

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

May 6, 2022

Hugh W. Floyd, P.E.
Respec
5971 Jefferson St. NE
Albuquerque, NM 8710

**RE: Cottonwood Crossing Car Wash
10084 Coors Blvd NW
Grading & Drainage Plans
Engineer's Stamp Date: 04/27/22
Hydrology File: B14D010C**

Dear Mr. Floyd:

PO Box 1293

Based upon the information provided in your submittal received 04/28/2022, the Grading & Drainage Plans are approved for Building Permit 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.

Albuquerque

PRIOR TO CERTIFICATE OF OCCUPANCY:

NM 87103

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please pay the Payment-in-Lieu of \$ **8,784.00** using the attached City of Albuquerque Treasury Deposit form. Please email this form to PLNDRS@cabq.gov. Once this is received, a receipt will then produce and email back with instructions on how to pay online. Once paid, please email me proof of payment.

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.

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

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

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

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

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

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: _____ **By:** _____

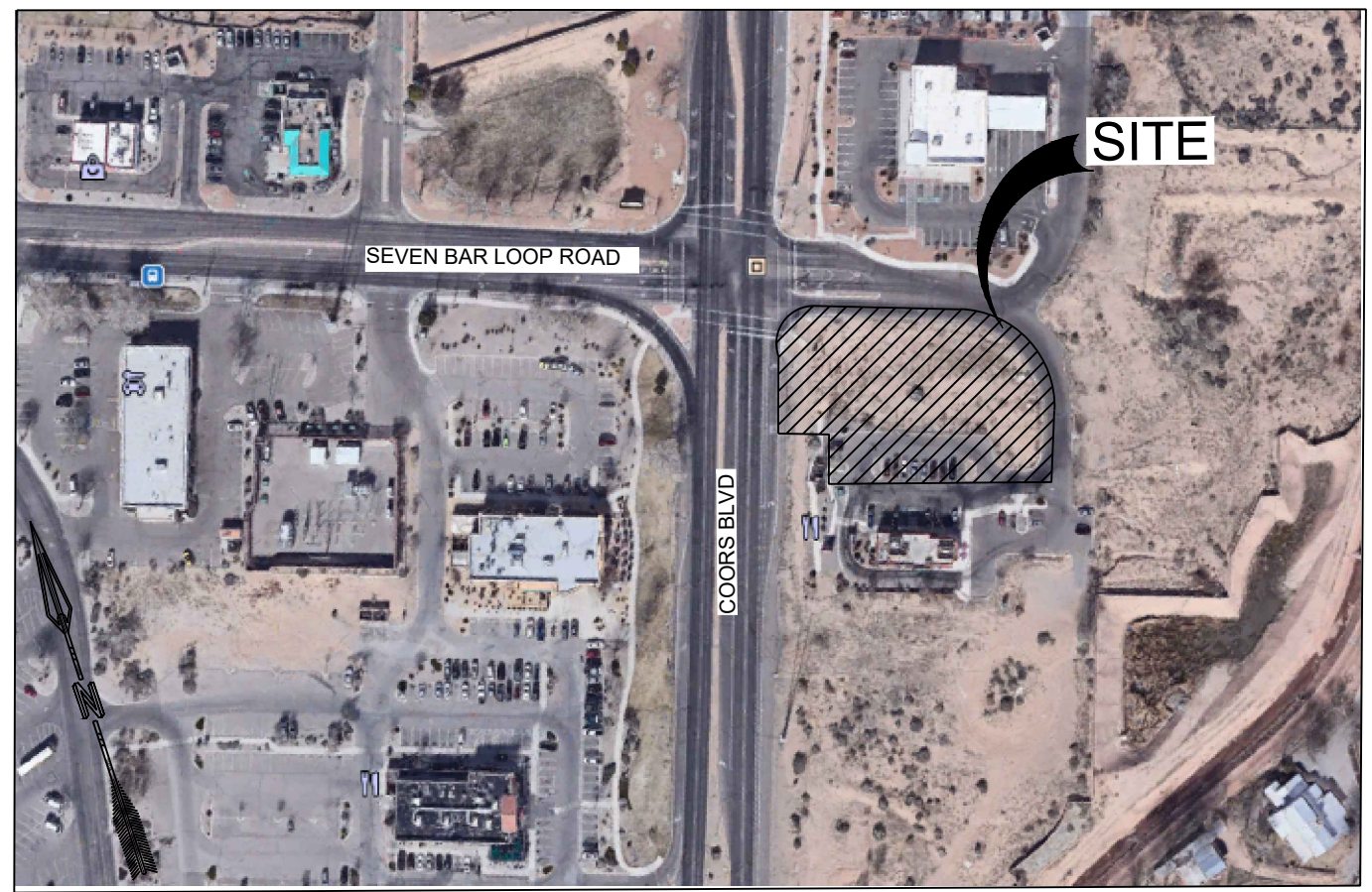
COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

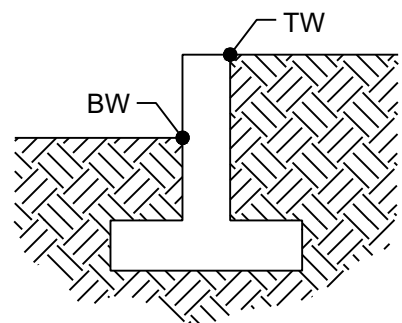
A	Existing Water Line Easement granted to New Mexico Utilities, Inc. by plat filed February 19, 2004 in Plat Book 2004C, page 56. Easement to be 10' wide unless otherwise indicated.
B	New 10' Underground Public Utility Easement July 1, 2004 in Plat Book 2004C, Page 201
C	10' City of Albuquerque Sidewalk Easement filed July 1, 2004, in Book 2004C, Page 201.
D	20' Sanitary Sewer Easement to New Mexico Utilities, Inc. filed September 21, 1981, Book Misc. 880, page 1, to remain.
E	10' Easement to New Mexico Utilities, filed April 24, 1998, in Book BCR 9808, page 8481.
F	Easement to PNM & US West, filed June 20, 1995, in Book BCR 95-14, page 6608.
G	10' Public Overhead Utility Easement filed July 1, 2004, in Book 2004C, Page 201.

- 1 SEE BUILDING PLANS (BY OTHERS) FOR FINISHED FLOOR ELEVATIONS INTERNAL TO THE BUILDING.
- 2 EXTEND CONCRETE RETAINING WALL 6" ABOVE TOP OF ASPHALT (SEE TOP OF WALL DETAIL ON DETAIL SHEET) AND OMIT CONCRETE CURB AND GUTTER ALONG LENGTH OF RETAINING WALL.
- 3 WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNER REQUIRED TO GRADE ON THE ADJACENT PROPERTY. THIS PERMISSION IS NEITHER STATED NOR IMPLIED BY THESE PLANS.
- 4 SIDEWALK AND ROADWAY STRIPING IS SHOWN FOR INFORMATION ONLY. DESIGN AND CONSTRUCTION OF THESE ELEMENTS SHALL BE A PUBLIC WORK ORDER.
- 5 ZERO HEIGHT CURB IN FRONT OF THE BUILDING
- 6 INSTALL FALL PROTECTION, TYPE AND STYLE PER ARCHITECTS DIRECTIONS.


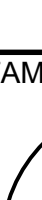



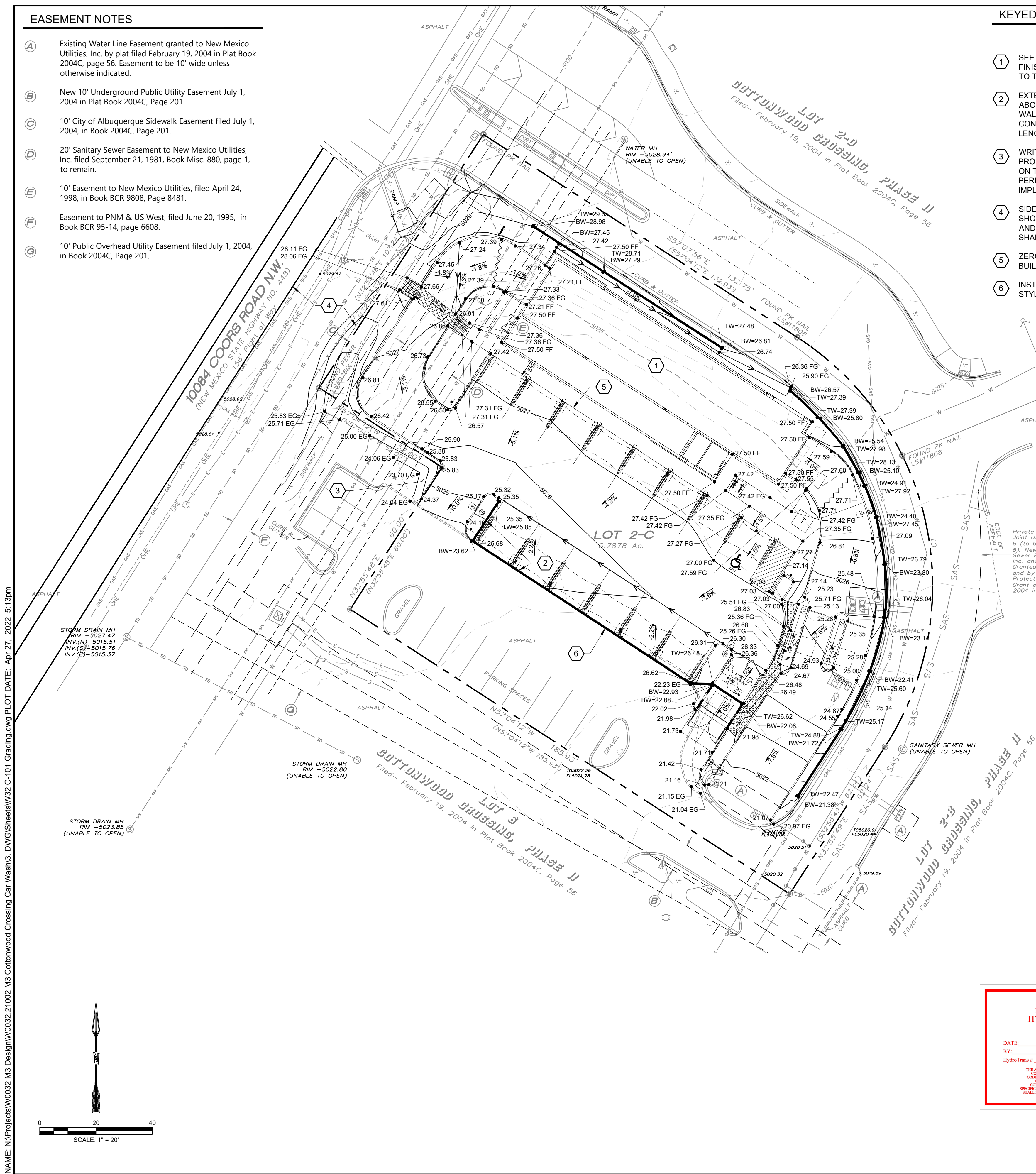
	MAJOR CONTOUR
	MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	SLOPE ARROW
	PROPERTY LINE
	CONCRETE RETAINING WALL
	CMU RETAINING WALL
	WATER BLOCK (HIGH POINT)
	FLOWLINE OF SWALE
	4'-6" BROKEN ALL FACE ROCK INSTALLED 6" DEEP

- 20.00 FLOWLINE
- EG 20.00 EXISTING GROUND
- BW=20.00 BOTTOM WALL
- TW=20.00 TOP WALL
- FG 20.00 FINISHED GRADE
- FF 20.00 FINISHED FLOOR



1. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING DRY AND WET UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES. UTILITY RELOCATION MAY BE REQUIRED.
2. PROVIDE SMOOTH VERTICAL TRANSITION OF CONCRETE CURB AT ALL GRADE BREAKS ALONG CURBS.
3. PROVIDE SMOOTH VERTICAL TRANSITION OF TOP OF CONCRETE RETAINING WALL AT ALL GRADE BREAKS ALONG TOP OF WALL.
4. GRADES SHOWN ARE FINAL SURFACE GRADES AFTER COMPLETION OF SURFACE IMPROVEMENTS.
5. GRADE AREAS AT SITE PERIMETER TO MATCH GRADES OF ADJACENT PARCELS.
6. REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF PROPERLY IN ACCORDANCE WITH APPLICABLE REGULATIONS.
7. PROVIDE TEMPORARY GRADING FEATURES SUCH AS BERMS, SWALES, SUMPS AND BASINS TO MANAGE INTERIM STORM WATER RUNOFF DURING CONSTRUCTION PROCESS. STORM WATER RUNOFF LEAVING THE SITE SHALL MEET ALL FEDERAL, STATE AND LOCAL QUALITY REQUIREMENTS.
8. ALL DISTURBED AREAS TO BE RE-SEEDDED PER LANDSCAPE PLAN PROVIDED BY OTHERS.
9. PROVIDE TEMPORARY GRADING FEATURES SUCH AS BERMS, SWALES, SUMPS AND BASINS TO MANAGE INTERIM STORM WATER RUNOFF DURING CONSTRUCTION PROCESS. STORM WATER RUNOFF LEAVING THE SITE SHALL MEET ALL FEDERAL, STATE AND LOCAL QUALITY REQUIREMENTS.
10. PERMIT TO GEOTECHNICAL INVESTIGATION REPORT 32220.J1138 BY ATC GROUP SERVICES ON FEBRUARY 22, 2021
11. THE EXISTING SITE FEATURES WILL BE DEMOLISHED UNLESS OTHERWISE SPECIFIED ON THIS PLAN.
12. PAVEMENT SECTION BY OWNERS DIRECTION.
13. COMPOSITE SLOPE IN HANDICAP PARKING SPACES SHALL NOT EXCEED 2%.
14. CROSS SLOPE ON ADA CROSSWALKS SHALL NOT EXCEED 2%. LONGITUDINAL SLOPE SHALL NOT EXCEED 5%.
15. LONGITUDINAL SLOPE ON CURB RAMPS SHALL NOT EXCEED 8.33%. CROSS SLOPE SHALL NOT EXCEED 2%.
16. COMPOSITE SLOPE ON RAMP LANDINGS SHALL NOT EXCEED 2%.
17. FINISHED GRADE OF SOIL EDGES ALONG PAVEMENT TO BE 1/2" BELOW EDGE OF PAVEMENT.

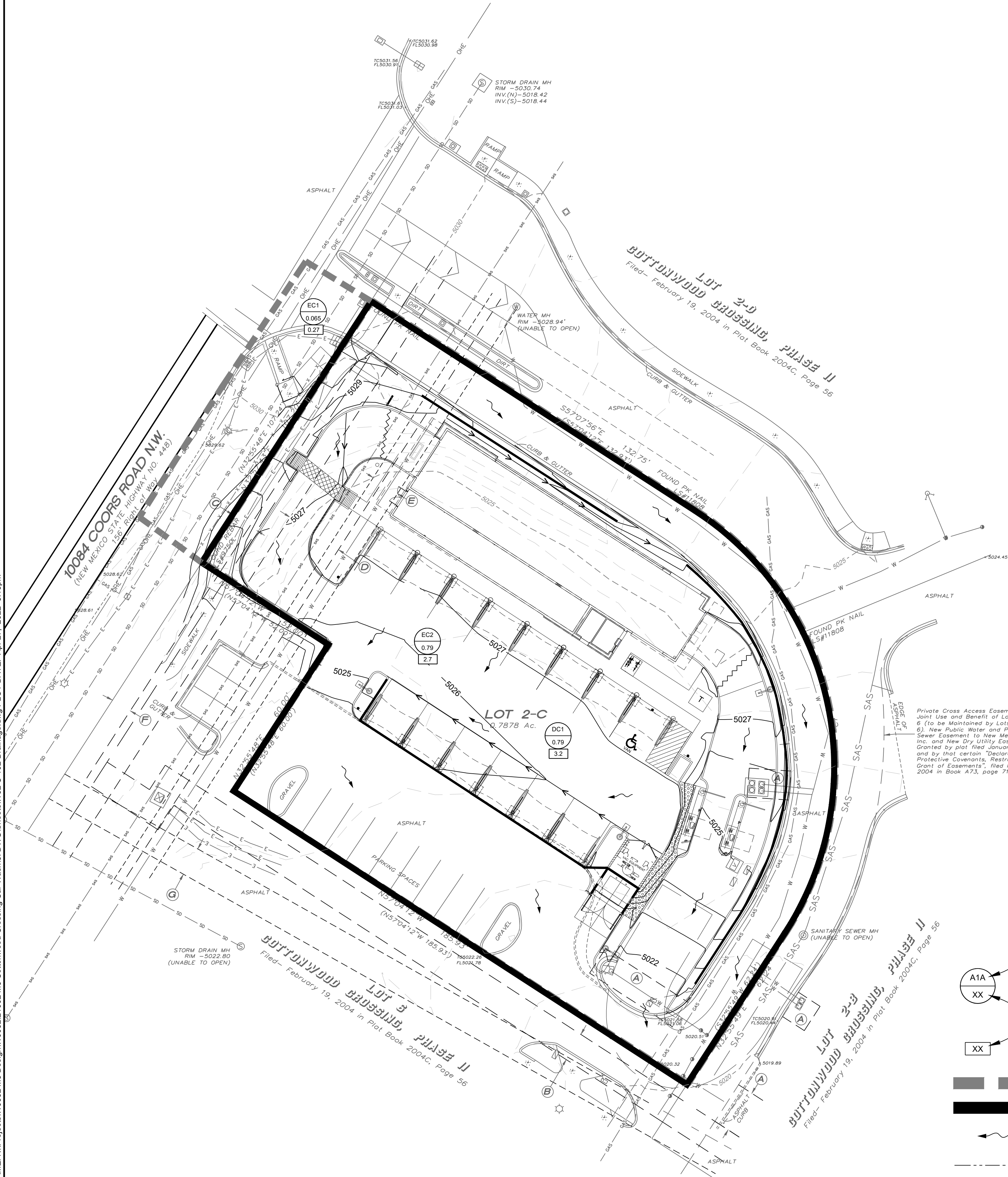
SHEET NUMBER: BUILDING PERMIT	SHEET TITLE: GRADING	PROJECT NAME: COTTONWOOD CROSSING CAR WASH		PROJ. #: W0032.31002	04/27/2022 THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED	11. SIGNATURE OF PROFESSIONAL ENGINEER 	16633 NEW MEXICO ARCH. W. FLOID	STAMP		DESIGNED HF DRAWN JMS CHECKED HF DATE 4.27.2022	REVISION



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 05/06/22
BY: *Renee C. Brissette*
HydroTrans # B14D010C

THE APPROVAL OF THESE PLANS REPORT SHALL NOT BE
CONSIDERED TO BE AN ENDORSEMENT OF THE
ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT
THE CITY OF ALBUQUERQUE FROM PENDING A
CORRECTION, OR CONSTRUCTION, SUCH AS APPROVED PLANS
SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT
AUTHORIZATION.

NAME: N:\Projects\W0032 M3 Design\W0032 21002 M3 Cottonwood Crossing Car Wash\3. DWG\Sheets\W32 C-102 Drainage.dwg PLOT DATE: Apr 27, 2022 5:13pm



BACKGROUND

10084 COORS BLVD NORTHWEST IS APPROXIMATELY 0.788 ACRES IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO. THIS LOCATION IS AT THE SOUTHEAST CORNER OF COORS BLVD AND SEVEN BAR LOOP ROAD NORTHWEST. THE INTENT FOR THIS PROPERTY IS TO BE USED AS A CAR WASH. THERE IS NO DESIGNATED 100-YR FLOOD ZONE SHOWN ON THE SITE.

METHODOLOGY

HYDROLOGY CALCULATIONS FOR THE SITE ARE PERFORMED IN ACCORDANCE WITH THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) SECTION 6-2 USING THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS TO CALCULATE PEAK FLOW RATES FOR THE 100-YEAR, 24-HOUR STORM TO ENSURE ALL FLOW PATHS ARE SUFFICIENT TO CARRY FLOWS. WATER QUALITY IS ACCOUNTED FOR THROUGH THE PAYMENT-IN-LIEU OPTION PER SECTION 6-12(C)(1) IN THE DPM. ALL HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE FOUND ON THIS SHEET.

EXISTING CONDITIONS

THE EXISTING SITE IS PARTIALLY UNDEVELOPED WITH LOW VEGETATIVE COVER AND SEVERAL DISTURBED AREAS. THE SOUTH AREA OF THE SITE IS PAVED AND IN USE FOR PARKING. THE SITE, IN GENERAL, SLOPES FROM THE NORTH/NORTHWEST TO THE SOUTHEAST CORNER TOWARD AT APPROXIMATELY 1.5-3%. STORM WATER RUNOFF GENERATED IN THE EXISTING AREA FLOW GENERALLY TO THE SOUTHEAST, WITH EVENTUAL DISCHARGE INTO THE DRAINAGE POND INSTALLED IN THE "COTTONWOOD CROSSING PHASE II". THE SITE HAS BEEN DIVIDED INTO BASIN EC1 FOR ROW FLOWS AND EC2 FOR SITE FLOWS.

SUB-BASIN EC1 IS 0.788 ACRES AND SUB-BASIN EC2 IS 0.065 ACRES. THE EXISTING FLOW FOR EC2 IS 2.7 CFS. THE RUNOFF FREE DISCHARGES AT THE SOUTHEAST CORNER OF THE SITE TO THE POND LOCATED SOUTHEAST OF THE SITE VIA EXISTING SURFACE FLOWS.

DEVELOPED CONDITIONS

THE DRAINAGE INTENTION OF THE DEVELOPED CONDITIONS IS TO MATCH THE EXISTING DRAINAGE PATTERN WITH FREE DISCHARGE. USING THE COTTONWOOD CROSSING PHASE II DRAINAGE REPORT AS REFERENCE, THERE IS ALLOWED FREE DISCHARGE TO THE DOWNSTREAM POND. THE NEW CAR WASH WILL BE CONSTRUCTED, PRESERVING THE EXISTING PARKING LOT ON THE SITE. DEVELOPED FLOWS INCREASE FROM 2.7 TO 3.2 CFS.

SUB-BASIN DC1 IS 0.788 ACRES AND GENERATES 3.2 CFS WHICH IS CONVEYED TO THE SOUTHEAST CORNER OF THE SITE VIA SHEET FLOW. CALCULATIONS FOR THE DEVELOPED CONDITIONS ARE SHOWN BELOW.

Hydrology Calculations

The following calculations are based on Albuquerque's Development Process Manual, Section 6-2(A), using the 100-year, 24-hour design storm

Runoff Rate:

Treatment Type Areas

Subbasin	Area ₁ (ac)	Area ₂ (ac)	Area ₃ (ac)	Area ₄ (ac)	Total (ac)
EC1	0.00	0.00	0.00	0.07	0.07
EC2	0.00	0.00	0.47	0.32	0.79
DC1	0.00	0.00	0.07	0.72	0.79

Peak Discharge values based on Zone 1, Table 6.2.14

$$Q_A = 1.54 \text{ cfs/ac} \quad Q_B = 2.16 \text{ cfs/ac} \quad Q_C = 2.87 \text{ cfs/ac} \quad Q_D = 4.12 \text{ cfs/ac}$$

Peak Discharge calculation for a 100-yr, 24-hr storm event from equation 6.6

Subbasin	Discharge (cfs)
EC1	0.3
EC2	2.7
DC1	3.2

Subbasin	Volume (cu. ft.)
EC1	N/A
DC1	678

STORMWATER QUALITY CALCULATIONS

IMPERVIOUS AREA = 0.72 ACRES X 0.42" DEPTH = 1098 CF

PAYMENT IN LIEU = \$8/CF X 1098 = \$8784

EASEMENT NOTES

- Existing Water Line Easement granted to New Mexico Utilities, Inc. by plat filed February 19, 2004 in Plat Book 2004C, page 56. Easement to be 10' wide unless otherwise indicated.
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Manning Formula: FLOWS ALONG C&G

Irregular Section

Input

Flow Slope

3.2 cfs
0.02 ft/ft

Output

WSElev

Flow Area

Velocity

Velocity Head

Top Width

Froude Number

Critical WSElev

Critical Slope

0.211 ft
1.11 sf
2.88 fps
0.123 ft
10.5 ft
1.56
0.248 ft
ft/ft

DATE: 05/06/22

BY: *Randy C. Brissett*

HydroTrans # B14D010C

THE APPROVAL OF THESE PLANS DOES NOT CONSTITUTE AN ENDORSEMENT OF ANY CITY, COUNTY, OR STATE, OR A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THESE PLANS. THE CITY OF ALBUQUERQUE SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THESE PLANS. THE CITY OF ALBUQUERQUE SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THESE PLANS.

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LEGEND

A1A
XX

BASIN DESIGNATION

BASIN AREA, ACRES

XX

100 YEAR STORM, CFS

EXISTING SUB-BASIN BOUNDARY

PROPOSED SUB-BASIN BOUNDARY

DIRECTION OF DRAINAGE FLOW

PROPERTY LINE

DESIGNED HF
DRAWN JMS
CHECKED HF
DATE 4.27.2022

RESPEC
COMMUNITY DESIGN SOLUTIONS
5971 JEFFERSON STREET SUITE 101
ALBUQUERQUE, NM 87113
WWW.RESPEC.COM PHONE (505) 253-9718

RESPEC

STAMP
HIGH W. FLOOD
NEW MEXICO
16633
04/27/2022
THIS DRAWING IS INCOMPLETE
AND NOT TO BE USED FOR
CONSTRUCTION UNLESS IT IS
STAMPED, SIGNED AND DATED

Know what's below.
Call before you dig.
PROJ. #: W0032.31002

PROJECT NAME:
COTTONWOOD CROSSING
CAR WASH

SHEET TITLE:
DRAINAGE

SUBMITTED FOR:
BUILDING PERMIT

SHEET NUMBER:
C-102