

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

January 31, 2023

David Aube, P.E.
Cushing Terrell
306 W. Railroad St., Ste. 104
Missoula, MT 59802

**RE: RE: Phil Chacon Memorial Substation SE Area Command Addition
800 Louisiana Blvd. SE
Grading and Drainage Plan – Phase 2
Engineer's Stamp Date: 1/27/2023
Hydrology File: L19D043**

Dear Mr. Aube,

Based upon the information provided in your submittal received 1/30/2023, 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

Albuquerque

PRIOR TO CERTIFICATE OF OCCUPANCY:

NM 87103

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

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.

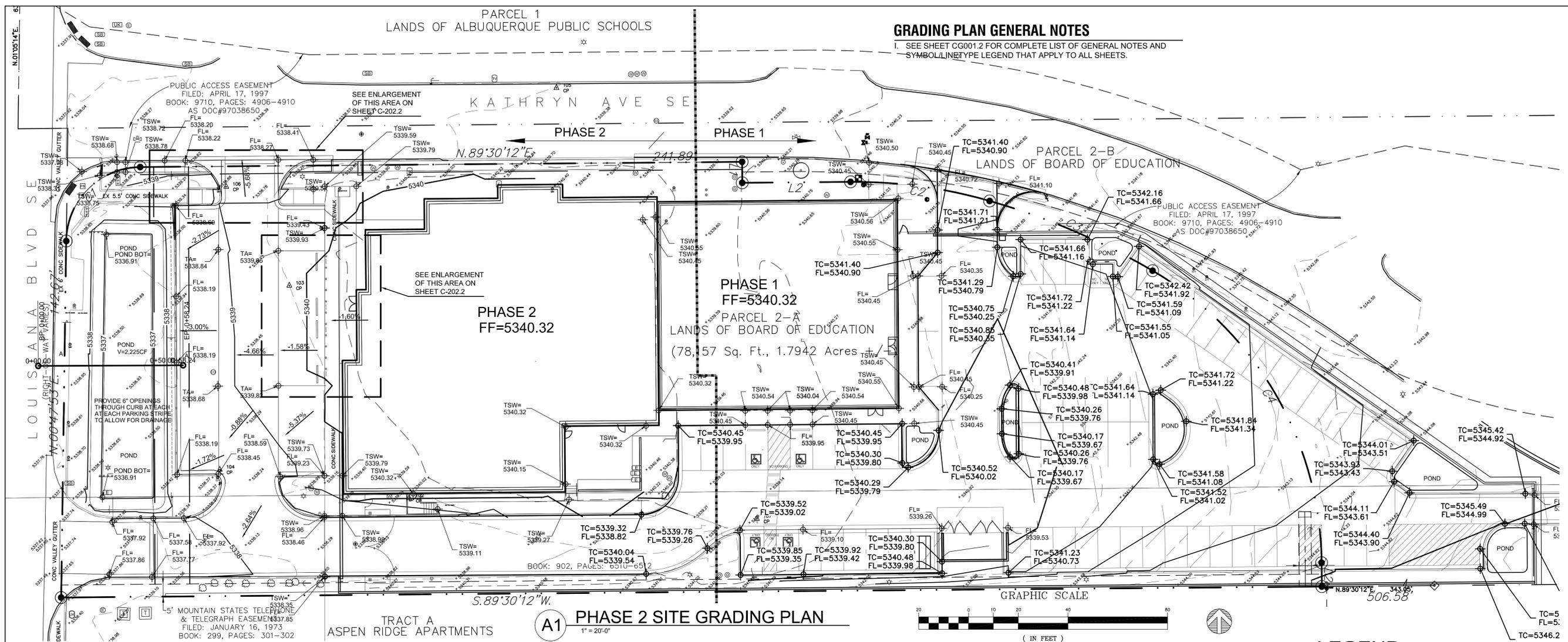
Sincerely,

Tiequan Chen, P.E.
Principal Engineer, Hydrology
Planning Department, Development Review Services

PARCEL 1
LANDS OF ALBUQUERQUE PUBLIC SCHOOLS

GRADING PLAN GENERAL NOTES

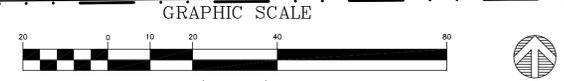
1. SEE SHEET CG001.2 FOR COMPLETE LIST OF GENERAL NOTES AND SYMBOL LINE TYPE LEGEND THAT APPLY TO ALL SHEETS.



AS-BUILT INFORMATION		BENCH MARK		SURVEY INFORMATION	
CONTRACTOR	DATE	A.C.S. MONUMENT "2-L19, 1984"	DATE	NO.	BY
WORK STARTED BY	DATE	NEW MEXICO STATE PLANE COORDINATES	DATE		
ACCEPTANCE BY:	DATE	(CENTRAL ZONE-N.A.D. 1983)	DATE		
FIELD DRAWING BY:	DATE	X=1,545,595.435	DATE		
DESIGNER BY:	DATE	Y=1,478,327.865	DATE		
CORRECTED BY:	DATE	ELEV=5339.761 (NAVD 88)	DATE		
MICRO-FILM INFORMATION	DATE	CGCF: 1.00034124	DATE		
RECORDED BY:	DATE		DATE		
RECORDED BY:	DATE		DATE		

TRACT A
ASPEN RIDGE APARTMENTS

A1 PHASE 2 SITE GRADING PLAN
1" = 20'-0"



DRAINAGE PLAN:

LEGAL DESCRIPTION: A PORTION OF PARCEL 2-A, LANDS OF BOARD OF EDUCATION

SITE AREA: 2.00 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35001C0354H) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN.

EXISTING DRAINAGE CONDITIONS:

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH SECTION 6 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), ENTITLED "DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL." THE DESIGN STORM USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR RUNOFF. THE SITE IS LOCATED IN ZONE 3, SO THE 100-YEAR, 6-HOUR STORM EVENT IS 2.60 INCHES. UNDER EXISTING CONDITIONS, THE PARCEL IS A PARKING LOT WITH LAND TREATMENTS B, C, AND D.

THE PARCEL IS LOCATED IN SOUTHEAST ALBUQUERQUE AT THE SOUTHEAST CORNER OF THE LOUISIANA/KATHRYN INTERSECTION. CURRENTLY THE SITE DRAINS FROM NORTHEAST TO SOUTHWEST TO THE EXISTING FACILITY PARKING AREA AND THEN ONTO LOUISIANA. THE EXISTING PEAK RUNOFF FROM THE PARCEL UNDER EXISTING CONDITIONS IS 8.76 CFS DURING A 100-YEAR, 6-HOUR STORM. THERE ARE NO OFF-SITE FLOWS THAT REACH THE PROPERTY.

DEVELOPED DRAINAGE CONDITIONS:

THIS PROJECT INVOLVES THE CONSTRUCTION OF PHASE 1 IMPROVEMENTS TO THE SITE INCLUDING A NEW BUILDING, REVISED PARKING AREA AND LANDSCAPING LOCATED IN THE EASTERN PORTION OF THE SITE. PHASE 2 OF THE PROJECT WILL REMOVE AND RECONSTRUCT THE EXISTING BUILDING LOCATED ON THE WEST HALF OF THE SITE. THE SITE WILL CONTINUE TO DRAIN FROM NORTHEAST TO SOUTHWEST THROUGH THE EXISTING FACILITY TO LOUISIANA BLVD.

THE WATER QUALITY VOLUME WILL BE CAPTURED IN THE LANDSCAPED MEDIANS THROUGHOUT THE NEW PARKING AREA. THE DEVELOPED PEAK RUNOFF FROM PHASE 1 AND PHASE 2 IS 9.2 CFS, WHICH IS SLIGHTLY HIGHER THAN THE EXISTING PEAK RUNOFF.

WATER QUALITY VOLUME FOR THE ENTIRE SITE = (0.26IN/12IN/FT) X ((2.00 X .79) X 43,560SF/AC) = 1,491CF REQUIRED.

WATER QUALITY VOLUME FOR PHASE ONE = (0.26IN/12IN/FT) X ((0.99 X .85) X 43,560SF/AC) = 797CF REQUIRED.

WATER QUALITY VOLUME FOR PHASE TWO = (0.26IN/12IN/FT) X ((1.01 X .74) X 43,560SF/AC) = 694CF REQUIRED.

CONCLUSION

PHASE 1 WILL CONTAIN 667 CUBIC FEET OF WATER QUALITY VOLUME AND ACCOUNTED FOR A MAJORITY OF THE INCREASE IN EXCESS RUNOFF.

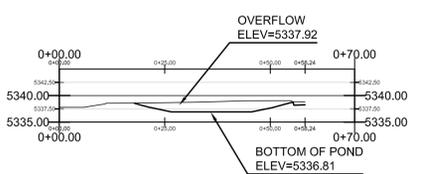
PHASE 1 HAD AN INCREASE IN PEAK RUNOFF OF 0.33 CFS. TOTAL INCREASE INCLUDING PHASE 1 AND PHASE 2 IS 0.26 CFS. THEREFORE THE PHASE 2 WILL ONLY NEED TO ADDRESS WATER QUALITY VOLUME.

THE NEW PONDING AREA ALONG LOUISIANA BOULEVARD WILL BE SIZED TO CONTAIN THE REMAINING WATER QUALITY VOLUME.

AVAILABLE PONDING VOLUME 2225CF.

LEGEND

- xx.xx SPOT ELEVATION
- FLOW ARROW
- NEW CURB AND GUTTER & SIDEWALK
- - - EX CURB AND GUTTER & SIDEWALK
- PROPERTY LINE
- (S 83°39'25" W) RECORD BEARING AND DISTANCES
- N 00°07'27" W MEASURED BEARING AND DISTANCES



POND SECTION A-A
SCALE: 1"=20' HORIZ, 1"=4' VERT

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	100-YEAR PRECIPITATION				
		A (%)	B (%)	C (%)	D (%)		V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (24-hr) (acre-ft)	V (24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
SITE	2.0000	0.00	16.00	16.00	68.00	1.96	0.33	14,218	0.38	16,686	8.76
TOTAL RUNOFF	2.000						0.33	14,218	0.38	16,686	8.76
PROPOSED CONDITIONS											
SITE	2.0000	0.00	10.50	10.50	79.00	2.10	0.35	15,220	0.42	18,088	9.20
TOTAL RUNOFF	2.000						0.35	15,220	0.42	18,088	9.20
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q _P (cfs)					

ZONE = 3
P_{6-HR} (in.) = 2.60
P_{24-HR} (in.) = 3.10
P_{10DAY} (in.) = 4.90

WEIGHTED E (in) = (E_A)(%A) + (E_B)(%B) + (E_C)(%C) + (E_D)(%D)
V_{6-HR} (acre-ft) = (WEIGHTED E)(AREA)/12
V_{10DAY} (acre-ft) = V_{6-HR} + (A_D)(P_{10DAY} - P_{6-HR})/12
Q (cfs) = (Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)



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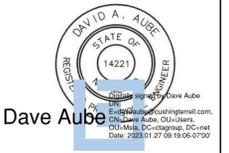
CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM

PROJECT TITLE:
PHIL CHACON MEMORIAL SUBSTATION SOUTHEAST AREA COMMAND - EXPANSION (PHASE II)

DRAWING TITLE:
PHASE 2 SITE GRADING PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

PERMIT SET City Project No. 7825921 Zone Map L-19-X Sheet C-201.2 Of



NO.	DATE	REMARKS	BY

DESIGNED BY: DAVID A. AUBE DATE: SEPTEMBER 30, 2022
DRAWN BY: DUGAN MAHONEY DATE: SEPTEMBER 30, 2022
CHECKED BY: DAVID A. AUBE DATE: SEPTEMBER 30, 2022

