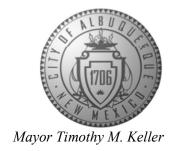
CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



September 24, 2025

Evan Babcock CDM Smith 6110 Indian School Road NE Albuquerque, NM, 87110

RE: Santa Barbara Arsenic Treatment Facility

3301 Claremont Ave NE Grading and Drainage Plan

Engineer's Stamp Date: 08/12/2025

Hydrology File: H16D100 Case # HYDR-2025-00291

Dear Mr. Babcock:

PO Box 1293

Based upon the information provided in your submittal received 08/12/2025, the Grading & Drainage Plans are not approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

1. Please provide the FIRM Map and floodplain note with effective date.

NM 87103

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.

www.cabq.gov

If you have any questions, please contact me at 505-924-3314 or amontoya@cabq.gov.

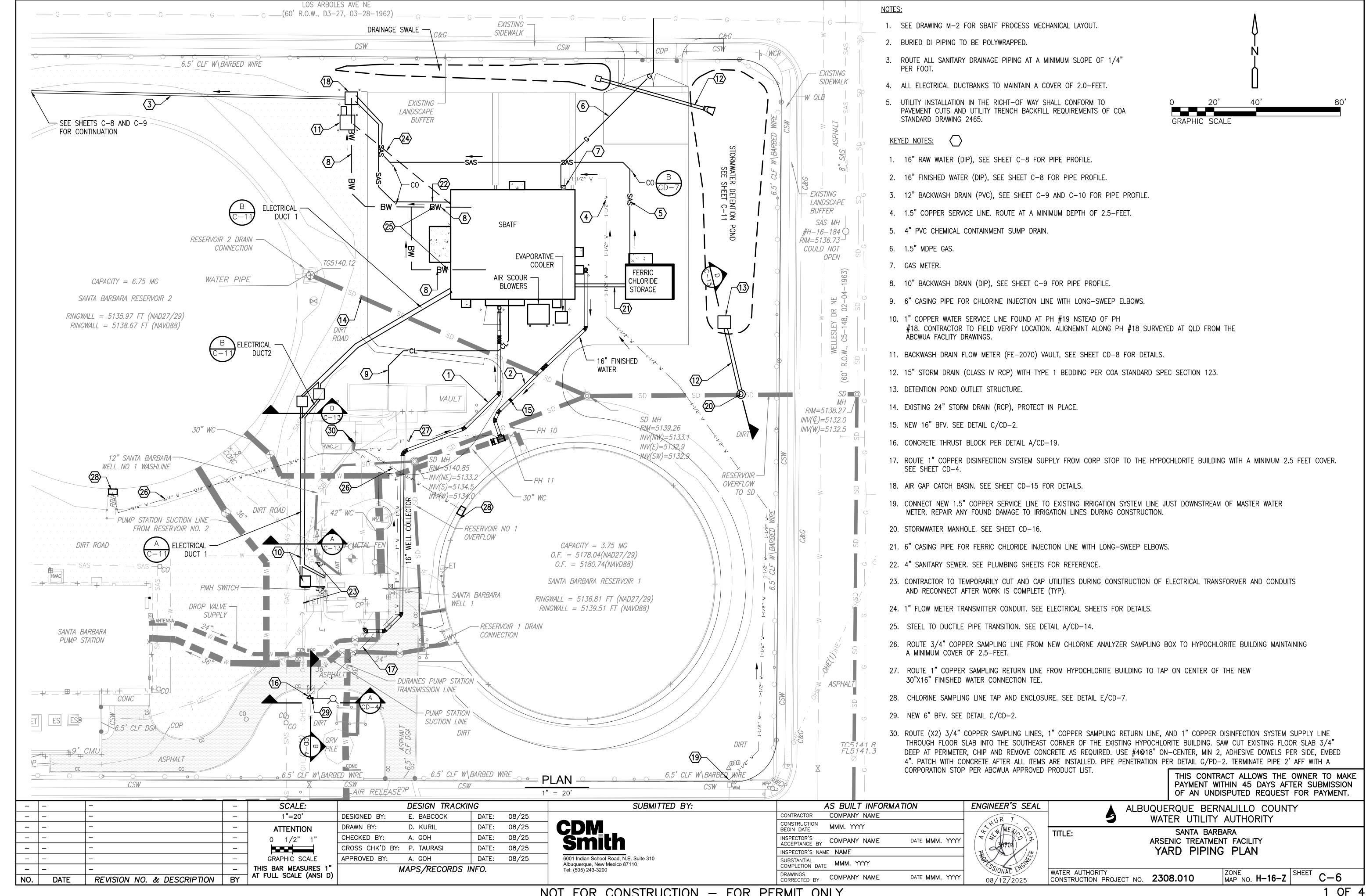
Sincerely,

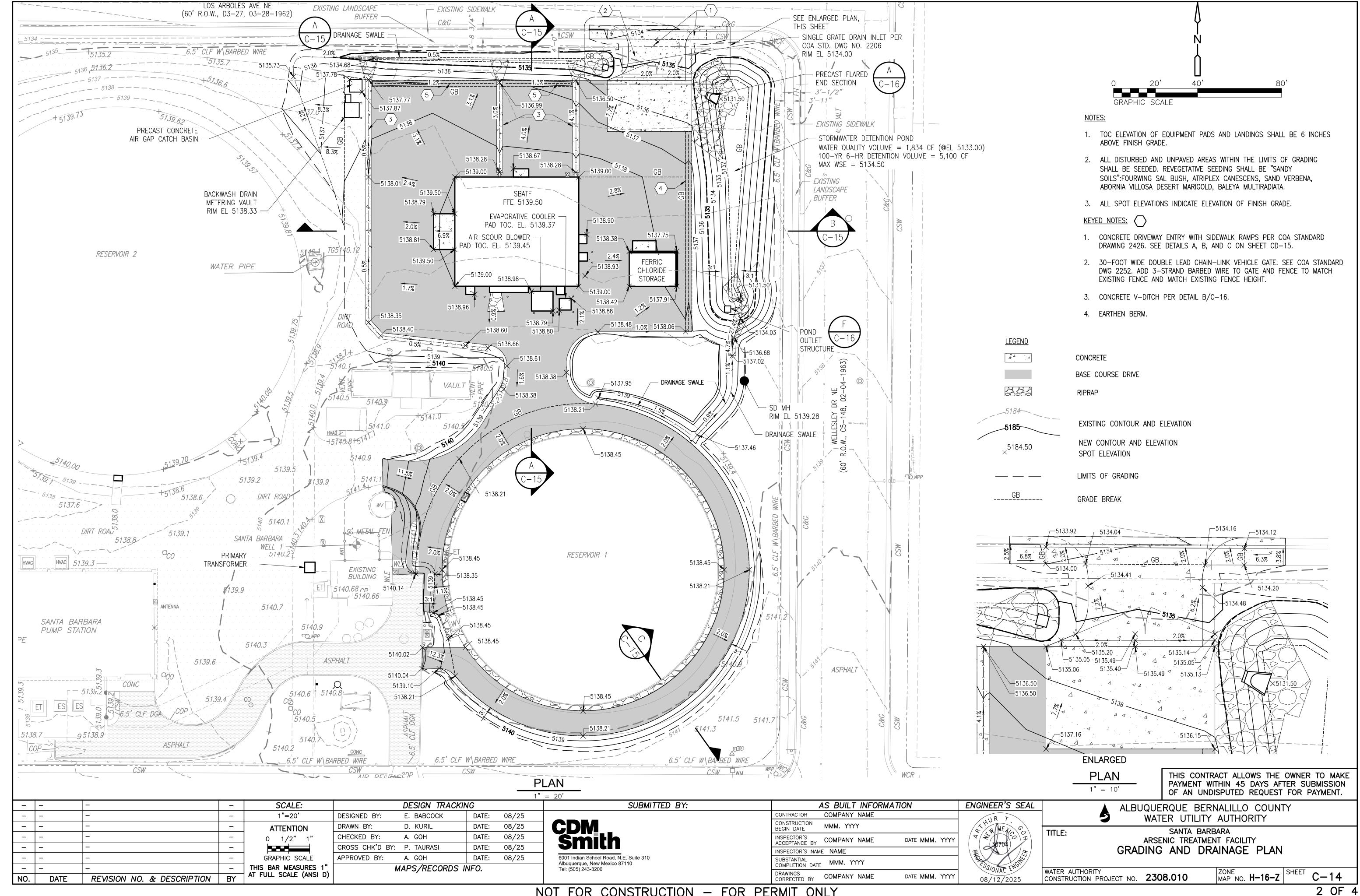
Anthony Montoya, Jr., P.E., C.F.M.

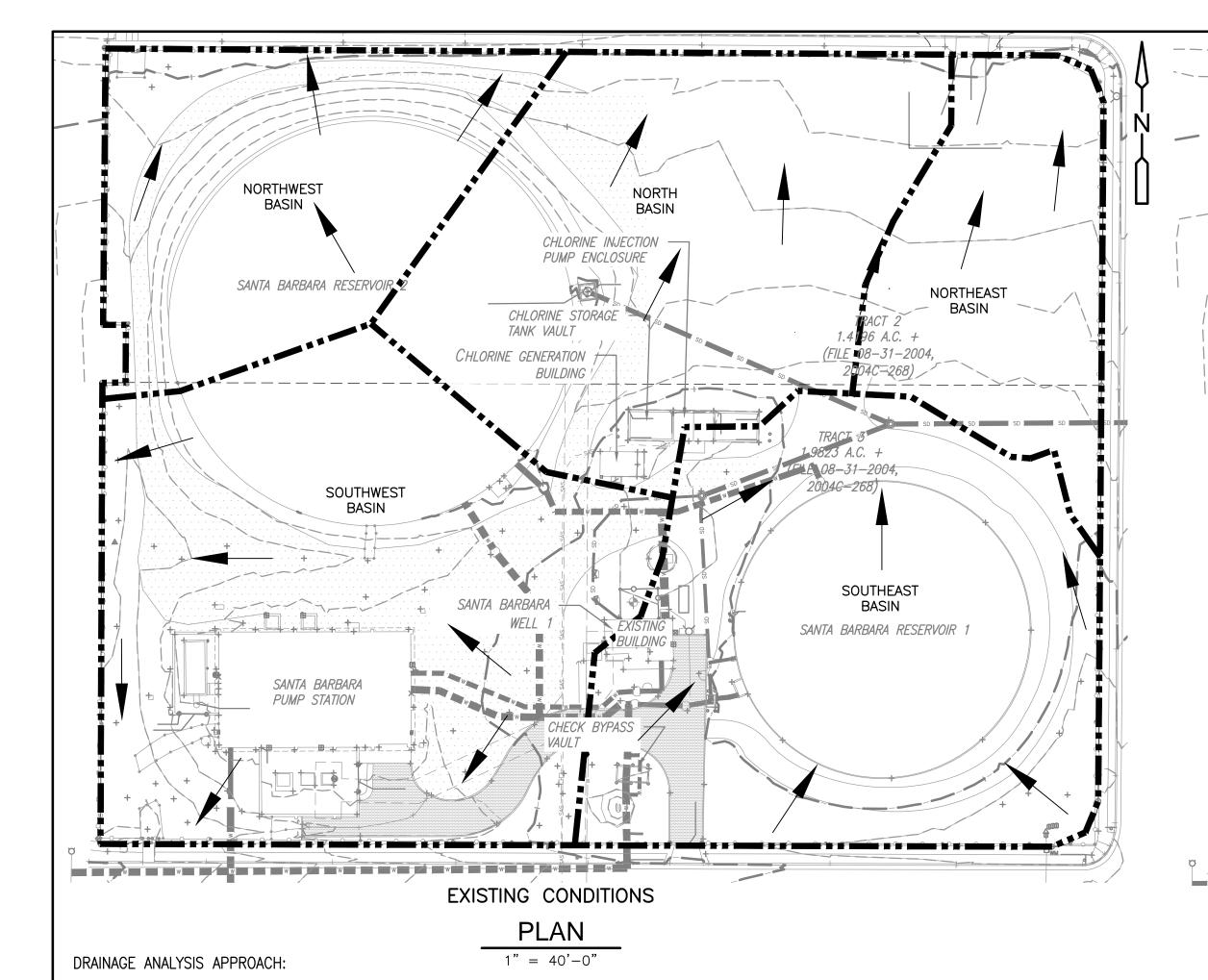
anth Mars

Senior Engineer, Hydrology

Planning Department, Development Review Services







THE DRAINAGE ANALYSIS FOR THE SITE WAS PERFORMED IN ACCORDANCE WITH METHODS OUTLINED IN THE DEVELOPMENT PROCESS MANUAL (DPM) CHAPTER 6. ARTICLE 6-2. SECTION 6.2 (A). ENTITLED "PROCEDURE FOR 40-ACRE OR SMALLER BASINS." THE DESIGN STORM USED FOR BOTH PROPOSED CONDITIONS WERE CALCULATED WITH 100-YEAR 6-HOUR EXCESS PRECIPITATION VALUES FROM THE DPM BASED ON ZONE 3. PEAK DISCHARGE RLOW RATES WERE CALCULATED USING THE RATIONAL METHOD FOR THE 100-YEAR EVENT ASSUMING A TIME OF CONCENTRATION DURATION OF 12 MINUTES IN ZONE 3. THE REQUIRED STORMWATER QUALITY VOLUME (SWQV) WAS CALCULATED AS SPECIFIED FOR REDEVELOPMENT PROJECTS IN THE DPM PART 6-12 STORMWATER QUALITY AND LOW-IMPACT DEVELOPMENT.

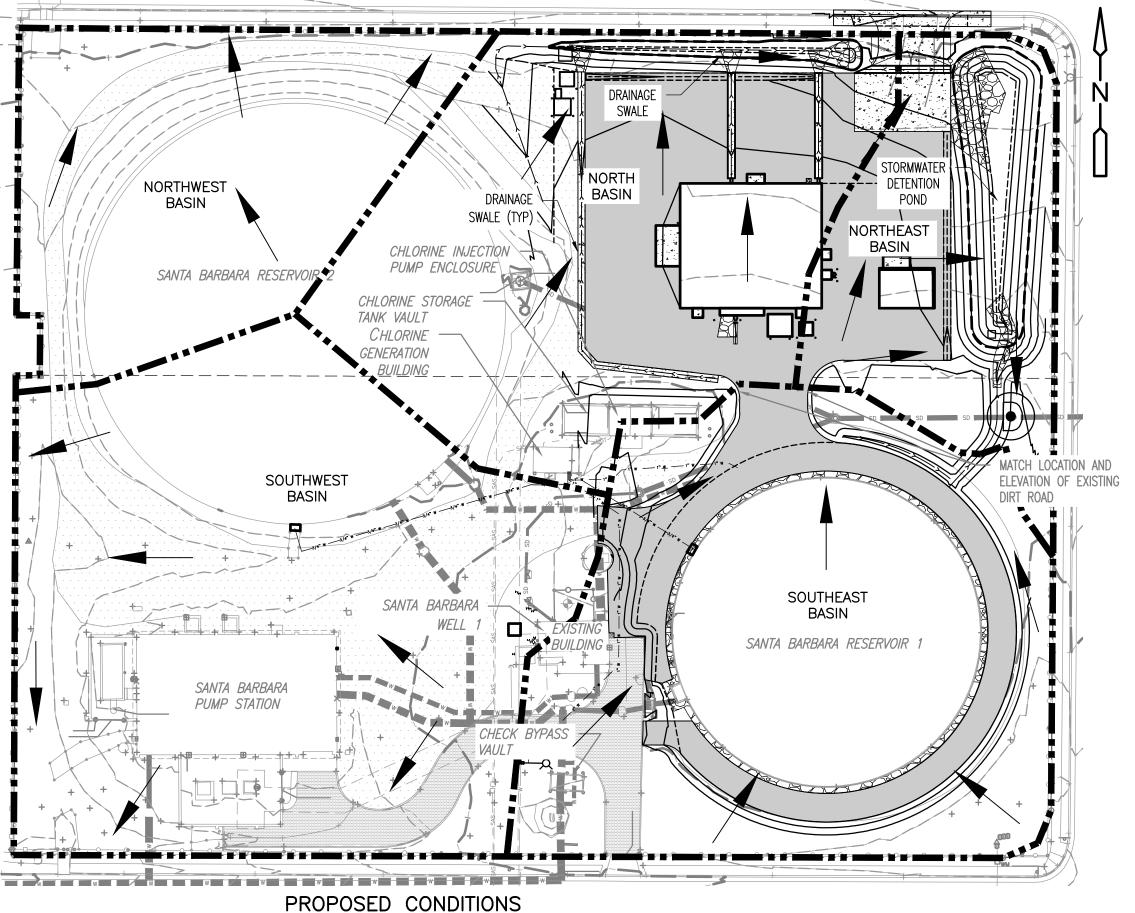
EXISTING CONDITIONS:

NO.

DATE

THE SANTA BARBARA PUMP STATION AND RESERVOIR SITE IS LOCATED JUST EAST OF WELLESLEY DRIVE NE, BETWEEN LOS ARBOLES AVENUE NE AND CLAREMONT AVENUE NE. THE SITE HOUSES TWO WATER STORAGE RESERVOIRS, SEVERAL BUILDINGS, UNDERGROUND STRUCTURES, AND UNDERGROUND PIPING. LAND TREATMENT IS A MIXTURE OF ASPHALT PAVEMENT, DIRT ROADS, AND UNPAVED AREAS WITH GENTLE SLOPES BETWEEN 0 TO 10%. UNDER EXISTING CONDITIONS, THE SITE IS COMPRISED OF FIVE DRAINAGE SUBBASINS, ALL OF WHICH DISCHARGE SURFACE RUNOFF INTO THE PUBLIC RIGHT-OF-WAY TO THE NORTH, EAST, AND SOUTH OF THE SITE. NO SUBSURFACE STORMWATER COLLECTION SYSTEM EXISTS ON THE SITE. WHILE A 24-INCH DIAMETER REINFORCED CONCRETE PIPE (RCP) ARE USED TO CONVEY EMERGENCY OVERFLOW FROM THE RESERVOIRS TO THE COA MUNICIPAL STORM DRAIN SYSTEM ON WELLESLEY DR NE. NO STORMWATER RUNOFF CURRENTLY DISCHARGES INTO THE COA STORM DRAIN

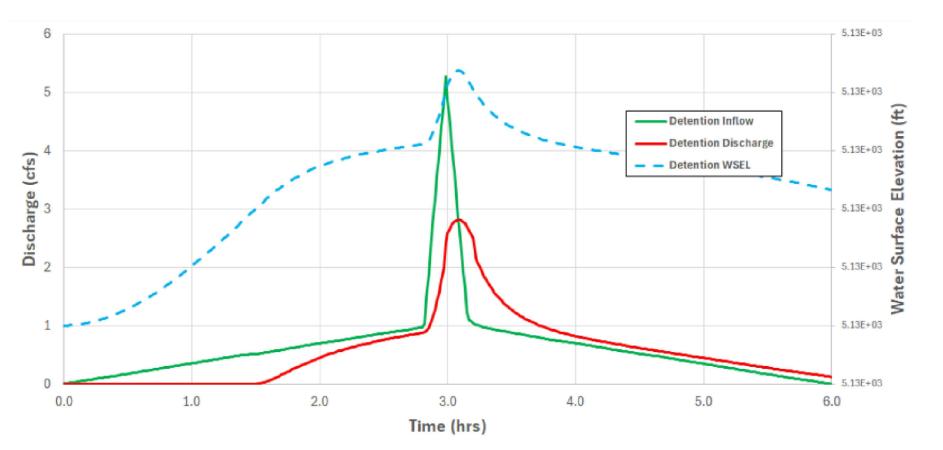
SUBBASIN	EXISTING CONDITIONS							PROPOSED CONDITIONS (PRIOR TO ATTENUATION)							
	TOTAL SURFACE AREA (ACRES)	IMPERVIOUS AREA (D) (ACRES)	PERVIOU S AREA (C) (ACRES)	PERVIOU S AREA (A) (ACRES)	EXCESS PRECIPITATIO N WEIGHTED E	RUNOFF VOLUME 100 YEAR 6 HOUR STORM(CF)	PEAK FLOW RATIONAL METHOD (CFS)	TOTAL SURFACE AREA (ACRES)	IMPERVIO US AREA (D) (ACRES)	PERVIOU S AREA (C) (ACRES)	PERVIOU S AREA (A) (ACRES)	EXCESS PRECIPITATIO N WEIGHTED E	RUNOFF VOLUME 100 YEAR 6 HOUR STORM(CF)	PEAK FLOW RATIONAL METHOD (CFS)	SWQV (CF)
NORTH BASIN	0.72	0.14	0.43	0.15	1.30	3,402	2.29	0.72	0.43	0.11	0.19	1.86	4,876	2.61	402
NORTHEAST BASIN	0.38	0.00	0.15	0.23	0.84	1,156	0.48	0.38	0.13	0.00	0.25	1.34	3,512	0.60	126
SOUTHEAST BASIN	0.86	0.30	0.16	0.40	1.41	4,412	1.86	0.86	0.50	0.00	0.37	1.77	5,541	2.24	469
TOTAL	1.96	0.44	0.75	0.78		8,970	4.63	1.96	1.06	0.11	0.80		13,929	5.46	996
NOTE: THE NORTHWE	ST AND SC	OUTHWEST BAS	INS WILL R	EMAIN UN	ICHANGED FROI	M THE EXISTIN	G TO PROPO	SED CONDI	TIONS.						
100-YR, 6-HR EXCESS PRECIPITATION, E (ZONE 3) RATIONAL N				METHOD Q_PEAK (CFS) = CiA							SWQV = 0.26 in	nches/12 * IM	PERVIOUS AR	EA	
E_C	1.09 in			C_C	0.64		COEFFICIEN	DEFFICIENT FOR LAND TREATMENT C							
E_D	2.58 in			C_D	0.91		COEFFICIEN	FFICIENT FOR LAND TREATMENT D							
E_A	0.67 in			C_A	0.37		COEFFICIENT FOR LAND TREATMENT A								
12.31.129 2 (1.1) (2.31).13.1 12.31(1.03).12.31(1.03)			i	4.96	4.96 IN/HR 100-YEAR			2-MINUTE							
$/_6$ -HR (ACRE-FT) = (V	VEIGHTED	E)(AREA)/12													

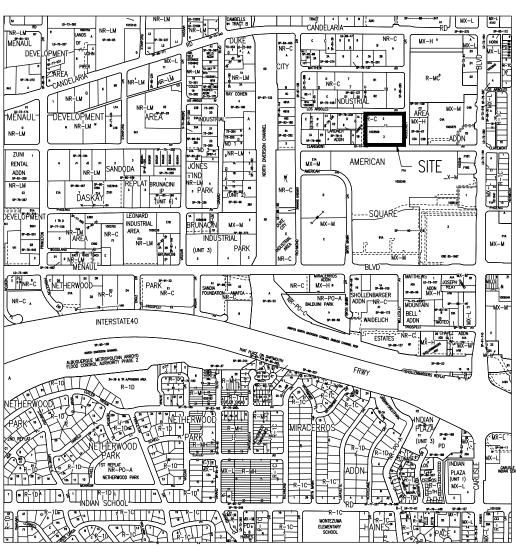


PROPOSED CONDITIONS:

THE SITE: NORTH, NORTHEAST, AND SOUTHEAST. RUNOFF IN THE NORTH BASIN WILL BE DIRECTED OVERLAND TO A NEW DRAINAGE SWALE THAT RUNS ALONG THE NORTH PERIMETER OF THE SITE BEFORE DISCHARGING INTO A NEW DETENTION POND LOCATED IN THE NORTHEAST SUBBASIN. RUNOFF FROM THE SOUTHEAST SUBBASIN WILL ALSO BE ROUTED OVERLAND INTO A SWALE THAT DISCHARGES INTO THE NEW DETENTION BASIN IN THE NORTHEAST CORNER OF THE SITE.

BASED ON E-MAIL COMMUNICATION FROM COA HYDROLOGY ON DECEMBER 4, 2024, WHILE EXISTING SITE RUNOFF DO NOT CURRENTLY DISCHARGE INTO THE COA STORM DRAIN SYSTEM ON WELLESLEY DR NE, THE PROJECT IS ALLOWED TO CONNECT AND DISCHARGE POST-DEVELOPMENT RUNOFF TO THE SYSTEM ON WELLESLEY DR NE. THE PROJECT HAS BEEN GRANTED AN EXEMPTION FROM CONDUCTING A DOWNSTREAM ANALYSIS AS LONG AS THE PROPOSED DETENTION POND AND ORIFICE OUTLET STRUCTURE IS DESIGNED TO RELEASE POST-DEVELOPMENT STORMWATER RUNOFF AT OR BELOW THE CALCULATED HISTORICAL RATE.





ZONE ATLAS PAGE: H-16-Z

LEGAL DESCRIPTION: TRACTS 2 AND 3, PLAT OF TRACTS 1, 2, AND 3, BLOCKS 6 AND 11, ALBUQUERQUE, NEW MEXICO.

BASED ON THE FEMA NATIONAL FLOOD HAZARD LAYER FIRMETTE, THE SITE IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. THE NEAREST MAPPED FLOOD ZONES (ZONES A AND AO) ARE MORE THAN 0.20 MILES AWAY AND DO NOT IMPACT THE SITE.

SITE AREA: 3.5 AC

DRAINAGE ANALYSIS RESULTS:

FOR THE THREE IMPACTED SUBBASINS, THE PEAK RUNOFF UNDER EXISTING CONDITIONS IS 4.63 CFS DURING A 100-YEAR 6-HOUR STORM EVENT. FOR THE THREE IMPACTED SUBBASINS, THE PEAK RUNOFF UNDER PROPOSED CONDITIONS WITHOUT ATTENUATION 5.46 CFS DURING A 100-YEAR 6-HOUR STORM EVENT. FOR THE THREE IMPACTED SUBBASINS, THE SWQV UNDER PROPOSED CONDITIONS IS 996 CF REQUIRED TO BE RETAINED ONSITE

TO ATTENUATE THE POST-DEVELOPMENT 100-YEAR 6-HOUR HYDROGRAPH, A DETENTION POND IS PROPOSED IN THE NORTHEAST CORNER OF THE SITE TO PROVIDE STORAGE VOLUME TO CAPTURE THE HIGHER STORM INFLOW BEFORE DISCHARGING TO WELLESLEY DR NE AT OR BELOW HISTORICAL RUNOFF RATES. THE POND OUTLET STRUCTURE CONSISTS OF A 12-INCH ORIFICE THAT DISCHARGES TO A NEW 15-INCH RCP CONNECTOR TO THE EXISTING 24-INCH RESERVOIR OVERFLOW RCP DRAIN. BASED ON A MEETING WITH COA HYDROLOGY ON MAY 1, 2025, THE HYDRAULIC GRADE LINE (HGL) IN THE DOWNSTREAM STORM DRAIN SYSTEM ON WELLESLEY DR NE IS NOT EXPECTED TO BACK UP TO THE EXISTING 24-INCH RESERVOIR OVERFLOW RCP DRAIN. THEREFORE, NO TAILWATER CONDITIONS IN THE 24-INCH RESERVOIER OVERFLOW RCP DRAIN WAS ASSUMED FOR THE DESIGN OF THE NEW DETENTION POND AND ORIFICE OUTLET STRUCTURE.

A SWMM MODEL WAS DEVELOPED ALONG WITH A SIMPLIFIED HYDROGRAPH TO ROUTE THE 100-YEAR, 6-HOUR STORM THROUGH THE DETENTION POND. THE HYDROGRAPH PLACED THE PEAK FLOW RATE OF 5.46 CFS LINEARLY INTERPOLATED VALUES FROM TIME 0:00 AND 6:00, AND THEN APPLIED A CONSTANT REDUCTION FACTOR TO EACH INTERPOLATED VALUE UNTIL THE TOTAL RUNOFF VOLUME EQUATED TO TOTAL BASIN RUNOFF OF 13,929 CF. THE SYNTHETICALLY DEVELOPED SITE INFLOW HYDROGRAPH WAS ENTERED INTO THE SWMM MODEL AS A TIME-SERIES WITH 10-MINUTE INCREMENTS AND RESULTS WERE CALCULATED ON 1-MINUTE INCREMENTS. THE MODEL WAS RUN FOR A TOTAL OF 8-HOURS TO ENSURE ALL FLOW WAS EITHER RETAINED OR DISCHARGED. THE GRAPH BELOW SHOWS THE INFLOW AND OUTFLOW HYDROGRAPHS ALONG WITH THE POND STORAGE OVER TIME. THE MODEL SHOWS THAT WITH A 12-INCH ORIFICE SET AT INVERT ELEVATION 5133 FT, THE RESULTING PEAK WAS SURFACE ELEVATION IS APPROXIMATELY 5134.19 DURING THE 100-YEAR, 6-HOUR STORM AND THE PEAK ATTENUATED DISCHARGE FLOW RATE IS APPROXIMATELY 2.8 CFS.

> THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION

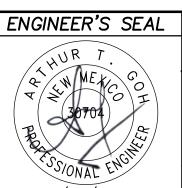
DESIGN TRACKING SCALE: 1"=50' DATE: 08/25 DESIGNED BY E. BABCOCK DATE: DRAWN BY: D. KURIL 08/25 **ATTENTION** CHECKED BY: A. GOH DATE: 08/25 0 1/2" 1" DATE: 08/25 CROSS CHK'D BY: P. TAURASI DATE: GRAPHIC SCALE APPROVED BY: 08/25 THIS BAR MEASURES 1' MAPS/RECORDS INFO. AT FULL SCALE (ANSI D)

REVISION NO. & DESCRIPTION | BY

SUBMITTED BY: **CDM** 6001 Indian School Road, N.E. Suite 310 Albuquerque, New Mexico 87110

Tel: (505) 243-3200

AS BUILT INFORMATION CONTRACTOR COMPANY NAME CONSTRUCTION MMM. YYYY BEGIN DATE INSPECTOR'S ACCEPTANCE BY DATE MMM. YYYY COMPANY NAME INSPECTOR'S NAME NAME SUBSTANTIAL COMPLETION DATE MMM. YYYY COMPANY NAME DATE MMM. YYYY CORRECTED BY



TITLE:

OF AN UNDISPUTED REQUEST FOR PAYMENT. ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

> SANTA BARBARA ARSENIC TREATMENT FACILITY DRAINAGE PLAN - HYDROLOGY

MAP NO. H-16-Z SHEET WATER AUTHORITY C-14ACONSTRUCTION PROJECT NO. 2308.010 08/12/2025

