

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

February 1, 2024

Hal P. Grubb, P.E.
Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032

**RE: Costco Fueling Facility Expansion
1420 Renaissance Blvd NW
Conceptual Grading and Drainage Plans
Engineer's Stamp Date: No Stamp Date
Hydrology File: F16D005G**

Dear Mr. Grubb:

PO Box 1293

Based upon the information provided in your submittal received 01/25/2024, the Conceptual Grading & Drainage Plans are preliminary approved for action by the Development Facilitation Team (DFT) on Site Plan for Building Permit.

Albuquerque

PRIOR TO BUILDING PERMIT:

NM 87103

1. Please submit a more detailed Grading & Drainage Plan to Hydrology for review and approval. This digital (.pdf) is emailed to PLNDRS@cabq.gov along with the Drainage Transportation Information Sheet.

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.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

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 (DTIS)

Project Title: _____ Hydrology File # _____

Legal Description: _____

City Address, UPC, OR Parcel: _____

Applicant/Agent: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

Applicant/Owner: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

(Please note that a DFT SITE is one that needs Site Plan Approval & ADMIN SITE is one that does not need it.)

TYPE OF DEVELOPMENT: PLAT (#of lots) _____ RESIDENCE
DFT SITE ADMIN SITE

RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

- ENGINEER/ARCHITECT CERTIFICATION
- PAD CERTIFICATION
- CONCEPTUAL G&D PLAN
- GRADING & DRAINAGE PLAN
- DRAINAGE REPORT
- DRAINAGE MASTER PLAN
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
ADMINISTRATIVE
- TRAFFIC CIRCULATION LAYOUT FOR DFT
APPROVAL
- TRAFFIC IMPACT STUDY (TIS)
- STREET LIGHT LAYOUT
- OTHER (SPECIFY) _____

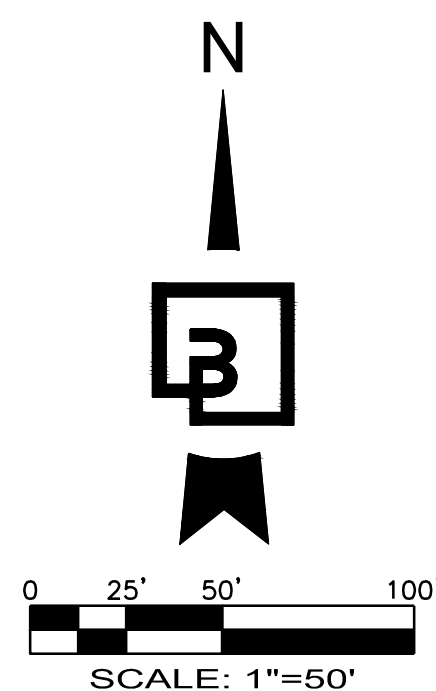
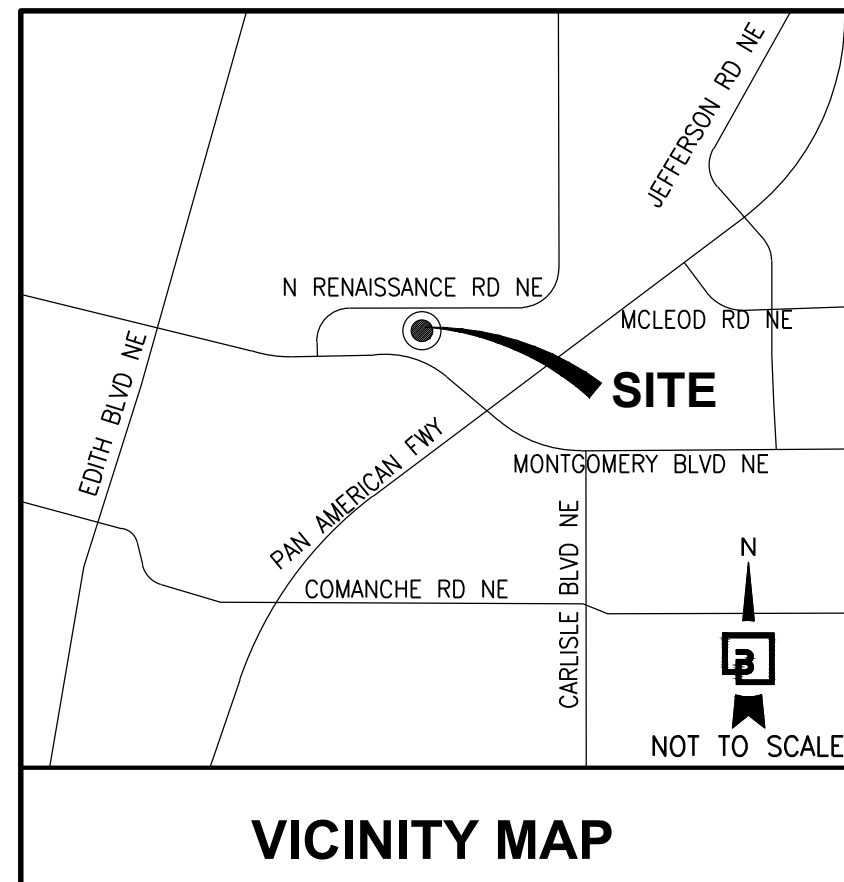
TYPE OF APPROVAL SOUGHT:

- BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- CONCEPTUAL TCL DFT APPROVAL
- PRELIMINARY PLAT APPROVAL
- FINAL PLAT APPROVAL
- SITE PLAN FOR BLDG PERMIT DFT
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
- OTHER (SPECIFY) _____

DATE SUBMITTED: _____

DRAINAGE AREA MAP

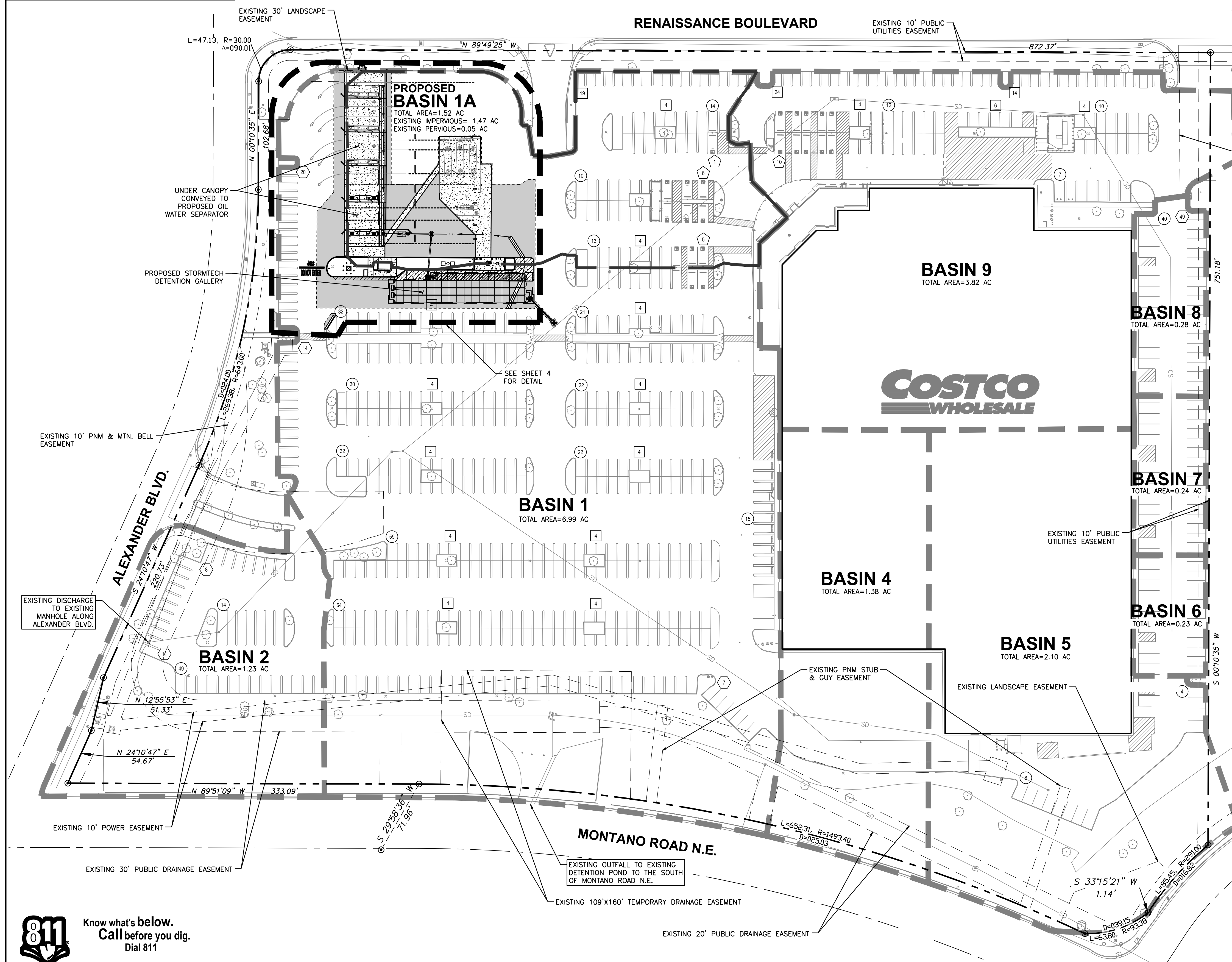
COSTCO WHOLESALE FUEL EXPANSION 1420 RENAISSANCE BLVD. N.E. ALBUQUERQUE, NM 87107 COSTCO WAREHOUSE LOCATION #116



LEGEND

| | | | |
|--|-----------------------------|--|-------------------------------|
| | EX. CONCRETE | | PROP. ASPHALT |
| | EX. CURB | | PROP. CONCRETE |
| | EX. CANOPY DRIPLINE | | PROP. CURB AND GUTTER |
| | EX. EASEMENT | | SAWCUT LINE |
| | EX. EDGE OF PAVEMENT | | PROP. STORM PIPE |
| | EX. STORM DRAIN | | PROP. CANOPY |
| | EX. UNDERGROUND WATER LINE | | PROP. CLEANOUT |
| | EX. STORM DRAIN CATCH BASIN | | FLOW PATH |
| | EX. STORM CLEANOUT | | PROP. MULTI-PRODUCT DISPENSER |
| | EX. TREE TO REMAIN | | |

City of Albuquerque
 Planning Department
 Development Review Services
HYDROLOGY SECTION
PRELIMINARY APPROVED
 DATE: 02/01/24
 BY: *Ross Smith*
 HydroTrans # F16D005G
 THESE PLANS AND/OR REPORT ARE
 CONCEPTUAL ONLY. MORE INFORMATION MAY
 BE NEEDED IN THEM AND SUBMITTED TO
 HYDROLOGY FOR BUILDING PERMIT APPROVAL.



Calculations-Costco Albuquerque 1-1420 Renaissance Blvd, N.E.
 Based on City of Albuquerque DMP, Article 6-2 date June 26, 2020
 100-Year, 6-hour Calculations-Pre-emption Zone 2

Drainage Area: $1,067,176 \text{ SF} = 24.50 \text{ ACRE}$

| HISTORIC FLOWS: | | | DEVELOPED FLOWS: | | | Excess Precipitation: | | |
|-------------------|------------------|-------------|-------------------|------------------|-------------|-----------------------|-------|------|
| Area | Treatment SF | % | Area | Treatment SF | % | Area | E_p | |
| Area A | 0 | 0% | Area A | 0 | 0% | Area A | 0 | 0.62 |
| Area B | 111,514 | 10% | Area B | 110,421 | 10% | Area B | 0 | 0.8 |
| Area C | 0 | 0% | Area C | 0 | 0% | Area C | 0 | 1.03 |
| Area D | 956,662 | 90% | Area D | 956,755 | 90% | Area D | 0 | 2.33 |
| Total Area | 1,067,176 | 100% | Total Area | 1,067,176 | 100% | | | |

On-site Weighted Excess Precipitation (100-year, 6-hour storm)

$$\text{Weighted } E_p = \frac{E_p A_1 + E_p A_2 + E_p A_3 + E_p A_4}{A_1 + A_2 + A_3 + A_4}$$

| | | | | | |
|----------------|---|---------|-----------------|---|---------|
| Historic E_p | = | 2.17 in | Developed E_p | = | 2.17 in |
|----------------|---|---------|-----------------|---|---------|

On-site Volume of Runoff: $V_{50} = E_p \times A / 12$

| | | | | | |
|-------------------|---|------------|--------------------|---|------------|
| Historic V_{50} | = | 192,992 CF | Developed V_{50} | = | 193,131 CF |
|-------------------|---|------------|--------------------|---|------------|

On-site Peak Discharge Rate: $Q_p = Q_{p1} + Q_{p2} + Q_{p3} + Q_{p4} = 43,560$

For Precipitation Zone: 2

| | | | | | |
|----------|---|------|----------|---|------|
| Q_{p1} | = | 1.71 | Q_{p2} | = | 3.05 |
| Q_{p3} | = | 2.36 | Q_{p4} | = | 4.34 |

| | | | | | |
|----------------|---|------------|-----------------|---|------------|
| Historic Q_p | = | 101.26 CFS | Developed Q_p | = | 101.31 CFS |
|----------------|---|------------|-----------------|---|------------|

GRADING AND DRAINAGE NARRATIVE:

THE SITE IS CURRENTLY DEVELOPED WITH AN EXISTING COSTCO WAREHOUSE, FUEL FACILITY, PARKING, STORMWATER FACILITIES, AND LANDSCAPING. STORMWATER RUNOFF FROM FUEL AREA IS NOT CAPTURED, NOR TREATED ON-SITE IN A WATER QUALITY UNIT BEFORE BEING CONVEYED THROUGH A CLOSED CONVEYANCE SYSTEM TO AN EXISTING MANHOLE IN ALEXANDER BLVD., THEN TO AN EXISTING DETENTION POND LOCATED SOUTH OF THE PROPERTY, SOUTH OF MONTANO ROAD N.E. THE EXISTING STORM SYSTEM WAS DESIGNED IN THE ORIGINAL WAREHOUSE PLAN DATED JULY, 1996. EXISTING GRADES WITHIN THE PAVED AREAS ARE RELATIVELY FLAT WITH SLOPES RANGING FROM 0.5 TO 4 PERCENT.

THE PROPOSED IMPROVEMENTS TO THE COSTCO PARKING LOT ARE LOCATED IN BASIN 1 OF THE EXISTING SITE'S DRAINAGE AREA. THE FUEL EXPANSION EXTENDS INTO THE EXISTING STORMWATER PARKING LOT DETENTION AND AS A RESULT A NEW STORMTECH DETENTION FACILITY IS PROPOSED TO PROVIDE STORMWATER DETENTION FOR DISPLACED STORMWATER PARKING LOT DETENTION.

THE IMPROVEMENTS INCLUDE EXPANSION OF THE EXISTING FUEL FACILITY, NEW CANOPY STORM DRAIN PIPES FOR BOTH THE NEW DISPENSER ISLANDS AND THE EXISTING DISPENSER ISLANDS. A NEW 1,000-GAL OIL WATER SEPARATOR AND SHUTOFF VALVE IS PROPOSED AND CONNECTS TO THE NEW STORMWATER DETENTION SYSTEM. THE PROPOSED IMPROVEMENTS WILL RESULT IN A MINIMAL INCREASE IN IMPERVIOUS AREA.

THE SUBJECT SITE IS LOCATED WITHIN ZONE X (FEMA FIRM NO. 35001C0138H DATED AUGUST 16, 2012) AND WILL NOT BE IMPACTED BY ANY FLOOD CONTROL REQUIREMENTS.

PROJECT AREA SUMMARY:

| | | | |
|---|-----------|----------------------|-----------|
| EXISTING IMPERVIOUS: | 29,705 SF | PROPOSED IMPERVIOUS: | 30,798 SF |
| EXISTING PERVIOUS: | 2,682 SF | PROPOSED PERVIOUS: | 1,589 SF |
| TOTAL DISTURBANCE = 32,387 SF | | | |
| REQUIRED SWOV = 0.74 AC x 43,560 SF x 0.26 IN x (1 FT/12 IN) = 698 CF | | | |
| PROVIDED SWOV = WITH PROPOSED WATER QUALITY UNIT | | | |

Revision: 1 12/8/23 SN MESP CRJ Land Use Submittal

DRAINAGE AREA MAP
1420 RENAISSANCE BLVD. N.E.
ALBUQUERQUE, NM 87107
COSTCO WAREHOUSE LOCATION #116

Costco WHOLESALE
COSTCO WHOLESALE
730 LAKE DRIVE
ISSAQUAH, WA 98027

For:

Scale: Horizontal 1" = 50', Vertical N/A

Designed: SN, Drawn: SN, Checked: MESP, Approved: CRJ, Date: 8/21/23

Barghausen Consulting Engineers, Inc.
 18215 72nd Avenue South
 Kent, WA 98032
 425.251.6222
 barghausen.com

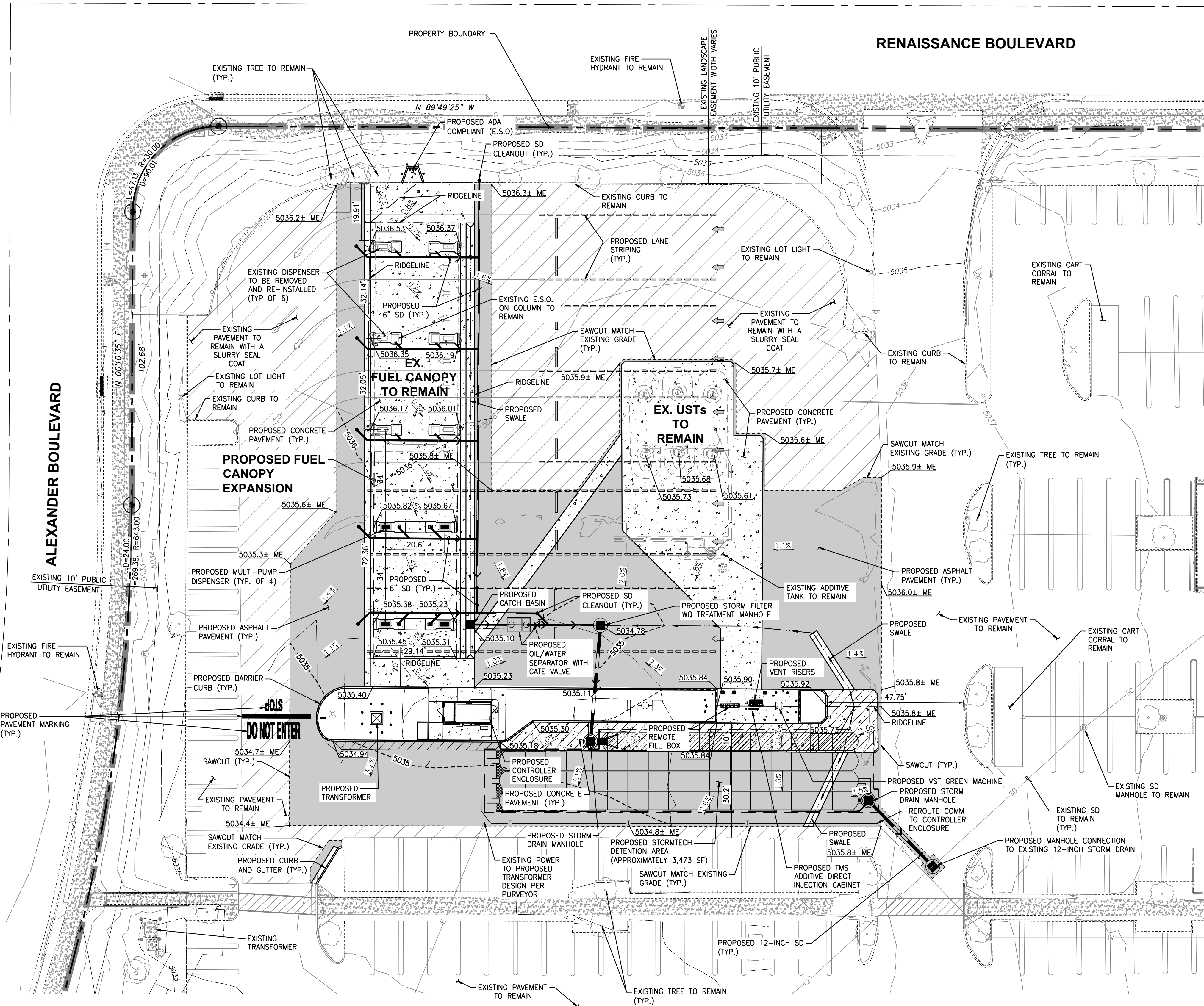
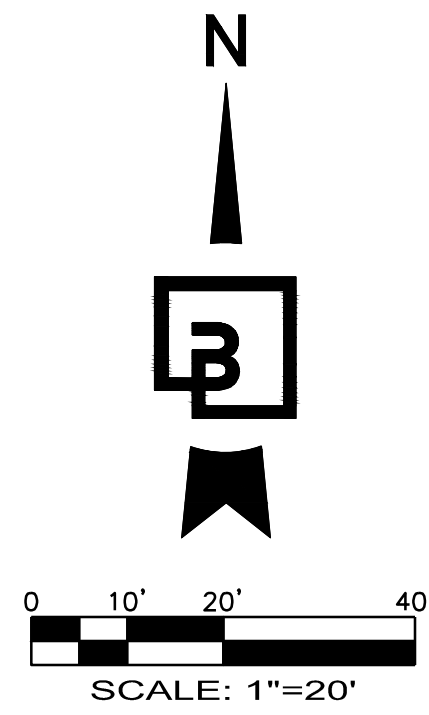
Job Number: 10896, Sheet: 3 of 4

GRADING AND DRAINAGE PLAN

COSTCO WHOLESALE FUEL EXPANSION
1420 RENAISSANCE BLVD. N.E.
ALBUQUERQUE, NM 87107
COSTCO WAREHOUSE LOCATION #116

City of Albuquerque
 Planning Department
 Development Review Services
HYDROLOGY SECTION
PRELIMINARY APPROVED
 DATE: 02/01/24
 BY: *Renee C. Brunelle*
 HydroTrans #: F16D005G

THESE PLANS AND/OR REPORT ARE CONCEPTUAL ONLY. MORE INFORMATION MAY BE NEEDED IN THEM AND SUBMITTED TO HYDROLOGY FOR BUILDING PERMIT APPROVAL.



CANOPY COVERAGE AREA:
 EXISTING AREA: 2,337 SF
 PROPOSED ADDITIONAL AREA: 2,108 SF
 TOTAL AREA AFTER EXPANSION: 4,445 SF

DISTURBED AREA SUMMARY:
 TOTAL AREA = 32,387 SF

| | EXISTING | PROPOSED |
|-------------|-----------|-----------|
| IMPERVIOUS: | 29,705 SF | 30,798 SF |
| PERVIOUS: | 2,682 SF | 1,589 SF |

| No. | Date | By | Appr. | CRJ | MESP | SN | LAND USE |
|-----|---------|----|-------|-----|------|----|--------------------|
| 1 | 12/8/23 | | | | | | LAND USE SUBMITTAL |

Title:
GRADING AND DRAINAGE PLAN
1420 RENAISSANCE BLVD. N.E.
ALBUQUERQUE, NM 87107
COSTCO WAREHOUSE LOCATION #116

For:
COSTCO WHOLESALE
730 LAKE DRIVE
ISSAQUAH, WA 98027



Scale:
 Horizontal 1"=20'
 Vertical N/A

Designed: SN
 Drawn: SN
 Checked: MESP
 Approved: CRJ
 Date: 9/21/23

Barghausen Consulting Engineers, Inc.
 18215 72nd Avenue South
 Kent, WA 98032
 425.251.6222
barghausen.com

Job Number
10896
 Sheet
4 of **4**

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