

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

August 14, 2020

Robert Fierro, P.E.
Fierro & Company
6300 Montano Rd. NW
Albuquerque, NM 87120

RE: Kraemer Fields
2801 Karsten Court SE
Grading & Drainage Plan
Engineer's Stamp Date: 07/31/20
Hydrology File: M14D012J

Dear Mr. Fierro:

PO Box 1293

Based upon the information provided in your submittal received 08/03/2020, the Grading & Drainage Plan **is not** approved for Grading Permit and Paving Permit. The following comments need to be addressed for approval of the above referenced project:

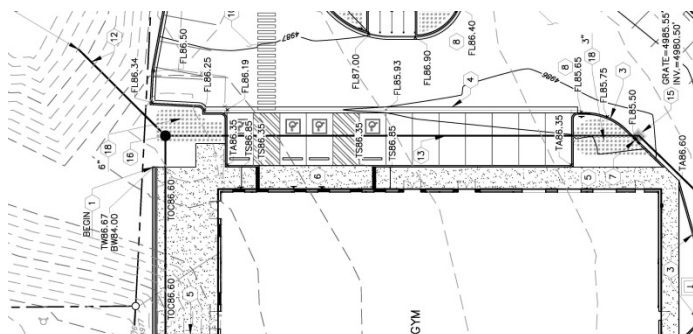
Albuquerque

NM 87103

1. First off this I could not find any replatting action by the DRB for current lot that the retention pond is on. So if that lot is going to be replatted, then this should have been submitted as a DRB site with a review fee of \$610. The fee that was paid was \$310 which is just for an admin site. If you think that this land has already been replatted, please provide a copy of the recorded plat.

www.cabq.gov

2. Sheet 1. Please correct the proposed ABQ Sports Complex drainage to reflect the approved Grading & Drainage Plan with Engineer's Stamp date of 11/14/19. Approval letter issued 11/21/19. (M14D012I). See below. If this site drains are being modified, than the Grading & Drainage Plan for this project ((M14D012I) will have to be resubmitted for approval by Hydrology.



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3. Sheet 1. The proposed parking lot will not be able to street drain to Bethel Road. There is currently no capacity in the roadway to handle the runoff. Therefore you will need to install a water block per COA Paving Detail No. 2426 at the driveway entrance.
4. Sheet 1. The drainage from the proposed parking lot can be captured via storm inlet and connected to the proposed drainage system which outfalls to the newly shaped retention pond. This is what is indicated on Sheet 4.
5. Sheet 1. Please show the existing pipes that are to be removed and label them as being removed.
6. Sheet 1. Please provide all information on the proposed storm pipe system. (pipe invert elevations, MH top of rim elevations, inlet rim elevations,, and for the pipe sizes and lengths.
7. Sheet 1. Provide hydraulic calculations per Article 6-10 of the DPM for this proposed storm drain system, calculated along the Energy Grade Line; include both the HGL and EGLs in the table.
8. Sheet 1. Please provide a detail for the pipe outfall into the retention pond.
9. Sheet 2. Please provide the WSE of the 100 year 10 day volume in all sections.
10. Sheet 2. .Please provide an approved City method to water proffing the retaining wall below the WSE of the 100 year 10 day volume.
11. Sheet 4. Basin 300 needs drain into the proposed storm drain as outlined in comment #4. Please show this.
12. A Bernalillo County Recorded Agreement and Covenant will be required for the retention pond per Article 6-15(C) of the DPM. This is needed since the retention pond is accepting public drainage. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee (\$25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) regarding the routing and recording process for covenant. Please submit this prior to Hydrology's approval for this project.
13. 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.

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14. Standard review fee of \$300 (since this is a DRB site) plus the remainder \$300 as outlined in Comment #1 for a total of \$600 will be required at the time of resubmittal.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

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 11/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF SUBMITTAL: _____ PLAT (____# OF LOTS) _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION _____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ DRAINAGE MASTER PLAN
- _____ DRAINAGE REPORT
- _____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- _____ ELEVATION CERTIFICATE
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ TRAFFIC IMPACT STUDY (TIS)
- _____ OTHER (SPECIFY) _____
- _____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

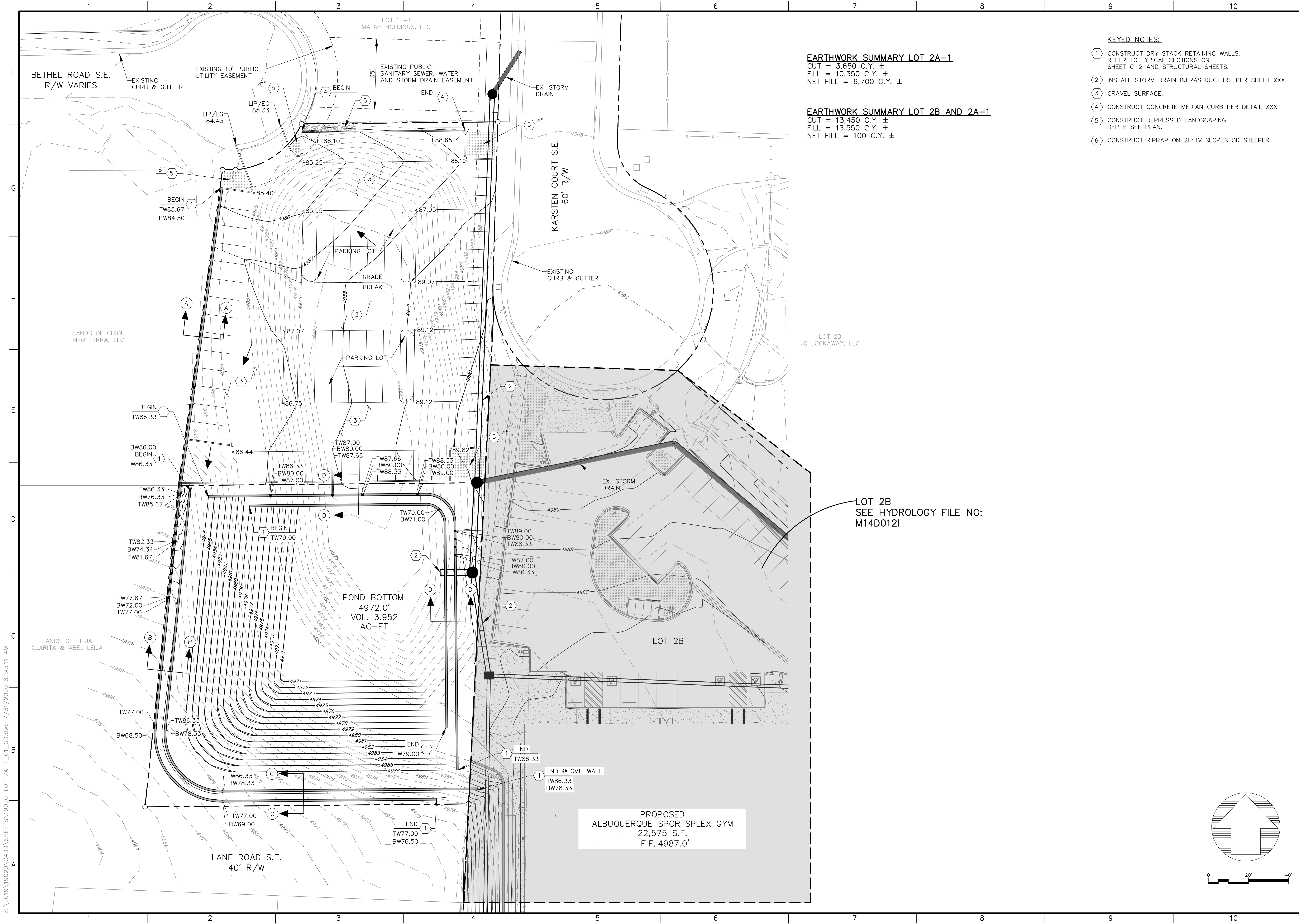
- _____ BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY
- _____ PRELIMINARY PLAT APPROVAL
- _____ SITE PLAN FOR SUB'D APPROVAL
- _____ SITE PLAN FOR BLDG. PERMIT APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ SIA/ RELEASE OF FINANCIAL GUARANTEE
- _____ FOUNDATION PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ SO-19 APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ GRADING/ PAD CERTIFICATION
- _____ WORK ORDER APPROVAL
- _____ CLOMR/LOMR
- _____ FLOODPLAIN DEVELOPMENT PERMIT
- _____ OTHER (SPECIFY) _____

DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



EARTHWORK SUMMARY LOT 2A-1
CUT = 3,650 C.Y. ±
FILL = 10,350 C.Y. ±
NET FILL = 6,700 C.Y. ±

EARTHWORK SUMMARY LOT 2B AND 2A-1
CUT = 13,450 C.Y. ±
FILL = 13,550 C.Y. ±
NET FILL = 100 C.Y. ±

- KEYED NOTES:**
- 1 CONSTRUCT DRY STACK RETAINING WALLS. REFER TO TYPICAL SECTIONS ON SHEET C-2 AND STRUCTURAL SHEETS.
 - 2 INSTALL STORM DRAIN INFRASTRUCTURE PER SHEET XXX.
 - 3 GRAVEL SURFACE.
 - 4 CONSTRUCT CONCRETE MEDIAN CURB PER DETAIL XXX.
 - 5 CONSTRUCT DEPRESSED LANDSCAPING. DEPTH SEE PLAN.
 - 6 CONSTRUCT RIPRAP ON 2H:1V SLOPES OR STEEPER.



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ENGINEER'S SEAL

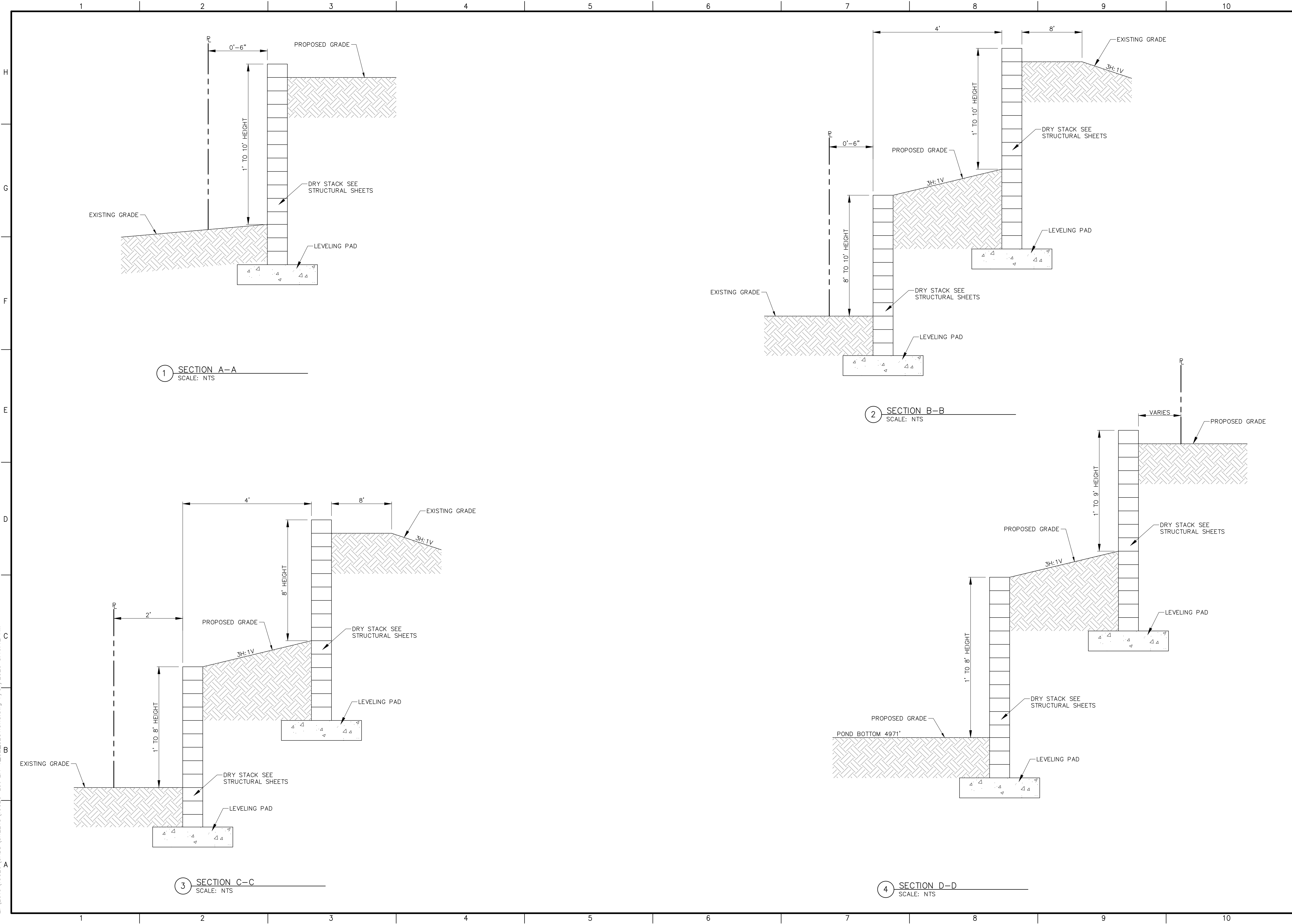


ROBERT J. FIERRO
NEW MEXICO
20585
7-31-2019
PROFESSIONAL ENGINEER

KRAEMER FIELDS
LOT 2A-1
BROADWAY INDUSTRIAL CENTER
SUBDIVISION, UNIT 2
ALBUQUERQUE, NEW MEXICO

PROJECT NAME		PROJECT NO.	
KRAEMER FIELDS LOT 2A-1		19020	
DESIGNED BY:		RJF	
DRAWN BY:		RJS	
CHECKED BY:		RJF	
DATE:		JULY 2020	
SHEET TITLE		GRADING PLAN	
SHEET NO:		1	

Z:\2019\19020\CADD\SHEETS\19020-Lot 2A-1_C2_SECTIONS.dwg 7/31/2020 8:16:12 AM





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ENGINEER'S SEAL

KRAEMER FIELDS

LOT 2A-1

BROADWAY INDUSTRIAL CENTER

SUBDIVISION, UNIT 2

ALBUQUERQUE, NEW MEXICO

PROJECT NAME

REV.	DATE	DESCRIPTION	BY

PROJECT NO: 19020

DESIGNED BY: RJF

DRAWN BY: RJS

CHECKED BY: RJF

DATE: JULY 2020

SHEET TITLE

DETAILS

SHEET NO:

2



Sub-Basin 101 - Existing		
Area of Treatment A	= 0	ft ²
Area of Treatment B	= 1219	ft ²
Area of Treatment C	= 23162	ft ²
Area of Treatment D	= 0	ft ²
Total Area	= 24381	ft ²
Volumetric Flow		
Weighted E	= 1.113	inches
Volume (6hr)	= 0.052	acre-ft
Volume (24hr)	= 0.052	acre-ft
Volume (4days)	= 0.052	acre-ft
Volume (10days)	= 0.052	acre-ft
Peak Rate of Discharge		
Q ₁₀₀	= 1.733	cfs

Sub-Basin 102 - Existing		
Area of Treatment A	= 0	ft ²
Area of Treatment B	= 11019	ft ²
Area of Treatment C	= 11019	ft ²
Area of Treatment D	= 198348	ft ²
Total Area	= 220387	ft ²
Volumetric Flow		
Weighted E	= 2.004	inches
Volume (6hr)	= 0.845	acre-ft
Volume (24hr)	= 0.996	acre-ft
Volume (4days)	= 1.205	acre-ft
Volume (10days)	= 1.452	acre-ft
Peak Rate of Discharge		
Q ₁₀₀	= 22.772	cfs

Sub-Basin 103 - Existing		
Area of Treatment A	= 0	ft ²
Area of Treatment B	= 7481	ft ²
Area of Treatment C	= 7481	ft ²
Area of Treatment D	= 134654	ft ²
Total Area	= 149615	ft ²
Volumetric Flow		
Weighted E	= 2.004	inches
Volume (6hr)	= 0.573	acre-ft
Volume (24hr)	= 0.676	acre-ft
Volume (4days)	= 0.818	acre-ft
Volume (10days)	= 0.986	acre-ft
Peak Rate of Discharge		
Q ₁₀₀	= 15.460	cfs

Sub-Basin 104 - Existing		
Area of Treatment A	= 0	ft ²
Area of Treatment B	= 0	ft ²
Area of Treatment C	= 134245	ft ²
Area of Treatment D	= 0	ft ²
Total Area	= 134245	ft ²
Volumetric Flow		
Weighted E	= 1.130	inches
Volume (6hr)	= 0.290	acre-ft
Volume (24hr)	= 0.290	acre-ft
Volume (4days)	= 0.290	acre-ft
Volume (10days)	= 0.290	acre-ft
Peak Rate of Discharge		
Q ₁₀₀	= 9.677	cfs

Sub-Basin 105 - Existing		
Area of Treatment A	= 0	ft ²
Area of Treatment B	= 0	ft ²
Area of Treatment C	= 14981	ft ²
Area of Treatment D	= 0	ft ²
Total Area	= 14981	ft ²
Volumetric Flow		
Weighted E	= 1.130	inches
Volume (6hr)	= 0.032	acre-ft
Volume (24hr)	= 0.032	acre-ft
Volume (4days)	= 0.032	acre-ft
Volume (10days)	= 0.032	acre-ft
Peak Rate of Discharge		
Q ₁₀₀	= 1.080	cfs

Sub-Basin 106 - Existing		
Area of Treatment A	= 0	ft ²
Area of Treatment B	= 0	ft ²
Area of Treatment C	= 33549	ft ²
Area of Treatment D	= 0	ft ²
Total Area	= 33549	ft ²
Volumetric Flow		
Weighted E	= 1.130	inches
Volume (6hr)	= 0.073	acre-ft
Volume (24hr)	= 0.073	acre-ft
Volume (4days)	= 0.073	acre-ft
Volume (10days)	= 0.073	acre-ft
Peak Rate of Discharge		
Q ₁₀₀	= 2.418	cfs

Sub-Basin 107 - Existing		
Area of Treatment A	= 0	ft ²
Area of Treatment B	= 0	ft ²
Area of Treatment C	= 17598	ft ²
Area of Treatment D	= 0	ft ²
Total Area	= 17598	ft ²
Volumetric Flow		
Weighted E	= 1.130	inches
Volume (6hr)	= 0.038	acre-ft
Volume (24hr)	= 0.038	acre-ft
Volume (4days)	= 0.038	acre-ft
Volume (10days)	= 0.038	acre-ft
Peak Rate of Discharge		
Q ₁₀₀	= 1.269	cfs

Sub-Basin 108 - Existing		
Area of Treatment A	= 0	ft ²
Area of Treatment B	= 3628	ft ²
Area of Treatment C	= 5442	ft ²
Area of Treatment D	= 27212	ft ²
Total Area	= 36282	ft ²
Volumetric Flow		
Weighted E	= 1.838	inches
Volume (6hr)	= 0.128	acre-ft
Volume (24hr)	= 0.148	acre-ft
Volume (4days)	= 0.177	acre-ft
Volume (10days)	= 0.211	acre-ft
Peak Rate of Discharge		
Q ₁₀₀	= 3.518	cfs



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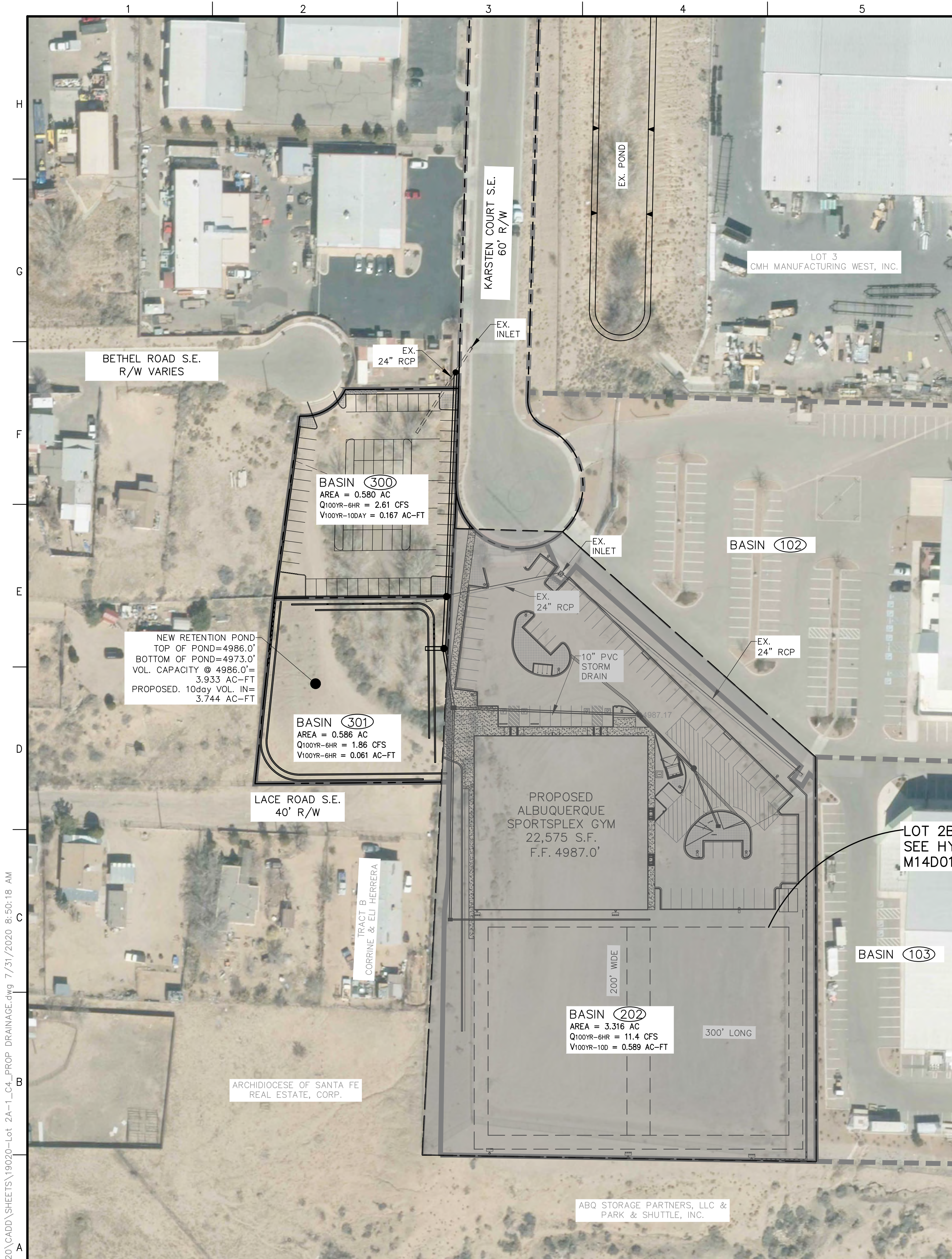
ENGINEER'S SEAL

KRAEMER FIELDS
LOT 2A-1
BROADWAY INDUSTRIAL CENTER
SUBDIVISION, UNIT 2
ALBUQUERQUE, NEW MEXICO

INTERSTATE 25

PROJECT NAME	BY	DESCRIPTION	REV.	DATE

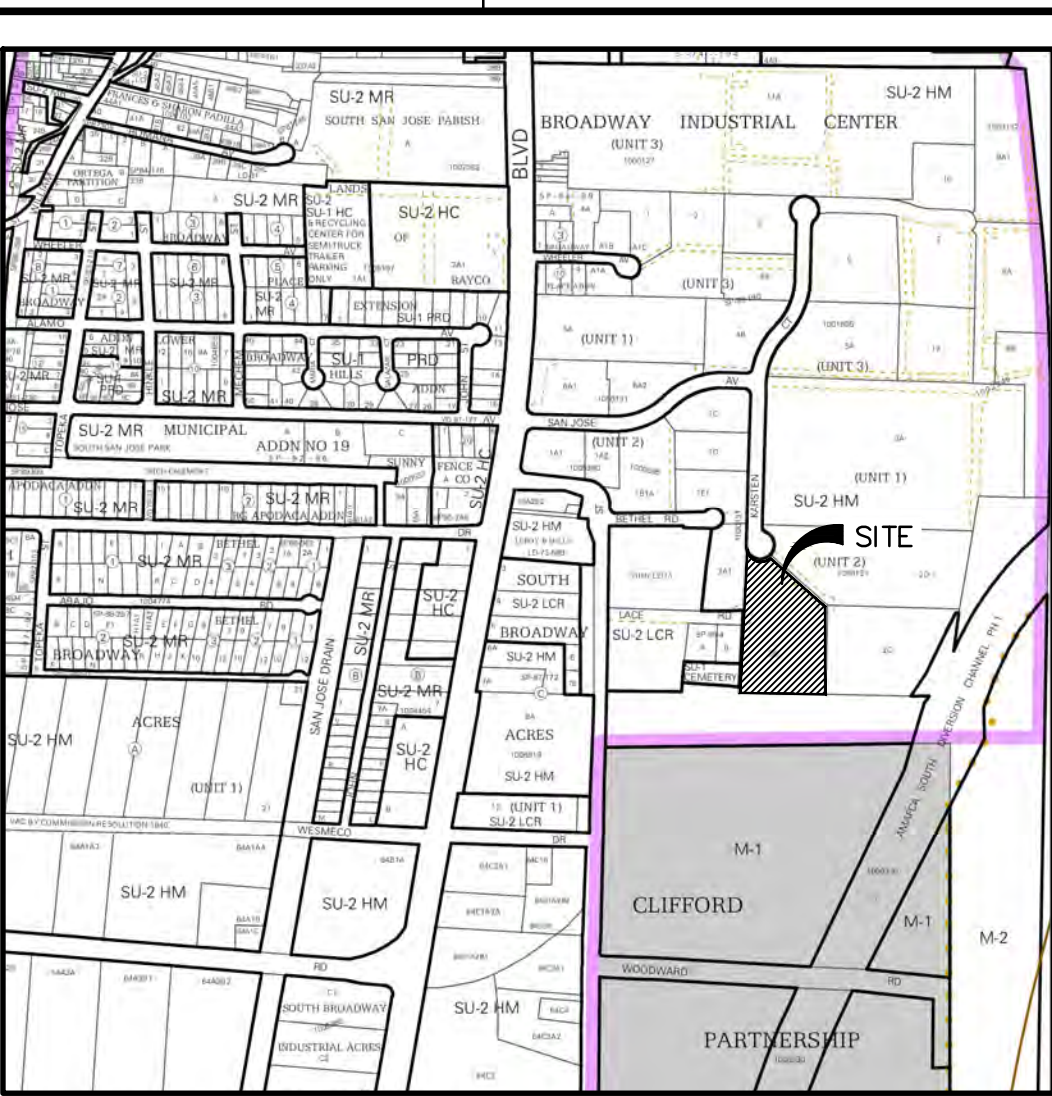
PROJECT NO:	19020
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	JULY 2020
SHEET TITLE	EXISTING BASIN MAP
SHEET NO:	3



2 PROPOSED BASIN MAP



FLOOD INSURANCE RATE MAP
MAP NO. 35001C0342G
EFFECTIVE DATE: 09/26/2008



ZONE ATLAS MAP
PAGE M-14-Z

NEW POND STAGE STORAGE				
Depth (ft)	Area (sq ft)	Volume (ac-ft)	Cum Volume (ac-ft)	
4972	7436	0.171	0	0.000
4973	7974	0.183	0.177	0.177
4974	8533	0.196	0.189	0.366
4975	9110	0.209	0.203	0.569
4976	9705	0.223	0.216	0.785
4977	10318	0.237	0.230	1.015
4978	10948	0.251	0.244	1.259
4979	11597	0.266	0.259	1.518
4980	13366	0.307	0.287	1.804
4981	14080	0.323	0.315	2.119
4982	14812	0.340	0.332	2.451
4983	15563	0.357	0.349	2.799
4984	16331	0.375	0.366	3.166
4985	17117	0.393	0.384	3.549
4986	17921	0.411	0.402	3.952

PROPOSED 100_{YR}-10_{DAY} VOLUME INTO NEW POND
=V_{BASIN 100} + V_{BASIN 101} + V_{BASIN 102} + V_{BASIN 103} + V_{BASIN 108} + V_{BASIN 202} + V_{BASIN 300} + V_{BASIN 301}
=0.226 + 0.560 + 1.452 + 0.986 + 0.211 + 0.589 + 0.580 + 0.061
=4.665 AC-FT

Please note volume from V_{Basin 202} was obtained from Hydrology File No. M14D012I.

Sub-Basin 300 - Proposed		
Area of Treatment A	=	0 ft ²
		0 ac
Area of Treatment B	=	1264 ft ²
		0 ac
Area of Treatment C	=	1264 ft ²
		0.029 ac
Area of Treatment D	=	22757 ft ²
		0.522 ac
Total Area	=	25285 ft ²
		0.580 ac
Volumetric Flow		
Weighted E	=	2.004 inches
Volume (6hr)	=	0.097 acre-ft
Volume (24hr)	=	0.114 acre-ft
Volume (4days)	=	0.138 acre-ft
Volume (10days)	=	0.167 acre-ft
Peak Rate of Discharge		
Q ₁₀₀	=	2.613 cfs

Sub-Basin 301 - Proposed		
Area of Treatment A	=	0 ft ²
		0 ac
Area of Treatment B	=	1277 ft ²
		0 ac
Area of Treatment C	=	22980 ft ²
		0.528 ac
Area of Treatment D	=	1277 ft ²
		0.029 ac
Total Area	=	25533 ft ²
		0.586 ac
Volumetric Flow		
Weighted E	=	1.162 inches
Volume (6hr)	=	0.057 acre-ft
Volume (24hr)	=	0.058 acre-ft
Volume (4days)	=	0.059 acre-ft
Volume (10days)	=	0.061 acre-ft
Peak Rate of Discharge		
Q ₁₀₀	=	1.861 cfs

Introduction
The site is located at 2801 Karsten CT SE, Albuquerque, NM 87544. The proposed improvements include a parking lot with 70 plus spaces. The existing retention pond is proposed to be modified with the new pond having a reduced footprint, so the site can accommodate additional parking for the proposed Kraemer Fields on Lot 2B of Broadway Industrial Center. A proposed grading plan for Lot 2B was approved under hydrology file No. M14D012I, which will drain to the pond on Lot 2A-1.

Hydrology file No. M14D012I approved a new storm pipe penetrating and discharging into the existing pond. This storm drain will need to be modified to drain into the new pond. This new pipe connection is not shown in the approved plan under file No. M13D012I and only shown schematically on this plan.

Methodology
Hydrologic procedures presented in the Hydrology Section of the DMP, Section 22.2, revised April 7, 1993 were followed.

Existing Condition
The existing site is located on Lot 2A-1 of the Broadway Industrial Center. The Broadway Industrial Center Master Plan allows Lots 2B, 2C, and 2D to discharge into the regional detention pond located on this site, which is designed to retain the 100-year, 10-day storm. The Master Plan was prepared by Mark Goodwin & Associates and is dated 9-24-1997.

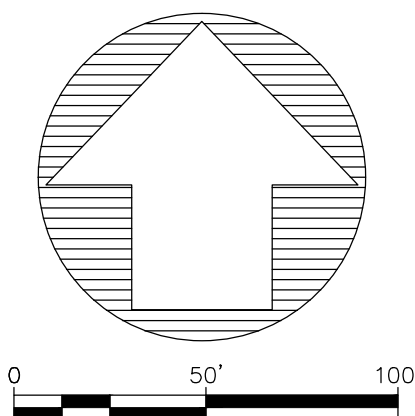
There are two existing pipes that outfall into said regional pond: 1) 24" RCP penetrating the pond from the west, and 2) 24" RCP pipe penetrating the pond from the north as shown on Sheet 3. The following basins contribute runoff to said regional pond: Basin 100, 101, 102, 103, 104, 106, and 108 with a combined Volume_{100yr-10day} = 3,290 ac-ft. The total pond capacity is 3,977 ac-ft. Basin 107 discharges to the adjacent lot to the West and Lace Road SE.

Proposed Condition
Improvements include 70 plus parking spaces and a new pond to replace the existing. The total proposed 100-year, 10day volume for the new pond is 4.665 ac-ft and the pond is designed with a volume of 3.95 ac-ft. There is a little less than a foot of freeboard. The two existing pipes will need to extend to the new pond. The proposed pipe layout of the pipe extensions are shown semantically on this sheet. The first flush volume was not calculated under this analysis. Hydrologic analysis are included on Sheet 3 and this sheet.

Conclusion
The new infrastructure shown on this G&D is to support the proposed improvements as shown under Hydrology File No. M13D012I. Its all one of the same project, but on different lots. The owner is considering consolidating Lot 2A-1 and Lot 2B. However, the hydrology and hydraulic analysis have been prepared to meet the current design criteria.

LEGEND

- SWALE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURFACE FLOW DIRECTION
- ROOF FLOW DIRECTION
- PROPOSED BASIN LINE
- EXISTING BASIN LINE
- EXISTING BASIN
- PROPOSED BASIN
- FIRST FLUSH PONDING LIMITS



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LOT 2A-1
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SUBDIVISION, UNIT 2
ALBUQUERQUE, NEW MEXICO

PROJECT NAME

BY	DESCRIPTION	REV.	DATE

PROJECT NO:	19020
DESIGNED BY:	R/JF
DRAWN BY:	RJS
CHECKED BY:	R/JF
DATE:	JULY 2020

SHEET TITLE
PROPOSED BASIN MAP

SHEET NO:
4