

# CITY OF ALBUQUERQUE

*Planning Department*  
Alan Varela, Interim Director



*Mayor Timothy M. Keller*

January 21, 2022

Shawn Biazar  
SBS Construction and Engineering  
10209 Snowflake Ct. NW  
Albuquerque, NM 87114

**RE: Storage Building**  
**4100 Yale Blvd. NE**  
**Permanent C.O. - Accepted**  
**Engineer's Certification Date: 1/10/22**  
**Engineer's Stamp Date: 12/11/17**  
**Hydrology File: G16D095F**

Dear Mr. Biazar:

PO Box 1293

Based on the Certification received 1/13/22 and site visit on 1/20/22, this certification is approved in support of release of Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, please contact me at 924-3986 or [earmijo@cabq.gov](mailto:earmijo@cabq.gov).

Sincerely,

NM 87103

[www.cabq.gov](http://www.cabq.gov)

Ernest Armijo, P.E.  
Principal Engineer, Planning Dept.  
Development Review Services



# City of Albuquerque

Planning Department  
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

**Project Title:** STORAGE BUILDING 4100 YALE, NE **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** G16D095F  
**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_  
**Legal Description:** TRACT A-1, KLINE INDUSTRIAL PARK  
**City Address:** 4100 YALE BLVD., NE

**Applicant:** SBS CONSTRUCTION AND ENGINEERING, LLC **Contact:** SHAWN BIAZAR  
**Address:** 7632 WILLIAM MOYERS AVE., NE, ALBUQUERQUE, NM 87122  
**Phone#:** (505) 804-5013 **Fax#:** (505) 897-4996 **E-mail:** AECLLC@AOL.COM

**Other Contact:** \_\_\_\_\_ **Contact:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**TYPE OF DEVELOPMENT:** \_\_\_\_\_ PLAT (# of lots) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? ☒ Yes \_\_\_\_\_ No

**DEPARTMENT** \_\_\_\_\_ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

**TYPE OF SUBMITTAL:**

- ☒ ENGINEER/ARCHITECT CERTIFICATION  
☐ PAD CERTIFICATION  
☐ CONCEPTUAL G & D PLAN  
☐ GRADING PLAN  
☐ DRAINAGE REPORT  
☐ DRAINAGE MASTER PLAN  
☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC  
☐ ELEVATION CERTIFICATE  
☐ CLOMR/LOMR  
☐ TRAFFIC CIRCULATION LAYOUT (TCL)  
☐ TRAFFIC IMPACT STUDY (TIS)  
☐ STREET LIGHT LAYOUT  
☐ 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:** 1-10-2022 **By:** SHAWN BIAZAR

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_

RUNOFF CALCULATIONS FOR 100 YEAR/6 HOUR STORM

BASIN	AREA (SF)	AREA (AC)	AREA (MI <sup>2</sup> )
ON-SITE	123,517.39	2.83557	0.004431

$$E = EA(AA) + EB(AB) + EC(AC) + ED(AD)$$

$$AA + AB + AC + AD$$

$$V-360 = \text{Weighted E } (AA + AB + AC + AD)/12$$

$$EA = 0.53$$

$$EB = 0.78$$

$$EC = 1.13$$

$$ED = 2.12$$

LAND TREATMENT

$$\text{EXISTING DEVELOPED}$$

$$AA = 0.00\% \quad AB = 0.00\%$$

$$AB = 100.00\% \quad AB = 10.00\%$$

$$AC = 0.00\% \quad AC = 10.00\%$$

$$AD = 0.00\% \quad AD = 80.00\%$$

$$\text{EXISTING Weighted E} = 0.78$$

$$\text{DEVELOPED Weighted E} = 1.89$$

$$V360 \text{ (EXISTING)} = 8,028.63 \text{ CF}$$

$$V360 \text{ (DEVELOPED)} = 19,423.11 \text{ CF}$$

$$V360 \text{ (INCREASED)} = 11,394.48 \text{ CF}$$

$$A = 1.56 \text{ CFS/AC}$$

$$B = 2.28 \text{ CFS/AC}$$

$$C = 3.14 \text{ CFS/AC}$$

$$D = 4.70 \text{ CFS/AC}$$

$$\text{TOTAL QP} = \text{QPA AA} + \text{QPB AB} + \text{QPC AC} + \text{QPD AD}$$

$$\text{QP (EXISTING)} = 6.47 \text{ CFS}$$

$$\text{QP (DEVELOPED)} = 12.20 \text{ CFS}$$

$$\text{QP (INCREASED)} = 5.73 \text{ CFS}$$

BASIN	AREA (SF)	AREA (AC)	AREA (MI <sup>2</sup> )
OFFSITE	44,437.75	1.02015	0.001594

$$E = EA(AA) + EB(AB) + EC(AC) + ED(AD)$$

$$AA + AB + AC + AD$$

$$V-360 = \text{Weighted E } (AA + AB + AC + AD)/12$$

$$EA = 0.53$$

$$EB = 0.78$$

$$EC = 1.13$$

$$ED = 2.12$$

LAND TREATMENT

$$\text{EXISTING}$$

$$AA = 0.00\%$$

$$AB = 23.00\%$$

$$AC = 23.00\%$$

$$AD = 54.00\%$$

$$\text{EXISTING Weighted E} = 1.58$$

$$V360 \text{ (EXISTING)} = 5,866.15 \text{ CF}$$

$$A = 1.56 \text{ CFS/AC}$$

$$B = 2.28 \text{ CFS/AC}$$

$$C = 3.14 \text{ CFS/AC}$$

$$D = 4.70 \text{ CFS/AC}$$

$$\text{TOTAL QP} = \text{QPA AA} + \text{QPB AB} + \text{QPC AC} + \text{QPD AD}$$

$$\text{QP (EXISTING)} = 3.86 \text{ CFS}$$

POND CALCULATIONS

$$VOL = (TOP \text{ AREA} + BOTTOM \text{ AREA}) / 2 * (TOP \text{ ELEVATION} - BOTTOM \text{ ELEVATION})$$

SURFACE AREA (Pond A)	SURFACE AREA (Pond E)
ELEV (FT) AREA (SF)	ELEV (FT) AREA (SF)
44.00 271.43	44.00 271.43
48.00 41.99	47.00 1,283.64
49.00 272.98	

$$\text{PONDING VOLUME} = 2,332.61 \text{ CF}$$

$$\text{PONDING VOLUME} = 157.79 \text{ CF}$$

SURFACE AREA (Pond B)	SURFACE AREA (Pond F)
ELEV (FT) AREA (SF)	ELEV (FT) AREA (SF)
40.78 172.83	45.00 34.66
41.78 659.29	47.00 408.18
42.78 1,431.46	

$$\text{PONDING VOLUME} = 442.84 \text{ CF}$$

$$\text{PONDING VOLUME} = 1,461.44 \text{ CF}$$

SURFACE AREA (Pond C)	SURFACE AREA (Pond G)
ELEV (FT) AREA (SF)	ELEV (FT) AREA (SF)
36.60 240.36	45.00 23.31
40.60 1,676.81	47.00 437.67

$$\text{PONDING VOLUME} = 460.98 \text{ CF}$$

SURFACE AREA (Pond H)	SURFACE AREA (Pond I)
ELEV (FT) AREA (SF)	ELEV (FT) AREA (SF)
43.50 264.25	45.00 264.25
45.50 1,220.02	47.00 1,220.02

$$\text{PONDING VOLUME} = 3,834.34 \text{ CF}$$

SURFACE AREA (Pond D)	SURFACE AREA (Pond J)
ELEV (FT) AREA (SF)	ELEV (FT) AREA (SF)
41.00 256.09	46.00 80.60
43.00 898.66	48.00 710.07

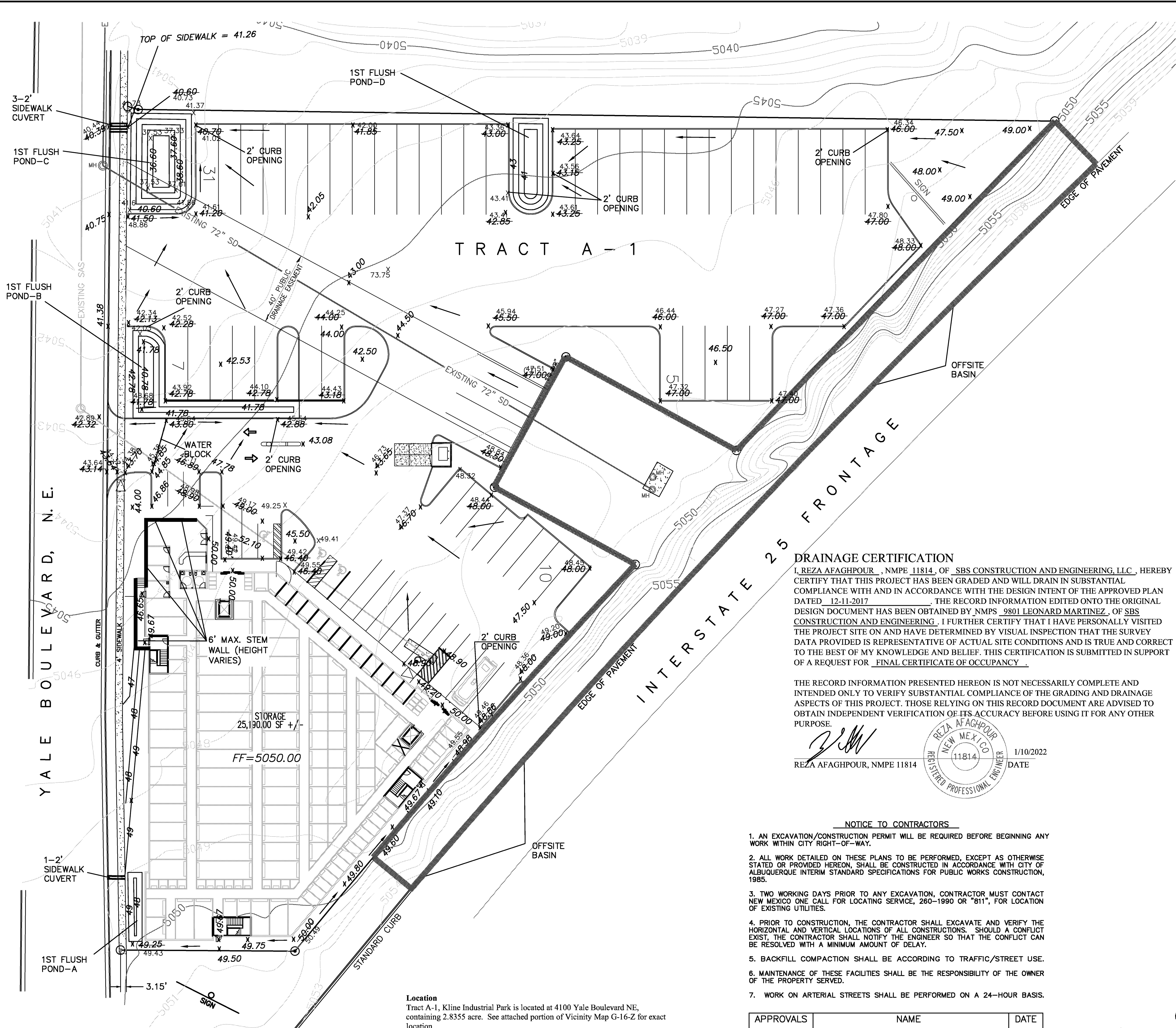
$$\text{PONDING VOLUME} = 1,154.75 \text{ CF}$$

$$\text{PONDING VOLUME} = 796.67 \text{ CF}$$

$$\text{TOTAL PONDING VOLUME PROVIDED} = 6,578.34 \text{ CF}$$

$$V360 \text{ (INCREASED UNDER DEVELOPED CONDITIONS)} = 12,555.00 \text{ CF}$$

$$1\text{ST FLUSH VOLUME} = \text{IMPERVIOUS AREA } (0.82 \times 123,893.21) \times 0.34 / 12 = 5,356.23 \text{ CF}$$



SIDEWALK CULVERT CALCULATIONS

$$12'' \text{ Sidewalk Culvert Flow Capacity Calculation Using Orifice Equation}$$

$$\text{Orifice Equation: } Q = CA (2gh)^{0.50}$$

$$h \text{ (head)} = 0.67'$$

$$A = 6 \times 0.67 = 4.02 \text{ sf}$$

$$g = 32.20$$

$$Q = 0.60 \times 4.02 \times (2 \times 32.2 \times 0.67)^{0.50}$$

$$= 15.84 \text{ cfs}$$

$$15.84 \text{ cfs} > 13.76 \text{ cfs (on-site 12.20 + offsite 1.56)}$$

$$\text{The sidewalk culvert has more capacity than overall runoff, and more than 10\% of the runoff will be retained within the 1st flush ponds.}$$

**Location**  
Tract A-1, Kline Industrial Park is located at 4100 Yale Boulevard NE, containing 2.8355 acre. See attached portion of Vicinity Map G-16-Z for exact location.

**Purpose**  
The purpose of this drainage report is to present a grading and drainage solution for new building and improvements with this tract of land.

**Existing Drainage Conditions**  
The site drains from east to west to Yale Boulevard and north to the exiting earthen channel to the north. There is an offsite basin from the east (State Highway right-of-way) that drains west to the this site at a flow rate of 1.56 cfs. This site does not fall within a 100 year floodplain. See attached portion of the FIRM map for the location of the site.

**Proposed Conditions and On-Site Drainage Management Plan**  
The offsite runoff will continue to drain through this site. The runoff will be intercepted by a number of retention ponds/1st flush ponds. After that to runoff from this site will drain to Yale Boulevard via 3-2' sidewalk culverts. The runoff on Yale Boulevard will be intercepted by a series of storm drain inlets.

**Calculations**  
City of Albuquerque, Development Process Manual, Section 22.2, Hydrology Section, was used for runoff calculations. See this plan for AHYMO input and Summary output files.

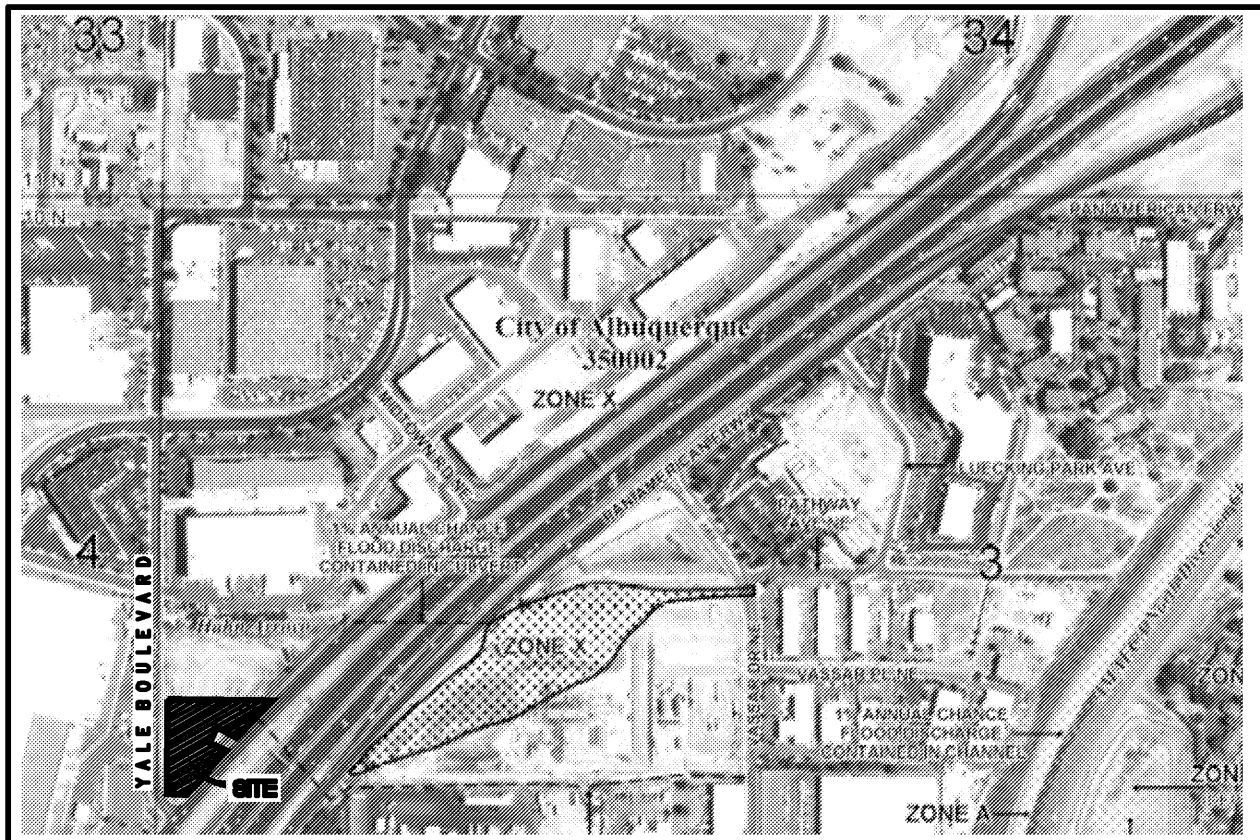
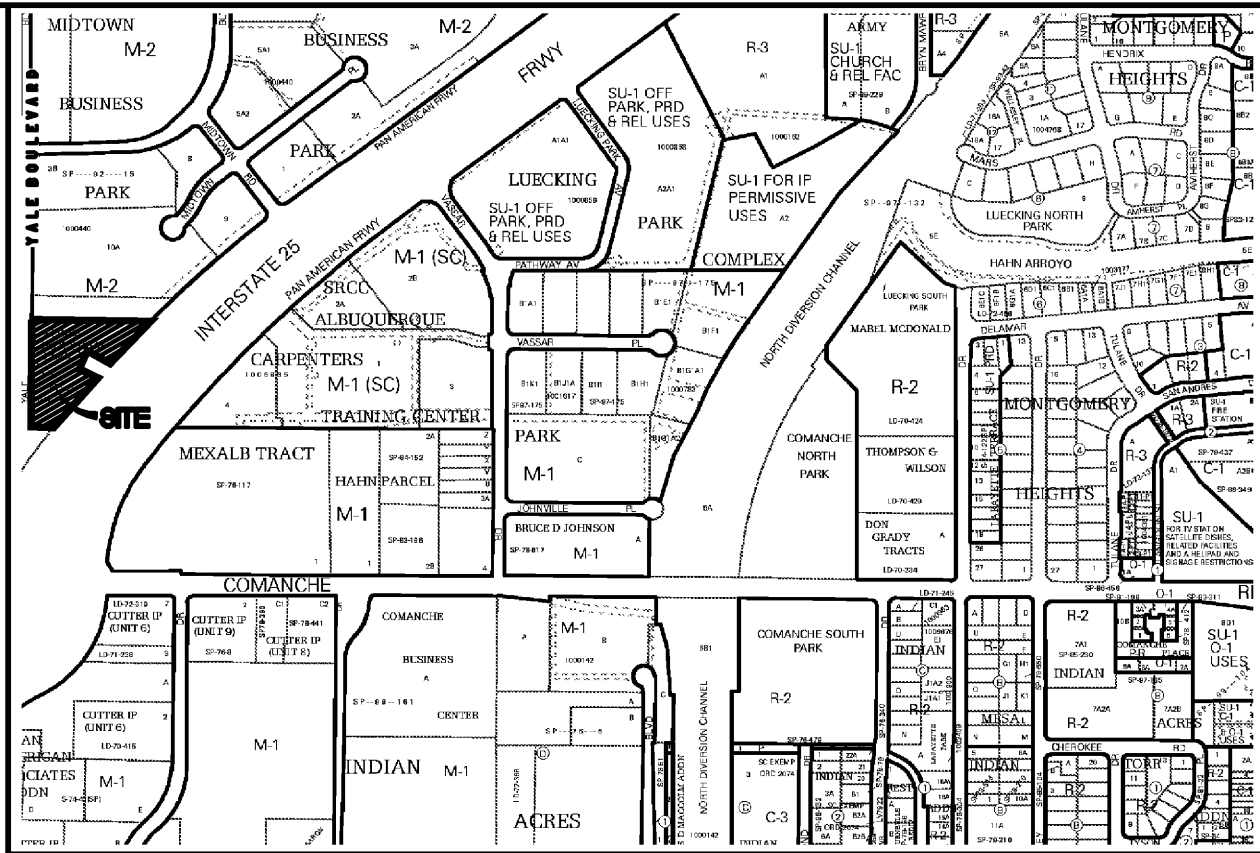
**DRAINAGE CERTIFICATION**  
I, REZA AFAGHPOUR, NMPE 11814, OF SBS CONSTRUCTION AND ENGINEERING, LLC, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 12-11-2017. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY NMPS. 9801 LEONARD MARTINEZ, OF SBS CONSTRUCTION AND ENGINEERING. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 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 FINAL CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

REZA AFAGHPOUR, NMPE 11814  
1/10/2022  
DATE

- NOTICE TO CONTRACTORS**
1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
  2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
  3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL FOR LOCATING SERVICE, 260-1990 OR "811", FOR LOCATION OF EXISTING UTILITIES.
  4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
  5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
  6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
  7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVALS	NAME	DATE
INSPECTOR		



TRACT A-1, KLINE INDUSTRIAL PARK  
CONTAINING 2.8355 ACRE  
ADDRESS: 4100 YALE BOULEVARD NE, ALBUQUERQUE

LEGEND	
---	BOUNDARY LINE
---	EASEMENT LINE
---	EXISTING SEWER
---	EXISTING STORM DRAIN
---	EXISTING CURB & GUTTER
---	CHAIN LINK FENCE
---	EXISTING SIDEWALK
---	EXISTING FIRE HYDRANT
---	EXISTING WATER SERVICE
---	EXISTING DROP INLET
---	AS-BUILT GRADES
---	AS-BUILT SPOT ELEVATIONS

GRAPHIC SCALE



REZA AFAGHPOUR  
NEW MEXICO  
11814  
12-11-2017  
REGISTERED PROFESSIONAL ENGINEER

REZA AFAGHPOUR  
P.E. #11814

STORAGE BUILDING  
4100 YALE BOULEVARD NE  
GRADING PLAN

DRAWING:	DRAWN BY:	DATE:	SHEET #
201726-GD.DWG	SDR	10/29/2017	1