

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

June 1, 2021

Jeffrey T. Wooten, P.E.
Wooten Engineering
PO Box 15814
Rio Rancho, NM 87174

**RE: Lowes Market #99 Dock Addition
4701 4th St NW
Grading and Drainage Plan
Engineer's Stamp Date: 06/01/21
Hydrology File: F14D052**

Dear Mr. Wooten:

PO Box 1293

Based upon the information provided in your submittal received 04/20/2021 and 06/01/2021, the Grading and Drainage Plan is approved for Building Permit and SO-19 Permit.

Albuquerque

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.

NM 87103

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.

www.cabq.gov

Please provide Drainage Covenant for the detention pond per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. There is a recording fee (\$25, payable to Bernalillo County). Please contact me if you have any question pertaining to the Drainage Covenant and email me the Covenant and Exhibit prior to executing it for completeness.

Please do one of the following:

- Drop off the original executed drainage covenant, the exhibit, and the \$ 25.00 recording fee check made payable to Bernalillo County at the drop box outside the building and labeled the package using the address below.
- Mail the original executed drainage covenant, the exhibit, and the \$ 25.00 recording fee check made payable to Bernalillo County to:

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

Planning Dept./DRC
Attn: Curtis Cherne
600 2nd St. NW, Ste. 400
Albuquerque, NM, 87102

Once approved and recorded, you will get a pdf copy of the recorded Drainage Covenant via email.

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: Lowes Market #99 Dock Add'n **Building Permit #:** BP-2021-13396 **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Tract A-2, Mountain States Telephone & Telegraph Co and Tract A, Furr's Properties
City Address: 4701 4th St NW

Applicant: Wooten Engineering **Contact:** Jeffrey T. Wooten, P.E.
Address: PO Box 15814, Rio Rancho, NM 87174
Phone#: 505-980-3560 **Fax#:** N/A **E-mail:** jeffwooten.pe@gmail.com

Owner: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF SUBMITTAL: _____ 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:

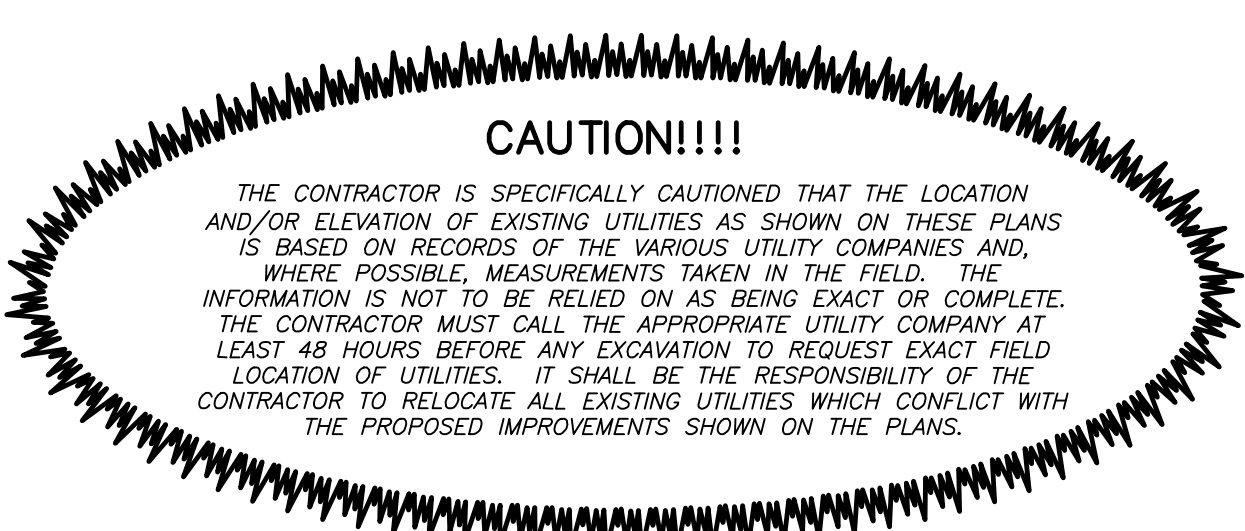
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ SITE PLAN FOR SUB'D APPROVAL
- ☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ GRADING PERMIT APPROVAL
- ☐ SO-19 APPROVAL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

DATE SUBMITTED: April 19, 2021 **By:** Jeffrey T. Wooten, P.E.

COA STAFF:

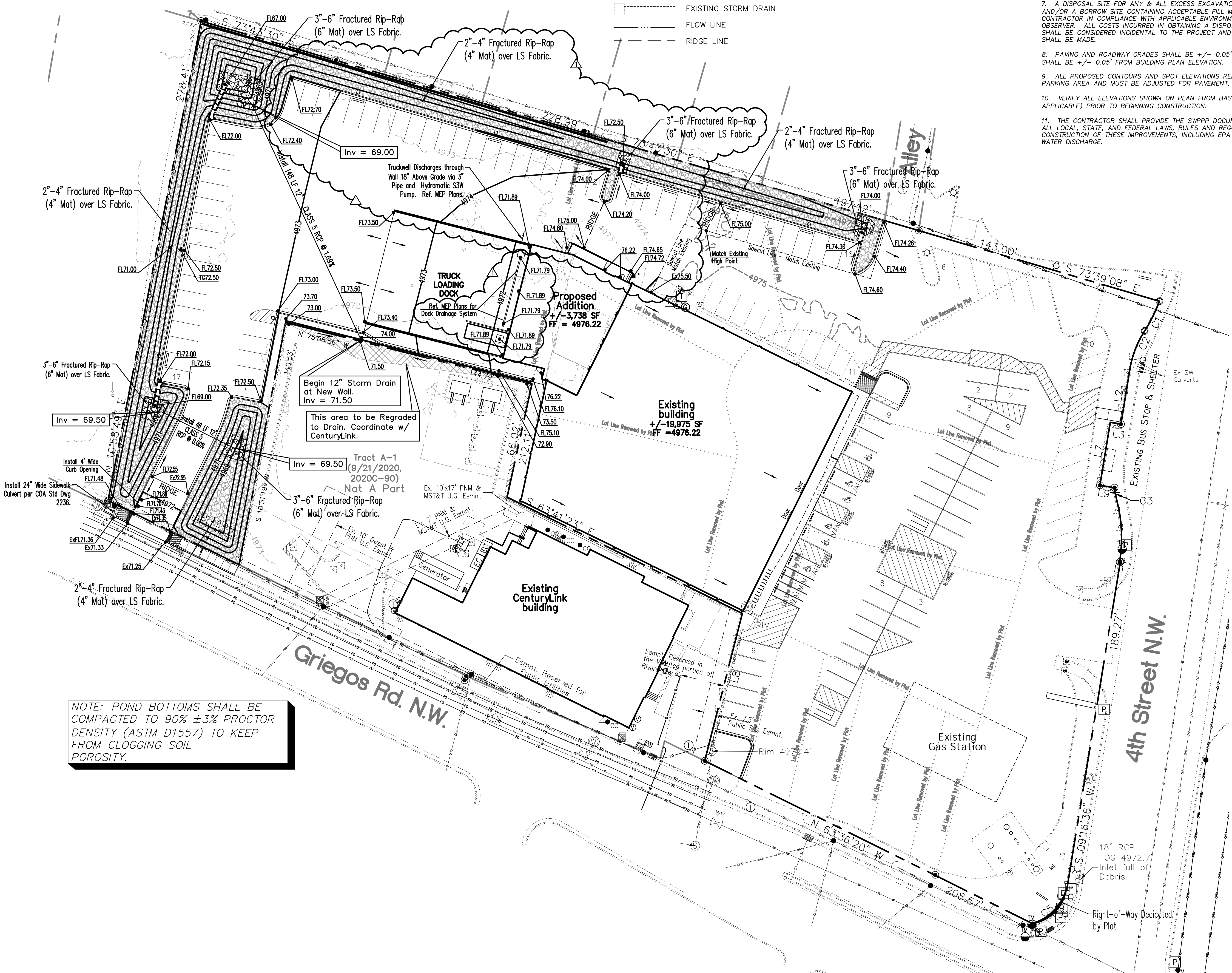
ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



	FLOW ARROW
	PROPOSED TOP OF GRADE/PVMT ELEVATIONS
	PROPOSED FLOW LINE/GUTTER ELEVATIONS
	PROPOSED TOP OF CURB ELEVATIONS
	PROPOSED TOP OF GROUND ELEVATIONS
	PROPOSED 24" CURB OPENING
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING STORM DRAIN
	FLOW LINE
	RIDGE LINE

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.



NOTE: POND BOTTOMS SHALL BE
COMPACTED TO 90% \pm 3% PROCTOR
DENSITY (ASTM D1557) TO KEEP
FROM CLOGGING SOIL
POROSITY.

1. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
2. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEO TECHNICAL INVESTIGATION," AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREOF, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).
4. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
5. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
6. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS OR SILT FENCE AT THE PROPERTY LINES AND WETTING THE SOIL TO PROTECT IT FROM WIND EROSION.
7. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
8. PAVING AND ROADWAY GRADINGS SHALL BE $\pm 0.05'$ FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE $\pm 0.05'$ FROM BUILDING PLAN ELEVATION.
9. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR PAVEMENT, MEDIANS, AND ISLANDS.
10. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION (IF APPLICABLE) PRIOR TO BEGINNING CONSTRUCTION.
11. THE CONTRACTOR SHALL PROVIDE THE SWPPP DOCUMENT (IF NECESSARY) AND SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.



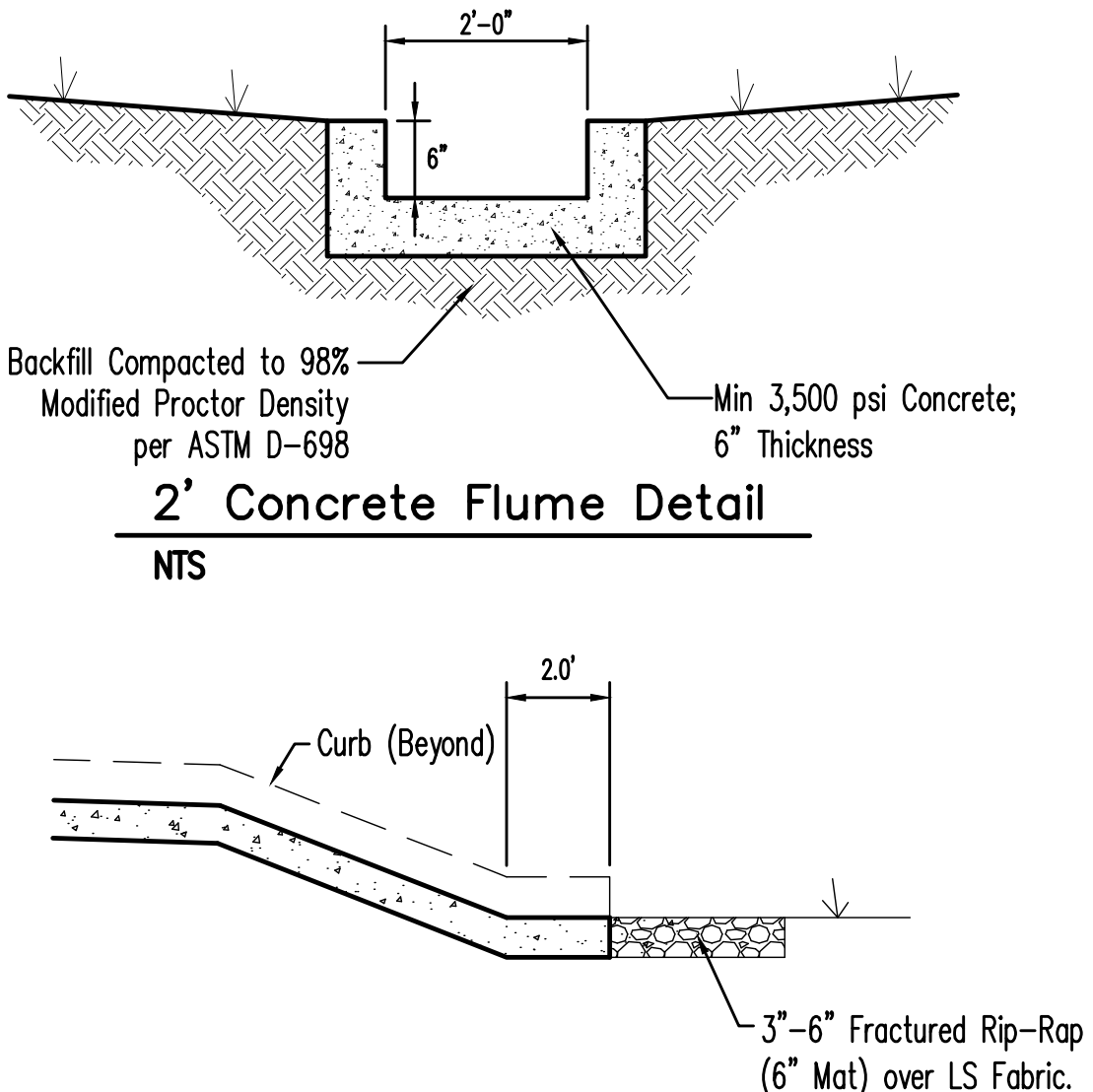
VICINITY MAP - Zone Atlas Page F-14-Z

Legal Description: Tract A-2, Plat of the Lands of Mountain States Telephone & Telegraph Company, and Tract "A" Furr's Properties, and Lots 1-5 & 11-17 Rivera Place, and a portion of Vacated Rivera Place Rd NW, Vacated per V-489.



FIRM MAP 35001C0119G

Per FIRM Map 35001C0119G, dated September 26, 2008, the site is located in Zone X, 0.2% Annual Chance Flood Area.



Typical Flume Cross Section

NTS

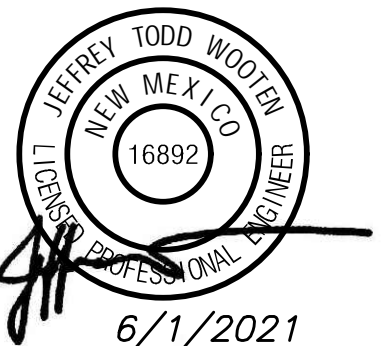
Private Drainage Facilities within City Right-of-Way
Notice to Contractor
 (Special Order 19 ~ "SO-19")

1. An excavation permit will be required before beginning any work within City Right-Of-Way.
2. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
3. Two working days prior to any excavation, the contractor must contact **New Mexico One Call, dial "811"** (or (505) 260-1990) for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on aerial streets may be required on a 24-hour basis.
8. Contractor must contact Augie Armijo at (505) 857-8607 and Construction Coordination at 924-3144 to schedule an inspection.

CITY INSPECTOR APPROVAL

Signature _____

Date _____



A member of
The American Institute of Architects

P.O. BOX 53910
Lubbock, Texas 79453

Phone: 806.744.4490
Fax: 806.744.4494



www.jdmaarchitects.com

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CIVIL CONSULTANTS:

WOOTEN ENGINEERING
1005 21st St SE #13
Rio Rancho, New Mexico 87124
505 980 3560 PHONE

M.P.E. CONSULTANTS:

**BSA CONSULTING
ENGINEERS, PLLC**
14302 Slide Road
Lubbock, Texas 79424
806 780 7475 PHONE
806 780 0129 FAX

STRUCTURAL:

NIEMAN
ENGINEERING, LLC
1500 Broadway
Suite 1210
Lubbock, TX 79401
806 589 3340 PHONE

LOWE'S MARKET #99
DOCK AND STORAGE ADDITION
4701 4TH STREET NORTHWEST
ALBUQUERQUE, NM 87107

RAWN BY: RG	CHECKED BY: JW
HEET TITLE:	

DATE: JANUARY 2021

	REVISIONS
1 06/01/21 City	Comments

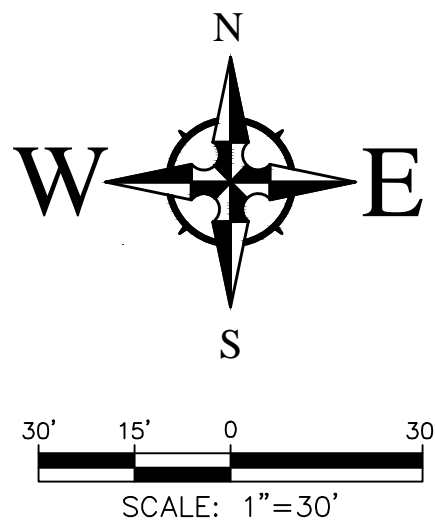
PROJECT #: 2020052

HEET:

Grading Plan

C200

OF



Existing Drainage Calculations										
This table is based on the COA DPM Chapter 6.2, Zone: 2										
BASIN	Area (SQ. FT.)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WTE (inches)	V(100) ₂₆₀ (CF)
A	60160	1.38	0.0%	0.0%	78.0%	22.0%	3.48	4.81	1.35	6757
OS-1	10803	0.25	0.0%	0.0%	80.0%	10.0%	2.98	0.74	1.12	1005
TOTAL	70963	1.63						5.55		7762

Proposed Drainage Calculations										
Ultimate Development Conditions Basin Data Table										
This table is based on the COA DPM Chapter 6.2, Zone: 2										
BASIN	Area (SQ. FT.)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WTE (inches)	V(100) ₂₆₀ (CF)
A	60160	1.38	0.0%	0.0%	26.0%	74.0%	4.29	5.93	1.86	9338
OS-1	10803	0.25	0.0%	0.0%	80.0%	10.0%	2.98	0.74	1.12	1005
TOTAL	70963	1.63						6.67		10343

IMPERVIOUS AREA CALCULATIONS

BASIN 'A' (EXISTING)

TOTAL BASIN AREA: 60,160 SF
PERVIOUS AREA: 46,692 SF (77.6%)
IMPERVIOUS AREA: 13,468 SF (22.4%)

BASIN 'A' (PROPOSED)

TOTAL BASIN AREA: 60,160 SF
PERVIOUS AREA: 15,849 SF (26.3%)
IMPERVIOUS AREA: 44,311 SF (73.7%)

WATER QUALITY POND CALCULATION

TOTAL NEW IMPERVIOUS AREA = 39,439 SF
FIRST FLUSH = $39,439 \times 0.42 / 12 = 1,380 \text{ CF}$
TOTAL VOLUME PROVIDED = **7,961 CF**

Water Quality Pond Volume Calculations

POND 'A'	Elevation (ft)	Area (sq.ft)	Volume (cu-ft)	Volume Sum (cu-ft)
	4967.0	180	0.0	0.0
	4968.0	384	282.0	282.0
	4969.0	1186	785.0	1067.0
	4970.0	2274	1730.0	2797.0
	4971.0	3580	2927.0	5724.0
	4971.5	5370	2237.0	7961.0

POND OVERFLOW CALCULATIONS

SIDEWALK CULVERT

WEIR EQUATION

$$Q = C \cdot L \cdot (H^{1.5})$$

Given:

$$C = 2.87 \text{ (Weir Coefficient)}$$

$$L = 2 \text{ feet (Width of Flow)}$$

$$H = 0.67 \text{ feet (Depth of Flow)}$$

Therefore:

$$Q = 2.87 \cdot 2 \cdot (0.67^{1.5})$$

$$Q = 2.87 \cdot 2 \cdot 0.55$$

$$Q_{cap} = 3.15 \text{ cfs}$$

4' WIDE CURB OPENING

WEIR EQUATION

$$Q = C \cdot L \cdot (H^{1.5})$$

Given:

$$C = 2.87 \text{ (Weir Coefficient)}$$

$$L = 4 \text{ feet (Width of Flow)}$$

$$H = 0.50 \text{ feet (Depth of Flow)}$$

Therefore:

$$Q = 2.87 \cdot 4 \cdot (0.50^{1.5})$$

$$Q = 2.87 \cdot 4 \cdot 0.35$$

$$Q_{cap} = 4.02 \text{ cfs}$$

$$\text{Total Overflow Capacity} = 7.17 \text{ cfs}$$

$$Q_{reqd} = 6.67 \text{ cfs} \quad \text{CHECK}$$



VICINITY MAP - Zone Atlas Page F-14-Z

Legal Description: Tract A-2, Plat of the Lands of Mountain States Telephone & Telegraph Company, and Tract "A" Furr's Properties, and Lots 1-5 & 11-17 Rivera Place, and a portion of Vacated Rivera Place Rd NW, Vacated per V-489.



FIRM MAP 35001C0119G

Per FIRM Map 35001C0119G, dated September 26, 2008, the site is located in Zone X, 0.2% Annual Chance Flood Area.

DRAINAGE MANAGEMENT PLAN

INTRODUCTION

The purpose of this submittal is to provide a grading plan and drainage management plan for a new Truck Dock and Parking Expansion for the existing Lowes Grocery Store located at 4701 4th St NW in Albuquerque, NM. The property consists of approximately 3.37 acres. The City Drainage File Numbers are F14-D052 for the existing Lowes and F14/D021 for the CenturyLink (Qwest) property.

EXISTING HYDROLOGIC CONDITIONS

The site generally slopes to a couple of low points on site and ponds. Any overflow from the ponds would discharge onto Griegos Rd. There is an existing curb inlet located along Griegos directly adjacent to the site. The site area is mostly undeveloped except for some utility equipment located on the CenturyLink site. Per the Existing Drainage Calculations table this sheet, the site currently discharges 5.55 cfs onto Griegos during the 100-Yr, 6-Hr storm.

PROPOSED HYDROLOGIC CONDITIONS

The site will continue to pond and then overflow onto Griegos. Per the Proposed Drainage Calculations table this sheet, the runoff will increase by 1.12 cfs for a total of 6.67 cfs during the 100-Yr, 6-Hr storm. Ponding is being provided such that the difference between the 100-Yr, 10-Day storm (6,752 CF) is being captured. This ensures that the Pre-Developed runoff from the site will not be exceeded. The actual pond volume being provided is approximately 7,961 CF per calculations this sheet.

The pond will overflow and discharge through a 24" Sidewalk Culvert and a 4' wide curb opening in the driveway leading to Griegos Rd. Reference the weir calculations, this sheet.

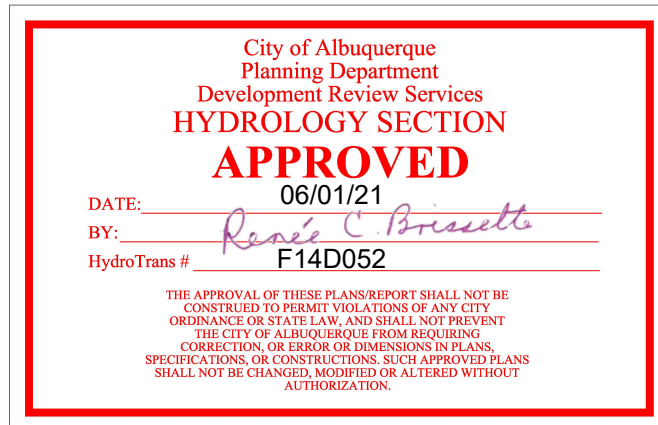
STORMWATER QUALITY PONDING

Per the Calculations this sheet, we are providing two separate ponds which are connected via a 12" pipe, which more than captures the required First Flush volume per the DPM.

Per the percolation test provided by Western Technologies in the Geotechnical Report, the site soils will drain at a rate of 10 minutes per inch which is equivalent to 6 inches per hour or 12 feet per day. At this rate, the ponds should completely discharge in less than 24 hours via infiltration.

CONCLUSION

This drainage management plan provides for grading and drainage elements which are capable of safely passing the 100 year storm and meets city requirements. The proposed improvements for the site should not have any negative impacts to facilities downstream. With this submittal, we are requesting approval of Building Permit.



JDMA
ARCHITECTS

A member of
The American Institute of Architects

P.O. BOX 53910
Lubbock, Texas 79453

Phone: 806.744.4490

Fax: 806.744.4494



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806 589 3340 PHONE

LOWE'S MARKET #99
DOCK AND STORAGE ADDITION
4701 4TH STREET NORTHWEST
ALBUQUERQUE, NM 87107

DRAWN BY: RG
CHECKED BY: JW
SHEET TITLE:

DATE: JANUARY 2021
REVISIONS
06/01/21 City Comments

PROJECT #: 2020052
SHEET:
Drainage
Management Plan
C201 OF

