

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

April 29, 2022

Lauren Nuffer, P.E.
Kimley-Horn
13455 Noel Road Two Galleria Office Tower Suite 700
Dallas, TX 75024

RE: Raising Cain's C0705
2004 Wyoming Blvd NE
Grading and Drainage Plan
Engineer's Stamp Date: 02/09/2022
Hydrology File: H20D003D

Dear Ms. Nuffer:

Based upon the information provided in your submittal received 02/09/2022, the Grading and Drainage Plans are approved for Building Permit, DRB submittal, and Work Order.

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

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.

Also, the Payment-in-Lieu of **\$ 6,648.00** must be paid prior to Hydrology's Permanent Release of Occupancy approval. Please follow the instructions:

Please use the attached City of Albuquerque Treasury Deposit form and when ready please email this form to Yolanda Montoya (yolandamontoya@cabq.gov). She will then produce and email back with a receipt and instructions on how to pay online. Once paid, please email me proof of payment. This will insure that Hydrology will be able to process Permanent Release of Occupancy approval when officially submitted.

If you have any questions, please contact me at 924-3695 or dggutierrez@cabq.gov.

Sincerely,

David G. Gutierrez, P.E.
Senior Engineer, Hydrology
Planning Department

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
HYDROLOGY DEVELOPMENT SECTION

**WAIVER APPLICATION FROM STORMWATER
QUALITY VOLUME MANAGEMENT ON-SITE**

GENERAL INFORMATION

APPLICANT: _____ DATE: _____

DEVELOPMENT: _____

LOCATION: _____

STORMWATER QUALITY POND VOLUME

Per the DPM Article 6-12 - Stormwater Quality and Low-Impact Development, the calculated sizing for required Stormwater Quality Pond volume is equal to the impervious area draining to the BMP multiplied by 0.42 inches for new development sites and by 0.26 inches for redevelopment sites.

The required volume is _____ cubic feet

The provided volume is _____ cubic feet

The deficient volume is _____ cubic feet

WAIVER JUSTIFICATION

Per the DPM Article 6-12(C), private off-site mitigation and payment-in-lieu may only be considered if management on-site is waived in accordance with the following criteria and procedures.

1. Management on-site shall be waived by the City Engineer if the following conditions are met:

- a. Stormwater quality can be effectively controlled through private off-site mitigation or through an arrangement (approved by the City) to use a cooperator's existing regional stormwater management infrastructure or facilities that are available to control stormwater quality.
 - b. Any of the following conditions apply:
 - i. The lot is too small to accommodate management on site while also accommodating the full plan of development.
 - ii. The soil is not stable as demonstrated by a geotechnical report certified by a professional engineer licensed in the State of New Mexico.
 - iii. The site use is inconsistent with the capture and reuse of stormwater.
 - iv. Other physical conditions exist where compliance with on-site stormwater quality control leaves insufficient area.
 - v. Public or private off-site facilities provide an opportunity to effectively accomplish the mitigation requirements of the Drainage Ordinance (Part 14-5-2 ROA 1994) as demonstrated on as-built construction drawings and an approved drainage report.
 - vi. The developer constructs a project to replenish regional groundwater supplies at an off-site location.
 - vii. A waiver to State water law or acquisition of water rights would be required in order to implement management on site.
2. The basis for requesting payment-in-lieu or private off-site mitigation is to be clearly demonstrated on the drainage plan.

This project's justification: _____

Professional Engineer or Architect

PAYMENT-IN-LIEU

Per the DPM Article 6-12(C)(1), the amount of payment-in-lieu is deficient volume (cubic feet) times \$6 per cubic feet for detached single-family residential projects or \$8 per cubic feet for all other projects.

AMOUNT OF PAYMENT-IN-LIEU = \$ _____

THIS SECTION IS FOR CITY USE ONLY

- ☐ Waiver is approved. The amount of payment-in-lieu from above must be paid prior to Certificate of Occupancy.
- ☐ Waiver is DENIED.



City of Albuquerque
Hydrology Section



TREASURY DIVISION DAILY DEPOSIT

Transmittals for:
PROJECTS Only

Payment-in-Lieu for Storm Water Quality Volume Requirement

CASH COUNT	AMOUNT	ACCOUNT NUMBER	FUND NUMBER	BUSINESS UNIT	PROJECT ID	ACTIVITY ID	AMOUNT
TOTAL CHECKS	\$6648.00	461615	305	PCDMD	24_MS4	7547210	\$ 6648.00
TOTAL AMOUNT						TOTAL DEPOSIT	\$ 6648.00

Hydrology#: H20D003D Name: Raising Cane's
Payment In-Lieu For Storm Water Quality
Volume Requirement

Address/Legal Description: 2004 Wyoming Blvd. NE

DEPARTMENT NAME: Planning Department/Development Review Services, Hydrology

PREPARED BY David G. Gutierrez, P.E. PHONE 505-924-3695

BUSINESS DATE March 28, 2022

DUAL VERIFICATION OF DEPOSIT


EMPLOYEE SIGNATURE

AND BY _____
EMPLOYEE SIGNATURE

REMITTER: _____

AMOUNT: _____

BANK: _____

CHECK #: _____ DATE ON CHECK: _____

The Payment-in-Lieu can be paid at the Plaza del Sol Treasury, 600 2nd St. NW. **Bring three copies of this invoice to the Treasury** and provide a copy of the receipt to Hydrology, Suite 201, 600 2nd St. NW, or e-mail with the Hydrology submittal to PLNDRS@cabq.gov.

FINAL DRAINAGE REPORT
FOR

Raising Cane's - Restaurant # RC 705

at 2004 Wyoming Blvd NE

Albuquerque, NM 87112

February 9, 2022

PREPARED FOR:

RAISING CANE'S

RESTAURANT SUPPORT OFFICE

6800 BISHOP ROAD

PLANO, TX 75024

PREPARED BY:

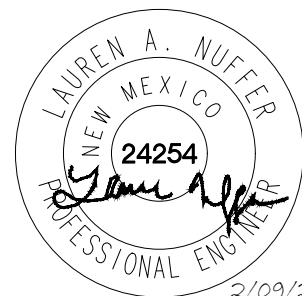
KIMLEY-HORN

1000 2ND AVENUE, SUITE 3900

SEATTLE, WA 98104

OFFICE: (206) 667-8610

KHA PROJECT #: 069313444



2/09/2022

Kimley»Horn

Expect More. Experience Better.

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Disclosure Statement:

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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EXECUTIVE SUMMARY

The project is located in the City of Albuquerque on the East side of Wyoming Blvd NE near the intersection with Northeastern Blvd NE. It is currently developed and contains an existing Furr's Buffet Fresh Restaurant. Current zoning is Mixed Use, Medium Density (MX-M), which aligns with what is proposed for the project. Proposed improvements consist of removing the existing 11,637 SF Furrs Building and construction of a new 3,443 SF building with drive-thru, hardscaped patio, and associated improvements. The project will not cause an increase in impervious cover when compared to the existing conditions and will thus generate no additional stormwater runoff. After project completion, existing drainage patterns, point of discharge, and stormwater storage volume will match historical conditions.

INTRODUCTION

PURPOSE AND SCOPE OF STUDY

The purpose of this Final Drainage Report (FDR) is to provide the hydrologic and hydraulic calculations and to document and finalize the drainage design methodology in support of the proposed Raising Cane's Restaurant ("the Site"). The Site is located within the jurisdictional limits of City of Albuquerque ("the City").

PROJECT REQUIREMENTS

The Site was designed in accordance with the City of Albuquerque's Development Process Manual ("DPM") Chapter 6 (*Drainage, Flood Control, and Erosion Control*), Part 6-3(A) (*Procedure for 40 Acre and Smaller Basins*), and Part 6-12 (*Stormwater Quality and Low-Impact Development*). These sections state that the principal design storm is the 100-year event, and that stormwater quality must be provided for redevelopment of existing sites.

All proposed stormwater improvements onsite are private and to tie to an existing public storm system in the Wyoming Boulevard Right-of-Way. The Site is currently developed with a restaurant use and is a part of a retail development which defines drainage patterns and stormwater detention for the whole development.

PROJECT DESCRIPTION

LOCATION

The Site is located on the east side of Wyoming Blvd NE, approximately 0.03 miles North of the intersection with Northeastern Blvd NE. Currently, the Site is developed as a Furr's Buffet Fresh Restaurant and is located in existing retail development Wyoming Mall.

BACKGROUND DOCUMENTS

PLANNING HISTORY

The Site is currently developed and contains an existing Furr's Buffet Fresh restaurant. It is zoned Mixed Use, Medium Density (MX-M). Current zoning and use align with what is proposed for the Site. The City of Albuquerque has provided copies of records for every approved site plan. Based on this information, the Site has historically always been a restaurant use.

DRAINAGE HISTORY AND RELATED DOCUMENTS

The Site and associated retail development historically use a combination of surface and private storm drain conveyance to the south west corner of the site. No documentation was found by the owner and tenant of the retail development or the City detailing a former drainage analysis or a master drainage plan, so assumptions were used to determine existing conditions and mitigation required to provide equivalent storage capacity. Refer to **Existing Conditions** for more details on the assumptions that were made during analysis.

EXISTING CONDITIONS

SITE INVESTIGATION

The Site is currently fully developed, containing a 11,637 SF building with associated parking and landscaping. The site historically surface flows to the south west to two existing inlets on the Site, one on the west side and one on the south side. The existing storm drain inlets discharge into the public storm drain system. The site is located in precipitation zone 3 per the City of Albuquerque's Development Process Manual.

Form of Analysis

The proposed development reduces the amount of impervious cover to the project area and decreases the peak discharge leaving the site, refer to **Table 1 - Existing vs Post Development Peak Discharge**.

Stormwater quality is accommodated for the amount of impervious cover being proposed. Per the DPM, the required volume is lower for redeveloped sites than entirely new development.

The Rational Method was used to check existing storm drain capacity. A grate inlet capacity chart was used to check existing inlet capacity and corresponding ponding depth.

Downstream Capacity

Historically, the point of discharge onsite is an existing catch basin and is conveyed through an existing 36" storm line in Wyoming Blvd NE. The point of discharge will not be changed with the proposed development, and no additional impervious cover is proposed with this project. No adverse effects are anticipated downstream as a result of this development.

DEVELOPED CONDITIONS

ONSITE

Proposed improvements consist of a new 3,443 SF building with drive thru, hardscaped patio, and associated improvements. The proposed site will maintain the historic drainage patterns, utilizing surface conveyances from north to southwest towards Wyoming Blvd NE. Runoff will be captured in the existing catch basin on the west side of the site and conveyed through the existing 36" storm line into Wyoming BLVD NE. See **Appendix A and C** for existing 36" pipe outfall location.

OFFSITE

The proposed development includes offsite work to modify traffic patterns to accommodate a new drive-thru and to connect to existing infrastructure. The proposed curb at the northeast corner of the site will generate minimal additional flow contributing to the existing catch basin at the northern side of the site.

CALCULATIONS

The peak discharge generated by the site was determined in existing and post development conditions using the rational method. The site is located in precipitation zone 3 and a 100-year, 12-minute storm was used to determine the peak discharge from the site see **Table 1 - Existing vs Post Development Peak Discharge** for calculations. The existing western inlet and 36" pipe onsite have been sized to contain the 100-year storm event based on the Peak Discharge Rate found in the City of Albuquerque's Development Process Manual Chapter 6 (*Drainage, Flood Control, and Erosion Control*), Part 6-3(A) (*Procedure for 40 Acre and Smaller Basins*).

TABLE 1 – EXISTING VS POST DEVELOPMENT PEAK DISCHARGE

Existing Peak Discharge						
Land Condition	Land Treatment	Area [A]		Intensity [I]	Coefficient [C]	Peak Discharge [Q]
		SF	Acre	in/hr	CSF/Acre	CFS
Pavement/Building (D)	98	39,197	0.90	4.96	0.91	4.06
Landscape (A)	77	4,558	0.10	4.96	0.37	0.19
		43,755	1.00			4.25
Post-Development Peak Discharge						
Land Condition	Land Treatment	Area [A]		Intensity [I]	Coefficient [C]	Peak Discharge [Q]
		SF	Acre	in/hr	CSF/Acre	CFS
Pavement/Building (D)	98	38,543	0.88	4.96	0.91	3.99
Landscape (A)	77	5,212	0.12	4.96	0.37	0.22
		43,755	1.00			4.21

In addition to matching or lowering peak discharge from the site, stormwater quality is also required. Because this site is a redevelopment and significant impervious cover is present in existing conditions, the calculations for required SWQV are as follows:

$$SWQV (ac - ft) = \frac{A_{impervious} (ac) \times 0.26 (in)}{12 (in/ft)}$$

With the proposed 0.88 acres of impervious cover being proposed, the total SWQV that must be accommodated is 0.02 ac-ft or 831 cubic feet.

The proposed development will decrease the amount of impervious cover when compared to the existing conditions and will thus decrease the peak discharge generated by the site.

Refer to **Appendix B** for all calculations.

CONCLUSION

The proposed development will maintain the historic drainage patterns, point of discharge, and stormwater storage volume. The proposed development will decrease the amount of impervious cover when compared to the existing conditions and will thus decrease the peak discharge generated by the site. The site will continue to drain southwest towards Wyoming Blvd NE. Any offsite flows entering the eastern parking lot via curb cuts will continue to do so. No adverse effects are anticipated downstream as a result of this development.

REFERENCES

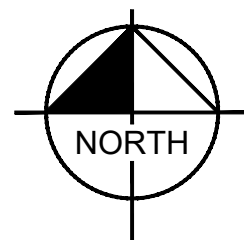
1. City of Albuquerque "Development Process Manual" (DPM) dated June 2020.

APPENDIX A: MAPS

VICINITY MAP



Vicinity Map
NTS



APPENDIX B: CALCULATIONS

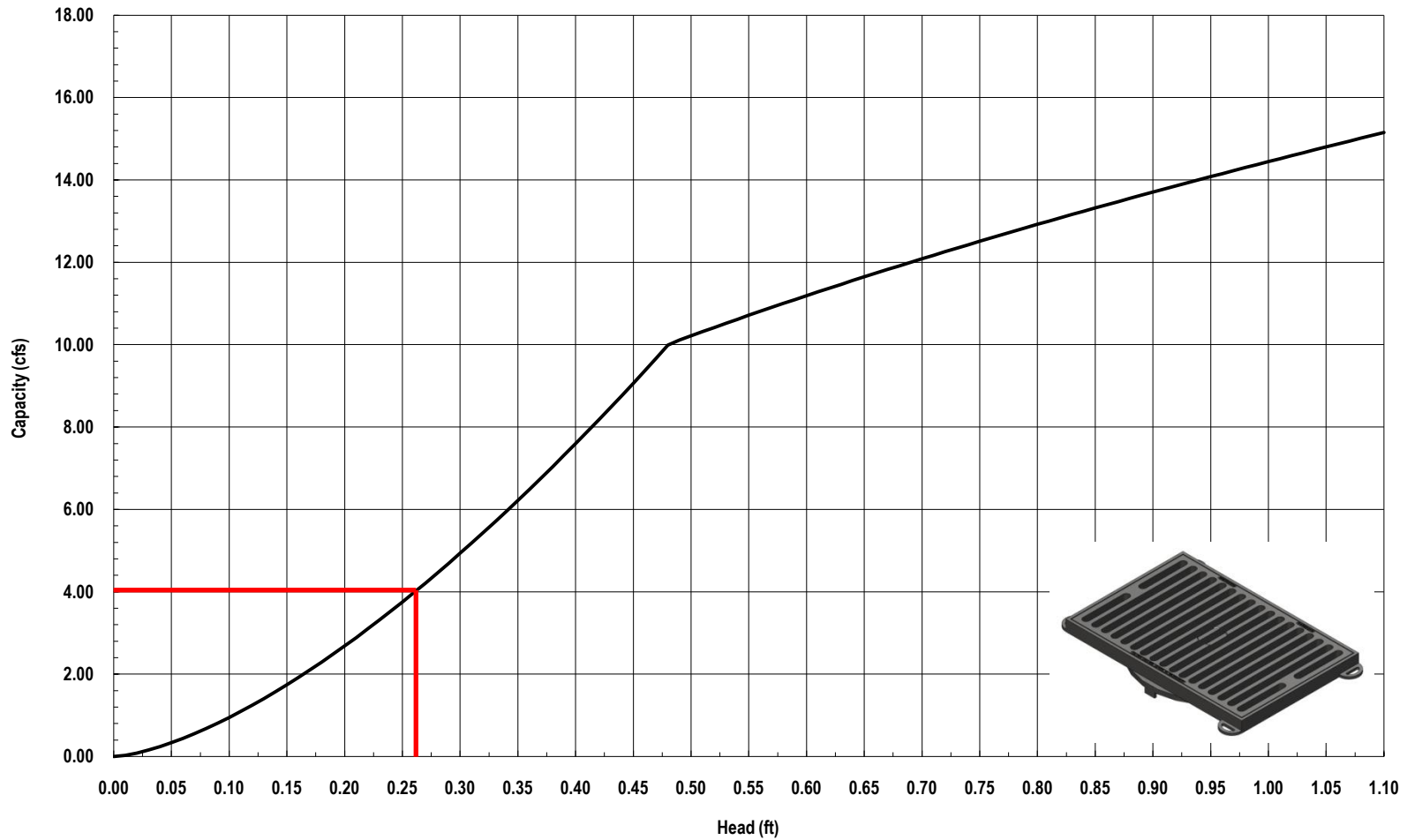
EXISTING PIPE CAPACITY

Ex. 36" Pipe Capacity

Friction Method	Roughness Coefficient	Channel Slope (ft/ft)	Normal Depth (in)	Diameter (in)	Discharge (cfs)	Hydraulic Radius (in)	Velocity (ft/s)	Velocity Head (ft)
Manning Formula	0.024	0.004	10.3	36.0	4.06	5.9	2.44	0.09
Maximum Discharge (cfs)	Discharge Full (cfs)							
24.58	22.85							

EXISTING INLET CAPACITY

Nyloplast 2' x 3' Road & Highway Grate Inlet Capacity Chart



Nyloplast[®]

3130 Verona Avenue • Buford, GA 30518
(866) 888-8479 / (770) 932-2443 • Fax: (770) 932-2490
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APPENDIX C: RELEVANT DOCUMENTS

GRADING PLAN