

CITY OF ALBUQUERQUE



Timothy M. Keller, Mayor

March 30, 2018

Rachel Tranel, P.E.
Collins engineers, Inc.
2033 W. Howard Avenue
Milwaukee, WI 53221

**RE: Cottonweed Mall Exterior Renovation
Grading and Drainage Plan
Engineer's Stamp Date: 03/09/18
Hydrology File: B14D004F**

Dear Ms. Tranel:

Based upon the information provided in your resubmittal received 03/30/2018, the Grading and Drainage Plan is approved for Building Permit.

Please attach a copy of this approved plan in the construction sets for Building Permit processing. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

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



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 1/2016)

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:** _____

Check all that Apply:

DEPARTMENT:

- ☐ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

- ☐ AS-BUILT CERTIFICATION

☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR

☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ NEIGHBORHOOD IMPACT ASSESMENT (NIA)

☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ OTHER (SPECIFY) _____

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
☐ GRADING/ESC PERMIT APPROVAL

☐ 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
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR

PRE-DESIGN MEETING?

☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ **ELECTRONIC SUBMITTAL RECEIVED:** _____

FEE RECEIVED: _____

Storm Water Management Report

for

Cottonwood Mall Parking Lot Modifications

10000 Coors Bypass NW

Albuquerque, NM 87114

Prepared by:

COLLINS
ENGINEERS INC.

2033 W. Howard Avenue

Milwaukee, WI 53221

Prepared for:

Washington Prime Group

180 East Broad Street

Columbus, OH 43215

614-621-9321

February 26, 2018
Revised March 9, 2018



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STORMWATER REPORT

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1.0 INTRODUCTION

The following Storm Water Management Plan (SWMP) is prepared for parking lot modifications at Cottonwood Mall, located in the City of Albuquerque, Bernalillo County, New Mexico. The site is located at 10000 Coors Bypass NW, on the northwest side of the City. This site is currently developed as a commercial shopping center. The Drainage Report for Cottonwood Mall and SAD-223 Part 2 was prepared in April 1992 by Bohannon-Huston, Inc. from Albuquerque. Due to tenant requirements, existing pavement at the northwest side of the mall will be converted into a recessed truck dock. This report is prepared to identify the runoff generated from this reconstructed area in compliance with the City of Albuquerque Development Process Manual for Drainage, Flood Control and Erosion Control.

2.0 EXISTING CONDITIONS & DRAINAGE MANAGEMENT

The Cottonwood Mall site is currently developed as a commercial shopping center on approximately 90 acres and opened in 1996. The site is located west of the Rio Grande and immediately north of the Calabacillas Arroyo.

According to the Drainage Report for Cottonwood Mall dated April 1992, the majority of the site (Basins A, B and C) is collected in an underground storm sewer system that discharges to a series of on-site ponds. These ponds ultimately discharge to the Calabacillas Arroyo. Stormwater management from the Cottonwood Mall site is considered free discharge as the on-site ponds directly discharge into the Calabacillas Arroyo.

3.0 PROPOSED CONDITIONS

Improvements proposed for Cottonwood Mall consist of parking lot modifications for the northwestern anchor tenant. A recessed truck dock will be constructed adjacent to the tenant at the northwest end of the site. The construction of the truck dock requires modification to adjacent existing curbed islands to maintain access around the mall building. The Existing Conditions Plan, the Site, Paving & Pavement Marking Plan and the Grading and Drainage Plan are provided in the Appendix to show the limits of disturbance and modification.

4.0 REGULATORY REQUIREMENTS

New impervious surface is not being added as part of these improvements. According to Albuquerque Code of Ordinances, Chapter 14, Article 5, Part 2, Subpart 12 General Administration, a permit is needed for the redevelopment of pavement in excess of 2,000 SF. Due to the modifications required to add the truck dock for the anchor tenant, 38,224 square feet (0.88 acres) will be regraded and repaved, therefore, requiring permit approval.

Chapter 22 of the City of Albuquerque Development Process Manual (DPM) for Drainage, Flood Control and Erosion Control will govern the modifications proposed at the Cottonwood Mall site.

5.0 HYDROLOGIC ANALYSIS

As a requirement in the City of Albuquerque Municipal Storm Water Discharge Permit granted from the Environmental Protection Agency (EPA), the City must include post construction controls to minimize the discharge of stormwater pollutants from areas of new development or significant redevelopment. As the parking area is being regraded it is considered significant redevelopment.

From Chapter 22, Section 9 of the DPM the water quality storm event is 0.6 inches for all zones. This site falls in Precipitation Zone 1 based on Table A-1 and Land Treatment D based on Table A-4 of the DPM.

Using 90% impervious for the area to be regraded and repaved, Table 2 in Section 9 indicates by interpolation a runoff volume of 1,354 cubic feet/acre. For the redevelopment area of 0.88 acres, this results in a runoff volume of 1,192 cubic feet which requires storage/treatment.

6.0 SUMMARY

Due to the location and nature of the redevelopment, providing storage/treatment near the site modifications will significantly impact site parking and circulation in this area. In addition, this area of the site was not initially planned for stormwater management practices as referenced in the Drainage Report for Cottonwood Mall and SAD-223 Part 2, prepared in April 1992.

Based on a discussion with City staff, there is an option for payment in lieu of providing on-site stormwater treatment. The mall owner prefers this one-time payment in lieu of construction of additional stormwater management controls on-site. We understand through phone conversations this payment is \$8/cubic foot of storage required. For a volume of 1,192 cubic feet, this payment is estimated at \$9,536.

APPENDIX 1 – HYDROLOGIC CALCULATIONS

HYDROLOGIC CALCULATIONS

TABLE A-1. PRECIPITATION ZONES	
Zone	Location
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank, North of Interstate 40; and between San Mateo and the East boundary of Range 4 East, South of Interstate 40
4	East of Eubank, North of Interstate 40; and East of the East boundary of Range 4 East, South of Interstate 40

TABLE A-4. LAND TREATMENTS	
Treatment	Land Condition
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, ground cover and infiltration capacity.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.
Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lieu of specific measurement for treatment D, the areal percentages in TABLE A-5 may be employed.	

*Tables from Albuquerque Development Process Manual, Chapter 22, Section 2, Part A

TABLE 2. WATER QUALITY STORM EVENT RUNOFF RATE AND VOLUME AS A PERCENT OF IMPERVIOUS AREA FOR 40-ACRE AND SMALLER SITES			
<i>Percent Impervious (%D)</i>	<i>Runoff Depth (inches)</i>	<i>Runoff Rate (cfs/ac)</i>	<i>Runoff Volume (cubic feet/ac)</i>
0	0	0	0
20	0.09	0.5	327
40	0.18	0.8	653
60	0.27	1.2	980
80	0.36	1.35	1037
100	0.46	1.5	1670

90 % Impervious →

By interpolation,
1,354 cubic
feet/acre ←

NOTES:

- (1) Water Quality Storm Event – 0.6 inches precipitation, all zones.
- (2) Assumes pervious area evenly divided between Land Uses B and C.
- (3) Interpolate for site-specific impervious area.
- (4) Calculated from DPM Chapter 22, Section 2, Part A.

*Table from Albuquerque Development Process Manual, Chapter 22, Section 9

Storage/Treatment Calculation

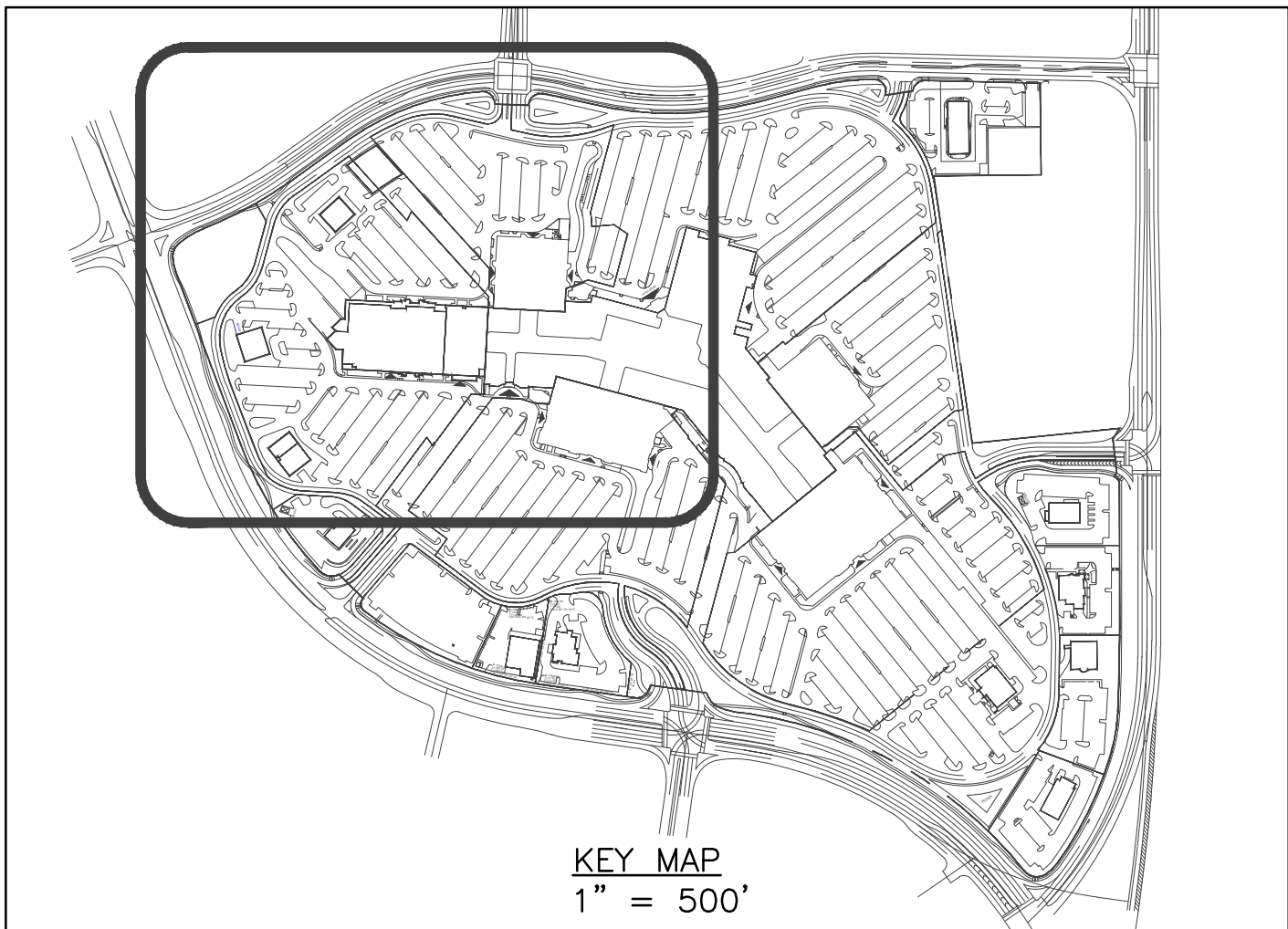
Redevelopment Area = 38,224 square feet (0.88 acres)

0.88 acres * 1,354 cubic feet/acre = 1,192 cubic feet of storage/treatment

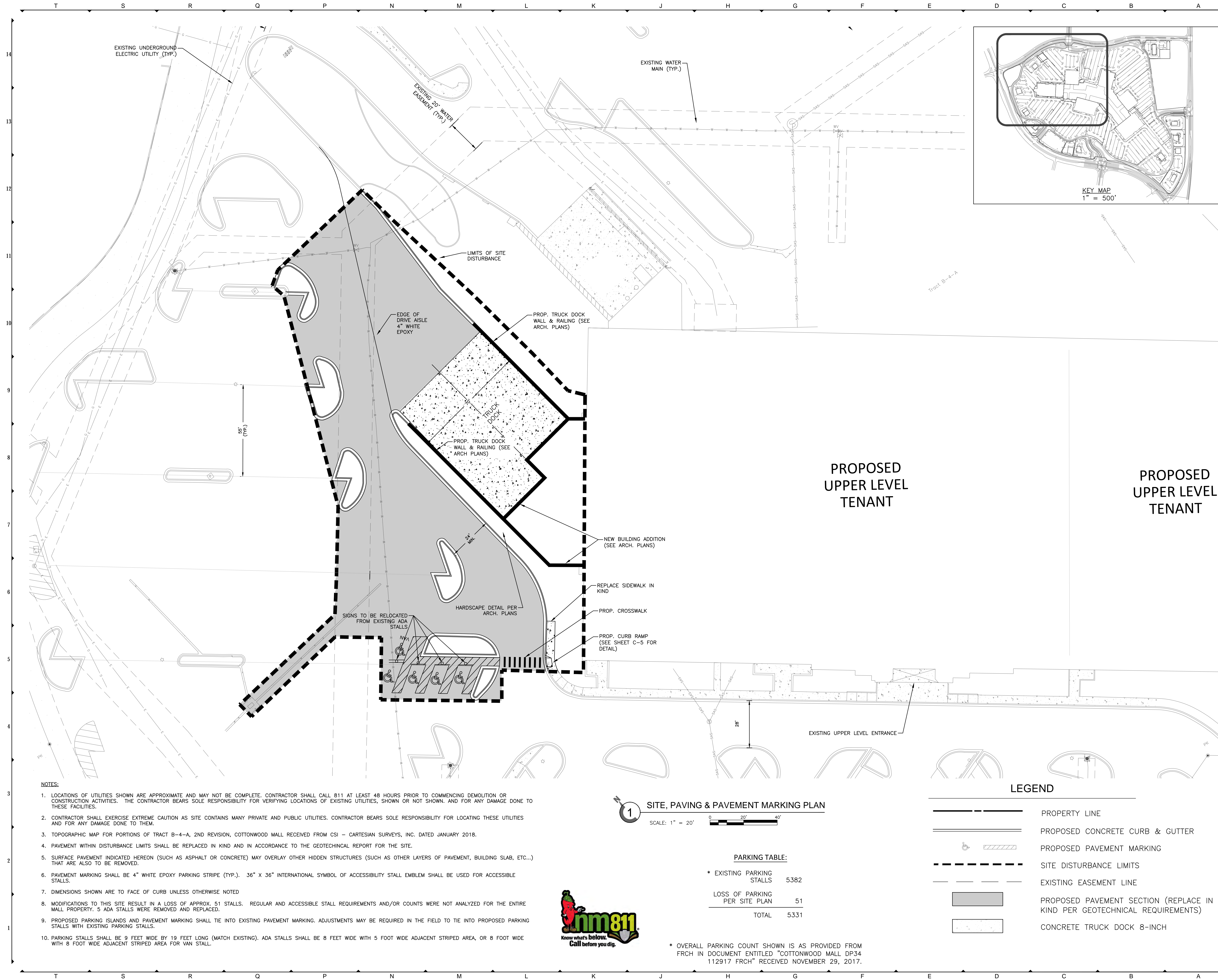
Fee in Lieu

Payment amount = 1,192 cubic feet * \$8/cubic feet = \$9,356

APPENDIX 2 – EXHIBITS



USER: M005201 PLOTTED: 1/25/2018 3:45 PM C:\0084 - FRCH Cottonwood Mall\USheet Drawings\C-2 Site Plan.dwg LAYOUT: C-2



NOTES:

1. LOCATIONS OF UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL 811 AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.
2. CONTRACTOR SHALL EXERCISE EXTREME CAUTION AS SITE CONTAINS MANY PRIVATE AND PUBLIC UTILITIES. CONTRACTOR BEARS SOLE RESPONSIBILITY FOR LOCATING THESE UTILITIES AND FOR ANY DAMAGE DONE TO THEM.
3. TOPOGRAPHIC MAP FOR PORTIONS OF TRACT B-4-A, 2ND REVISION, COTTONWOOD MALL RECEIVED FROM CSI - CARTESIAN SURVEYS, INC. DATED JANUARY 2018.
4. PAVEMENT WITHIN DISTURBANCE LIMITS SHALL BE REPLACED IN KIND AND IN ACCORDANCE TO THE GEOTECHNICAL REPORT FOR THE SITE.
5. SURFACE PAVEMENT INDICATED HEREON (SUCH AS ASPHALT OR CONCRETE) MAY OVERLAY OTHER HIDDEN STRUCTURES (SUCH AS OTHER LAYERS OF PAVEMENT, BUILDING SLAB, ETC...) THAT ARE ALSO TO BE REMOVED.
6. PAVEMENT MARKING SHALL BE 4" WHITE EPOXY PARKING STRIPE (TYP.). 36" X 36" INTERNATIONAL SYMBOL OF ACCESSIBILITY STALL EMBLEM SHALL BE USED FOR ACCESSIBLE STALLS.
7. DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED
8. MODIFICATIONS TO THIS SITE RESULT IN A LOSS OF APPROX. 51 STALLS. REGULAR AND ACCESSIBLE STALL REQUIREMENTS AND/OR COUNTS WERE NOT ANALYZED FOR THE ENTIRE MALL PROPERTY. 5 ADA STALLS WERE REMOVED AND REPLACED.
9. PROPOSED PARKING ISLANDS AND PAVEMENT MARKING SHALL TIE INTO EXISTING PAVEMENT MARKING. ADJUSTMENTS MAY BE REQUIRED IN THE FIELD TO TIE INTO PROPOSED PARKING STALLS WITH EXISTING PARKING STALLS.
10. PARKING STALLS SHALL BE 9 FEET WIDE BY 19 FEET LONG (MATCH EXISTING). ADA STALLS SHALL BE 8 FEET WIDE WITH 5 FOOT WIDE ADJACENT STRIPED AREA, OR 8 FOOT WIDE WITH 8 FOOT WIDE ADJACENT STRIPED AREA FOR VAN STALL.

1

SITE, PAVING & PAVEMENT MARKING PLAN

SCALE: 1" = 20'



PARKING TABLE:

* EXISTING PARKING STALLS	5382
LOSS OF PARKING PER SITE PLAN	51
TOTAL	5331



* OVERALL PARKING COUNT SHOWN IS AS PROVIDED FROM FRCH IN DOCUMENT ENTITLED "COTTONWOOD MALL DP34 112917 FRCH" RECEIVED NOVEMBER 29, 2017.

LEGEND

	PROPERTY LINE
	PROPOSED CONCRETE CURB & GUTTER
	PROPOSED PAVEMENT MARKING
	SITE DISTURBANCE LIMITS
	EXISTING EASEMENT LINE
	PROPOSED PAVEMENT SECTION (REPLACE IN KIND PER GEOTECHNICAL REQUIREMENTS)
	CONCRETE TRUCK DOCK 8-INCH

FRCH
DESIGN WORLDWIDE

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Cincinnati, OH 45202
www.FRCH.com 513.241.3000

**WASHINGTON
PRIME GROUP™**

Contact Information

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Architect p: (513) 241-3000
FRCH Design Worldwide
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Cincinnati, Ohio 45202
f: (513) 241-5015

MEP p: (330) 659-6688
Thorson Baker & Associates, Inc.
3030 W. Seward Road (Rt. 303)
Richfield, Ohio 44286

Civil p: (414) 282-6905
Colles Engineers, Inc.
2033 W. Howard Ave.
Milwaukee, WI 53212

Sheet Issue Information

Issued PERMIT 01-26-18

Revised Description Date

C-2

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WASHINGTON
PRIME GROUP™

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5033 W. Howard Ave.
Milwaukee, WI 53212

Sheet Issue Information

Issued PERMIT 01-26-18

Revised  Description Date

Professional Stamp



Project Information

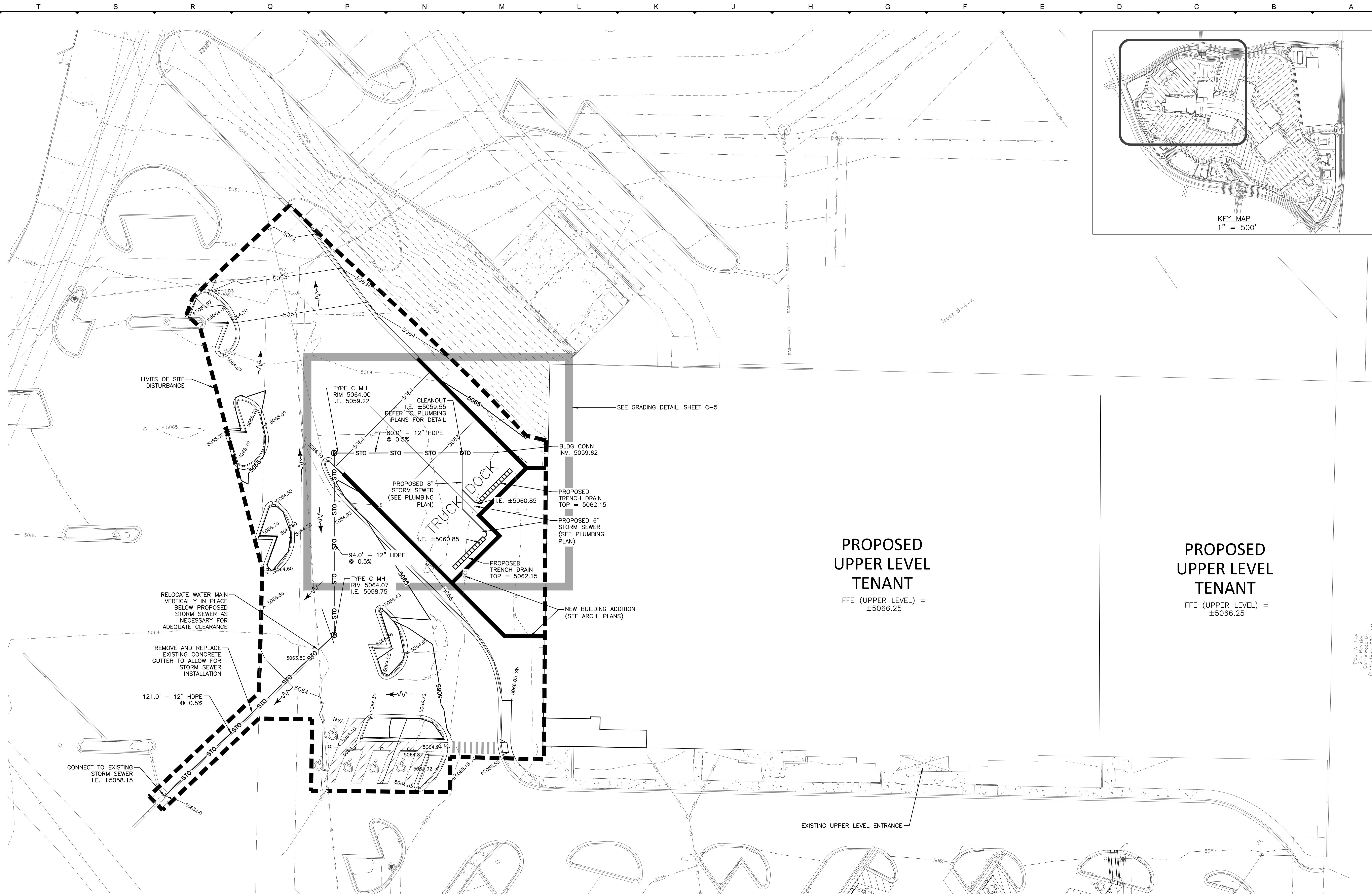
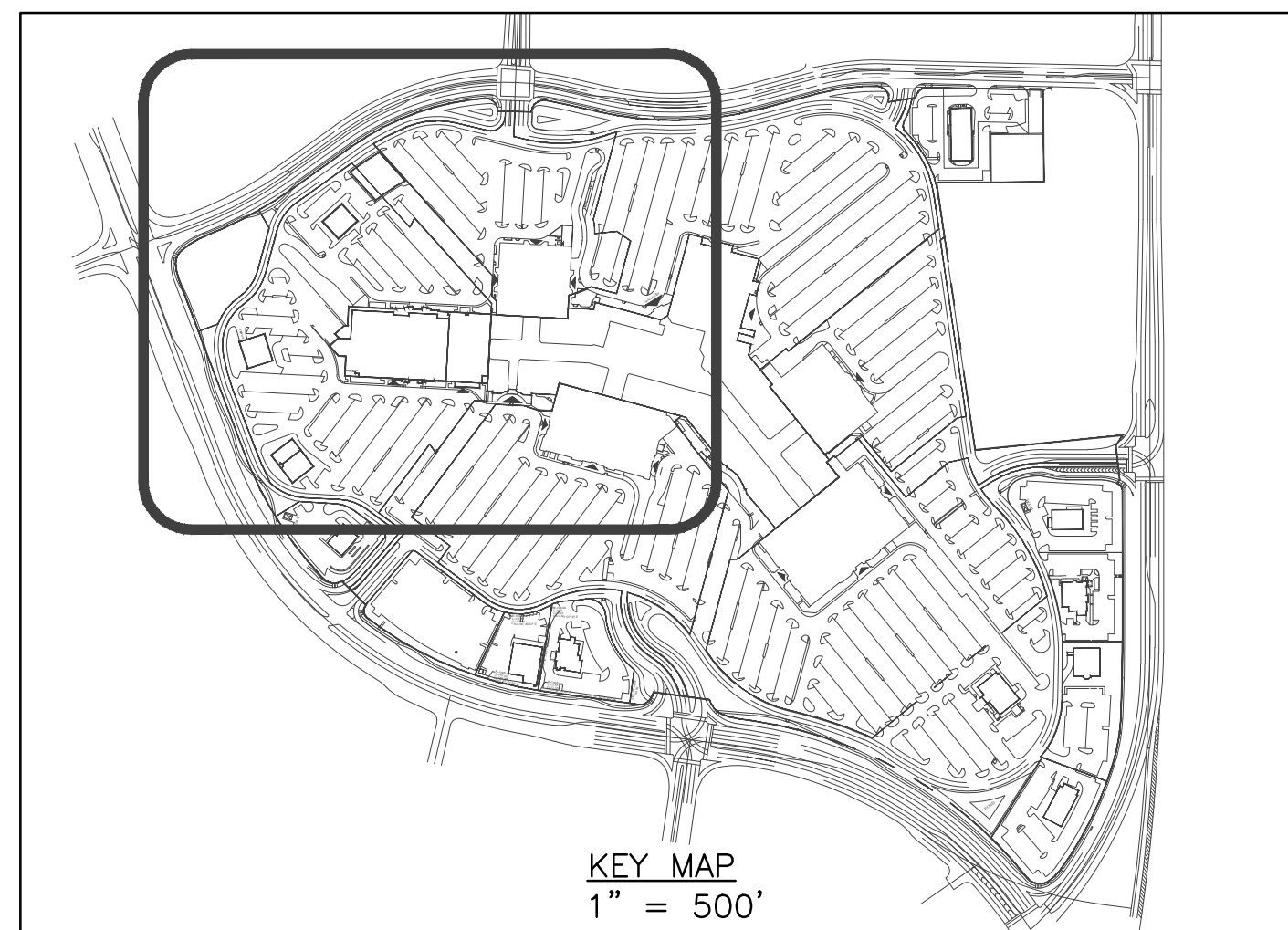
Title Cottonwood Mall
Exterior Shell
Address 10000 Coors Bypass NW
Albuquerque, NM 87114

Project Number 034870.000

Sheet Information

Title GRADING AND
DRAINAGE PLAN
Drawn KPW
Reviewed RAT
Scale As Noted
Authorized For REVIEW

C-3



NOTES:

- LOCATIONS OF UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL 811 AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION AS SITE CONTAINS MANY PRIVATE AND PUBLIC UTILITIES. CONTRACTOR BEARS SOLE RESPONSIBILITY FOR LOCATING THESE UTILITIES AND FOR ANY DAMAGE DONE TO THEM.
- SURFACE PAVEMENT INDICATED HEREON (SUCH AS ASPHALT OR CONCRETE) MAY OVERLAY OTHER HIDDEN STRUCTURES (SUCH AS OTHER LAYERS OF PAVEMENT, BUILDING SLAB, ETC...) THAT ARE ALSO TO BE REMOVED.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AROUND PROPOSED PARKING ISLANDS.
- TOPOGRAPHIC MAP FOR PORTIONS OF TRACT B-4-A, 2ND REVISION, COTTONWOOD MALL RECEIVED FROM CSI - CARTESIAN SURVEYS, INC. DATED JANUARY 2018.
- ACS MONUMENT "10-B13", NAD 1983 CENTRAL ZONE, X=1517724.365, Y=1528304.616, Z=5074.478 (NAVD 1988). LOCATION SHOWN ON SHEET C-1.
- MAINTAIN 18" CLEARANCE AT WATERMAIN CROSSING WITH STORM SEWER PER CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
- THE COORDINATES SHOWN HEREON REFERENCES THE MODIFIED NEW MEXICO STATE PLANE COORDINATES (NAD 83-GROUND-CENTRAL), USING A GROUND TO GRID FACTOR OF 0.999678454.
- PROPOSED SPOT GRADES ARE AT THE PAVEMENT ELEVATION AT THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ACCORDING TO FIRM MAP 35001C0108G, THIS AREA IS DESIGNATED AS AN AREA OF MINIMAL FLOOD HAZARD. THE EFFECTIVE DATE OF THE FIRM MAP IS 9/26/2008.
- PAYMENT FOR THE FEE IN LIEU OF THE REQUIRED FIRST FLUSH VOLUME WILL BE MADE INSTEAD OF BUILDING THE FIRST FLUSH PONDS.

1 GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'



LEGEND

	SITE DISTURBANCE LIMITS
	EXISTING CONTOUR (5' MAJOR)
	EXISTING CONTOUR (1' MINOR)
	PROPOSED SPOT GRADE
	PROPOSED CONTOUR (5' MAJOR)
	PROPOSED CONTOUR (1' MINOR)
	DIRECTION OF SURFACE RUNOFF
	EXISTING EASEMENT LINE