CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

August 29, 2023

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

RE: Double Eagle Hangars – Phase 1
7401 Atrisco Vista Blvd NE
Grading & Drainage Plan
Engineer's Stamp Date: 08/01/23
Hydrology File: E05D003

Dear Ms. Hoelzer:

Based upon the information provided in your submittal received 08/02/2023, the Grading & Drainage Plan is approved for Building Permit and Grading Permit. 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

NM 87103

www.cabq.gov

PRIOR TO CERTIFICATE OF OCCUPANCY:

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please provide the executed paper Drainage Covenant (latest revision) printed on one-side only with Exhibit A and a check for **$25.00** made out to "**Bernalillo County**" for the detention ponds per Article 6-15(C) of the DPM to Hydrology for review at Plaza de Sol.

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.

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

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Double Eagle Hangars Building Permit #: _____ Hydrology File #: _____

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

Legal Description: ract A-1 Plat of Tract A-1 & Tract L-1 Parcels 1-5 Double Eagle Airport

City Address: 7401 Atrisco Vista Blvd. NE, Albuquerque, NM 87120

Applicant: Mark Goodwin & Associates, PA Contact: Diane Hoelzer

Address: PO BOX 90606, Albuquerque, NM 87199

Phone#: 505.828.2200 Fax#: _____ E-mail: diane@goodwinengineers.com

Owner: High Flying Hangars, LLC Contact: _____

Address: PO BOX 25782, Albuquerque, NM 87125

Phone#: 505-615-8613 Fax#: _____ E-mail: kenhinkes@gmail.com

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

IS THIS A RESUBMITTAL?: _____ Yes __X__ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION __X__ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
__X__ GRADING PLAN
__X__ 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:

__X__ 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
__X__ FOUNDATION PERMIT APPROVAL
__X__ GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 08/01/23 By: Diane Hoelzer, PE

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED:_____

FEE PAID:_____

Double Eagle Airport Hangars

Drainage Management Plan

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED

DATE: 08/29/23
BY: Renée C. Brissette
HydroTrans # E05D003

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

Prepared by
Mark Goodwin & Associates, P.A.

July 2023

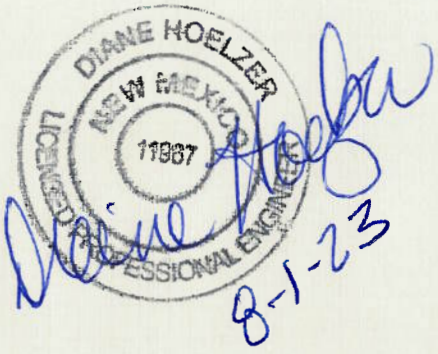


Table of Contents

I. PROJECT DESCRIPTION

The project site is located within the Double Eagle Airport II on an undeveloped parcel of leased land covering an area of approximately 5.80 acres. (Refer to Exhibit 1 Vicinity Map and Exhibit 2 Project Site). The Double Eagle Airport is located on the west mesa, south of Paseo del Norte Blvd. and just west and adjacent to Atrisco Vista Blvd.

Phase 1 entails the construction of the southern hangar building consisting of an approximate area of 31,330 square feet. The adjacent pavement on the north and south side of the building will also be constructed at this time along with the two adjacent depression ponds located on either side of the building and a 4' wide valley gutter.

Future phases will include the construction of three additional buildings and adjacent pavement and depression ponds. This drainage management plan includes all phases of development. The timing of the future phases is not yet known.

II. DESIGN CRITERIA AND PREVIOUS DEVELOPMENT

The drainage design criteria is in accordance with Chapter 6 of the C.O.A. Development Process Manual, latest version. The 100-year 6-hour storm event was analyzed to determine peak runoff in the valley gutters located between the hangars and the volume of runoff routed through the six depression ponds. The onsite Land Treatment values used were based on Table 6.2.9, in the DPM.

This drainage management plan is based on and follows closely to the C.O.A. Aviation Department's Double Eagle II Airport Hangar Facility-Grading and Drainage Analysis (RECORD DRAWING dated 11/2019), sheet C-103 prepared by Molzer Corbin. A copy of this drawing is included in this report.

III. EXISTING DRAINAGE CONDITIONS

Under existing conditions, the project site is surrounded on all four sides by an existing paved road (refer to Exhibit 2). The project site is relatively flat. In general, the road drops off from west to east and from north to south. Runoff from the existing building and pavement on the west side flows towards the project site and is designed to be intercepted by three inlets and a storm drain as shown on the Molzen Corbin C-103 Plan (refer to Exhibit 3). According to this plan, most of the onsite runoff is supposed to drain towards the south and east and eventually be intercepted by a drainage channel that connects to a detention pond (refer to Exhibit 4). Runoff from the existing pavement on the north side flows towards the project site and then eastward. Runoff from the existing pavement on the east and south side flows away from the project site and down to the existing drainage channel. All the runoff in this area is ultimately intercepted by a drainage channel and conveyed to an existing detention pond.

IV. DEVELOPED DRAINAGE CONDITIONS

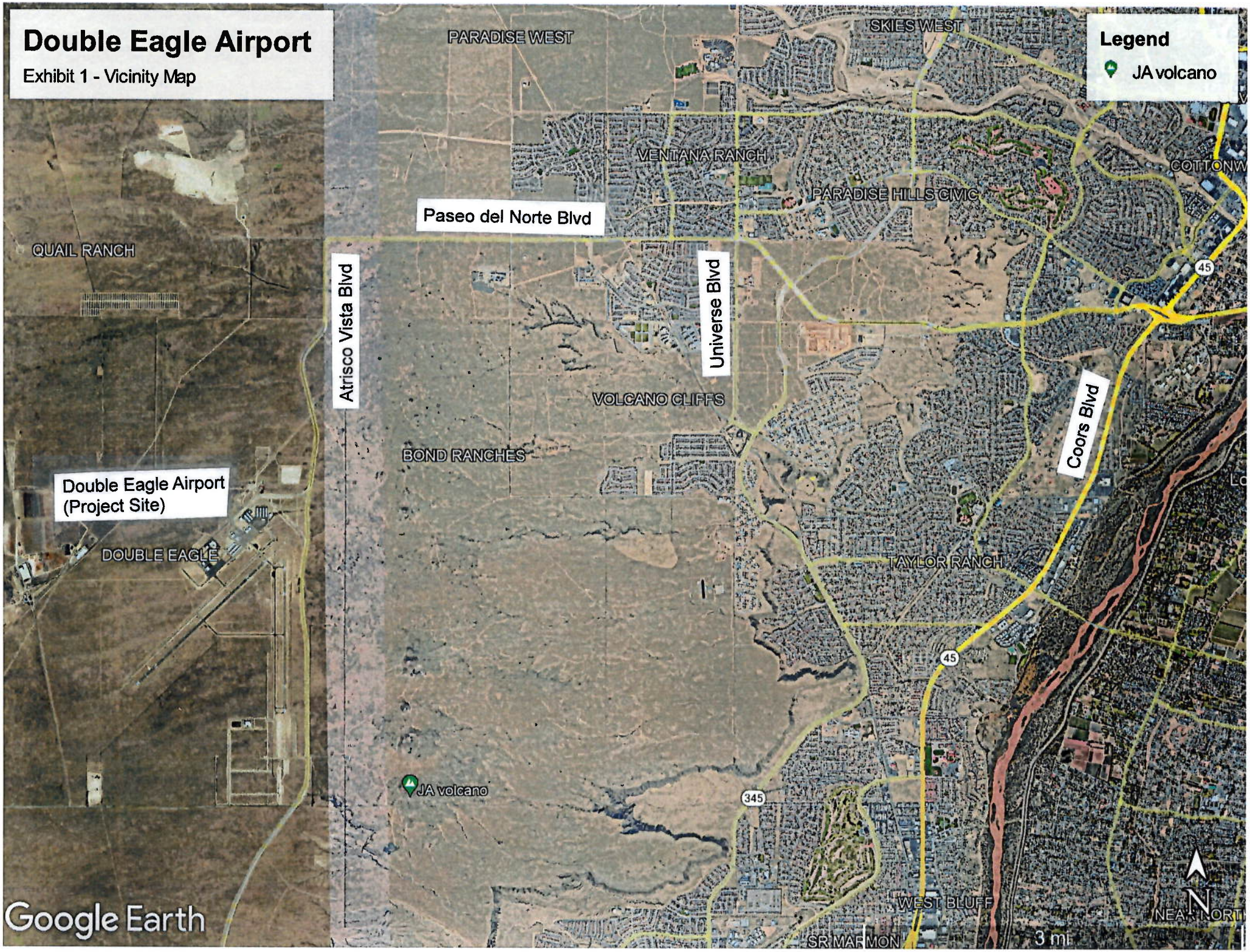
Given the relative flatness of the site, the existing elevations on the adjacent paved roads and the

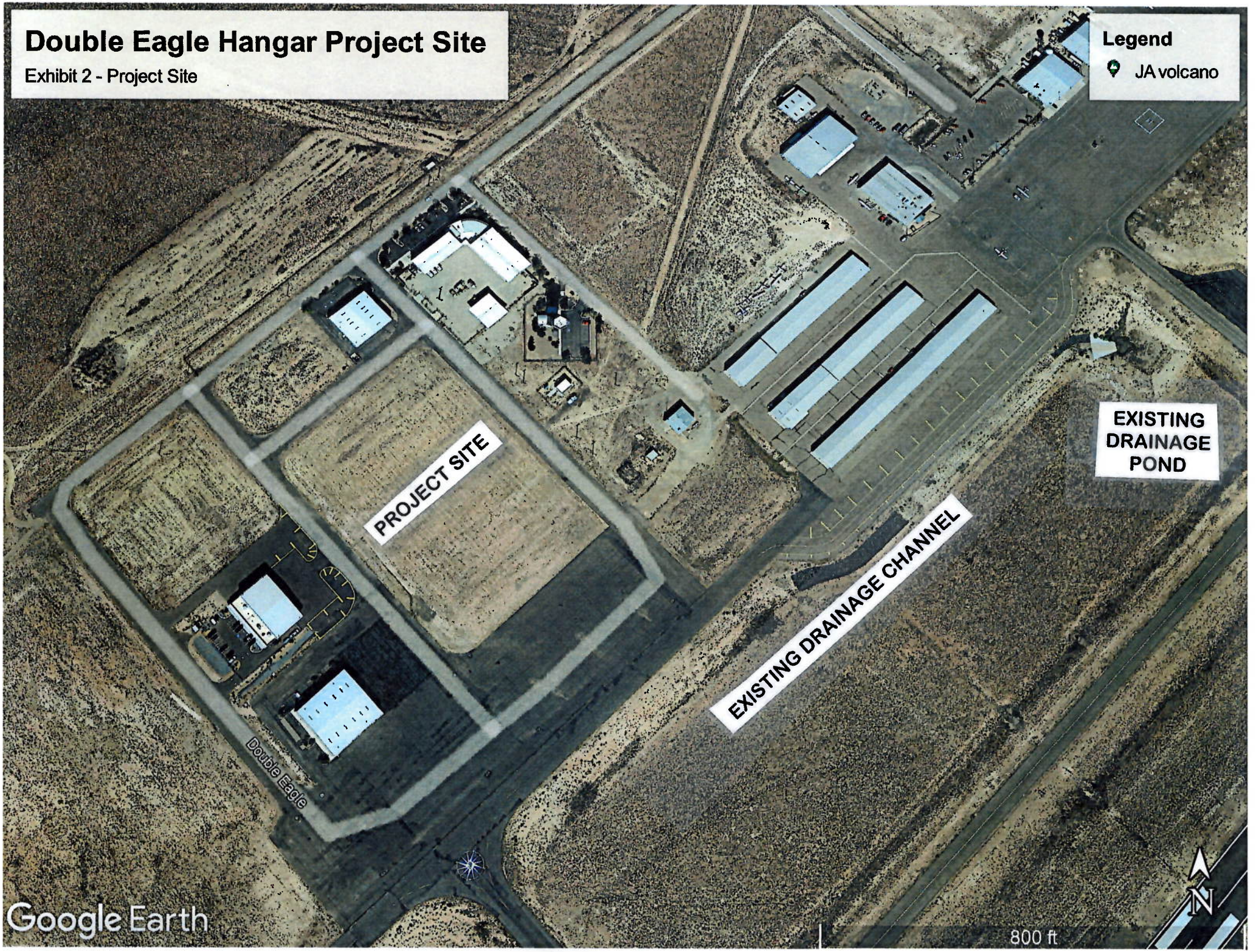
orientation of the proposed hangar buildings, it is not possible to drain the project site in the manner as designed on record drawing C-103.

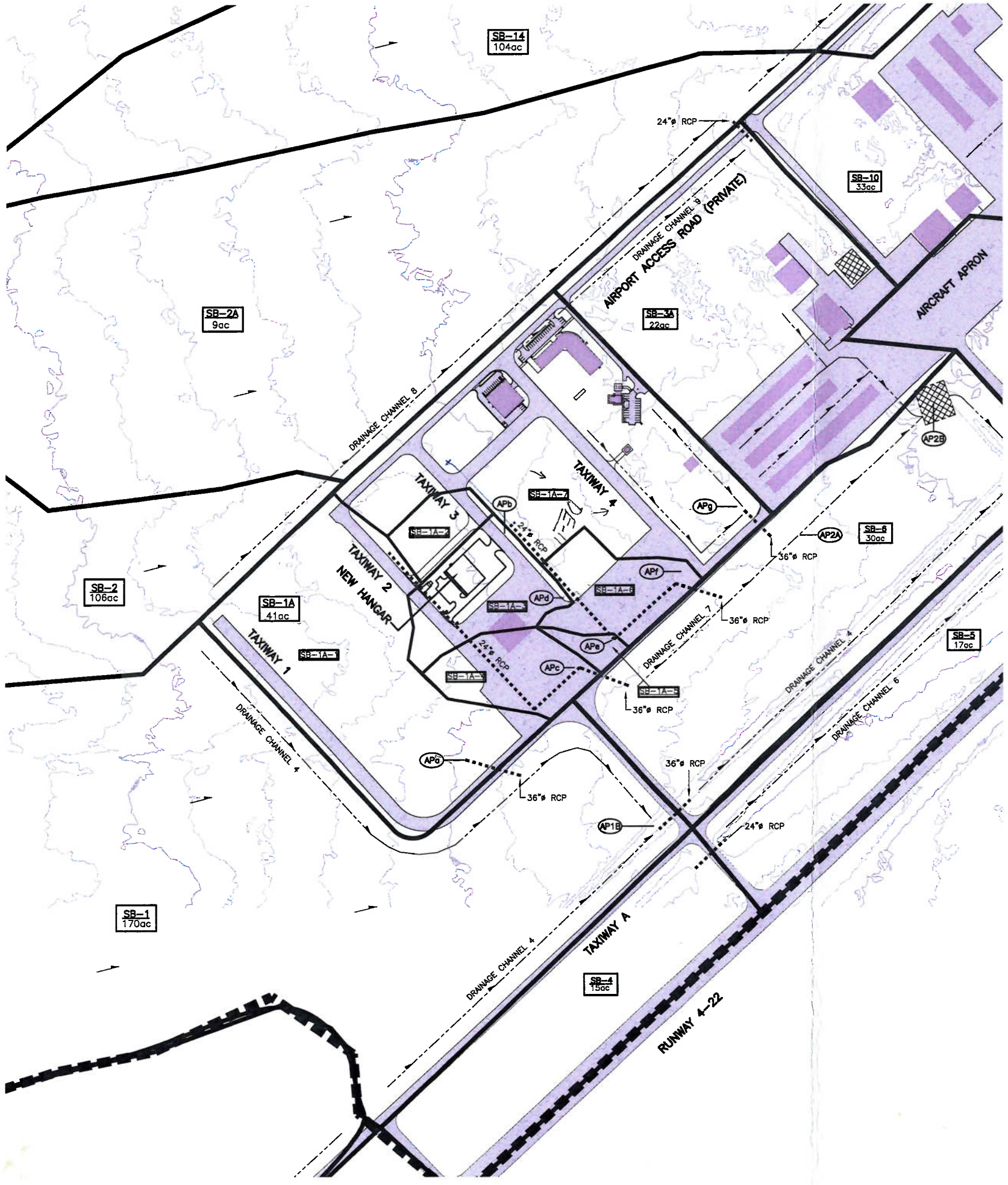
To adequately drain the site while maintaining the maximum slopes allowed in the paved areas where planes are moved in and out of the hangars, a high point had to be created partly into the paved areas that separate each of the buildings as shown on Exhibit 5. Runoff from sub basins 1-SW, 2-SW and 3-SW which includes half of the building's roof and a portion of the pavement will be directed to one of 3 depression ponds through a 4' wide valley gutter as shown. These ponds have capacity to retain runoff for the 100-yr 6-hr storm event. If any of these depression ponds should spill over, the overflow shall continue in a southeast direction towards the existing drainage channel as intended from the previously approved drainage plan.

Runoff from sub basins 1-NE, 2-NE and 3-NE will drain to the depression ponds on the northeast side of the buildings through a 4' wide valley gutter. These depression ponds will retain 50-75% of the 100-yr 6-hr storm event. Should any of these depression ponds overtop, the runoff should flow across the road and into a drainage channel as intended and shown on the approved, record drawing C-103.

All of the depression ponds shall have a side slope of 5:1 and be 2' deep as indicated on the grading plan. Each of the depression pond shall be lined with 6" cobblestone or porous pavers. All of the depression ponds will have a slight low area where overflow spillage will occur as indicated on the grading plan by arrows.


Double Eagle Airport
Exhibit 1 - Vicinity Map
Legend
JA volcano
PARADISE WEST
SKIES WEST
VENTANA RANCH
PARADISE HILLS CIVIC
COTTONW
Paseo del Norte Blvd
QUAIL RANCH
Atrisco Vista Blvd
Universe Blvd
Coors Blvd
VOLCANO CLIFFS
BOND RANCHES
Double Eagle Airport
(Project Site)
DOUBLE EAGLE
TAYLOR RANCH
JA volcano
45
345
WEST BLUFF
SR MARMON
NEAR NORTH
3 mi
N
Google Earth

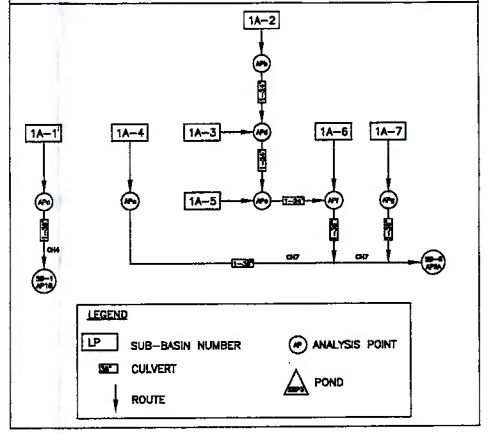

Double Eagle Hangar Project Site
Exhibit 2 - Project Site
Legend
JA volcano
PROJECT SITE
EXISTING DRAINAGE POND
EXISTING DRAINAGE CHANNEL
Double Eagle
Google Earth
800 ft
N



LEGEND

- DRAINAGE BASIN
- DRAINAGE SUB-BASIN
- CHANNEL FLOWLINES
- ANALYSIS POINT (APa)
- BASIN FLOW DIRECTION
- DRAINAGE PONDS
- CULVERTS
- PAVEMENT

"MIDFIELD DEVELOPMENT" FLOW CHART, EXISTING CONDITIONS



HYDRAULIC ANALYSIS

FIRST FLUSH HYDROLOGY

BASIN CHARACTERISTICS:

SUB BASIN: SB-1a-3		AREA	Q (PEAK)	VOLUME
		0.32 AC	1.35 CFS	0.05 AC-FT
LAND TREATMENT:	A	0 AC		
	B	0.05 AC		
	C	1.45 AC	IMPERVIOUS AREA DEVELOPED = 0.89 AC	
	D	2.73 AC		
	TOTAL	4.26 AC		

FIRST FLUSH CALCULATIONS:

FIRST FLUSH RUNOFF: 0.34 IN
FIRST FLUSH VOLUME: 0.34 IN x IMPERVIOUS AREA DEVELOPED

(0.34 IN x (1 FT/ 12 IN)) x (0.89 AC x (43,560 SF/AC)) = 1097.10 CF

POND VOLUMES:

	ELEVATIONS	AREA	AVERAGE END AREA	
SOUTH	19.5	148.3		
	20	649.4	745.8 CF	
	20.5	1740		
NW	17.5	32.55		
	18	184.1	315.6 CF	
	18.5	379.2		
	19	660.75		
NE	18.5	273.65	505.0 CF	
	19	744.4		

TOTAL POND VOLUME PROVIDED 2531.4 CF
FIRST FLUSH VOLUME NEEDED: 1097.1 CF

BASIN SUMMARY

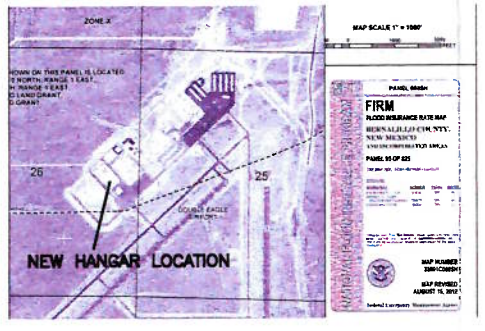
6hr - 100yr (Update '09)

Sub-Basin	Area (ac)	Reach (ft)	Q_{peak} (cfs)	Runoff Vol. (ac-ft)	Runoff (in.)	Tp (hrs)
Midfield Basins (SB-1A-x)						
SB-1A-1	1.30	1,306.3	1.66	0.12	1.14	1.90
SB-1A-2	0.28	497.9	1.28	0.02	1.19	1.50
SB-1A-3	0.32	662.5	1.35	0.05	1.76	1.50
SB-1A-4	0.31	695.8	1.28	0.04	1.60	1.50
SB-1A-5	0.06	326.9	0.31	0.01	2.06	1.50
SB-1A-6	1.96	1,592.5	1.35	0.05	1.76	1.50
SB-1A-7	0.34	554.7	5.82	0.23	1.40	1.57

ANALYSIS POINTS

6hr - 100yr (Update '09)

Sub-Basin	Area (ac)	Q_{peak} (cfs)	Runoff Vol. (ac-ft)	Runoff (in.)	Tp (hrs)
Midfield Development AP's					
AP a	0.0020	1.66	0.12	1.15	1.90
AP b	0.0004	0.86	0.03	1.20	1.53
AP c	0.0005	1.28	0.04	1.60	1.50
AP d	0.0009	2.15	0.07	1.51	1.50
AP e	0.0010	2.44	0.08	1.56	1.53
AP f	0.0015	3.61	0.13	1.63	1.53
AP g	0.0031	5.82	0.23	1.40	1.57



N

0 100' 200' 400'
1"=200'-0"

RECORD DRAWING
DATE: 11/2019
DRAWN BY: MOLZEN CORBIN
THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS ON INFORMATION COMPILED AND FURNISHED BY OTHERS. MOLZEN-CORBIN AND ASSOCIATES WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT.

APPROVAL

AVIATION DEPARTMENT DATE

MOLZENCORBIN
ENGINEERS | ARCHITECTS | PLANNERS

AECOM
AECOM TECHNICAL SERVICES, INC.
6501 Americas Pkwy NE, Suite 900
Albuquerque, NM 87110
505 855 7500 tel 505 855 7555 fax
www.aecom.com

CITY OF ALBUQUERQUE
AVIATION DEPARTMENT

DOUBLE EAGLE II AIRPORT HANGAR FACILITY

GRADING AND DRAINAGE ANALYSIS

Design Review Committee	City Engineer Approval	Last Design Update	MO./DAY/YR.	MO./DAY/YR.

EXHIBIT 3-

City Project No.	Zone Map No.	Sheet	Of
656492	E-05		

C-103

CITY OF ALBUQUERQUE - RECORD DRAWING
2 6 - 6 5 6 4 . 9 2 - 1 9

REDRAWN FOR RECORD PURPOSES

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS

AS-BUILT INFORMATION
CONTRACTOR: TA DOLE DATE: 5-28-19
WORK STAKED BY: CARTESIAN SURVEY DATE: 5-28-19
INSPECTOR'S ACCEPTANCE BY: DATE:
FIELD VERIFICATION BY: CARTESIAN SURVEY DATE: 5-28-19
DRAWINGS ORDERED BY: DATE:
MICRO-FILM INFORMATION
REORDERED BY: DATE:

ENGINEER'S STAMP

I, JOHN M. BOWNE, CERTIFY THAT THIS ELECTRONIC MEDIA IS IDENTICAL TO THE ORIGINAL DRAWING SIGNED BY ME ON 12/20/2019

NO.	REMARKS	BY	DATE

REVISIONS
PROJECT NUMBER: AEC161-12
DRAWN BY: MOLZEN CORBIN
CHKD BY: MOLZEN CORBIN
DATE: JANUARY 2016

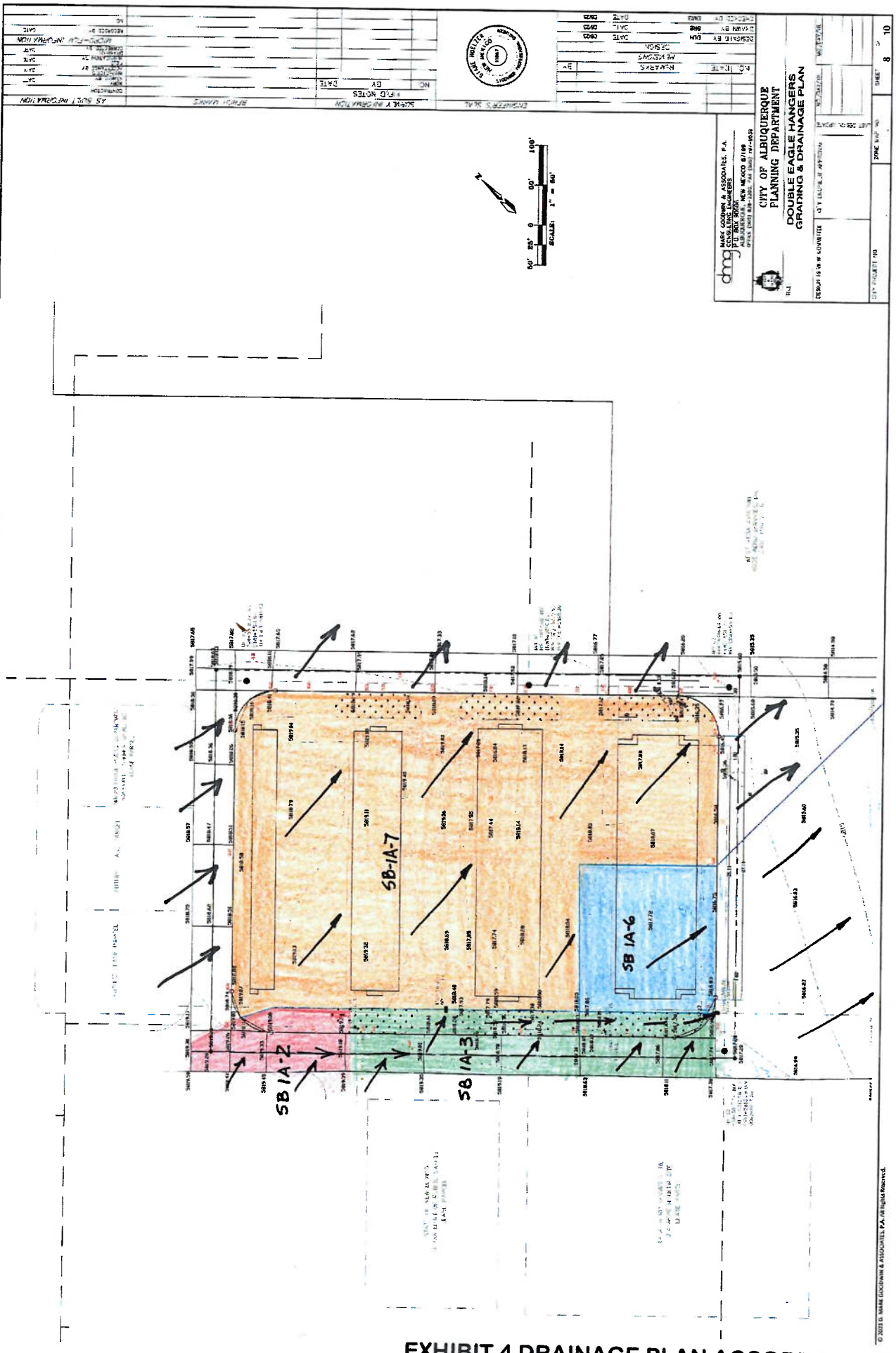


EXHIBIT 4 DRAINAGE PLAN ACCORDING TO C-103

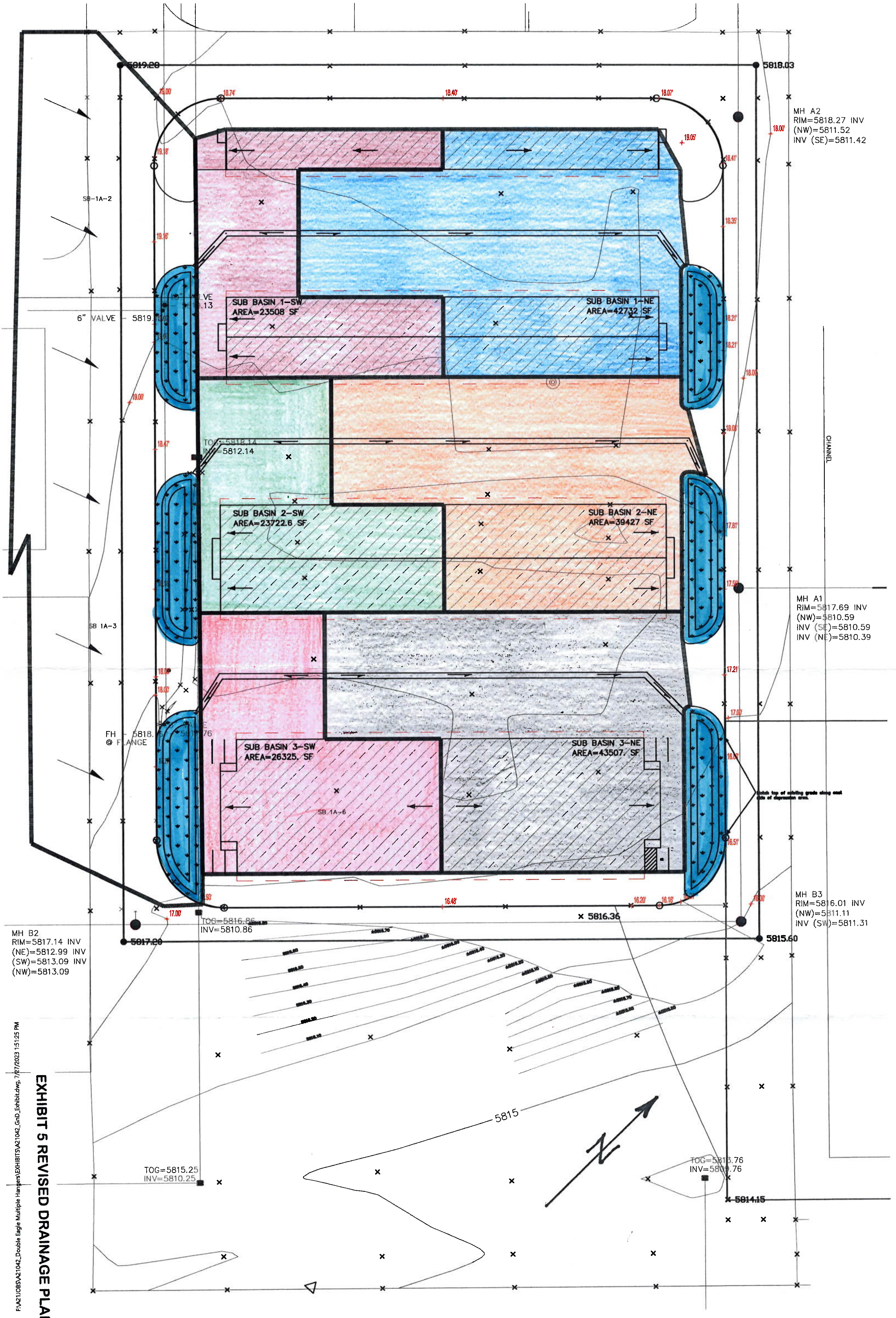


EXHIBIT 5 REVISED DRAINAGE PLAN

F:\A21JOBS\A21042_Double Eagle Multiple Hangers\EXHIBITS\A21042_GnD_Exhibit.dwg, 7/27/2023 1:51:25 PM

APPENDIX A - HYDROLOGY

Table 1 Summary of Hydrologic Parameters

AHYMO Input and summary output file

Precipitation data

Lease survey exhibits

TABLE 1

Summary of Hydrologic Parameters and Results (AHYMO 100 yr-6 hr)

DOUBLE EAGLE AIRPORT HANGARS

Albuquerque

SUB BASIN ID	DESCRIPTION	Area (Sq.Ft.)	Area (acre)	Area (sq.mi.)	Land Treatment Values A	B	C	D	Discharge CFS	Volume (Acre-Ft)	Volume (CuFt)	WQ Treatmnt Vol (CF)
1-SW	hanger SW	23,508.00	0.54	0.00084	0.0	0.0	0.0	100.0	2.45	0.089	3,859	822.8
2-SW	hanger SW	23,722.60	0.54	0.00085	0.0	0.0	0.0	100.0	2.48	0.090	3,903	830.3
3-SW	hanger SW	26,325.00	0.60	0.00094	0.0	0.0	0.0	100.0	2.75	0.099	4,317	921.4
1-NE	hanger NE	42,732.00	0.98	0.00153	0.0	0.0	0.0	100.0	4.46	0.161	7,026	1,495.6
2-NE	hanger NE	39,427.00	0.91	0.00141	0.0	0.0	0.0	100.0	4.11	0.149	6,473	1,379.9
3-NE	hanger NE	43,507.00	1.00	0.00156	0.0	0.0	0.0	100.0	4.55	0.165	7,166	1,522.7
		199,221.60	**4.57**						**20.80**	**0.752**	**32,744**	**6,972.8**

WQ Treatment Volume = (0.42"/12) x (Area) x (% Tr.D)

f:/projects/21042/Table 1 Hydro Sum (dmg 21042)

DLH 7/26/2023

Depresssion Ponds			
Depression POND	**AREA 1 BOTTOM**	**AREA 2 TOP**	**VOLUME CU.FT.**
1-SW	950.0	3166.2	3900.3
2-SW	1191.0	3806.3	4750.9
3-SW	1474.0	4346.2	5567.5
1-NE	951.24	3166.15	3901.9
2-NE	1191.01	3806.27	4751.0
3-NE	1140.15	3954.76	4812.2

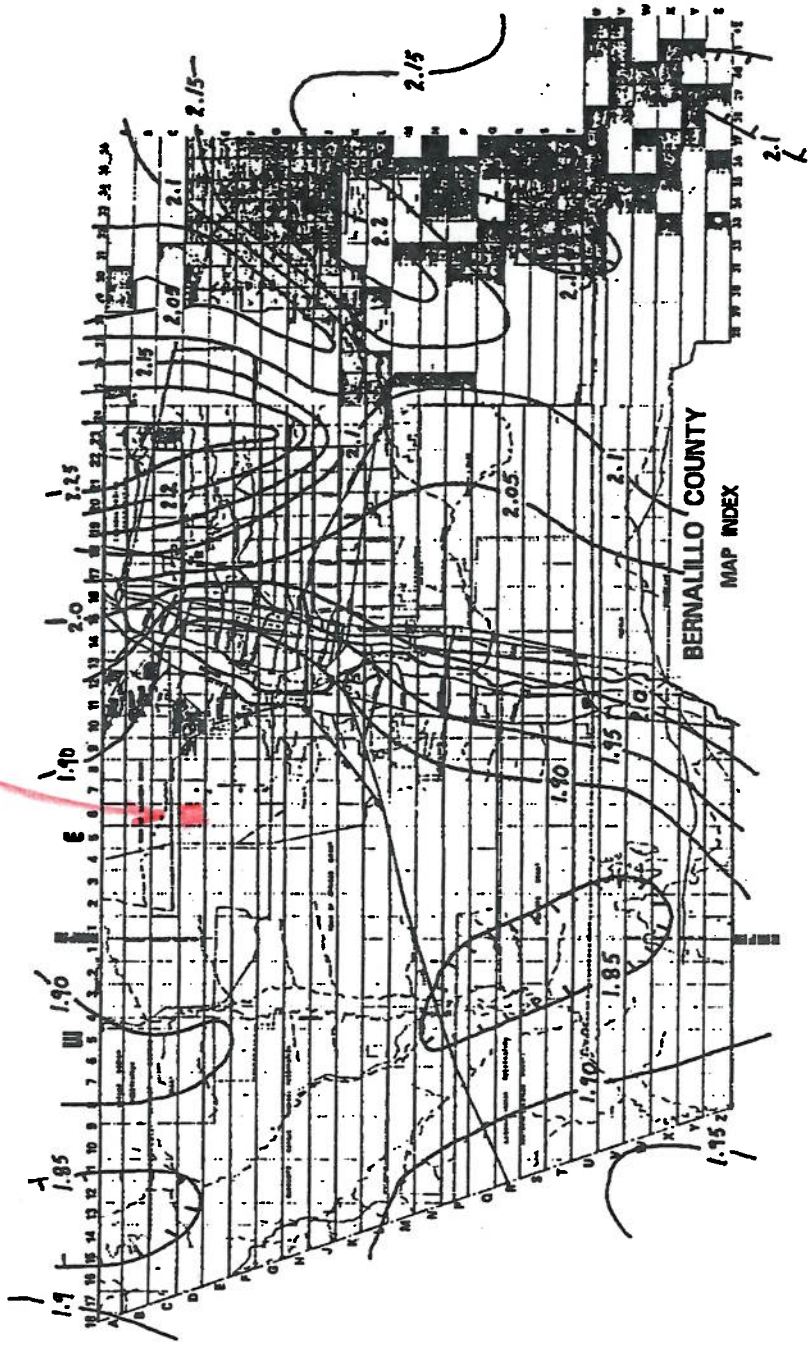
AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4) - Ver. S4.01a, Rel: 01a RUN DATE (MON/DAY/YR) =07/27/2023
INPUT FILE = F:\DIANE\AHYMO Files\DBLEAGLE.DAT USER NO.= M-GoodwinNMSiteA90075759

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S	Double Eagle Airport Hanger Development									
*S	100 YEAR 6-HOUR STORM EVENT FILE: DBLEAGLE.DAT (07-26-23)									
*S										
START										TIME= 0.00
RAINFALL	TYPE= 1 NOAA 14									RAIN6= 2.220
*S	**********									
*S	**********									
*S	DOUBLE EAGLE AIRPORT									
*S	**********									
*S	SUB BASIN 1-SW									
*S	**********									
COMPUTE NM HYD	1.00	-	1	0.00084	2.45	0.089	1.97661	1.500	4.564	PER IMP= 100.00
*S	**********									
*S	SUB BASIN 2-SW									
*S	**********									
COMPUTE NM HYD	2.00	-	1	0.00085	2.48	0.090	1.97661	1.500	4.564	PER IMP= 100.00
*S	**********									
*S	SUB BASIN 3-SW									
*S	**********									
COMPUTE NM HYD	3.00	-	1	0.00094	2.75	0.099	1.97661	1.500	4.564	PER IMP= 100.00
*S	**********									
*S	SUB BASIN 1-NE									
*S	**********									
COMPUTE NM HYD	1.00	-	1	0.00153	4.46	0.161	1.97661	1.500	4.556	PER IMP= 100.00
*S	**********									
*S	SUB BASIN 2-NE									
*S	**********									
COMPUTE NM HYD	2.00	-	1	0.00141	4.11	0.149	1.97661	1.500	4.558	PER IMP= 100.00
*S	**********									
*S	SUB BASIN 3-NE									
*S	**********									
COMPUTE NM HYD	3.00	-	1	0.00156	4.55	0.164	1.97661	1.500	4.556	PER IMP= 100.00
FINISH										

```
*S       Double Eagle Airport Hanger Development
*S       100 YEAR 6-HOUR STORM EVENT FILE: DBLEAGLE.DAT (07-26-23)
*S
START                 0.0 HRS  PUNCH CODE=0   PRINT LINES=-6
RAINFALL              TYPE=1  RAIN QUARTER=0.0  RAIN ONE=1.90
                      RAIN SIX=2.22  RAIN DAY=2.75   DT=.05
*S ******************************************************
*S ******************************************************
*S DOUBLE EAGLE AIRPORT
*S ******************************************************
*S SUB BASIN 1-SW
*S ******************************************************
COMPUTE NM HYD        ID=1   HYD=1 DA=.00084  SQ MI
                      PER A=0   B=0   C=0  D=100
                      TP=.133 HRS        RAIN=-1
PRINT HYD             ID=1    CODE=1
*S ******************************************************
*S SUB BASIN 2-SW
*S ******************************************************
COMPUTE NM HYD        ID=1   HYD=2 DA=.00085  SQ MI
                      PER A=0   B=0   C=0  D=100
                      TP=.133 HRS        RAIN=-1
PRINT HYD             ID=1    CODE=1
*S ******************************************************
*S SUB BASIN 3-SW
*S ******************************************************
COMPUTE NM HYD        ID=1   HYD=3 DA=.00094  SQ MI
                      PER A=0   B=0   C=0  D=100
                      TP=.133 HRS        RAIN=-1
PRINT HYD             ID=1    CODE=1
*S ******************************************************
*S SUB BASIN 1-NE
*S ******************************************************
COMPUTE NM HYD        ID=1   HYD=1 DA=.00153  SQ MI
                      PER A=0   B=0   C=0  D=100
                      TP=.133 HRS        RAIN=-1
PRINT HYD             ID=1    CODE=1
*S ******************************************************
*S SUB BASIN 2-NE
*S ******************************************************
COMPUTE NM HYD        ID=1   HYD=2 DA=.00141  SQ MI
                      PER A=0   B=0   C=0  D=100
                      TP=.133 HRS        RAIN=-1
PRINT HYD             ID=1    CODE=1
*S ******************************************************
*S SUB BASIN 3-NE
*S ******************************************************
COMPUTE NM HYD        ID=1   HYD=3 DA=.00156 SQ MI
                      PER A=0   B=0   C=0  D=100
                      TP=.133 HRS        RAIN=-1
PRINT HYD             ID=1    CODE=1
FINISH
```

Figure C-1 - P_{60}

Isopluvials of 100-year, 1-hour precipitation.



From Figures 24 and 30, *NOAA Atlas 2, Volume IV*, and Y_{100} from equation on Table 11

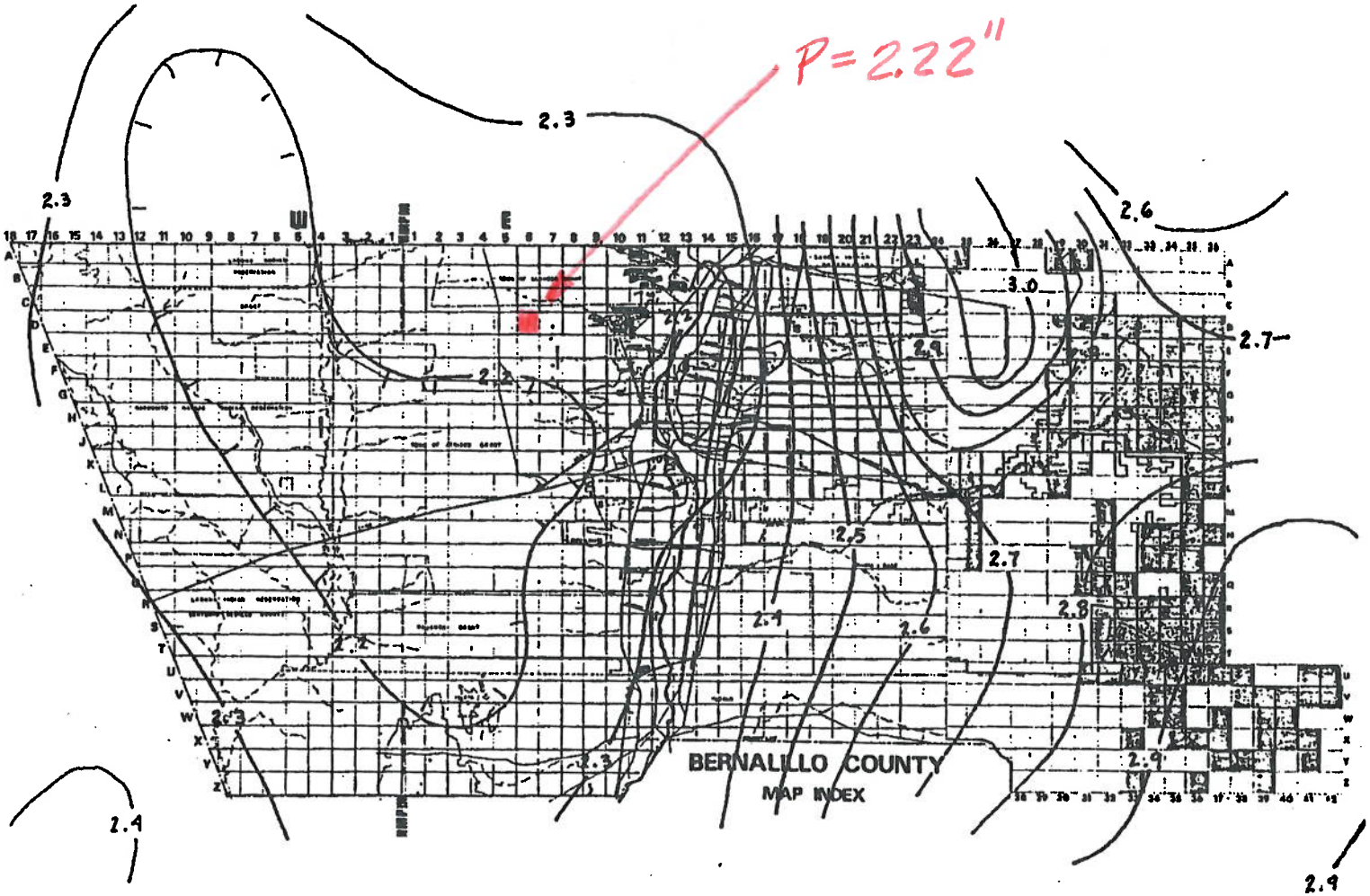


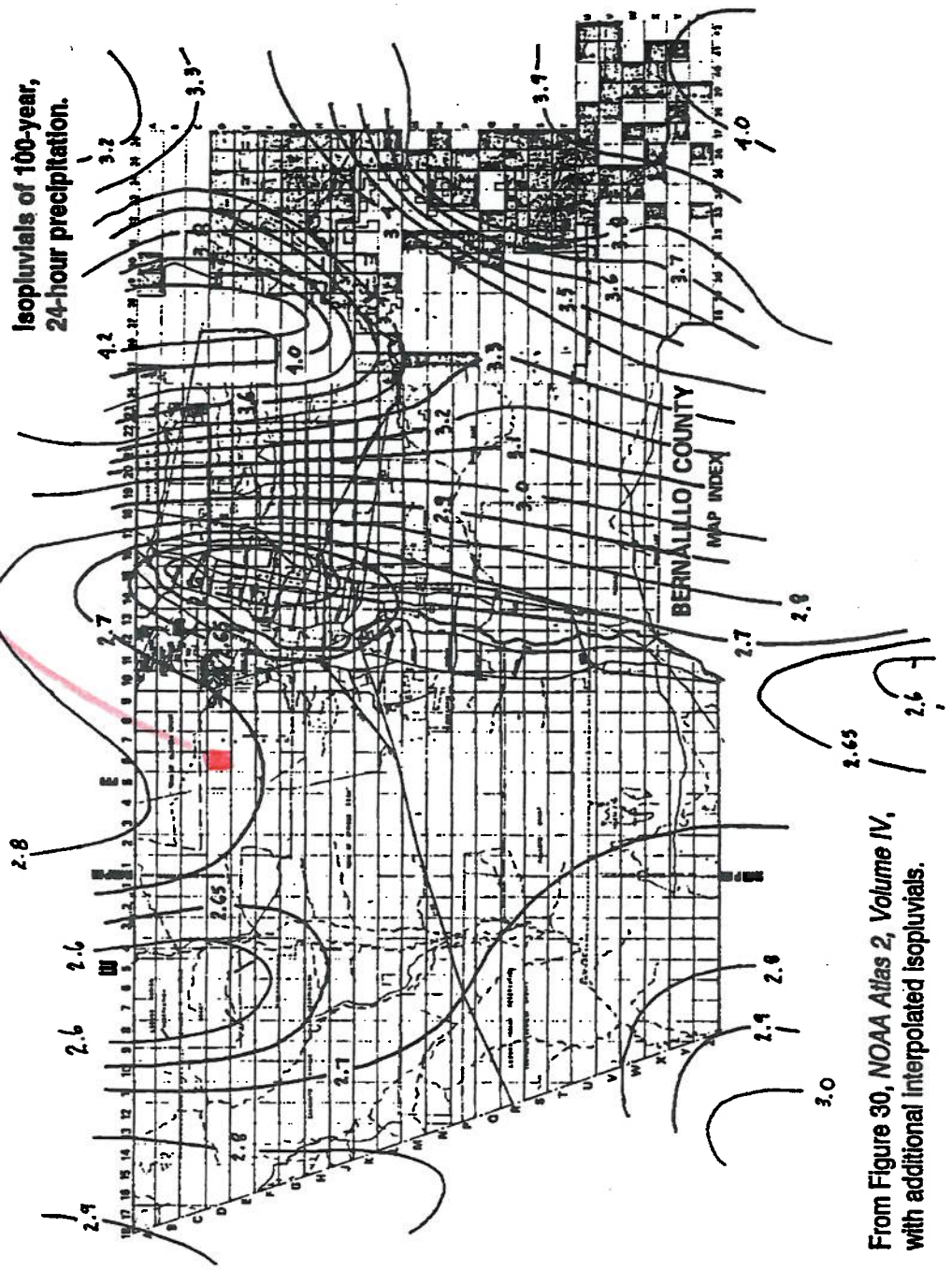
Figure C-2 - P_{360}

Isopluvials of 100-year, 6-hour precipitation.

From Figure 24, *NOAA Atlas 2, Volume IV*, with additional interpolated isopluvials.

Figure C-3 - P_{1440}

Isopluvials of 100-year, 24-hour precipitation.



From Figure 30, *NOAA Atlas 2, Volume IV,* with additional interpolated isopluvials.

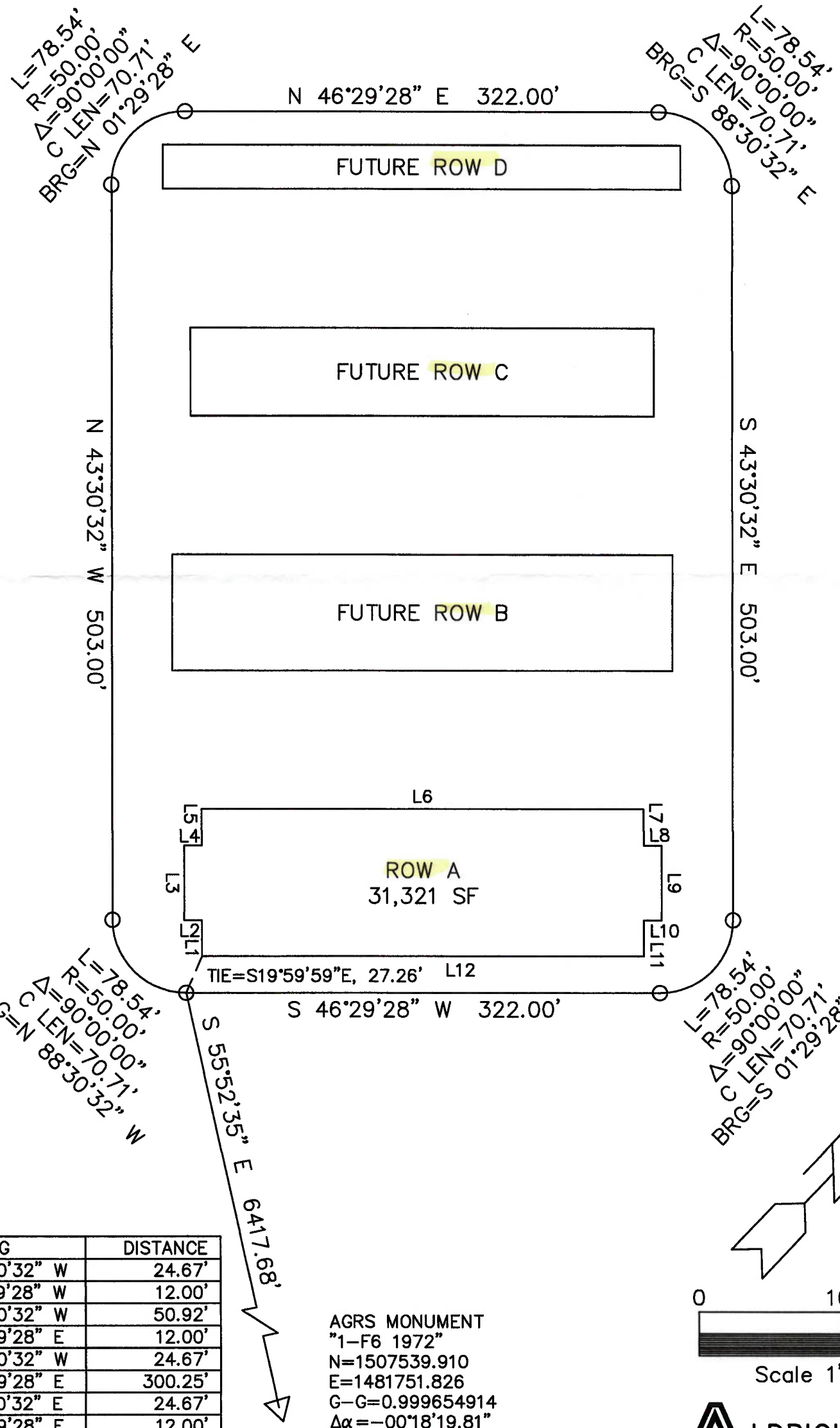
LEASE SURVEY

HIGH FLYING HANGERS – ROW A
DOUBLE EAGLE II AIRPORT

WITHIN THE
SECTIONS 25 & 26
TOWNSHIP 11 NORTH, RANGE 1 EAST, N.M.P.M.
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
JUNE, 2023

Timothy Aldrich
New Mexico
7719
Registered Professional Land Surveyor

06-22-2023



LINE	BEARING	DISTANCE
L1	N 43°30'32" W	24.67'
L2	S 46°29'28" W	12.00'
L3	N 43°30'32" W	50.92'
L4	N 46°29'28" E	12.00'
L5	N 43°30'32" W	24.67'
L6	N 46°29'28" E	300.25'
L7	S 43°30'32" E	24.67'
L8	N 46°29'28" E	12.00'
L9	S 43°30'32" E	50.92'
L10	S 46°29'28" W	12.00'
L11	S 43°30'32" E	24.67'
L12	S 46°29'28" W	300.25'

AGRS MONUMENT
"1-F6 1972"
N=1507539.910
E=1481751.826
G-G=0.999654914
$\Delta\alpha$=-00°18'19.81"
CENTRAL ZONE
ELEVATION=5810.134
(NAD 1927/SLD 1929)

0 100 200
Scale 1" = 100'

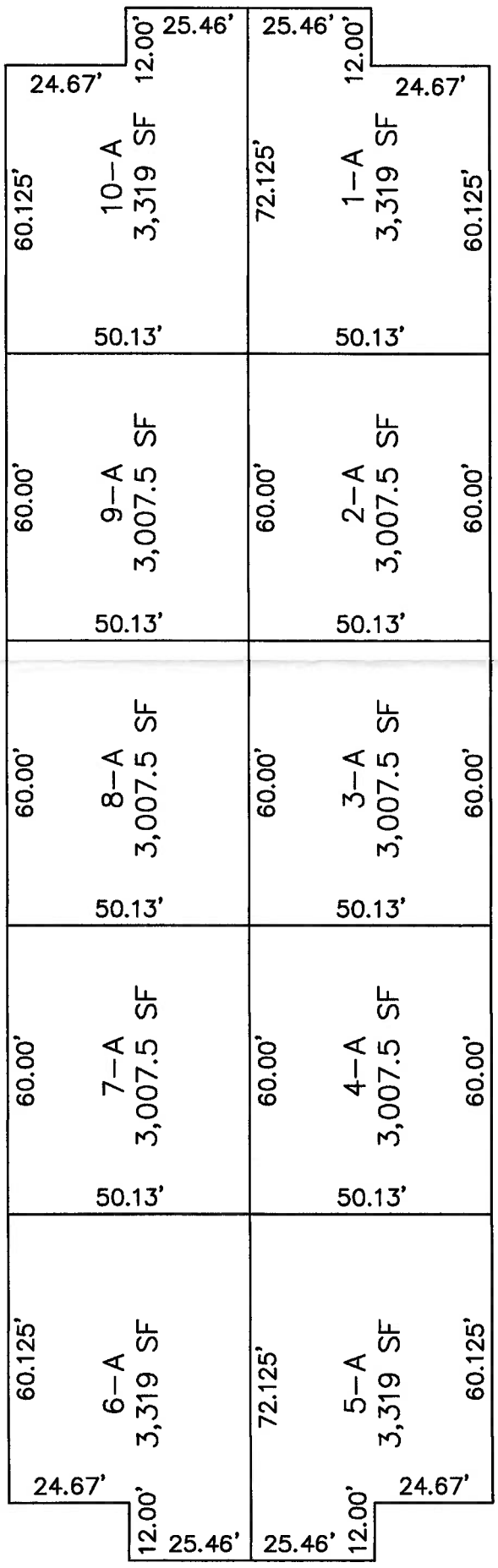
ATTACHMENT "A-1"

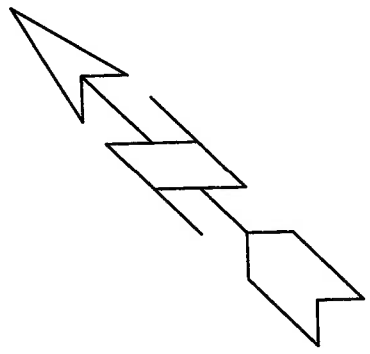
ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
505-884-1990

LEASE SURVEY

HIGH FLYING HANGERS – ROW A
DOUBLE EAGLE II AIRPORT

WITHIN THE
SECTIONS 25 & 26
TOWNSHIP 11 NORTH, RANGE 1 EAST, N.M.P.M.
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
JUNE, 2023





0 40 80

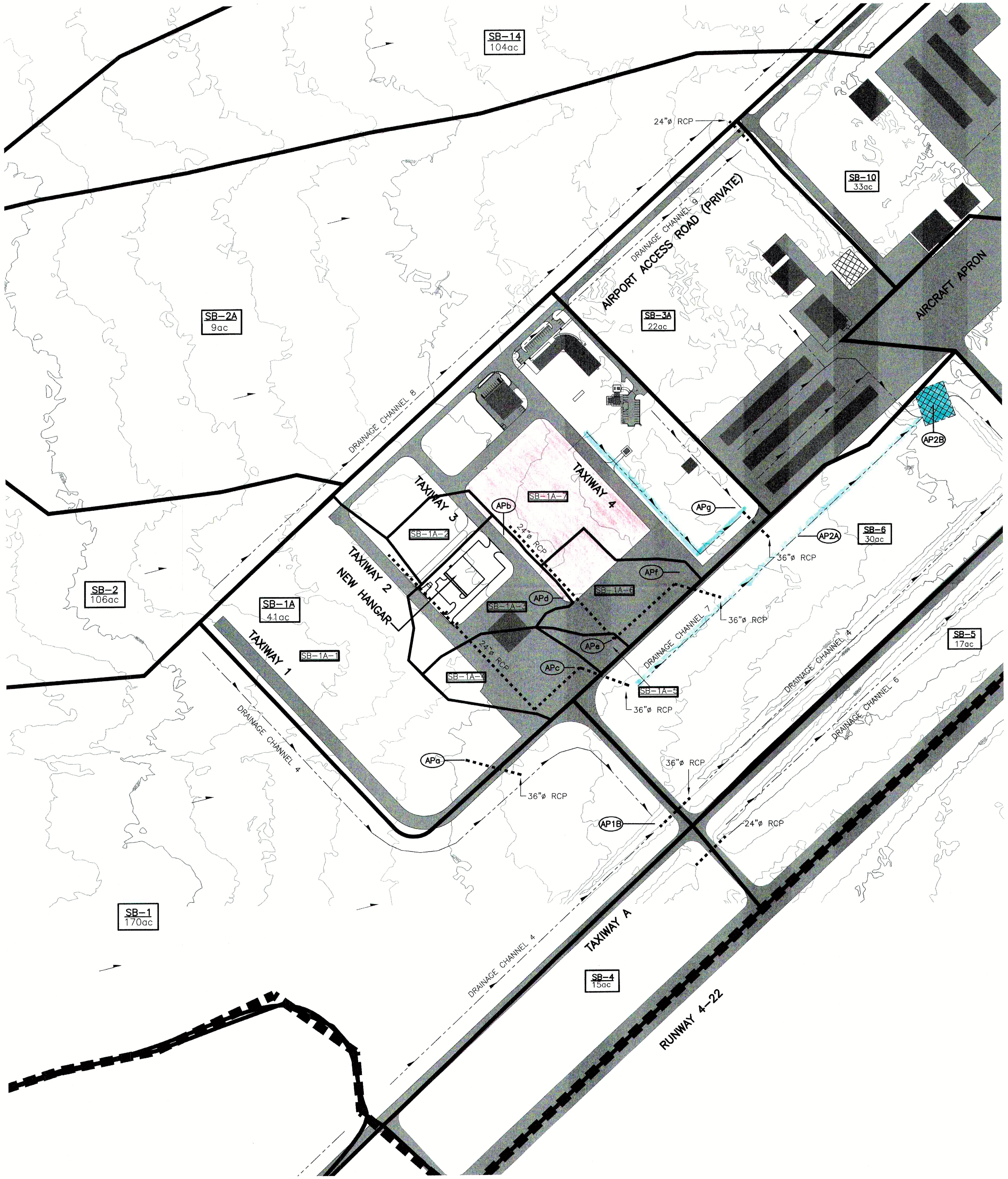
Scale 1" = 40'

Timothy Aldrich
New Mexico
7719
Registered Professional Land Surveyor

06–22–2023

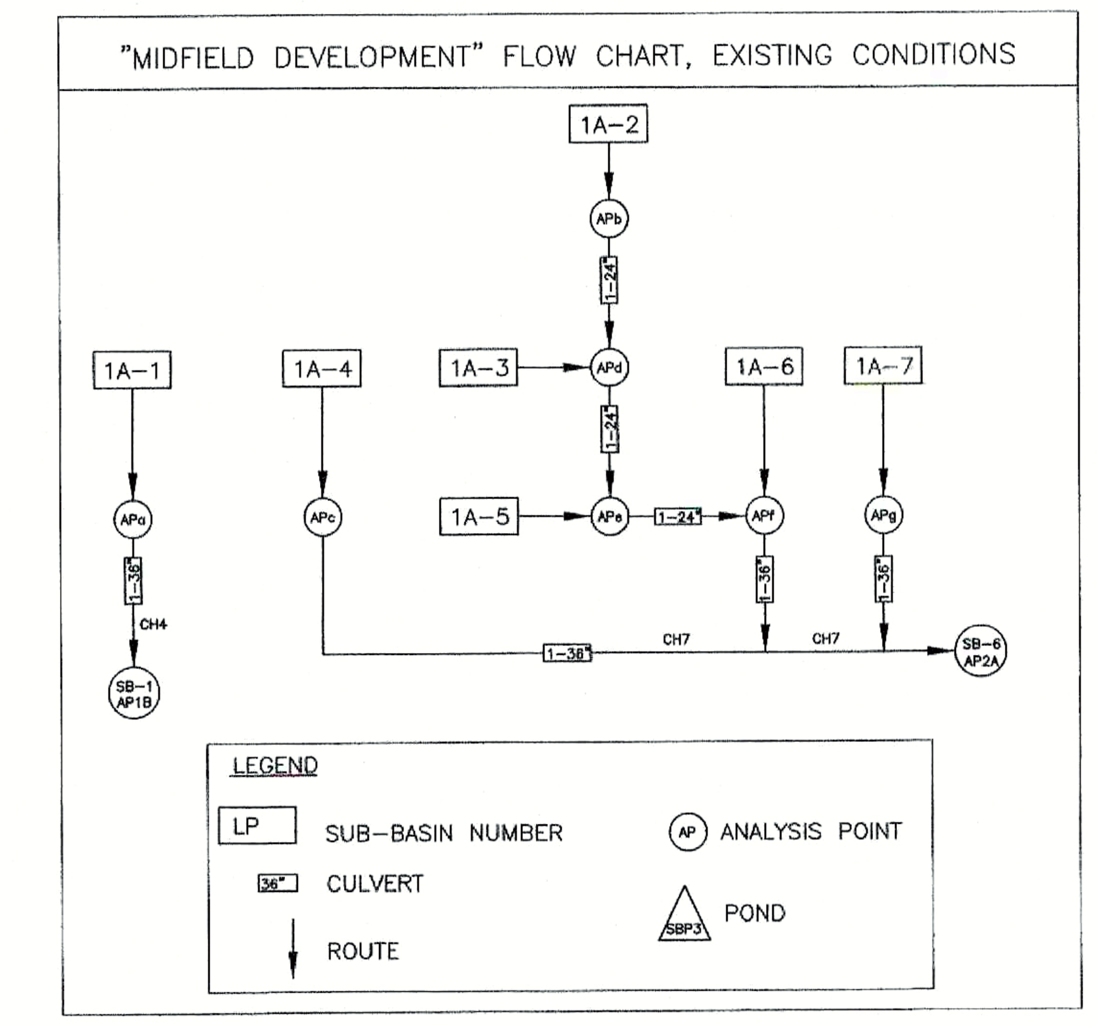
ATTACHMENT "A–2"

ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
505–884–1990



LEGEND

- DRAINAGE BASIN
- DRAINAGE SUB-BASIN
- CHANNEL FLOWLINES
- ANALYSIS POINT (APa)
- BASIN FLOW DIRECTION
- DRAINAGE PONDS
- CULVERTS
- PAVEMENT



N

1"=200'-0"

HYDRAULIC ANALYSIS

FIRST FLUSH HYDROLOGY

BASIN CHARACTERISTICS:

SUB BASIN: SB-1a-3

AREA	Q (PEAK)	VOLUME
0.32 AC	1.35 CFS	0.05 AC-FT

LAND TREATMENT:

A	0 AC
B	0.05 AC
C	1.48 AC
D	2.73 AC
TOTAL	4.26 AC

IMPERVIOUS AREA DEVELOPED = 0.89 AC

FIRST FLUSH CALCULATIONS:

FIRST FLUSH RUNOFF: 0.34 IN
FIRST FLUSH VOLUME: 0.34 IN x IMPERVIOUS AREA DEVELOPED

[0.34 IN x (1 FT/12 IN)] x [0.89 AC x (43,560 SF/AC)] = 1097.10 CF

POND VOLUMES:

	ELEVATIONS	AREA	AVERAGE END AREA
SOUTH	19.5	143.1	746.8 CF
	20	649.4	
	20.5	1740	
NW	17.5	32.95	315.6 CF
	18	184.1	
	18.5	379.2	
	19	660.75	
NE	18.5	273.65	509.0 CF
	19	744.4	

TOTAL POND VOLUME PROVIDED: 1571.4 CF
FIRST FLUSH VOLUME NEEDED: 1097.1 CF

BASIN SUMMARY

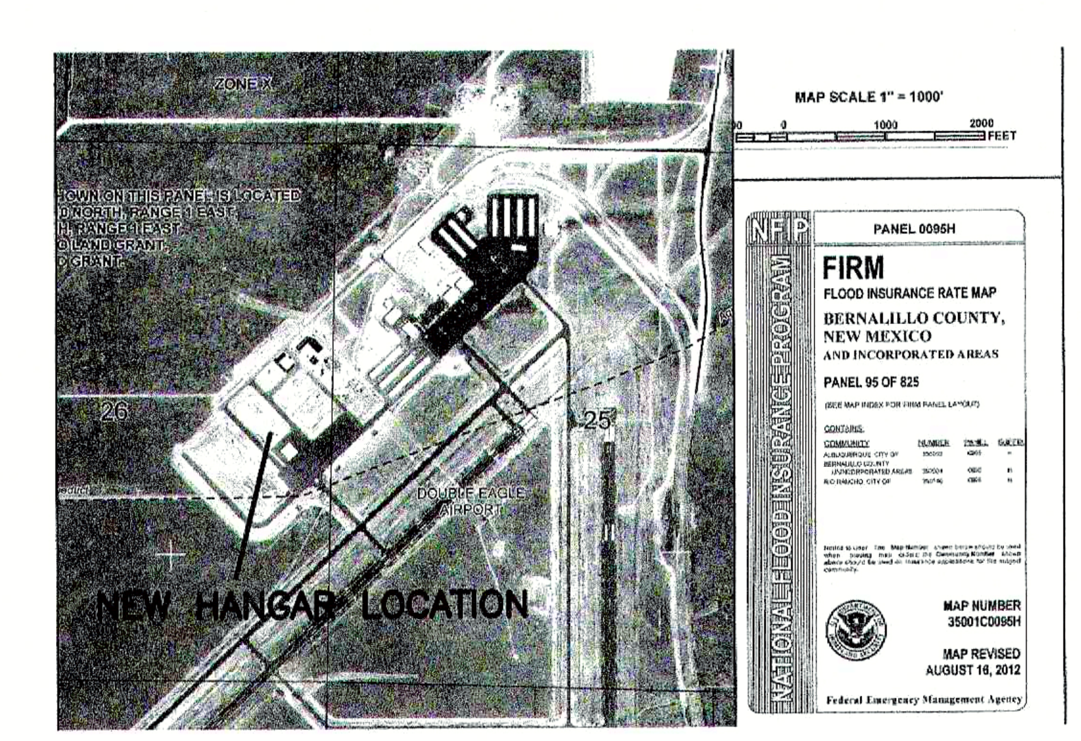
6hr - 100yr (Update '09)

Sub-Basin	Area (ac)	Reach (ft)	Q_{peak} (cfs)	Runoff Vol. (ac-ft)	Runoff (in.)	Tp (hrs)
Midfield Basins (SB-1A-x)						
SB-1A-1	1.30	1,306.3	1.66	0.12	1.14	1.90
SB-1A-2	0.28	497.9	1.28	0.02	1.19	1.50
SB-1A-3	0.32	662.5	1.35	0.05	1.76	1.50
SB-1A-4	0.31	695.8	1.28	0.04	1.60	1.50
SB-1A-5	0.06	326.9	0.31	0.01	2.06	1.50
SB-1A-6	1.96	1,592.5	1.35	0.05	1.76	1.50
SB-1A-7	0.34	554.7	5.82	0.23	1.40	1.57

ANALYSIS POINTS

6hr - 100yr (Update '09)

Sub-Basin	Area (ac)	Q_{peak} (cfs)	Runoff Vol. (ac-ft)	Runoff (in.)	Tp (hrs)
Midfield Development AP's					
AP a	0.0020	1.66	0.12	1.15	1.90
AP b	0.0004	0.86	0.03	1.20	1.53
AP c	0.0005	1.28	0.04	1.60	1.50
AP d	0.0009	2.15	0.07	1.51	1.50
AP e	0.0010	2.44	0.08	1.56	1.53
AP f	0.0015	3.61	0.13	1.63	1.53
AP g	0.0031	5.82	0.23	1.40	1.57



CITY OF ALBUQUERQUE - RECORD DRAWING

2 6 - 6 5 6 4 . 9 2 - 1 9

RECORD DRAWING	
DATE: 11/2019	DRAWN BY: MOLZEN CORBIN

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS ON INFORMATION COMPILED AND FURNISHED BY OTHERS. MOLZEN-CORBIN AND ASSOCIATES WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT.

APPROVAL

AVIATION DEPARTMENT DATE

MOLZENCORBIN
ENGINEERS | ARCHITECTS | PLANNERS

AECOM

AECOM TECHNICAL SERVICES, INC.
6501 Americas Pkwy NE, Suite 900
Albuquerque, NM 87110
505 855 7500 tel 505 855 7555 fax
www.aecom.com

CITY OF ALBUQUERQUE
AVIATION DEPARTMENT

DOUBLE EAGLE II AIRPORT HANGAR FACILITY

GRADING AND DRAINAGE ANALYSIS

Design Review Commitee	City Engineer Approval	Last Design Update	MO./DAY/YR.	MO./DAY/YR.
City Project No. 656492	Zone Map No. E-05	Sheet Of	C-103	

AS-BUILT INFORMATION
CONTRACTOR: TA COLE DATE: 5-28-19
WORK STAKED BY: CARTESIAN SURVEY DATE: 5-28-19
INSPECTOR'S ACCEPTANCE BY: DATE:
FIELD VERIFICATION BY: CARTESIAN SURVEY DATE: 5-28-19
DRAWINGS ORDERED BY: DATE:
MICRO-FILM INFORMATION
REORDERED BY: DATE:

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

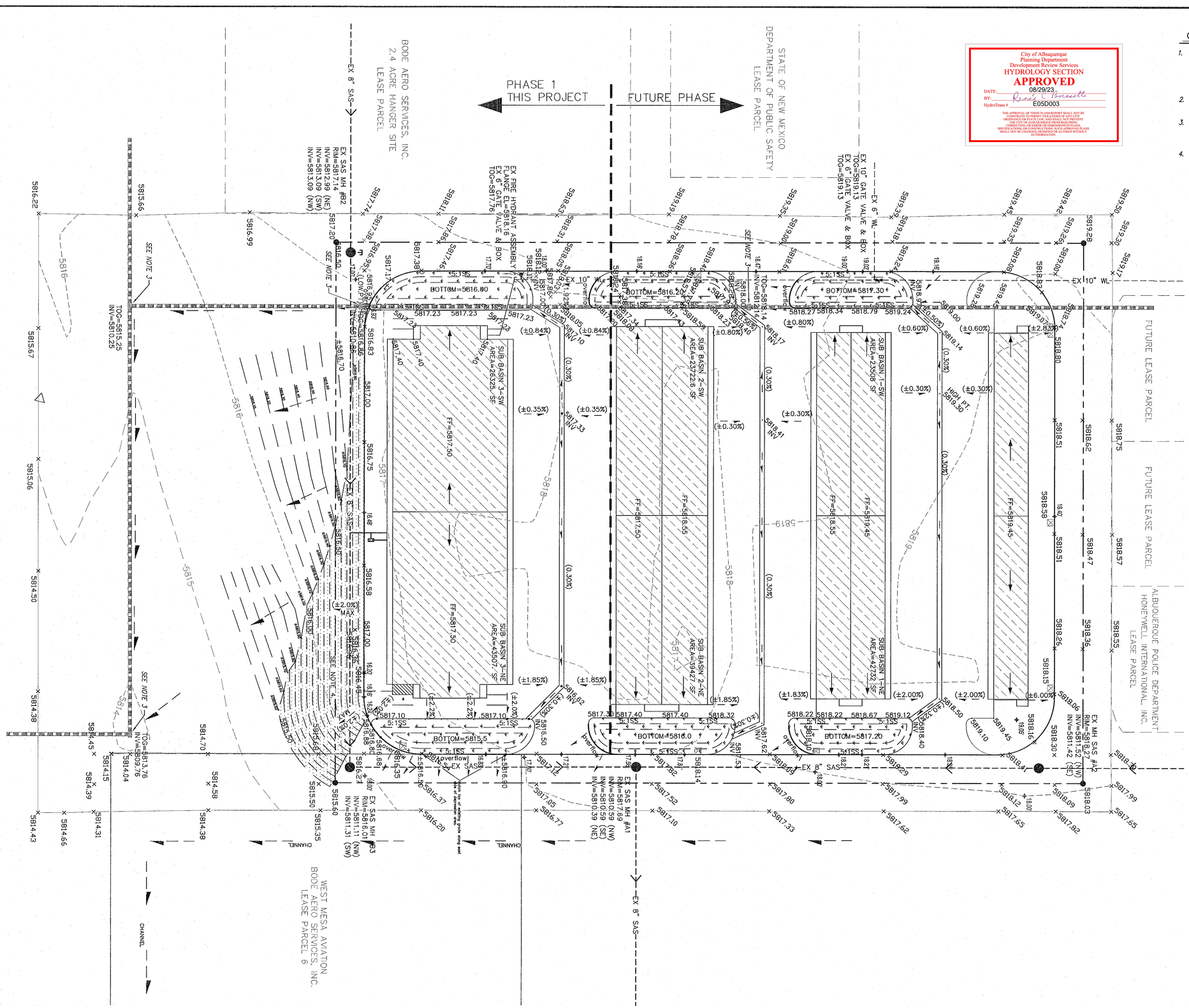
ENGINEER'S STAMP

I, JOHN M. PROVINE, CERTIFY THAT THIS ELECTRONIC VERSION IS IDENTICAL TO THE ORIGINAL REPRODUCIBLE RECORD DRAWING SIGNED BY ME ON 2/20/2018

REVISIONS
NO REMARKS BY DATE

PROJECT NUMBER: AEC161-12
DRAWN BY: MOLZEN CORBIN
CH'D BY: MOLZEN CORBIN
DATE: JANUARY 2018

REDRAWN FOR RECORD PURPOSES



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/29/23
BY: Renee Brissette
HydroTrans #: E05D003
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW. THE APPROVAL DOES NOT RELIEVE THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR OMISSION IN PLANS, SPECIFICATIONS, OR CONSTRUCTION. APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

CONSTRUCTION NOTES:

1. THE SIX DEPRESSION PONDS SHALL BE 2 FEET DEEP WITH 5:1 MAXIMUM SIDE SLOPE. THE PONDS LOCATED ON SW SIDE OF BUILDING WILL OVERFLOW TO THE SOUTH. THE PONDS LOCATED ON THE NE SIDE OF THE BUILDING WILL OVERFLOW TO THE NE-E DIRECTION AS SHOWN.
2. THE DEPRESSION PONDS SHALL BE LINED WITH 6" COBBLESTONE OR CONCRETE POROUS PAVERS.
3. EXISTING STORM DRAIN INLETS DESIGNED TO CAPTURE RUNOFF FROM FLOW ORIGINATING FROM SW-W DIRECTION AND CONVERGING TO EXISTING DETENTION POND.
4. REMOVE AND REPLACE PAVEMENT IN THIS AREA. MILL THE TOP 1.0" INCH OF EXISTING ASPHALT AND OVERLAY NEW PAVEMENT TO CREATE A PAVEMENT SLOPE NOT TO EXCEED 2.0% MAXIMUM. SHOULD CREATE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT ADJACENT TO NEW BUILDING.

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
AS-BUILTS BY — DATE
ACCEPTANCE BY
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
DIANE HOELZER
NEW MEXICO
11967
REGISTERED PROFESSIONAL ENGINEER
8-1-23

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DATE 06/23
		DESIGNED BY DLH	DATE 06/23
		DRAWN BY SRB	DATE 06/23
		CHECKED BY DMG	

dmg
MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT

TITLE: **DOUBLE EAGLE HANGERS GRADING & DRAINAGE PLAN**

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	AS-BUILT DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.

CITY PROJECT NO. . | ZONE MAP NO. . | SHEET 1 OF 2

F:\421\DWG\421DG2_Double Eagle Multiple Hangers\GRADING & DRAINAGE\421DG2_GRADING & DRAINAGE.dwg, Last saved by stefanie, Jul 31, 2023 - 9:38am