CITY OF ALBUQUERQUE



September 7, 2017

Jeffery Wooten, P.E. Wooten Engineering 1005 21st St SE, Suite A5 Rio Rancho, NM 87124

RE: Heritage Marketplace Tract C3
1720 Unser Blvd
Conceptual Grading and Drainage Plan
Engineer's Stamp Date 8/11/17 (File: H09D027)

Dear Mr. Wooten:

Based on the information provided in your submittal received 8/15/17, the Grading and Drainage Plan is approved for Building Permit. Prior to Certificate of Occupancy the following condition will need to be met:

PO Box 1293

1. A Bernalillo County Recorded Private Facility Drainage Covenant is required on the ponds.

Albuquerque

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

NM 87103

Sincerely,

www.cabq.gov

Dana Peterson, P.E.

Senior Engineer, Planning Dept. Development Review Services



City of Albuquerque

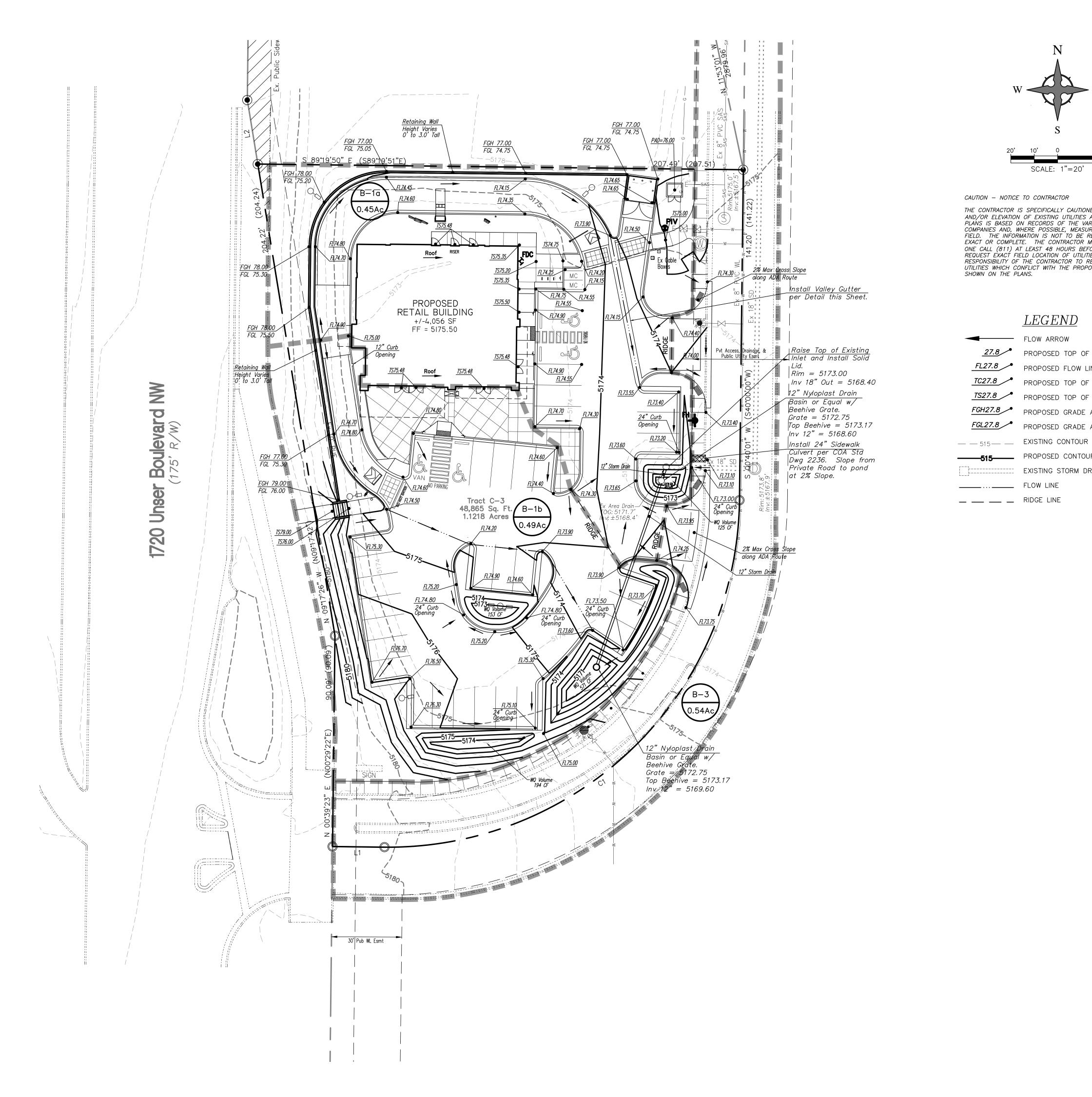
Planning Department

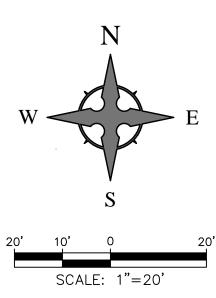
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

City Drainage #:
Work Order#:
Contact:
-
E-mail:
Contact:
-
E-mail:
Contact:
E-mail:
Contact:
E-mail:
F APPROVAL/ACCEPTANCE SOUGHT: PERMIT APPROVAL TE OF OCCUPANCY
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RY PLAT APPROVAL
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FOR BLDG. PERMIT APPROVAL
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MEETING
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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 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.

<u>LEGEND</u> ----- FLOW ARROW 27.8 PROPOSED TOP OF GRADE/PVMT ELEVATIONS PROPOSED FLOW LINE/GUTTER ELEVATIONS PROPOSED TOP OF CURB ELEVATIONS PROPOSED TOP OF SIDEWALK ELEVATIONS PROPOSED GRADE AT TOP OF WALL PROPOSED GRADE AT BOTTOM OF WALL

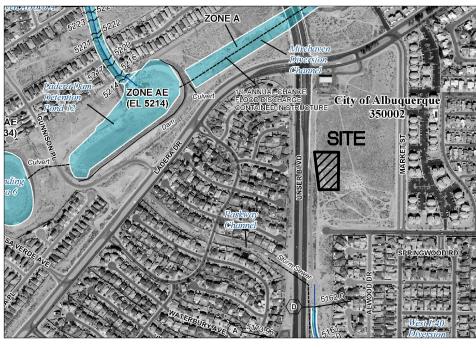
_____515____ PROPOSED CONTOUR EXISTING STORM DRAIN

_____ FLOW LINE _ _ _ RIDGE LINE



VICINITY MAP - Zone Atlas Page H-9-Z

Legal Desc: Tract C-3, Heritage Marketplace



FIRM MAP 35001C0326J

Per FIRM Map 35001C0326J, dated November 4, 2016, the site is not located outside of the 0.2% Annual Chance Floodplain.

GRADING NOTES

1. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.

2. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.

3. 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).

4. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.

5. 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.

6. 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.

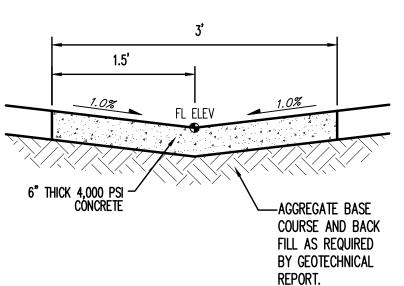
7. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.

8. PAVING AND ROADWAY GRADES SHALL BE +/- 0.05' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN

9. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR PAVEMENT, MEDIANS, AND ISLANDS.

10. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION (IF APPLICABLE) PRIOR TO BEGINNING CONSTRUCTION.

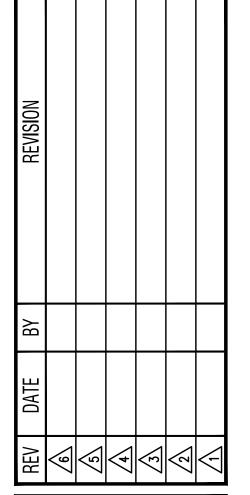
11. THE CONTRACTOR SHALL PROVIDE THE SWPPP DOCUMENT (IF NECESSARY) AND SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.

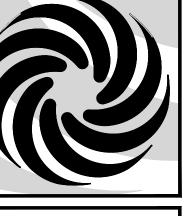


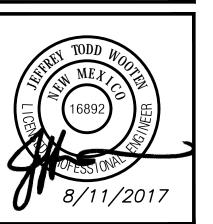
Valley Gutter Detail



Wooten Engineering 1005 21st St SE, Suite 13 Rio Rancho, N.M. 87124 Rio Rancho, N.M. 8712 Phone: (505) 980-3560







HERITAGE MARKET PLACE — TRACT (1720 UNSER BLVD NW ALBUQUERQUE, NEW MEXICO 87120	PROJECT MANAGER JOB NO. DRAWN	JEFF WOOTEN 2016029 JEFF WOC	SHEET TITLE	Grading Plan	
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TE:		sheet-			ĺ
B/11/2017			1	1	

AS NOTED

			E	xisting	Draina	ge Cald	ulation	IS				
	Th	is table is based on	the COA DPI	/ Section :	22.2. Zone:	1						
BASIN	Area	Area			Percentage		Q(100)	Q(100)	WTE	V(100) ₃₆₀	V(100)	V(100) _{10day}
BAOIN	(SQ. FT)	(AC.)	A	В	C	D D	(cfs/ac.)	(CFS)	(inches)	(CF)	(CF)	(CF)
D 1-						_		, ,		, ,		
B-1a	19694	0.45	0.0%	0.0%	100.0%	0.0%	2.87	1.30	0.99	1625	1625	1625
B-1b	21297	0.49	0.0%	0.0%	100.0%	0.0%	2.87	1.40	0.99	1757	1757	1757
B-3	23728	0.54	0.0%	0.0%	0.0%	100.0%	4.37	2.38	1.97	3895	4686	7059
TOTAL	64719	1.49						5.08		7277	8068	10441
			Propo	Proposed Drainage Calculations								
			Ultimate Development Conditions Basin Data Table									
	Th	is table is based on	the COA DPI	/ Section :	22.2, Z one:	1						
BASIN	Area	Area	Land	Treatment	Percentage	es	Q(100)	Q(100)	WTE	V(100) ₃₆₀	V(100) ₁₄₄₀	V(100) _{10day}
	(SQ. FT)	(AC.)	Α	В	С	D	(cfs/ac.)	(CFS)	(inches)	(CF)	(CF)	(CF)
B-1a	19694	0.45	0.0%	0.0%	25.0%	75.0%	4.00	1.81	1.73	2831	3323	4800
B-1b	21297	0.49	0.0%	0.0%	29.0%	71.0%	3.94*	1.92	1.69	2992	3496	5008
B-3	23728	0.54	0.0%	0.0%	0.0%	100.0%	4.37*	2.38	1.97	3895	4686	7059
TOTAL	64719	1.49						6.11		9718	11506	16867

^{*} MAXIMUM ALLOWABLE DISCHARGE PER THE HERITAGE MARKETPLACE DRAINAGE REPORT = 2.4 CFS/ACRE. (3.58 CFS TOTAL)

IMPERVIOUS AREA CALCULATIONS

PROPOSED SITE CONDITIONS

TOTAL SITE AREA: 40,991 SF IMPERVIOUS AREA (86.41%): 35,420 SF

FIRST FLUSH CALCULATION

TOTAL IMPERVIOUS AREA = 35,420 SF FIRST FLUSH = 35,420 * 0.34" / 12 = 1,004 CF TOTAL VOLUME PROVIDED = 1,043 CF

Detention Pond Volume Calculations

Elevation	Area	Volume	Volume Sum
(ft)	(sq.ft)	(cu-ft)	(cu-ft)
5168.6 5169.0 5170.0 5171.0 5172.0 5173.0 5174.0	1 4 4 134 326 788 11278	0.0 2.5 4.0 69.0 230.0 557.0 6033.0 (0.232	0.0 2.5 6.5 75.5 305.5 862.5 6895.5 acre-ft)

100 YEAR (6 HOUR) POND ROUTING SUMMARY

HEC-HMS used for Pond Analysis
No Infiltration assumed in Calculations

INITIAL CONDITIONS

Starting WS Elev = 5068.60 ft
Starting Volume = 0.00 ac-ft
Starting Outflow = 0.00 cfs

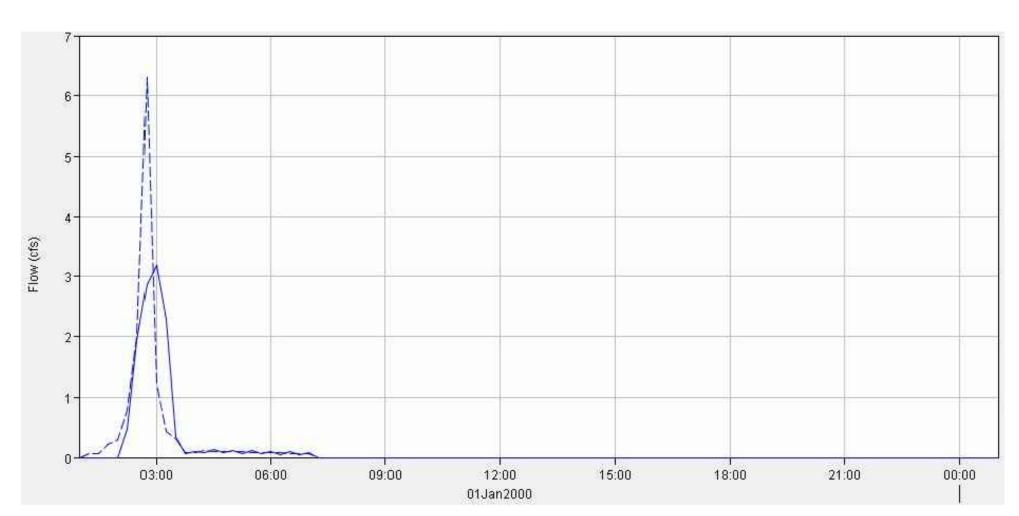
MAXIMUM STORAGE
Tp, min Elev, ft Vol, ac-ft

120.00 5173.5 0.10

ACTUAL TOP OF POND ELEVATION = 5174.0 FREEBOARD PROVIDED = 0.5'

FORWARD FLOW PEAKS
Tp, min Qp, cfs

Pond Inflow.... 105.00 6.30 Pond Outflow... 120.00 3.20



POND HYDROGRAPHS

DRAINAGE MANAGEMENT PLAN

INTRODUCTION

The purpose of this submittal is to provide a grading plan and drainage management plan for the development of Tract C-3, Heritage Marketplace addition. The site is located at 1720 Unser Blvd NW in Albuquerque, NM. The site contains approximately 1.12 acres. The proposed development consists of a new Retail Building containing a Starbucks with a Drive-Thru window with associated parking lot and landscaping. The City Drainage File Number of the prior drainage report by Tierra West dated 2/20/2015 is H09/D024.

EXISTING HYDROLOGIC CONDITIONS

The site was previously mass graded to allow for future development and generally slopes from west to east to an existing 24" diameter inlet that drains via an 18" SD pipe northward into the drainage system installed for the Heritage Marketplace development. Per the Heritage Marketplace drainage report, the maximum allowable discharge from the development is 2.4cfs/acre. Since the total basin area draining to the existing inlet is 1.49 acres, the maximum discharge from the site is 3.58cfs.

PROPOSED HYDROLOGIC CONDITIONS

The site will continue to drain from west to east through a series of water quality ponds and into two new 12" drain basins with 12" dome grates. The 12" drain basins are located in ponding areas that comprise a new detention facility. The ponds are controlled via a 12" orifice pipe at the outlet of the drain located in Basin B-1a. Reference calculations this sheet.

According to the Basin Calculations table this sheet, there is approximately 6.11cfs (9,718 CF) generated from the developed site during the 100-Yr, 6-Hr Storm that will drain to the new detention pond. This also takes into account the drainage from the existing access road to the south and east of the site per the Heritage Marketplace Drainage Report. Although the Tierra West report showed a new inlet to capture the flows from the access road, this inlet was not actually installed. These flows have been taken into account into our calculations. Per the Pond Routing Summary this sheet, the maximum water surface elevation of the proposed pond is 5173.50 allowing for 0.5' of freeboard to an elevation of 5074.00. These calculations do not take into account the routing of flows through the water quality ponds; therefore, the actual volume of stormwater being routed through the detention pond will be 1,043 CF less than than the flows shown providing additional

FIRST FLUSH CALCULATIONS

Per the Impervious Area Calculations Table this sheet, we are required to provide a Water Quality Pond with a volume of 1,004 CF. The volume of the Water Quality Ponds as designed is 1,043 CF, which is more than the required volume.

freeboard in the main pond. Refer to the First Flush Calculations below.

CONCLUSION

This drainage management plan provides for grading and drainage elements which are capable of safely passing the 100 year storm, contains the First Flush, and meets city requirements. The proposed improvements for the site should not have any negative impacts to facilities downstream. With this submittal, we are requesting approval of the Site Plan for Building Permit and the Building Permit.

Project: Heritage Starbucks	Simulation Run: Run 1
Reservoir: Re-	servoir-1

Start of Run:	01Jan2000, 01:00	Basin Model:	Basin 1
End of Run:	02Jan2000, 01:00	Meteorologic Model:	Met 1
Compute Time	::23May2017, 15:47:05	Control Specifications	s:Control 1

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	01:00	0.0	0.0	5168.6	0.0
01Jan2000	01:15	0.1	0.0	5170.2	0.0
01Jan2000	01:30	0.1	0.0	5171.0	0.0
01Jan2000	01:45	0.2	0.0	5171.6	0.0
01Jan2000	02:00	0.3	0.0	5172.3	0.0
01Jan2000	02:15	0.8	0.0	5172.8	0.5
01Jan2000	02:30	2.0	0.0	5173.0	1.9
01Jan2000	02:45	6.3	0,1	5173.3	2.9
01Jan2000	03:00	1.2	0,1	5173.5	3.2
01Jan2000	03:15	0.4	0.0	5173.1	2,3
01Jan2000	03:30	0.3	0.0	5172.8	0.4
01Jan2000	03:45	0,1	0.0	5172.8	0.1
01Jan2000	04:00	0.1	0.0	5172.8	0.1
01Jan2000	04:15	0.1	0.0	5172.8	0.1
01Jan2000	04:30	0.1	0.0	5172.8	0.1
01Jan2000	04:45	0.1	0.0	5172.8	0.1
01Jan2000	05:00	0.1	0.0	5172.8	0.1
01Jan2000	05:15	0.1	0.0	5172.8	0.1
01Jan2000	05:30	0.1	0.0	5172.8	0.1
01Jan2000	05:45	0.1	0.0	5172.8	0.1
01Jan2000	06:00	0.1	0.0	5172.8	0.1
01Jan2000	06:15	0.1	0.0	5172.8	0.1
01Jan2000	06:30	0.1	0.0	5172.8	0.1
01Jan2000	06:45	0.1	0.0	5172.8	0.0
01Jan2000	07:00	0.1	0.0	5172.8	0.1
01Jan2000	07:15	0.0	0.0	5172.7	0.0
01Jan2000	07:30	0.0	0.0	5172.7	0.0
01Jan2000	07:45	0.0	0.0	5172.7	0.0
01Jan2000	08:00	0.0	0.0	5172.7	0.0
01Jan2000	08:15	0.0	0.0	5172.7	0.0
01Jan2000	08:30	0.0	0.0	5172.7	0.0
01Jan2000	08:45	0.0	0.0	5172.7	0.0

POND TIME-STEP RESULTS



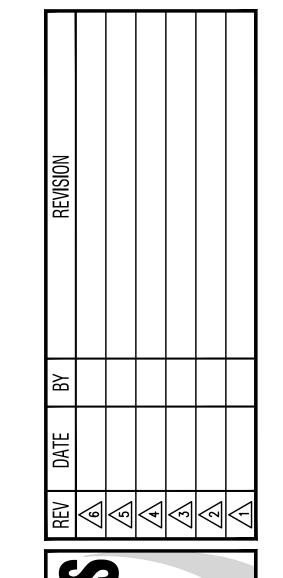
VICINITY MAP - Zone Atlas Page H-9-Z

Legal Desc: Tract C-3, Heritage Marketplace

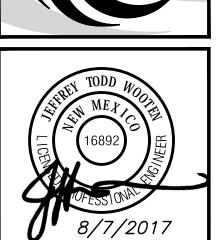


FIRM MAP 35001C0326J

Per FIRM Map 35001C0326J, dated November 4, 2016, the site is not located outside of the 0.2% Annual Chance Floodplain.

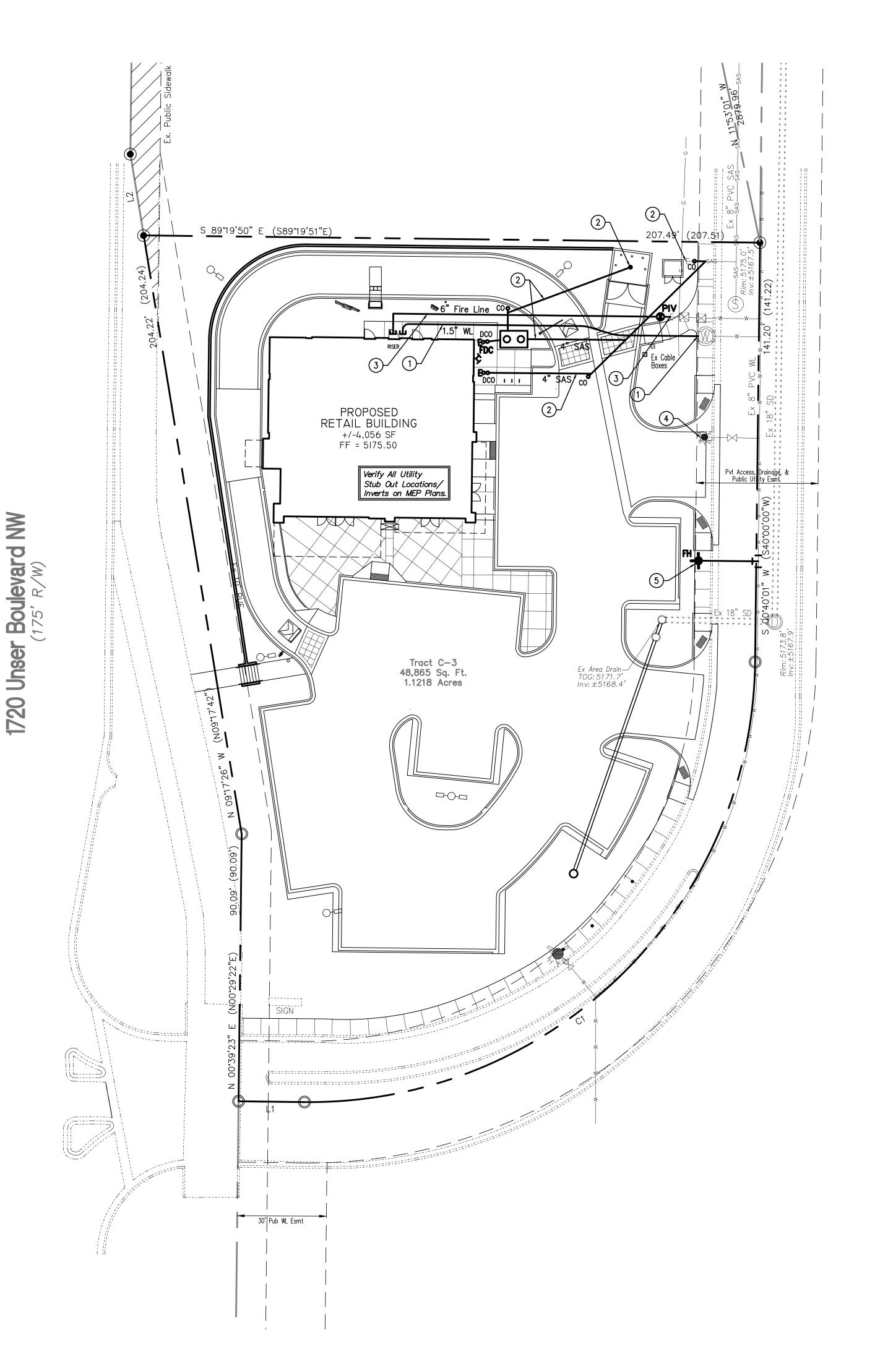


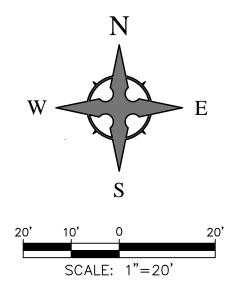
ODDLUS ARCHITE SUN AVENUE N.E., Ste 305 SUQUERQUE, NEW MEXICO 87109 ONE (505) 338-1499 FAX (505) 338-1



DAT	PROJECT TITLE		
E:	HERITAGE MARKET PLACE	1	TRACT C-
	1720 UNSER BLYD NW ALBUQUERQUE, NEW MEXICO 87120	CO 87120	
	PROJECT MANAGER	JOB NO.	DRAWN BY:
sheet-	JEFF WOOTEN	2016029	JEFF WOOTEN
	SHEET TITLE		
	Drainage Management Plan	nagement	Plan
ĺ			

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





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UTILITY KEYED NOTES

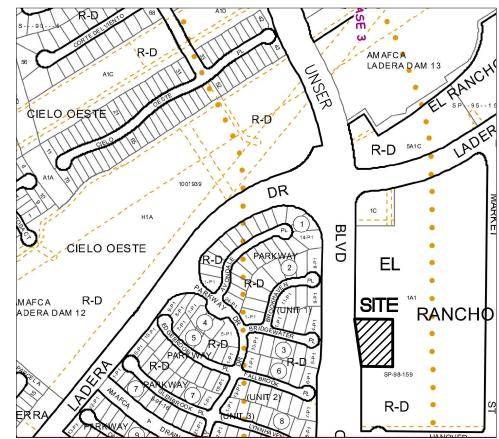
1. CONNECT TO EXISTING 1.5" METERED SERVICE LINE AND EXTEND TO BUILDING STUBOUT. BACKFLOW PREVENTER TO BE INSTALLED IN FIRE RISER ROOM.

2. CONNECT TO EXISTING 8" SAS SERVICE STUBOUT, REDUCE TO 4", AND EXTEND TO BUILDING AND TRASH ENCLOSURE AS SHOWN. INSTALL NDS #1200 CATCH BASIN IN TRASH ENCLOSURE AND EXTEND 4" LINE TO GREASE TRAP AS SHOWN. GREASE TRAPS TO BE SIZED BY THE BUILDING PLUMBING ENGINEER.

3. CONNECT TO EXISTING 6" FIRE LINE STUBOUT AND EXTEND TO BUILDING. REDUCE TO 4" FIRE LINE AFTER BACKFLOW PREVENTER IN BUILDING. INSTALL PIV AND FDC AS SHOWN.

4. REMOVE EXISTING FIRE HYDRANT. REMOVE AND CAP 6" FIRE LINE AT THE EXISTING MAIN. (BY SEPARATE CONTRACT).

5. NEW FIRE HYDRANT TO BE INSTALLED BY MINI WORK ORDER (SEPARATE CONTRACT).



VICINITY MAP - Zone Atlas Page H-9-Z

Legal Desc: Tract C-3, Heritage Marketplace

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE INSTALLATION OF ALL WORK RELATED TO MECHANICAL UTILITIES AS SHOWN ON THIS PLAN INCLUDING: TRENCHING, BACKFILL, SUPPORTS, CLEANOUT PADS, SERVICE STOPS AND BOXES, SERVICE LINES, TESTING, CLEANING, AND STERILIZING. ANY WORK NOT ACCEPTED BY THE ARCHITECT OR ENGINEER DUE TO IMPROPER WORKMANSHIP OR LACK OF PROPER COORDINATION SHALL BE REMOVED AND CORRECTLY INSTALLED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED.

2. MINIMUM DEPTHS OF COVER SHALL BE: 36" FOR WATERLINES AND 48" FOR SEWER, EXCEPT AT BUILDING CONNECTION.

3. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED OF HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE, LATEST EDITION.

4. UTILITY LINES SHALL BE INSTALLED PRIOR TO PAVEMENT, CURB AND GUTTER, AND/OR SIDEWALK, AS APPLICABLE.

5. ROUGH GRADING OF SITE (± 0.5) SHALL BE COMPLETED PRIOR TO INSTALLATION OF UTILITY

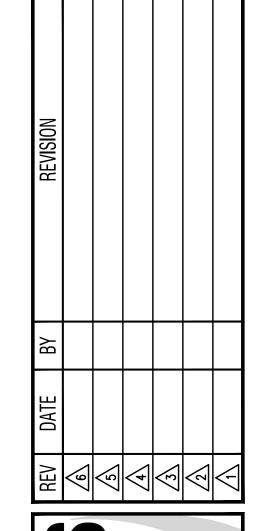
6. CONTRACTOR WILL BE RESPONSIBLE FOR CONNECTIONS TO BUILDING UTILITIES AND ALL NECESSARY FITTINGS TO WITHIN 5' OF BUILDING.

7. ALL VALVES SHALL BE ANCHORED PER CITY OF ALBUQUERQUE STANDARDS.

8. FIRE LINES (IF REQUIRED) SHALL USE PIPE MATERIALS UNDERWRITERS LABORATORIES LISTED AND APPROVED FOR FIRE SERVICE.

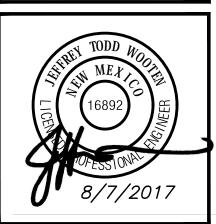
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER METER, FIRE LINE, AND SEWER HOOKUP FEES FOR INSTALLATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITY EXPANSION CHARGES, PRORATA AND OTHER SPECIAL ASSESSMENTS.

10. CONTRACTOR SHALL VERIFY INVERTS AND LOCATIONS OF EXISTING WATER/SAS LINES PRIOR TO BEGINNING WORK. ALL CONFLICTS SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER AND RESOLVED PRIOR TO BEGINNING WORK.



Ste 305 MEXICO 87109) FAX (505) (





TRACT C	DRAWN JEFF WOO
T PLACE –	JOB NO. 2016029
PROJECT TITLE HERITAGE MARKET PLACE 1720 UNSER BLVD NW ALBUQUERQUE, NEW MEXICO 87120	JEFF WOOTEN SHETTILE Utility Plan
DATE: 8/7/2017	sheet-
SCALE: AS NOTED	of- 2

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