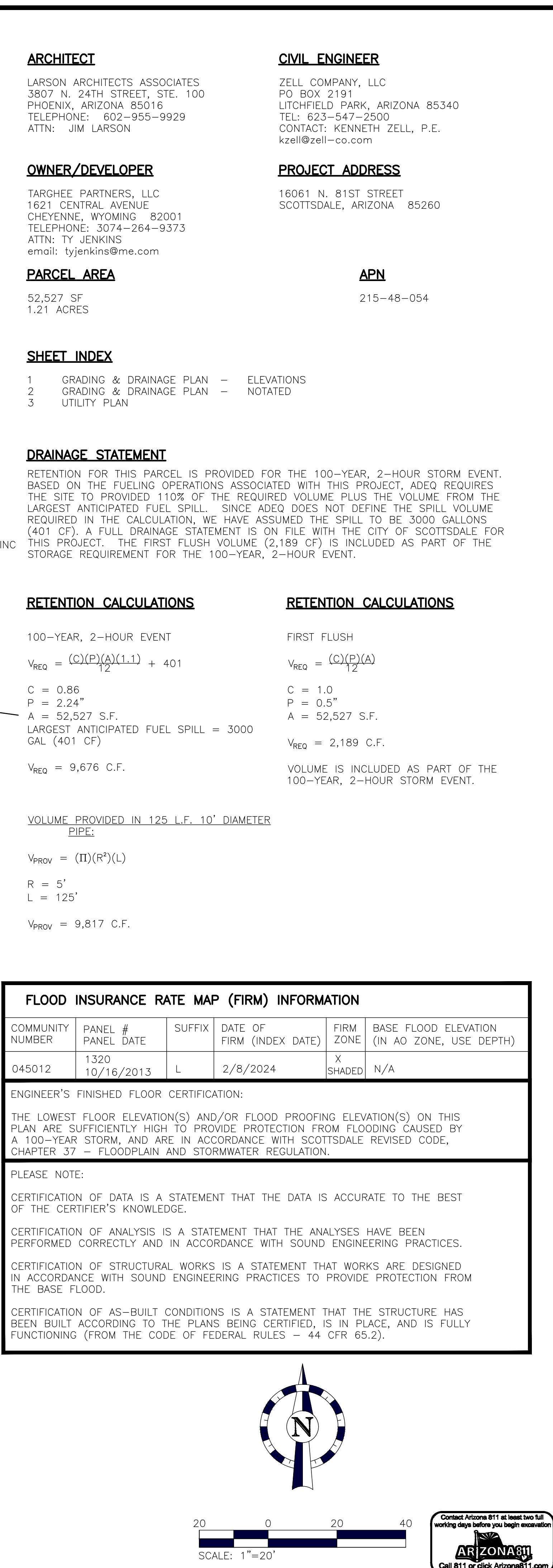
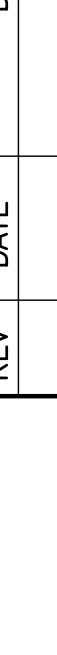
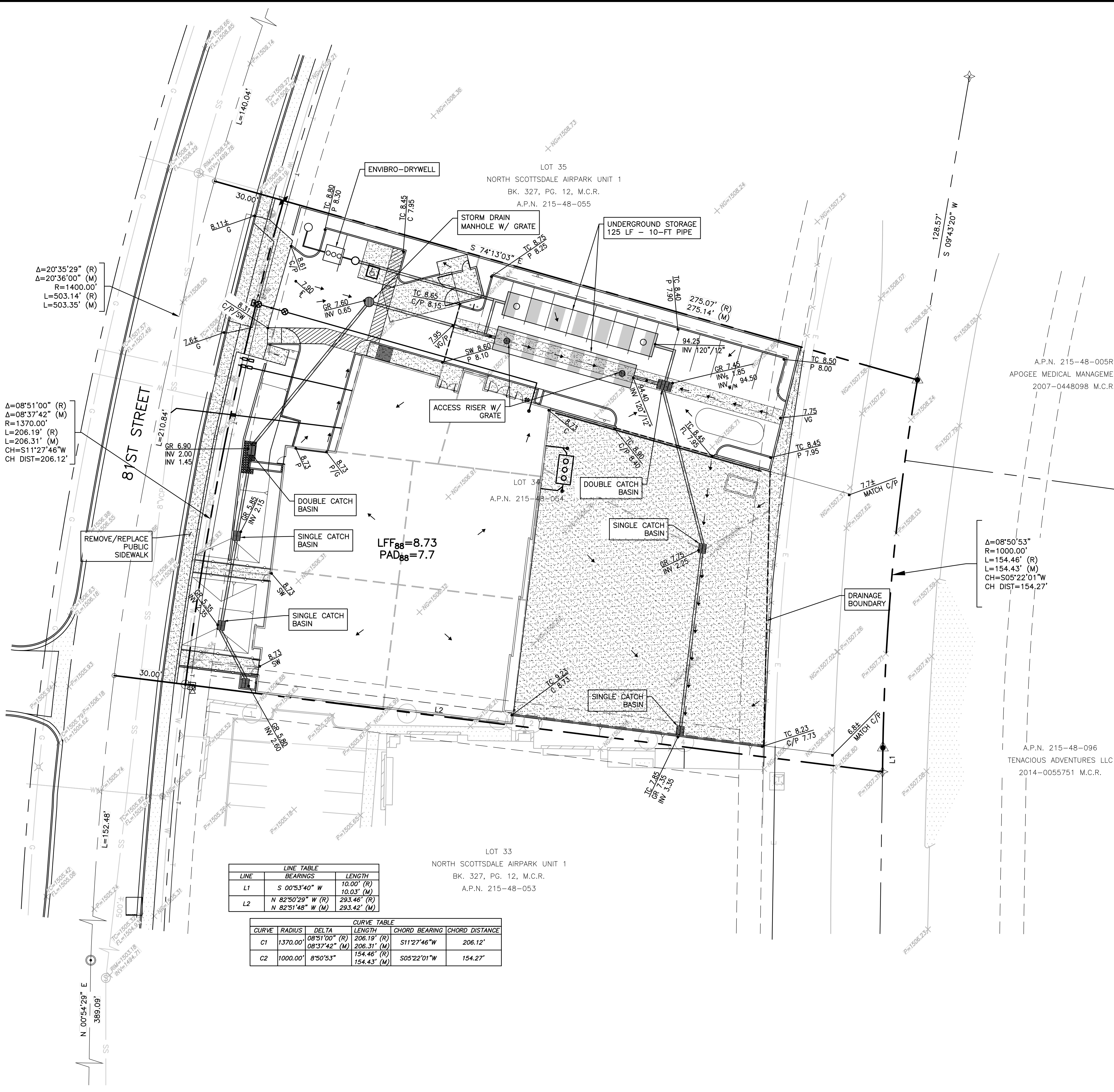




1		SHEET		2	
JOB NO.:		24-013		SCALE: 1:20	
TITLE:		DESIGN REVIEW - CIVIL PLAN		SITE ADDRESS: 16061 N. 81ST STREET, SCOTTSDALE, AZ	
DRAWN BY:		JR		DATE: OCT 2024	
DESIGNED BY:		KZ		LOCATION: SCOTTSDALE, ARIZONA	
REVIEWED BY:		KZ		85260	
PROJECT:		TY JENKINS			
		HANGAR			
DESCRIPTION:					
REV:		DATE:			
BY:				PO Box 2191 Litchfield Park, Arizona 85340 Phone: 623-447-2500	



LINE TABLE		
LINE	BEARINGS	LENGTH
L1	S 00°53'40" W	10.00' (R) 10.03' (M)
L2	N 82°50'29" W (R) N 82°51'48" W (M)	293.46' (R) 293.42' (M)

CURVE TABLE					
CURVE	RADIUS	DELTA	LENGTH	CHORD BEARING	CHORD DISTANCE
C1	1370.00'	08°51'00" (R) 08°37'42" (M)	206.19' (R) 206.31' (M)	S11°27'46" W	206.12'
C2	1000.00'	8°50'53"	154.46' (R) 154.43' (M)	S05°22'01" W	154.27'

ARCHITECT

LARSON ARCHITECTS ASSOCIATES
3807 N. 24TH STREET, STE. 100
PHOENIX, ARIZONA 85016
TELEPHONE: 602-955-9929
ATTN: JIM LARSON

CIVIL ENGINEER

ZELL COMPANY, LLC
PO BOX 2191
LITCHFIELD PARK, ARIZONA 85340
TEL: 623-547-2500
CONTACT: KENNETH ZELL, P.E.
kzell@zell-co.com

OWNER/DEVELOPER

TARGHEE PARTNERS, LLC
1621 CENTRAL AVENUE
CHEYENNE, WYOMING 82001
TELEPHONE: 3074-264-9373
ATTN: TY JENKINS
email: tyjenkins@me.com

PROJECT ADDRESS

16061 N. 81ST STREET
SCOTTSDALE, ARIZONA 85260

PARCEL AREA

52,527 SF
1.21 ACRES

APN

215-48-054

DRAINAGE STATEMENT

RETENTION FOR THIS PARCEL IS PROVIDED FOR THE 100-YEAR, 2-HOUR STORM EVENT. BASED ON THE FUELING OPERATIONS ASSOCIATED WITH THIS PROJECT, ADEQ REQUIRES THE SITE TO PROVIDE 110% OF THE REQUIRED VOLUME PLUS THE VOLUME FROM THE LARGEST ANTICIPATED FUEL SPILL. SINCE ADEQ DOES NOT DEFINE THE SPILL VOLUME REQUIRED IN THE CALCULATION, WE HAVE ASSUMED THE SPILL TO BE 3000 GALLONS (401 CF). A FULL DRAINAGE STATEMENT IS ON FILE WITH THE CITY OF SCOTTSDALE FOR THIS PROJECT. THE FIRST FLUSH VOLUME (2,189 CF) IS INCLUDED AS PART OF THE STORAGE REQUIREMENT FOR THE 100-YEAR, 2-HOUR EVENT.

RETENTION CALCULATIONS

100-YEAR, 2-HOUR EVENT

$$V_{REQ} = \frac{(C)(P)(A)(1.1)}{12} + 401$$

C = 0.86
P = 2.24"
A = 52,527 S.F.
LARGEST ANTICIPATED FUEL SPILL = 3000 GAL (401 CF)

$$V_{REQ} = 9,676 \text{ C.F.}$$

RETENTION CALCULATIONS

FIRST FLUSH

$$V_{REQ} = \frac{(C)(P)(A)}{12}$$

C = 1.0
P = 0.5"
A = 52,527 S.F.

$$V_{REQ} = 2,189 \text{ C.F.}$$

VOLUME IS INCLUDED AS PART OF THE 100-YEAR, 2-HOUR STORM EVENT.

VOLUME PROVIDED IN 125 L.F. 10' DIAMETER PIPE:

$$V_{PROV} = (\Pi)(R^2)(L)$$

R = 5'
L = 125'

$$V_{PROV} = 9,817 \text{ C.F.}$$

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

COMMUNITY NUMBER	PANEL # PANEL DATE	SUFFIX	DATE OF FIRM (INDEX DATE)	FIRM ZONE	BASE FLOOD ELEVATION (IN AO ZONE, USE DEPTH)
045012	1320 10/16/2013	L	2/8/2024	X SHADED	N/A

ENGINEER'S FINISHED FLOOR CERTIFICATION:

THE LOWEST FLOOR ELEVATION(S) AND/OR FLOOD PROOFING ELEVATION(S) ON THIS PLAN ARE SUFFICIENTLY HIGH TO PROVIDE PROTECTION FROM FLOODING CAUSED BY A 100-YEAR STORM, AND ARE IN ACCORDANCE WITH SCOTTSDALE REVISED CODE, CHAPTER 37 - FLOODPLAIN AND STORMWATER REGULATION.

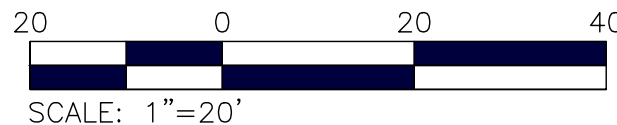
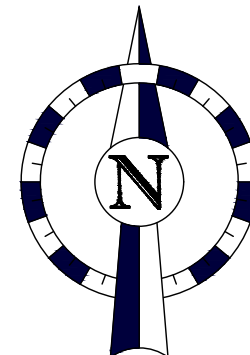
PLEASE NOTE:

CERTIFICATION OF DATA IS A STATEMENT THAT THE DATA IS ACCURATE TO THE BEST OF THE CERTIFIER'S KNOWLEDGE.

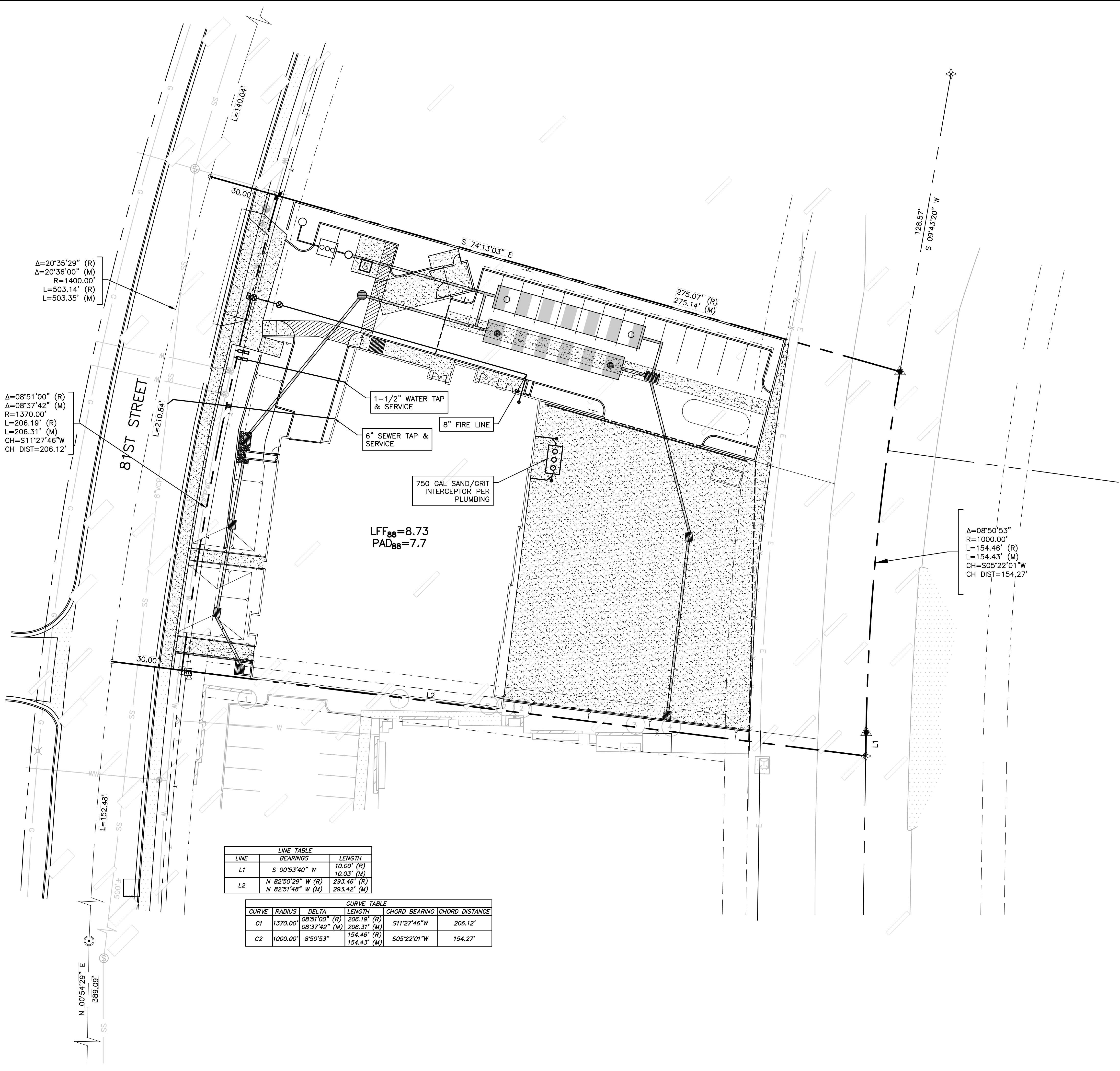
CERTIFICATION OF ANALYSIS IS A STATEMENT THAT THE ANALYSES HAVE BEEN PERFORMED CORRECTLY AND IN ACCORDANCE WITH SOUND ENGINEERING PRACTICES.

CERTIFICATION OF STRUCTURAL WORKS IS A STATEMENT THAT WORKS ARE DESIGNED IN ACCORDANCE WITH SOUND ENGINEERING PRACTICES TO PROVIDE PROTECTION FROM THE BASE FLOOD.

CERTIFICATION OF AS-BUILT CONDITIONS IS A STATEMENT THAT THE STRUCTURE HAS BEEN BUILT ACCORDING TO THE PLANS BEING CERTIFIED, IS IN PLACE, AND IS FULLY FUNCTIONING (FROM THE CODE OF FEDERAL RULES - 44 CFR 65.2).

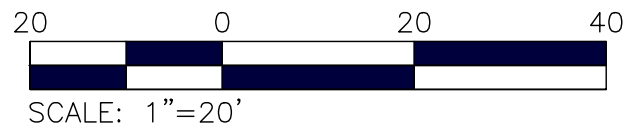
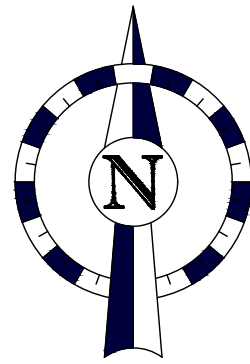


BY		DESCRIPTION	
REV	DATE		
PROJECT	DRAWN BY	DESIGNED BY	REVIEWED BY
TY JENKINS	RR	KZ	KZ
HANGAR			
LOCATION	DATE		
SCOTTSDALE, ARIZONA 85260	OCT 2024		
TITLE	SITE ADDRESS	SCALE:	JOB NO.:
DESIGN REVIEW - CIVIL PLAN	16061 N. 81ST STREET, SCOTTSDALE, AZ	1:20	24-013
GRADING & DRAINAGE PLAN			
NOTATED			
SHEET	OF		
2	3		



LINE TABLE		
LINE	BEARINGS	LENGTH
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TITLE DESIGN REVIEW - CIVIL PLAN CONCEPTUAL UTILITY PLAN	DRAWN BY RR	PROJECT TY JENKINS HANGAR	LOCATION SCOTTSDALE, ARIZONA 85260
	DESIGNED BY KZ	REVIEWED BY KZ	
	DATE OCT 2024		
SITE ADDRESS 16061 N. 81ST STREET, SCOTTSDALE, AZ		JOB NO.: 24-013	
SCALE: 1"=20'		SHEET 3 OF 3	

PO Box 2191
Scottsdale, Arizona 85260
Phone: 602-347-2500

Professional Engineer
Kenneth W. Zell
24449
Expires 12/31/2025

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