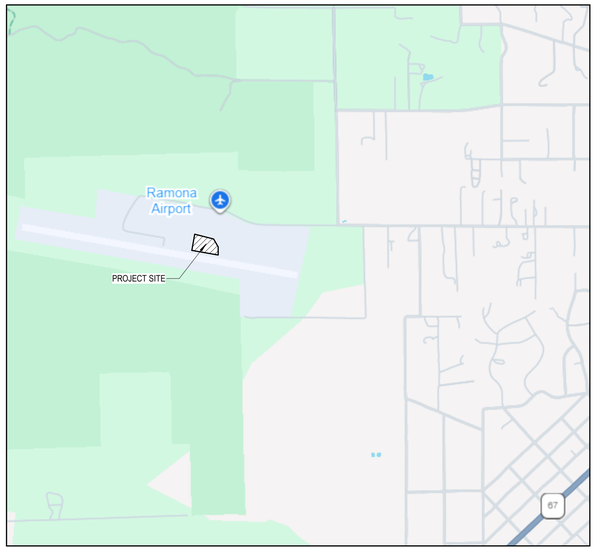
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN

2498 MONTECITO ROAD, RAMONA, CALIFORNIA 92065

LOCATION MAP



VICINITY MAP

STATEMENT OF GENERAL CONFORMANCE

APPLICATION NO.:
APPLICATION NO.:
FILE NAME: CALFIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN

THE DRAWINGS IDENTIFIED AS FOLLOWS:

- ALL DRAWING SHEETS INCLUDED IN THIS SET NOT BEARING MY STAMP AND SIGNATURE
- DRAWING SHEETS DENOTED IN THE SHEET INDEX OTHER THAN THOSE IDENTIFIED GENERAL AND ARCHITECTURAL:

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND AUTHORIZED TO PREPARE SUCH DRAWINGS (PLANS) IN THIS STATE. THEY HAVE BEEN EXAMINED BY ME FOR:

1. DESIGN INTENT AND APPEAR TO MEET THE APPROPRIATE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME. AND
2. COORDINATION WITH MY DRAWINGS (PLANS) AND SPECIFICATIONS AND ARE ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT.

PER TITLE 24, PART 1, SECTION 4-316(B): THIS STATEMENT OF GENERAL CONFORMANCE SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341 AND 4-344 OF TITLE 24, PART 1.

(SIGNATURE) (DATE) 04/24/2026
ARCHITECT OF ENGINEER DELEGATED RESPONSIBILITY FOR THIS PORTION OF THE WORK

JEFF A. KATZ (PRINT NAME) | C18223 (LICENSE NUMBER) | 09/10/2027 (EXPIRATION DATE)

PROJECT TEAM

ARCHITECTURE

COAR DESIGN GROUP
9640 GRANITE RIDGE DR. SUITE 130
SAN DIEGO, CA 92123
(619) 698-9177
CONTACT: JEFF KATZ, AIA
JEFF@COARGROUP.COM

OWNER

DEPARTMENT OF FORESTRY AND FIRE PROTECTION - TECHNICAL SERVICES UNIT - SOUTH REGION
23300 CASTLE STREET
RIVERSIDE, CA 92518
CONTACT: JESSICA HOSSIE
JESSICA.HOSSIE@FIRE.CA.GOV

CIVIL

DELANE ENGINEERING
4909 MURPHY CANYON ROAD, SUITE 330
SAN DIEGO, CA 92123
(619) 535-0602
CONTACT: JOHN PRINCE, P.E., P.M.P., QSD
JPRINCE@DELANEGROUP.COM

ELECTRICAL

ELEN CONSULTING
5473 KERANY VILLA RD, SUITE 200
SAN DIEGO, CA 92123
(619) 550-1085
CONTACT: ATNTON NATHANSON P.E.
ANATHANSON@ELENCONSULTING.COM

GEOTECHNICAL

GEOCON
6960 FLANDERS DRIVE
SAN DIEGO, CA 92121-2974
(858) 558-6900
CONTACT: ROD MIKESELL, GE
MIKESELL@GEOCONINC.COM

PROJECT DATA

PROJECT ADDRESS: 2498 MONETECITO ROAD, RAMONA, CALIFORNIA 92065

ASSESSOR'S PARCEL NUMBER: 282-030-05-00

GOVERNING AGENCIES: DEPARTMENT OF FORESTRY AND FIRE PROTECTION - TECHNICAL SERVICES UNIT
1131 S STREET
SACRAMENTO, CA 95811

FEDERAL AVIATION ADMINISTRATION
777 S. AVIATION BLVD., SUITE 150
EL SEGUNDO, CA 90245

OFFICE OF THE STATE FIRE MARSHALL
715 P STREET
SACRAMENTO, CA 95814

COUNTY OF SAN DIEGO

GOVERNING CODES: 2025 CALIFORNIA BUILDING CODE
2025 CALIFORNIA FIRE CODE
2025 CALIFORNIA ENERGY CODE
2025 CALIFORNIA GREEN BUILDING STANDARDS
2025 CALIFORNIA ELECTRICAL CODE
2025 CALIFORNIA MECHANICAL CODE
2025 CALIFORNIA PLUMBING CODE
2025 CALIFORNIA EXISTING BUILDING CODE

ZONING: A70 - LIMITED AGRICULTURE

SITE AREA: 14,897,520 SF (342 ACRES)

CONSTRUCTION TYPE: N/A

OCCUPANCIES: N/A

PARKING COUNTS: EXISTING: 13 (1 VAN ACCESSIBLE STALLS)

SCOPE OF WORK

SCOPE OF WORK: CONSTRUCT TWO NEW HELIPADS WITH UPDATES TO LANDSCAPE AND CONCRETE DRIVEWAY

FIRE NOTES

1. AT LEAST ONE PORTABLE FIRE EXTINGUISHER WITH A MINIMUM RATING OF 2A10BC SHALL BE PROVIDED WITHIN 75' MAXIMUM TRAVEL DISTANCE FOR EACH 3,000 SQUARE FEET OR PORTION THEREOF ON EACH FLOOR (CFC 906, UFC STANDARD 10-1, TITLE 19, SECT. 3.29). SEE PLANS FOR LOCATIONS.
2. AT LEAST ONE FIRE EXTINGUISHER WITH A MINIMUM RATING OF 4A2OBC SHALL BE PROVIDED OUTSIDE OF EACH MECHANICAL, ELECTRICAL OR BOILER ROOM. (CFC 906, UFC STANDARD 10-1, TITLE 19, SECT. 3.29). SEE PLANS FOR LOCATIONS.
3. COMPLETE PLANS AND SPECIFICATIONS FOR FIRE-EXTINGUISHING SYSTEMS, INCLUDING AUTOMATIC SPRINKLERS AND WET AND DRY STANDPIPES, HALON SYSTEMS AND OTHER SPECIAL TYPES OF AUTOMATIC FIRE-EXTINGUISHING SYSTEMS, BASEMENT PIPE INLETS, AND OTHER FIRE-PROTECTION SYSTEMS AND APPURTENANCES THERETO SHALL BE SUBMITTED BY THE CONTRACTOR TO FIRE AND LIFE SAFETY FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. (CFC 901.2)
4. FIRE-EXTINGUISHING SYSTEMS SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH CBC 903.
5. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS AND WATER-FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY MONITORED WHERE THE NUMBER OF SPRINKLERS IS 100 OR MORE. (CBC 904.3.1, CFC 903.4)
6. COMPLETE PLANS AND SPECIFICATIONS FOR FIRE ALARM SYSTEMS INCLUDING AUTOMATIC SPRINKLERS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE FIRE MARSHAL FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. (CFC 1001.3)
7. INSTALLATION OF FIRE ALARM SYSTEMS SHALL BE IN ACCORDANCE WITH CFC 907.
8. AN APPROVED AUDIBLE SPRINKLER FLOW ALARM SHALL BE PROVIDED ON THE EXTERIOR OF THE BUILDING IN AN APPROVED LOCATION. AN APPROVED AUDIBLE SPRINKLER FLOW ALARM TO ALERT THE OCCUPANTS SHALL BE PROVIDED IN THE INTERIOR OF THE BUILDING IN A NORMALLY OCCUPIED LOCATION.
9. ANY TIME A BUILDING IS OCCUPIED THE MEANS OF EGRESS SHALL BE ILLUMINATED AT AN INTENSITY OF NOT LESS THEN 1 FOOT-CANDLE AT THE FLOOR LEVEL.
10. EGRESS ILLUMINATION REQUIRES A SOURCE OF EMERGENCY POWER WHEN THE OCCUPANT LOAD IS 100 OR MORE.

ABBREVIATIONS

#	POUND or NUMBER	FRP	FIBERGLASS REINFORCED PANEL	REF	REFERENCE
&	AND	FS	FIRESTOP SYSTEM	REINF	REINFORCED
@	AT	FT.	FOOT or FEET	REQ	REQUIRED
L	ANGLE	FTG	FOOTING	RM	ROOM
Ø	DIAMETER or ROUND			RMT	RUBBER MAT
		GA	GAUGE	RP	ROOF PAVERS
ACOUS	ACOUSTICAL	GALV	GALVANIZED		
ACT	ACOUSTICAL CEILING TILE	GB	GYPSUM BOARD	S	STUCCO
AD	ACESS DOOR and FRAME	GBT	GYPSUM BOARD TRIM	SCHED	SCHEDULE
ALUM	ALUMINUM	GF	GLAZING FILM	SF	SQUARE FEET
APP	APPROXIMATE	GFRC	GLASS FIBER REINFORCED CONCRETE	SFRM	SPRAYED FIRE-RESISTANT MATERIAL
ARCH	ARCHITECTURAL	GFRG	GLASS FIBER REINFORCED GYPSUM	SFT	STOREFRONT
AS	ACOUSTICAL SEALANT	GL	GLAZING	SIM	SIMILAR
ASB	ACOUSTICAL SUSPENDED BAFFLES	GRT	GROUT	SJ	SEISMIC JOINT
				SM	SHEET METAL
B	BRICK	H	HEIGHT	SPEC	SPECIFICATION
BLDG	BUILDING	HB	HOSE BIBB	SQ	SQUARE
BLK	BLOCK	HM	HOLLOW METAL	SS	STAINLESS STEEL
BLKG	BLOCKING	HORIZ	HORIZONTAL	SSU	SOLID SURFACE
BM	BEAM			ST	STAIN
CC	COLUMN COVER	INSUL	INSULATION	STA	STATION
CFB	CEMENT FIBER BOARD SIDING	INT	INTERIOR	STD	STANDARD
CJ	CONTROL JOINT			STL	STEEL
CLG	CEILING	JS	JOINT SEALANT	STN	STONE
CLR	CLEAR			STOR	STORAGE
CMU	CONCRETE MASONRY UNIT	KB	KNOX BOX	STRUC	STRUCTURAL
CNC	CONCRETE			SUSP	SUSPENDED
CONT	CONTINUOUS	L	LOCKER TYPE AND COLOR	SYM	SYMMETRICAL
CP	CEMENT PLASTER	LAV	LAVATORY		
CPT	CARPET	LD	LOADING DOCK EQUIPMENT	T	TILE
CW	CURTAIN WALL	LF	LIGHT FIXTURE	T&G	TONGUE AND GROOVE
CWP	COMPOSITE METAL WALL PANEL	LV	LOUVER	T.O.	TOP OF
		LVT	LUXURY VINYL TILE	T.O.C.	TOP OF CONCRETE
DBL	DOUBLE			T.O.F.	TOP OF FRAMING
DEFS	DIRECT-APPLIED EXTERIOR FINISH SYSTEM	M.O.	MASONRY OPENING	T.O.M.	TOP OF MASONRY
		MAX	MAXIMUM	T.O.P.	TOP OF PARAPET
DET	DETAIL	MC	METAL COPING	T.O.S.	TOP OF SHEATHING
DIA	DIAMETER	MECH	MECHANICAL	T.V.	TELEVISION
DIM or DIMS	DIMENSION or DIMENSIONS	MFR	MANUFACTURER	TA	TOILET ACCESSORIES
DN	DOWN	MIN	MINIMUM	TC	TOILET COMPARTMENTS
DWG	DRAWING	MISC	MISCELLANEOUS	TEL	TELEPHONE
DWR	DRAWER	MRP	METAL ROOF PANEL	TG	TEMPERED GLASS
		MTL	METAL	TLOF	TOUCHDOWN AND LIFT OFF
(E)	EXISTING	MWP	METAL WALL PANEL	TPO	THERMOPLASTIC ROOF MEMBRANE
EA	EACH			TS	TRANSITION STRIP
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	(N)	NEW	TYP.	TYPICAL
		N.I.C.	NOT IN CONTRACT		
EJ	EXPANSION JOINT	N.T.S.	NOT TO SCALE	U.O.N.	UNLESS OTHERWISE NOTED
ELEC	ELECTRICAL	O.C.	ON CENTER	V.I.F.	VERIFY IN FIELD
ELEV	ELEVATOR OR ELEVATION	OHD	OVERHEAD DOOR	V.T.R.	VENT THRU ROOF
EQ	EQUAL	OP	OPERABLE PANEL PARTITION	VERT	VERTICAL
EXP	EXPOSED STRUCTURE			VT	VINYL TILE
EXT	EXTERIOR	P	PAINT		
		PL	PLASTIC LAMINATE	W	WITH
FAB	FABRIC	PLY	PLYWOOD	W/O	WITHOUT
FATO	FINAL APPROACH AND TAKEOFF AREA	PS	PROJECTION SCREEN	WB	WALL BASE
		PVC	POLYVINYL CHLORIDE MEMBRANE ROOFING	WC	WATER CLOSET
FE	FIRE EXTINGUISHER			WCR	WALL COVERING
FEC	FIRE EXTINGUISHER CABINET			WD	WOOD
FFE	FINISH FLOOR ELEVATION	QT	QUARTZ	WF	WOOD FLOORING
FHC	FIRE HOSE CABINET			WM	WALK-OFF MAT
FL	FLOOR	R.O.	ROUGH OPENING	WPJ	WEAKENED PLANE JOINT
FP	FLAG POLE	RAD	RADIUS		

GENERAL NOTES

1. DIMENSIONS SHOWN ON THE FLOOR PLANS, SECTIONS AND DETAILS ARE TO FACE OF STUDS, COLUMN GRID LINES AND FACE OF CONCRETE AND BLOCK WALLS, UNLESS OTHERWISE NOTED OR SHOWN.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.
3. ALL ITEMS ARE BASE BID UNLESS OTHERWISE NOTED OR SPECIFIED.
4. ALL DRAIN LINES WITHIN WALLS ARE TO BE WRAPPED IN SOUND INSULATION BATTS.
5. EVERY EXIT DOOR SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE.
6. CONTRACTOR SHALL PROVIDE ACCESS PANELS REQUIRED BY THE PLUMBING, AIR CONDITIONING AND OTHER INSTALLERS, AS REQUIRED BY CODE. ANY ACCESS PANEL IN A FIRE RATED WALL OR CEILING SHALL HAVE THE SAME FIRE RATING AS THE WALL OR CEILING IN WHICH THEY OCCUR.
7. STRUCTURAL AND FIRE RESISTIVE INTEGRITY SHALL BE MAINTAINED AT PENETRATIONS FOR MECHANICAL, PLUMBING, ELECTRICAL, AND COMMUNICATIONS PIPE, DUCT AND CONDUIT AS INDICATED.
8. PROVIDE FIRE BLOCKING AT FLOOR, CEILING AND MID HEIGHT OF WALLS OVER 10'-0".
9. STUCCO, PLASTER AND GYPSUM BOARD SHALL TERMINATE WITH A "J" MOLDING WHERE THE EDGE IS EXPOSED UNLESS NOTED OR SPECIFIED OTHERWISE.
10. A FLOOR OR LANDING NOT MORE THE 1/4" BELOW THE THRESHOLD IS REQUIRED AT EACH SIDE OF AN EXIT DOOR.
11. BRAND OR TRADE NAME, SUBSTITUTIONS OF "EQUALS": REQUESTS FOR SUBSTITUTIONS OF AN ITEM AS AN "EQUAL" TO ANY ITEM INDICATED OR SPECIFIED MUST BE INCLUDED AS A PART OF THE CONTRACTOR'S BID PROPOSAL, AS SPECIFIED IN THE GENERAL CONDITIONS.
12. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER GRAPHIC SCALE. DO NOT SCALE DRAWINGS.
13. IT SHOULD BE NOTED THAT WHILE EXISTING UTILITY DRAWINGS ARE AVAILABLE, THERE IS NO ASSURANCE THAT ALL UTILITIES ARE SHOWN. THE CONTRACTOR SHALL PROCEED WITH CAUTION TO INSURE THAT ALL UTILITIES ENCOUNTERED, WHETHER OR NOT OF RECORD, SHALL BE PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL ALSO TAKE PRECAUTIONS NECESSARY TO PROTECT HIMSELF AND ALL EMPLOYEES FROM INJURY WHICH MAY BE CAUSED BY CONTACT WITH UTILITY SERVICES.
14. GYPSUM BOARD FOR FIRE RATED ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH CBC CHAPTER 7.
15. DOOR HARDWARE SHALL BE LEVER TYPE.
16. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS.
17. FIRE DAMPER ASSEMBLIES, INCLUDING SLEEVES AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO INSTALLATION.
18. INTERIOR FINISHES SHALL COMPLY WITH THE PROVISIONS OF CBC CHAPTER 8.
19. ALL DECORATIVE MATERIALS SHALL BE MAINTAINED IN A FLAME-RETARDANT CONDITION.
20. ALL REQUIRED PERMITS MUST BE OBTAINED FROM FIRE PLAN CHECK BEFORE BUILDING IS OCCUPIED.
21. BUILDING NUMBERS SHALL BE EASILY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.
22. THE CONSTRUCTION, REMODEL, OR DEMOLITION OF A BUILDING SHALL COMPLY WITH THE REQUIREMENTS OF THE COUNTY.
23. THESE PLANS AND ALL WORK SHALL COMPLY WITH THE CALIFORNIA BUILDING STANDARDS CODE FOUND IN THE STATE OF CALIFORNIA TITLE 24 CCR, AS AMENDED AND ADOPTED BY THE COUNTY.
24. CONTRACTOR SHALL THOROUGHLY COORDINATE ALL TRADES AS REQUIRED TO COMPLETE ALL WORK INDICATED AND NECESSARY FOR THE PROJECT.
25. CONTRACTOR SHALL PROTECT EXISTING SITE FEATURES AND SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED DURING CONSTRUCTION.
26. EXIT SIGNS MUST BE INTERNALLY ILLUMINATED (UFC SEC. 1212.4 & CBC SEC.1013).
27. TWO SEPARATE POWER SUPPLIES SHALL BE PROVIDED FOR EXIT SIGNS PER(CBC SEC. 1013).
28. THE CONTRACTOR SHALL ENFORCE ALL SAFETY MEASURES. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATION.
29. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND / OR BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEY OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.
31. CONTRACTOR SHALL REPLACE IN KIND ANY TRAFFIC SENSORS DAMAGED DURING CONSTRUCTION.
32. PENETRATION OF FIRE RESISTIVE WALLS, FLOOR - CEILING ASSEMBLIES AND ROOF - CEILINGS SHALL BE PROTECTED AS REQUIRED IN CBC SECTION 714.
33. NO HAZARDOUS MATERIALS WILL BE USED OR STORED WITHIN THE BUILDING WHICH EXCEED THE QUANTITIES SHOWN ON CBC TABLE 307.1(1).
34. WHEN SERVING MORE THAN 100 SPRINKLER HEADS, AUTOMATIC SPRINKLER SYSTEMS SHALL BE SUPERVISED BY AN APPROVED CENTRAL PROGRAM OR REMOTE STATION SERVICE OR SHALL BE PROVIDED WITH A LOCAL ALARM WHICH WILL GIVE AN AUDIBLE SIGNAL AT A CONSTANTLY ATTENDED LOCATION.
35. WORK NOT SPECIFICALLY INDICATED OR SPECIFIED BUT WHICH IS REQUIRED FOR THE COMPLETION OF THE WORK SHALL BE PROVIDED IN THE SAME MANNER AS SIMILAR WORK WHICH IS REQUIRED OR SPECIFIED WITHOUT ADDITIONAL CHARGE.

STANDARDS

1. FAA AC 150/5390-2B (HDAC)
2. US DEPT TRANSPORTATION FEDERAL AVIATION ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS AC NO. 150/5370-10H DATED 12/21/2018

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E0.1	ELECTRICAL SYMBOLS AND ABBREVIATIONS
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E3.1	ELECTRICAL SCHEDULES AND DETAILS
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SYMBOLS

- GRID
- DETAIL
- BUILDING SECTION
- INTERIOR ELEVATION
- WALL TYPE
- WINDOW TYPE
- DOOR NUMBER
- ROOM NUMBER
- DATUM POINT
- CG — CORNER GUARD
- FE — FIRE EXTINGUISHER
- CONTINUOUS, UNOBSTRUCTED AND UNDIMINISHED PATH OF TRAVEL
- ROOM NAME
- BUNK 123 — ROOM NUMBER

COAR DESIGN GROUP
9640 GRANITE RIDGE DR, SUITE 130
SAN DIEGO, CA 92123
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DESCRIPTION:	DATE:
PRELIMINARY DESIGN	03/13/26
50% CONSTRUCTION DOCUMENTS	04/20/26
95% CONSTRUCTION DOCUMENTS	06/02/26
100% CONSTRUCTION DOCUMENTS	06/11/26
PERMITTING SUBMITTAL	06/23/26

LICENSED ARCHITECT — JEFFREY A. KATZ — C18223 — REN. 09/30/27 — STATE OF CALIFORNIA

PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN
2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

PROJECT NUMBER: 260101

SHEET TITLE: TITLE SHEET

SHEET NUMBER: T-1

CALFIRE RAMONA AIR ATTACK BASE HELIPADS

CIVIL IMPROVEMENT PLANS

SPECIAL NOTES:

1. THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTIONS TO THE CONTRACTOR BY THE ENGINEER OF WORK.
2. THE ENGINEER OF WORK SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NOR SHALL THE ENGINEER BE REQUIRED TO SUPERVISE CONDUCT OF THE WORK OF THE CONSTRUCTION PROCEDURES AND SAFETY PROCEDURES FOLLOWED BY THE CONTRACTOR OR SUBCONTRACTORS OR THEIR RESPECTIVE EMPLOYEES OR BY ANOTHER PERSON AT THE JOB SITE OTHER THAN THAT OF THE ENGINEER'S EMPLOYEES.
3. THE LOCATIONS OF ANY UNDERGROUND STRUCTURES AS SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR THE BENEFIT OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT ALL UNDERGROUND OR OVERHEAD STRUCTURES WHETHER SHOWN OR NOT ON THESE DRAWINGS
4. FOR ELECTRONIC FILES OF THE HORIZONTAL CONTROL OF ONSITE IMPROVEMENTS, CONTRACTOR SHALL CONTACT THE ENGINEER OF WORK AT (619) 787-5566.
5. THE CONTRACTOR SHALL VERIFY THE LOCATION OF AND PROTECT ALL EXISTING IMPROVEMENTS BEFORE AND DURING CONSTRUCTION.
6. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF LOCATION OF EXISTING UTILITIES.
7. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.
8. IF ANY EXISTING HARDSCAPE OR LANDSCAPE, INCLUDING STRIPING, INDICATED ON THE APPROVED PLANS IS DAMAGED OR REMOVED DURING DEMOLITION OR CONSTRUCTION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT IT SHALL BE REPAIRED OR REPLACED IN KIND AND EQUIVALENT SIZE PER THE APPROVED PLANS.
9. THE CONTRACTOR SHALL TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF UTILITIES OR STRUCTURES PRIOR TO ANY EXCAVATION FOR VERIFICATION AND LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OR WORK:

SDG&E-GAS & ELECTRIC	(800) 227-2600
AT&T (UNDERGROUND SERVICE ALERT)	(800) 422-4133
SEWER (RAMONA MUNICIPAL WATER DISTRICT)	(760) 789-1330
WATER (RAMONA MUNICIPAL WATER DISTRICT)	(760) 789-1330

STANDARDS PLANS AND SPECIFICATIONS

THE WORK SHOWN ON THESE PLANS IS TO BE DONE ACCORDING TO THE PROJECT SPECIFICATIONS AND THE FOLLOWING STANDARD SPECIFICATIONS, PLANS, MUNICIPAL CODES, AND DESIGN MANUALS AND GUIDELINES:

STANDARD SPECIFICATIONS:

US DEPT TRANSPORTATION FEDERAL AVIATION ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS AC NO. 150/5370-10H DATED 12/21/2018

STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), 2024 EDITION

CALIFORNIA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, REV 6, 2018 EDITION

STANDARD PLANS:

SAN DIEGO REGIONAL STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, 2022 EDITION

CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S CUSTOMARY STANDARD PLANS, 2023 EDITION

TOPOGRAPHY SOURCE

THE EXISTING TOPOGRAPHY SURVEY AS SHOWN ON THESE PLANS WAS PROVIDED BY THE OWNER ASSOCIATED WITH THE ADJACENT FIRE SUPPRESSANT LOADING PROJECT AS APPROVED BY DAVID B. KAROLY AUGUST 26,2020.

BASIS OF BEARING

HORIZONTAL COORDINATES ON THIS SURVEY ARE EXPRESSED IN THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE VI, EPOCH 2010.00. DERIVED FROM OPUS SOLUTIONS AND CONVENTIONAL TRAVERSE.

VERTICAL BENCHMARK

ELEVATIONS ARE EXPRESSED IN NAVD88, GEOID 12B PROCESSED BY CALFIRE.

GRADING AND GEOTECHNICAL SPECIFICATIONS

ALL GRADING SHALL BE DONE UNDER OBSERVATION AND TESTING BY A QUALIFIED CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND, IF REQUIRED, BOTH A QUALIFIED CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND AN ENGINEERING GEOLOGIST. ALL GRADING MUST BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY ORDINANCE AND THE RECOMMENDATIONS AND SPECIFICATIONS SET FORTH A SOILS REPORT OR GEOLOGICAL/GEOTECHNICAL INVESTIGATION ENTITLED:

GEOTECHNICAL INVESTIGATION CAL FIRE RAMONA AIR ATTACK BASE CALIFORNIA, PREPARED BY GEOCON, DATED MAY 11, 2026. PROJECT NO. G3644-42-02

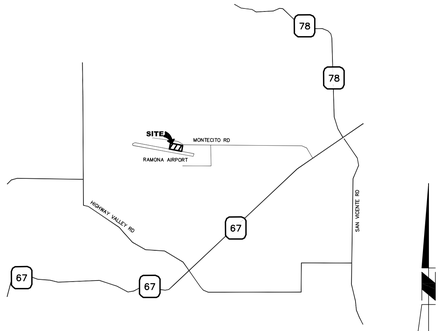
CONSTRUCTION STORM WATER PROTECTION NOTES

TOTAL SITE DISTURBANCE IS OVER AN ACRE

THE PROJECT IS SUBJECT TO MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT NO. R9-2013-0001 AS AMENDED BY RP-2015-0001 DWQ AND 2015-0100 AND CONSTRUCTION GENERAL PERMIT (CGP) "ORDER NO." 2022-0057-DWG TRADITIONAL RISK LEVEL 2.

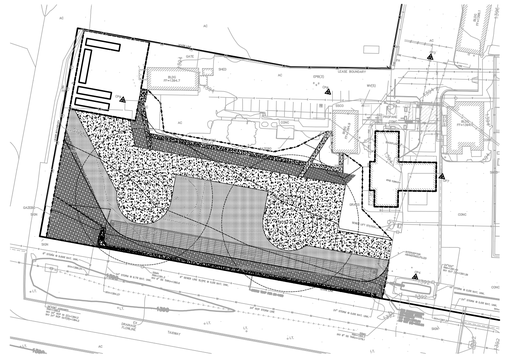
ACCORDING TO THE OWNER, THE PROJECT WILL BE INCORPORATED INTO THE CURRENTLY ACTIVE FIRE SUPPRESSANT LOADING PROJECT WITH SUBMISSION OF REVISED NOI AND SWPPP MAPS

WDID# _____ (CONTRACTOR/OWNER TO CONFIRM AND FILL IN PRIOR TO CONSTRUCTION)



VICINITY MAP

NO SCALE



KEY MAP

NO SCALE

CIVIL SHEET INDEX

DRAWING NAME	SHEET REFERENCE
CIVIL:	
CIVIL TITLE SHEET	C1.0
DETAILS	C2.0
EXISTING CONDITIONS AND CONSTRAINTS MAP	C3.0
GRADING PLAN	C4.0
EROSION CONTROL PLAN	C5.0

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	P	PAVEMENT
ACC	ACCESSIBLE	PCC	PORTLAND CEMENT CONCRETE
AD	AREA DRIAN	PIV	POST INDICATOR VALVE
BFP	BACKFLOW PREVENTOR	POC	POINT OF CONNECTION
BW	BOTTOM OF WALL	PB	PULL BOX
CB	CATCH BASIN	PR	PROPOSED
CL	CENTERLINE	RIM	RIM OF STRUCTURE COVER
CO	CLEANOUT	RW	RECYCLED WATER
CONC	CONCRETE	R/W	RIGHT OF WAY
CYD	CUBIC YARDS	S	SEWER
EX	EXISTING	SCO	SEWER CLEANOUT
EOP	EDGE OF PAVEMENT	SD	STORM DRAIN
FDC	FIRE DEPARTMENT CONNECTION	SFM	SEWER FORCE MAIN
FFE	FINISH FLOOR ELEVATION	SMH	SEWER MANHOLE
FG	FINISH GRADE	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
FH	FIRE HYDRANT	TB	TOP OF BOX
FL	FLOWLINE	TB	THRUST BLOCK
FS	FIRE SERVICE	TC	TOP OF CURB
FS	FINISH SURFACE	TD	TRENCH DRAIN
GB	GRADE BREAK	TF	TOP OF FOOTING
G&O	GRIND AND OVERLAY	TG	TOP OF GRATE
HH	HANDHOLE	TP	TOP OF PIPE
IE	INVERT ELEVATION	TW	TOP OF WALL
IRR	IRRIGATION	TYP	TYPICAL
LF	LINEAR FEET	W	WATER
LG	LIP OF GUTTER	WM	WATER METER
LOW	LIMIT OF WORK	WV	WATER VALVE

LEGEND

SYMBOL	ITEM
P/L	PROPERTY LINE
R/W	RIGHT OF WAY LINE
	EASMENT
EXISTING	
W	WATER LINE
FS	FIRE SERVICE LINE
IRR	IRRIGATION LINE
S	SEWER LINE
SD	STORM DRAIN LINE
G	GAS LINE
COM	COMMUNICATION LINE
E	ELECTRIC LINE
400	ELEVATION CONTOUR
	WATER VALVE
	ELEC PULL BOX
	LIGHT
	SIGN
	BUILDING
(508.0±) X	SPOT ELEVATION
	FIRE HYDRANT
	BENCHMARK
	FOUND MONUMENT
	IRRIGATION CONTROL BOX
	JUNCTION BOX
S	SEWER MANHOLE
D	STORM DRAIN MANHOLE
	TELEPHONE PEDESTAL
PB	TRAFFIC SIGNAL PULLBOX
	TREE
W	WATER MANHOLE
WM	WATER METER
PROPOSED	
505	MAJOR CONTOUR
504	MINOR CONTOUR
P 617.24	SPOT ELEVATION
	SURFACE FLOW DIRECTION
	GRADING DAYLIGHT LINE
-> -> -> -> ->	SWALE
GB	GRADE BREAK
	PORTLAND CEMENT CONCRETE PAVING PER DETAIL 1/C2.0
	PEDESTRIAN CONCRETE PAVING PER DETAIL 2/C2.0
	COBBLE PER PLAN

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100% CONSTRUCTION DOCUMENTS	06/11/26
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REGISTERED PROFESSIONAL ENGINEER — SHAWN PAUL PRINCE — No. C72279 — Exp. 6/30/28 — CIVIL — STATE OF CALIFORNIA

PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN

2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

PROJECT NUMBER:
260101

SHEET TITLE:
CIVIL TITLE SHEET

SHEET NUMBER:
C1.0

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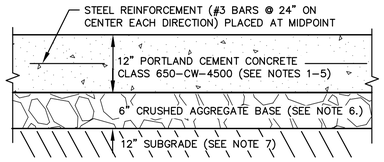
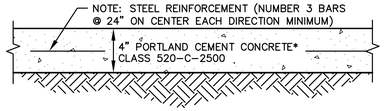


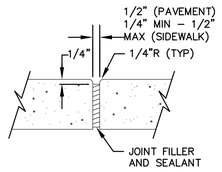
NOTES
1. CONTROL JOINTS AND SPACING PER DETAIL 3 THIS SHEET
2. MODULUS OF SUBGRADE REACTION 125 TO 150 PCI
3. MODULUS OF RUPTURE OF 600 PSI
4. TYPE V CEMENT (ASTM C 150)
5. MAXIMUM WATER TO CEMENT RATIO 0.45
6. CRUSHED AGGREGATE BASE MAX 1" AGG PER P-206 OR SSPWC 200-2.2 COMPACTED TO 95%
7. SUBGRADE SOILS SHALL BE SCARIFIED, MOISTURE CONDITIONED, UNIFORMLY MIXED, AND COMPACTED TO A DRY DENSITY OF AT LEAST 95% AT NEAR OR SLIGHTLY ABOVE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D 1557 PER GEOTECHNICAL RECOMMENDATIONS

1 HELIPAD CONCRETE PAVEMENT SECTION

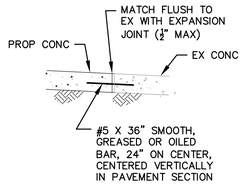


*CONTROL JOINTS AND SPACING PER DETAIL 3 THIS SHEET

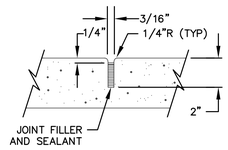
2 PEDESTRIAN CONCRETE PAVEMENT SECTION



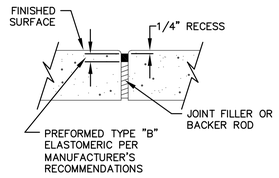
EXPANSION JOINT



CONTACT JOINT



WEAKENED PLANE JOINT



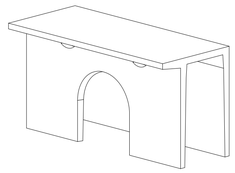
JOINT FILLER AND SEALANT

REQUIRED JOINT LOCATIONS

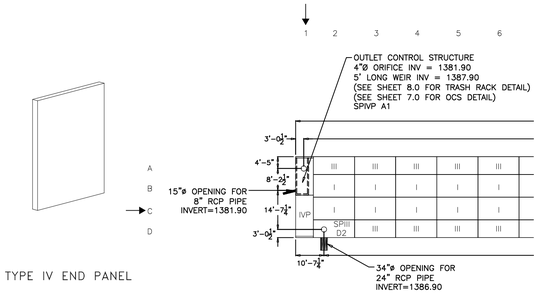
CONSTRUCT JOINTS IN ACCORDANCE WITH AC 150/5320-6G SECTION 3.16 AND AC 150/5370-10H SECTION 501-4.10

- CONSTRUCT CONTACT OR KEYED JOINT AT CONNECTION TO EXISTING CONCRETE OR END OF POUR.
- CONSTRUCT WEAKENED PLANE JOINTS AT 20-FT MAX INTERVALS BOTH WAYS. EACH PANEL LENGTH SHALL NOT EXCEED 1.25 TIMES THE PANEL WIDTH
- CONSTRUCT EXPANSION JOINTS AT PAVEMENT INTERSECTIONS, CHANGES IN PAVEMENT DIRECTIONS, AND ADJACENT TO STRUCTURES
- COORDINATE JOINT LOCATIONS TO ALIGN WITH BUILDING CORNERS, ENDS OF WALLS, AND OTHER STRUCTURES

3 CONCRETE JOINTS

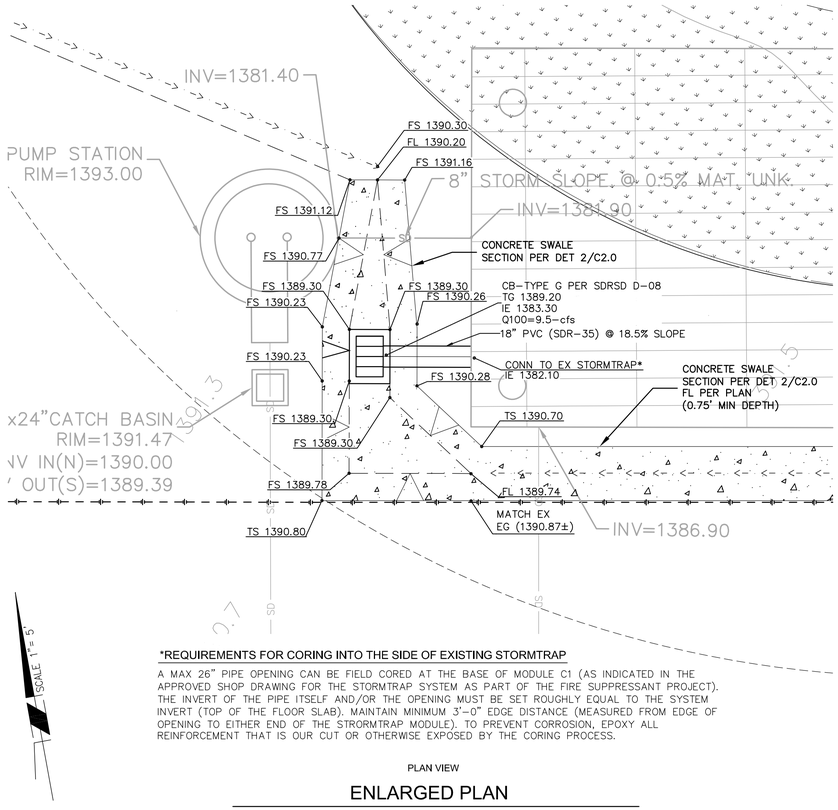


TYPE IV



TYPE IV END PANEL

EXCERPTS FROM PROJECT 7675 CAL FIRE SOUTHERN REGION RAMONA AIR ATTACK BASE FIRE SUPPRESANT LOADING SYSTEM SUBMITTAL #14.1 STORM TRAP APPROVED BY MATT MCCLEOD 8/19/25



*REQUIREMENTS FOR CORING INTO THE SIDE OF EXISTING STORMTRAP

A MAX 26" PIPE OPENING CAN BE FIELD CORED AT THE BASE OF MODULE C1 (AS INDICATED IN THE APPROVED SHOP DRAWING FOR THE STORMTRAP SYSTEM AS PART OF THE FIRE SUPPRESSANT PROJECT). THE INVERT OF THE PIPE ITSELF AND/OR THE OPENING MUST BE SET ROUGHLY EQUAL TO THE SYSTEM INVERT (TOP OF THE FLOOR SLAB). MAINTAIN MINIMUM 3'-0" EDGE DISTANCE (MEASURED FROM EDGE OF OPENING TO EITHER END OF THE STRORMTRAP MODULE). TO PREVENT CORROSION, EPOXY ALL REINFORCEMENT THAT IS OUR CUT OR OTHERWISE EXPOSED BY THE CORING PROCESS.

PLAN VIEW

ENLARGED PLAN

SCALE 1"=5'

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REGISTERED PROFESSIONAL ENGINEER — JOHN PAUL PRINCE — No. C72279 — Exp. 6/30/28 — CIVIL — STATE OF CALIFORNIA

PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN
2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

PROJECT NUMBER:
260101

SHEET TITLE:
DETAILS

SHEET NUMBER:
C2.0

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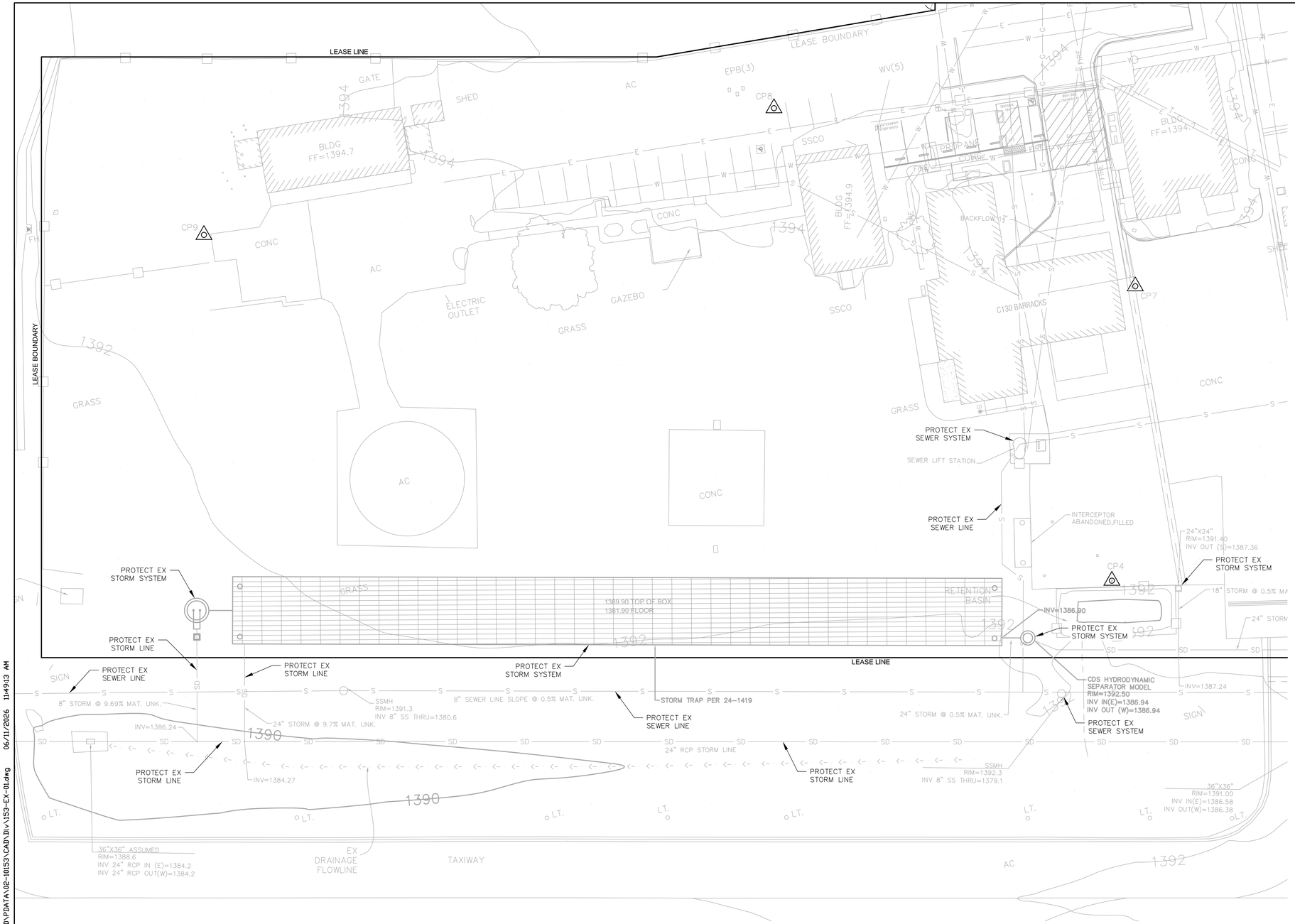

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REGISTERED PROFESSIONAL ENGINEER
SHAWN PAUL PRINCE
No. C72279
Exp. 6/30/28
CIVIL
STATE OF CALIFORNIA

PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN

2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

PROJECT NUMBER:
260101

SHEET TITLE:
EXISTING CONDITIONS AND CONSTRAINTS MAP

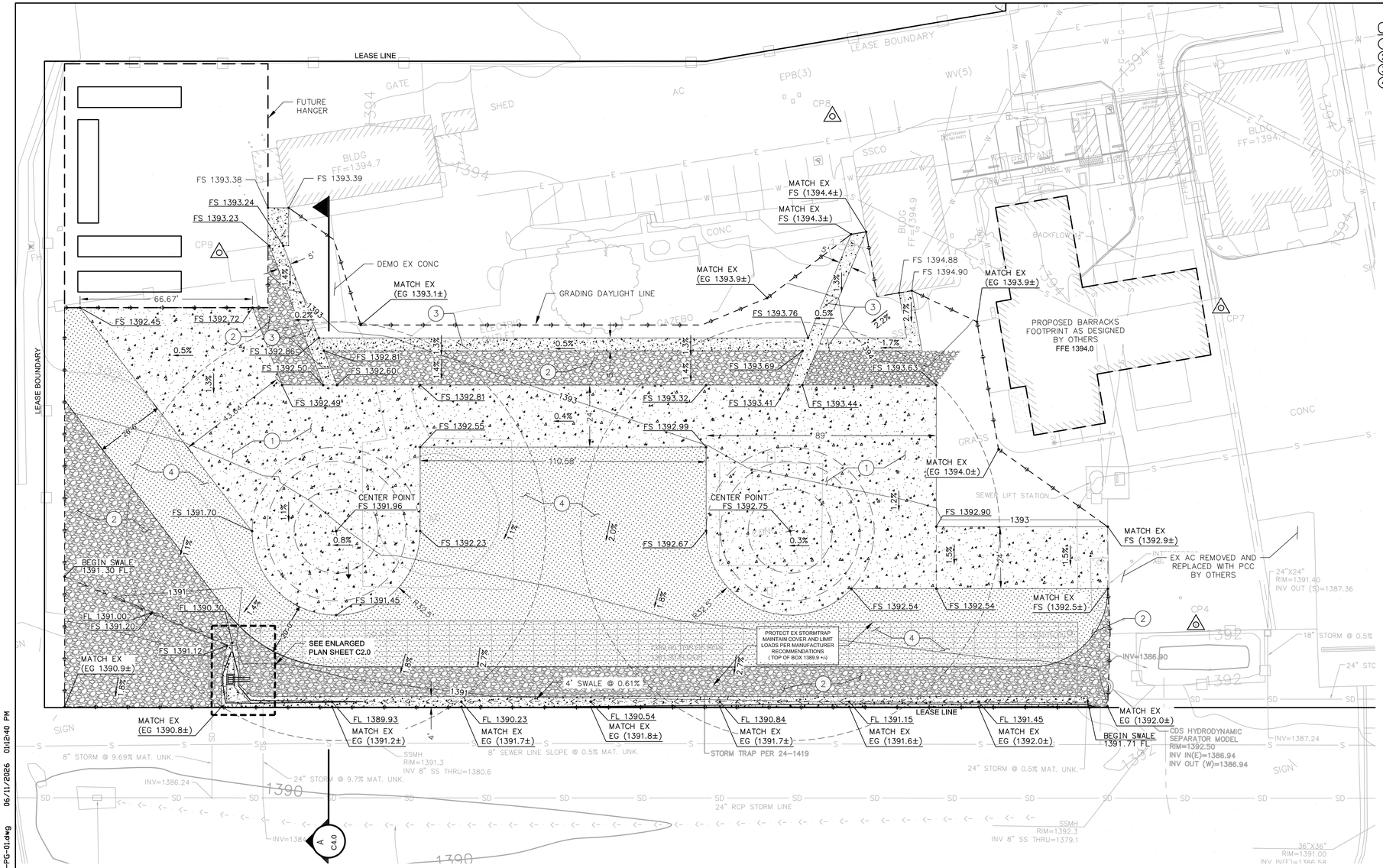
SHEET NUMBER:
C3.0

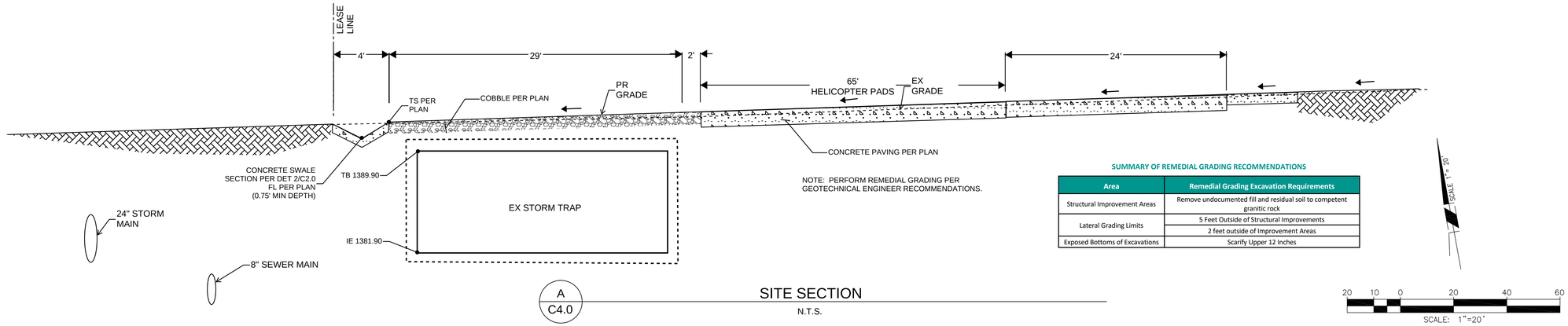
CONSTRUCTION NOTES

1. HELIPAD CONCRETE PAVING PER DET 1/C2.0
2. 4' COBBLE OVER 3/4" CRUSHED AGGREGATE BASE
3. PEDESTRIAN CONCRETE PAVING PER DET 2/C2.0
4. TURF PER CALFIRE

NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS, INCLUDING STORMTRAP STRUCTURE AND PIPING





A C4.0 SITE SECTION
N.T.S.

NOTE: PERFORM REMEDIAL GRADING PER GEOTECHNICAL ENGINEER RECOMMENDATIONS.

SUMMARY OF REMEDIAL GRADING RECOMMENDATIONS

Area	Remedial Grading Excavation Requirements
Structural Improvement Areas	Remove undocumented fill and residual soil to competent granitic rock
Lateral Grading Limits	5 Feet Outside of Structural Improvements
	2 feet outside of Improvement Areas
Exposed Bottoms of Excavations	Scarify Upper 12 Inches

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PROJECT NUMBER:
260101

SHEET TITLE:
GRADING PLAN

SHEET NUMBER:
C4.0

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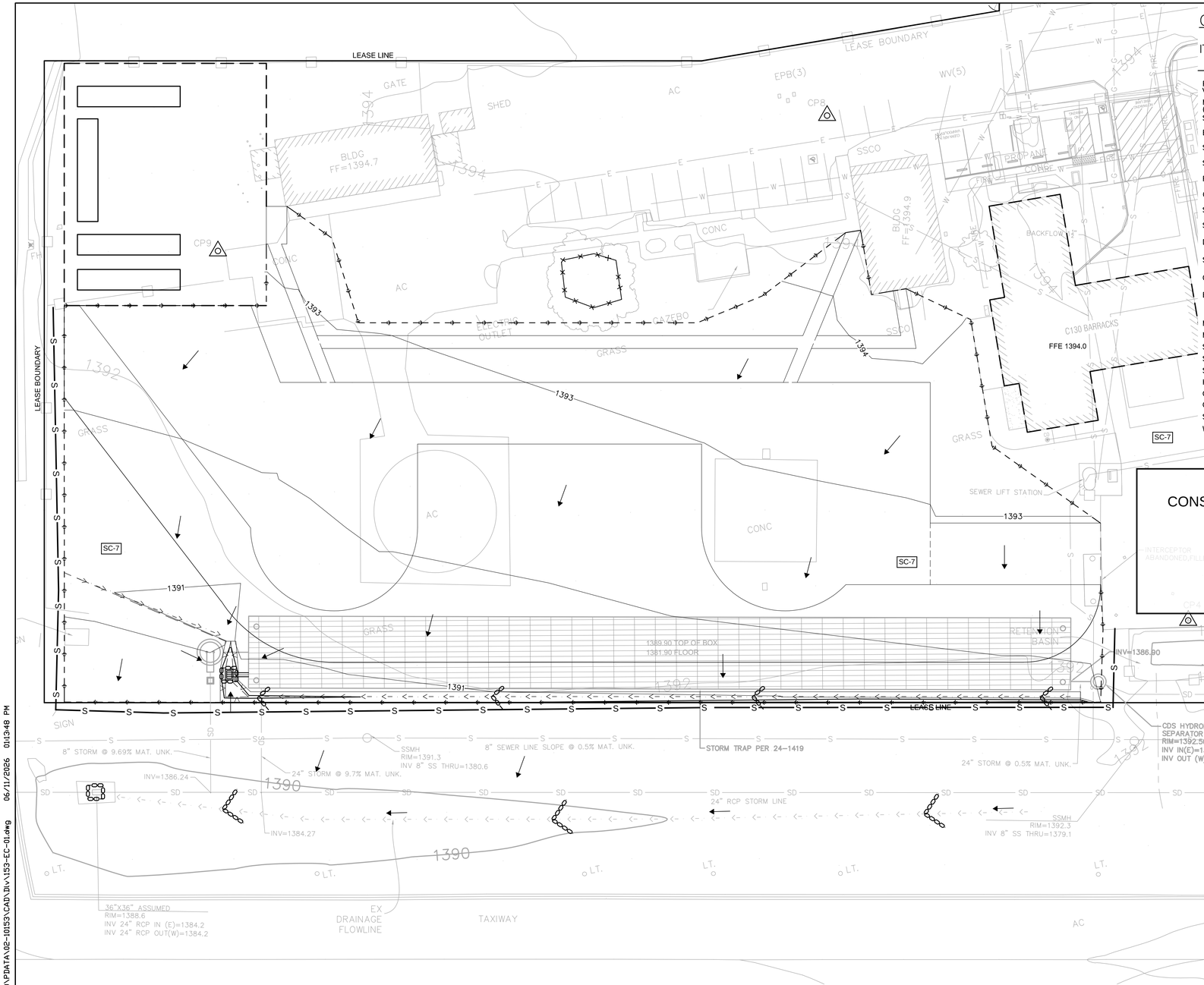

CONSTRUCTION STORMWATER BMP LEGEND:

ITEMS	FACT SHEET/DETAILS (PER CALTRANS HANDBOOK)	SYMBOL
PRESERVATION OF EXISTING VEGETATION	SS-2	X
MULCH, HYRDROSEEDING, BINDERS, ETC (DISTURBED SOIL AREA EROSION AND SEDIMENT CONTROLS)	SS-3, SS-4, SS-5 SS-6, SS-7, SS-8	
ENERGY DISSIPATOR	SS-10	
SILT FENCE	SC-1	S
SEDIMENT / DESILTING BASIN	SC-2	SC-2
FIBER ROLLS	SC-5	F
GRAVEL/SAND BAGS, OR CHECK DAMS	SC-4,SC-6,SC-8	
STREET SWEEPING AND VACUUMING	SC-7	SC-7
STORM DRAIN INLET PROTECTION	SC-10	
DEWATERING FILTRATION	NS-2	DW DW
STABILIZED CONSTRUCTION ENTRANCE	TC-1	
CONSTRUCTION ROAD STABILIZATION	TC-2	
ENTRANCE / EXIT TIRE WASH	TC-3	
MATERIAL DELIVERY & STORAGE	WM-1	WM-1
MATERIAL USE	WM-2	WM-2
STOCKPILE MANAGEMENT	WM-3	WM-3
SPILL PREVENTION AND CONTROL	WM-4	WM-4
SOLID WASTE MANAGEMENT	WM-5	WM-5
HAZARDOUS WASTE MANAGEMENT	WM-6	WM-6
CONTAMINATED SOIL MANAGEMENT	WM-7	WM-7
CONCRETE WASTE MANAGEMENT	WM-8	WM-8
SANITARY WASTE MANAGEMENT	WM-9	WM-9
WIND EROSION	WE-1	WE-1

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2498 MONTECITO ROAD, RAMONA, CALIFORNIA 92065

PROJECT NUMBER:
260101

SHEET TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
C5.0

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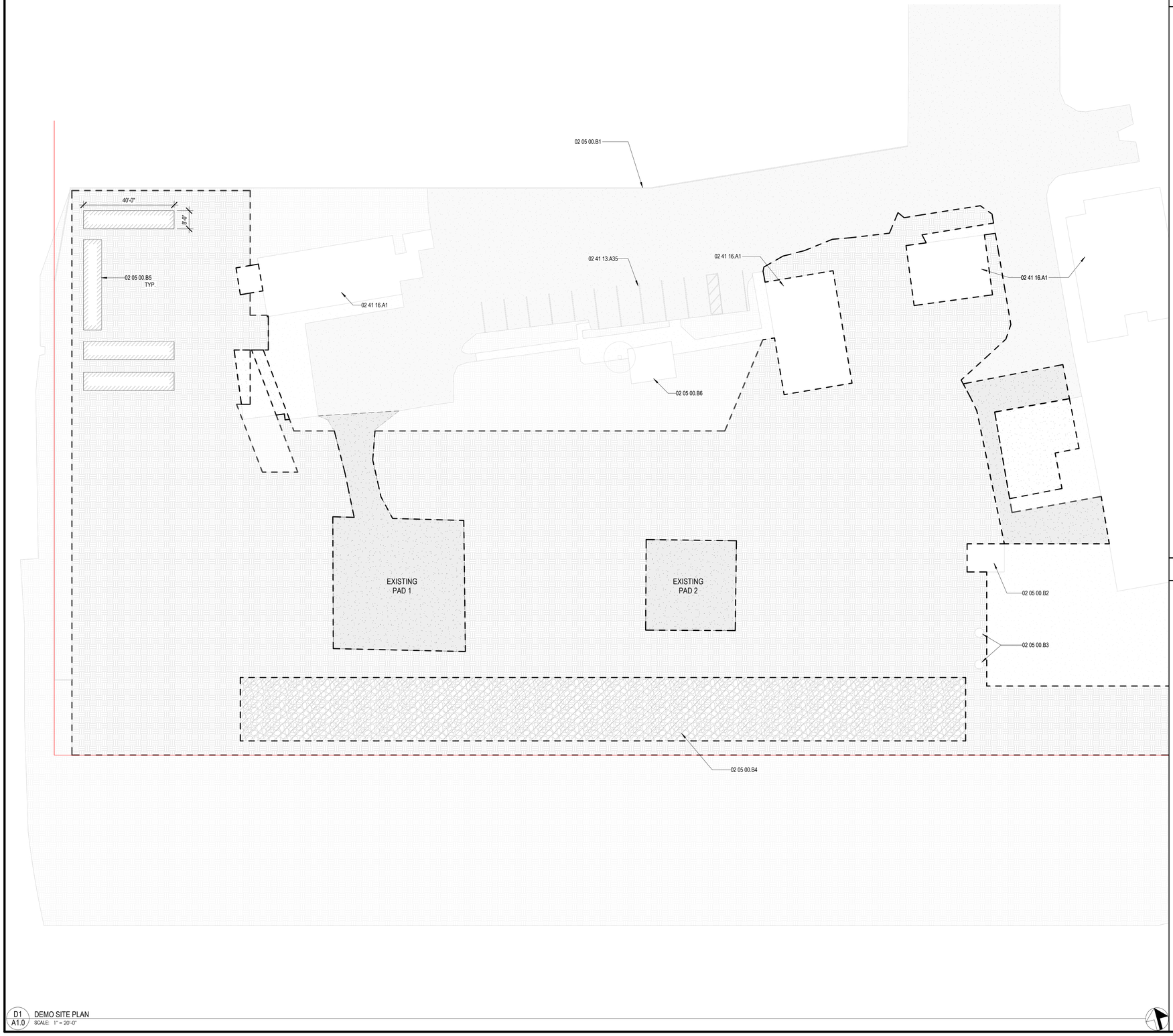

D1 / A1.0 DEMO SITE PLAN
SCALE: 1" = 20'-0"

CONSTRUCTION NOTES

01 05 00.B5	FUTURE HANGER
01 05 00.B6	STORAGE CONTAINER, BY OWNER
01 05 00.B7	FUTURE BARRACKS EXPANSION
02 05 00.B1	EXISTING SITE WALL TO REMAIN
02 05 00.B2	EXISTING SEWER LIFT STATION TO REMAIN
02 05 00.B3	EXISTING SEWER MANHOLES ABANDONED
02 05 00.B4	EXISTING PRECAST CONCRETE HYDROMODIFICATION VAULT PER "STORMTRAP_03-10-2025"
02 05 00.B5	EXISTING CONCRETE PADS FOR CONTAINERS TO REMAIN
02 05 00.B6	EXISTING GAZEBO TO REMAIN
02 05 00.B7	EXISTING SHED TO REMAIN
02 05 00.B8	EXISTING TREE TO REMAIN, PROTECT IN PLACE
02 05 00.C1	ACCESS ROAD
02 05 00.D1	PROTECTION RADIUS AROUND TREE, SAFE DISTANCE
02 41 13.A35	EXISTING PARKING TO REMAIN
02 41 16.A1	EXISTING BUILDING TO REMAIN, PROTECT IN PLACE
26 01 00.B2	HELIPORT PERIMETER LIGHT, SEE ELECTRICAL
26 01 00.B3	LIGHTED WIND CONE, SEE ELECTRICAL
32 17 23.B1	TOUCHDOWN POSITION CIRCLE 18" WIDE YELLOW LINE
32 17 23.B2	TLOF SIZE/WEIGHT LIMITATION BOX
32 17 23.B3	TLOF PERIMETER MARKING 12" WIDE WHITE LINE
32 17 23.B4	HELIPORT IDENTIFICATION SYMBOL
32 17 23.B5	SEE AC150/5390-2D APPENDIX C FOR THE FORM AND PROPORTIONS OF THE FIGURES

DEMO SITE PLAN LEGEND

- LEASE LIMIT LINE
- EXISTING ASPHALT TO REMAIN
- EXISTING ASPHALT TO BE DEMOED
- EXISTING CONCRETE TO REMAIN
- EXISTING CONCRETE TO BE DEMOED
- EXISTING LANDSCAPE TO REMAIN
- EXISTING LANDSCAPE TO BE DEMOED
- EXISTING STORMTRAP AREA TO REMAIN
- EXISTING BUILDING TO BE DEMOED
- EXISTING TREE TO REMAIN

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LICENSED ARCHITECT
JEFFREY A. KATZ
C-31823
REN. 09/30/27
STATE OF CALIFORNIA

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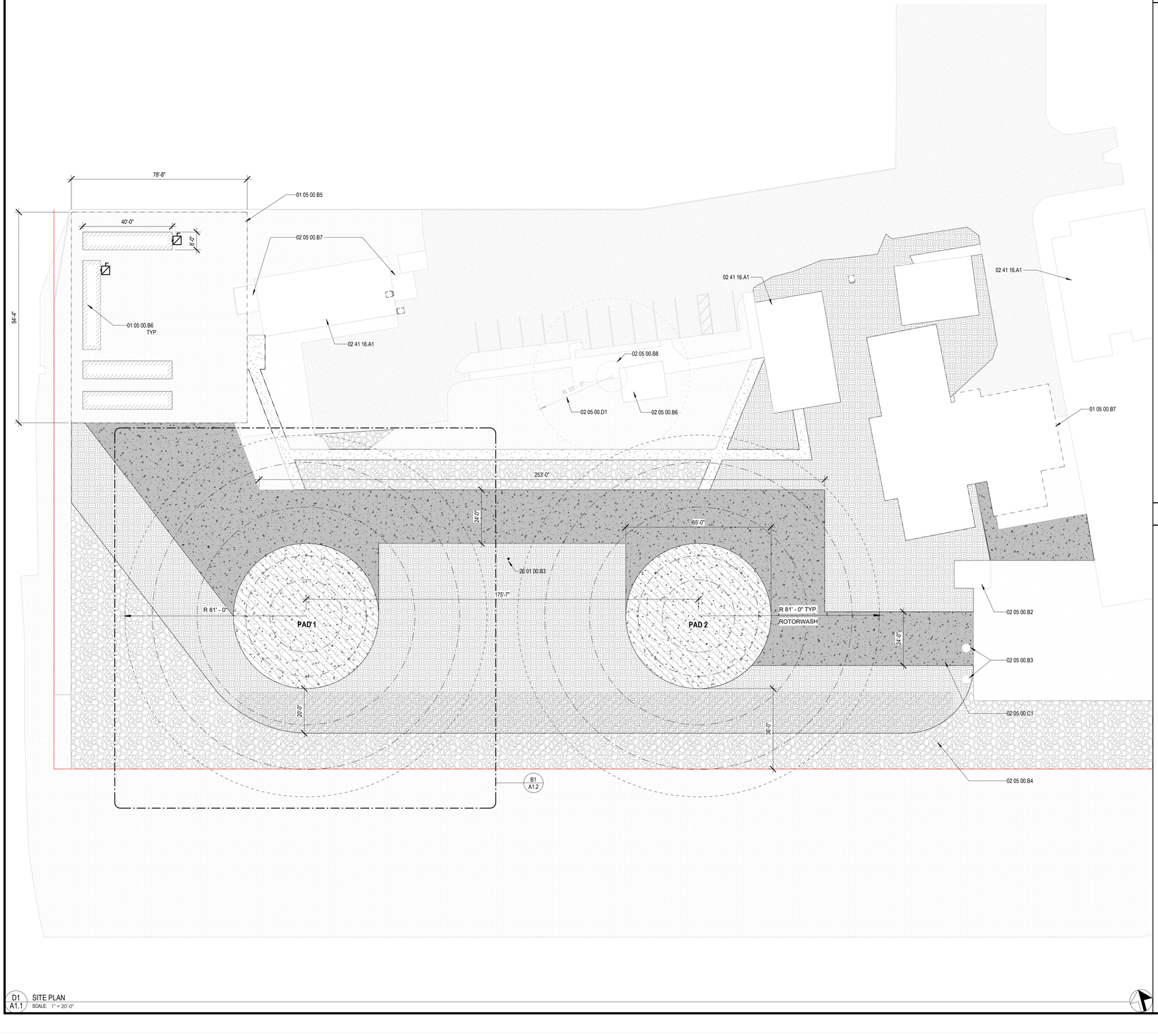

D1 / A1.1 SITE PLAN
SCALE: 1" = 20'-0"

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02 05 00.B8	EXISTING TREE TO REMAIN, PROTECT IN PLACE
02 05 00.C1	ACCESS ROAD
02 05 00.D1	PROTECTION RADIUS AROUND TREE, SAFE DISTANCE
02 41 13.A35	EXISTING PARKING TO REMAIN
02 41 16.A1	EXISTING BUILDING TO REMAIN, PROTECT IN PLACE
26 01 00.B2	HELIPORT PERIMETER LIGHT, SEE ELECTRICAL
26 01 00.B3	LIGHTED WIND CONE, SEE ELECTRICAL
32 17 23.B1	TOUCHDOWN POSITION CIRCLE 18" WIDE YELLOW LINE
32 17 23.B2	TLOF SIZE/WEIGHT LIMITATION BOX
32 17 23.B3	TLOF PERIMETER MARKING 12" WIDE WHITE LINE
32 17 23.B4	HELIPORT IDENTIFICATION SYMBOL
32 17 23.B5	SEE AC150/5390-2D APPENDIX C FOR THE FORM AND PROPORTIONS OF THE FIGURES

SITE PLAN LEGEND

- OUTLINE OF FUTURE BUILDINGS
- LEASE LIMIT LINE
- OUTLINE OF ROTOWASH BOUNDARY
- EXISTING ASPHALT
- EXISTING CONCRETE WALKWAY
- NEW CONCRETE PHASE 1
- NEW CONCRETE PHASE 2
- NEW CONCRETE WALKWAY
- TURF
- EXISTING LANDSCAPE
- 3/4" CRUSHED ROCK WITH 4" COBBLE
- EXISTING STORMTRAP AREA
- PANELBOARDS, SEE ELECTRICAL
- LOCKABLE DISCONNECT, SEE ELECTRICAL
- LIGHTED WIND CONE, SEE ELECTRICAL
- EXISTING TREE ON SITE

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95% CONSTRUCTION DOCUMENTS	06/02/26
100% CONSTRUCTION DOCUMENTS	06/11/26
PERMITTING SUBMITTAL	06/23/26

LICENSED ARCHITECT
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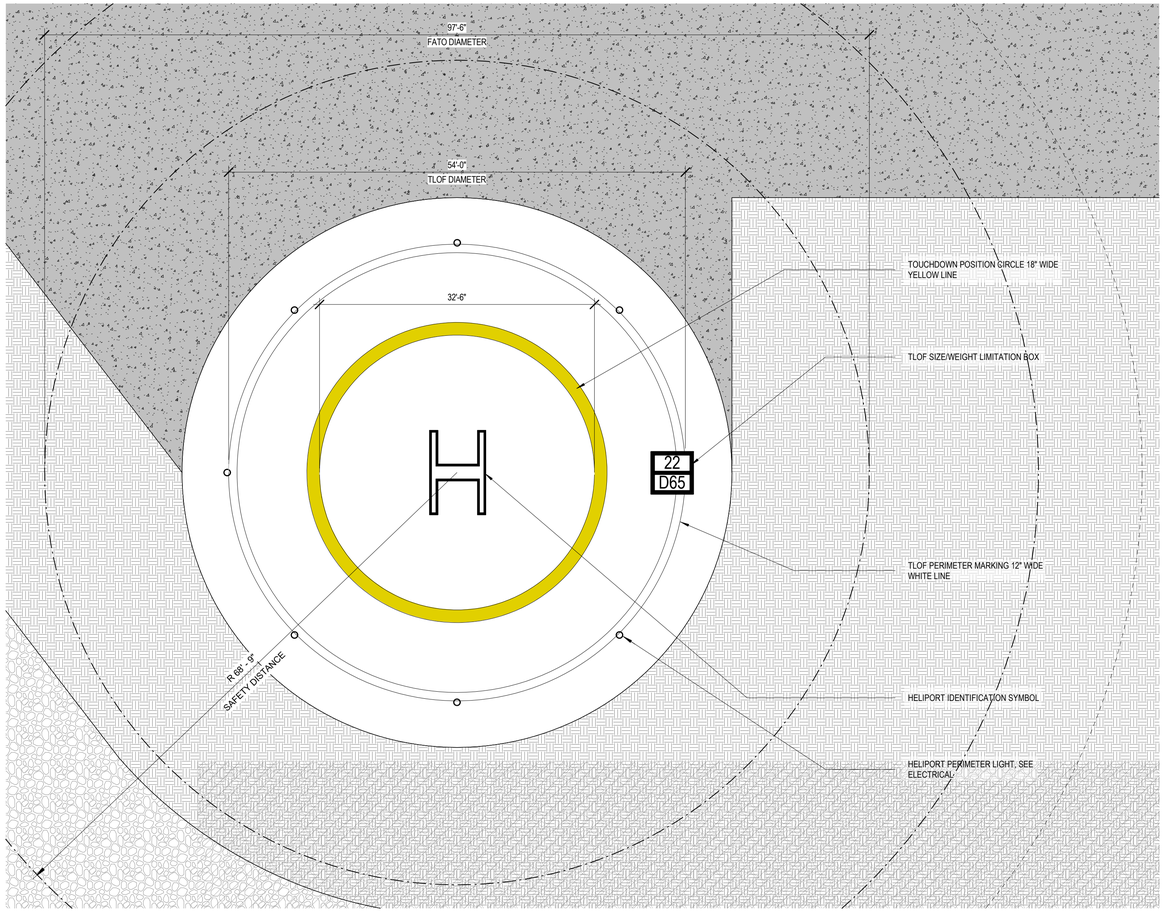
C-31018323
REN. 09/30/27
STATE OF CALIFORNIA

PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN
2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

PROJECT NUMBER:
260101

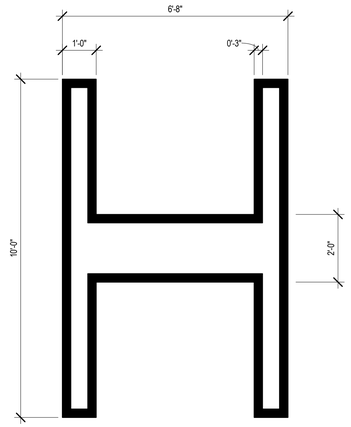
SHEET TITLE:
SITE PLAN

SHEET NUMBER:
A1.1



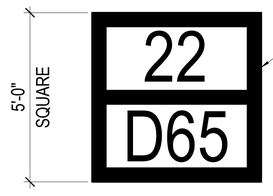
NOTE: SEE FIGURE 4-1. STANDARD TLOF MARKINGS IN THE FAA HELIPORT DESIGN ADVISORY CIRCULAR

B1 / A1.2 PHASE 1 HELIPAD MARKINGS
SCALE: 1/8" = 1'-0"



NOTE: BORDER BLACK LINES WITH WHITE INTERIOR

A4 / A1.2 HELIPORT IDENTIFICATION SYMBOLS
SCALE: 1/2" = 1'-0"



NOTES:
1. CHARACTERS ARE BLACK ON A WHITE BACKGROUND
2. "22" INDICATED MAXIMUM TAKEOFF WEIGHT (22,000 LBS) OF THE DESIGN HELICOPTER.
3. "D65" INDICATES THE OVERALL LENGTH OF THE LARGEST HELICOPTER (65 FT) FOR WHICH THE TLOF IS DESIGNED.

B4 / A1.2 TLOF SIZE/WEIGHT LIMITATION BOX
SCALE: 1/2" = 1'-0"

HELIPAD DESIGN CRITERIA

CONTROLING DIMENSION	65' - 0"
FATO DIAMETER	97' - 6"
TLOF DIAMETER	54' - 0"
SAFETY AREA DIAMETER	137' - 6"
TOTAL UNORSTRUCTED WIDTH (FATO AND SAFETY AREA)	N/A
TLOF SUFACE MATERIAL	CONCRETE
TLOF SURFACE GRADIENT AND DIRECTION	0.5% ALL DIRECTIONS
CENTER-TO-CENTER TLOF SEPARATION	175' - 7"
LIGHTING ACTIVATION - AVIATION LIGHTING	MANUAL AND R/C
LIGHTING ACTIVATION - WALKWAY AREA LIGTHING	N/A

ABBREVIATIONS:

FATO: FINAL APPROACH AND TAKE OFF AREA
TLOF: TOUCHDOWN AND LIFT OFF

ENLARGED SITE PLAN LEGEND

- NEW CONCRETE PHASE 1
- NEW CONCRETE PHASE 2
- 3/4" CRUSHED ROCK WITH 4" COBBLE
- EXISTING STORMTRAP AREA

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LICENSED ARCHITECT
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PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN
2498 MONTECITO ROAD,
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PROJECT NUMBER:
260101

SHEET TITLE:
ENLARGED SITE PLAN

SHEET NUMBER:
A1.2

SITE SYMBOLS LEGEND

—OHP—OHP— NEW CONDUIT AND/OR CONDUCTOR LINE. SEE BELOW FOR TYPICAL DESIGNATIONS

—(XD)OHP—(XD)OHP— EXISTING TO BE DEMOLISHED CONDUIT AND/OR CONDUCTOR. SEE BELOW FOR TYPICAL DESIGNATIONS

—(X)OHP—(X)OHP— EXISTING CONDUIT AND/OR CONDUCTOR LINE TO CONDUCTOR. SEE BELOW FOR TYPICAL DESIGNATIONS

TYPICAL DESIGNATIONS TO BE USED IN CONJUNCTION WITH CONDUIT SYMBOLS

- UP - UNDERGROUND PRIMARY
- US - UNDERGROUND SECONDARY
- UC - UNDERGROUND COMMUNICATIONS
- CO - CONDUIT ONLY
- OHP - OVERHEAD PRIMARY
- OHS - OVERHEAD SECONDARY
- OHC - OVERHEAD COMMUNICATIONS

NEW HANDHOLE

EXISTING HANDHOLE

NEW MANHOLE

EXISTING MANHOLE

GENERATOR

SUBSTATION

PAD MOUNTED SWITCH

PAD MOUNTED TRANSFORMER

J WEATHERPROOF POWER JUNCTION BOX

J WEATHERPROOF DATA JUNCTION BOX

APPLICABLE CODES

2025 CALIFORNIA ELECTRICAL CODE
2025 CALIFORNIA BUILDING CODE
FAA AC 150/5390-2D HELIPORT DESIGN
FAA AC 150/5370-10H STANDARDS SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS

POWER LEGEND

COORDINATE THE EXACT MOUNTING AND LOCATION OF ALL WIRING DEVICES AND ALL CONDUITS WITH OTHER TRADES PRIOR TO ROUGH-IN. SEE ARCH PLANS FOR EXACT DEVICE LOCATIONS.

DUPLEX | QUAD | DUPLEX GFI | QUAD GFI | DUPLEX WITH USB

RECEPTACLE, NON-LOCKING TYPE, GROUNDING, 120V - 20A. MOUNTED AT +18 AFF UNO. SHADED REPRESENTS ABOVE COUNTER OR +42" AFF.

SURFACE MOUNTED RECEPTACLE, NON-LOCKING TYPE, GROUNDING.

J WALL/SURFACE MOUNTED JUNCTION BOX

J FLOOR MOUNTED JUNCTION BOX

SPECIAL NEMA CONFIGURATION RECEPTACLE MOUNTED AT +18" AFF UNO. SEE FLOOR PLANS FOR CONFIGURATION.

EQUIPMENT SIZES SHOWN ON PLANS ARE NOT EXACT. CONTRACTOR IS RESPONSIBLE FOR ENSURING EQUIPMENT CLEARANCES ARE MET BASED ON ACTUAL SIZE.

SWITCHBOARD OR MCC

TRANSFORMER

PANEL BOARD (SURFACE)

PANEL BOARD (FLUSH)

LCP LIGHTING CONTROL PANEL

ELEC GROUND BUS

LIGHTING LEGEND

COORDINATE THE EXACT MOUNTING AND LOCATION OF ALL LIGHTING, SUPPORTS AND ALL CONDUITS WITH OTHER TRADES PRIOR TO ROUGH-IN. SEE ARCH PLANS FOR EXACT GRID, FLUSH AND SURFACE MOUNTING LOCATIONS.

LIGHTING FIXTURES. SEE FIXTURE SCHEDULE FOR CONDUCTOR. SEE BELOW FOR TYPICAL DESIGNATIONS

EMERGENCY LIGHTING FIXTURES. SEE FIXTURE SCHEDULE CONDUCTOR. SEE BELOW FOR TYPICAL DESIGNATIONS

LUMINAIRE(S) POLE MOUNTED WITH ARM. TYPE AS NOTED.

LIGHTED EXIT SIGN. TOP MOUNTED ON CEILING OR STEM MOUNTED. SHADED SIDE INDICATES FACE. PROVIDE ARROWS TO MATCH ARCHITECTURAL OR LIFE SAFETY PLANS.

SUBSCRIPT ADJACENT TO LIGHTING FIXTURE INDICATES:
L# = FIXTURE DESIGNATION
1,2,3 etc. = BRANCH CIRCUIT NUMBERS
a,b,c etc. = SWITCH-LEG REFERENCE
NL = NIGHT/SECURITY LIGHTING FIXTURE

GENERAL SYMBOLS LEGEND

1 SHEET NOTE REFERENCE

1 DETAIL NOTE REFERENCE

3/E1 DETAIL NUMBER DESIGNATION

SHEET ON WHICH DETAIL IS LOCATED

CONDUIT STUBOUT

FLEXIBLE CONDUIT

A-1 #8 HOMERUN TO PANEL AND CIRCUITS INDICATED. NUMBER ADJACENT TO CIRCUIT DENOTES WIRE SIZE OTHER THAN #12 FOR ALL CONDUCTORS UNO.

GENERAL NOTES

1. ALL GROUNDING PER NEC.
2. ELECTRICAL CONTRACTOR TO VERIFY EXACT LOCATION OF RECEPTACLES IN TEL/COM ROOMS PRIOR TO ROUGH-IN.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER DOCUMENTATION. COORDINATE WITH ALL OTHER TRADES FOR EQUIPMENT LOCATIONS.
4. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHT OF ALL RECEPTACLES AND DEVICES.
5. COORDINATE WITH EQUIPMENT MANUFACTURER FOR LOCATIONS AND CONNECTIONS.
6. VERIFY ALL MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.

SEISMIC GENERAL NOTES

1. THE SEISMIC ANCHORAGE OF ELECTRICAL EQUIPMENT SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE (IBC) SECTION 16.

2. FOR EQUIPMENT WEIGHING LESS THAN 400 LBS AND WHERE DETAILS ARE NOT SHOWN, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE JURISDICTION HAVING AUTHORITY AND SHALL BE CAPABLE OF RESISTING THE FORCES PRESCRIBED IN IBC SECTION 16.

3. OVERHEAD MOUNTED EQUIPMENT WEIGHING 31 POUNDS OR MORE SHALL BE SUPPORTED AND BRACED IN ACCORDANCE WITH AT/FP REQUIREMENTS PER UFC 4-010-01. THIS REQUIREMENT IS IN ADDITION TO NON-STRUCTURAL SEISMIC REQUIREMENTS. DISTRIBUTION SYSTEMS ARE EXEMPT FROM THIS REQUIREMENT.

SINGLE LINE LEGEND

GROUND

CIRCUIT BREAKER — FUSED SWITCH

TRANSFORMER DELTA PRIMARY, WYE SECONDARY WITH kVA RATING

KILOWATT-HOUR METER

EXTERNALLY MOUNTED METER

FUSE CALLOUT
200AF - FUSE SIZE
3P - POLE

NON-FUSIBLE DISCONNECT SWITCH (RATINGS AS NOTED)

FUSIBLE DISCONNECT SWITCH (RATINGS AS NOTED)

MOTOR

PANEL BOARD

(X)PANEL BOARD

AUTOMATIC TRANSFER SWITCH

EQUIPMENT ENCLOSURE

ELECTRICAL ABBREVIATIONS

A	AMPERES
ADA	AMERICANS WITH DISABILITIES ACT
A.F.F.	ABOVE FINISHED FLOOR
AIC	AMPS INTERRUPTING CURRENT
ALT.	ALTERNATE
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIOVISUAL
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CB	CIRCUIT BREAKER
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CKT	CIRCUIT
C.O.	CONDUIT ONLY
CONC.	CONCRETE
CX	CONNECT TO EXISTING CIRCUIT
CU	COPPER
dBA	DECIBELS
DIST.	DISTRIBUTION
DWG.	DRAWING
EG	EQUIPMENT GROUND
EGB	ELECTRICAL GROUND BUS
EM	EMERGENCY
ETC	ET CETERA
EPO	EMERGENCY POWER OFF BUTTON
EXST. EX	EXISTING
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FCC	FIRE CONTROL CENTER
FLA	FULL LOAD AMPS
GD	GARBAGE DISPOSAL
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HD	HAND DRYER
HORIZ.	HORIZONTALLY MOUNTED
HP	HORSEPOWER
KCMIL	THOUSAND CUBIC MILLIMITERS
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
JB	JUNCTION BOX
JP	JOCKEY PUMP
LC	LOCKABLE ENCLOSURE
LTG	LIGHTING
MCA	MINIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MEGB	MAIN ELECTRICAL GROUND BUS
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MW	MICROWAVE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
MTG. HT.	MOUNTING HEIGHT
NIC	NOT IN CONTRACT
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX
PBB	PRIMARY BONDING BUSBAR
PH	PHASE
PNL	PANEL
POC	POINT OF CONNECTION
PVC	POLYVINYL CHLORIDE
RCP	REFLECTED CEILING PLAN
RECEPT	RECEPTACLE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL
SBB	SECONDARY BONDING BAR
SEC	SECURITY
SHT	SHEET
S.N.	SOLID NEUTRAL
SP	SUMP PUMP
SPD	SURGE PROTECTION DEVICE
SS	STAINLESS STEEL
SWGR	SWITCHGEAR
TC	TERMINAL CABINET
TEL	TELEPHONE
T.I.	TENANT IMPROVEMENT
T.R.	TAMPER RESISTANT
TV	TV MONITOR
TYP	TYPICAL
U.C.	UNDER COUNTER
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
WAP	WIRELESS APPLICATION PROTOCOL
WIFI	WIRELESS FIDELITY
WH	WATER HEATER
W	WATTS
WP	WEATHERPROOF
XFMR	TRANSFORMER
X	EXISTING TO REMAIN
XD	EXISTING TO BE DEMOLISHED
XR	EXISTING TO BE RELOCATED
XL	NEW LOCATION OF EXISTING ITEM

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100% CONSTRUCTION DOCUMENTS	06/11/26
PERMITTING SUBMITTAL	06/23/26

REGISTERED PROFESSIONAL ENGINEER — ALLYSON NATHANSON — No. E-20000 — EXP. 03/31/27 — ELECTRICAL — STATE OF CALIFORNIA

005-190

PROJECT:

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN

2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

PROJECT NUMBER:
260101

SHEET TITLE:
ELECTRICAL SYMBOLS AND ABBREVIATIONS

SHEET NUMBER:
E0.1

LIGHTING FIXTURE SCHEDULE

CALLOUT	LAMP	DESCRIPTION	MOUNTING	MANUFACTURER	MODEL	WATTS	VOLTAGE	NOTES
H1	LED	FAA TYPE L-862 GREEN HELIPORT PERIMETER LIGHT	IN-GROUND	POINT LIGHTING	HP2070F	2 W	120 V	
LWC	LED	LIT WIND CONE	POLE	POINT LIGHTING	PWC-8061L-AC-ON	48 W	120 V	

FAULT CURRENT SCHEDULE

DEVICE	FAULT AT DEVICE	AIC RATING	VOLTAGE	*FEEDER		DIRECTLY CONNECTED MOTOR	MOTOR TOTAL
				SIZE	LENGTH		
(X)USFS-MAIN	40,065	42,000	120 V			0	65
(X)USFS	5,727	10,000	120 V	2/0	177'	0	46
(X)FS1	2,525	10,000	120 V	#1	175'	66	40
LCP	1,906	10,000	120 V	#12	8'-2"	0	25

*EXISTING FEEDER SIZES ARE ESTIMATED AND SHOWN FOR REFERENCE ONLY.

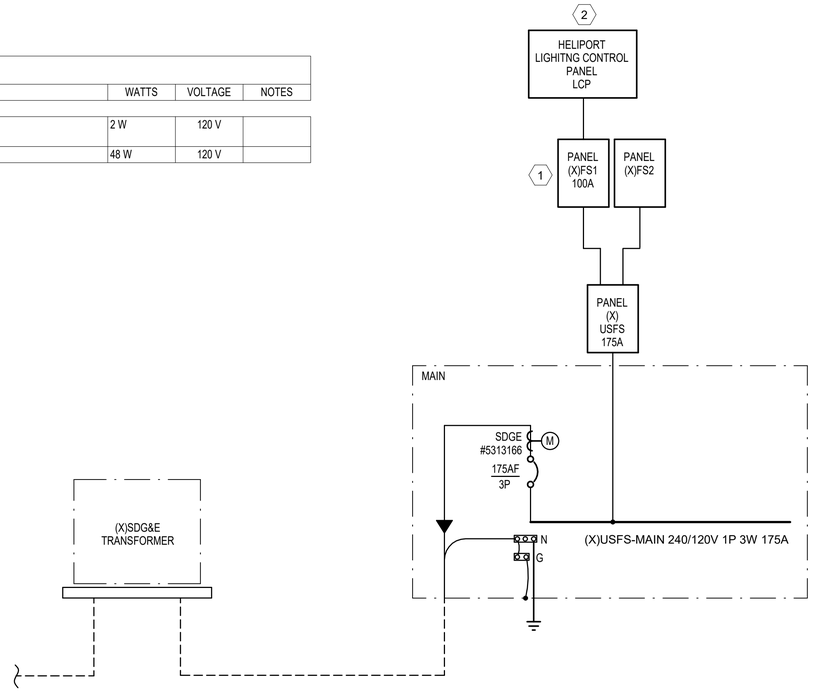
VOLTAGE DROP SCHEDULE

DEVICE	*FEEDER		BRANCH CIRCUIT			TOTAL VOLTAGE DROP
	VOLTAGE DROP	WIRE SIZE	MAX VOLTAGE DROP	CIRCUIT NUMBER	WIRE SIZE	
(X)USFS-MAIN	0.00%					0.00%
(X)USFS	1.24%	2/0				1.24%
(X)FS1	2.97%	#1	1.97%	23	#10	4.93%
LCP	2.98%	#12	0.19%	3	#12	3.17%

*EXISTING FEEDER SIZES ARE ESTIMATED AND SHOWN FOR REFERENCE ONLY.

FEEDER SCHEDULE

* DEVICE/AMP	CALLOUT
20	
LCP	3/4"C, 1#12, #12N, #12G
100	
FS1	1-1/4"C, 2#1, #1N, #8G



1 E0.2 SINGLE LINE DIAGRAM
SCALE: NTS

SHEET KEYNOTES

1. SEE "FS1" PANEL SCHEDULE FOR ADDED LOADS.
2. PROVIDE HELIPORT LIGHTING CONTROL PANEL. SEE SHEET E3.2 FOR CUTSHEETS.

GENERAL NOTES

1. ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO ROUGH IN.
2. ALL EQUIPMENT ON SINGLE LINE DIAGRAM IS EXISTING TO REMAIN. UNO.

Branch Panel: LCP

Location: FOREST SERVICE BLDG EXTERIOR
Supply From: FS1
Mounting: Surface
Enclosure: Type 1
Volts: 120V 1P 2W
Phases: 1
Wires: 2
Lug Type: Standard
200% Neutral: No
A.I.C. Rating: 10,000
Mains Type: MLO
Bus Rating: 20

Notes:
* SEE SHEET E3.1 FOR LIGHTING CONTROL PANEL CUTSHEET.

CKT	Circuit Description	Trip	Poles	A		Poles	Trip	Circuit Description	CKT
1	HELIPAD 1 LIGHTING	20 A	1	0.24 kVA	0.24 kVA	1	20 A	HELIPAD 2 LIGHTING	2
3	HELIPORT WIND CONE LIGHTING	20 A	1	0.05 kVA	--	1	--	BUSSED SPACE	4
5	BUSSED SPACE	--	1	--	--	1	--	BUSSED SPACE	6
			Total Load:	0.53 kVA					
			Total Amps:	4 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	0.53 kVA	125.00%	0.66 kVA		
				Total Conn. Load:	0.53 kVA
				Total Est. Demand:	0.66 kVA
				Total Balanced Conn.:	4 A
				Total Est. Demand:	6 A

Branch Panel: FS1

Location: FOREST SERVICE BLDG INTERIOR
Supply From: (X)USFS
Mounting: Surface
Enclosure: Type 1
Volts: 240/120V 2P 3W
Phases: 1
Wires: 3
Lug Type: Standard
200% Neutral: No
A.I.C. Rating: 10,000
Mains Type: MLO
Bus Rating: 100

Notes: EXISTING LOAD INFORMATION BASED ON FIELD VERIFICATION

CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT
1	MAIN BREAKER	100 A	2	0.00 kVA	--			1	--	BUSSED SPACE	2
3	--	--	--			0.00 kVA	--	1	--	BUSSED SPACE	4
5	EXISTING WELDER	20 A	2	1.60 kVA	0.50 kVA			1	20 A	EXISTING LIGHTS	6
7	--	--	--			1.60 kVA	0.50 kVA	1	20 A	EXISTING LIGHTS	8
9	EXISTING AC	30 A	2	2.40 kVA	0.54 kVA			1	20 A	EXISTING RECEPTACLES	10
11	--	--	--			2.40 kVA	0.54 kVA	1	20 A	EXISTING RECEPTACLES	12
13	EXISTING LIGHTING	20 A	1	0.50 kVA	1.00 kVA			1	20 A	EXISTING ICE MACHINE	14
15	EXISTING LIGHTING	20 A	1			0.50 kVA	0.54 kVA	1	20 A	EXISTING RECETACLES	16
17	EXISTING GAS	20 A	1	1.00 kVA	0.00 kVA			1	20 A	EXISTING RECETACLES	18
19	EXISTING DIESEL	20 A	1			1.00 kVA	1.80 kVA	1	20 A	EXISTING SAW SHED	20
* 21	CONNEX BOX HVAC	20 A	1	1.00 kVA	0.53 kVA			1	20 A	HELIPORT LIGHTING CONTTOL PANEL	22 *
* 23	CONNEX BOX HVAC	20 A	1			1.00 kVA	--	1	--	BUSSED SPACE	24
			Total Load:	9.07 kVA		9.88 kVA					
			Total Amps:	76 A		82 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2.00 kVA	112.50%	2.25 kVA		
Existing Loads	16.42 kVA	100.00%	16.42 kVA	**Total Conn. Load:**	18.95 kVA
Lighting	0.53 kVA	125.00%	0.66 kVA	**Total Est. Demand:**	19.33 kVA
				Total Balanced Conn.:	79 A
				Total Est. Demand:	81 A

* PROVIDE NEW BREAKER IN EXISTING PANEL. BREAKER SHALL MEET EXISTING PANEL TYPE, MANUFACTURER AND AIC RATING.

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REGISTERED PROFESSIONAL ENGINEER
ALLEN NATHANSON
No. E-25900
EXP. 03/31/27
ELECTRICAL
STATE OF CALIFORNIA
005-190

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PROJECT NUMBER:
260101

SHEET TITLE:
SINGLE LINE DIAGRAM

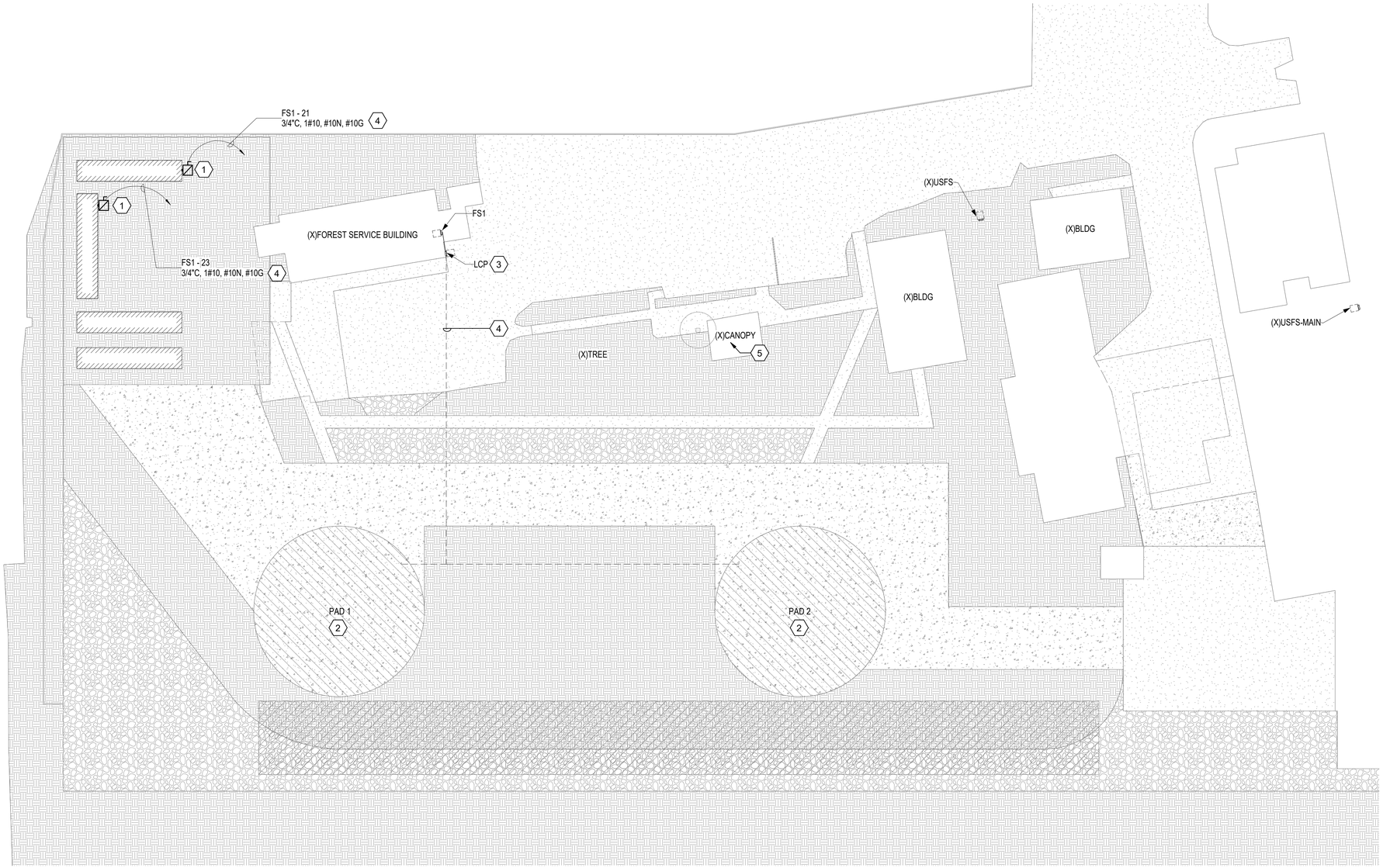
SHEET NUMBER:
E0.2

GENERAL NOTES - POWER

A	ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO ROUGH IN.

SHEET KEYNOTES

1	PROVIDE NEMA 3R LOCKABLE DISCONNECT FOR STORAGE CONTAINER POWER. TYPICAL OF 2.
2	SEE SHEET E2.1 FOR ENLARGED HELICOPTER PAD LIGHTING AND POWER PLANS.
3	PROVIDE NEMA 3R HELIPORT LIGHTING CONTROL PANEL LCP. SEE SHEET E3.2 FOR LIGHTING CONTROL PANEL CUTSHEET.
4	ROUTE BRANCH CIRCUITS AND CU HELIPORT GROUND CONDUCTORS UNDERGROUND. COORDINATE TRENCHING WITH ARCHITECTURAL/CIVIL DRAWINGS.
5	NO WORK SHALL OCCUR WITHIN 35' OF EXISTING TREE.



1 E1.1 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

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PERMITTING SUBMITTAL	06/23/26

REGISTERED PROFESSIONAL ENGINEER
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EXP. 03/31/27
ELECTRICAL
STATE OF CALIFORNIA
005-190

PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN
2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

PROJECT NUMBER:
260101

SHEET TITLE:
ELECTRICAL SITE PLAN

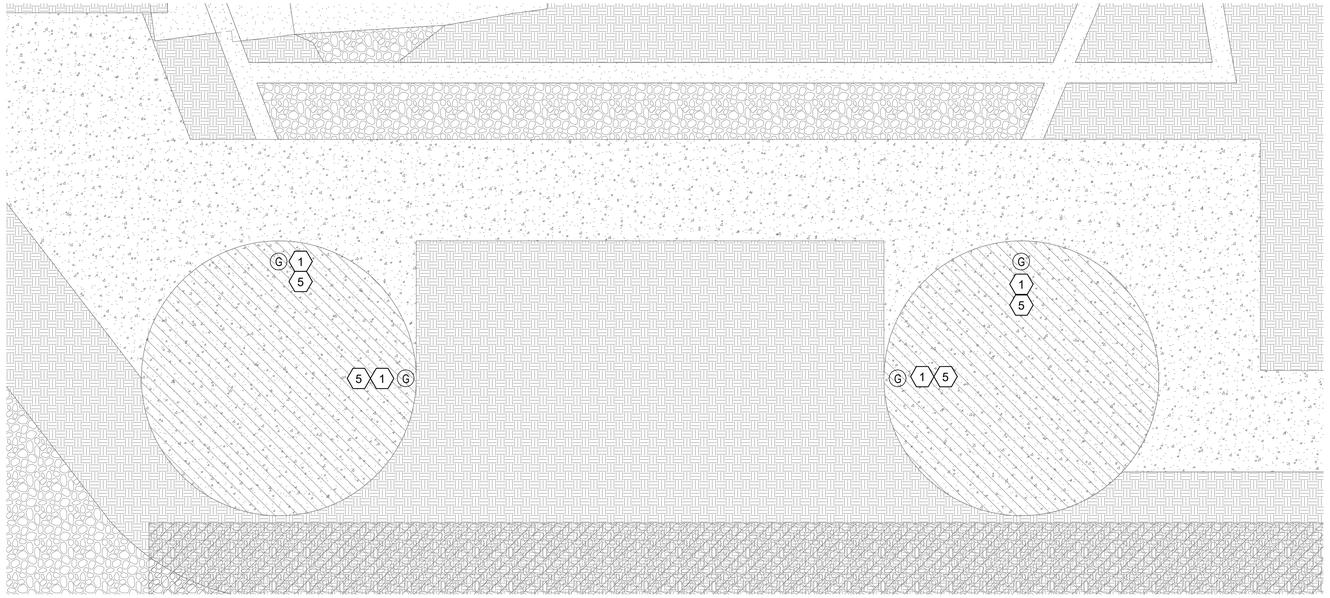
SHEET NUMBER:
E1.1

GENERAL NOTES - POWER

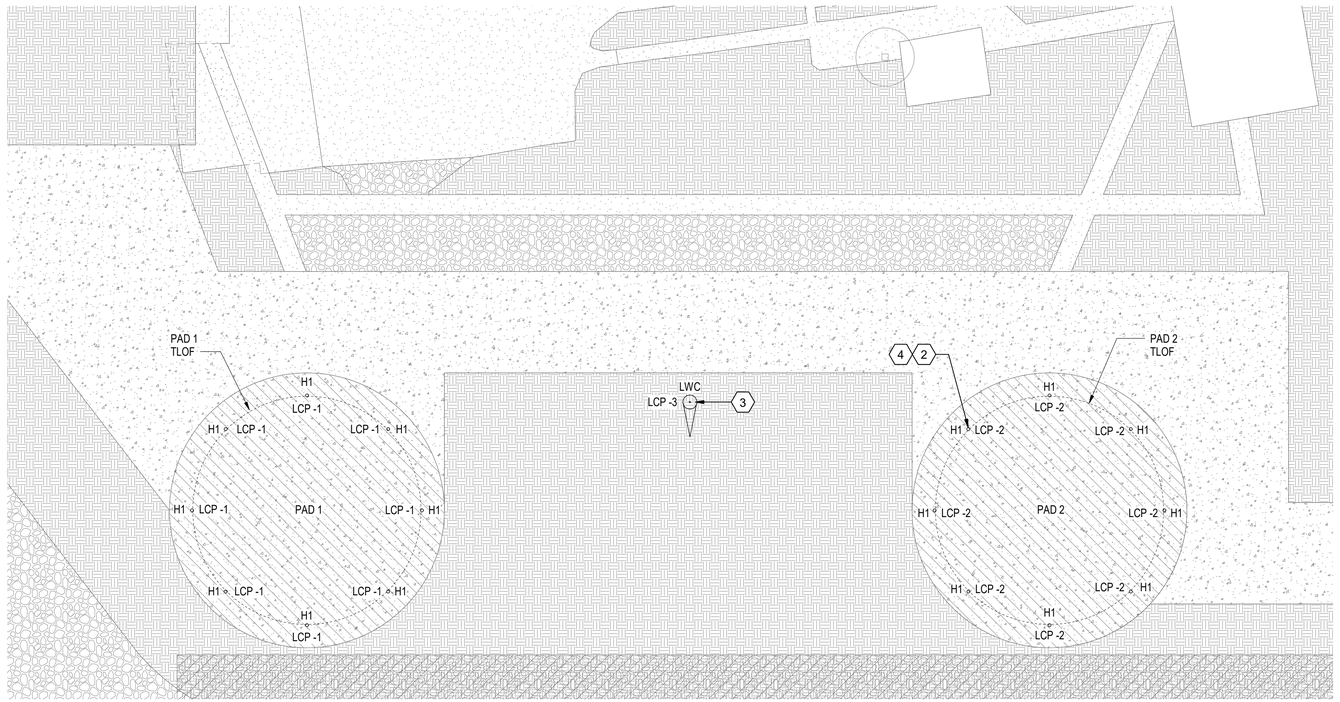
A	ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO ROUGH IN.

SHEET KEYNOTES

1	PROVIDE STATIC GROUND RECEPTACLE. RECEPTACLE MUST NOT EXTEND 2" ABOVE FATO/TLOF AREA SURFACE ELEVATION. SEE SHEET E3.1 FOR DETAIL.
2	PROVIDE FAA TYPE L-852H IN-PAVEMENT PERIMETER LIGHT FOR HELIPORT. 8 TYPICAL PER HELIPORT PAD. LOCATE WITHIN 1' INSIDE OR OUTSIDE OF TLOF. SEE SHEET E3.2 FOR CUTSHEET.
3	PROVIDE LIGHTED WIND CONE. LOCATE WIND CONE OUTSIDE OF SAFETY AREA.
4	ALL IN-PAVEMENT FIXTURES ON HELIPORT TO BE CIRCUITED TO HELIPORT LIGHTING CONTROL PANEL LCP.
5	BOND STATIC GROUND RECEPTACLES TO EXISTING BLDG SERVICE. SEE SHEET E3.1 DETAIL 4 FOR BONDING DETAIL.



1 E2.1 ENLARGED POWER PLAN
SCALE: 1/16" = 1'-0"



2 E2.1 ENLARGED LIGHTING PLAN
SCALE: 1/16" = 1'-0"

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CAL FIRE
SINCE 1885

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LIFT SERVICES & SAFETY
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PRELIMINARY DESIGN	03/13/26
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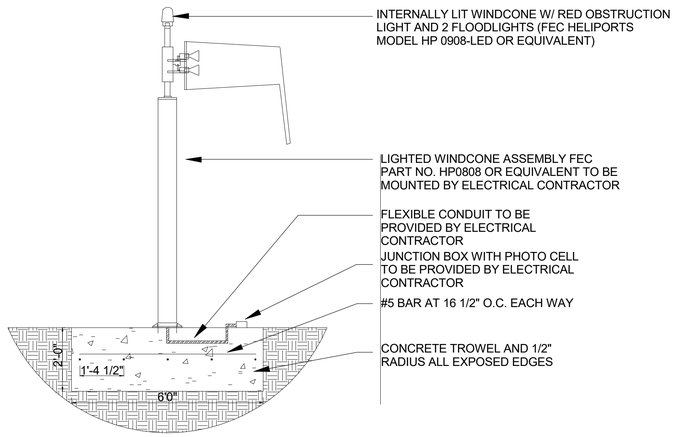
PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN
2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

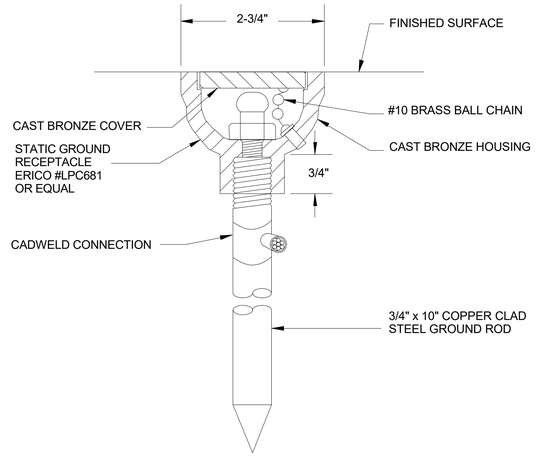
PROJECT NUMBER:
260101

SHEET TITLE:
ENLARGED ELECTRICAL PLANS

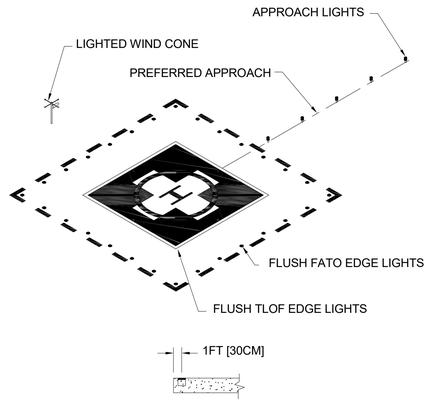
SHEET NUMBER:
E2.1



3 E3.1 HELIPORT INTERNALLY LIT WINDCONE
SCALE: NTS



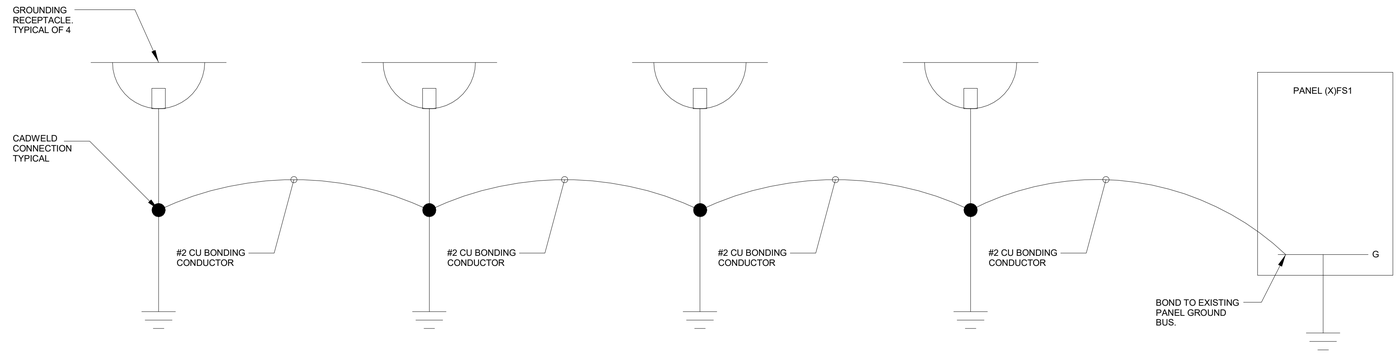
1 E3.1 STATIC GROUND RECEPTACLE (ESR)
SCALE: NTS



FLUSH IN-PAVEMENT LIGHT DETAIL

Note:
A. Install flush FATO and TLOF perimeter lights inside or outside within 1 ft [30 cm] the FATO and TLOF respective perimeters.

2 E3.1 PERIMETER LIGHTING DETAIL
SCALE: NTS



4 E3.1 GROUNDING DETAIL
SCALE: NTS

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PROJECT:
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE RAMONA AIR ATTACK BASE - HELIPAD DESIGN

2498 MONTECITO ROAD,
RAMONA, CALIFORNIA 92065

PROJECT NUMBER:
260101

SHEET TITLE:
ELECTRICAL SCHEDULES AND DETAILS

SHEET NUMBER:
E3.1

POINT WIND CONE
PWC LED
FAA L-806 & L-807

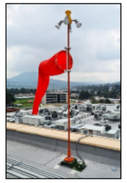
Compliances: ETL Verified FAA L-806 FAA Advisory Circular 150/5345-27E
ETL Verified FAA L-807 FAA Advisory Circular 150/5345-27E
Registered ISO 9001:2015
Transport Canada CAR 325.31
ICAO Annex 14, Volume II Heliports, Paragraph 5.1
Australia CASA MOS Part 139, Section 9.6
UK CAP 437 ed. 8

A wind cone is used to visually indicate wind direction at airports and heliports. Point Lighting wind cones are installed at airports, hospitals, corporate headquarters and military bases around the world. Point recommends the PWC-8061L-AC-ON-FF-G-T-SM for roof top heliport installations. This wind cone is easily serviced from a step ladder or unbolted to lower.

FAA Type	Size	Lighting —	Power —	Windsock —	Options
806: Frangible	1: 8-ft Sock, Size 1	L: Lighted	AC: 120-277V	ON: Orange	See Table
807: Rigid	2: 12-ft Sock, Size 2	Style I	3: 12-24V DC*	RW: Red/White	page 3
	4: 1.2m Sock (SEE PAGE 6)	U: Unlighted Style II	0: None	WH: White	
	5: 2.4m Sock (SEE PAGE 6)			YL: Yellow CASA	

PWC-8071L-AC-ON-HBA
FAA L-807 Size 1

PWC-8061L-AC-ON-FF-SM
FAA L-806 Size 1



Size 1: 8-ft sock has 18-inch diameter frame
Size 2: 12-ft sock has 36-inch diameter frame
Size 4: 1.2m sock has 0.3m diameter frame
Size 5: 2.4m sock has 0.6m diameter frame

All lighted versions include FAA obstruction light with NVG compatibility

Suitable for use at -55 to +55 degrees C

* -3 (DC) is for internally lighted only option -B.

ROOF MOUNTED WIND CONES

For increased safety, POINT LIGHTING CORPORATION recommends the use of the low height 806 type wind cone with option -G, rigid machined coupling to reduce frangibility, and option -T, stainless steel tether. Any roof mounted equipment will be a hazard to persons below if it is struck or otherwise comes apart due to high wind, excessive snow accumulation, etc.

We recommend option -SM (see page 2) for all roof sites and it can be a useful method for ground concrete pads as well.

HAZARDOUS ATMOSPHERE SITES

For a site requiring a wind cone with Class I, Division 2 rating, please see file WC115EX.

POINT ROLLOVER LIGHTS
PRL LED v4
HELIPORT INSET LIGHT

Compliances: ETL Listed to UL 1598A Marine Vessels at -40 deg C to +55 deg C
ETL Listed to CSA C22.2 No. 137-M1981 & No. 250.0-08 Canada
ETL Listed to UL 1598 at -40 deg C to +55 deg C
Tested & Certified to IP66, IP67 & IP69 Ingress Protection
Certified to FAA L-852H(L), L-860H(L), L-861H(L), L-860HR(L), L-860HS(L)
ICAO Annex 14, Volume II & ICAO Doc 9261
Transport Canada Standard 325
Registered ISO 9001:2015
UK CAA CAP 437 ed. 9 (2023), Chapter 4 & Appendix C
American Bureau of Shipping (ABS) Type Approved Product

The PRL LED Point Rollover Light is used for heliports where an omnidirectional inset semi-flush light is required to provide visibility and circling guidance. Only 2.2 watts and 3.5 VA at 120V.

- ☑ The castings are copper-free (< 0.25%) aluminum.
- ☑ The hardware is 316 (A4) stainless steel.
- ☑ Switchable color option available.
- ☑ Standard with the exclusive Point Lighting Marine Treatment finish that is bonded to the metal and far exceeds the corrosion resistance of the standard FAA approved finish. See below.
- ☑ Six (6) years limited warranty subject to Point Lighting "Terms & Conditions of Sale".
- ☑ The lens is glass.
- ☑ The LED's are rated for 100,000 hours.
- ☑ IP66, IP67 & IP69 tested and listed.

Point Type —	Voltage	Array —	Color —	Mounting & Options
PRL-97004	1: 120v	C: Heliport	G: Green	VB: Variable Brightness
	2: 220v	N: NVG *	Y: Yellow	PLS: Shallow Base & Gasket
	3: 12v DC	V: Vertical^	W: White	NC: NVG compatibility**
	4: 24v DC	H: ICAO FATO UFC 3-535-01	R: Red	SR: CAP 437 Seating Ring
	6: 277v		B: Blue	DH: Drain Hole in Base
			IR: Infrared*	GR: Ground Lug in Base
				MTY: Marine Treatment Yellow
				TW: Taxiway Brightness (blue)
				SC: Switchable Color (see page 2)
				TRH: Tamper Resistant Hardware

Note: Array C brightness exceeds ICAO Annex 14 & meets CAP 437
* For NVG tactical use only: PRL-97004-1N-IR -PLS
^ Inspection uplight normally in white with narrow high intensity vertical beam.

PRL-97004-1C-G-PLS
WITH PLS RECESSED BASE

Visibility Range as Tested:

Visible Color	> 8 nautical miles
Option -NC **	> 3 nautical miles

** For Night Vision Goggles (NVG)
Option -NC adds IR LED at 855 nm
Radiant Power: C-array 137 mW/sr

Our Marine Treatment tolerates marine, high salt content air and other corrosive environments. Standard with green finish as shown. The FAA specified finish used by competitors flakes and fails in a short time under such conditions.

The fixture shall be treated for marine conditions by cleaning per US Department of Defense TT-C-490 method III, pretreated with chrome-free aluminum conversion coating per US MIL-C-5541 type II, epoxy powder base coat primer and glossy polyester powder coat finish in color RAL 6003 (FED-STD-595 color #14097) dark green. Powder coating per US Department of Defense MIL-PRF-24712A type VI and oven cured.

POINT HELIPORT LIGHTING
PHC
HELIPORT LIGHTING CONTROLLER WITH TOUCHSCREEN

POINT LIGHTING CORPORATION IS AN INTERTEK ETL CERTIFIED BUILDER OF INDUSTRIAL CONTROL PANELS UNDER UL 508A 2ND AND CSA C22.2 NO. 286. PHC PANELS ARE LABELED WITH THE ETL LISTED MARK.

The PHC-6600x controller provides manual and automatic operation of the heliport lighting system. The touchscreen is a high brightness, color TFT touch panel display with LED backlighting that controls all system operations. Simulated pilot lights and switches allow the user to control all heliport output circuits. In the AUTO position, the controller operates automatically from a pilot actuated FAA radio controller or an FAA photoelectric controller that activates per FAA light level requirements. The non-metallic enclosure is rated NEMA 4X and IP66. The PHC and lighting circuits are protected from transient voltage spikes by a 50kA interrupting surge suppressor and each load output is protected by a current limiting circuit breaker. The touchscreen circuit layout is factory customized to the actual heliport lighting system. All switch labels are configurable in the field.

Note: Uninterruptible Power Supply (UPS) available; see file OL306UPS.

	Point Type —	Voltage —	Options
Basic Model:	PHC-66001	AC: 96 – 264v	See list on page 2
Advanced Model:	PHC-66002	6: 277v **	If installing outside, options -HTR & -SV may be required.
		DC: 10 - 36v	
Mimic Panel:	PL11515 *		

* PHC-66002 only ** Input 277v; output 120v; lights must be 120v

HELIPORT LIGHTING SYSTEM TOUCHSCREEN CONTROLLER
PHC-66002-AC

* The optional mimic panel may be added to the PHC-66002 at any time. The remote mimic panel consists of a second touchscreen that mimics all functions displayed on the main PHC touchscreen. The remote mimic panel is mounted in a fiberglass reinforced polyester enclosure that is NEMA 4X and IP66 rated. A standard category 6 ethernet cable with RJ45 connectors (by others) will be used to connect the main PHC-66002 controller to the remote mimic panel. All power and data will be conveyed by the category 6 cable.

Dimensions:	Inches (mm)
PHC-66001	17.4 (441) x 15.3 (339) x 6.7 (169)
PHC-66002	19.3 (490) x 17.3 (440) x 9.6 (243)

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STATE OF CALIFORNIA

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PROJECT NUMBER:
260101

SHEET TITLE:
ELECTRICAL CUTSHEETS

SHEET NUMBER:
E3.2