

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

October 6, 2022

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

RE: Kraemer Fields
2801 Karsten Court SE
Permanent C.O. - Accepted
Engineer's Certification Date: 09/30/22
Engineer's Stamp Date: 12/01/20
Hydrology File: M14D012I

Dear Mr. Fierro:

PO Box 1293

Based on the Certification received 10/04/2022 and site visit on 10/04/2022, this certification is approved in support of Permanent Release of Occupancy by Hydrology.

Albuquerque

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

Sincerely,

NM 87103

Renée C. Brissette

www.cabq.gov

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



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:

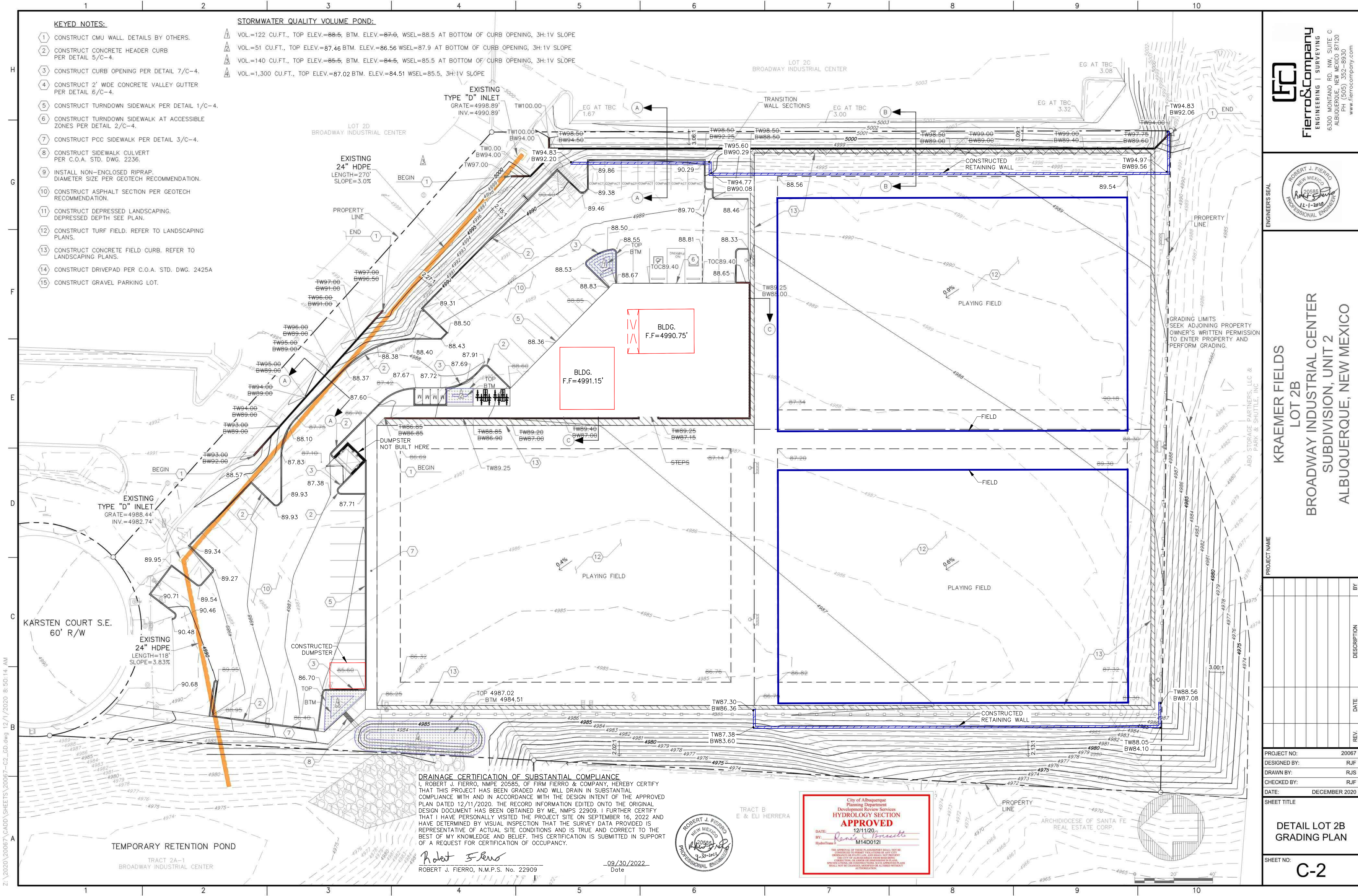
- _____ BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY
- _____ PRELIMINARY PLAT APPROVAL
- _____ SITE PLAN FOR SUB'D APPROVAL
- _____ SITE PLAN FOR BLDG. PERMIT APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ SIA/ RELEASE OF FINANCIAL GUARANTEE
- _____ FOUNDATION PERMIT APPROVAL
- _____ GRADING 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: _____



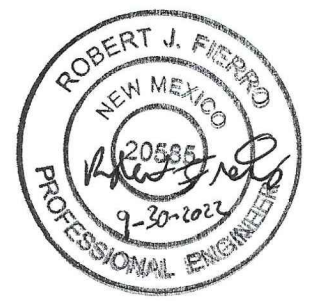
Z:\2020\20067\CADD\20067-SHEETS\20067-C2_GD.dwg 12/1/2020 8:50:14 AM

- KEYED NOTES:**
- 1 CONSTRUCT CMU WALL. DETAILS BY OTHERS.
 - 2 CONSTRUCT CONCRETE HEADER CURB PER DETAIL 5/C-4.
 - 3 CONSTRUCT CURB OPENING PER DETAIL 7/C-4.
 - 4 CONSTRUCT 2' WIDE CONCRETE VALLEY GUTTER PER DETAIL 6/C-4.
 - 5 CONSTRUCT TURNDOWN SIDEWALK PER DETAIL 1/C-4.
 - 6 CONSTRUCT TURNDOWN SIDEWALK AT ACCESSIBLE ZONES PER DETAIL 2/C-4.
 - 7 CONSTRUCT PCC SIDEWALK PER DETAIL 3/C-4.
 - 8 CONSTRUCT SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236.
 - 9 INSTALL NON-ENCLOSED RIPRAP. DIAMETER SIZE PER GEOTECH RECOMMENDATION.
 - 10 CONSTRUCT ASPHALT SECTION PER GEOTECH RECOMMENDATION.
 - 11 CONSTRUCT DEPRESSED LANDSCAPING. DEPRESSED DEPTH SEE PLAN.
 - 12 CONSTRUCT TURF FIELD. REFER TO LANDSCAPING PLANS.
 - 13 CONSTRUCT CONCRETE FIELD CURB. REFER TO LANDSCAPING PLANS.
 - 14 CONSTRUCT DRIVEPAD PER C.O.A. STD. DWG. 2425A
 - 15 CONSTRUCT GRAVEL PARKING LOT.

- STORMWATER QUALITY VOLUME POND:**
- 1 VOL.=122 CU.FT., TOP ELEV.=88.5, BTM. ELEV.=87.0, WSEL=88.5 AT BOTTOM OF CURB OPENING, 3H:1V SLOPE
 - 2 VOL.=51 CU.FT., TOP ELEV.=87.46 BTM. ELEV.=86.56 WSEL=87.9 AT BOTTOM OF CURB OPENING, 3H:1V SLOPE
 - 3 VOL.=140 CU.FT., TOP ELEV.=85.5, BTM. ELEV.=84.5, WSEL=85.5 AT BOTTOM OF CURB OPENING, 3H:1V SLOPE
 - 4 VOL.=1,300 CU.FT., TOP ELEV.=87.02 BTM. ELEV.=84.51 WSEL=85.5, 3H:1V SLOPE

DRAINAGE CERTIFICATION OF SUBSTANTIAL COMPLIANCE
I, ROBERT J. FIERRO, NMPE 20585, OF FIRM FIERRO & COMPANY, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 12/11/2020. THE RECORD INFORMATION EDITED ON THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME, NMPS 22909. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON SEPTEMBER 16, 2022 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATION OF OCCUPANCY.

Robert J. Fierro
ROBERT J. FIERRO, N.M.P.S. No. 22909
Date: 09/30/2022



Fierro & Company
ENGINEERING | SURVEYING
6300 MONTANO RD. NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87120
PH (505) 352-8930
www.fierrocompany.com



KRAEMER FIELDS
LOT 2B
BROADWAY INDUSTRIAL CENTER
SUBDIVISION, UNIT 2
ALBUQUERQUE, NEW MEXICO

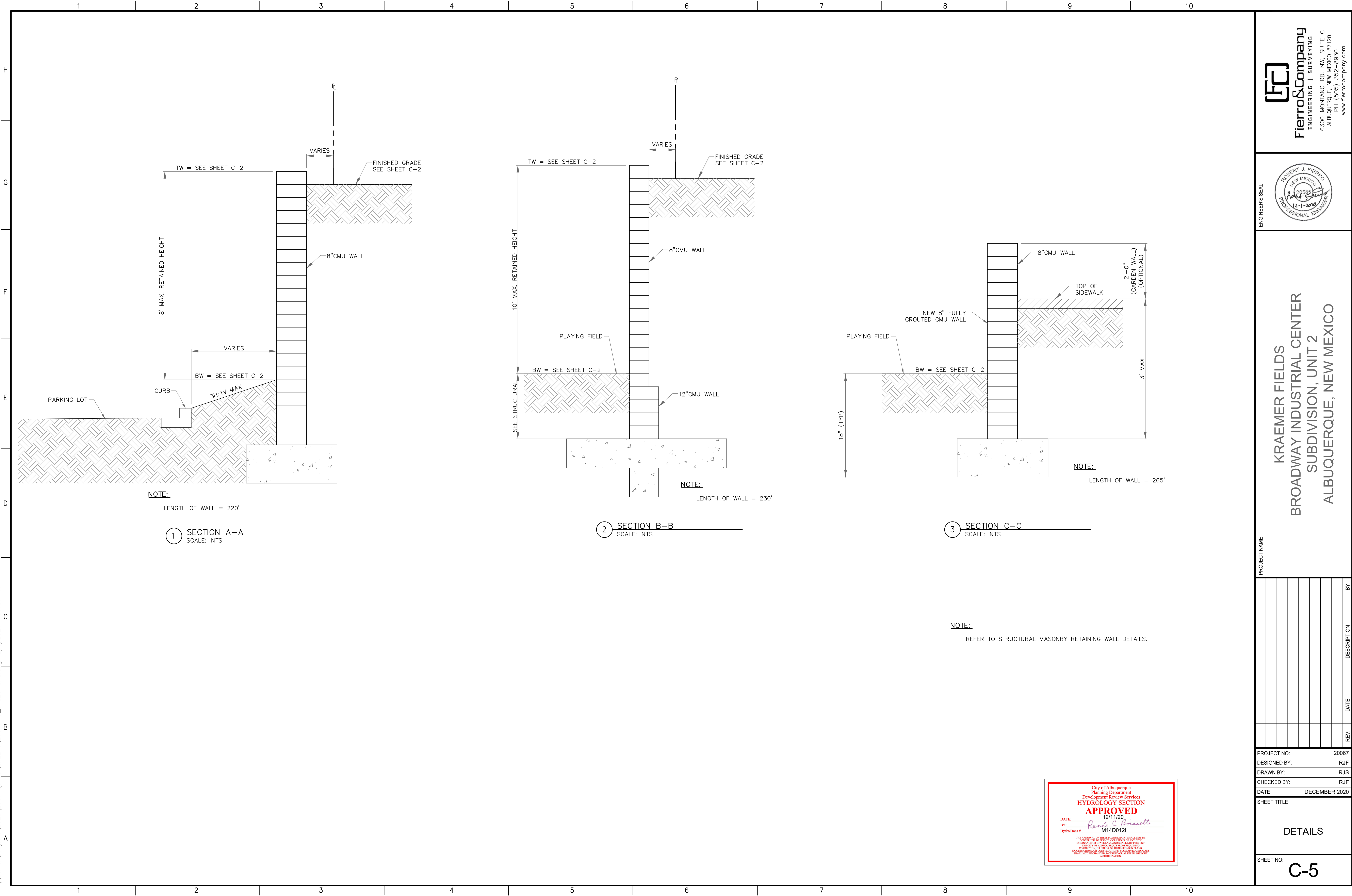
PROJECT NAME	BY	DESCRIPTION	REV.	DATE
KRAEMER FIELDS LOT 2B BROADWAY INDUSTRIAL CENTER SUBDIVISION, UNIT 2 ALBUQUERQUE, NEW MEXICO				

PROJECT NO:	20067
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	DECEMBER 2020
SHEET TITLE	

DETAIL LOT 2B
GRADING PLAN

SHEET NO:
C-2

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ENGINEER'S SEAL

KRAEMER FIELDS
BROADWAY INDUSTRIAL CENTER
SUBDIVISION, UNIT 2
ALBUQUERQUE, NEW MEXICO

PROJECT NAME

REV.	DATE	DESCRIPTION	BY

PROJECT NO: 20067

DESIGNED BY: RJF

DRAWN BY: RJS

CHECKED BY: RJF

DATE: DECEMBER 2020

SHEET TITLE

DETAILS

SHEET NO:

C-5

Z:\2020\20067\CADD\20067-SHEETS\20067-D1.0_EX DRAINAGE.dwg 12/1/2020 9:38:18 AM



EXISTING HYDROLOGY CALCULATION SUMMARY											
Basin	Total Area (acres)	Land Treatment Area (acres)				Land Treatment (%)				Q ₁₀₀ (cfs)	V _{100yr-6hr} (ac-ft)
		A	B	C	D	A	B	C	D		
100	2.442	0.00	0.12	2.32	0.00	0.0	5.0	95.0	0.0	7.4	0.207
101	0.560	0.00	0.03	0.53	0.00	0.0	5.0	95.0	0.0	1.7	0.048
102	5.059	0.00	0.25	0.25	4.55	0.0	5.0	5.0	90.0	21.1	0.923
103	3.435	0.00	0.17	0.17	3.09	0.0	5.0	5.0	90.0	14.3	0.626
104	3.082	0.00	0.00	3.08	0.00	0.0	0.0	100.0	0.0	9.4	0.265
105	0.344	0.00	0.00	0.34	0.00	0.0	0.0	100.0	0.0	1.0	0.030
106	0.770	0.00	0.00	0.77	0.00	0.0	0.0	100.0	0.0	2.3	0.066
107	0.404	0.00	0.00	0.40	0.00	0.0	0.0	100.0	0.0	1.2	0.035
108	0.83292	0.00	0.08	0.12	0.62	0.0	10.0	15.0	75.0	3.3	0.138

EXISTING 100^{yr}-10^{day} VOLUME INTO EXISTING POND
= V_{BASIN 100} + V_{BASIN 101} + V_{BASIN 102} + V_{BASIN 103} + V_{BASIN 104} + V_{BASIN 106} + V_{BASIN 108}
= 0.207 + 0.048 + 1.427 + 0.969 + 0.265 + 0.066 + 0.207
= 3.189 AC-FT

LEGEND

- SWALE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- SURFACE FLOW DIRECTION
- ROOF FLOW DIRECTION
- EXISTING BASIN MAP
- EXISTING BASIN
- EXISTING STORM DRAIN

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 12/11/20
BY: *Rene C. Brissette*
HydroTeam # M14D0121

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ENGINEER'S SEAL

PROJECT NAME

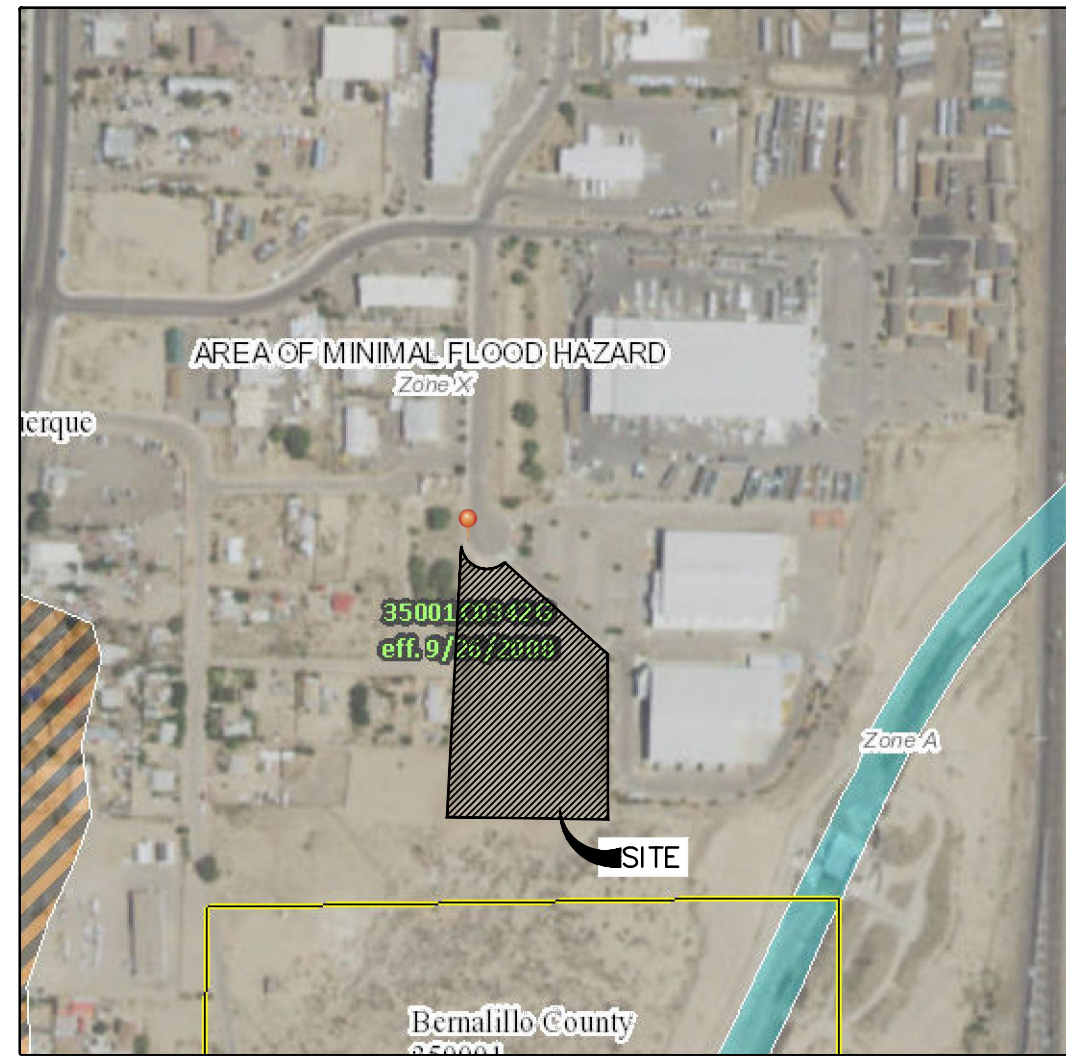
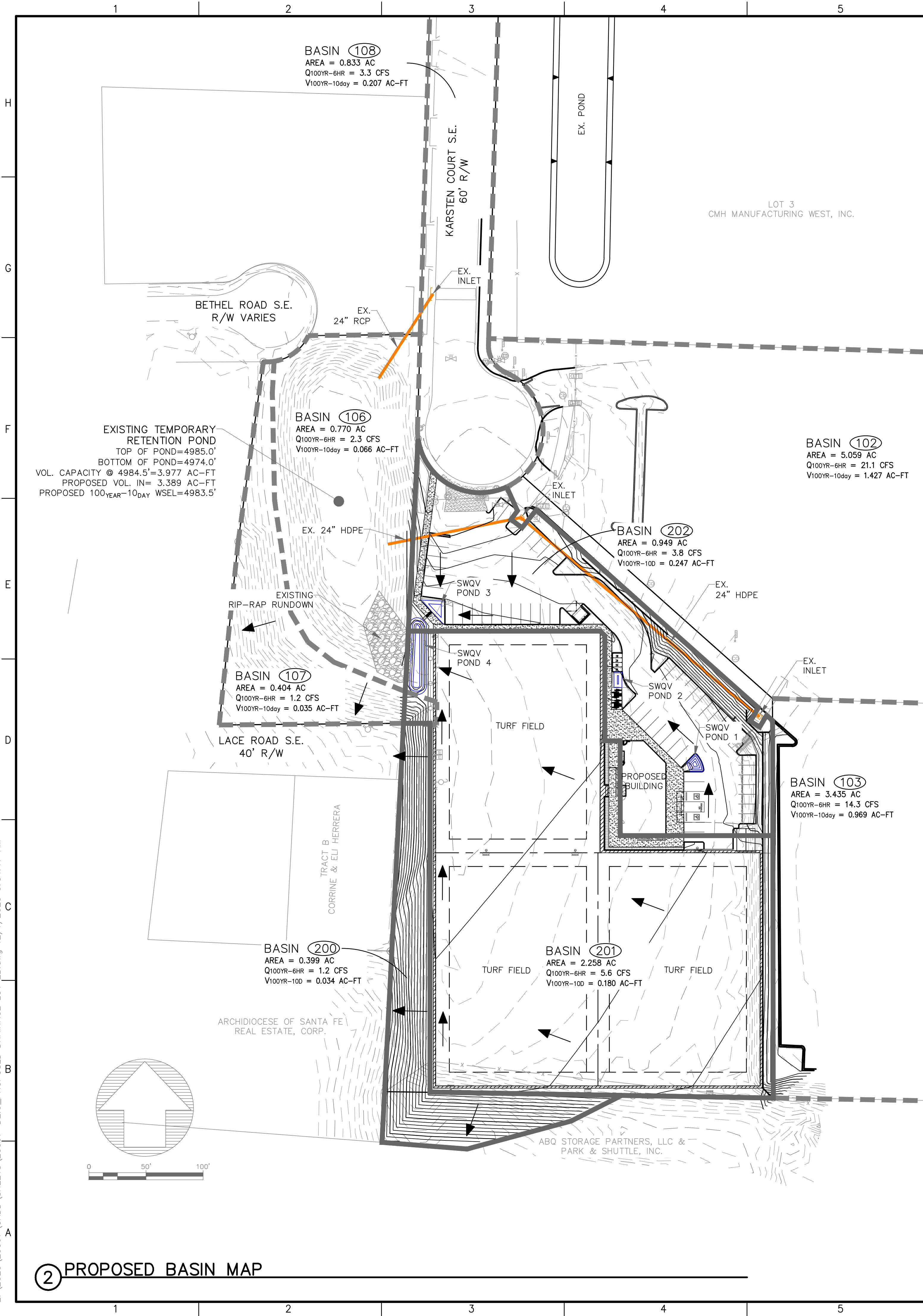
KRAEMER SPORT COMPLEX
LOT 2B
BROADWAY INDUSTRIAL CENTER
SUBDIVISION, UNIT 2
ALBUQUERQUE, NEW MEXICO

PROJECT NO.	20067
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	DECEMBER 2020
SHEET TITLE	EXISTING BASIN MAP

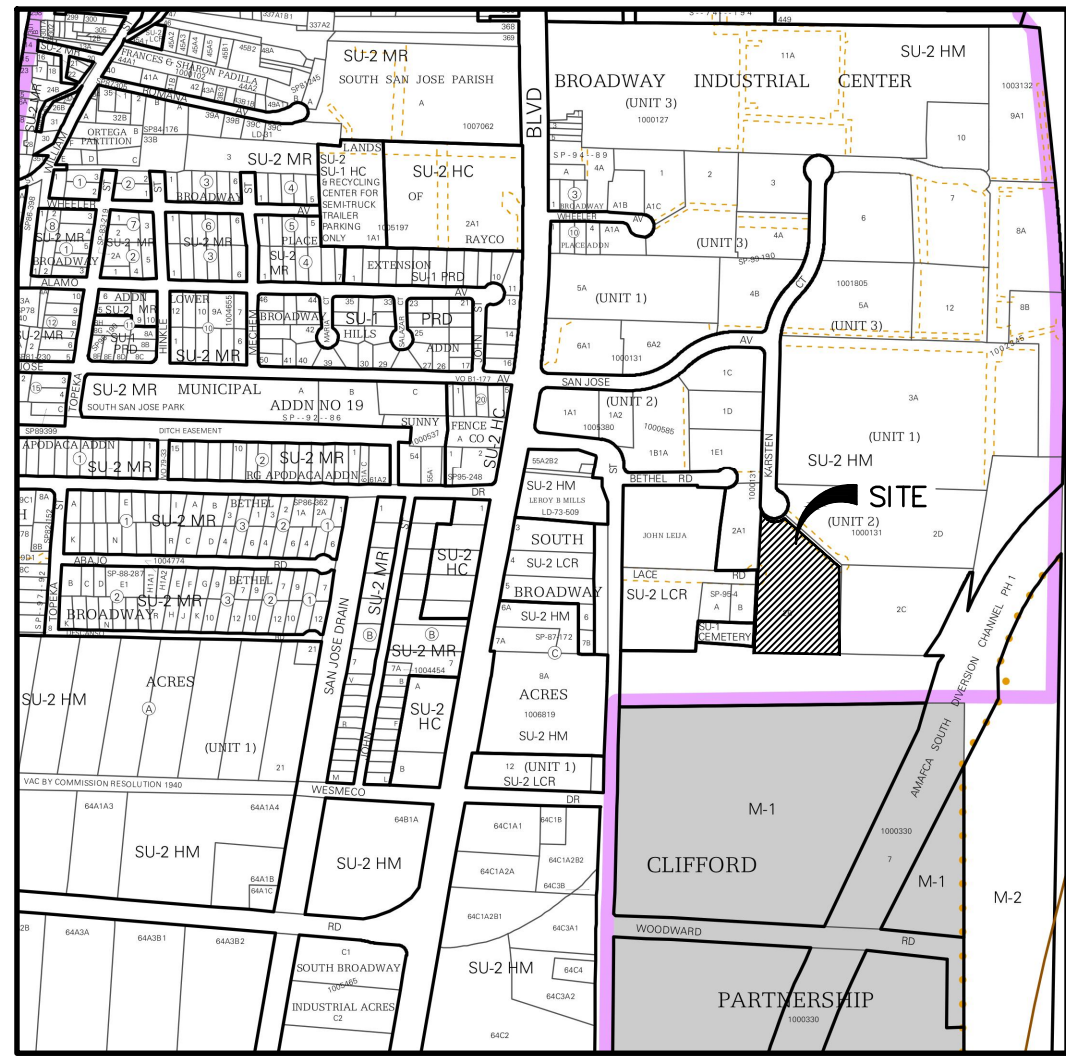
SHEET NO.

D-1.0

Z:\2020\20607\CADD\SHEETS\20607-D2_O_PROPOSED DRAINAGE LOT 2B.dwg 12/1/2020 9:34:17 AM



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



ZONE ATLAS MAP
PAGE M-14-Z

Basin	Total Area (acres)	Land Treatment (%)				Q ₁₀₀ (cfs)	V _{100yr-6hr} (ac-ft)	V _{100yr-24hr} (ac-ft)	V _{100yr-4day} (ac-ft)	V _{100yr-10day} (ac-ft)
		A	B	C	D					
200	0.399	0.0	0.0	100.0	0.0	1.2	0.034	0.034	0.034	0.034
201	2.258	0.0	90.0	5.0	5.0	5.6	0.167	0.170	0.173	0.180
202	0.949	0.0	5.0	15.0	80.0	3.8	0.163	0.182	0.205	0.247

STORMWATER QUALITY VOLUME (0.62" STORM):
TOTAL NEW LAND TREATMENT "D" AREA = 38,000 SQ.FT.
WATER QUALITY STORAGE REQUIRED=38,000 SQ.FT.*(.42")*(1"/12")=1,330 CU.FT.

DEPRESSED LANDSCAPING
WATER QUALITY STORAGE PROVIDED VIA DEPRESSED LANDSCAPING =1,610 CU.FT.

SWQV REQUIREMENT MET
PROVIDE 1,610 CU.FT. IS GREATER THAN REQUIRED 1,330 CU.FT.

PROPOSED 100^{YEAR-10DAY} VOLUME INTO NEW POND
=V_{BASIN 100} + V_{BASIN 101} + V_{BASIN 102} + V_{BASIN 103} + V_{BASIN 108} + V_{BASIN 201} + V_{BASIN 202} + V_{BASIN 106}
+ V_{BASIN 107}
=0.207 + 0.048 + 1.427 + 0.969 + 0.207 + 0.180 + 0.247 + 0.066
+ 0.035
=3,386 AC-FT

Introduction
The site is located at 2811 Karsten CT SE, Albuquerque, NM 87544. The proposed improvements include an 3,000 sq.ft. building footprint, parking lot, and three turf fields. The existing site slopes East to West at approximately 2% and drains to a temporary retention pond located on the adjoining lot to the west (Lot 2A-1). Under the proposed condition the site is allowed full development at 90% impervious cover and free discharge of all storm water runoff from Lot 2B into the temporary retention pond on Lot 2A-1, which is in accordance with the previously approved grading plan for Lots 2A, 2B, 2C, & 2D with Engineer's stamp dated 9-14-1999. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the existing and proposed condition, 2) satisfy the Stormwater Quality Volume requirement, and 3) seek building approval.

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 within the Broadway Industrial Center Master Plan that allows this site to drain to a private temporary retention pond on Lot 2A-1. The temporary retention pond accepts runoff from Basins 100, 101, 102, 103, 104, 106, and 108 as shown on sheet D-1.0. The site is vacant and was rough graded per the Grading & Drainage Plan prepared by Mark Goodwin & Associates with Engineer's stamp dated 9-14-1999. The existing site slopes East to West at approximately 2% and surface drains to an existing rip-rap rundown on Lot 2A-1 as shown on this sheet.

Off-site runoff is captured and conveyed via a 24-inch HDPE storm drain and routed through the site to the temporary retention pond as shown on Sheet D-1.0. A steep slope along the West and South is the only portion of the site that does not drain to the detention pond, which is within Basin 105. Runoff from the steep slopes surface drain to the adjoining lots as shown on Sheet D-1.0.

Proposed Condition
Improvements includes a 3,000 sq.ft. building footprint, parking lot, and three turf fields. The turf field will allow runoff to infiltrate; therefore is being categorized as Land Treatment B. The sites Land Treatment D cover is approximately 27%, which is well below the previous approved Master Plans that allows 90% impervious cover.

Three proposed Basins are identified as Basin 200, 201, and 202. Basin 200 is the side-slope embankment of the turf-field and will surface discharge to the adjoining lots similar as the existing condition. Basin 201 encompasses the three turf fields and slopes at 1% from southeast to northwest with the storm water from this basin surface discharging to Stormwater Quality Pond No. 3. Basin 202 includes the proposed building and parking lot. Storm water runoff is routed through all three Storm Water Quality Ponds. Once the water surface elevation on storm Water Quality Pond No. 3 reaches 4985.5-feet, then the storm water overtop the Storm Water Quality Pond and surface flow into the existing rip-rap rundown.

Off-site runoff will continue to be routed via a 24-inch HDPE pipe through the site and discharge into the temporary retention pond. No additional storm drain is required. The existing capacity of the temporary retention pond is 3.977 ac-ft. There is enough capacity to handle the site's proposed runoff as the total 100-year, 10-day runoff entering the retention pond is now 3.389 ac-ft. The first flush volume will be retained via four water quality ponds as shown on this C-2. See first flush volume calculations on this sheet. Hydrologic and hydraulic analysis are included on Sheet D-1.0 and this sheet. The total disturbed area is approximately 3.7 acres.

Conclusion
The City's and the Broadway Industrial Center Master Plan have been satisfied under this grading & drainage plan. The contractor shall use these civil sheets for construction, and will need a drainage certification in order to obtain a Close-out. This drainage report seeks approval for building permit.

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KRAEMER FIELDS
LOT 2B
BROADWAY INDUSTRIAL CENTER
SUBDIVISION, UNIT 2
ALBUQUERQUE, NEW MEXICO

PROJECT NAME

BY	DESCRIPTION	DATE	REV.

PROJECT NO: 20067
DESIGNED BY: R/JF
DRAWN BY: RJS
CHECKED BY: R/JF
DATE: DECEMBER 2020

SHEET TITLE

PROPOSED BASIN MAP

SHEET NO:

D-2.0