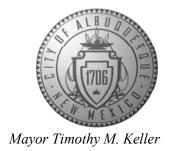
CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



April 22, 2022

Arthur Blessen, P.E. J Arthur Blessen Engineering 2429 Zenaa Lona Albuquerque, NM 87112

ABQ Bilinual Academy Softball Field

7400 La Morada Place NW **Grading and Drainage Plan**

Engineer's Stamp Date: 03/22/2022

Hydrology File: H10D037

Dear Mr. Blessen:

Based upon the information provided in your submittal received 3/22/22 the Grading and Drainage Plan is approved for Grading Permit.

Once the grading is complete, a pad certification (meaning that the earthwork is complete) will be required prior to release from Hydrology during the Building Permit process. Also, at the time of pad certification approval, Hydrology will concurrently approve the Grading & Drainage

Plan for Building Permit.

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.

Please provide Drainage Covenant for the stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Please submit an electronic file of the Covenant and Exhibit for completeness to Marion G. Velasquez at <u>mgvelasquez@cabq.gov</u>. Once the electronic file is approved for completeness, please submit the original copies along with the \$ 25.00 recording fee check made payable to Bernalillo County to Marion on the 4th floor of Plaza de Sol. Please note that Hydrology will need a pdf copy of the recorded Drainage Covenant prior to Hydrology's approval of Permanent Release of Occupancy.

If you have any questions, please contact me at 924-3695 or rbrissette@cabq.gov.

Sincerely,

David G. Gutierrez, P.E. Senior Engineer, Hydrology

Die Gul

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: Abq Bilinual Academ	ıy Softball Field Building Permit #:_	Hydrology File #:
DRB#:	EPC#:	Work Order#:
Legal Description: Tract 8, Unit	1, Ladera Business Park	
City Address: 7400 La Morada Pla	ace NW	
Applicant: J Arthur Blessen Engine	ering	Contact: Arthur Blessen
Address: 2429 Zenaa Lona, Albuqu		
Phone#: 505-401-4142	Fax#:	E-mail: jab-engineering@hotmail.com
Owner: Albuquerque Bilingual Acad	emy	Contact:
Address: 7500 La Morada Place		
Phone#:	Fax#:	E-mail:
IS THIS A RESUBMITTAL?:	LAT (# OF LOTS) RESIDENO Yes X No C/ TRANSPORTATION X HYDE	CE DRB SITE X ADMIN SITE ROLOGY/ DRAINAGE
Check all that Apply: TYPE OF SUBMITTAL: ENGINEER/ARCHITECT CI PAD CERTIFICATION CONCEPTUAL G & D PLAN GRADING PLAN DRAINAGE MASTER PLAN X DRAINAGE REPORT FLOODPLAIN DEVELOPMI ELEVATION CERTIFICATE CLOMR/LOMR TRAFFIC CIRCULATION L TRAFFIC IMPACT STUDY OTHER (SPECIFY) PRE-DESIGN MEETING?	ERTIFICATION N ENT PERMIT APPLIC X AYOUT (TCL) (TIS)	PE 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)
	By: J Arthur Blesser	n
COA STAFF:	ELECTRONIC SUBMITT.	AL RECEIVED:

FEE PAID:___

STORM WATER QUALITY POND **★** 5133.83 EXISTING CATCH BASIN STORM WATER QUALITY POND

HYDROLOGY NOTES

EXISTING CONDITIONS: PREVIOUS DEVELOPMENT TO THE SITE INCLUDE: A PLAY GROUND ALONG THE WEST PROPERTY LINE AND AN ASPHALT DRAINAGE CHANNEL ALONG THE SOUTH SIDE OF THE PROPERTY. THE REMAINDER OF THE SITE IS UNDEVELOPED AND SLOPES TO THE EAST AT A RATE 2.6%. THE SITE IS BASIN 8 OF AREA II OF THE LADERA BUSINESS PARK MASTER DRAINAGE REPORT. THE ALLOWABLE PECK DISCHARGE FOR THIS BASIN IS 26.531 CFS (4.86 CFS/AC)

OFFICE SITE FLOWS: THE RUNOFF FROM TRACTS 9, 10 ,AND 11 CURRENTLY DISCHARGES THROUGH THE SITE VIA THE EXISTING ASPHALT SWALE LOCATED WITHIN A PRIVATE DRAINAGE EASEMENT TO A CATCH BASIN LOCATED AT THE NORTHEAST CORNER OF THE SITE,

THE SITE IS HIGHER THAN THE LANDS TO THE EAST AND SOUTH AND THE EXISTING ROAD BLOCKS THE FLOWS TO THE NORTH, THEREFORE OFFSITE FLOWS FROM THOSE DIRECTIONS ARE INSIGNIFICANT.

DEVELOPED CONDITIONS:

THE PROPOSED DEVELOPMENT WILL CONSIST OF A SOFTBALL FIELD, WITH ASSOCIATED SEATING AREA AND ROOFED DUGOUTS, PARK, AND A FUTURE CONCESSION/RESTROOM BUILDING.

AS SHOWN BY THE ATTACHED CALCULATIONS THE EXISTING RUNOFF FOR THE SITE WILL BE INCREASED, HOWEVER, THE PROPOSED RUNOFF (12.6 CFS) IS LESS THAT THE ALLOWABLE DISCHARGE RATE (26.351 CFS)

Qp(e)=8.41 cfsVe=10940 CF = 0.250 ACRE FT Vi=16840 CF = 0.387 ACRE FTQp(i) = 12.20 cfsVexcess= 0.136 ACRE FT Qexcess=3.79 cfs $V_{6 \text{ hr}} = 16840 \text{ CF}$ $V_{24 \text{ hr}} = 17500 \text{ CF}$ 2.49 in $V_{10 \text{ day}} = 20409 \text{ CF}$

Vi = V360 + AD (Pi - P360) / 12 in/ft

3.90 in

METHODOLOGY: THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING THE SIMPLIFIED PROCEDURE FOR SMALL WATERSHEDS (PART 6-2A) OF THE JUNE 2020 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL.

PRECIPITATION:

THE 100-YR 6-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 1 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 6-2(A)(1). TABLES WITHIN THIS SECTION WERE USED TO ESTABLISH THE 6-HOUR PRECIPITATION, EXCESS PRECIPITATION, AND PEAK

Drainage Calculation City of Albuquerque DPM 2020 edition 7400 La Morada Place NW Precipitation Zone

Basin Area = 5.461 acres

		Improved Conditions		
		Treatment		
237900 sf	100%	Area of A =	49795 sf	21%
0 sf	0%	Area of B =	163350 sf	69%
0 sf	0%	Area of $C =$	0 sf	0%
0 sf	0%	Area of $D =$	24755 sf	10%
	0 sf 0 sf	0 sf 0% 0 sf 0%	237900 sf 100% Area of A = 0 sf 0% Area of C = 0 Area of C = 0	Treatment 237900 sf 100% O sf 0% Area of A = 49795 sf Area of B = 163350 sf O sf 0% Area of C = 0 sf

Excess Precipitation, E (inches) 6 hr - 100 yr storm table 6.2.13

0.550 x 5.4614 / 12 =

Existing Conditions 0.55 = 0.120.55 = 0.5521% x $0\% \times 0.73 = 0.00$ 0.73 = 0.5069% x 0% x 0.95 = 0.00 0% x 2.24 = 0.00 E = 0.55 $0\% \times 0.95 = 0.00$ 2.24 = 0.23E = 0.85Volume V = E A / 12

0.849 x 5.4614 / 12 = Discharge Rate, Q (cfs / acre) 100 yr storm table 6.2.14

eatment	% of Area	(Q	Treatment	% of Area	(\mathbf{Q}
Α	100% x	1.54 =	1.54	Α	21% x	1.54 =	0.
В	0% x	2.16 =	0.00	В	69% x	2.16 =	1.
С	0% x	2.87 =	0.00	С	0% x	2.87 =	0.
D	0% x	4.12 =	0.00	D	10% x	4.12 =	0.
		q =	1.54			q =	2.
eak Rate Qp =	= q A						

0.387 acre ft

10904 cf

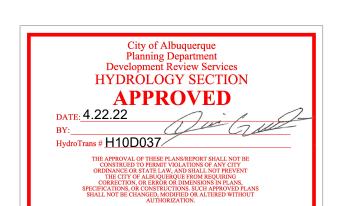
16840 cf

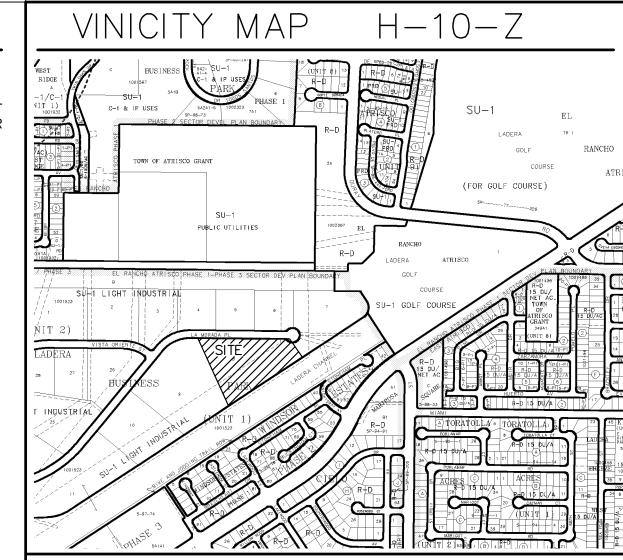
2.23 x 5.4614 = 12.20 cfs Excess Volume = 0.136 acre ft 3.79 cfs

> 0.2 hr tb = (2.107 *E*At/Qp)-(0.25*Ad/At) =tp = (0.7*tc)+((1.6-(Ad/At))/12)

1.54 x 5.4614 = 8.41 cfs

4.86 cfs/ac Allowable Discharge Rate 26.531 cfs Per Master Drainage Report 17595 cf





LEGAL DESCRIPTION: TRACT 8, UNIT 1, LADERA BUSINESS PARK

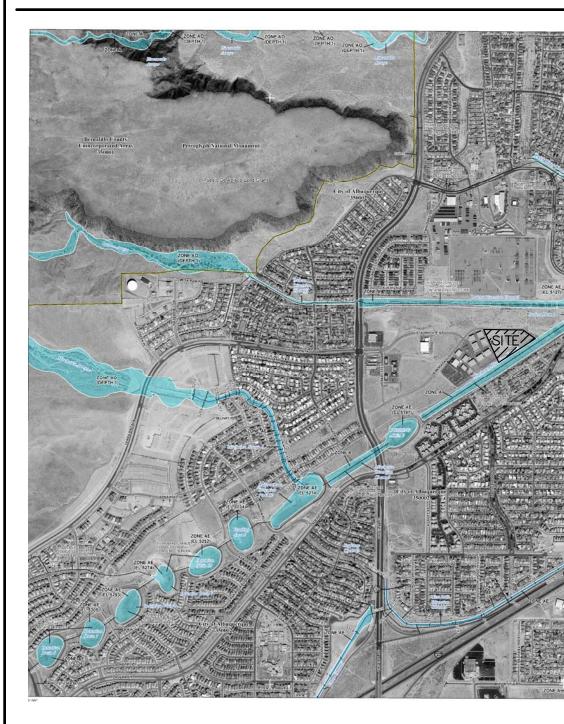
ADDRESS: 7400 LA MORADA PLACE NW, ALBUQUERQUE, NM

SITE AREA: 5.461 ACRES

BENCH MARK: ELEVATIONS ARE BASED ON CITY OF ALBUQUERUQUE STATION "4-H9", HAVING AN ELEVATION OF 5201.315, NAVD 1988

FLOOD HAZARD: AS SHOWN ON PANEL 35001C0326J (11-4-2016) OF THE FEMA FLOOD INSURANCE RATE MAPS, THIS SITE IS NOT WITHIN A DESIGNATED FLOOD HAZARD AREA.

FIRM PANEL 3501C0326J

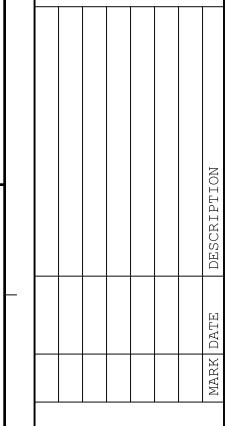


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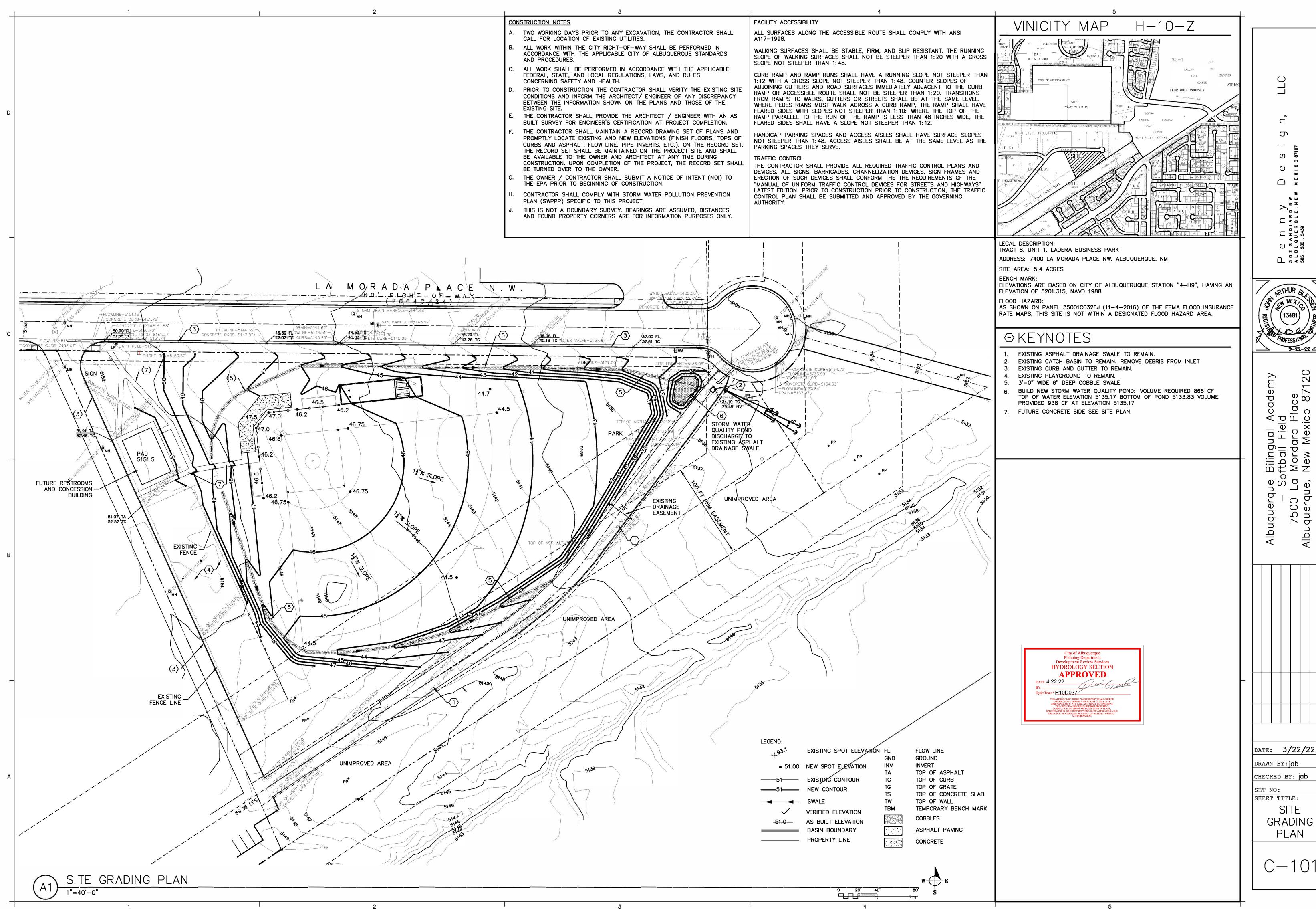
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DATE: 3/22/22 DRAWN BY: jab CHECKED BY: jab SET NO:

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DRAINAGE REPORT



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GRADING

PLAN