

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

February 25, 2019

Jeffrey T. Wooten, P.E.
Wooten Engineering
1005 21st Street SE, Suite 13
Rio Rancho, NM, 87124

RE: Monroe's Restaurant
1025 4th St. NW
Grading and Drainage Plan
Engineer's Stamp Date: 02/11/19
Hydrology File: J14D190

Dear Mr. Wooten:

Based upon the information provided in your submittal received 02/12/2019, the Grading and Drainage Plan is approved for Building Permit, Foundation Permit, and Grading Permit.

PO Box 1293

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

Albuquerque

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 (Curtis Cherne, PE, ccherne@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

NM 87103

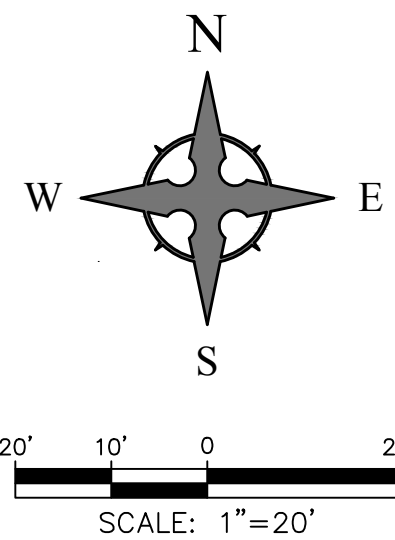
www.cabq.gov

Please provide a Drainage Covenant per Chapter 17 of the DPM for Stormwater Quality ponds and the private storm drain prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A \$25 fee will be required.

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



SIDEWALK CULVERT WEIR CALCULATION

WEIR EQUATION
 $Q = C \cdot L \cdot (H \sim 1.5)$

Given:

C = 2.87 (Weir Coefficient)
L = 2 feet (Width of Flow)
H = 0.67 feet (Depth of Flow)

$Q = 2.87 \cdot 2 \cdot (0.67 \sim 1.5)$
 $Q = 2.87 \cdot 2 \cdot 0.55$
 $Q_{cap} = 3.15 \text{ cfs}$

24" CURB OPENING WEIR CALCULATION

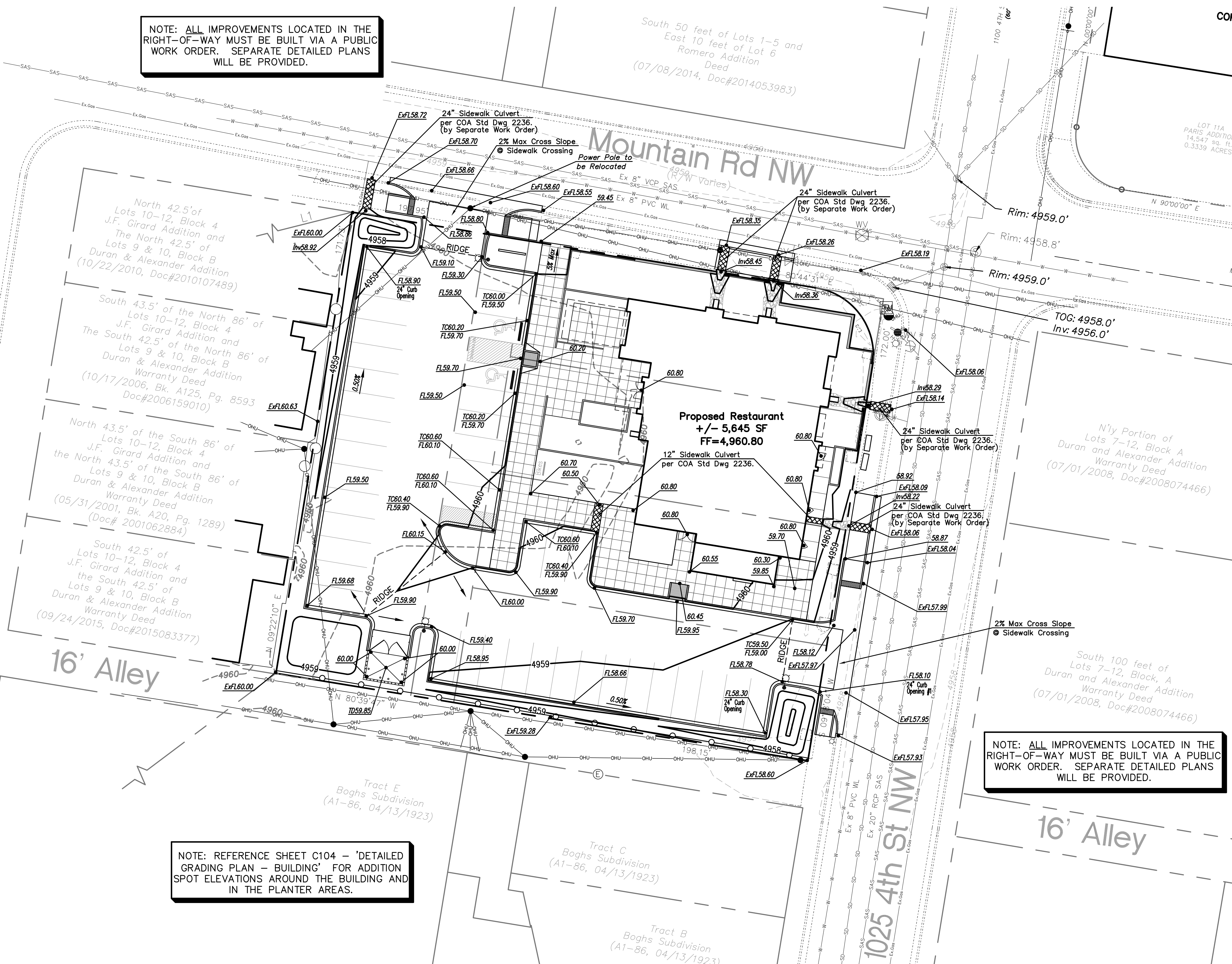
WEIR EQUATION
 $Q = C \cdot L \cdot (H \sim 1.5)$

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L = 2 feet (Width of Flow)
H = 0.67 feet (Depth of Flow)

$Q = 2.87 \cdot 2 \cdot (0.67 \sim 1.5)$
 $Q = 2.87 \cdot 2 \cdot 0.55$
 $Q_{cap} = 3.15 \text{ cfs}$

NOTE: ALL IMPROVEMENTS LOCATED IN THE RIGHT-OF-WAY MUST BE BUILT VIA A PUBLIC WORK ORDER. SEPARATE DETAILED PLANS WILL BE PROVIDED.



NOTE: REFERENCE SHEET C104 - 'DETAILED GRADING PLAN - BUILDING' FOR ADDITION SPOT ELEVATIONS AROUND THE BUILDING AND IN THE PLANTER AREAS.

LEGEND

- 27.8 PROPOSED TOP OF GRADE/PVMT ELEVATIONS
- FL27.8 PROPOSED FLOW LINE/GUTTER ELEVATIONS
- TC27.8 PROPOSED TOP OF CURB ELEVATIONS
- TW27.8 PROPOSED TOP OF WALL ELEVATION
- FGH27.8 PROPOSED GRADE AT TOP OF WALL
- FGL27.8 PROPOSED GRADE AT BOTTOM OF WALL
- 515 EXISTING CONTOUR
- 515 PROPOSED CONTOUR
- EXISTING STORM DRAIN
- FLOW LINE
- RIDGE LINE



VICINITY MAP Zone Atlas J-14
Legal Description: B Lots 1 Thru 5, Replat of Lots 1 Thru 8 Blk B, Duran & Alexander Add. (0.78 Acres)



FIRM MAP 35001C0332G
Per FIRM Map 35001C0332G, dated September 26, 2008, the site is not located in the 'Zone X Floodplain' and determined to be within the 0.2% chance Annual Floodplain area with depths of less than 1 foot.

CAUTION - NOTICE TO CONTRACTOR
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 NEW MEXICO ONE CALL (811) 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.

GRADING NOTES

- EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
- THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
- ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 'GEOTECHNICAL INVESTIGATION,' AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).
- EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
- 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.
- 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.
- 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.
- PAVING AND ROADWAY GRADES SHALL BE +/- 0.05' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR PAVEMENT, MEDIANS, AND ISLANDS.
- VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION (IF APPLICABLE) PRIOR TO BEGINNING CONSTRUCTION.
- 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.



STUDIO CONSULTANTS, INC.
PO BOX 1515
CEDAR CREST NM, 87008
DANIEL@ARIASCINC.COM
(505) 506-2314



Monroe's
1025 4th St. NW
ALBUQUERQUE, NM 87102



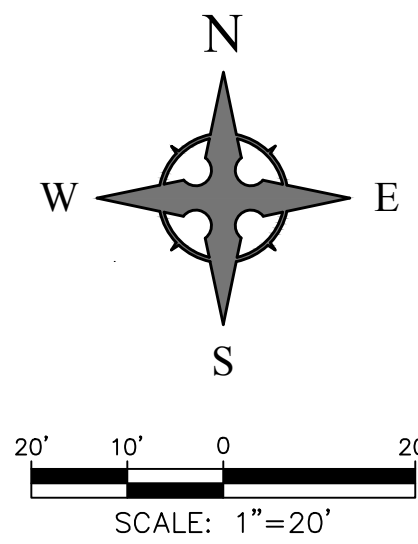
Architect/Engineer

MARK	DATE	DESCRIPTION
REVISIONS		
ISSUE		Foundation Permit Set
PROJECT NO	2018029	
CAD DWG FILE		
DRAWN BY	RMG	
CHECKED BY	JTW	
DATE	February 11, 2019	

GRADING PLAN

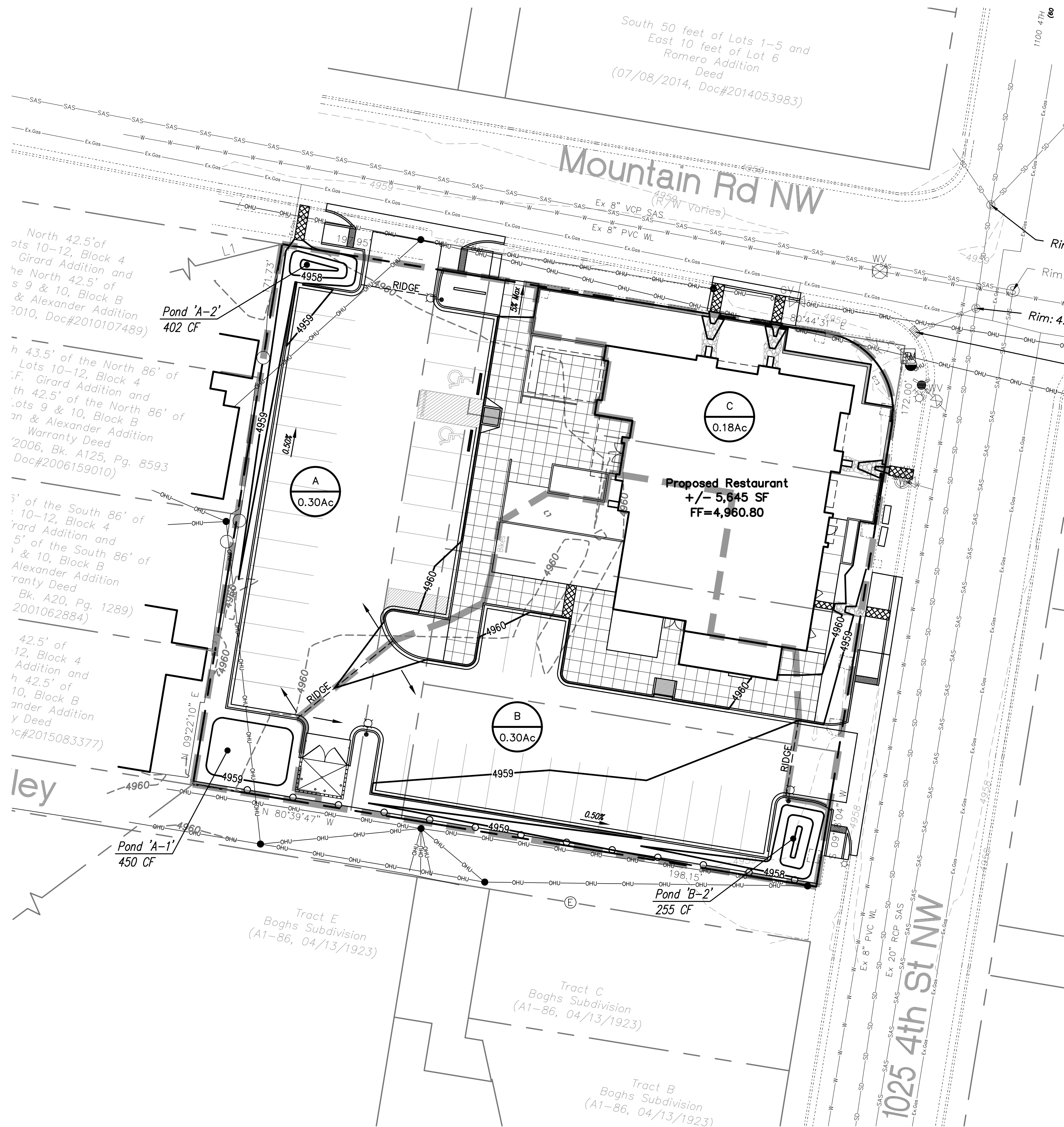
W E Wooten Engineering
1005 21st St SE Suite 13
Rio Rancho, N.M. 87124
Phone: (505) 980-3560

C101



NOTE:
PRE-CONSTRUCTION RUNOFF COEFFICIENT: 0.95
POST-CONSTRUCTION RUNOFF COEFFICIENT: 0.80

NOTE: TOTAL DISTURBED AREA IS ±0.91 ACRES. PLEASE SEE THE LANDSCAPE AND SITE PLAN FOR AREAS TO BE STABILIZED VEGETATIVELY AND PAVED/ROOFED



DRAINAGE MANAGEMENT PLAN

INTRODUCTION

The purpose of this submittal is to provide a final grading plan and drainage management plan for the subject project located at 1025 4th St NW. The overall development contains approximately 0.78 acres and is located at the southwest corner of 4th St NW and Mountain Rd NW in Albuquerque, NM.

EXISTING HYDROLOGIC CONDITIONS

The site currently surface drains to both 4th St NW and Mountain Rd NW and into an existing storm drain inlet located at the corner of 4th St and Mountain. The site is currently being used as an asphalt parking lot and is near 100% impervious.

PROPOSED HYDROLOGIC CONDITIONS

The proposed Monroes development will continue to surface drain to both 4th St and Mountain; however, new Stormwater Quality Ponds will be provided for Basins A and B. Due to the increase in Landscape Areas on the site, the runoff from the site will be reduced substantially.

Basin C contains roof drainage that will discharge to the north and east sides of the new building. These areas must discharge directly to 4th St and Mountain via Sidewalks culverts without ponding because the existing soils have a moderate clay content and we cannot risk damage to the building due to expansion or contraction of these clay soils. The Developer will be required to make a Payment-in-Lieu to the City of Albuquerque since Stormwater Quality ponding is not being provided in this basin.

Reference Calculations Tables this sheet for all Drainage and Ponding Calculations.

CONCLUSION

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



VICINITY MAP Zone Atlas J-14

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IMPERVIOUS AREA CALCULATIONS

BASIN A

TOTAL BASIN AREA: 12,907 SF
PERVIOUS AREA: 2,491 SF (19.3%)
IMPERVIOUS AREA: 10,416 SF (80.7%)

BASIN B

TOTAL BASIN AREA: 13,195 SF
PERVIOUS AREA: 2,756 SF (20.9%)
IMPERVIOUS AREA: 10,439 SF (79.1%)

BASIN C

TOTAL BASIN AREA: 7,801 SF
PERVIOUS AREA: 2,846 SF (36.5%)
IMPERVIOUS AREA: 4,955 SF (63.5%)

STORMWATER QUALITY CALCULATIONS

BASIN A

TOTAL IMPERVIOUS AREA = 10,416 SF
VOLUME REQ'D = 10,416 * 0.26" / 12 = **226 CF**
TOTAL VOLUME PROVIDED (2 PONDS) = **402 CF**

BASIN B

TOTAL IMPERVIOUS AREA = 10,439 SF
VOLUME REQ'D = 10,439 * 0.26" / 12 = **226 CF**
TOTAL VOLUME PROVIDED = **255 CF**

BASIN C

TOTAL IMPERVIOUS AREA = 4,955 SF
VOLUME REQ'D = 4,955 * 0.26" / 12 = **107 CF**
TOTAL VOLUME PROVIDED = **0 CF**

SITE TOTAL VOLUME REQUIRED = **559 CF**
SITE TOTAL VOLUME PROVIDED = **657 CF**

Existing Drainage Calculations											
This table is based on the COA DPM Section 22.2, Zone: 2											
BASIN	Area (SQ. FT.)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WTE (inches)	V(100)360 (CF)	V(100)1440 (CF)
A	12907	0.30	0.0%	0.0%	5.0%	95.0%	4.62	1.37	2.07	2227	2636
B	13195	0.30	0.0%	0.0%	5.0%	95.0%	4.62	1.40	2.07	2277	2695
C	7801	0.18	0.0%	0.0%	5.0%	95.0%	4.62	0.83	2.07	1346	1593
TOTAL	33903	0.78						3.60		5850	6923

Proposed Drainage Calculations											
Ultimate Development Conditions Basin Data Table											
This table is based on the COA DPM Section 22.2, Zone: 2											
BASIN	Area (SQ. FT.)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WTE (inches)	V(100)360 (CF)	V(100)1440 (CF)
A	12907	0.30	0.0%	0.0%	19.0%	81.0%	4.40	1.30	1.93	2078	2426
B	13195	0.30	0.0%	0.0%	21.0%	79.0%	4.37	1.32	1.91	2103	2450
C	7801	0.18	0.0%	0.0%	36.0%	64.0%	4.14	0.74	1.76	1146	1313
TOTAL	33903	0.78						3.37		5327	6189

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Architect/Engineer

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DRAINAGE MANAGEMENT
PLAN

C102