

Drawing: N:_ODE\Modesto\069905.00 Los Banos PD Gun Range\landscape\ConstPlans\69905.00 GR.dwg Pld Date Time: 7/29/2023 4:49 PM Last Saved by: Msamirra



GRADING LEGEND

- FS XX.XX PROPOSED ELEVATION
--- GRADE BREAK/RIDGE LINE
+ + MATCH GRADE/FLUSH
X% SURFACE SLOPE DIRECTION
⊙ ROCKWELL DRAIN

ABBREVIATIONS

- AC ASPHALTIC CONCRETE (ASPHALT)
BF BOTTOM OF WOOD FIBER
BR BOTTOM OF RAMP
BW BOTTOM OF WALL
DI DRAIN INLET
EP EDGE OF PAVEMENT
EX EXISTING
FFE FINISH FLOOR ELEVATION
FG FINISH GRADE
FL FLOW LINE
FS FINISH SURFACE
FSS FINISH SUB-SURFACE
GB GRADE BREAK
HP HIGH POINT
INV INVERT
PC PLAY CURB (TOP OF)
RS RUBBER SURFACING (TOP OF POUR-IN-PLACE)
TC TOP OF CURB
TCB TOP OF CONCRETE BAND
TDS TOP OF DRINKING FOUNTAIN SUMP
TP TOP OF PAVEMENT (STANDARD OR PERVIOUS)
TR TOP OF RAMP
TM TOP OF RUBBER MULCH
TPS TOP OF PLAY AREA SUMP
TST TOP OF SYNTHETIC TURF
TW TOP OF WALL
TWf TOP OF WALL FOOTING
VIF VERIFY IN FIELD

Westwood

Westwood Professional Services, Inc.

165 SCENE DRIVE, SUITE A

MODESTO, CA 95330

T: 209.571.765

westwoodps.com

BY

DATE

DESCRIPTION

NO.

GRADING PLAN

LOS BANOS POLICE DEPARTMENT GUN RANGE

LOS BANOS, CALIFORNIA

DATE: 07/17/2026

DRAFTER: AO

DESIGNER: AO

CHECKED: TF

PROJECT NO. 69905

LICENSED LANDSCAPE ARCHITECT

ALTER D. FAY

Signature

04/2023

Renewal Date 07/17/2026

State of California

SHEET NO. L1.0

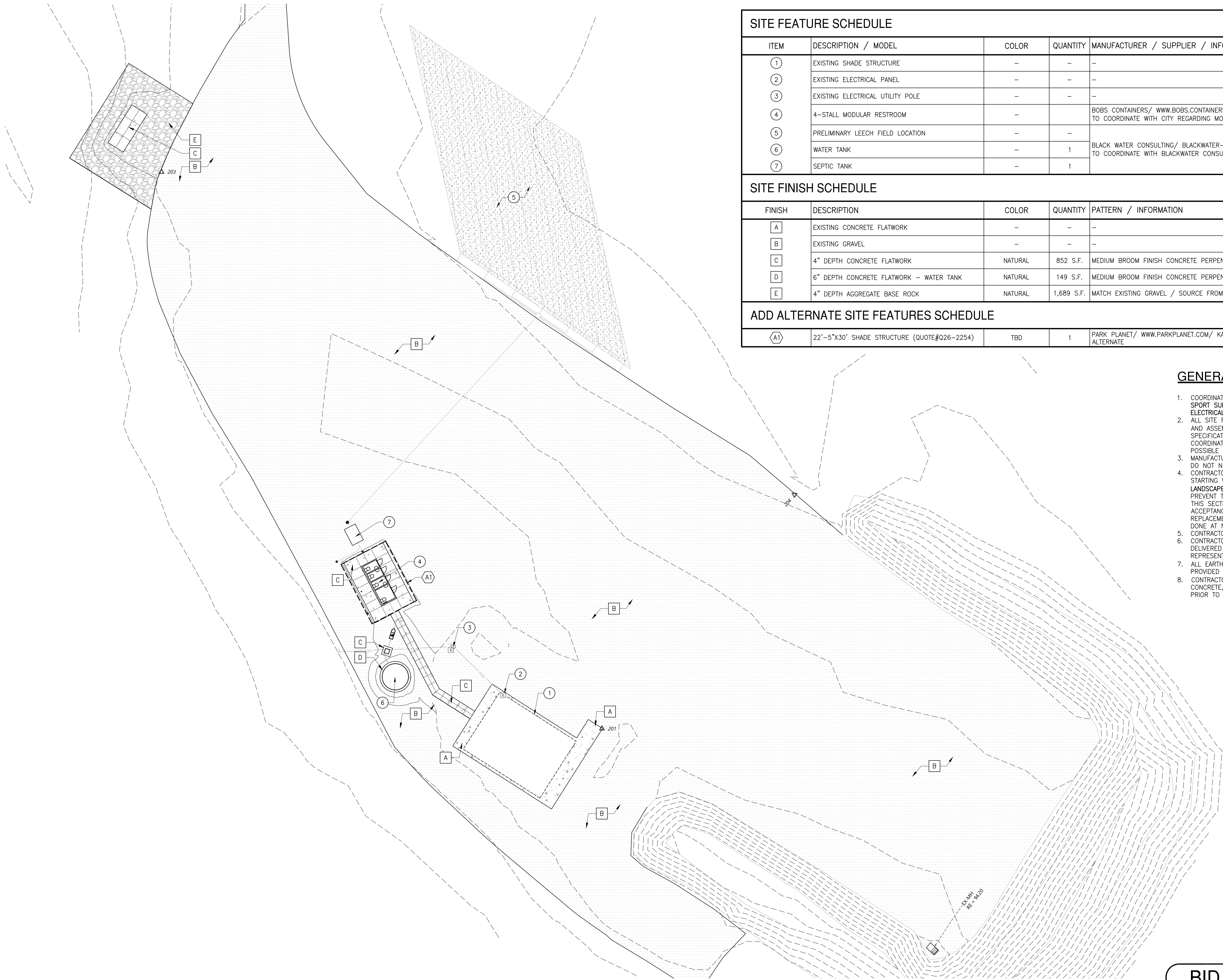
OF 13

811

Know what's below.

Call before you dig.

Drawing: N:_ODE\Modesto\069905.00 Los Banos PD Gun Range\landscape\ConstPlans\69905.00 SF.dwg Plot Date/Time: 7/29/2026 4:48 PM Last Saved by: ADea



SITE FEATURE SCHEDULE					
ITEM	DESCRIPTION / MODEL	COLOR	QUANTITY	MANUFACTURER / SUPPLIER / INFORMATION	DET REF.
①	EXISTING SHADE STRUCTURE	-	-	-	-
②	EXISTING ELECTRICAL PANEL	-	-	-	-
③	EXISTING ELECTRICAL UTILITY POLE	-	-	-	-
④	4-STALL MODULAR RESTROOM	-		BOBS CONTAINERS/ WWW.BOBS.CONTAINERS.COM / PH: (833) 265-3269 / CONTRACTOR TO COORDINATE WITH CITY REGARDING MODEL# AND SPECIFICATIONS.	5/L4.0
⑤	PRELIMINARY LEECH FIELD LOCATION	-	-		-
⑥	WATER TANK	-	1	BLACK WATER CONSULTING/ BLACKWATER-ENG.COM/ PH: (209) 733-0555/ CONTRACTOR TO COORDINATE WITH BLACKWATER CONSULTING REGARDING MODEL# AND SPECIFICATIONS.	-
⑦	SEPTIC TANK	-	1		-

SITE FINISH SCHEDULE					
FINISH	DESCRIPTION	COLOR	QUANTITY	PATTERN / INFORMATION	DET REF.
A	EXISTING CONCRETE FLATWORK	-	-	-	-
B	EXISTING GRAVEL	-	-	-	-
C	4" DEPTH CONCRETE FLATWORK	NATURAL	852 S.F.	MEDIUM BROOM FINISH CONCRETE PERPENDICULAR TO PATH OF TRAVEL	1&3/L4.0
D	6" DEPTH CONCRETE FLATWORK - WATER TANK	NATURAL	149 S.F.	MEDIUM BROOM FINISH CONCRETE PERPENDICULAR TO PATH OF TRAVEL	2&3/L4.0
E	4" DEPTH AGGREGATE BASE ROCK	NATURAL	1,689 S.F.	MATCH EXISTING GRAVEL / SOURCE FROM LOCAL SUPPLIERS.	4/L4.0

ADD ALTERNATE SITE FEATURES SCHEDULE					
A1	22'-5"X30' SHADE STRUCTURE (QUOTE#Q26-2254)	TBD	1	PARK PLANET/ WWW.PARKPLANET.COM/ KASANNA COULTER/ PH: (559) 341-5768 /ADD ALTERNATE	6/L4.0

GENERAL NOTES

- COORDINATE INSTALLATION OF SITE FURNISHINGS, STRUCTURES, AND SPORT SURFACING WITH OTHER WORK OF GRADING, CONCRETE, AND ELECTRICAL.
- ALL SITE FURNISHINGS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS, AND ASSEMBLED AND INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS. SITE FURNISHING INSTALLATION SCHEDULE SHALL BE COORDINATED WITH OTHER CONTRACTORS TO AVOID CONFLICT AND POSSIBLE DAMAGE.
- MANUFACTURER NAMED ITEMS ARE FOR STANDARD OF REFERENCE AND DO NOT NECESSARILY LIMIT SUPPLY TO NAMED MANUFACTURERS.
- CONTRACTOR SHALL EXAMINE RELATED WORK AND SURFACES BEFORE STARTING WORK OF THIS SECTION AND SHOULD REPORT TO THE LANDSCAPE ARCHITECT/CITY IN WRITING ANY CONDITIONS WHICH WILL PREVENT THE PROPER PROVISION OF WORK. BEGINNING THE WORK OF THIS SECTION WITHOUT REPORTING UNSUITABLE CONDITIONS CONSTITUTES ACCEPTANCE OF CONDITIONS. ANY REQUIRED REMOVAL, REPAIR OR REPLACEMENT OF WORK CAUSED BY UNSUITABLE CONDITIONS SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING.
- CONTRACTOR SHALL PROVIDE COMPACTION TESTINGS. REPORTS SHALL BE DELIVERED DIRECTLY FROM THE LAB TO THE OWNER OR OWNER REPRESENTATIVE.
- ALL EARTHWORK, GRADING AND SOIL DELIVERY/REMOVAL SHALL BE PROVIDED BY THE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE A 6'X6' POURED SAMPLE OF COLORED CONCRETE, FINISH AND JOINTING TO OWNER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

SITE FEATURES SCHEDULE, NOTES & PLAN

LOS BANOS POLICE DEPARTMENT GUN RANGE

LOS BANOS, CALIFORNIA

DATE: 07/17/2026

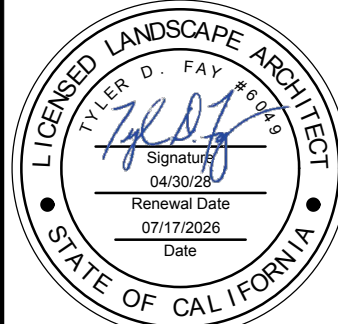
DRAFTER: AO

DESIGNER: AO

CHECKED: TF

PROJECT NO. 69905

SHEET NO. L2.0 OF 13



Westwood

Westwood Professional Services, Inc.

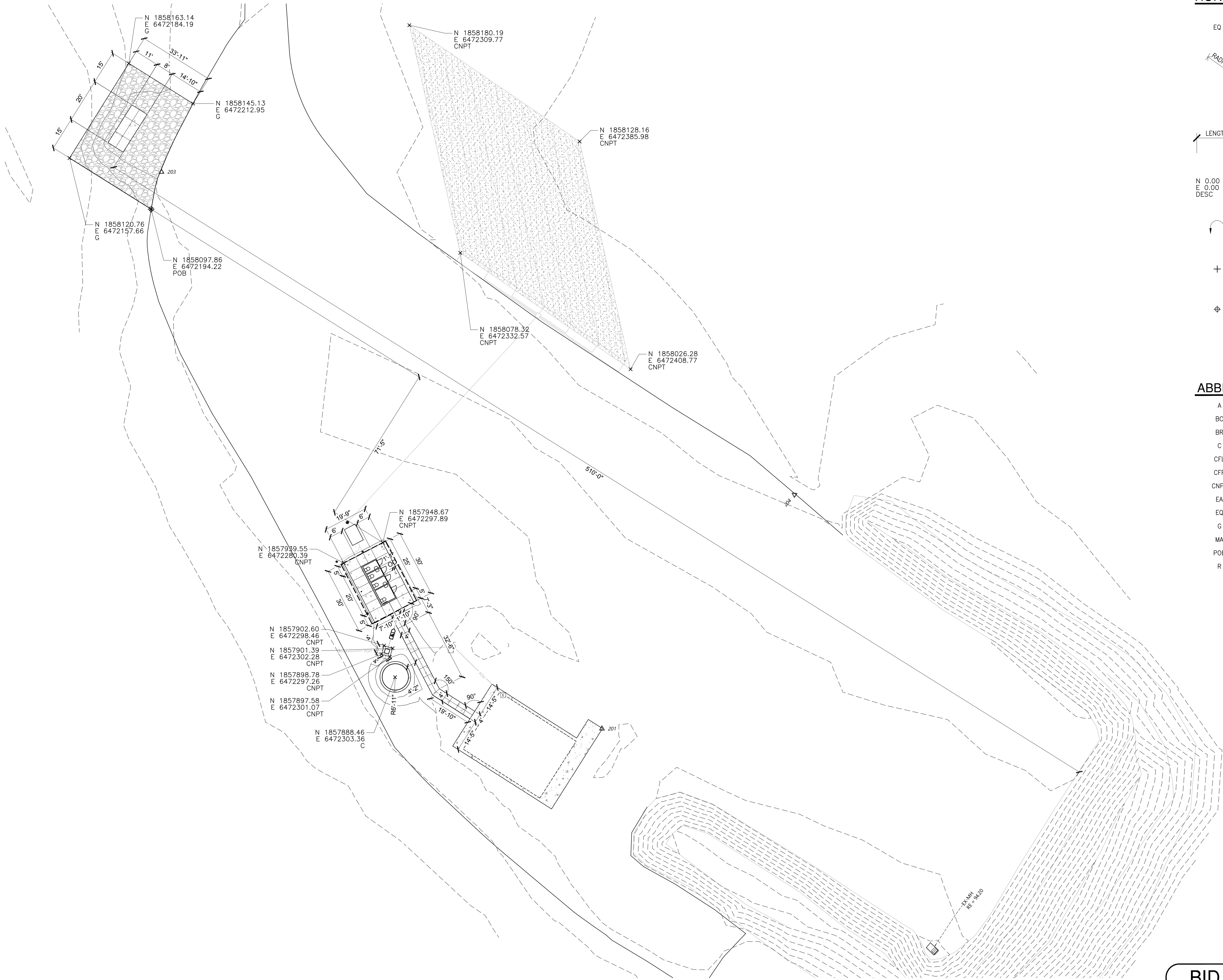
1165 SCENE DRIVE, SUITE A

MODESTO, CA 95330

T: 209.571.7165

westwoodps.com

Drawing: N:_ODE\Modesto\069905.00 Los Banos PD Gun Range\landscape\ConstPlans\69905.00 HG.dwg Plot Date/Time: 7/29/2026 4:50 PM Last Saved by: AOliva

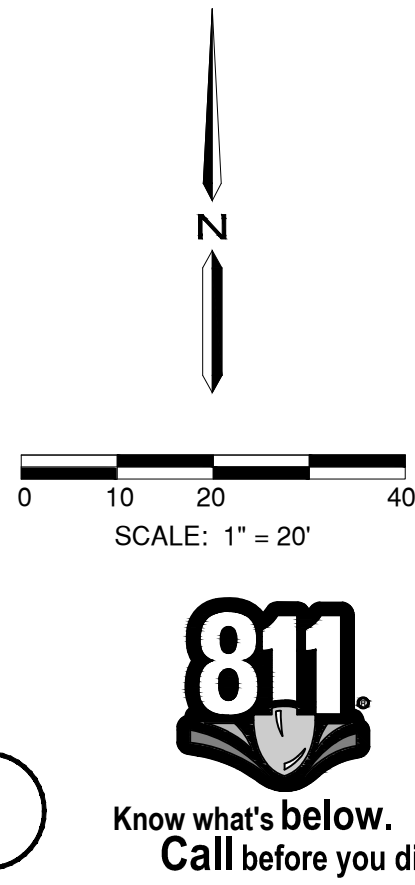


HORIZONTAL CONTROL LEGEND

- EQ EQUAL
- RADIUS ARC RADIUS, TYP.
- ANGLE
- LENGTH DIMENSION, TYP.
- N 0.00
E 0.00
DESC NORTHING
EASTING
DESCRIPTION
- ALIGN, TYP.
- ORIGIN OF RADIUS
- POINT OF BEGINNING

ABBREVIATIONS

- A ASPHALT
- BC BUILDING CORNER
- BR BOTTOM OF RAMP
- C CONCRETE
- CFL CENTER OF FENCE LINE
- CFP CENTER OF FENCE POST
- CNPT CONTROL POINT
- EA END OF ARC
- EQ EQUAL
- G GRAVEL
- MA MIDPOINT OF ARC
- POB POINT OF BEGINNING
- R RADIUS (CENTER)



BID SUBMITTAL

Westwood

Westwood Professional Services, Inc.

165 SCENE DRIVE, SUITE A

MODESTO, CA 95330

DATE

BY

DESCRIPTION

NO.

HORIZONTAL CONTROL PLAN

LOS BANOS POLICE DEPARTMENT GUN RANGE

LOS BANOS, CALIFORNIA

DATE: 07/17/2026

DRAFTER: AO

DESIGNER: AO

CHECKED: TF

PROJECT NO. 69905

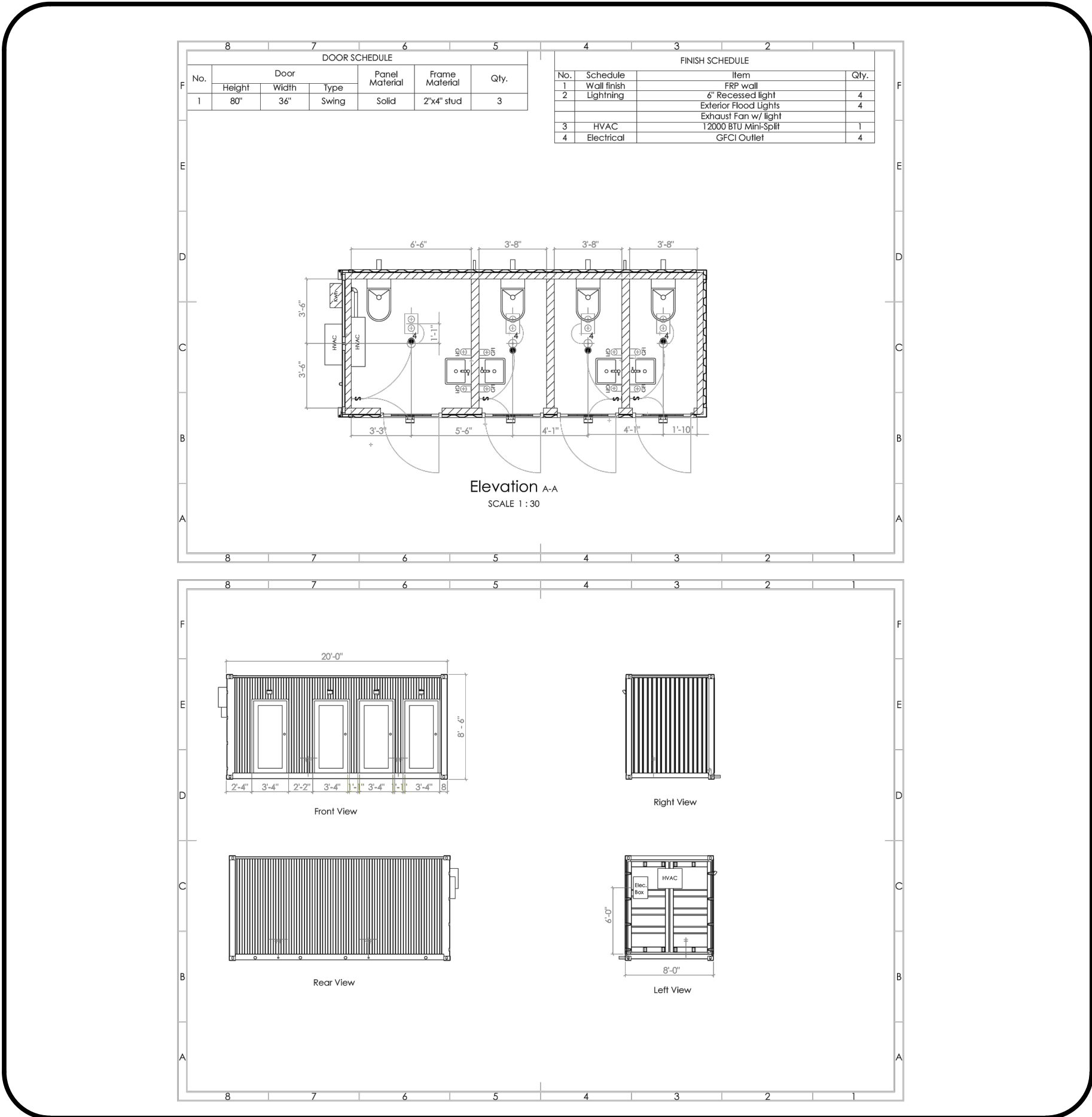
LICENSED LANDSCAPE ARCHITECT

STATE OF CALIFORNIA

RENEWAL DATE 07/17/2026

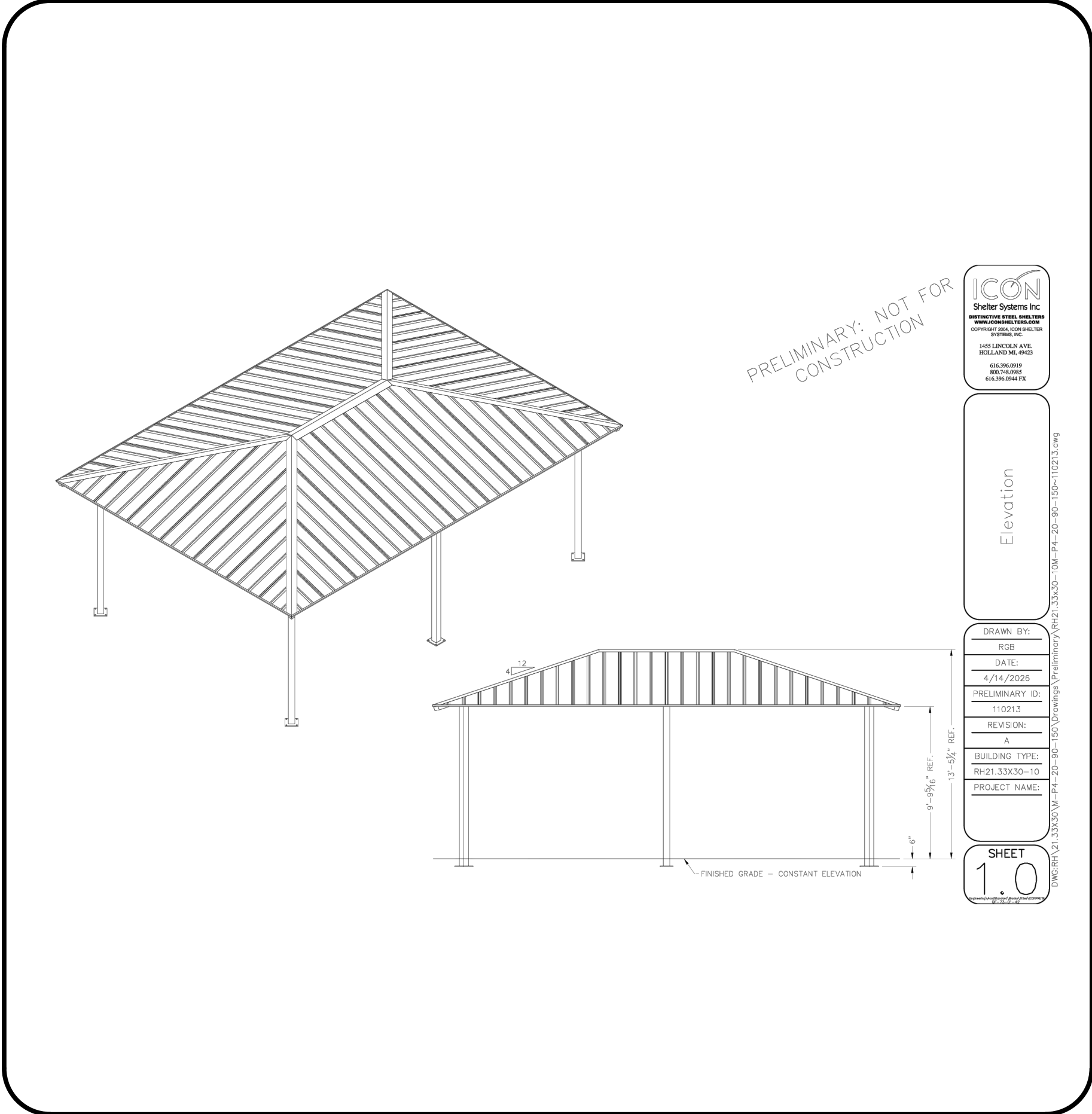
SHEET NO. L3.0 OF 13

Drawing: N:_ODE\Modesto\069905\00 Los Banos PD Gun Range\landscape\Const\Plans\69905.00.DT.dwg Plot Date/Time: 7/29/2026 4:59 PM Last Saved by: Meemampa



5 4-STALL MODULAR RESTROOM BUILDING (DEFERRED SUBMITTAL)

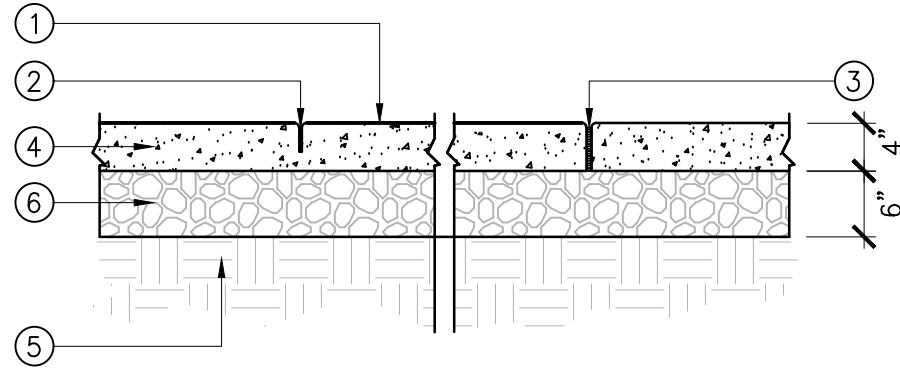
NOT TO SCALE



6 22'-5"X30' SHADE STRUCTURE (ADD ALTERNATE)

NOT TO SCALE

- 1 FINISH SURFACE OF CONCRETE
- 2 CONTROL JOINT. SEE DETAIL 4 ON THIS SHEET. (LOCATIONS PER PLAN)
- 3 EXPANSION JOINT. SEE DETAIL 4 ON THIS SHEET.
- 4 4" CONCRETE PAVING. PORTLAND CEMENT CONCRETE, 5 SACK CRUSHED AGGREGATE 3/4" @ 2500 PSI.
- 5 PROCESS AND PREPARE SUBGRADE. PER GEOTECHNICAL RECOMMENDATIONS
- 6 6" LAYER OF CLASS II AGGREGATE BASE, COMPACT PER GEOTECHNICAL RECOMMENDATIONS

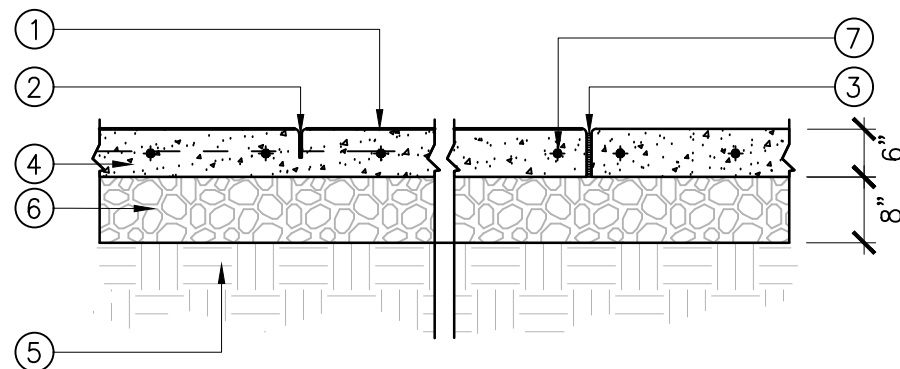


NOTES:
1. SEE SITE FEATURES SCHEDULE AND PLANS FOR CONCRETE COLOR & FINISH, SHEET L4.0.

1 4" DEPTH CONCRETE FLATWORK

NOT TO SCALE

- 1 FINISH SURFACE OF CONCRETE
- 2 CONTROL JOINT. SEE DETAIL 4 ON THIS SHEET. (LOCATIONS PER PLAN)
- 3 EXPANSION JOINT. SEE DETAIL 4 ON THIS SHEET.
- 4 6" CONCRETE PAVING. PORTLAND CEMENT CONCRETE, 5 SACK CRUSHED AGGREGATE 3/4" @ 4000 PSI.
- 5 PROCESS AND PREPARE SUBGRADE. PER GEOTECHNICAL RECOMMENDATIONS
- 6 8" LAYER OF CLASS II AGGREGATE BASE, COMPACT PER GEOTECH RECOMMENDATIONS.
- 7 #3 REBAR 16" O.C. MAX. EACH WAY NO CLOSER THAN 3" FROM EDGE OF CONCRETE. USE DOBIE TO KEEP REBAR IN-PLACE.



NOTES:
1. SEE SITE FEATURES SCHEDULE AND PLANS FOR CONCRETE COLOR & FINISH.

2 6" CONCRETE FLATWORK

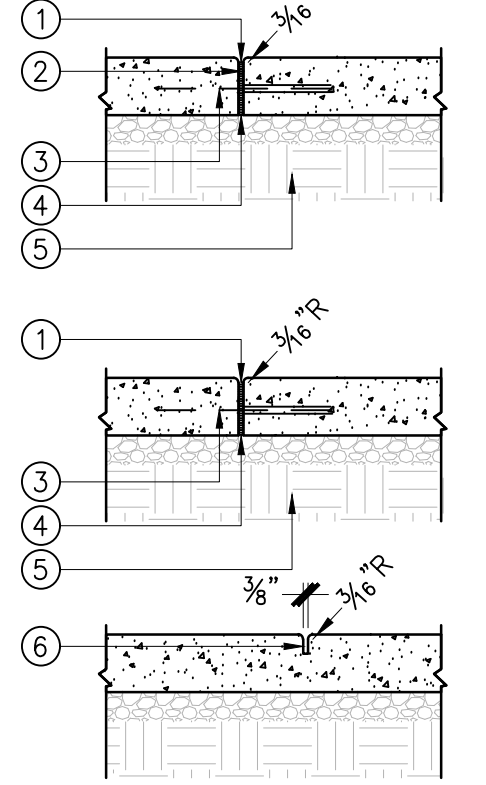
NOT TO SCALE

- 1 ELASTOMERIC SEALANT, MATCH TO COLOR OF CONCRETE SEE SPECIFICATIONS.
- 2 BACKER ROD
- 3 DOWEL, 1/2" DIA X 1'0" @ 2'0" O.C. GREASE SLEEVE ONE END.
- 4 3/8" ASPHALTIC IMPREGNATED EXPANSION JOINT
- 5 SEE DETAILS 1 & 2, THIS SHEET, FOR CONCRETE DEPTH AND SUB-GRADE PREPARATION.
- 6 TOOLED SCORE JOINT, 1/4" DEEP.

WATER TIGHT EXPANSION JOINT

EXPANSION JOINT

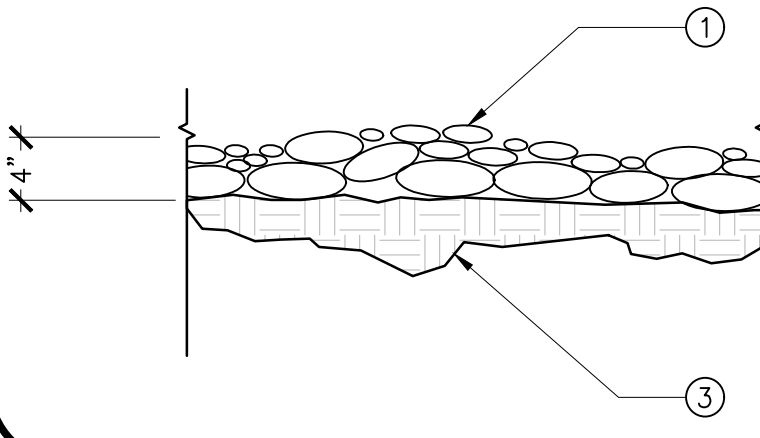
SCORE JOINT



3 EXPANSION JOINTS / SCORE JOINTS

NOT TO SCALE

- 1 AGGREGATE BASE: SEE SITE FEATURES LEGEND SHEET L2.0 FOR SIZE AND COLOR INFORMATION.
- 2 FINISH GRADE, 3" BELOW ADJACENT FLATWORK



4 AGGREGATE BASE INSTALLATION

NOT TO SCALE

BID SUBMITTAL



NO.	DESCRIPTION	DATE	BY

CONSTRUCTION DETAILS

LOS BANOS POLICE DEPARTMENT GUN RANGE

LOS BANOS, CALIFORNIA

DATE:	07/17/2026
DRAFTER:	AO
DESIGNER:	AO
CHECKED:	TF
PROJECT NO.	69905
SHEET NO.	L4.0
OF	13

Drawing: c:_ODE\Modeset\0069905-00 los banos pd gun mgngldwg\electrical\E100 Electrical Details.dwg Plot Date/Time: 7/17/2026 10:59 AM Last Saved by: ATreasher

ABBREVIATIONS					
A, AMP	AMPERE	HPC	HIGH PRESSURE CONTACT SWITCH	SWF	SWITCH - FUSED
AAT	AMBIENT AIR TEMPERATURE SENSOR	HPY	HORIZONTAL PYRANOMETER	SWG	SWITCHGEAR
ABAN	ABANDON	HZ	HERTZ	TC	TRACKER CONTROLLER
AC	ALTERNATING CURRENT	ID	INSIDE DIAMETER	TEL	TELEPHONE
AFCI	ARC FAULT CIRCUIT INTERRUPTER	IMC	INTERMEDIATE METALLIC CONDUIT	THS	THERMAL SENSOR
AHJ	AUTHORITY HAVING JURISDICTION	IN	INCH	TOS	TOP OF SLAB/TOE OF SLOPE
AIC	AMPERE INTERRUPTING CAPACITY	INS	INSULATOR	TRNK	TRUNK CONDUCTOR
AL	ALUMINUM	INV	INVERTER	TT	TORQUE TUBE
ALIG	ALIGNMENT	JB	JUNCTION BOX (J-BOX)	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
ALT	ALTERNATE	JBM	JUNCTION BOX - MEDIUM VOLTAGE	TYP	TYPICAL
ANE	ANEMOMETER	JMP	JUMPER CONDUCTOR	UCT	UNDERGROUND CABLE TERMINATION
ATS	AUTOMATIC TRANSFER SWITCH	kV	KILOVOLT	UG	UNDERGROUND
AUTO	AUTOMATIC	kVA	KILOVOLT AMPERE	UNO	UNLESS NOTED OTHERWISE
AUX	AUXILIARY	kVAR	KILOVOLT AMPERE REACTIVE	UPS	UNINTERRUPTIBLE POWER SUPPLY
AWG	AMERICAN WIRE GAUGE	kW	KILOWATT	UTIL	UTILITY
BAT	BATTERY	KWH	KILOWATT HOUR	V	VOLT
BESS	BATTERY ENERGY STORAGE SYSTEM	LBS	POUNDS	VA	VOLT AMPERE
BKR	BREAKER	LV	LOW VOLTAGE	VT	VOLTAGE TRANSFORMER
BLDG	BUILDING	LVAC	LOW VOLTAGE ALTERNATING CURRENT	W	WATT
BRD	BOARD	MAX	MAXIMUM	WP	WEATHERPROOF
BSTR	BATTERY STRING CIRCUIT CONDUCTOR	MBJ	MAIN BONDING JUMPER	WSS	WIND STOW SWITCHES
BTSW	BATTERY STRING SWITCH	MCB	MINIATURE CIRCUIT BREAKER	WVA	WEATHER VANE
BUS	BUS CONDUCTOR	MCC	MOTOR CONTROL CENTER	XFMR	TRANSFORMER
C	CONDUCTOR	MCCB	MOLDED CASE CIRCUIT BREAKER		
CA	CAPACITOR BANK	MET	METEOROLOGICAL STATION		
CAB	CABINET	MIN	MINIMUM		
CB	CIRCUIT BREAKER	MLO	MAIN LUG ONLY		
CCS	COPPER CLAD STEEL	MPNL	METER PANEL		
CE	CONCRETE EDGE	MPT	MAIN POWER TRANSFORMER		
CEU	ELECTRICAL UTILITY	MTR	MOTOR		
CHGR	BATTERY CHARGER	MTS	MANUAL TRANSFER SWITCH		
CIP	CAST-IN-PLACE	MVAC	MEDIUM VOLTAGE ALTERNATING CURRENT		
CL	CENTERLINE	(N)	NEW		
CLM	CELLULAR MODEM	NA	NOT APPLICABLE		
CLR	CLEAR, CLEARANCE	NC	NORMALLY CLOSED		
CMB	COMBINER BOX	NO	NORMALLY OPEN		
CMP	CORRUGATED METAL PIPE	NGR	NEUTRAL GROUNDING REACTOR		
CMW	CAB MESSENGER WIRE	NTS	NOT TO SCALE		
CNT	CONDUIT	OHC	OVERHEAD CONDUCTOR		
COMM	COPPER COMMUNICATION CABLE	PCU	POWER CONVERSION UNIT		
CT	CURRENT TRANSFORMER	POA	PLANE OF ARRAY PYRANOMETER		
CTR	CENTER	POH	POWER OVERHEAD		
CU	COPPER	PCC	POINT OF COMMON COUPLING		
DC	DIRECT CURRENT	PED	PEDESTAL		
DEMO	DEMOLITION	PF	POWER FACTOR		
DIA, Ø	DIAMETER	PH, Φ	PHASE		
DISC	DISCONNECT	PNL	PANEL		
DWG	DRAWING	POI	POINT OF INTERCONNECTION		
(E)	EXISTING	PPC	POWER PLANT CONTROLLER		
EA	EACH	PV	PHOTOVOLTAIC		
EGC	EQUIPMENT GROUNDING CONDUCTOR	PVC	POLYVINYL CHLORIDE		
EMT	ELECTRICAL METAL TUBING	PWR	POWER		
EOP	EDGE OF PAVEMENT	OPGW	OPTICAL PATH GROUND WIRE		
EQ	EQUAL	QTY	QUANTITY		
EQUIP	EQUIPMENT	R	RADIUS		
EST	ESTIMATE	R&R	REMOVE AND REPLACE		
EXIST	EXISTING	R&S	REMOVE AND SALVAGE		
F	FUSE	RCB	RECOMBINER BOX		
FG	FINISHED GRADE	REF	REFERENCE		
FO	FIBER OPTIC	REL	RELAY		
FOMM	FIBER OPTIC - MULTI MODE	REQD	REQUIRED		
FOPP	FIBER OPTIC PATCH PANEL	REV	REVISION		
FOSM	FIBER OPTIC - SINGLE MODE	RMT	REVENUE METER		
FOSB	FIBER OPTIC SPLICE BOX/ENCLOSURE	SA	SURGE ARRESTER		
FT	FEET/FOOT	SB	SPLICE BOX		
FS	FUSE	SCH	SCHEDULE		
GEC	GROUNDING ELECTRODE CONDUCTOR	SEC	SECTIONALIZER		
GEN	GENERAL	SF	SQUARE FEET		
GFI	GROUND FAULT INTERRUPTER	SHT	SHEET		
GRND	GROUND CONDUCTOR	SOG	SLAB ON GRADE		
GR	GRADE	SPD	SURGE PROTECTOR DEVICE		
GSU	GENERATION STEP-UP UNIT	SPEC	SPECIFICATION		
GSW	GANG-OPERATED SWITCH	STR	PHOTOVOLTAIC STRING CIRCUIT		
HH	HANDHOLE/UNDERGROUND PULL BOX	SW	SWITCH		
HP	HORSE POWER	SWBD	SWITCHBOARD		

APPROVED WIRE COLOR CODING: AC CONDUCTORS			
	MEDIUM VOLTAGE	277/480-600V	UNDER 277V
PHASE A	SEE NOTE 6	BROWN	BLACK
PHASE B	SEE NOTE 6	ORANGE	RED
PHASE C	SEE NOTE 6	YELLOW	BLUE
GROUNDING CONDUCTOR	-	GREY	WHITE
GROUNDING CONDUCTOR	GREEN OR BARE	GREEN or BARE	GREEN or BARE
GROUNDING ELECTRODE CONDUCTOR	-	GREEN W/ ORANGE	GREEN W/ ORANGE
APPROVED WIRE COLOR CODING: DC CONDUCTORS			
POSITIVE (+) CONDUCTOR		RED	
NEGATIVE (-) CONDUCTOR		BLACK	
GROUNDING CONDUCTOR		GREEN OR BARE	

CALLOUTS & DETAILS

2

KEYNOTE

X

CONDUCTOR ID

#

OF CIRCUITS IDENTIFIER

DETAIL TITLE

1

Drawing Title

1"=20"

SCALE

DETAIL NUMBER

SECTION CALLOUT

DETAIL NUMBER

DRAWING NUMBER

E1010

ELEVATION CALLOUT

1

DETAIL NUMBER

E1010

DRAWING NUMBER

MATERIALS IN PLAN/SECTION

RIPRAP (PLAN AND/OR SECTION)

CONCRETE (PLAN AND/OR SECTION)

GRANULAR FILL (SECTION)

UNDISTURBED EARTH (SECTION)

COMPACTED EARTH (SECTION)

SAND (SECTION)

ELECTRICAL LEGEND/SYMBOLS

M

MOTOR

FUSE

SWITCH/DISCONNECT

FUSED SWITCH/DISCONNECT

BREAKER

GANG-OPERATED AIRBREAK SWITCH

TRANSFORMER

SURGE ARRESTOR

HH

HANDHOLE

M

POWER METER

APPROVED WIRE COLOR CODING:
AC CONDUCTORS

	UNDER 277V
PHASE A	BLACK
PHASE B	RED
PHASE C	BLUE
GROUNDING CONDUCTOR	WHITE
GROUNDING CONDUCTOR	GREEN or BARE
GROUNDING ELECTRODE CONDUCTOR	GREEN W/ ORANGE

DESIGNED UNDER 2025 CALIFORNIA ELECTRICAL CODE, 2024 I-CODES

SHEET INDEX TABLE	
SHEET NUMBER	SHEET TITLE
E0100	ELECTRICAL DETAILS
E1000	SITE PLAN
E2000	SINGLE LINE DIAGRAM

GENERAL NOTES

1.

THIS IS A STANDARD SYMBOLOGY AND ABBREVIATION SHEET. ALL SYMBOLS AND ABBREVIATIONS ARE NOT NECESSARILY USED ON THIS PROJECT.

2.

THESE SYMBOLS AND ABBREVIATIONS APPLY TO THE ENTIRE SET OF ELECTRICAL (EXXX) DRAWINGS.

3.

SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

4.

CONTRACTOR SHALL VERIFY THAT WIRING CODE COMPLIES WITH AHJ WIRING CODE.

Westwood

Westwood Professional Services, Inc.

1165 SCENIC DRIVE, SUITE A

MODESTO, CA 95350

T: 209.571.1765

westwoodps.com

BY:

DATE:

DESCRIPTION:

NO.:

ELECTRICAL DETAILS

LOS BANOS POLICE DEPARTMENT GUN RANGE

LOS BANOS, CALIFORNIA

DATE: 07/17/26

DRAWN BY: ACT

DESIGNER: ACT

CHECKED BY: JRJ

PROJECT NO. 69905

20135

PROFESSIONAL ENGINEER

JOSEPH A. MURPHY

07/17/2026

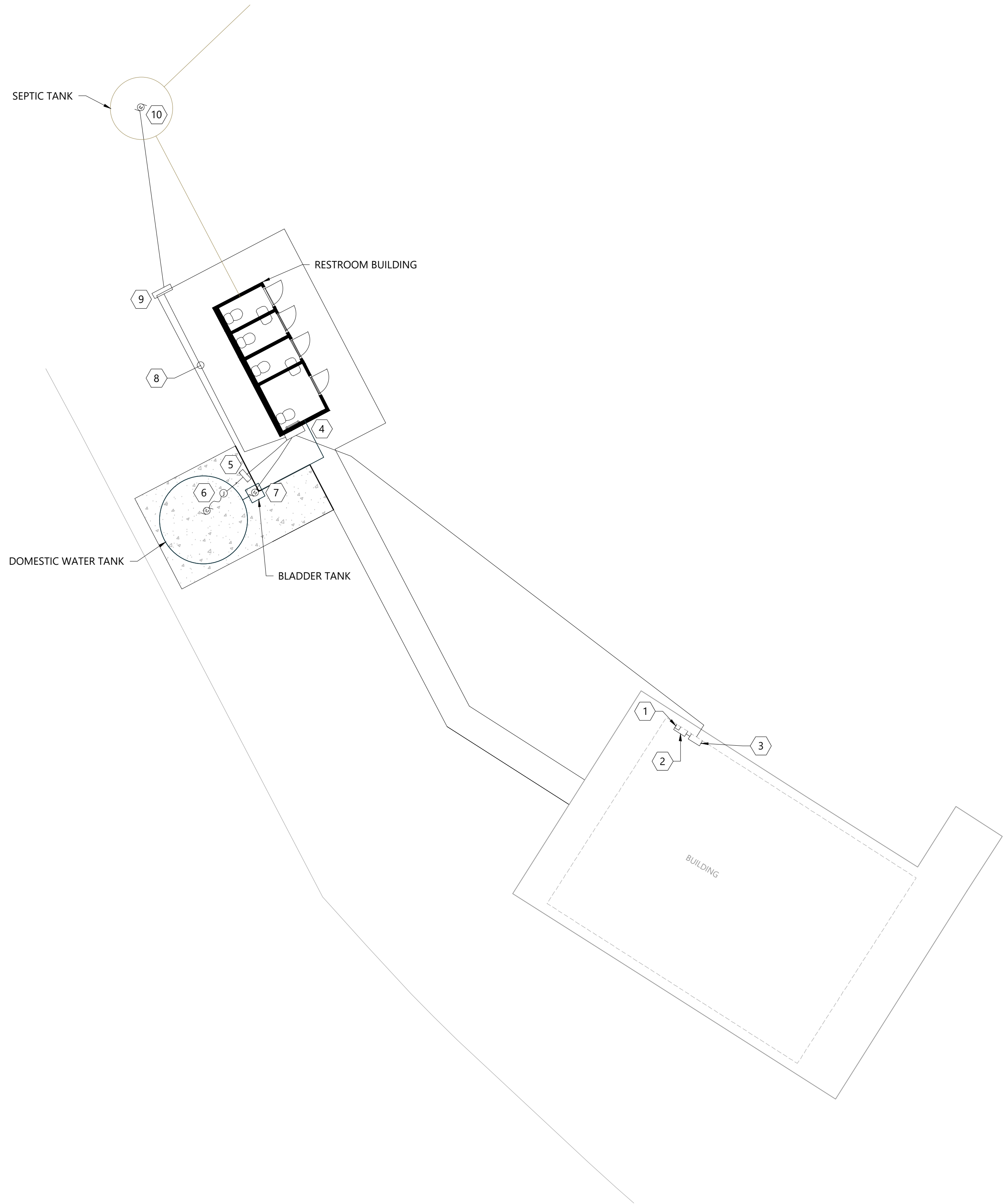
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Know what's below. Call before you dig.

SHEET NO. E1

OF 9

Drawing: c:_ODE\Modesto\0069905\00 los banos pd gun range\dwg\electrical\1000 Site Plan.dwg Plot Date/Time: 7/17/2026 11:00 AM Last Saved by: A\Treasier



1 Site Plan
1" = 10'-0"

- NOTES:
1. THE EXACT ROUTING PATH AND CONDUCTOR LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD BASED ON PHYSICAL MEASUREMENTS.
 2. ALL ELECTRICAL WORK AND RELATED ACTIVITIES ON-SITE SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC) STANDARDS AND ENFORCED BY ALL APPLICABLE JURISDICTIONAL REQUIREMENTS AT THE TIME OF CONSTRUCTION.
 3. ALL PVC CONDUIT SHALL HAVE BELL-ENDS OR INSULATED BUSHINGS AND SEALED WITH DUCT SEAL.
 4. ALL TERMINATION LUGS SHALL BE CRIMPED WITH APPROVED LUG CRIMPER WITH UL CERTIFICATION.
 5. LANDSCAPING NOT SHOWN FOR CLARITY.
 6. REFER TO SINGLE-LINE DIAGRAM FOR CONDUIT AND WIRING SIZES.

- KEYNOTES:
- | | |
|----|---|
| 1 | (E) UTILITY METER |
| 2 | (E) 125A, 2P, MAIN CIRCUIT BREAKER PANEL |
| 3 | (E) 100A, 240/120V, 1Ø, 3W, NEMA 3R PANEL |
| 4 | (N) 100A, 240/120V, 1Ø, 3W, NEMA 3R PANEL INCLUDED WITH PREFABRICATED RR BUILDING |
| 5 | (N) WATER TANK AGITATOR CONTROL PANEL |
| 6 | (N) WATER TANK AGITATOR PUMP |
| 7 | (N) WATER BOOSTER PUMP |
| 8 | CONTROL PANEL AND MOTOR CIRCUITS IN SAME CONDUIT WITH SHARED NEUTRAL |
| 9 | (N) SEPTIC PUMP CONTROL PANEL |
| 10 | (N) SEPTIC TANK PUMP, POWER AND CONTROL WIRES INCLUDED IN SAME CONDUIT FROM CONTROL PANEL |



Know what's below.
Call before you dig.

NO.	DESCRIPTION	DATE	BY

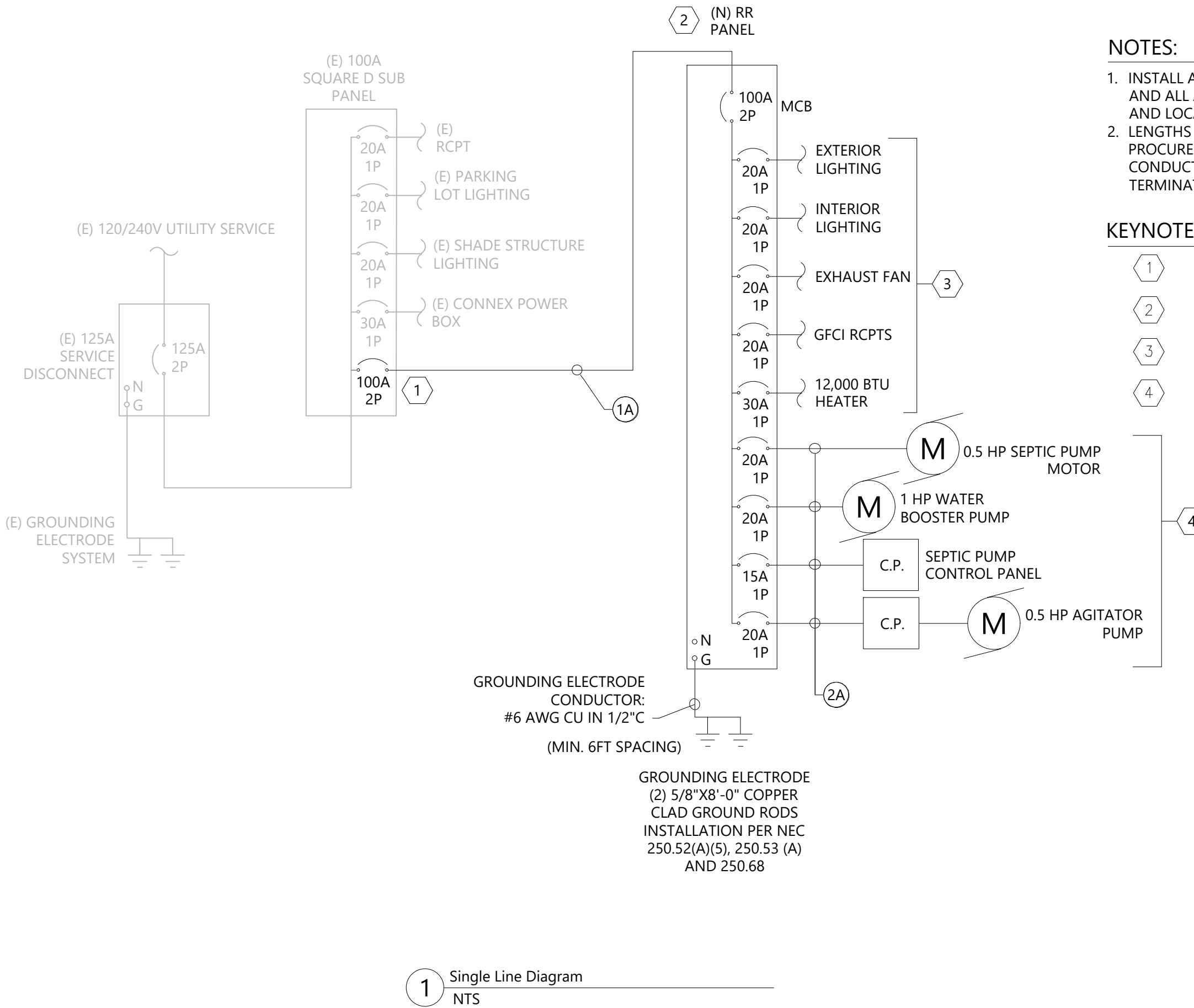
SITE PLAN	LOS BANOS POLICE DEPARTMENT GUN RANGE LOS BANOS, CALIFORNIA
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DATE:	07/17/26
DRAFTER:	ACT
DESIGNER:	ACT
CHECKED:	JRJ
PROJECT NO.	69905



SHEET NO.	E2
OF	9

Drawing: c:_ODE\Modesto\0069905\00 los banos pd gun range\dwg\electrical\E2000 Single Line Diagram.dwg Plot Date/Time: 7/17/2026 11:00 AM Least Saved by: A\Treasar



PANEL NAME			SERVICE: 240/120V, 1Ø, 3W					MOUNTING: SURFACE			
EXISTING			E-PNL					AIC RATING: 22,000			
			MAIN BUS (A): 100					ENCLOSURE: 3R			
			MAIN BREAKER (A): 100								
CKT #	NOTE	LOAD DESCRIPTION	LOAD (kVA)	CB	PH	CB	LOAD (kVA)	LOAD DESCRIPTION	NOTE	CKT #	
1	*	RCPT	0.18	20/1	A	20/1	0.25	PARKING LOT LIGHTING	*	2	
3		RR PNL	2.60	100/2	B	30/1	0.36	CONNEX POWER BOX	*	4	
5			5.22		A	20/1	0.25	SHADE STRUCTURE LIGHTING	*	6	
NOTES		PHASE & TOTAL BREAKDOWN					LOAD:	CONNECTED (kVA)	DEMAND (kVA)	FEED-THRU?	
* - EXISTING		CONNECTED LOAD PER PHASE					kVA	AMPS	LTG:	1.06	1.33
		PHASE-A					5.90	49.1	RCPT:	0.90	0.90
		PHASE-B					2.96	24.7	MTR:	4.80	5.30
									KITCH:		
									EVSE:		
		TOTAL DEMAND LOAD					9.63	40.1	MIS/HEAT:	2.10	2.10

PANEL NAME		SERVICE: 240/120V, 1Ø, 3W					MOUNTING: SURFACE			
NEW		RR PNL					AIC RATING: 22,000			
		MAIN BUS (A): 100					ENCLOSURE: 3R			
		MAIN BREAKER (A): 100								
CKT #	NOTE	LOAD DESCRIPTION	LOAD (kVA)	CB	PH	CB	LOAD (kVA)	LOAD DESCRIPTION	NOTE	CKT #
1	R	INTERIOR LIGHTING	0.08	20/1	A	20/1	1.18	WATER TANK AGITATOR	G	2
3	R	EXTERIOR LIGHTING	0.12	20/1	B	20/1	1.44	WATER BOOSTER PUMP	G	4
5	R	EXHAUST FAN	0.53	20/1	A	15/1	0.10	SEPTIC CONTROL PANEL	G	6
7	R	12000 BTU SYSTEM	2.00	20/1	B	20/1	1.18	SEPTIC PUMP	G	8
9	R	GFCI RCPT	0.72	20/1	A	20/1		SPARE		10
11		SPARE		20/1	B	20/1		SPARE		12
NOTES		PHASE & TOTAL BREAKDOWN				LOAD:		CONNECTED (kVA)	DEMAND (kVA)	FEED-THRU?
R - RESTROOM LOADS G - GFCI TYPE BREAKERS	CONNECTED LOAD PER PHASE		kVA	AMPS		LTG:		0.20	0.25	NO
	PHASE-A		2.61	21.7		RCPT:		0.72	0.72	PREVIOUS
	PHASE-B		4.74	39.5		MTR:		4.32	4.82	N/A
						KITCH:				NEXT
						EVSE:				N/A
		TOTAL DEMAND LOAD		7.89	32.9		MIS/HEAT:		2.10	2.10

AC CIRCUIT SCHEDULE																
CIRCUIT ID	FROM	TO	CIRCUIT CURRENT	NOMINAL VOLTAGE	PHASES	TEMP DERATE	CONDUIT FILL DERATE	CONDUCTOR METAL	# OF CONDUITS	# PHASE CONDUCTORS PER CONDUIT	PHASE CONDUCTOR SIZE	NEUTRAL CONDUCTOR SIZE	EGC SIZE	SSBJ SIZE	CIRCUIT LENGTH	VOLTAGE DROP
1A	E-PNL	RR PNL	100.0 A	240 V	1	0.91	1.00	CU	1	2	1 AWG	1 AWG	6 AWG	-	50 FT	0.67%
2A	RR PNL	MOTOR	20.0 A	120 V	1	0.91	1.00	CU	1	1	10 AWG	10 AWG	10 AWG	-	50 FT	2.00%

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BY

DATE

DESCRIPTION

NO.

SINGLE LINE DIAGRAM

LOS BANOS POLICE DEPARTMENT GUN RANGE

LOS BANOS, CALIFORNIA

DATE: 07/17/26

DRAFTER: ACT

DESIGNER: ACT

CHECKED: JRJ

PROJECT NO. 69905

20135

REGISTERED PROFESSIONAL ENGINEER

JOSEPH A. MURPHY

STATE OF CALIFORNIA

07/17/2026

SHEET NO. E3

OF 9

CONTACTS

ENGINEER:
BLACK WATER CONSULTING ENGINEERS, INC.
602 LYELL DRIVE
MODESTO, CA 95356 ENGINEER: ANGEL MARISCAL, P.E.
T:209.733.0555
OWNER:
CITY OF LOS BANOS
PUBLIC WORKS DEPARTMENT
411 MADISON AVE.
LOS BANOS, CA 93635
OWNER: WILLIAM VIA
T:209.827.7056

GENERAL NOTES

- CONTRACTOR SHALL CONSIDER THE INFORMATION PRESENTED AS "GENERAL NOTES" AS PART OF THE CONSTRUCTION DOCUMENTS.
- PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES FOR A PRE-CONSTRUCTION CONFERENCE. CONTRACTOR SHALL ALSO NOTIFY THE OWNERS AND ENGINEER SEVENTY-TWO (72) HOURS PRIOR TO MEETING DATE.
- ENGINEER OF RECORD MUST APPROVE ANY SUBSTITUTIONS. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN THE DRAWINGS AND OTHER DETAILS; OR EXISTING CONDITIONS NOT SHOWN OR DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS PRIOR TO COMMENCEMENT OF WORK. MATERIALS PROCURED PRIOR TO RESOLUTION OF CONFLICTS SHALL BE AT THE CONTRACTOR'S RISK.
- ALL WORK IS NEW UNLESS INDICATED AS EXISTING.
- THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSE FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE. ALL STREET MONUMENTS, LOT CORNERS, BENCHMARKS, AND OTHER PERMANENT PIPE MONUMENTS DISTURBED DURING THE PROCESS OF CONSTRUCTION SHALL BE REPLACED BY A LICENSED CIVIL ENGINEER OR SURVEYOR PRIOR TO ACCEPTANCE OF THE IMPROVEMENTS BY THE CITY OF LOS BANOS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE GOVERNING BUILDING JURISDICTION AND/OR THE STATE OF CALIFORNIA, LATEST EDITION, AND ALL OSHA REQUIREMENTS AS THEY APPLY TO THE PROJECT.
- THE DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED PROJECT, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE CONSTRUCTION AND ALL ADJACENT PROPERTIES DURING CONSTRUCTION.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- THE CONTRACTOR AGREES TO BE RESPONSIBLE FOR:
 - CLEANING THE JOB SITE AT THE END OF EACH PHASE OF WORK.
 - REMOVING AND DISPOSING OF ALL TRASH, SCRAP AND UNUSED MATERIAL IN A TIMELY MANNER.
 - MAINTAINING THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.
 - KEEPING MATERIALS, EQUIPMENT AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS TO NOT DELAY THE JOB.
 - PROVIDING THEIR OWN SAFETY, TRAFFIC CONTROL PERMITS, RETESTING AND REINSPECTION.
 - PROVIDING ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTOR'S USE DURING CONSTRUCTION.
 - SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO APPLICABLE RULES AND REGULATIONS.
 - FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
 - THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY IN ACCORDANCE WITH THE CURRENT ISSUE OF "MANUAL OF TRAFFIC CONTROLS, WARNING SIGNS, LIGHTS, AND DEVICES FOR USE IN PERFORMANCE OF WORK UPON HIGHWAY" PUBLISHED BY THE STATE OF CALIFORNIA BUSINESS AND TRANSPORTATION AGENCY.
- THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL PIPING AND CONDUITS, STRUCTURES AND OTHER FACILITIES. RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR.
- PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER, ONE SET OF NEATLY MARKED RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. RECORD DRAWINGS SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.
- ALL FERROUS METALS THAT ARE NOT GALVANIZED SHALL BE PREPARED, PRIMED, AND EPOXY COATED. THE PRIMER AND COATING SHALL BE OF THE SAME MANUFACTURER AND APPLIED AS A SYSTEM. THE COATING SYSTEM AND COLOR SHALL BE APPROVED BY THE ENGINEER AND THE OWNER PRIOR TO APPLICATION.
- THE INFORMATION SHOWN ON THE PLANS WITH REGARD TO THE EXISTING UTILITIES AND/OR IMPROVEMENTS WAS DERIVED FROM FIELD INVESTIGATIONS AND/OR RECORD INFORMATION. THE ENGINEER DOES NOT GUARANTEE THESE LOCATIONS TO BE EITHER TRUE OR EXACT. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING IMPROVEMENTS AND TO EXPOSE UNDERGROUND UTILITIES RELATED TO THE PROJECT; INCLUDING BUT NOT LIMITED TO SEWER, STORM DRAIN, WATER, IRRIGATION, GAS, ELECTRICAL, ETC. AND SHALL NOTIFY THE ENGINEER AND OWNER IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE OF EXPOSING THE UTILITIES SO THAT THE EXACT LOCATION AND ELEVATION CAN BE VERIFIED AND DOCUMENTED. IF LOCATION AND/OR ELEVATION DIFFERS FROM THAT SHOWN ON THE DESIGN PLANS, PROVISIONS TO ACCOMMODATE NEW LOCATION/ELEVATION MUST BE MADE PRIOR TO CONSTRUCTION.

- WE CALL YOUR ATTENTION TO TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONS SAFETY AND HEALTH ACT OF 1973 AS AMENDED WHICH STATES: (1) PRIOR TO OPENING AN EXCAVATION EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS; I.E. SEWER, WATER, FUEL, ELECTRICAL LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION.
- THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 5' OR MORE. SAID PROTECTION TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT AND THE STATE REGULATIONS.
- ALL DIMENSIONS SHOWN ON DRAWINGS SHALL BE VERIFIED WITH EXISTING CONDITIONS. DO NOT SCALE DRAWINGS. ENGINEER OF RECORD MUST APPROVE ANY SUBSTITUTIONS. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN THE DRAWINGS AND OTHER DETAILS; OR EXISTING CONDITIONS NOT SHOWN OR DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS PRIOR TO COMMENCEMENT OF WORK. MATERIALS PROCURED PRIOR TO RESOLUTION OF CONFLICTS SHALL BE AT THE CONTRACTOR'S RISK.
- ALL MATERIAL AND WORK SHALL CONFORM TO APPLICABLE DESIGN AND CONSTRUCTION STANDARDS. ALL IMPROVEMENTS ARE SUBJECT TO THE INSPECTION AND APPROVAL OF CITY OF LOS BANOS AND OTHER AGENCIES INVOLVED WITH THIS PROJECT.
- THE CONTRACTOR SHALL CONTROL DUST AT ALL TIMES. DUST CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IMPLEMENTED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL GUIDELINES (INCLUDING, BUT NOT LIMITED TO THE SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT).
- PIPE FITTINGS, WIRING, AND SUPPORTS SHALL BE PROVIDED TO PRODUCE COMPLETE, OPERABLE SYSTEMS WITH ALL ELEMENTS PROPERLY INTERCONNECTED AS SHOWN TO MEET THE PERFORMANCE INTENT AS INTERPRETED BY THE OWNER. IF A SPECIFIED DIMENSION LOCATION IS NOT SHOWN FOR INTERCONNECTIONS OR SMALLER SYSTEM ELEMENTS, THE CONTRACTOR SHALL SELECT APPROPRIATE LOCATIONS AND SHOW THEM ON THE SHOP DRAWING SUBMITTALS FOR REVIEW.
- EQUIPMENT AND MATERIALS SHALL BE NEW AND WITHOUT IMPERFECTIONS AND SHALL BE CONSTRUCTED IN A NEAT AND WORKMANLIKE MANNER; ALIGNED, LEVELED, CLEANED AND DUSTED FOR SATISFACTORY OPERATION. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARD PRACTICES FOR THIS TYPE OF WORK.
- PRIOR TO REMOVAL OF EXISTING STRUCTURES AND MATERIALS, THE CONTRACTOR SHALL PHOTOGRAPH AND DOCUMENT THE SURROUNDING AREA AND SHALL RESTORE THE AREA TO ITS ORIGINAL STATE OR BETTER.
- FENCES THAT NEED TO BE REMOVED DURING CONSTRUCTION SHALL BE REMOVED TO THE NEAREST POST BEYOND THE AREA OF CONSTRUCTION. CONTRACTOR SHALL MATCH REPLACEMENT FENCE WITH THE EXISTING FENCE.
- CONTRACTOR SHALL CONSTRUCT TEMPORARY FENCING WHERE EXISTING FENCE IS REMOVED TO PREVENT UNWANTED CROSSING OF THE PREVIOUS FENCE LINE. ALL UNSUPERVISED EQUIPMENT OR OPEN TRENCHES SHALL ALSO BE FENCED OFF WITH TEMPORARY FENCING.

SEPTIC TANK

- PER MERCED COUNTY CODE CHAPTER 9.54 -OWTS, ORD. NO. 1947, DECEMBER 6, 2016:
- SEPTIC TANK SHALL BE WATERTIGHT, MINIMUM TWO COMPARTMENTS, CONSTRUCTED OF REINFORCED PRECAST CONCRETE. WOOD OR METAL TANKS ARE NOT PERMITTED. INLET COMPARTMENT SHALL BE NO LESS THAN 2/3 OF TOTAL TANK CAPACITY.
 - TANK SHALL BE MINIMUM 5 FEET FROM ANY FOUNDATION OR STRUCTURE, 50 FEET FROM ANY PRIVATE WELL, AND 100 FEET FROM ANY PUBLIC WELL.
 - PROVIDE MINIMUM TWO (2) ACCESS MANHOLES, ONE OVER EACH COMPARTMENT, MINIMUM 20" DIAMETER WITH WATERTIGHT LIDS. TANKS DEEPER THAN 2 FEET SHALL HAVE RISERS TO GRADE.
 - PROVIDE INLET AND OUTLET BAFFLES (TEES) EXTENDING MINIMUM 4" ABOVE AND 12" BELOW WATER SURFACE.
 - NSF/ANSI CERTIFIED EFFLUENT FILTER (LESS THAN 3/16" PASSAGE) REQUIRED AT OUTLET OF FINAL COMPARTMENT.
 - BUILDING SEWER TO TANK SHALL HAVE MINIMUM 1/4" PER FOOT STUB-OUT SHALL EXIT 6" TO 18" BELOW FINISH GRADE.
 - TANK SHALL BE COVERED WITH MINIMUM 12 INCHES OF SOIL.
 - INSTALLATION SHALL BE INSPECTED AND APPROVED BY MERCED COUNTY ENVIRONMENTAL HEALTH PRIOR TO BACKFILL.

DISTRIBUTION BOX

- PER MERCED COUNTY CODE CHAPTER 9.54 -OWTS, ORD. NO. 1947, DECEMBER 6, 2016:
- DISTRIBUTION BOXES SHALL BE CONSTRUCTED OF WATERTIGHT PRECAST CONCRETE WITH AN INTEGRAL BOTTOM.
 - BOXES SHALL BE DESIGNED AND POSITIONED TO ASSURE EQUALIZED FLOW. ALL INLETS AND OUTLETS SHALL BE SEALED.
 - BOX SHALL BE AT LEAST 12 INCHES ACROSS INSIDE.
 - EACH LEACH LINE SHALL BE CONNECTED INDIVIDUALLY.
 - INLET PIPE SHALL BE A MINIMUM OF 2" HIGHER THAN OUTLETS.

DISPERSAL FIELD & LEACH LINES

- PER MERCED COUNTY CODE CHAPTER 9.54 -OWTS, ORD. NO. 1947, DECEMBER 6, 2016:
- LEACHLINES SHALL BE LAID LEVEL WITH A MAXIMUM LENGTH OF 100 FEET. MINIMUM DIAMETER: 4 INCHES WITH 1/4" TO 1/2" PERFORATIONS.
 - STANDARD TRENCH: 3 FEET WIDE, 3 FEET DEEP. TRENCH SHALL NOT BE MORE THAN 3 FEET WIDE NOR LESS THAN 2 FEET.
 - LEACHLINES SHALL NOT BE INSTALLED IN SATURATED SOILS OR UNDER CONCRETE, BLACKTOP, ROADWAY, OR STRUCTURE.
 - DRAIN ROCK SHALL BE PLACED TO A MINIMUM DEPTH OF 18 INCHES WITH A MINIMUM 4-INCH COVER OVER THE LEACHLINE. ROCK SHALL BE ROUND, 3/4" TO 2-1/2", WASHED. NO FINES, SAND, SILT, CLAY, OR CRUSHED ROCK.
 - COVER DRAIN ROCK WITH UNTREATED BUILDING PAPER OR FINE MESH GEOTEXTILE FABRIC BEFORE BACKFILL. MINIMUM 1 FOOT OF

- EARTHEN COVER OVER BUILDING PAPER.
- IN CLAY SOILS, TRENCH SURFACES SHALL BE SCORED PRIOR TO FILLING WITH DRAIN ROCK.
 - MINIMUM SOIL COVER: 12 INCHES BELOW SURFACE GRADE FOR STANDARD GRAVITY SYSTEMS.
 - MINIMUM SEPARATION DISTANCES FROM DISPERSAL FIELD:
 - DOMESTIC WELL: 100 FT
 - PUBLIC WELL: 150 FT
 - FLOWING SPRING/STREAM: 100 FT
 - DRAINAGE COURSE: 50 FT
 - LAKE/POND/WETLANDS/RESERVOIR: 200 FT
 - PROPERTY LINE: 50 FT
 - STRUCTURES: 10 FT
 - UNSTABLE LAND MASS: 100 FT
 - MINIMUM 5 FEET SEPARATION FROM BOTTOM OF TRENCH TO HIGHEST ANTICIPATED GROUNDWATER LEVEL.

AVERAGE DAILY SEWAGE FLOW CALCULATIONS

PARAMETERS	CALCULATION
UNIT SEWER FLOW RATE	10 GAL/DAY/CAPITA
NUMBER OF OCCUPANTS	25 PEOPLE
AVERAGE DAILY FLOW	250 GAL/DAY
PEAKING FACTOR	3
PEAK DRY WEATHER FLOW	750 GAL/DAY
INFLOW/INFILTRATION	500 GAL/DAY*MILE*IN
4" FORCE MAIN LENGTH	250 FEET
PEAK WET WEATHER FLOW	845 GAL/DAY

SANITARY SEWER

- SANITARY SEWER FORCE MAIN SHALL BE 1.25" PVC, SCHEDULE 40 AND ALL JOINTS GLUED OR SEALED ACCORDING TO ASTM STANDARDS.
- SANITARY SEWER LEACH LINE SHALL BE 4" PERFORATED PVC, OR APPROVED EQUAL. ALL BENDS IN LEACH LINE SHALL HAVE ONE TIGHT JOINT AT EACH END OF BEND.

LEACH FIELD DESIGN CRITERIA

SOIL CLASSIFICATION = SILTY CLAY LOAM/CLAY LOAM SOIL
PERCOLATION RATE = 120 MIN/INCH
PEAK WET WEATHER FLOW RATE = 845 GAL/DAY
HYDRAULIC LOADING RATE = 0.2 GAL/SF*DAY
REQUIRED ABSORPTION AREA = 4,223 SF
AVAILABLE TRENCH ABSORPTION AREA = 6 SF/FT
MINIMUM LEACH LINE LENGTH = 704 FEET
NUMBER OF LEACH LINES = 7
SPACING BETWEEN LEACH LINES = 10 FEET O.C.
TOTAL LEACH LINE SECTION WIDTH = 63 FEET
TOTAL LEACH LINE SECTION LENGTH = 103 FEET
TOTAL DISPOSAL AREA = 6,529 SF

ABBREVIATIONS

AB	AGGREGATE BASE	STL	STEEL
AC	ASPHALT CONCRETE	TEMP	TEMPORARY
A/C	AIR CONDITION	TG	TOP OF GRATE
ADH	ADHESIVE	THRU	THROUGH
ANCH	ANCHOR	T.O.	TOP OF
ARV	AIR RELEASE VALVE	TYP.	TYPICAL
ATS	AUTOMATIC TRANSFORMER SWITCH	UON	UNLESS OTHERWISE NOTED
AVE	AVENUE	V / VERT	VERTICAL
BFP	BACK FLOW PREVENTER	VFD	VARIABLE FREQUENTLY DRIVE
BLDG.	BUILDING	W	WATER / WEST
BV	BUTTERFLY VALVE	WM	WATER METER
BOV	BLOWOUT VALVE	WSP	WELDED STEEL PIPE
B.O.	BOTTOM OF		
CIP	CAST IN PLACE		
CL	CENTER LINE		
CLR	CLEAR		
CMP	CORRUGATED METAL PIPE		
CMU	CONCRETE MASONRY UNIT		
CONC OR CC	CONCRETE		
CW	COLD WATER		
DIA	DIAMETER		
DI	DUCTILE IRON		
DIP	DUCTILE IRON PIPE		
DWG.	DRAWING		
E	EARTH / EAST		
EC	EDGE OF CONCRETE		
EF	EACH FACE		
ELEV.	ELEVATION		
ELL	ELBOW		
EP	EDGE OF PAVEMENT		
ESEW	EMERGENCY SHOWER/EYE WASH		
EW	EACH WAY		
EX	EXISTING		
FAA	FEDERAL AVIATION ADMINISTRATION		
FDN	FOUNDATION		
FF	FINISH FLOOR		
FG	FINISH GRADE		
FH	FIRE HYDRANT		
FL	FLOW LINE		
GSP	GALVANIZED STEEL PIPE		
GV	GATE VALVE		
GR	GRATE		
H / HORIZ	HORIZONTAL		
HB	HOSE BIB		
HP	HORSE POUNDS		
HT	HEIGHT		
HW	HOT WATER		
ID	INSIDE DIAMETER		
INV	INVERT		
IRR	IRRIGATION		
LF	LINEAL FEET OR LINEAR FEET		
LT	LEFT		
MAX	MAXIMUM		
MFR	MANUFACTURER		
MG	MILLION GALLONS		
MIN.	MINIMUM		
N	NORTH / NEW		
NIC	NOT INCLUDED		
NC	NORMALLY CLOSED		
NO.	NUMBER		
NTS	NOT TO SCALE		
OC	ON CENTER		
O.D.	OUTSIDE DIAMETER		
OHE	OVERHEAD ELECTRIC		
OWTS	ONSITE WASTEWATER TREATMENT SYSTEMS		
P.C.	POINT OF CURVATURE		
PG&E	PACIFIC GAS AND ELECTRIC		
PL	PROPERTY LINE		
PSI	POUNDS PER SQUARE INCH		
PT	POINT		
PVC	POLY VINYL CHLORIDE		
R	RADIUS		
RC	RELATIVE COMPACTION		
P.D.	RELATIVE DENSITY		
RD	ROAD		
REINF	REINFORCED		
REQ'D	REQUIRED		
RT	RIGHT		
RTU	REMOTE TERMINAL UNIT		
S	SLOPE / SOUTH		
SCH	SCHEDULE		
SD	STORM DRAIN		
SDAD	STORM DRAIN AREA DRAIN		
SDCB	STORM DRAIN CATCH BASIN		
SDMH	STORM DRAIN MANHOLE		
SHT	SHEET		
SJC	SAN JOAQUIN COUNTY		
SQ.	SQUARE		
SS	SANITARY SEWER		
SSNLS	SOIL SUITABILITY NITRATE LOADING STUDY		
SST	STAINLESS STEEL		
ST	STREET		
STD	STANDARD		

LEGEND

EXISTING	PROPOSED
	JOINT POLE
	POWER POLE
	PRESSURE RELEASE VALVE
	ELECTRICAL BOX
	ELECTRICAL VAULT
	LIGHT POLE
	IRRIGATION CONTROL VALVE
	FIRE HYDRANT
	WATER VALVE
	WATER WELL
	WATER METER BOX
	SANITARY SEWER
	SANITARY SEWER FORCE MAIN
	INFILTRATION CHAMBER LINE
	SEWER SEPTIC TANK
	SEWER DISTRIBUTION BOX
	SEWER LEACH LINE RESERVE AREA
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A

BLACK WATER
CONSULTING ENGINEERS
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www.westwoodpe.com

NO.	DATE	DESCRIPTION

GENERAL NOTES, LEGEND AND ABBREVIATIONS
LOS BANOS POLICE DEPARTMENT GUN RANGE
LOS BANOS, CALIFORNIA

DATE:	07/17/2026
DRAFTER:	KW
DESIGNER:	AM
CHECKED:	PS
PROJECT NO.	69905
SHEET NO.	0G01
OF	14

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Drawing: L226926, Los Banos Gun RangeCADTask4-02 (Imp Plans)Imp PlansPlanSet02 - KeyMap.dwg Plot Date/Time: 7/21/2026 9:41 AM Last Saved by: KEVIN



DESIGN INFORMATION	
WATER DEMANDS	
AVERAGE DAY DEMAND, GPM	250
MAXIMUM DAY DEMAND, GPM	500
PEAK HOUR DEMAND, GPM	4.5

STORAGE TANK	
QUANTITY	ONE
MATERIAL OF CONSTRUCTION	POLYETHYLENE
NOMINAL CAPACITY, GAL	5,000
TANK DIAMETER, IN	±141
TANK HEIGHT, IN	±83-1/2
RECOMMENDED MANUFACTURER, MODEL OR APPROVED EQUAL	NORWESCO OR APPROVED EQUAL

PACKAGED POTABLE WATER BOOSTER PUMP STATION	
QUANTITY	ONE
DESIGN FLOW (PER PUMP), GPM	5
TOTALLY DYNAMIC HEAD, FT	60
MOTOR HORSEPOWER, HP	1
MOTOR TYPE	VARIABLE-SPEED CONSTANT-PRESSURE
ELECTRICAL LOAD	115V, 1-PHASE, 60HZ
LEVEL CONTROL	CUTOFF AT WATER 2'-0" ABOVE TANK BOTTOM
RECOMMENDED MANUFACTURER, MODEL OR APPROVED EQUAL	GRUNDFOS CMBE 1-44 1-X-C-B-D-E OR APPROVED EQUAL

SEPTIC TANK	
QUANTITY	ONE
MATERIAL OF CONSTRUCTION	REINFORCED PRECAST CONCRETE
NOMINAL CAPACITY, GAL	1,500
TANK WIDTH, IN	±128
TANK HEIGHT, IN	±67.25
TANK DEPTH, IN	±69
RISER DEPTH, IN	±44
RECOMMENDED MANUFACTURER, MODEL OR APPROVED EQUAL	JENSEN PRECAST OR APPROVED EQUAL

PACKAGED SEPTIC EFFLUENT PUMP STATION	
QUANTITY	ONE
DESIGN FLOW (PER PUMP), GPM	15
TOTALLY DYNAMIC HEAD, FT	15
MOTOR HORSEPOWER, HP	1/2
MOTOR TYPE	CONSTANT-SPEED
ELECTRICAL LOAD	115V, 1-PHASE, 60HZ
RECOMMENDED MANUFACTURER, MODEL OR APPROVED EQUAL	ZOELLER 151-0005 OR APPROVED EQUAL

WATER CIRCULATION MIXER	
QUANTITY	ONE
MOTOR HORSEPOWER, HP	1/2
LEVEL CONTROL	CUTOFF AT WATER LEVEL 2'-0" ABOVE TANK BOTTOM
ELECTRICAL LOAD	120V, 1-PHASE, 60HZ
RECOMMENDED MANUFACTURER, MODEL OR APPROVED EQUAL	IXOM GRIDBEE GS-9 OR APPROVED EQUAL

BID SUBMITTAL

BLACK WATER
CONSULTING ENGINEERS
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MODESTO, CA 95350
T: 209.671.0765
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NO.	DESCRIPTION	DATE	BY

SITE PLAN

LOS BANOS POLICE DEPARTMENT GUN RANGE
LOS BANOS, CALIFORNIA

DATE: 07/17/2026

DRAFTER: KW

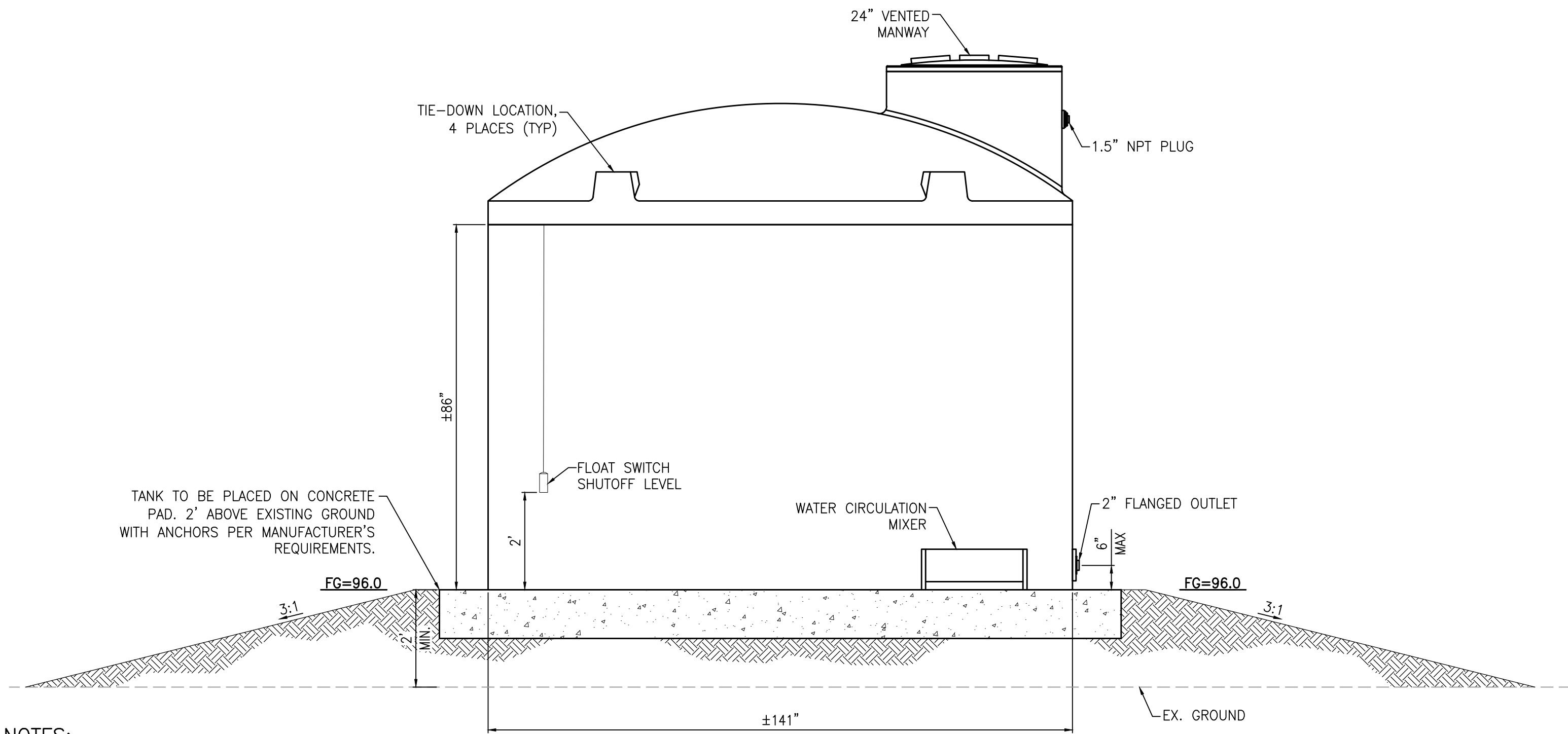
DESIGNER: AM

CHECKED: PS

PROJECT NO. 69905

SHEET NO. 1C01 OF 14

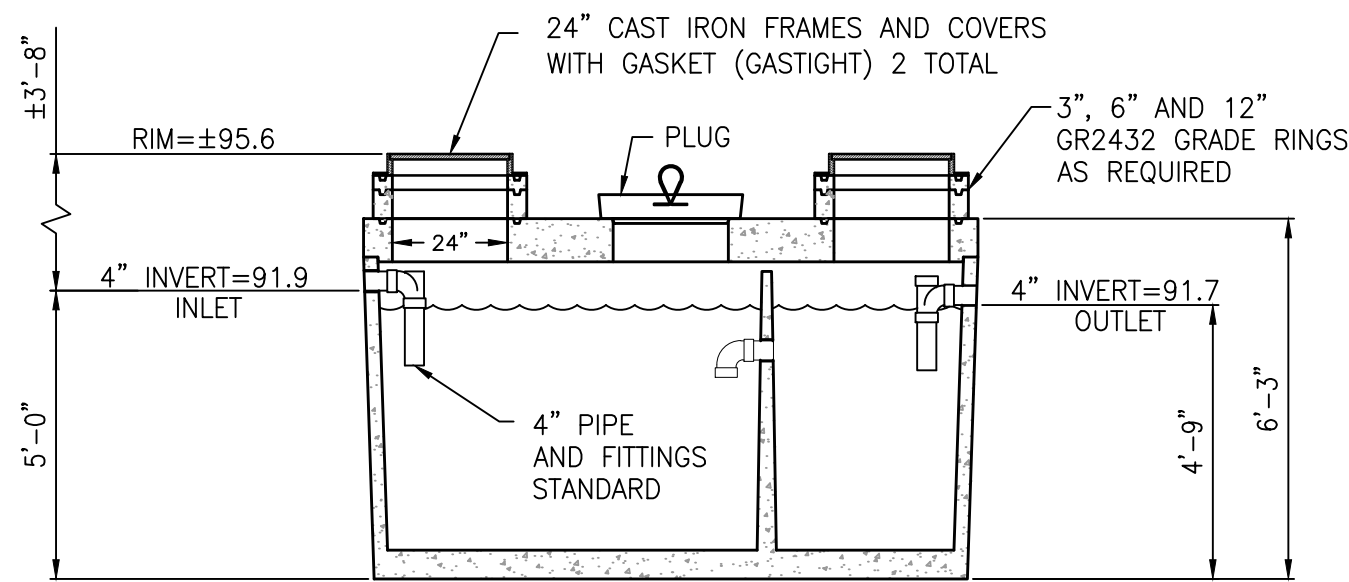
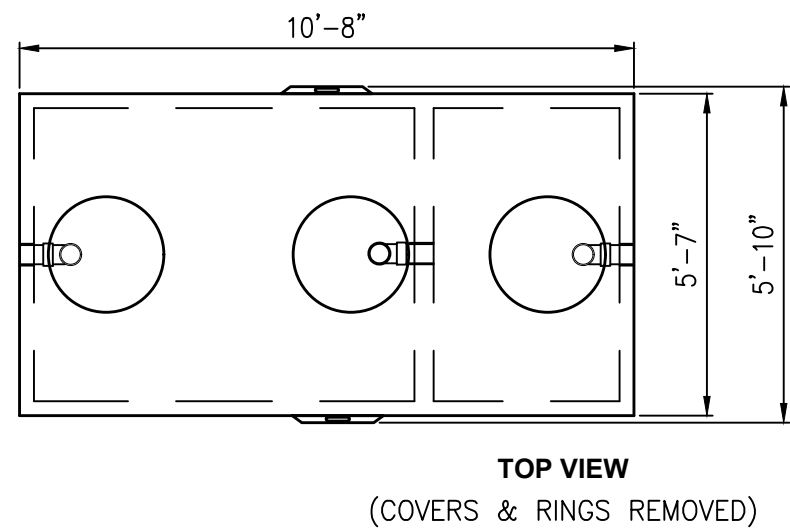
Drawing: L226926, Los Banos Gun Range-CADTask-02 (Imp Plans)Imp PlansPlanSet04_Details.dwg Plot Date/Time: 7/21/2026 9:43 AM Last Saved by: KEVIN



NOTES:

- TANK SHALL HAVE THREADED LIDS WITH BUILT-IN ANTI-STATIC SURGE VENTS.
- WATER CIRCULATION MIXER TO BE INSTALLED PER MANUFACTURER REQUIREMENTS.
- CONTRACTOR TO PROVIDE CONCRETE FOUNDATION, ANCHOR STRAPS PER MANUFACTURER RECOMMENDATION. SIGNED AND STAMPED STRUCTURAL CALCULATIONS TO BE PROVIDED WITH SUBMITTAL BY CONTRACTOR PRIOR TO CONSTRUCTION.
- TANK SHALL BE FILLED BY POTABLE WATER DELIVERY TRUCK THROUGH THE TOP MANWAY OPENING. WATER SHALL DISCHARGE INTO THE TANK THROUGH AIR-GAP CONNECTION. NO PERMANENT FILL PIPING CONNECTION IS PROVIDED.
- PROVIDE TANK-MOUNTED LOW-LEVEL FLOAT SWITCH TO SHUT DOWN BOOSTER PUMP AND WATER CIRCULATION MIXER WHEN WATER LEVEL DROPS TO 2'-0" ABOVE TANK BOTTOM. EQUIPMENT SHALL REMAIN OFF UNTIL FLOAT RETURNS TO NORMAL OPERATION POSITION. LOW-LEVEL SETPOINT SHALL MAINTAIN MINIMUM SUBMERGENCE REQUIRED BY MANUFACTURER. CONTRACTOR SHALL PROVIDE ALL WIRING, RELAYS, AND CONTROLS REQUIRED FOR COMPLETE OPERATION.

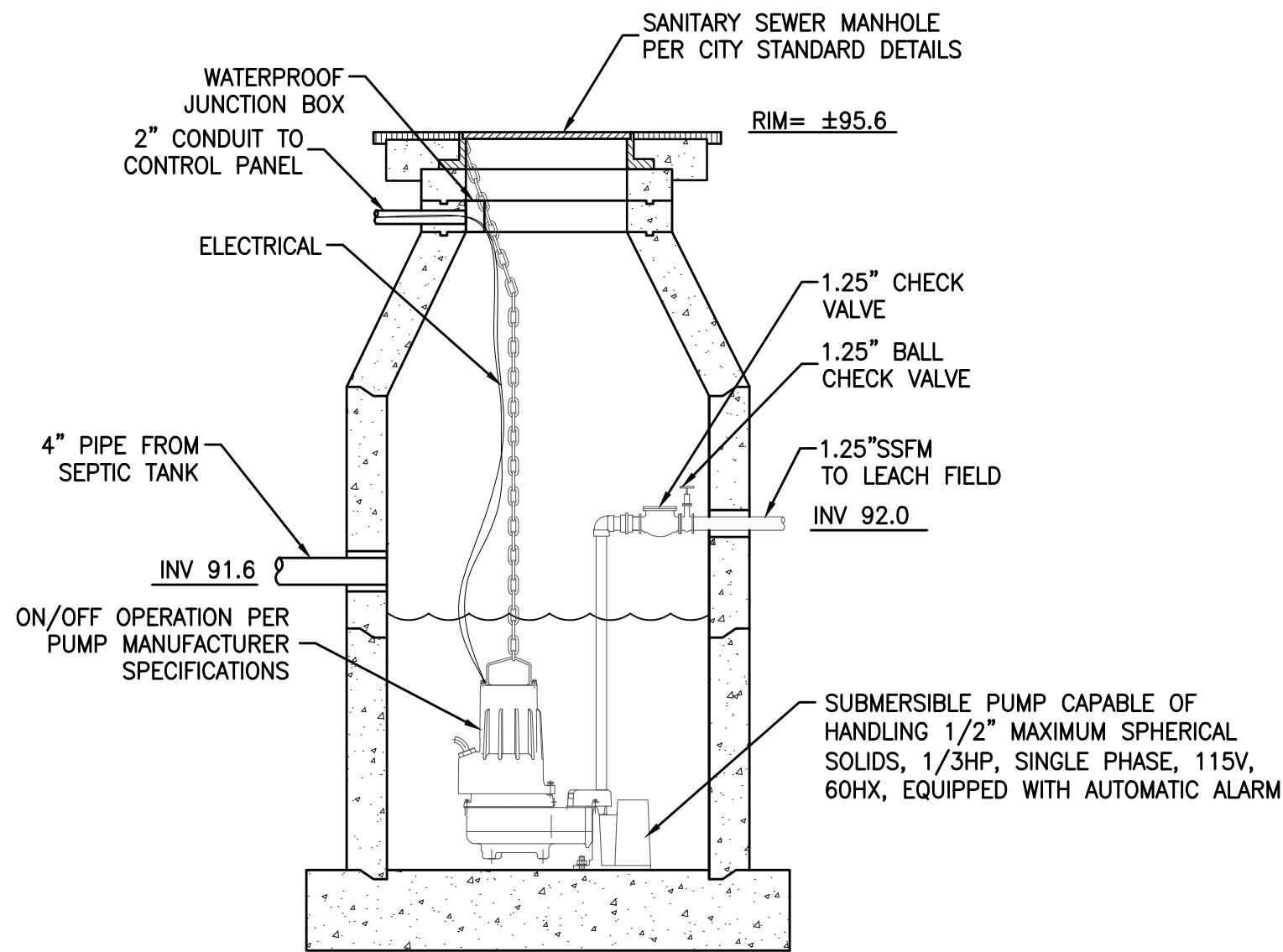
1 5,000 GALLON POLYETHYLENE WATER STORAGE TANK
SCALE: NTS



NOTES:

- OPERATING CAPACITY: 1,500 GALLONS.
- DESIGN LOAD: H-20 TRAFFIC WITH DRY SOIL CONDITIONS (WATER LEVEL BELOW TANK) AND 1'-6" EARTH COVER.
- SUITABLE SUB-BASE BEDDED WITH GRANULAR MATERIAL SHALL BE PREPARED TO HANDLE ANTICIPATED LOADS
- CONTRACTOR TO PROVIDE ANTI-FLOTATION ANCHORING (CONCRETE COLLAR OR BALLAST SLAB WITH TIE-DOWN STRAPS) FOR SEPTIC TANK DUE TO HIGH GROUNDWATER. DESIGN SHALL BE PER MANUFACTURER RECOMMENDATIONS. CONTRACTOR SHALL SUBMIT SIGNED AND STAMPED STRUCTURAL CALCULATIONS AND INSTALLATION DETAILS FOR REVIEW AND APPROVAL PRIOR TO PROCUREMENT OR INSTALLATION. DESIGN FOR BUOYANCY PER GEOTECHNICAL REPORT PREPARED BY KRAZEN & ASSOCIATES, INC. ON OCTOBER 14, 2025

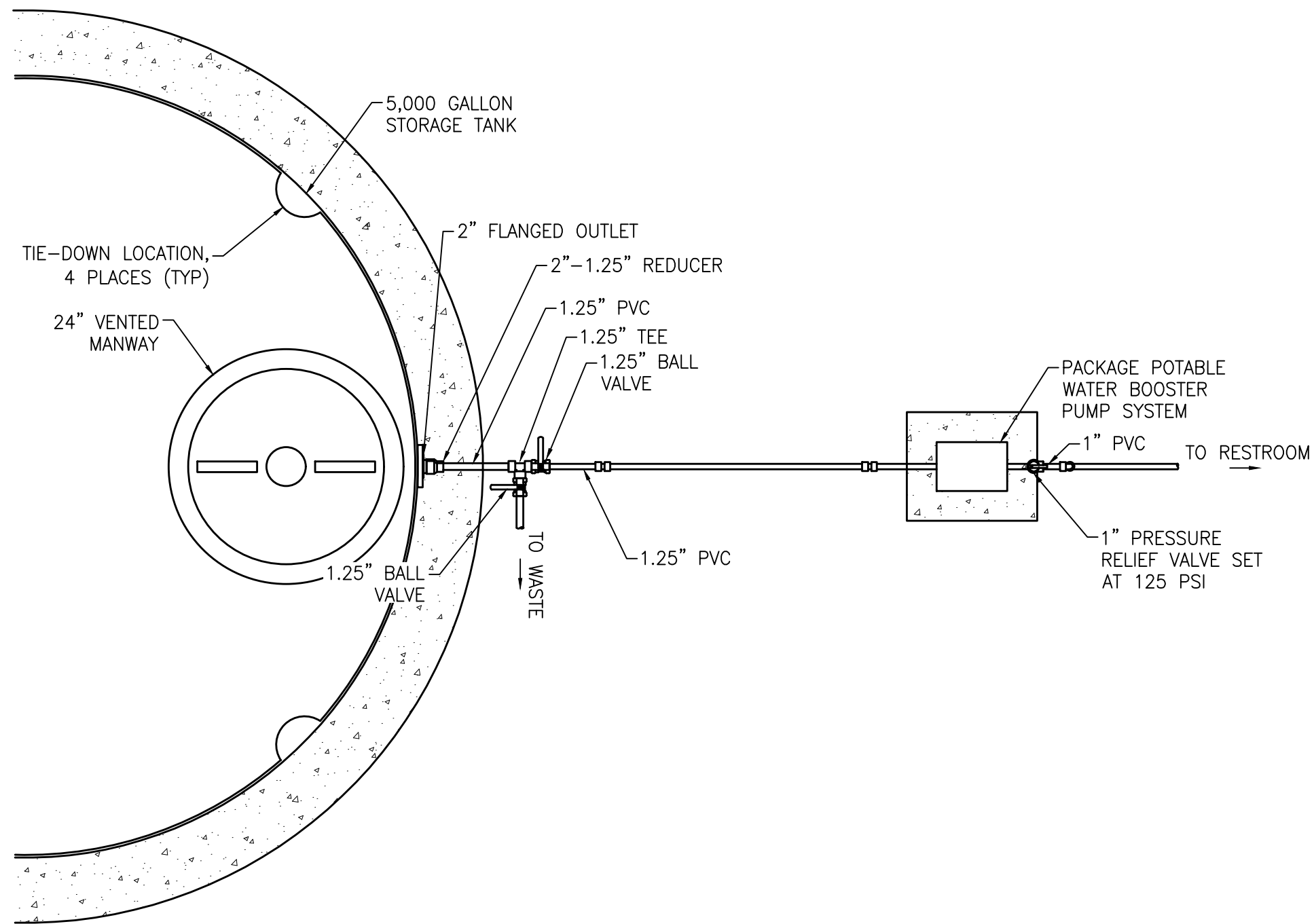
3 1,500 GALLON SEPTIC TANK
SCALE: NTS



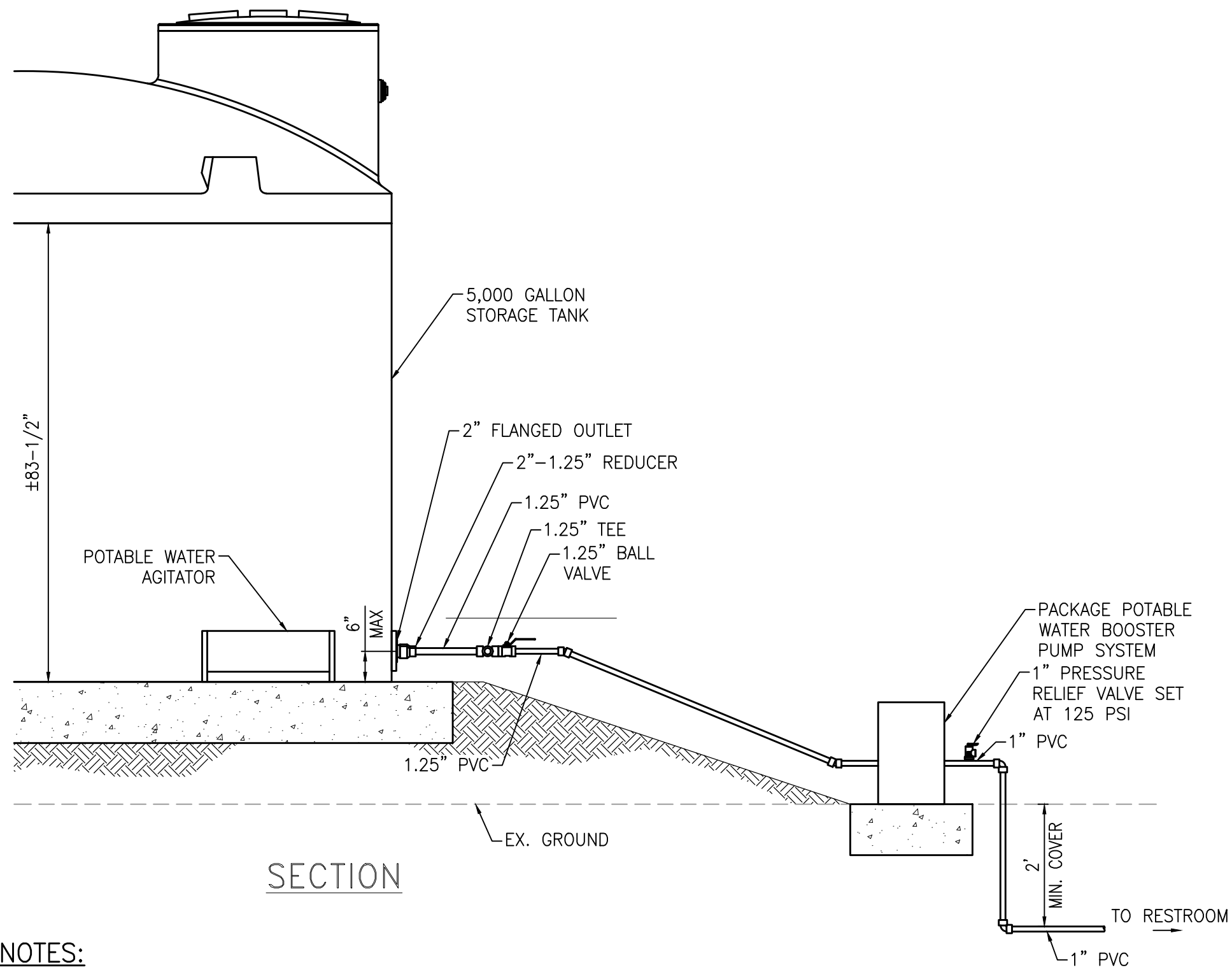
NOTES:

- PUMP ON, PUMP OFF, AND BOTTOM ELEVATIONS TO BE DETERMINED BASED ON PUMP MINIMUM SUBMERGENCE REQUIREMENTS.
- CONTRACTOR TO PROVIDE ANTI-FLOTATION ANCHORING (CONCRETE COLLAR OR BALLAST SLAB WITH TIE-DOWN STRAPS) FOR EFFLUENT PUMP STATION DUE TO HIGH GROUNDWATER. DESIGN SHALL BE PER MANUFACTURER RECOMMENDATIONS. CONTRACTOR SHALL SUBMIT SIGNED AND STAMPED STRUCTURAL CALCULATIONS AND INSTALLATION DETAILS FOR REVIEW AND APPROVAL PRIOR TO PROCUREMENT OR INSTALLATION. DESIGN FOR BUOYANCY PER GEOTECHNICAL REPORT PREPARED BY KRAZEN & ASSOCIATES, INC. ON OCTOBER 14, 2025.

4 EFFLUENT PUMP STATION
SCALE: NTS



PLAN



SECTION

NOTES:

- CONTRACTOR TO PROVIDE CONCRETE FOUNDATION AND ANCHORS FOR POTABLE WATER TANK AND PACKAGED POTABLE WATER BOOSTER PUMP SYSTEM. SIGNED AND STAMPED STRUCTURAL CALCULATIONS TO BE PROVIDED WITH SUBMITTAL BY CONTRACTOR PRIOR TO CONSTRUCTION.

2 STORAGE TANK TO BOOSTER PUMP
SCALE: NTS

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NO.	DESCRIPTION	DATE	BY

CIVIL DETAILS	LOS BANOS POLICE DEPARTMENT GUN RANGE LOS BANOS, CALIFORNIA
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DATE:	07/17/2026
DRAFTER:	KW
DESIGNER:	AM
CHECKED:	PS
PROJECT NO.	69905

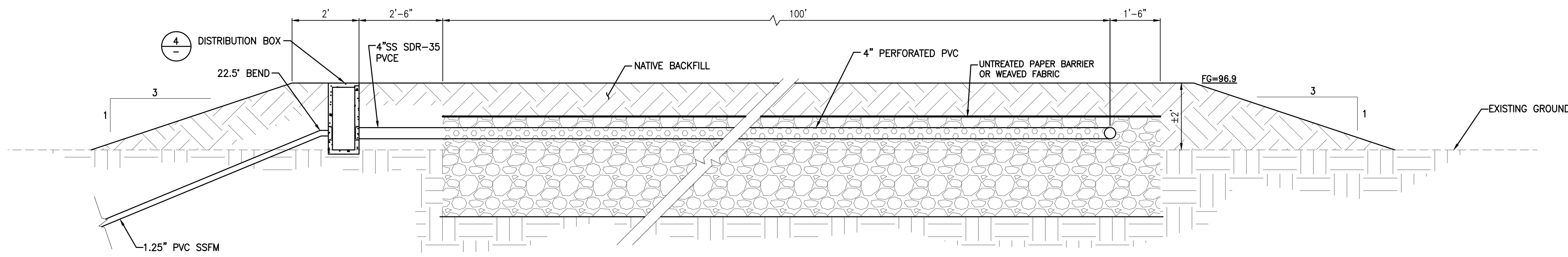


SHEET NO.	1C03
OF	14

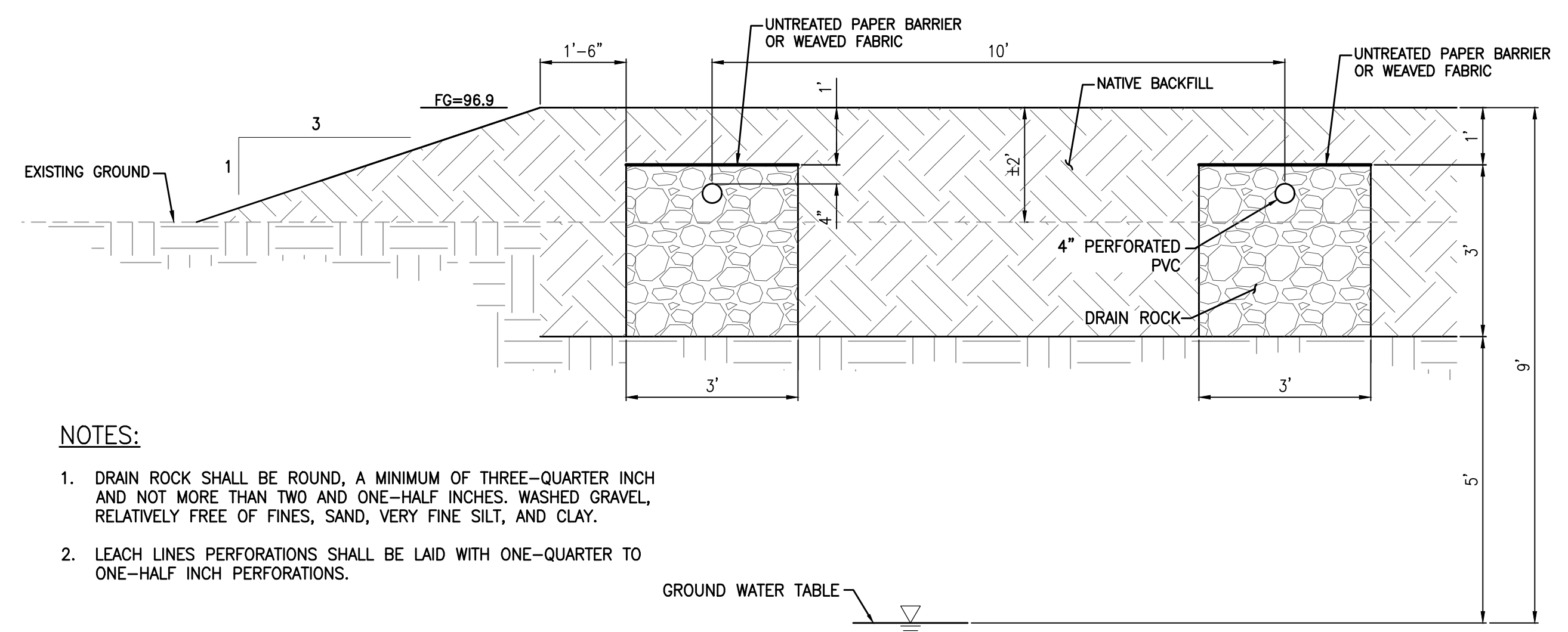
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811
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Drawing: L225925, Los Banos Gun RangeCADTask402 (Imp Plans)Imp PlansPlanSet04_Details.dwg Plot Date/Time: 7/21/2026 9:43 AM Last Saved by: KEVIN

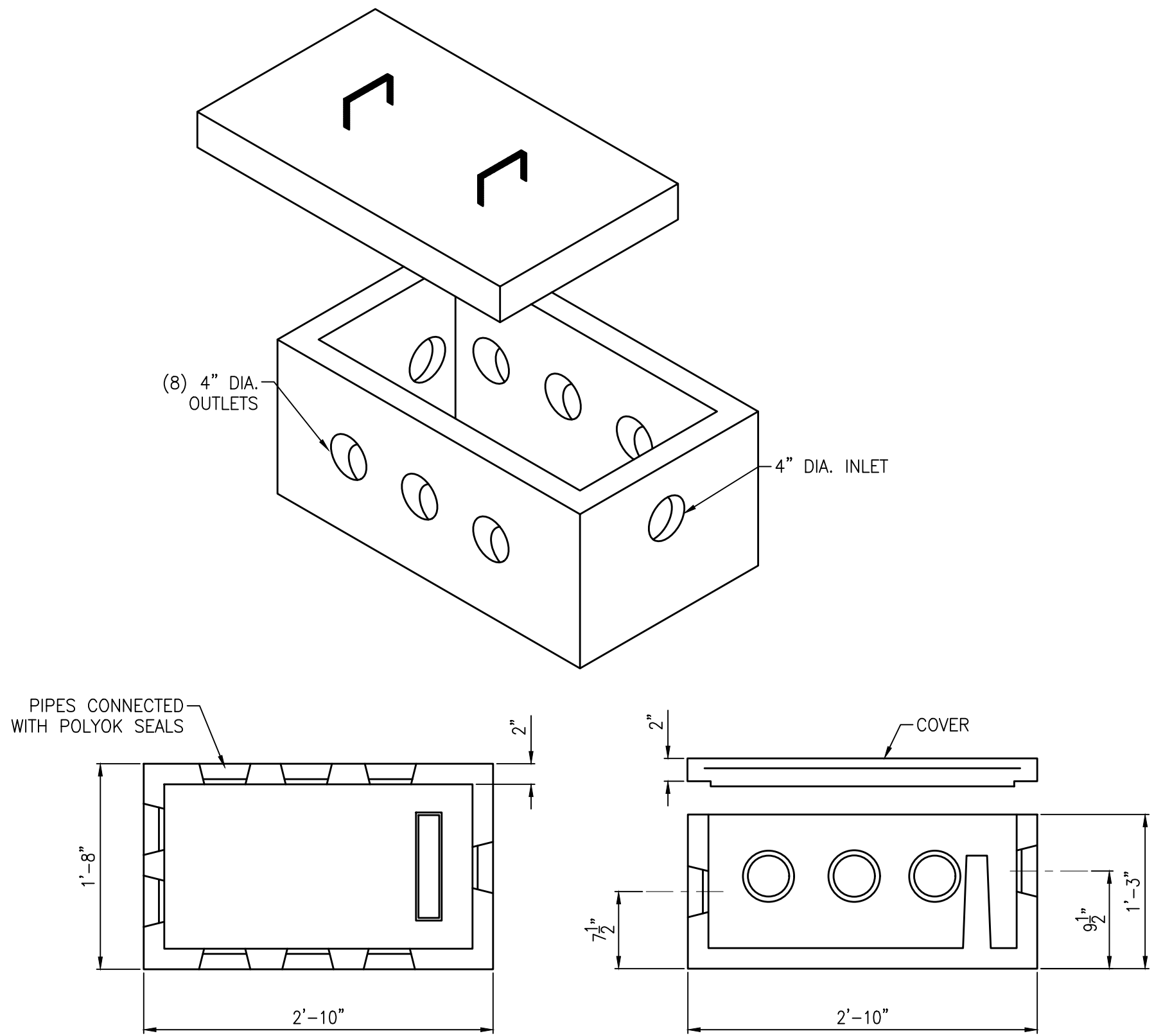


A
LEACH FIELD
SECTION
SCALE: NTS

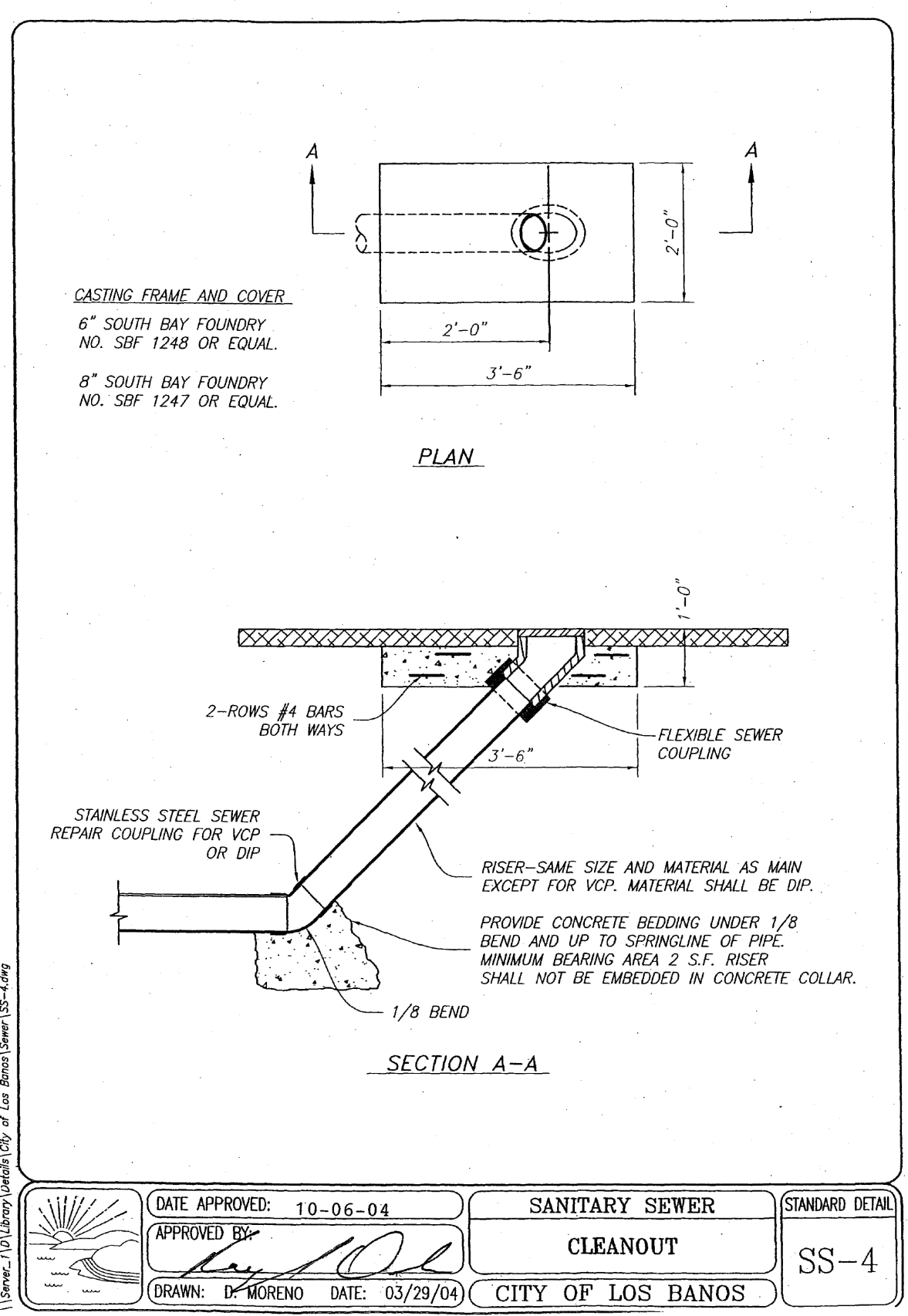


- NOTES:**
- DRAIN ROCK SHALL BE ROUND, A MINIMUM OF THREE-QUARTER INCH AND NOT MORE THAN TWO AND ONE-HALF INCHES. WASHED GRAVEL, RELATIVELY FREE OF FINES, SAND, VERY FINE SILT, AND CLAY.
 - LEACH LINES PERFORATIONS SHALL BE LAID WITH ONE-QUARTER TO ONE-HALF INCH PERFORATIONS.

B
LEACH FIELD
SECTION
SCALE: NTS



4
8 OUTLET DISTRIBUTION BOX
SCALE: NTS



DATE APPROVED: 10-06-04	SANITARY SEWER	STANDARD DETAIL
APPROVED BY: [Signature]	CLEANOUT	SS-4
DRAWN: DE MORENO	DATE: 03/29/04	CITY OF LOS BANOS

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NO.	DESCRIPTION	DATE	BY

CIVIL DETAILS
LOS BANOS POLICE DEPARTMENT GUN RANGE
LOS BANOS, CALIFORNIA

DATE: 07/17/2026
DRAFTER: KW
DESIGNER: AM
CHECKED: PS
PROJECT NO. 69905



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