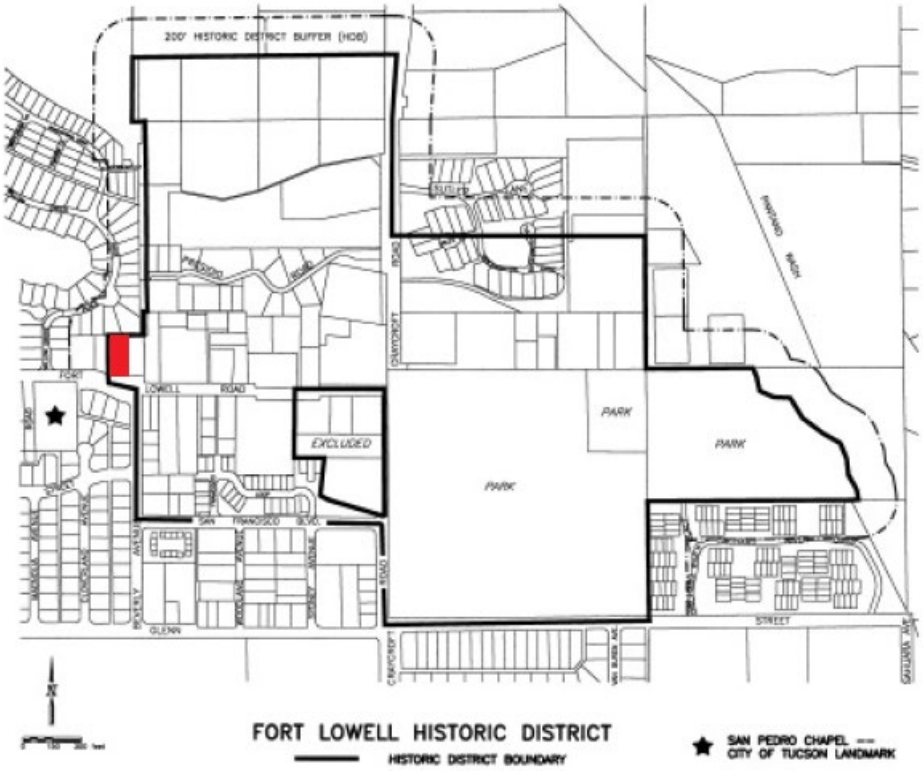
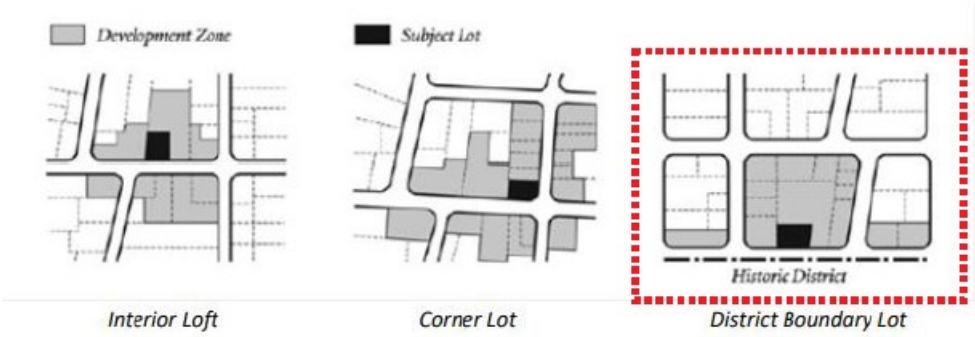
Permit Number: **TC-RES-0125-00386**
Permit Type: **Residential Pool/Spa Permit**
Application Submitted: **1/22/2025**
Main Address: **5259 E FORT LOWELL RD TUCSON 85712**
Parcel(s): **11009001A**

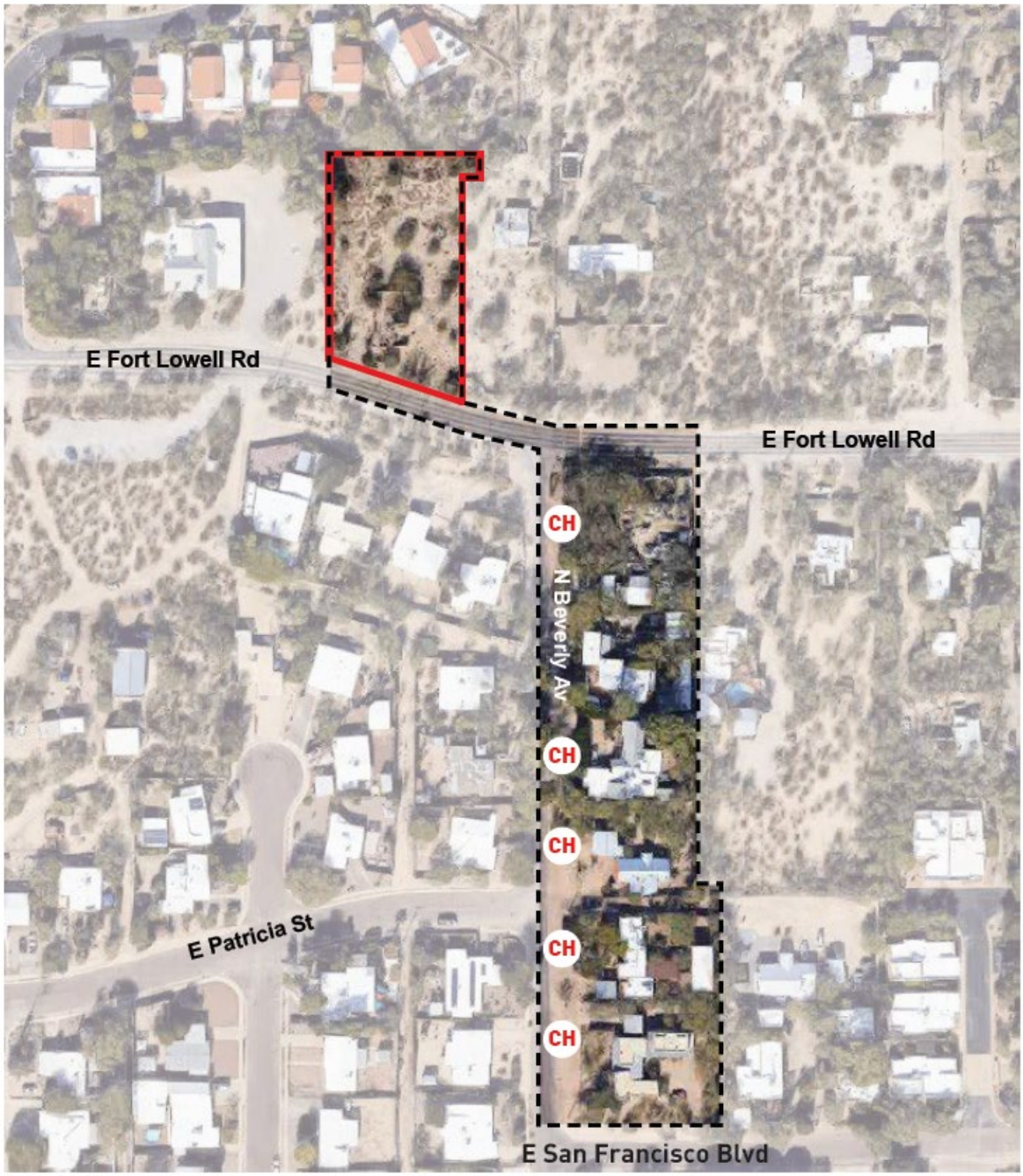
HISTORIC MAP and DEVELOPMENT ZONE DEFINITION





DEVELOPMENT ZONE

Permit Number: **TC-RES-0125-00386**
Permit Type: **Residential Pool/Spa Permit**
Main Address: **5259 E FORT LOWELL RD TUCSON 85712**
Parcel(s): **11009001A**

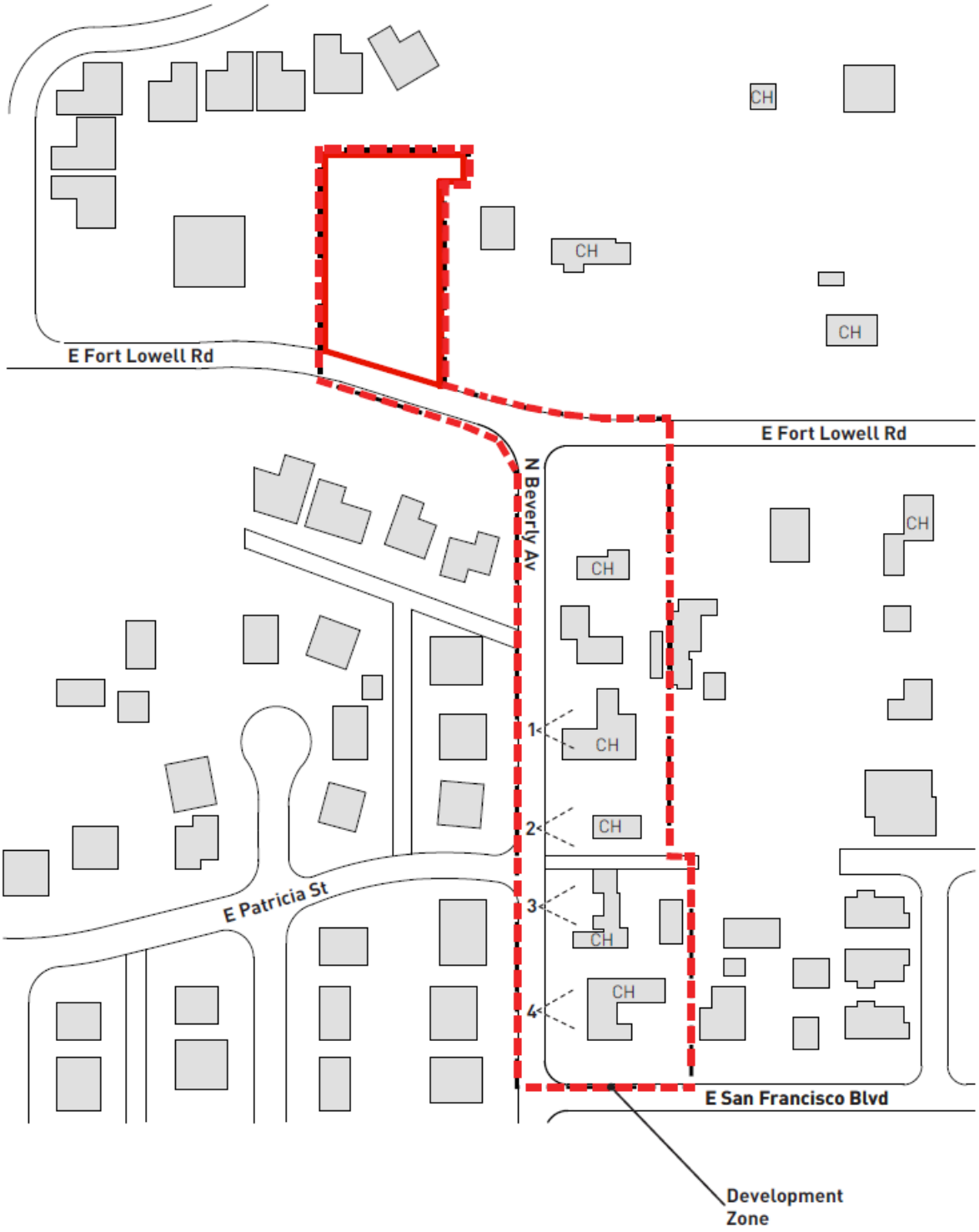


LEGEND

DEVELOPMENT ZONE BOUNDARY — SUBJECT LOT — CH CONTRIBUTING HISTORIC PROPERTY

SITE PHOTOGRAPHIC STUDY

Permit Number: **TC-RES-0125-00386**
Permit Type: **Residential Pool/Spa Permit**
Main Address: **5259 E FORT LOWELL RD TUCSON 85712**
Parcel(s): **11009001A**



SITE PHOTOGRAPHIC STUDY

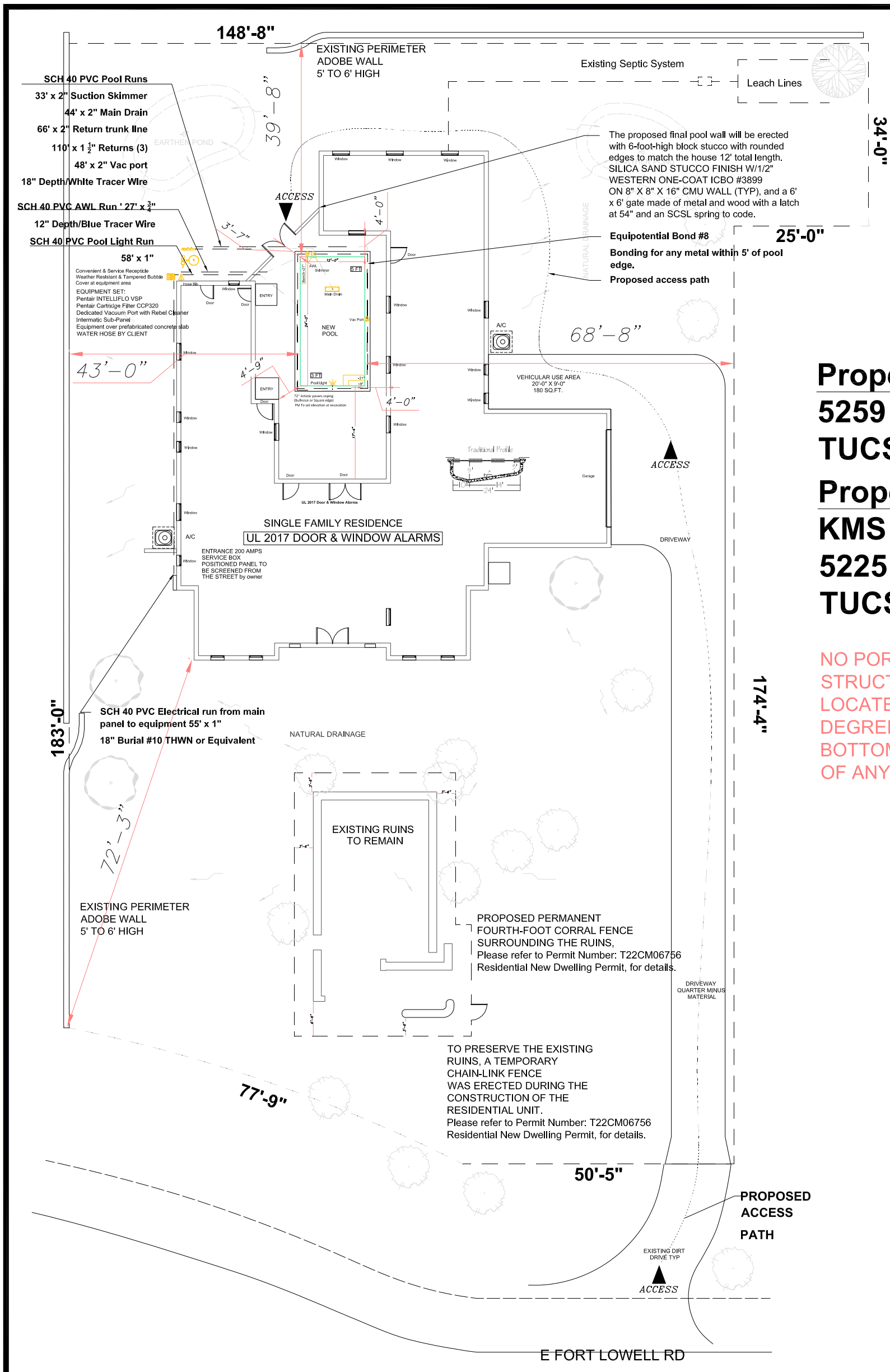
Permit Number: **TC-RES-0125-00386**
Permit Type: **Residential Pool/Spa Permit**
Main Address: **5259 E FORT LOWELL RD TUCSON 85712**
Parcel(s): **11009001A**

STREET VIEW 1
2930 N. Beverly Ave - CH

STREET VIEW 3
2920 N. Beverly Ave - CH

STREET VIEW 2
2928 N. Beverly Ave - CH

STREET VIEW 4
2902 N. Beverly Ave - CH



2 SITE PLAN
PAGE 1 OF 3

Parcel: 110-09-001A

Legal Description:
PTN W148.72'
E208.7' S208.7'
NW4 NE4
EXC RD .59 AC
SEC 35-13-14

Property Address:
5259 E FORT LOWELL RD
TUCSON AZ 85712

Property Owner:
KMS ENTERPRISES LLC
5225 E PIMA ST
TUCSON AZ

NO PORTION OF A POOL STRUCTURE SHALL BE LOCATED WITHIN A 45 DEGREE ANGLE OF THE BOTTOM OF THE FOOTING OF ANY STRUCTURE.

BARRIER & ENCLOSURES:

Enclosure: Proposed Wall with 6-foot-high block stucco with rounded edges to match the house 12' total length. SILICA SAND STUCCO FINISH W/1/2" WESTERN ONE-COAT ICBO #3899 ON 8" X 8" X 16" CMU WALL (TYP), and a 6' x 6' gate made of metal and wood with a latch at 54" and an SCSL spring to code.
Barrier: Door & Window Alarms.

All windows have latch heights greater than 54"

THWN All wire 18" burial depth
All plumbing & electric lines will have a depth of 18"

1	CONSTRUCTION PLAN
2	SITE PLAN

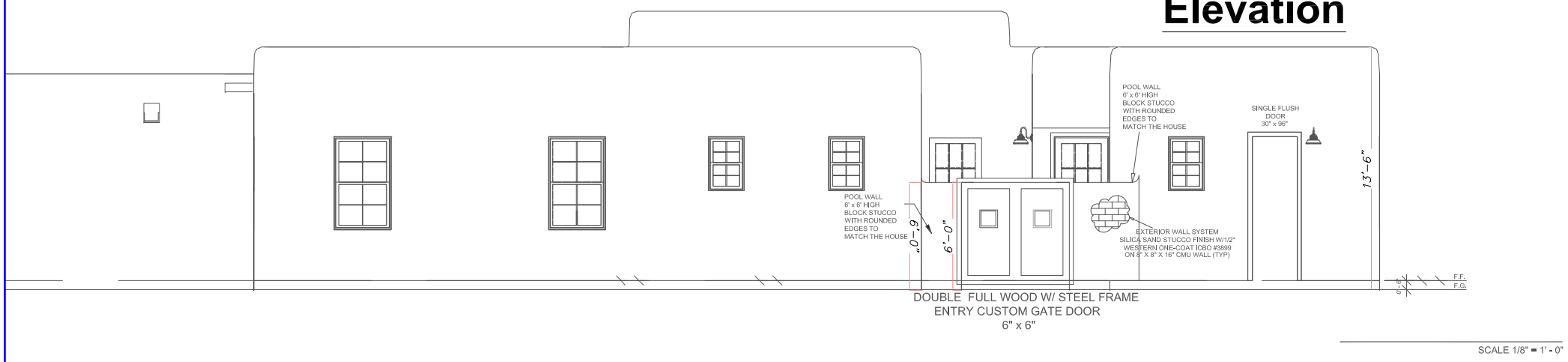
PIMA POOL PLASTERING
2665 E GINTER RD.
TUCSON, AZ 85706
OFF: (520) 807-7754
MOBILE: (520) 633-7423

KMS ENTERPRISES LLC
5259 E FORT LOWELL RD
TUCSON, AZ 85712
520-312-7345

DESIGNER:
DWG BY: IV
DATE: 5/2/25
SCALE: 1" = 20'
ROC# 25648 - B-5

N

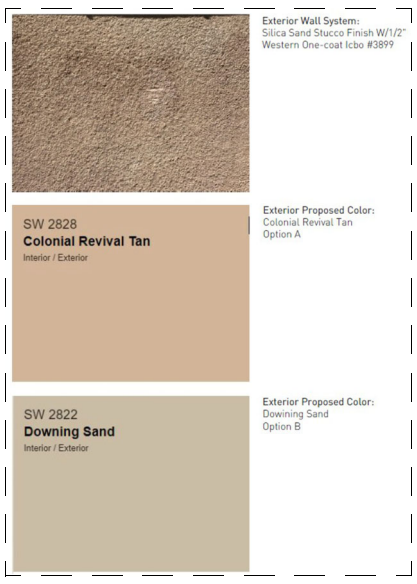
Pool wall & gate Elevation



SCALE 1/8" = 1' - 0"

Aerial Image

SCALE 1" = 40' - 0"



Materials to be used on Pool Wall & Gate

SCALE NOT TO SCALE

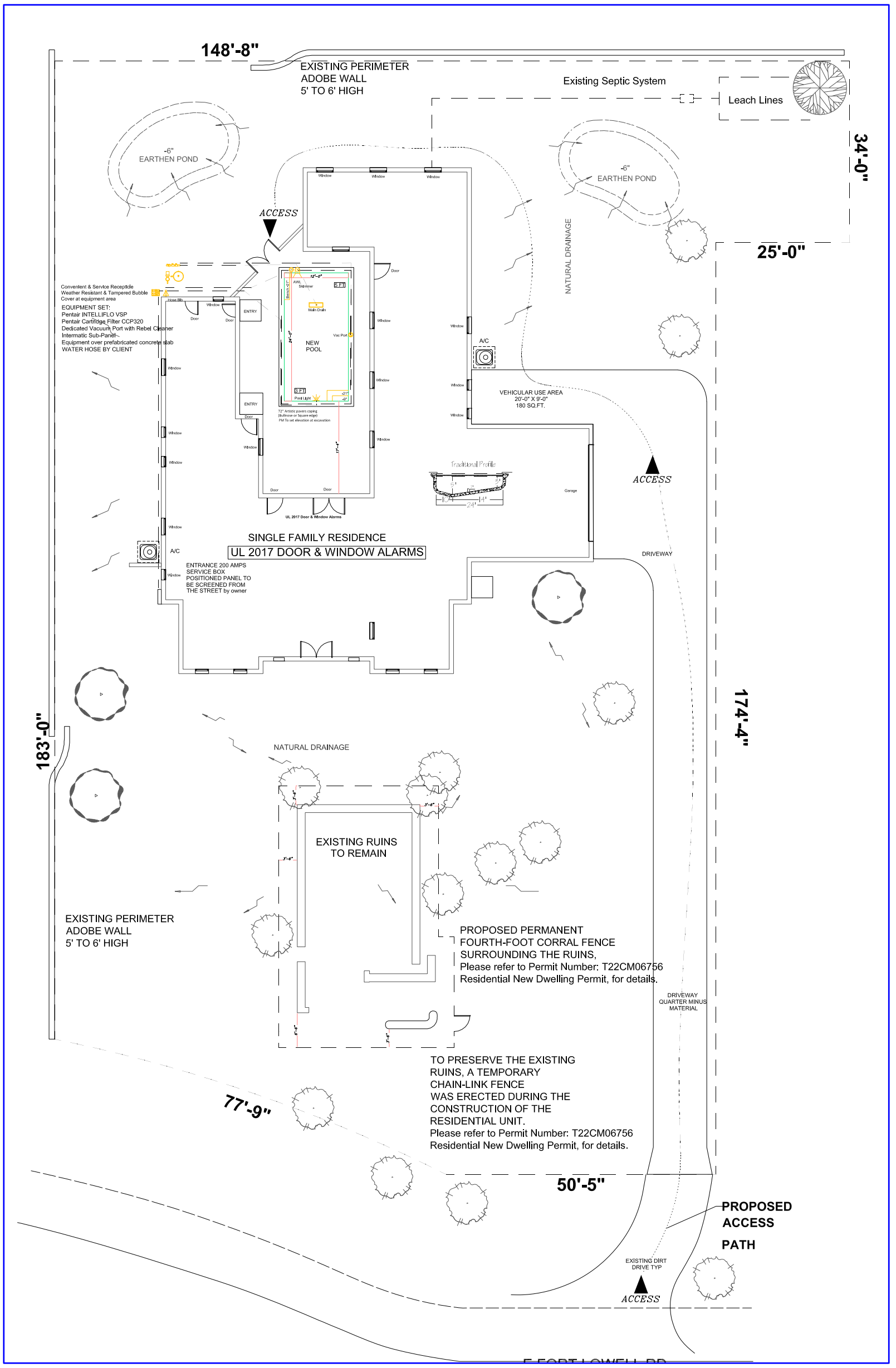
1	CONSTRUCTION PLAN
2	SITE PLAN

PIMA POOL PLASTERING
2665 E GINTER RD.
TUCSON, AZ 85706
OFF: (520) 807-7754
MOBILE: (520) 633-7423

KMS ENTERPRISES LLC
5259 E FORT LOWELL RD
TUCSON, AZ 85712
520-312-7345

DESIGNER:
DWG BY: IV
DATE: 5/2/25
SCALE: As indicated
ROC# 25648 - B-5

N



PLANT SCHEDULE			
Trees	Botanical Common Name	Size	Qty
	ELDARICA PINE / AFGHAN PINE	Varies	1
	PROSOPIS JULIFLORA / MESQUITE	Varies	14
	PARKINSONIA ACULEATA / PALO VERDE	Varies	2

PLANT SCHEDULE, NATURAL DRAINAGE & EARTHEN POND

SCALE 1" = 20'

1	CONSTRUCTION PLAN
2	SITE PLAN

PIMA POOL PLASTERING
2665 E GINTER RD.
TUCSON, AZ 85706
OFF: (520) 807-7754
MOBILE: (520) 633-7423

KMS ENTERPRISES LLC
5259 E FORT LOWELL RD
TUCSON, AZ 85712
520-312-7345

DESIGNER:
DWG BY: IV
DATE: 5/2/25
SCALE: As indicated
ROC# 25648 - B-5

N

1 CONSTRUCTION PLAN
PAGE 1 OF 1

Name: KMS ENTERPRISES LLC (Caelin Norgord)
Address: 5259 E Fort Lowell Rd
City: Tucson, AZ Zip: 85712
Cell #: 520-312-7345
Email: caelin765@gmail.com

EXCAVATION
Access: Standard Excavation

POOL SPECIFICATIONS:
Perimeter: 72' Surface Area: 288' SF
Depth: 3'-4'-5'
Elevation: 0' Set by PM at Job Site

EQUIPMENT
Pump: Pentair Intelliflo Var 3HP Filter: 320 Cartridge
Blower: No Heater: No
Gas Line: No
Gas Line: No
Cleaning System: Rebel with dedicated Vacuum Line

Pool PLUMBING
Main Drain: Channel Drain Run: 44' x 2"
Trunk Line: Run: 66' x 2"
Skimmer: Run: 33' x 2"
Returns: (3) Run: 110' x 1-1/2"
Vac Port: Run: 48' x 2"
AWL: Yes Run: 27' x 3/4"
Sanitation: Floating Chlorinator

ELECTRIC
Main Panel: 200 AMP Run: 55' x 1"
Sub Panel: (Yes) Intermatic T21004R
Pool Light: LED White Run: 58' x 1"

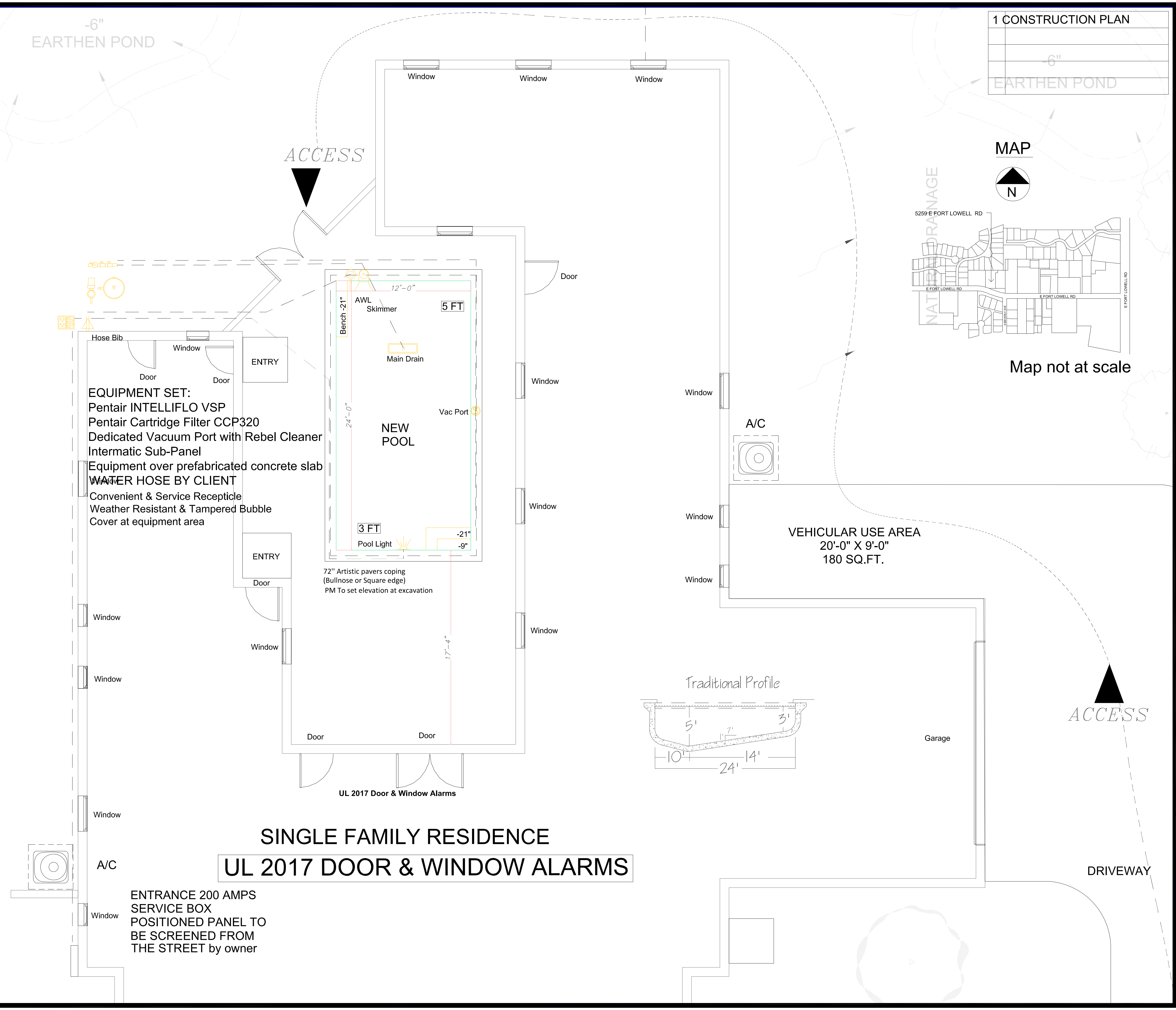
DECKING
Cantilever: 72' LF
Deck Type: Coping edge Artistic Pavers
Deck Qty: TBD Color: TBD
Deck Drain: TBD

SHOTCRETE
Lagoon: No
Steps: Yes, 9' LF

SHOTCRETE SPA
Bench: Yes Steps: Conventional

TILE
Pool: 72' LF Choice: TBD
Accent Tile Choice: TBD

Interior Finish
Interior Finish: Standard White Color: White



EQUIPMENT SET:
Pentair INTELLIFLO VSP
Pentair Cartridge Filter CCP320
Dedicated Vacuum Port with Rebel Cleaner
Intermatic Sub-Panel
Equipment over prefabricated concrete slab
WATER HOSE BY CLIENT
Convenient & Service Recepticle
Weather Resistant & Tampered Bubble
Cover at equipment area

72" Artistic pavers coping
(Bullnose or Square edge)
PM To set elevation at excavation

VEHICULAR USE AREA
20'-0" X 9'-0"
180 SQ.FT.

ENTRANCE 200 AMPS
SERVICE BOX
POSITIONED PANEL TO
BE SCREENED FROM
THE STREET by owner

SINGLE FAMILY RESIDENCE
UL 2017 DOOR & WINDOW ALARMS

N

DESIGNER:
DWG BY: IV
DATE: 5/2/25
SCALE: 1/8" = 1'-0"
ROC# 25648 - B-5

KMS ENTERPRISES LLC
5259 E FORT LOWELL RD
TUCSON, AZ 85712
520-312-7345

PIMA POOL PLASTERING
2665 E GINTER RD.
TUCSON, AZ 85706
OFF: (520) 807-7754
MOBILE: (520) 633-7423

AMMTEC CONSULTANTS, PLLC

CONSULTING ENGINEERING SERVICES

January 21, 2025

City of Tucson
Development Services Department
201 N. Stone Ave., 1st Floor
Tucson, AZ

SUBJECT: KMS Enterprises LLC Residence Pool
5259 E Fort Lowell Rd.
City of Tucson, AZ

RE: Model Plan No. IBC 2018

To Whom It May Concern:

AMMTEC Consultants, PLLC. (AMMTEC) grants permission to Pima Pool & Plastering for use of the AMMTec Arizona Standard Gunite & Reinforcement Detail Plan IBC 2018 submitted to the City of Tucson Development Services Department. This plan may be used for the KMS Enterprises LLC Residence Pool, at 5259 E Fort Lowell Rd. only. For construction purposes, Soil Column A of the Arizona Standard Gunite & Reinforcement Detail Plan may be used. However, it is the responsibility of the permittee to inform our firm should soil types differ from normal soils as presented in I.B.C. 2018.

- Detail N (Typical Bond Beam)
- Detail O (Light Niche)
- Detail T (SPA)
- Detail X (Raised Bond Beam)
- Detail R (Carved Rock)
- Detail S (Skimmer)
- Detail Y (Negative Edge Detail)

This letter authorizes use of the above details **ONLY** as presented on the plan.

If you have any questions, please contact AMMTEC at 480-927-9696. This letter is required to be on-site at all times during construction.

Sincerely,

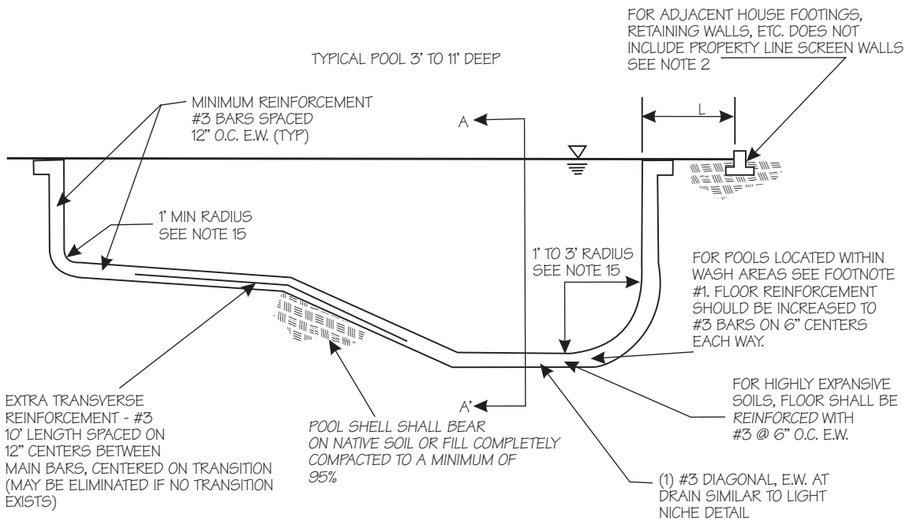
AMMTEC CONSULTANTS

Registered Professional Engineer (Civil)
CERTIFICATE NO.
30895
ALAN E.
MONEY
DATE SIGNED
Jan 21 2025
ARIZONA U.S.A.
Expires 12/31/26

Alan E. Money, PE
Senior Engineer

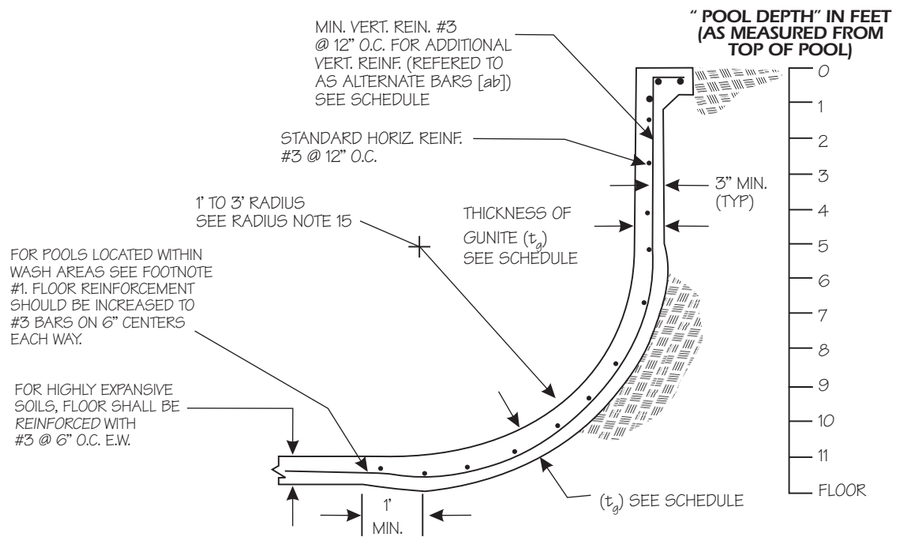
DETAIL A - TYPICAL POOL SECTION

NOTE: ALL POOL, SPA, AND WATER FEATURES SHALL BE BUILT ON FIRM UNDISTURBED NATIVE SOIL OR ENGINEERED FILL COMPACTED TO A MINIMUM OF 95% MAX. DENSITY AS DETERMINED BY ASTM D698



LONGITUDINAL SECTION

NOT TO SCALE



SECTION A-A' DETAIL

NOT TO SCALE

REINFORCEMENT AND GUNITE THICKNESS SCHEDULE

Column	5-A		5-B		5-C		6-A		6-B		6-C		7-A		7-B		7-C		8-A		8-B		8-C		9-A		9-B		9-C		
Soil Category	A'_1		B'_2		C'_3		A'_1		B'_2		C'_3		A'_1		B'_2		C'_3		A'_1		B'_2		C'_3		A'_1		B'_2		C'_3		
Pool Depth	5.0 ft.		5.0 ft.		5.0 ft.		6.0 ft.		6.0 ft.		6.0 ft.		7.0 ft.		7.0 ft.		7.0 ft.		8.0 ft.		8.0 ft.		8.0 ft.		9.0 ft.		9.0 ft.		9.0 ft.		
Depth (ft)	ab_4	tg_4	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	Depth (ft)
0.0	0	6	0	6	1	6	0	6	0	6	1	6	0	6	0	6	1	6	0	6	0	6	1	7	0	7	0	7	1	7	0.0
0.5																															0.5
1.0																															1.0
1.5																															1.5
2.0																															2.0
2.5																															2.5
3.0									0				0		0		1		0		0		1		0		0		1		3.0
3.5				6					1				1		1		2		1		1		2		1		1		2		3.5
4.0				7																											4.0
4.5				7							6				6																4.5
5.0	0	6	0	7	1	6					7				7						6					7					5.0
5.5											7				7		7				1	7				8	1		7		5.5
6.0							0	6	1	6	7				8		7			7	2		7			7	2	7		8	6.0
6.5															8		8									8		8		9	6.5
7.0													1	6	1	8	2	8				7		9		8		9		10	7.0
7.5																						8		9		9		9		11*	7.5
8.0																			1	7	2	8	2	9		9		9		11*	8.0
8.5																										9		10		11*	8.5
9.0																									1	9	2	10	2	11*	9.0
floor	0	6	0	6	1_6	7	0	6	1_6	6	1_6	7	1_6	6	1_6	6	2_7	7	1_6	6	2_7	6	2_7	7	2^7	6	2_7	7	2_7	7	

Column	10-A		10-B		10-C		11-A		11-B		11-C		FREESTANDING WALL (Both Normal and Expansive Soil)[14]																		Column
													H			I			J			K			L			M			Freestanding Depth
Soil Category	A'_1		B'_2		C'_3		A'_1		B'_2		C'_3																				
Pool Depth	10.0 ft.		10.0 ft.		10.0 ft.		11.0 ft.		11.0 ft.		11.0 ft.		H = 2.0 ft.			H = 3.0 ft.			H = 4.0 ft.			H = 5.0 ft.			H = 6.0 ft.			H = 7.0 ft.			
Depth (ft)	ab^4	tg^4	ab	tg	ab	tg	ab	tg	ab	tg	ab	tg	ab	T_1	T_2	ab	T_1	T_2	ab	T_1	T_2	ab	T_1	T_2	ab	T_1	T_2	ab	T_1	T_2	Depth (ft)
0.0	0	7	0	7	1	7	0	7	0	7	1	7	0	3	4	0	3	4	0	3	4	0	3	4	0	3	4	0	3	4	0.0
0.5																															0.5
1.0																															1.0
1.5																															1.5
2.0																															2.0
2.5																															2.5
3.0	0		0		1		0		0		1		1			1			1			2			2			2			3.0
3.5	1		1		2		1		1		2										4			4			4			3.5
4.0														3							5			5			5			4.0
4.5														4													5			4.5
5.0																											5			5.0
5.5						7				7		2					3									5	6			6	5.5
6.0	1		1			8	1		1	8	2	7					4			1			2			6	7			7	6.0
6.5	2		2		7	9	2		2	9	5	8									3			3		7	8			8	6.5
7.0		7		7	8	10				10		8									4			4		8	9			9	7.0
7.5		8		8	9	11*		7		11*		9														9				10	7.5
8.0		8		10	11*	11*		8		11*		9	1	4	4	1	4	4	1	4	4	1	4	4	2	9		2	3	11*	8.0
8.5		9		11*	11*	11*		9		11*		10																			8.5
9.0		9		11*		12*		10	2	12*		10																			9.0
9.5				12*		12*		11*	3	12*		11*																			9.5
10.0	2	9	2	12*	3	12*		11*		12*		12*																			10.0
10.5								11*		12*		12*																			10.5
11.0							2	11*	3	12*	5	12*																			11.0
floor	2_7	7	2_7	7	3_8	8	2_7	7	2_7	7	5_9	9	1_6	3	3	1_6	3	3	1_6	3	3	2_7	3	3	2_7	3	3	2_7	3	4	floor

*-Where wall thickness exceeds 10", a second "curtian of reinforcement consisting of #3 @ 12" O.C. Each way should be placed @ 3" from waterside face of gunite

ARIZONA STANDARD GUNITE & REINFORCEMENT DETAIL PLAN

DESIGNED BY: AEM

REVIEWED BY: MK

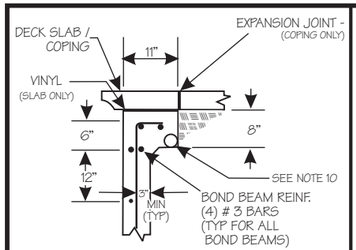
DATE: 09/30/2018 REVISED 09/30/2018

PLAN IBC 2018AZ DRAWING # 1 OF 1

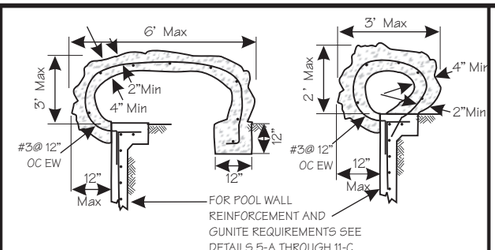
AMMTEC PLLC CONSULTANTS
2447 West 12th Street
Ste #1
Tempe, Arizona 85281
Ph:(480) 927-9696
Fax:(480) 927-9797
ammtec@ammtec.com

Registered Professional Engineer (Civil)
CERTIFICATE NO.
30895
ALAN E.
MONEY
Date SIGNED Jan 04, 2024
ARIZONA U.S.A.
Expires 12/31/26

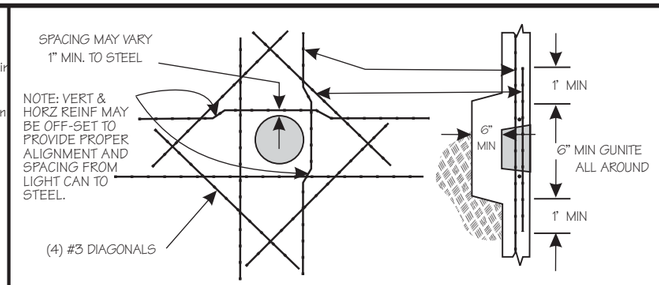
PLAN NOT VALID UNLESS BEARING ORIGINAL STAMP AND SIGNATURE OR COPIES INCLUDING MUNICIPALITY APPROVAL STAMP AND NUMBER



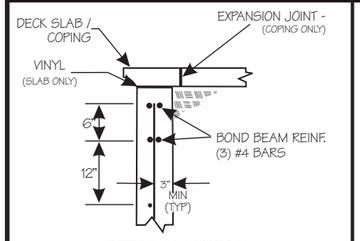
DETAIL N: TYPICAL BOND BEAM CANTILEVER DECK OR COPING
NOT TO SCALE



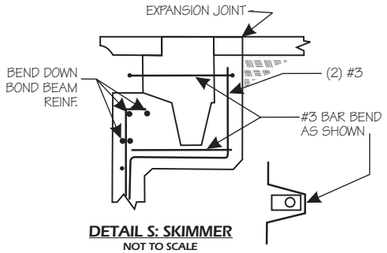
DETAIL R: CARVED - ROCK ON BOND BEAM
NOT TO SCALE



DETAIL Q : LIGHT NICHE
NOT TO SCALE



DETAIL V: MINIMAL BOND BEAM
NOT TO SCALE
(SEE NOTE 21 FOR APPLICATION)

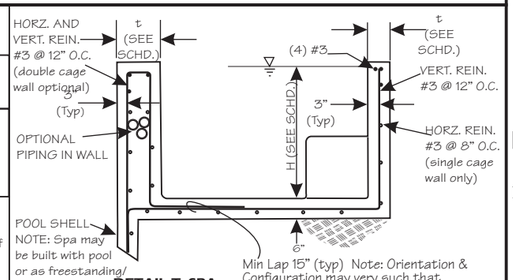


DETAIL S: SKIMMER
NOT TO SCALE

SPA WALL SCHEDULE

DEPTH OF WATER (H) FEET	SHOTCRETE THICKNESS T INCHES
3.0	6
3.5	6
4.0	8
4.5	10
5.0	10

NOTE:
* Vertical Reinf #3 @ 12" O.C.
* Greater wall thickness (T) or double curtain reinf may be used if required for aesthetics or plumbing.
* Double curtain reinf required for above grade walls exceeding 10 inch thickness.



DETAIL T: SPA
NOT TO SCALE

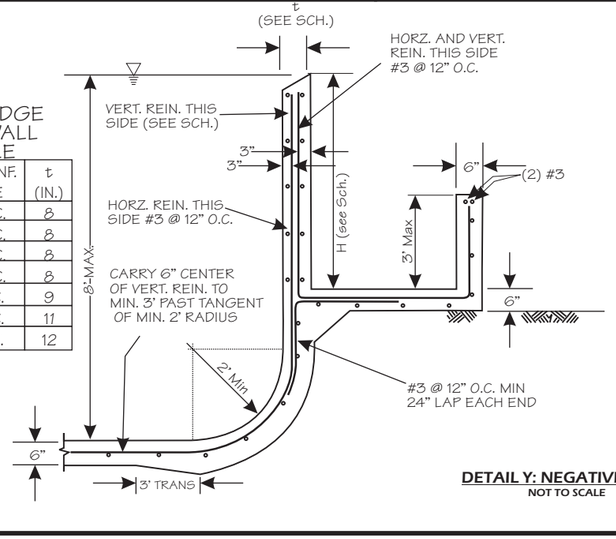
DETAIL U: FREESTANDING WALL
NOT TO SCALE

DETAIL P: PILASTER
NOT TO SCALE

DETAIL W: RAISED NOTCHED BOND BEAM (ROCK) & WATERFALL SLAB (EITHER RAISED OR AT GRADE
NOT TO SCALE

NEGATIVE EDGE VERTICAL WALL SCHEDULE

H (FT)	VERTICAL REINF. WATER SIDE	t (IN.)
2.0	#3 @ 12" O.C.	8
3.0	#3 @ 12" O.C.	8
4.0	#3 @ 12" O.C.	8
5.0	#3 @ 12" O.C.	8
6.0	#3 @ 6" O.C.	9
7.0	#3 @ 6" O.C.	11
8.0	#3 @ 4" O.C.	12



DETAIL Y: NEGATIVE EDGE
NOT TO SCALE

NOTE: 1. Raised Bond Beam applicable to installation of sheer decent.
2. Drainage gravel and piping not required for raised bond beam up to 24 inches.

DETAIL X: RAISED BOND BEAM
NOT TO SCALE

FOOTNOTES TO REINFORCEMENT & GUNITE SCHEDULE

1. Soil category A considered normal soil GP, GW, SP, SW. Assumed to have the following properties: Unit Weight = 120 PCF As classified by 2018 IBC Table 1610.1
2. Soil Category B considered expansive soil SM, SC, ML, CL or normal soil with a 2:1 (H:V) slope. Assumed to have the following properties: Unit Weight = 125 PCF As classified by 2018 IBC Table 1610.1
3. Soil Category C considered critically expansive soil or expansive soil with a 2:1 slope. Assumed to have the following properties: Unit Weight = 125 PCF As classified by 2018 IBC Table 1610.1
4. ab, Alternate Bars (# of vertical alternate reinforcing bars in addition to #3 @ 12" o.c.)
5. tg, Thickness of Gunite (minimum gunite thickness, inches).
6. Continue alternate reinforcement 1.0 ft. past end of radius into pool floor.
7. Continue alternate reinforcement 2.0 ft. past end of radius into pool floor.
8. Continue alternate reinforcement 3.0 ft. past end of radius into pool floor.
9. Continue alternate reinforcement 4.0 ft. past end of radius into pool floor.
10. Site Conditions that require the use of a freestanding wall usually involve construction of the pool on or near a slope. If the toe of the freestanding wall is within 10 feet of a slope greater than 5:1 (horizontal to vertical) or if the excavation for the pool is not carried through the generally looser surface soils, the engineer should be contacted to determine in writing if a site specific soil investigation is warranted.

GENERAL NOTES

1 Soil category A soil. Non expansive soils assumed to have the following properties:
Equivalent fluid pressure= 30 pounds per square foot (PSF) Unit Weight = 120 PCF
Soil Category B. Expansive soils assumed to have the following properties:
Equivalent fluid pressure = 45 PSF Unit Weight = 125 PCF
Soil Category C. Highly expansive soil assumed to have the following properties:
Equivalent fluid pressure = 60 PSF Unit Weight = 125 PCF

2 For the following adjacent structure: footing distance for a one or two story structure (L) away from pool edge, add the indicated "surcharge" to the EFP when determining additional reinforcement and gunite requirements from the above schedule: (Applies to footings which run parallel to pool wall) (Does not apply to non-retaining screen walls)
L=0 to 1.9 ft., check w/ engineer, may require special engineering
L=2.0 to 4.9 ft., add 30 PSF to EFP
L=5.0 to 7.0 ft., add 15 PSF to EFP

3 Gunite shall be proportioned and placed according to IBC 2018 & ACI 506. Cement to aggregate, in dry weight, shall not be less than five to one.

4 Design based on 28 day compressive strength of 2,500 psi. Type V cement only. If water soluble sulfate in soil is less than 0.10% by weight, then min. 2,500 psi gunite can be used.

5 Reinforcement steel shall meet ASTM A615-40. Lap splices shall be at least 40 bar diameters. All bends shall be sharp. IBC 2018 shall be used as a guideline.

6 Rebar placement should be such that the distance from the inside grout face to rebar should be a minimum of "tg" minus 3 inches.

7 1 (one) alternate #4 bar may be substituted for 2 alternate #3 bars.

8 For areas where a ramp has been excavated and backfill is not compacted to a minimum of 95 percent of the maximum dry density of the ASTM D698 Compaction Test. Reinforcement should consist of #3 bars at 6 inch centers, each way (both horizontal and vertical). The extra horizontal reinforcement should extend a minimum of 3 feet past the edge of the ramp excavation on either side. Minimum cover of gunite over the reinforcement on the outside of the pool should be increased from 3 to 4 inches.

9 A pressure relief valve shall be installed in pools located in areas where the ground water table or potential perched water intersects the pool during any period of any given year.

10 Up to 2 inch diameter pipe may be placed in the lower outside corner of the bond beam provided a minimum clearance equal to 0.75 times the nominal maximum aggregate size (i.e., 1/4 inch for gunite and/or shotcrete) is maintained between the pipe and any parallel reinforcement per IBC 2018. If metal piping is used and is placed in gunite, it shall be wrapped with visqueen or heavy brown paper, except where it passes perpendicularly through the gunite.

11 Soil shall have minimum bearing value of 1,500 psf.

12 Gunite shall be placed on or against firm undisturbed soil.

13 If expansive soils (clays) are encountered, the sides and bottom of the pool excavation must be in moist condition immediately prior to placement of gunite.

14 If slopes are greater than 2:1 or if slopes are encountered in expansive soils with raised bond beams, the engineer should be contacted before proceeding.

15 Minimum radius for wall to floor transition for straight walls is as follows:

Depth, ft.	Min. Radius, ft.	Depth, ft.	Min. Radius, ft.
5.0	1.0	7.0	2.0
6.0	2.0	8.0+	3.0

16 All electrical shall be securely grounded before gunite is placed.

17 All applicable state and local laws and codes shall be followed.

18 Any condition not specifically covered in this plan or unusual conditions encountered during excavation shall be brought to the attention of the engineer before proceeding.

19 If the raised bond beam portion exceeds 2.0 ft. and serves as a retaining wall for soil, the raised portion should have wall drainage installed as shown to prevent build-up of hydrostatic pressures.

20 If free standing wall detail is used due to the presence of loose fill soil on the outside of the wall, then inside thickness of gunite (T) should be as indicated in the above "REINFORCEMENT AND GUNITE THICKNESS SCHEDULE." minus 3.0 inches.

21 Minimal Bond Beam may be used with sand, gravel or rock soil conditions only.

22 For pools in excess of 50 feet and up to 75 feet, add longitudinal rebar at 6 inches O.C.

23 Max spa length 30 feet.

24 Pool shall be maintained full of water except during change of water or similar short term maintenance activities.

25 PLAN IN COMPLIANCE WITH IBC 2018.

Registered Professional Engineer (Civil)
CERTIFICATE NO.
30895
ALAN E.
MONEY
Jan 04, 2024
DATE SIGNED
ARIZONA U.S.A.
Expires 12/31/26