

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

January 27, 2023

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

**RE: Unser Drive-Thru Oil Change
TR 4 Plat of TRS 1,2,3 & 4 Paradise Plaza Cont 1.8131 AC
Unser Blvd NW, Albuquerque
Grading and Drainage Plan
Engineers Stamp Date: 07/08/2022
Hydrology File: A11D018**

Dear Mr. Bohannon:

Based upon the information provided in your submittal received 1/18/2023, the Grading & Drainage Plan is approved for 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.

PO Box 1293

PRIOR TO CERTIFICATE OF OCCUPANCY:

Albuquerque

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

NM 87103

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.

www.cabq.gov

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, 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.

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

Project Title: UNSER DRIVE-THRU OIL CHANGE **Building Permit #** _____ **Hydrology File #** _____

DRB# _____ **EPC#** _____

Legal Description: TR 4 PLAT OF TRS 1, 2, 3 & 4 **City Address OR Parcel UPC:** 101106638341510104

Applicant/Agent: TIERRA WEST LLC

Contact: Luis Noriega

Address: 5571 Midway Park Place NE Albuquerque, NM 87109

Phone: 505-858-3100

Email: LNORIEGA@TIERRAWESTLLC.COM

Applicant/Owner: _____

Contact: _____

Address: _____

Phone: _____

Email: _____

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

RE-SUBMITTAL: _____ YES ☒ NO

DEPARTMENT: _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that apply:

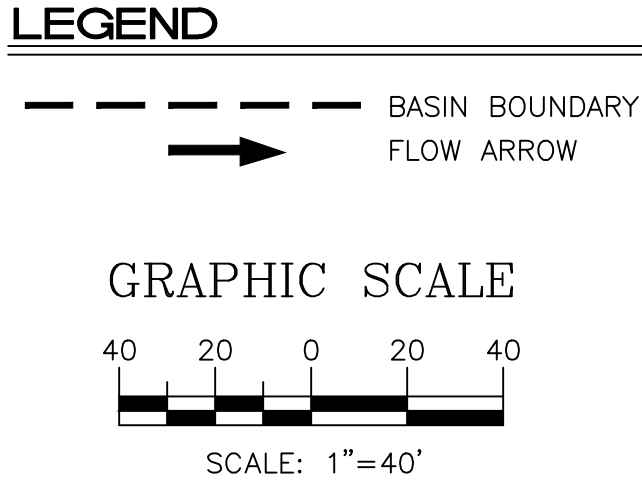
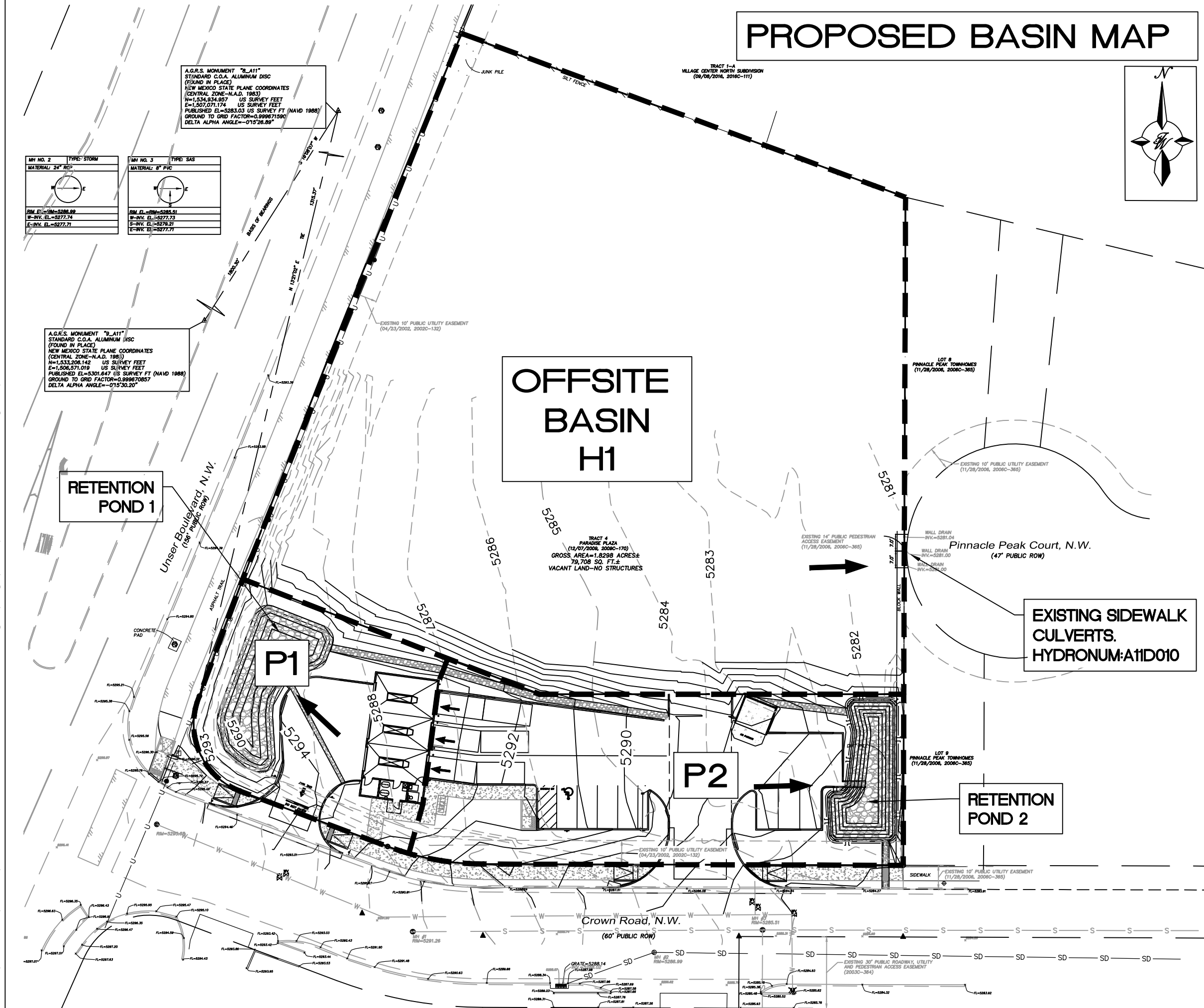
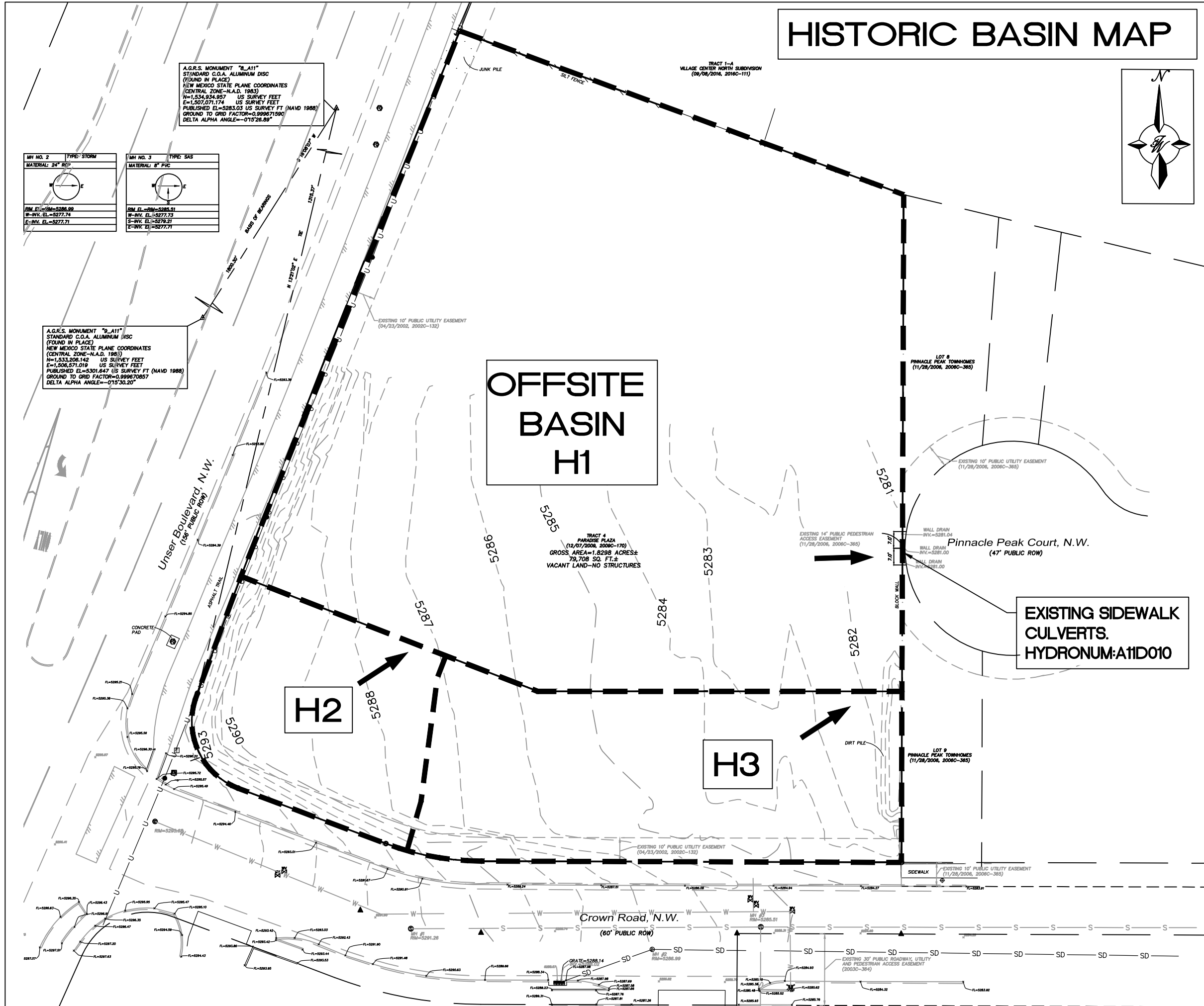
TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G&D PLAN
- ☒ GRADING PLAN
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE MASTER PLAN
- ☐ FLOOD PLAN DEVELOPMENT PERMIT APP.
- ☐ ELEVATION CERTIFICATE
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ADMINISTRATIVE
- ☐ TRAFFIC CIRCULATION LAYOUT FOR DRB APPROVAL
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ STREET LIGHT LAYOUT
- ☐ OTHER (SPECIFY) _____
- ☐ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ CONCEPTUAL TCL DRB APPROVAL
- ☐ 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
- ☐ FLOOD PLAN DEVELOPMENT PERMIT
- ☐ OTHER (SPECIFY) _____

DATE SUBMITTED: 01.16.2023



DPM CH6 Weighted E Method

Precipitation Zone 1

TAKE 5 OIL CHANGE

NE Corner of Unser Blvd & Crown Rd, Albuquerque, NM.

TWLC

Date

6/7/2022

Equations:

Weighted E = $E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d$ / (Total Area)

Volume = Weighted E * Total Area

Flow = $Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$

Retention Volume = Weighted E * Total Area + Impervious Area * (10 day - 6 hr) Precip

6 Hr Excess Precipitation, E (in.)

Zone 1	100-Year	10-Year
Ea	0.55	0.08
Eb	0.73	0.22
Ec	0.95	0.44
Ed	2.24	1.24

Peak Discharge (cfs/acre)

Zone 1	100-Year	10-Year
Qa	1.54	0.3
Qb	2.16	0.81
Qc	2.87	1.46
Qd	4.12	2.57

EXISTING CONDITIONS

THE SUBJECT SITE IS CURRENTLY VACANT WITH GROWING VEGETATION. BASED ON THE TOPOGRAPHY, RUNOFF SURFACE FLOWS NORTH-EAST AND DISCHARGES INTO THREE SIDEWALK CULVERTS LOCATED ON THE WEST SIDE OF PINNACLE PEAK COURT, NW.

PROPOSED CONDITIONS

THE DEVELOPED FLOWS WILL SURFACE FLOW INTO TWO RETENTION PONDS ONE LOCATED ON THE EAST AND THE OTHER TO THE WEST OF THE TAKE 5 OIL CHANGE. ROUGHLY ONE-THIRD OF THE SITE WILL DRAIN TO RETENTION POND 1 AND THE OTHER TWO-THIRDS WILL DRAIN TO RETENTION POND 2. THE RETENTION PONDS ARE DESIGNED TO RETAIN THE 100 YEAR - 10 DAY STORM EVENT.

ANY FLOWS BEYOND THAT WILL BE CONVEYED INTO A SURFACE STORM DRAIN SYSTEM, WHICH OUTFALLS INTO THE CROWN RD ROW.

Existing Conditions															
Basin Descriptions													100-Year, 10-Day		
Basin ID	Tract	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (in)	Volume (ac-ft)	Flow cfs
H1	4	56,866	1.31	0.00204	100%	1.305	0%	0.000	0%	0.000	0%	0.000	0.550	0.060	2.01
H2	4	8,005	0.18	0.00029	100%	0.184	0%	0.000	0%	0.000	0%	0.000	0.550	0.008	0.28
H3	4	14,587	0.33	0.00052	100%	0.335	0%	0.000	0%	0.000	0%	0.000	0.550	0.015	0.52
Total		79,458	1.82	0.00285		1.824		0.000		0.000		0.000		0.084	2.809

Proposed Conditions

Basin Descriptions												100-Year, 10-Day			
Basin	Tract	Area	Area	Area	Treatment A	Treatment B			Treatment C		Treatment D		Weighted E	Volume	Flow
ID		(sf)	(acres)	(sq miles)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	(in)	(ac-ft)	cfs
H1	4	56,866	1.31	0.00204	90%	1.175	0%	0.000	10%	0.131	0%	0.000	0.590	0.064	2.18
P1	4	8,005	0.18	0.00029	0%	0.000	0%	0.000	57%	0.105	43%	0.079	1.505	0.034	0.63
P2	4	14,587	0.33	0.00052	0%	0.000	0%	0.000	42%	0.141	58%	0.194	1.698	0.075	1.20
Total		79,458	1.82	0.00285		1.175		0.000		0.376		0.273		0.174	4.014

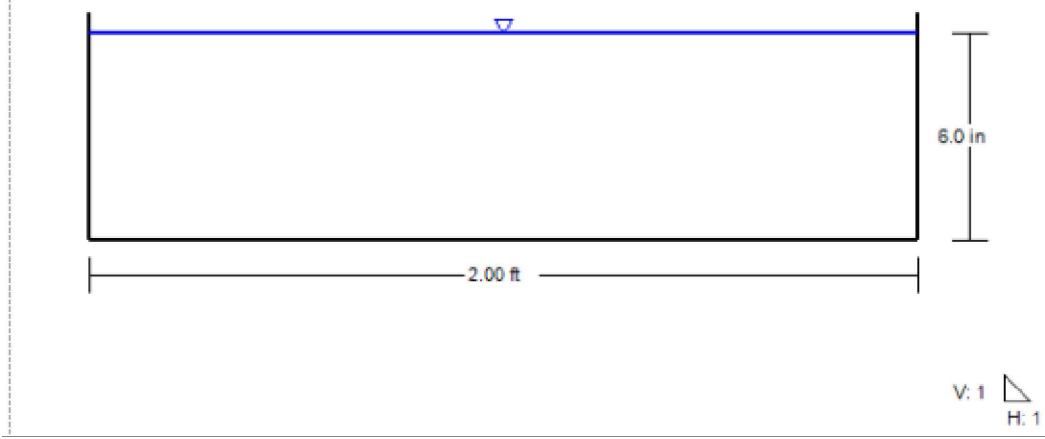
Pond Discharge-Weir Calculations

POND 2 VOLUME CALCULATIONS			
ELEVATION (ft)	AREA (sf)	VOLUME (cf)	CUMULATIVE VOLUME (cf)
5280	288	0	0
5281	465	376.5	377
5282	661	563	940
5283	876	768.5	1708
5284	1108	992	2700
5284.5	1229	584.25	3284
5285	1355	646	3930

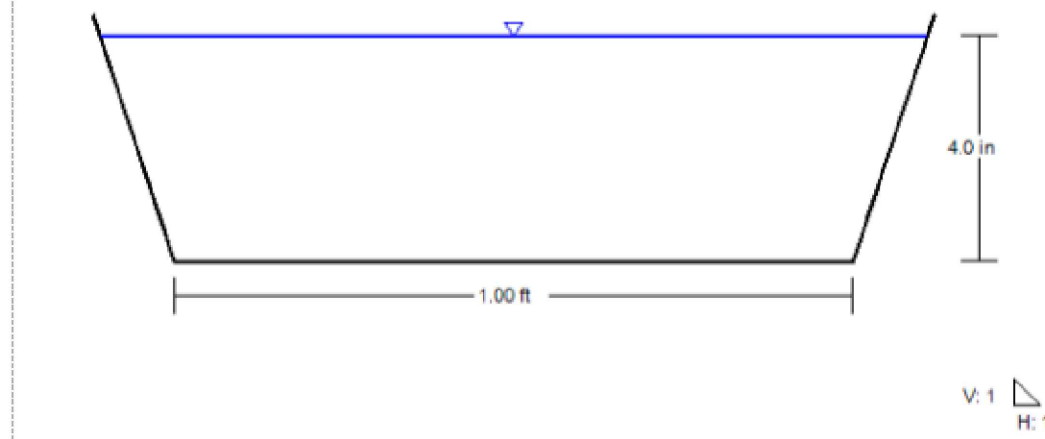
POND 2 STORAGE				
ACTUAL ELEV. (FT)	H (CF)	VOLUME (CFS)	Q (AC-FT)	VOLUME (AC-FT)
5280	0.00	0	0.00	0.0000
5281	0.00	377	0.00	0.0086
5282	0.00	940	0.00	0.0216
5283	0.00	1708	0.00	0.0392
5284	0.00	2700	0.00	0.0620
5284.5	0.00	3284	0.00	0.0754
5285	0.50	3930	1.91	0.0902

Pond 2 Weir Equation	
Q =	CLH ^{3/2} (3/2)
C =	2.7
L (FT) =	2
H (FT) =	Head
Q (CFS) =	Flow

POND 2 CONCRETE SWALE	
Project Description	Manning Formula
Friction Method	Discharge
Solve For	Discharge
Input Data	
Roughness Coefficient	0.013
Channel Slope	0.020 ft/ft
Normal Depth	6.0 in
Bottom Width	2.00 ft
Discharge	7.77 cfs



POND 1 RIP-RAP SWALE	
Project Description	Manning Formula
Friction Method	Discharge
Solve For	Discharge
Input Data	
Roughness Coefficient	0.041
Channel Slope	0.020 ft/ft
Normal Depth	4.0 in
Left Side Slope	0.330 H:V
Right Side Slope	0.330 H:V
Bottom Width	1.00 ft
Discharge	0.69 cfs



RETENTION POND 1 VOLUME	
Top Area	1,460 Sq. Ft.
Bottom Area	290 Sq. Ft.
Depth of Pond	2.5 Ft.
Provided Volume	2,188 Cubic Ft.
Required Volume	1,470 Cubic Ft.
Required Volume	0.034 Ac Ft.

RETENTION POND 2 VOLUME	
Top Area	1,229 Sq. Ft.
Bottom Area	288 Sq. Ft.
Depth of Pond	4.5 Ft.
Provided Volume	3,284 Cubic Ft.
Required Volume	3,283 Cubic Ft.
Required Volume	0.075 Ac Ft.

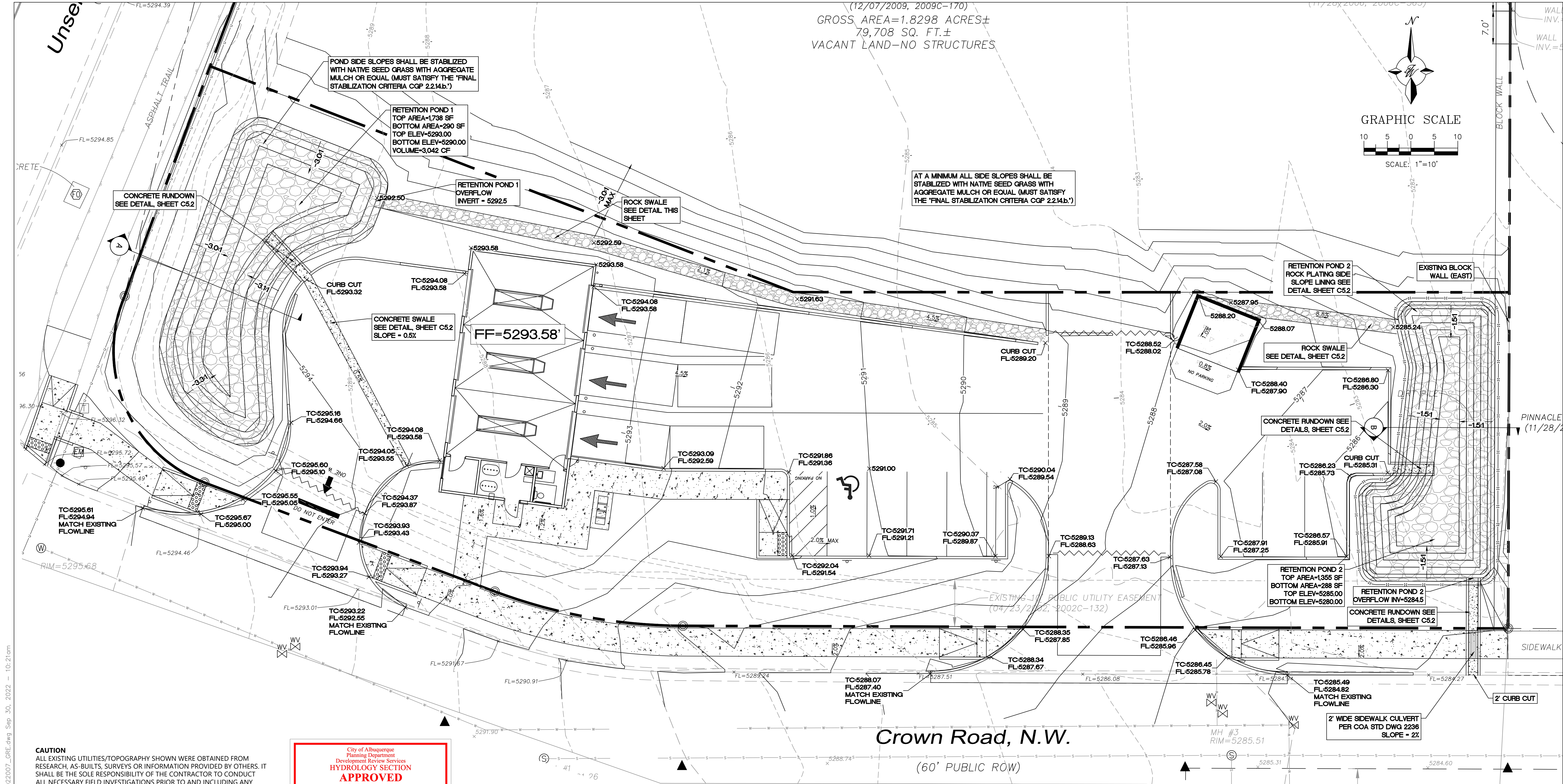


<div>ENGINEER'S SEAL</div> <div>RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER</div> <div>07/08/2022</div> <div>RONALD R. BOHANNAN P.E. #7868</div>	TAKE 5 OIL CHANGE ALBUQUERQUE, N.M.		DRAWN BY RMG
	BASIN MAP		DATE 07/08/2022
			2022007_BASIN
			SHEET # C4

TERRA WEST, LLC

5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NM 87109
(505) 858-3100
www.tierrowestllc.com

JOB #
2022007



CAUTION
ALL EXISTING UTILITIES/TOPOGRAPHY 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.



PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

- BUILD SIDEWALK CULVERT PER COA STD DWG 2236. WORK IS PERMITTED AND INSPECTED BY DMD CONSTRUCTION SERVICES DIVISION.
- ALL IMPROVEMENTS LOCATED IN THE RIGHT OF WAY MUST BE INCLUDED ON THE WORK ORDER.
- AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- 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.
- PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT **NEW MEXICO ONE CALL, DIAL "811"** (OR (505) 260-1990) FOR THE LOCATION OF EXISTING UTILITIES.
- 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.
- BACKFILL COMPACTION SHALL BE 95%.
- MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
- WORK ON ARTERIAL STREETS MAY BE REQUIRED ON A 24-HOUR BASIS.
- FOR EXCAVATION AND BARRICADING INSPECTIONS, CONTACT DMD CONSTRUCTION SERVICES DIVISION.

LEGEND

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

SPOT ELEVATION LEGEND

TC= TOP OF CURB
FL= FLOW LINE
FF= FINISHED FLOOR

SPOT ELEVATION NOTE:

ALL PROPOSED SPOT ELEVATIONS ARE FLOWLINE UNLESS OTHERWISE NOTED.

