

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

May 21, 2021

Ronald Bohannon, P.E.
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM 87109

RE: 3400 Columbia Dr NE
Grading & Drainage Plan
Engineer's Stamp Date: 05/06/21
Hydrology File: G16D139A

Dear Mr. Bohannon:

Based upon the information provided in your submittal received 05/06/2021, the Grading and Drainage Plan is approved for Building Permit and SO-19 Permit.

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

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.

Please provide Drainage Covenant for the stormwater quality pond per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. There is a recording fee (\$25, payable to Bernalillo County). Please contact me if you have any question pertaining to the Drainage Covenant and email me the Covenant and Exhibit prior to executing it for completeness.

Please do one of the following:

- Drop off the original executed drainage covenant, the exhibit, and the \$ 25.00 recording fee check made payable to Bernalillo County at the drop box outside the building and labeled the package using the address below.
- Mail the original executed drainage covenant, the exhibit, and the \$ 25.00 recording fee check made payable to Bernalillo County to:

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

Planning Dept./DRC
Attn: Curtis Cherne
600 2nd St. NW, Ste. 400
Albuquerque, NM, 87102

Once approved and recorded, you will get a pdf copy of the recorded Drainage Covenant via email.

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 3400 Columbia Dr **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Unit 5 Subd of Portion of Cutter Industrial Park
City Address: 3400 Columbia Dr NE Albuquerque NM 87107

Applicant: Tierra West, LLC **Contact:** Assad Rizvi
Address: 5571 Midway Park NE Albuquerque NM 87109
Phone#: 505-858-3100 **Fax#:** 505-858-1118 **E-mail:** arizvi@tierrawestllc.com

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

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

IS THIS A RESUBMITTAL? ☒ Yes _____ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE MASTER PLAN
- ☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ☐ ELEVATION CERTIFICATE
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ STREET LIGHT LAYOUT
- ☐ 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) _____

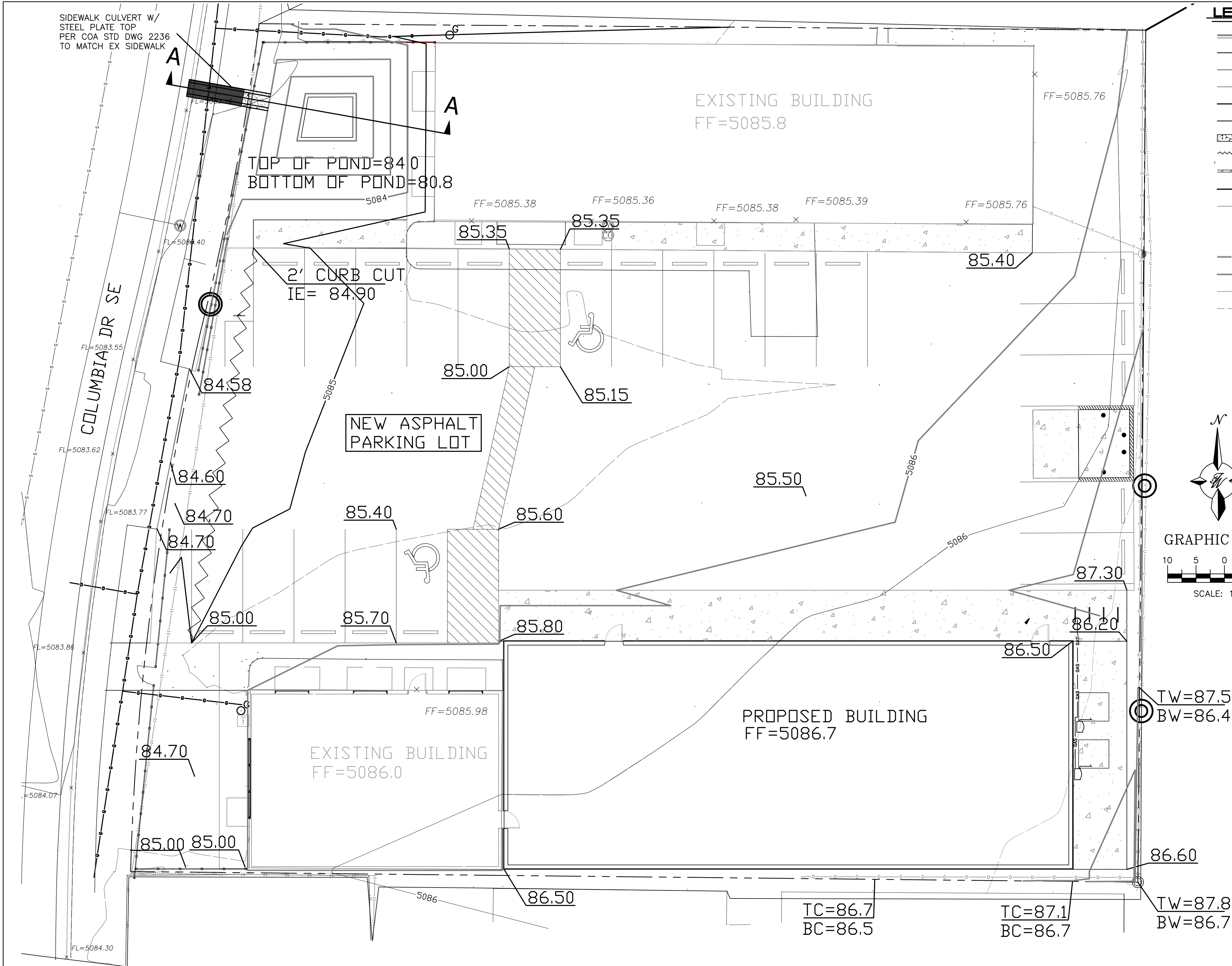
DATE SUBMITTED: 5-6-2021 **By:** Assad Rizvi

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

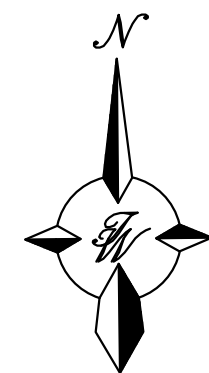
FEE PAID: _____

Z:\2020\2020006 3400 Columbia Drive.dwg \Base-2020006-BASE--GR.dwg May 21, 2021 -- 10:16am



LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- CONCRETE / SIDEWALK
- GRADE BREAK
- RETAINING WALL
- CONTOUR MAJOR
- CONTOUR MINOR
- SPOT ELEVATION
- FLOW ARROW
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- EXISTING SPOT ELEVATION
- WATERBLOCK



GRAPHIC SCALE

SCALE: 1"=10'

NOTICE TO CONTRACTORS

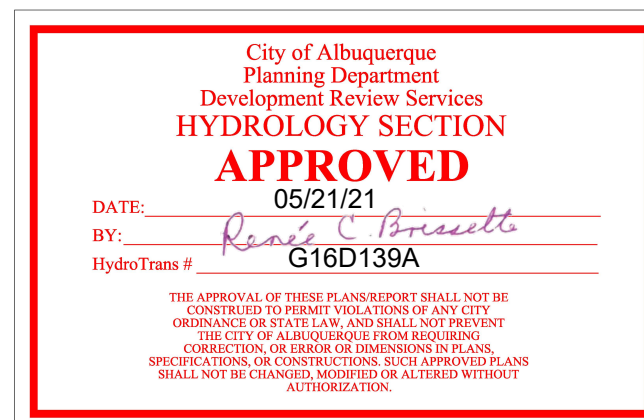
1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. 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.

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
6. ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR 1" GRAVEL.

PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR (SPECIAL ORDER 19-30-19)

1. BUILD SIDEWALK CULVERT PER SOA STD DWG 2236.
2. CONTACT STORM DRAIN MAINTENANCE AT (505) 857-8033 TO SCHEDULE A MEETING PRIOR TO FORMING.
3. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
4. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL "811" [OR (505) 260-1990] FOR THE LOCATION OF EXISTING UTILITIES.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
7. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
8. MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
9. WORK ON ARTERIAL STREETS MAY BE REQUIRED ON A 24-HOUR BASIS.
10. CONTRACTOR MUST CONTACT AUGIE ARMUJO AT (505) 857-8607 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE AN INSPECTION.



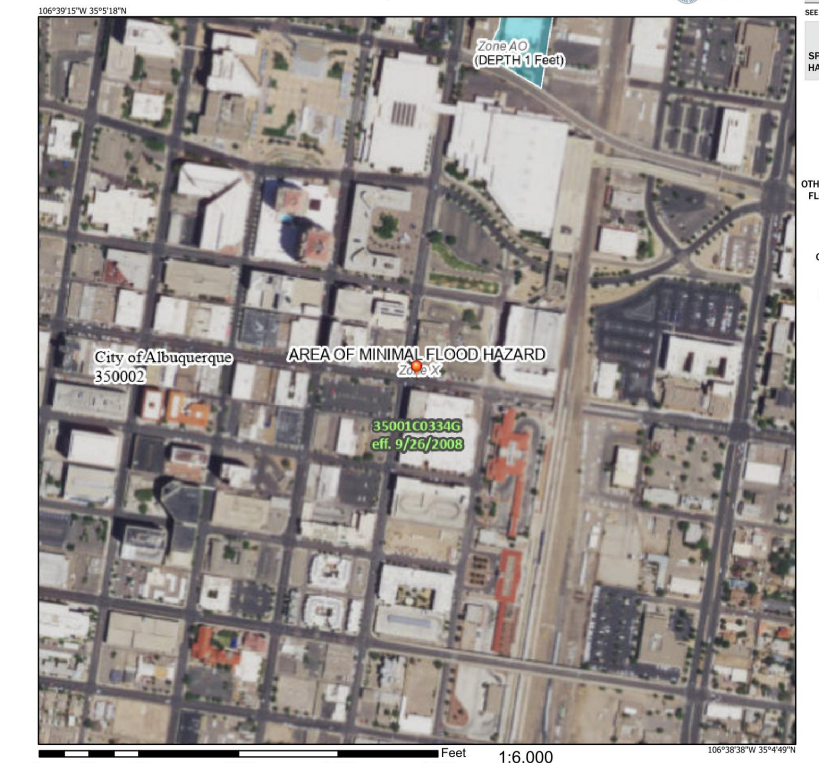
CAUTION

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

 RONALD R. BOHANNAN P.E. #7868	3400 COLUMBIA DR ALBUQUERQUE, NM	DRAWN BY AAR
	GRADING & DRAINAGE PLAN	DATE 5-6-21
	 TIERRA WEST, LLC 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	SHEET # C1 JOB # 202006

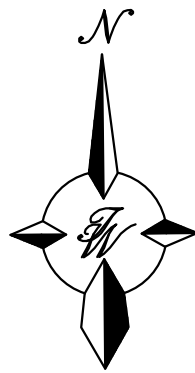
VICINITY MAP:

National Flood Hazard Layer FIRMette



FIRM MAP: #35031C1545E

DATED 2/17/2010



BASIN MAP

POND VOLUME CALCULATIONS

3400 COLUMBIA DR SE

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
B.O.P. - Bottom Of Pond Elevation
T.O.P. - Top of Pond Elevation
H - Change In Water Depth

Volume = $H/3 * [B1+B2+SQRT(B1*B2)]$

Ab =	60.30	B.O.P. =	5080.8
At =	711.00	T.O.P. =	5083.8

STAGE-STORAGE-DISCHARGE TABLE

ACTUAL ELEV.	DEPTH (FT)	AREA (SQ FT)	VOLUME (AC-FT)	Q (CFS)
5080.80	0	60.30	0	0.000
5082.00	1.20	277	0.0043	0.000
5083.00	2.20	494	0.0130	0.000
5083.30	2.50	711	0.0171	0.000
5083.80	3.00	711	0.0240	3.402

** Calculated MWSE = 5083.74

Weir Equation - Outflow Capacity

$Q = CLH^{3/2}$ (WEIR CAPACITY - CFS)
C = 2.7 (WEIR COEFFICIENT)
L (Ft) = 2 (LENGTH OF WEIR)
H (Ft) = 0.5 (DEPTH ABOVE CREST)

3400 Columbia Dr
TWLLC Date 5/6/2021

Existing Conditions

Basin Descriptions											100-Year, 6-Hr			10-Year, 6-Hr			
Basin ID	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (in)	Volume (ac-ft)	Flow cfs	Weighted E (in)	Volume (ac-ft)	Flow cfs
				%	(acres)	%	(acres)	%	(acres)	%	(acres)						
E1	25,203.00	0.579	0.00090	0%	0.000	81%	0.469	0%	0.000	19%	0.110	1.035	0.050	1.59	0.481	0.023	0.79
E2/O1	22,665.00	0.520	0.00081	0%	0.000	85%	0.442	15%	0.078	0%	0.000	0.833	0.036	1.25	0.316	0.014	0.55
Total	47,868.00	1.099	0.00172		0.000		0.911		0.078		0.110		0.086	2.84		0.037	1.34

Proposed Conditions

Basin Descriptions												100-Year, 6-Hr			10-Year, 6-Hr		
Basin ID	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (in)	Volume (ac-ft)	Flow cfs	Weighted E (in)	Volume (ac-ft)	Flow cfs
				%	(acres)	%	(acres)	%	(acres)	%	(acres)						
P1	25,203.00	0.579	0.00090	0%	0.000	13%	0.075	0%	0.000	87%	0.503	1.946	0.094	2.54	1.202	0.058	1.65
P2/O1	22,665.00	0.520	0.00081	0%	0.000	85%	0.442	15%	0.078	0%	0.000	0.833	0.036	1.25	0.316	0.014	0.55
Total	47,868.00	1.099	0.00172		0.000		0.517		0.078		0.503		0.130	3.79		0.072	2.21

First Flush Volume

IMPERVIOUS AREA (SF)	SWQ REQ'D (IN.)	SWWQ REQ'D (CF)	SWWQ PROVIDED (CF)
4789	0.34	136	745

Peak Discharge (cfs/acre)

Zone 2	100-Year
Qa	1.71
Qb	2.36
Qc	3.05
Qd	4.34

Excess Precipitation, E (in.)

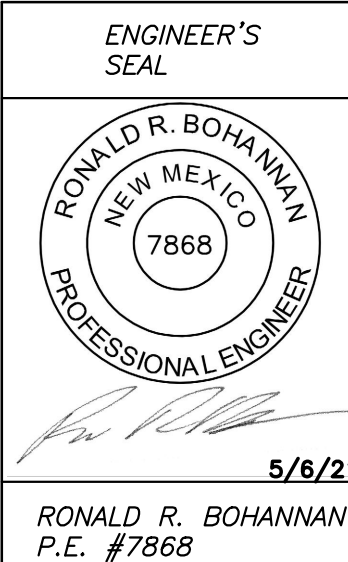
Zone 2	100-Year
Ea	0.62
Eb	0.80
Ec	1.03
Ed	2.33

EXISTING CONDITIONS:

THE EXISTING DEVELOPMENT IS A 0.58 OFFICE PARK THAT HAS AN EXISTING SIDEWALK AND AN UNPAVED PARKING LOT THAT IS STABILIZED WITH GRAVEL. EXISTING ONSITE FLOWS FREE DISCHARGE INTO COLUMBIA DR ALONG WITH FLOWS ACCEPTED FROM AN OFFSITE BASIN TO THE EAST.

PROPOSED CONDITIONS:

AN ADDITIONAL BUILDING WILL BE ADDED TO THE EXISTING DEVELOPMENT AND THE PARKING LOT WILL BE PAVED - INCREASING DEVELOPED FLOWS. THESE FLOWS ALONG WITH OFFSITE FLOWS FROM A BASIN TO THE EAST WILL BE ROUTED TO A DETENTION POND ON THE NORTHWEST CORNER OF THE DEVELOPMENT THROUGH A CURB CUT TO THE SOUTH OF THE POND. THE POND WILL THEN DISCHARGE INTO COLUMBIA DR VIA A CONCRETE FLUME THAT WILL BE HYDRAULICALLY CONNECTED TO A SIDEWALK CULVERT. SWQV WILL BE RETAINED BELOW THE INVERT OF THE FLUME IN THE POND.



3400 COLUMBIA DR
ALBUQUERQUE, NM

BASIN MAPS + CALCS

TIERRA WEST, LLC
5571 MIDWAY PARK PL NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100
www.tierrawestllc.com

DRAWN BY

AAR

DATE
5-6-21

DRAWING
202006-BASE-GR

SHEET #

C2

JOB #
202006

Equations:

Weighted E = $Ea * Aa + Eb * Ab + Ec * Ac + Ed * Ad / (Total Area)$

Volume₃₆₀ = Weighted D * Total Area

Volume₁₄₄₀ = $V_{360} * A_D * (P_{1440} - P_{360}) / 12 \text{ in/ft}$

Flow = $Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad$