

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



Richard J. Berry, Mayor

November 10, 2015

Jeffrey T. Wooten
Wooten Engineering
1368 Reynosa Loop SE
Rio Rancho, NM, 87124

**RE: 4100 and 4208 Central Ave NW (Conn's & Burlington)
Drainage and Grading Plan
Engineer's Stamp Date 9-22-2015 (File: K12D015A)**

Dear Mr. Wooten:

Based upon the information provided in your submittal received 9-22-2015, the above referenced plan is approved for Grading Permit, Paving Permit, and 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, you can contact me at 924-3986.

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

Orig: Drainage file

K12d015a_Bp_Gp_Pave_Appr



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____

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

Legal Description: _____

City Address: _____

Engineering Firm: _____ **Contact:** _____

Address: _____

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

Owner: _____ **Contact:** _____

Address: _____

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

Architect: _____ **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:

- ☐ ENGINEER/ ARCHITECT CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ OTHER (SPECIFY) _____

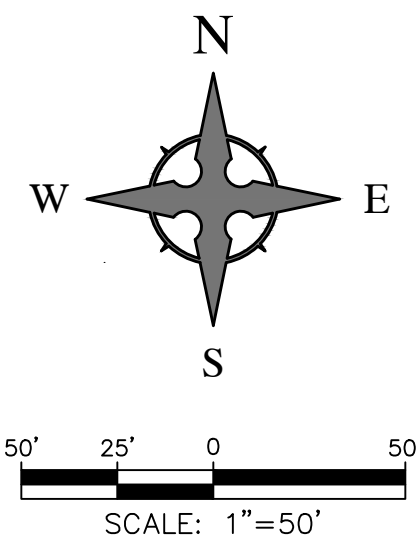
CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ 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
- ☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

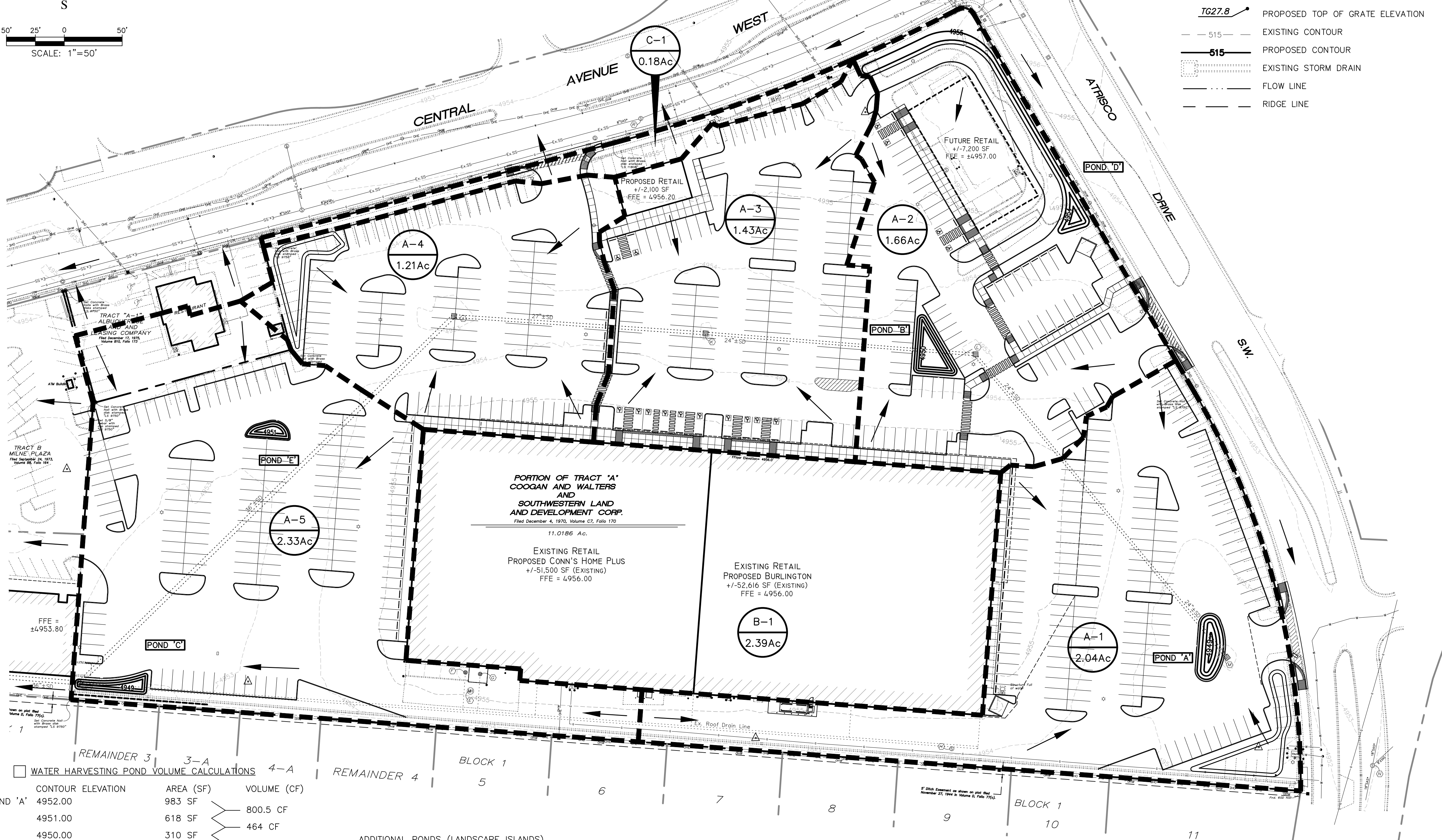
DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



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 THE APPROPRIATE UTILITY COMPANY 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.



	CONTOUR ELEVATION	AREA (SF)	VOLUME (CF)
POND 'A'	4952.00	983 SF	800.5 CF
	4951.00	618 SF	464 CF
	4950.00	310 SF	186 CF
	4949.00	62 SF	
	TOTAL		1,450.5 CF
POND 'B'	4953.00	1,166 SF	1,024 CF
	4952.00	882 SF	752 CF
	4951.00	622 SF	511 CF
	4950.00	400 SF	
	TOTAL		2,287 CF
POND 'C'	4951.00	676 SF	536 CF
	4950.00	396 SF	268 CF
	4949.00	140 SF	
	TOTAL		804 CF
POND 'D'	4955.00	1,844 SF	699.5 CF
	4954.50	955 SF	304.5 CF
	4954.00	263 SF	168.5 CF
	4953.00	74 SF	
	TOTAL		1,172.5 CF
POND 'E'	4953.00	378 SF	299 CF
	4952.00	220 SF	157 CF
	4951.00	94 SF	
	TOTAL		456 CF
SUBTOTAL		6,170 CF	

ADDITIONAL PONDS (LANDSCAPE ISLANDS)
AVERAGE AREA PER LANDSCAPE ISLAND = 300 SF
AVERAGE DEPTH PER LANDSCAPE ISLAND = 6"
AVERAGE VOLUME PER LANDSCAPE ISLAND = 150 CF
TOTAL NUMBER OF ISLANDS = 40
TOTAL VOLUME = 6,000 CF
GRAND TOTAL = 6,170 CF+6,000 CF = 12,170 CF

IMPERVIOUS AREA CALCULATIONS

EXISTING SITE CONDITIONS

PERVIOUS AREA: 16,526 SF
IMPERVIOUS AREA: 463,443 SF
TOTAL SITE AREA: 479,969 SF
% IMPERVIOUS = 96.56%

PROPOSED SITE CONDITIONS

PERVIOUS AREA: 65,301 SF
IMPERVIOUS AREA (EXCL. BLDGS): 310,553 SF
MAIN RETAIL BUILDING AREA: 104,115 SF
TOTAL SITE AREA: 479,969 SF
% IMPERVIOUS = 86.39%

TOTAL REDUCTION OF IMPERVIOUS AREA = 48,775 SF

NOTE: THE MAIN RETAIL BUILDING IS TO BE EXCLUDED FROM THE FIRST FLUSH CALCULATIONS SINCE IT DRAINS TO A BELOW GRADE STORM DRAIN SYSTEM AND CANNOT BE CAPTURED IN THE LANDSCAPE AREAS.

FIRST FLUSH CALCULATION

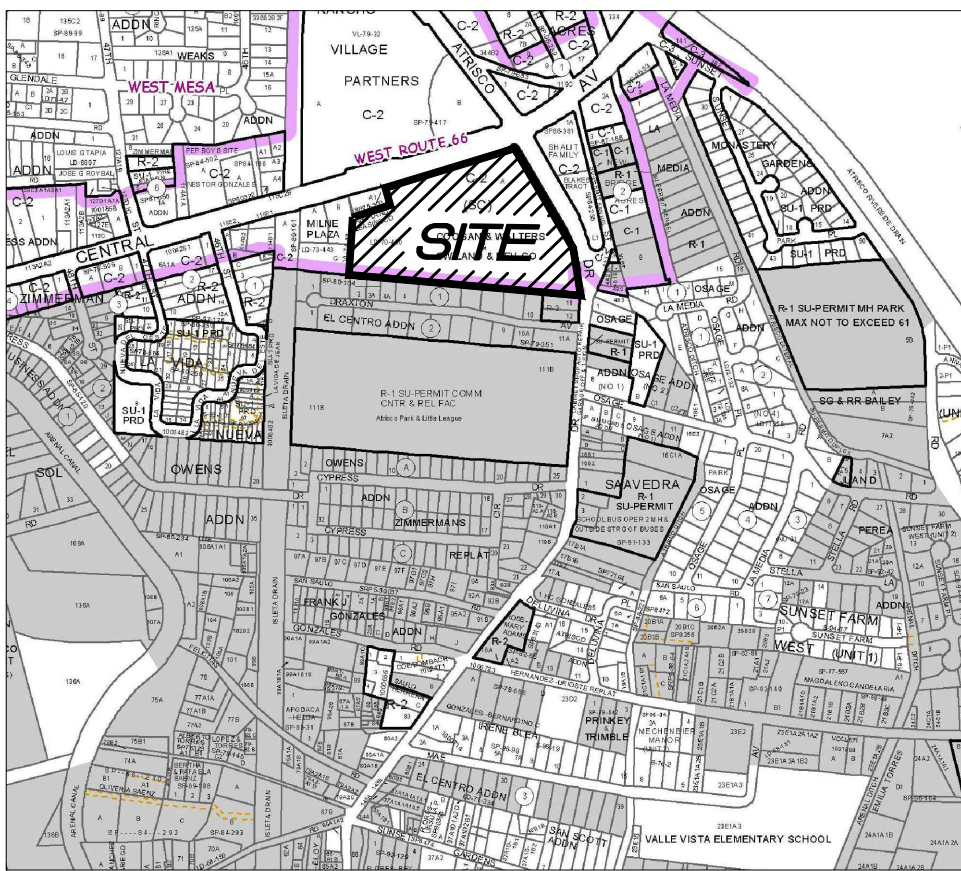
TOTAL IMPERVIOUS AREA (LESS MAIN RETAIL BLDG) = 310,553 SF
FIRST FLUSH = 310,553 * 0.34" / 12 = 8,799 CF

Existing West Central/Atrisco Drainage Calculations											
This table is based on the COA DPM Section 22.2, Zone:1											
BASIN	Area (SQ. FT)	Area (AC)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WTE (inches)	V(100) ₉₆₀ (CF)	V(100) ₁₄₄₀ (CF)
A-1	88652	2.04	0.0%	0.0%	3.4%	96.6%	4.32	8.79	1.94	14308	17162
A-2	72473	1.66	0.0%	0.0%	3.4%	96.6%	4.32	7.19	1.94	11696	14030
A-3	62387	1.43	0.0%	0.0%	3.4%	96.6%	4.32	6.19	1.94	10069	12077
A-4	52756	1.21	0.0%	0.0%	3.4%	96.6%	4.32	5.23	1.94	8514	10213
A-5	101524	2.33	0.0%	0.0%	3.4%	96.6%	4.32	10.07	1.94	16385	19654
B-1	104116	2.39	0.0%	0.0%	3.4%	96.6%	4.32	10.32	1.94	16803	20156
C-1	7960	0.18	0.0%	0.0%	3.4%	96.6%	4.32	0.79	1.94	1285	1541
TOTAL	489868	11.25						48.57		79060	94834

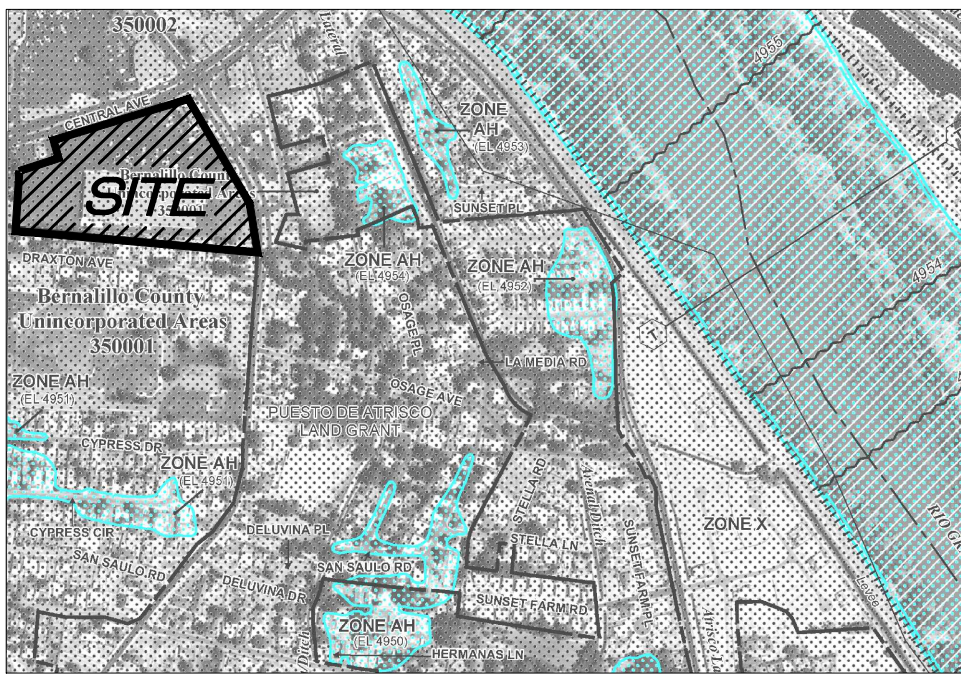
Proposed West Central/Atrisco Drainage Calculations											
Ultimate Development Conditions Basin Data Table											
This table is based on the COA DPM Section 22.2, Zone:1											
BASIN	Area (SQ. FT)	Area (AC)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WTE (inches)	V(100) ₉₆₀ (CF)	V(100) ₁₄₄₀ (CF)
A-1	88652	2.04	0.0%	0.0%	13.4%	96.4%	4.16	8.47	1.83	13554	16108
A-2	72473	1.66	0.0%	0.0%	13.4%	96.4%	4.16	6.92	1.83	11081	13168
A-3	62387	1.43	0.0%	0.0%	13.4%	96.4%	4.16	5.96	1.83	9539	11335
A-4	52756	1.21	0.0%	0.0%	13.4%	96.4%	4.16	5.04	1.83	8066	9586
A-5	101524	2.33	0.0%	0.0%	13.4%	96.4%	4.16	9.70	1.83	15523	18446
B-1	104116	2.39	0.0%	0.0%	13.4%	96.4%	4.16	9.94	1.83	15919	18917
C-1	7960	0.18	0.0%	0.0%	13.4%	96.4%	4.16	0.76	1.83	1217	1446
TOTAL	489868	11.25						46.79		74898	89007

LEGEND

- FLOW ARROW
- 27.8 PROPOSED TOP OF GRADE/PVMT ELEVATIONS
- FL27.8 PROPOSED FLOW LINE/GUTTER ELEVATIONS
- TC27.8 PROPOSED TOP OF CURB ELEVATIONS
- TC27.8 PROPOSED TOP OF GRATE ELEVATION
- 515 EXISTING CONTOUR
- 515 PROPOSED CONTOUR
- EXISTING STORM DRAIN
- FLOW LINE
- RIDGE LINE



VICINITY MAP - Zone Atlas K-12



FIRM MAP 35001C0333H

Per FIRM Map 35001C0333H, dated August 16, 2012, the site is located in the 0.2% chance Annual Floodplain with Average Depth of less than 1 foot.

DRAINAGE MANAGEMENT PLAN

INTRODUCTION

The purpose of this submittal is to provide a final drainage management plan for the Redevelopment of West Central/Atrisco, located at the SWC of Central Ave SW and Atrisco Dr SW in Albuquerque, NM. The site contains approximately 11.02 acres. We were unable to locate an existing Drainage Study for the site; however, the site is currently 100% Developed and the site is currently +/-96.6% Impervious.

EXISTING HYDROLOGIC CONDITIONS

The site is currently developed and drains via an underground storm drain system which outfalls to an existing 36" storm drain in the alley to the west of the site. The parking lot currently surface drains to several Type 'D' Inlets as shown on the Grading Plan. The roof of the existing main retail building (the old KMart) drains to downspouts which are connected to a storm drain system on the south side of the building. This roof drain connects to the main site storm sewer system located at the southwest corner of the site. There is a small off-site drainage area that flows onto the site from the existing Long John Silver's site as shown within Basins 'A-4' and 'A-5'. Per the Calculations table this sheet, the total existing flow leaving the site in the storm drain system is 47.78 cfs during the 100-Yr Storm Event. This excludes Basin 'C-1', which is a small area that drains to Central Ave. We calculate that approximately 96.6% of the site is currently impervious.

PROPOSED HYDROLOGIC CONDITIONS

In Redeveloping this site, we are trying to use as much of the existing pavement as possible while increasing the pervious areas in order to reduce runoff volumes from the site. The drainage patterns remain the same as the Pre-Developed condition; however, we have added some water harvesting ponds in key areas in order to capture the first flush from the site.

Without accounting for the detention/retention in the proposed Water Harvesting ponds, the total runoff from the site (excluding Basin 'C-1') is 46.03 cfs during the 100-Yr Storm Event. This is a 1.75 cfs reduction below Pre-Developed condition.

In addition, per the Calculations Table this sheet there is a reduction of the 100-Yr, 24-Hr Volume of 5,827 CF. Adding this volume reduction to the Water Harvesting Pond Volume provided (12,170 CF) gives us a total Volume reduction of 17,977 CF.

FIRST FLUSH CALCULATIONS

Per the First Flush Calculations on this sheet, the total First Flush Volume required to be collected for the site is 8,799 CF. Since the roof of the existing large retail building is flowing directly into a storm drain system and cannot be routed through a landscape area, we have not taken the building roof area into account for the calculation. Per the Water Harvesting Pond Calculations table this sheet, we are collecting 12,170 CF of flow from the site which is greater than that required.

CONCLUSION

This drainage management plan provides for grading and drainage elements which reduce the impact to downstream systems; are capable of safely passing the 100 year storm, do not burden downstream systems, and meet city requirements. In addition, the proposed water harvesting ponds will help treat stormwater runoff per the DPM. The proposed improvements to the site should not have any negative impacts to facilities downstream. With this submittal, we are requesting Drainage Management Plan and Building Permit approval for both the Conn's Home Plus and Burlington Coat Factory projects. Each project located on site will apply for a separate Building Permit.

Wooten Engineering
1368 Reynosa Loop SE
Rio Rancho, NM 87124
Ph: 505.980.3560

MODULUS ARCHITECTS
220 COPPER AVE. N.W. SUITE 350
ALBUQUERQUE, NEW MEXICO 87102
PHONE (505) 338-1499 FAX (505) 338-1498

PROJECT TITLE
WEST CENTRAL - ATRISCO
4208 CENTRAL AVE. SW
ALBUQUERQUE NEW MEXICO

DRAWN BY:
JTW

JOB NO.
2015033

PROJECT MANAGER
JEFF WOOTEN

SHEET TITLE
DRAINAGE MANAGEMENT PLAN

DATE:
9/22/15

SCALE:
AS NOTED

sheet-
C1.2

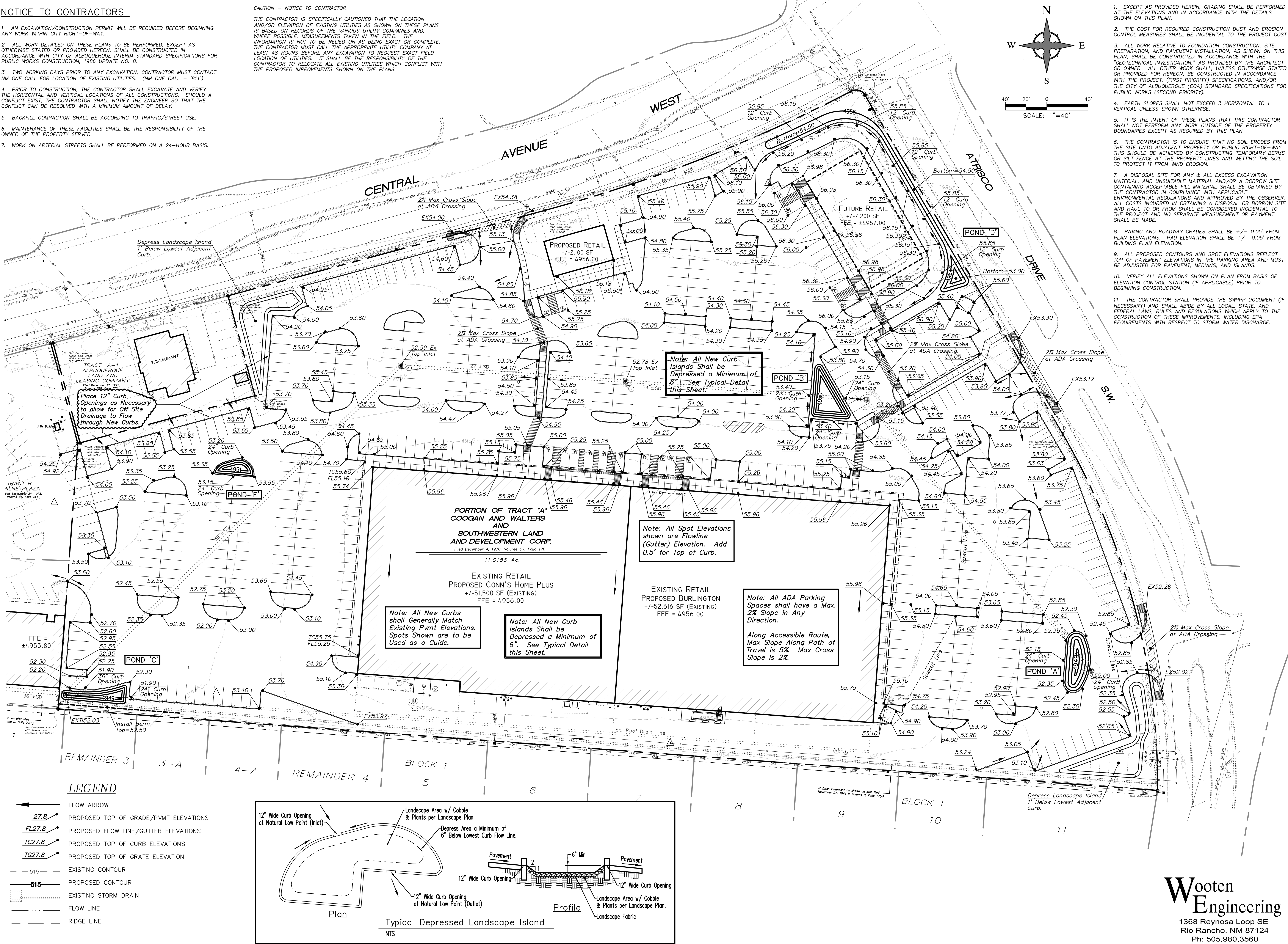
1
3

NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 UPDATE NO. 8.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NM ONE CALL FOR LOCATION OF EXISTING UTILITIES. (NM ONE CALL = '811')
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

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 THE APPROPRIATE UTILITY COMPANY 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.



REV	DATE	BY	REVISION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

MODULUS ARCHITECTS
220 COPPER AVE. N.W. SUITE 350
ALBUQUERQUE, NEW MEXICO 87102
PHONE (505) 338-1499 FAX (505) 338-1498

JEFFREY TODD WOOTEN
NEW MEXICO
16892
PROFESSIONAL ENGINEER
9/30/2015

PROJECT TITLE: WEST CENTRAL - ATRISCO
4208 CENTRAL AVE. SW
ALBUQUERQUE, NEW MEXICO
DRAWN BY: JTW
JOB NO.: 2015033
PROJECT MANAGER: JEFF WOOTEN
SHEET TITLE: GRADING PLAN

DATE: 9/22/15
SCALE: AS NOTED
SHEET: 1
C1.1
OF: 3

Wooten Engineering
1368 Reynosa Loop SE
Rio Rancho, NM 87124
Ph: 505.980.3560