

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

February 21, 2023

Hal Grubb  
Barghausen Consulting Engineers, Inc.  
18215 72<sup>nd</sup> Avenue South  
Kent, WA 98032

**RE: Dutch Bros. Coffee NM0203**  
**Tract 12 of Plat of Tracts 1 through 12 of the Avalon Subdivision Unit 5**  
**Grading and Drainage Plan (K09D048B)**  
**Engineers Stamp Date: 2/6/2023**

Dear Mr. Grubb:

Based upon the information provided in your submittal received 2/10/2023, the Grading & Drainage Plan is approved for Grading Permit and Building Permit approval. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. The civil and landscaping plans approval are not part of this approval. Those plans must be approved by other departments.

**PRIOR TO CERTIFICATE OF OCCUPANCY:**

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please provide the executed paper Drainage Covenant (latest revision) printed on one-side only with Exhibit A and a check for \$25 made out to "Bernalillo County" for the stormwater quality ponds per Article 6-15(C) of the DPM to Hydrology for review. Once the review is done, Hydrology will send back an email stating our approval / comments.

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](mailto:jhughes@cabq.gov), 505-924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3695 or [tchen@cabq.gov](mailto:tchen@cabq.gov).

Sincerely,

Tiequan Chen, P.E.  
Principal Engineer, Hydrology  
Planning Department, Development Review Services



# 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: \_\_\_\_\_



Know what's below.  
Call before you dig.  
Dial 811

# DUTCH BROS. COFFEE - NM0203, ALBUQUERQUE, NM GRADING PLAN

## GRADING GENERAL NOTES:

- ALL GRADING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THE CURRENT CITY ORDINANCE AND STANDARD PLANS. THE GRADING IS SUBJECT TO THE OBSERVATION AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PROPOSED GRADES IN RELATIONSHIP TO SURVEYED BASIS OF ELEVATION.
- BUILDING FINISH FLOOR (FF) ELEVATION. THE FINISH FLOOR OF THE BUILDING(S) IS DESIGNED TO BE FLUSH WITH SURROUNDING CONCRETE PAVING UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL EXISTING UTILITY STRUCTURES AND ASSOCIATED LIDS THAT FALL WITHIN THE AREA OF WORK SHALL BE ADJUSTED TO FINISHED GRADE ELEVATIONS. CONTRACTOR SHALL CONFIRM THE FEASIBILITY OF ADJUSTING EXISTING UTILITY STRUCTURE LIDS TO FINISHED GRADE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- CONTRACTOR TO PROTECT AND MAINTAIN EROSION CONTROL FACILITIES DURING GRADING OPERATIONS.
- CONTRACTOR TO OBTAIN ANY NECESSARY RIGHT-OF-WAY PERMITS IF REQUIRED FOR WORK SHOWN ON PLANS.
- ALL MATCH EXISTING ELEVATIONS SHALL BE CONSTRUCTED TO BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES. ALL SAWCUT LOCATIONS, SHALL BE REPLACED TO MATCH EXISTING CONDITIONS.
- ALL SPOT ELEVATIONS SHOWN HAVE BEEN "TRUNCATED" TO INCREASE VISUAL CLARITY. ALL ELEVATIONS ARE PLUS 5200', e.g. 5216.05 = 16.05

STANDARD ELEVATION: 5216.05  
TRUNCATED ELEVATION: 16.05

FF - FINISHED FLOOR  
FL - FLOWLINE  
FSH - FLUSH  
GB - GRADE BREAK  
GRD - GROUND  
MA - MATCH OFFSITE TIE IN ELEVATION  
ME - MATCH EXISTING  
TC - TOP OF CURB/SIDEWALK  
TP - TOP OF PAVING  
RIM - RIM/GRADE ELEVATION OF STRUCTURE

City of Albuquerque  
Planning Department  
Development Review Services  
**HYDROLOGY SECTION  
APPROVED**

DATE: 2/21/2023  
BY: *Heena Chandra*  
HydroTrans # K09D048B

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSIDERED TO PREVENT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUESTING CORRECTION, OR ERROR OF DIMENSIONS IN PLANS. SPECIFICATIONS OR CONSTRUCTIONS SUCH AS APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

98TH ST NW

PRIVATE ROAD 'A'

PRIVATE ROAD 'C'

## GEOTECHNICAL GRADING NOTES:

THE FOLLOWING NOTES HAVE BEEN REFERENCED FROM THE GEOTECHNICAL REPORT PREPARED BY EARTH STRATA GEOTECHNICAL SERVICES DATED SEPTEMBER 3, 2021. REFER TO THE COMPLETE REPORT FOR ALL EARTHWORK REQUIREMENTS.

### SUBSURFACE CONDITIONS:

TO REDUCE THE POTENTIAL FOR UNSIGHTLY CRACKING, SUBGRADE EARTH MATERIALS UNDERLYING CONCRETE FLATWORK SHOULD BE COMPACTED AT NEAR OPTIMUM MOISTURE TO A MINIMUM OF 90 PERCENT OF THE MAXIMUM DRY DENSITY DETERMINED BY ASTM D 1557 AND THEN MOISTENED TO OPTIMUM OR SLIGHTLY ABOVE OPTIMUM MOISTURE CONTENT. THIS MOISTURE SHOULD EXTEND TO A DEPTH OF 12 INCHES BELOW SUBGRADE AND BE MAINTAINED PRIOR TO ENGINEER OR HIS REPRESENTATIVE SHOULD VERIFY THE DENSITY AND MOISTURE CONTENT OF THE EARTH MATERIALS AND THE DEPTH OF MOISTURE PENETRATION PRIOR TO PLACING CONCRETE.

CRACKING WITHIN CONCRETE FLATWORK IS OFTEN A RESULT OF FACTORS SUCH AS THE USE OF TOO HIGH A WATER TO CEMENT RATIO AND/OR INADEQUATE STEPS TAKEN TO PREVENT MOISTURE LOSS DURING THE CURING OF THE CONCRETE.

CONCRETE DISTRESS CAN BE REDUCED BY PROPER CONCRETE MIX DESIGN AND PROPER PLACEMENT AND CURING OF CONCRETE.

### GROUNDWATER:

GROUNDWATER WAS NOT OBSERVED DURING OUR SUBSURFACE EXPLORATION. IT SHOULD BE NOTED THAT LOCALIZED GROUNDWATER COULD BE ENCOUNTERED DURING GRADING DUE TO THE LIMITED NUMBER OF EXPLORATORY

### SITE PREPARATION:

VEGETATION INCLUDING TREES, GRASSES, WEEDS, BRUSH, SHRUBS, OR ANY OTHER DEBRIS SHOULD BE STRIPPED

FOR EACH AREA TO RECEIVE COMPACTED FILL, THE REMOVAL OF LOW DENSITY, COMPRESSIBLE EARTH MATERIALS, SUCH AS UPPER ALLUVIAL MATERIALS AND UNDOCUMENTED ARTIFICIAL FILL, SHOULD CONTINUE UNTIL FIRM COMPETENT ALLUVIUM IS ENCOUNTERED. REMOVAL EXCAVATIONS ARE SUBJECT TO VERIFICATION BY THE PROJECT ENGINEER, GEOLOGIST OR THEIR REPRESENTATIVE.

PRIOR TO PLACING COMPACTED FILLS, THE EXPOSED BOTTOM IN EACH REMOVAL AREA SHOULD BE SCARIFIED TO A DEPTH OF 6 INCHES OR MORE, WATERED OR AIR DRIED AS NECESSARY TO ACHIEVE NEAR OPTIMUM MOISTURE CONDITIONS AND THEN COMPACTED TO A MINIMUM OF 90 PERCENT OF THE MAXIMUM DRY DENSITY DETERMINED BY ASTM D 1557.

REMEDIAL GRADING SHOULD EXTEND BEYOND THE PERIMETER OF THE PROPOSED STRUCTURES A HORIZONTAL DISTANCE EQUAL TO THE DEPTH OF EXCAVATION OR A MINIMUM OF 5 FEET, WHICHEVER IS GREATER.

### MATERIALS FOR FILL:

IMPORT MATERIALS SHOULD BE FREE OF DELETERIOUS/OVERSIZE MATERIALS, NON-EXPANSIVE, AND APPROVED BY THE PROJECT GEOTECHNICAL CONSULTANT PRIOR TO DELIVERY ONSITE.

### TRENCH PREPARATION AND BACKFILL:

ALL UTILITY TRENCH BACKFILL SHOULD BE COMPACTED AT NEAR OPTIMUM MOISTURE TO A MINIMUM OF 90 PERCENT OF THE MAXIMUM DRY DENSITY DETERMINED BY ASTM D 1557.

FOR UTILITY TRENCH BACKFILL WITHIN PAVEMENT AREAS THE UPPER 6 INCHES OF SUBGRADE MATERIALS SHOULD BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY DETERMINED BY ASTM D 1557.

THIS INCLUDES WITHIN THE STREET RIGHT-OF-WAYS, UTILITY EASEMENTS,

UNDER FOOTINGS, SIDEWALKS, DRIVEWAYS AND BUILDING FLOOR SLABS, AS WELL AS WITHIN OR ADJACENT TO ANY SLOPES. BACKFILL SHOULD BE PLACED IN APPROXIMATELY 6 TO 8 INCH MAXIMUM LOOSE LIFTS AND THEN MECHANICALLY COMPACTED WITH A HYDRO-HAMMER, ROLLING WITH A SHEEPSFOOT, PNEUMATIC TAMPERS, OR SIMILAR EQUIPMENT.

THE UTILITY TRENCHES SHOULD BE TESTED BY THE PROJECT GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE TO VERIFY MINIMUM COMPACTION REQUIREMENTS ARE OBTAINED. IN ORDER TO MINIMIZE THE PENETRATION OF MOISTURE BELOW BUILDING SLABS, ALL UTILITY TRENCHES SHOULD BE BACKFILLED WITH COMPACTED FILL, LEAN CONCRETE OR CONCRETE SLURRY WHERE THEY UNDERCUT THE PERIMETER FOUNDATION.

UTILITY TRENCHES THAT ARE PROPOSED PARALLEL TO ANY BUILDING FOOTINGS (INTERIOR AND/OR EXTERIOR TRENCHES), SHOULD NOT BE LOCATED WITHIN A 1:1 (H:V) PLANE PROJECTED DOWNWARD FROM THE OUTSIDE BOTTOM EDGE OF THE FOOTING.

## STORM WATER SUMMARY

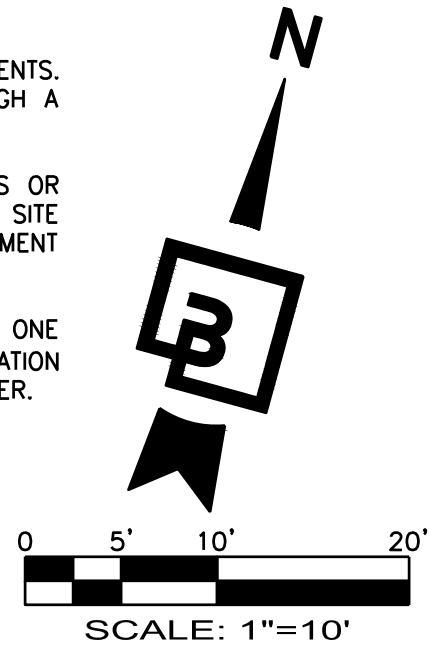
THE PROPOSED REFUSE ENCLOSURE WILL CONFORM TO SOURCE CONTROL REQUIREMENTS. THE ENCLOSURE WILL BE COVERED AND HAVE AN INTERIOR DRAIN THAT FLOWS THROUGH A GREASE INTERCEPTOR BEFORE CONNECTING TO THE SANITARY SEWER SYSTEM.

THE PROPOSED STORMWATER SYSTEM WILL INCORPORATE SURFACE FLOW TO CURB CUTS OR A CATCH BASIN. THE PROPOSED CURB CUTS OR CATCH BASIN WILL OUTFALL TO A SITE DETENTION POND. POND OVERFLOW WILL BE DIRECTED TO ADJACENT PRIVATE DEVELOPMENT STORMWATER SYSTEM.

THE PROPOSED SITE IMPROVEMENTS WILL RESULT IN AN IMPERVIOUS AREA LESS THAN ONE (1) ACRE. AS A RESULT, THE SITE WILL NOT BE SUBJECT TO HYDROMODIFICATION REQUIREMENTS. TREATMENT REQUIREMENTS WILL BE COORDINATED WITH OVERALL DEVELOPER.

## LEGEND

BUILDING LINE	
EXISTING CURB TO REMAIN	
PROPOSED CURB	
PROPOSED LANDSCAPING	
PROPOSED ASPHALT	
PROPOSED CONCRETE	
PROPOSED PERVIOUS PAVERS	



## CONSTRUCTION NOTES:

- FACILITATE STORM DRAINAGE DOWNSPOUT CONNECTION: INSTALL ZURN Z886 TRENCH DRAIN PER DETAIL 1/C4.2. REFER TO DETAIL 1/C4.2 FOR GRADE SPECIFICATIONS, WHERE TRENCH DRAINS FLOW TO LANDSCAPING, CONTRACTOR TO CREATE DEPRESSION TO FACILITATE DRAINAGE FLOW.
- CONTRACTOR TO MATCH EXISTING GRADES & FLOW LINE. CONTRACTOR TO CONFIRM ELEVATIONS AND CONSTRUCT IMPROVEMENTS SHOWN TO MATCH EXISTING. IT MAY BE NECESSARY TO ADJUST ELEVATIONS BASED ON EXISTING CONDITIONS. NOTIFY ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR TO GRADE AREA TO DRAIN.
- GRADE 1" DEPRESSION.
- ADJUST UTILITY BOX TO GRADE.
- CONSTRUCT 8" CURB.
- CONSTRUCT 4" CURB.
- ELEVATIONS BASED ON OVERALL DEVELOPMENT. CONTRACTOR SHALL CONFIRM ELEVATIONS AT SAWCUT AND CONSTRUCT IMPROVEMENTS SHOWN TO MATCH EXISTING AND PROVIDE POSITIVE DRAINAGE. IT MAY BE NECESSARY TO ADJUST ELEVATIONS BASED ON EXISTING CONDITIONS. NOTIFY ENGINEER PRIOR TO CONSTRUCTION.
- CONSTRUCT GRADED SWALE TO FACILITATE DRAINAGE FLOW.
- DURA TRENCH DRAIN. SEE UTILITY PLAN FOR SIZE, INVERT, AND ADDITIONAL INFORMATION.
- INSTALL PRE-CAST CATCH BASIN. SEE UTILITY PLAN FOR SIZE AND ADDITIONAL INFORMATION.
- CONSTRUCT RETAINING WALL. SEE STRUCTURAL PLANS FOR ADDITIONAL INFORMATION.
- GRADED BERM.

Job Number  
**22187**

Sheet  
**C3.0**

2019 DB  
Ref: 220005\22187\Engineering\22187-C.dwg 2/2/2023 1:44 PM ENGJEL

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

**22187**  
Grading Plan  
220 98TH STREET NW  
ALBUQUERQUE, NM 87121

For:

Scale:  
Horizontal  
1" = 10'  
Vertical  
N/A

Designed: JAH  
Drawn: JAH  
Checked: JAH  
Approved: HPG  
Date: 05/03/22

"The name DUTCH BROS. and all associated logos, distinctive designs, content, information, and other materials featured, displayed, contained herein, and made available by Dutch Bros., including but not limited to, the "look and feel" of the establishments and products, all text, images, colors, configurations, graphics, designs, illustrations, photographs, and pictures (collectively, the "Materials") are owned by DB Franchising USA, LLC and are protected by copyright, trademark, trade dress, patent, and/or other intellectual property rights and unfair competition laws under the United States and foreign laws."



Know what's below.  
Call before you dig.  
Dial 811

City of Albuquerque  
Planning Department  
Development Review Services  
HYDROLOGY SECTION

APPROVED

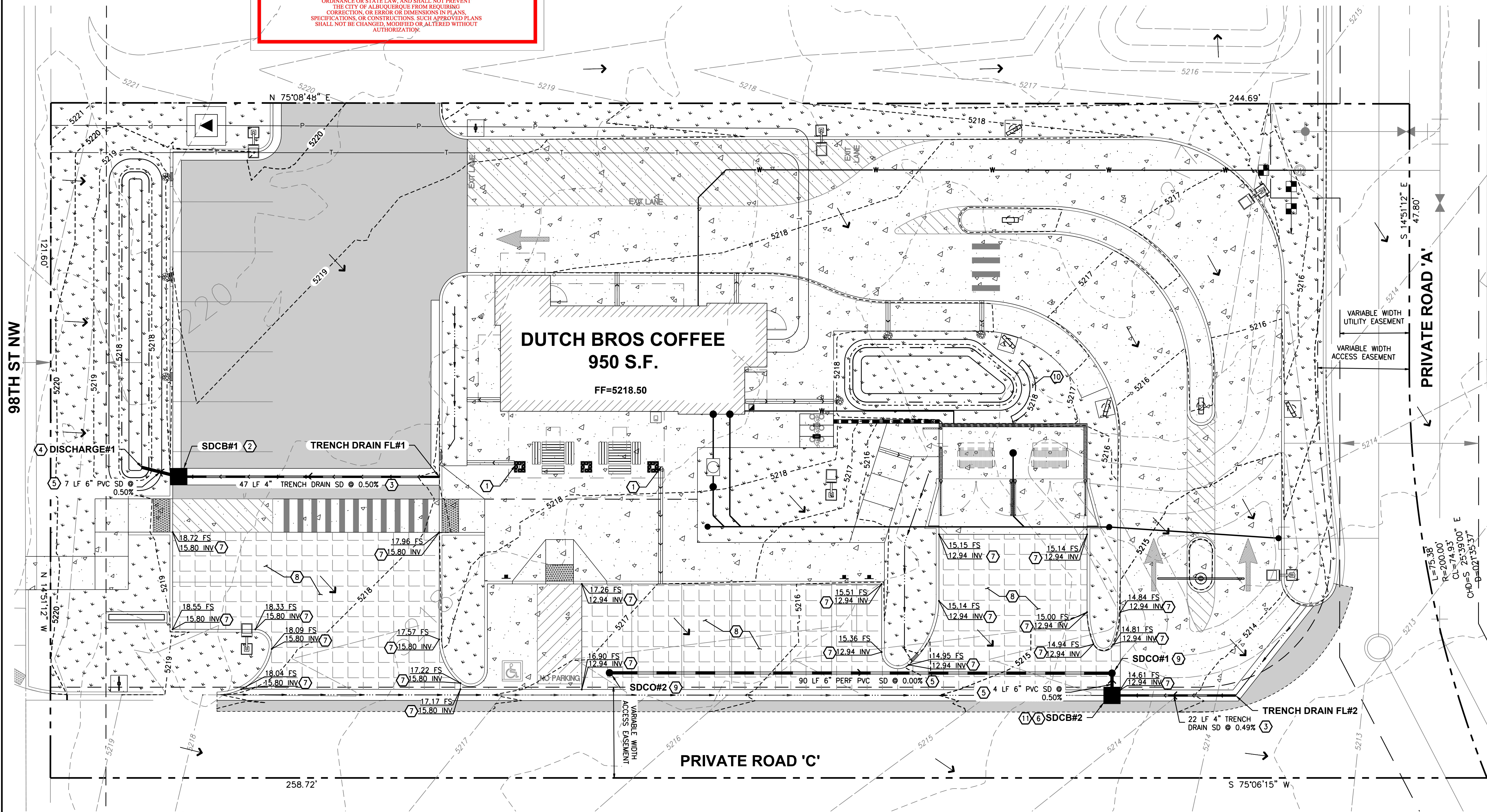
DATE: 2/21/2023

BY: *Regina Cho*

HydroTrans # K09D048B

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE  
CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY  
ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT  
THE CITY OF ALBUQUERQUE FROM REQUIRING  
CORRECTION, OR ERROR OR DIMENSIONS IN PLANS,  
SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS  
SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT  
AUTHORIZATION.

# DUTCH BROS. COFFEE - NM0203, ALBUQUERQUE, NM DRAINAGE PLAN



**UTILITY POTHOLES NOTE:**

THE CIRCLED LOCATIONS ARE REQUIRED TO BE POTHOLED TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITY AND/OR POTENTIAL CONFLICTS WITH EXISTING UTILITIES. POTHOLES SHALL BE PERFORMED PRIOR TO INSTALLING ANY PROPOSED UTILITIES. CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY CONFLICTS.

**UTILITY LOCATION NOTE:**

WATER LINES, CONDUITS FOR ELECTRICAL, OR OTHER UTILITIES SHALL BE LOCATED SO AS TO NOT CONFLICT WITH REQUIRED TREE LOCATIONS FOR STREETS AND PARKING LOTS.

**UTILITY CROSSING NOTE:**

CONTRACTOR SHALL MAINTAIN MINIMUM SEPARATION BETWEEN UTILITIES AS REQUIRED BY JURISDICTIONS HAVING AUTHORITY. CONTRACTOR TO VERIFY SEPARATION REQUIREMENTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

**UTILITY CONFLICT NOTE:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLES THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 811 AND THEN POTHOLES ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

**CATCH BASINS**

DISCHARGE#1,  
RIM=5218.01  
IE=5217.47 (6" E)

SDCB#1,  
RIM=5218.60  
IE=5217.51 (4" E)  
IE=5217.51 (6" W)

SDCB#2,  
RIM=5214.57  
IE=5213.38 (4" E)  
IE=5213.38 (6" N)

SDCO#1,  
RIM=5214.74  
IE=5213.36 (6" W)  
IE=5213.36 (6" S)

SDCO#2,  
RIM=5216.83  
IE=5213.36 (6" E)

TRENCH DRAIN FL#1,  
RIM=5218.11  
IE=5217.74 (4" W)

TRENCH DRAIN FL#2,  
RIM=5213.86  
IE=5213.49 (4" W)

DRAINAGE SUMMARY TABLE

EXISTING CONDITIONS								
BASIN	AREA	RUNOFF (C)	TC (MIN)	Q100, PEAK		Q100, 24 HR		
				i (100-YR) (IN/HR)	Q100 (CFS)	TC (MIN)	i (100-YR) (IN/HR)	Q100 (CFS)
A-1	24,445 SF (0.56 AC)	0.47	5	6.46	1.70	1440	0.10	0.03
TOTAL = 0.56 AC								

PROPOSED CONDITIONS									
BASIN	AREA	RUNOFF (C)	TC (MIN)	i (100-YR) (IN/HR)	Q100, PEAK		Q100, 24 HR		
					Q <sub>UNDETAINED</sub> (CFS)	Q <sub>DETAINED</sub> (CFS)	TC (MIN)	i (100-YR) (IN/HR)	Q <sub>UNDETAINED</sub> (CFS) Q <sub>DETAINED</sub> (CFS) <sup>1</sup>
A-1	5,782 SF (0.13 AC)	0.76	5	6.46	0.64	0.00	1440	0.10	0.01 0.00
A-2	5,061 SF (0.12 AC)	0.79	5	6.46	0.61	0.00	1440	0.10	0.01 0.00
A-3	2,451 SF (0.06 AC)	0.76	5	6.46	0.29	0.00	1440	0.10	0.00 0.00
A-4	11,782 SF (0.27 AC)	0.82	5	6.46	1.43	0.00	1440	0.10	0.02 0.00
TOTAL		25,076 SF (0.57 AC)							

NOTE:  
1) REFER TO STORMWATER CONTROL PLAN FOR DETENTION CALCULATIONS

STORM DRAIN GENERAL NOTES:

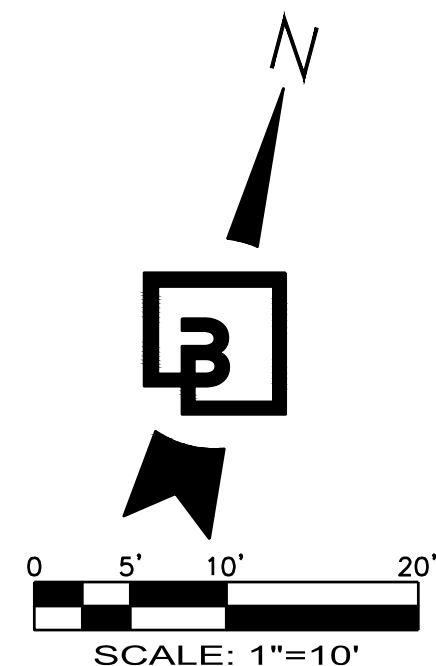
- ALL STRUCTURE ELEVATIONS SHOWN ARE TO CENTER OF STRUCTURE AT FINISH SURFACE (TOP OF ASPHALT OR TOP OF CONCRETE PAVEMENT, NOT TOP OF CURB/SIDEWALK) UNLESS OTHERWISE NOTED.
- ALL STORM DRAINAGE STRUCTURES EXPOSED TO TRAFFIC SHALL BE TRAFFIC RATED INCLUDING STRUCTURE, LID, GRATE, ETC.
- ALL STORM DRAIN PIPING DENOTED AS 'PVC' SHALL CONFORM TO ASTM D3034, SDR 35.
- ALL STORM DRAIN PIPING DENOTED AS 'DIP' SHALL BE CLASS 52 MEETING ANSI/AWWA C151/A21.51.
- ALL STORM PIPING INSTALL WITH LESS THAN 2 FEET OF COVER SHALL BE BACKFILLED WITH A CONTROLLED DENSITY FILL (SLURRY).
- ALL STORM DRAINAGE STRUCTURES WITH LIDS EXPOSED TO PEDESTRIAN TRAFFIC SHALL BE HEEL PROOF AND SLIP RESISTANT IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS.
- PROVIDE ALL INCIDENTAL FITTINGS, BENDS, WYES, TEES, COUPLINGS, GASKETS, ETC. REQUIRED TO CONSTRUCT THE INFRASTRUCTURE DEPICTED.
- ALL TRENCHING SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE PURVEYOR.
- PROVIDE MARKING TAPE AND LOCATE WIRE WITH ALL TRENCH INSTALLATIONS.
- CONTRACTOR TO OBTAIN ANY NECESSARY RIGHT-OF-WAY PERMITS IF REQUIRED FOR WORK SHOWN ON PLANS.
- CONTRACTOR TO RAISE AND ADJUST ALL EXISTING AND PROPOSED CATCH BASIN RIMS TO FINAL GRADE AS NECESSARY. CATCH BASINS WITHIN ADA ACCESSIBLE PATHS SHALL BE ADJUSTED TO FINAL ELEVATIONS IN COMPLIANCE WITH CURRENT ADA REQUIREMENTS.

STORM DRAIN CONSTRUCTION NOTES:

- STORM DRAINAGE DOWNSPOUT CONNECTION, FACILITATE CONNECTION TO TRENCH DRAIN, SEE DETAIL 1/C4.2.
- INSTALL 24" x 24" PRECAST CATCH BASIN WITH GRATED LID, SEE DETAIL 3/C4.2. RIM ELEVATION AND INVERTS AS NOTED IN THE STORM STRUCTURE TABLE. CATCH BASINS LOCATED IN TRAFFIC AREAS SHALL BE TRAFFIC RATED LIDS/GRATES.
- INSTALL 4" PRECAST "DURA TRENCH" TRENCH DRAIN MODEL DTPF4-HDBP082SA WITH 5" DUCTILE IRON SLOTTED GRATE MODEL OGB24DF PER DETAIL 4/C4.2. INSTALL FLUSH TO FINISH GRADE WITH NO VERTICAL CHANGES OVER 1/4". REFER TO GRADING PLAN AND UTILITY PLAN FOR ADDITIONAL INFORMATION. COORDINATE WITH MANUFACTURER PRIOR TO CONSTRUCTION.
- INSTALL STORM DRAINAGE DISCHARGE MITERED END DRAIN; WHITE IN COLOR WITH ENERGY DISSIPATING RIPRAP; SIZE 4"-6" AREA 12"x12" MINIMUM. CONTRACTOR SHALL DAYLIGHT AS REQUIRED.
- INSTALL PVC STORM PIPING, SLOPES, AND ELEVATIONS PER PLAN.
- INSTALL 18" x 18" PRECAST CATCH BASIN WITH GRATED LID, SEE DETAIL 3/C4.2. RIM ELEVATION AND INVERTS AS NOTED IN THE STORM STRUCTURE TABLE. CATCH BASINS LOCATED IN TRAFFIC AREAS SHALL BE TRAFFIC RATED LIDS/GRATES.
- BOTTOM OF RESERVOIR/STONE SUBBASE SECTION OF PERVIOUS PAVERS INVERT OF RESERVOIR SHALL NOT EXCEED 2% TO ALLOW FOR EVEN DISTRIBUTION AND INFILTRATION OF STORM WATER.
- INSTALL PERVIOUS PAVERS PER DETAIL 12/C4.1
- INSTALL STORM CLEANOUT PER DETAIL 4/C4.1
- GRADED BERM. SEE GRADING PLAN FOR ADDITIONAL INFORMATION.
- INSTALL TREATMENT CONTROL DEVICE TO CATCH BASIN PER DETAIL 13/C4.1 AND DETAIL 14/C4.1.

PERVIOUS PAVERS NOTE:

- ALL SPOT ELEVATIONS SHOWN HAVE BEEN 'TRUNCATED' TO INCREASE VISUAL CLARITY. ALL ELAVATIONS ARE PLUS 5200', e.g. 5216.05 = 16.05
- STANDARD ELEVATION: 5216.05  
TRUNCATED ELEVATION: 16.05
- INV - INVERT OR BOTTOM OF GRAVEL/RESERVOIR  
FS - FINISH SURFACE OF PAVERS



LEGEND

- BUILDING LINE
- EXISTING CURB TO REMAIN
- PROPOSED CURB
- PROPOSED LANDSCAPING
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED PERVIOUS PAVERS
- DRAINAGE FLOW

Revision

No.	Date	By	Chk	Appr.

Title:

DRAINAGE PLAN  
220 98TH STREET NW  
ALBUQUERQUE, NM 87121

For:

Scale:

Horizontal 1" = 10'  
Vertical N/A

Designed: JAH  
Drawn: JAH  
Checked: JAH  
Approved: HPG  
Date: 06/03/22

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

Job Number: 22187  
Sheet: C3-2  
2019 DB, LLC  
P:\220005\22187\Engineering\22187-M.dwg 2/2/2023 2:24 PM ENGJEL