VICINITY MAP

H-19-Z

LEGEND

- EXISTING CONSTRUCTION
- NEW CONTOUR
- FF=5296.30 PROPOSED BUILDING FINISH FLOOR ELEV
- NEW SPOT ELEVATION
- NEW CONSTRUCTION
- RD ROOF DRAIN
- TC TOP OF CURB
- LIMITS OF CONSTRUCTION

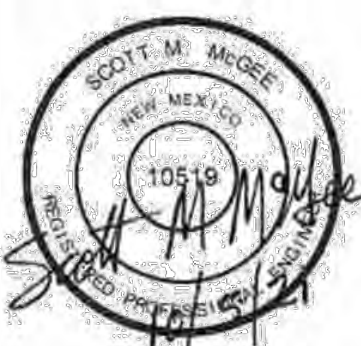


EXISTING INLET W/ORIFICE PLATE

NTS

STORM CHAMBER

NTS



ELEMENT HOTEL
2440 LOUISIANA BLVD NE

Scott M McGee PE

9700 Sand Verbena Trail NE
Albuquerque, NM 87122
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scottmmcgee@gmail.com

