

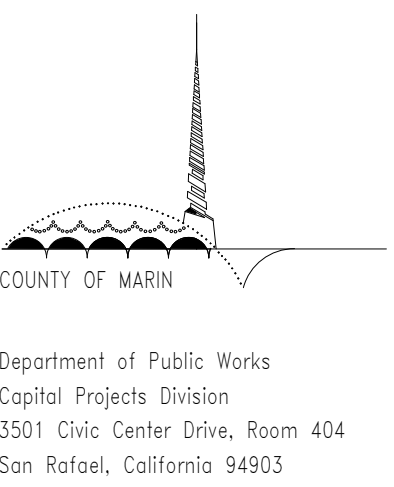
ARCHITECTURAL ABBREVIATIONS

∠	Angle	FE	Fire Extinguisher, per specs	PLYWD	Plywood
⊥	Perpendicular	FE (-ABC)	Fire Extinguisher (Type ABC)	PM	Pressed Metal
∅	Diameter	FE (K)	Fire Extinguisher (Type K)	PNL	Panel
c	Chamfer	FEC (-K)	Fire Extinguisher Cabinet (Type K)	POT	Path of Travel
d	Penny	FF	Finished Floor	PR	Pair
&	and	FFE	Furniture, fixtures & equipment	PRL	Picture Rail
°	Degree	FFO	Flush Floor Outlet	PROJ	Projection
(E)	Existing	FHC	Fire Hose Cabinet	PROP	Proposed, property
(N)	New	FHWS	Flathead Wood Screw	PRHT	Partial Height
(R)	Relocated	FIN	Finish (ed)	PRT	Partial
A/C	Air Conditioning	FIXT	Fixture	PSF	Pounds per Square Foot
AB	Anchor Bolt	FLG	Flashing	PSI	Pounds per Square Inch
ABV	Above	FLR	Floor (ing)	PT	Preservative Treatment, Pressure Treated
ACOUS	Acoustical	FLUOR	Fluorescent	PTD	Paint (ed)
ACC	Accessible	FO	Face of	PTD	Paint (ed)
ACT	Acoustical Tile	FOC	Face of Concrete	PTD	Paper Towel Dispenser
ADA	Americans w/ Disabilities Act	FOF	Face of Finish	PTDR	Paper Towel Dispenser & Receptor
ADD	Addendum	FOS	Face of Stud	PTN	Partition
ADH	Adhesive	FR	Fire Rating, Frame	PTR	Paper Towel Receptor
ADJ	Adjacent	FRP	Fiber Reinforced Plastic	PVC	Polyvinyl Chloride
ADJT	Adjustable	FSC	Food Service Certified	PVMT	Pavement
AF	Above Finished Floor	FSD	Food Service Drawings	QT	Quartz Tile
AGG	Aggregate	FT	Fire Treated	QTY	Quantity
ALRM	Alarm	FTG	Footing		
ALT	Alternate	GA	Gage, Gauge	R	Riser
ALUM	Aluminum	GALV	Galvanized	RA	Return Air
AMT	Amount	GB	Grip Bar	RAD	Radius
ANC	Anchor, Anchorage	GC	General Contractor	RB	Robe Hook
ANDD	And/or	GF	Ground Face	RB	Rubber Base
AP	Access Panel/Point, Acoustical Panel	GL	Glass, Glazing	RCP	Reflected Ceiling Plan
APPROX	Approximate	GL	Griddle	RCS	Research Council on Structural Connections
ARCH	Architect (ural)	GR	Grille	RD	Roof Drain
AUTO	Automatic	GT	GROUT	RE	Reinforce (d), (ing)
AVG	Average	GWS	Gypsum Wallboard	REF	Reference
AWI	Architectural Woodwork Institute	HAZ	Hazardous	REFR	Refrigerator
AWP	Acoustic Wall Panel	HB	Hose Bibb	REM	Remove
BD	Board	HC	Hollow Core	REO	Required
BDF	Bldg Distribn Facility	HD	Hand Dryer	RES	Resilient
BIT	Bituminous	HDWR	Hardware	REV	Revision
BKT	Bracket	HDM	Hollow Metal	RH	Right Hand
BLDG	Building	HORIZ	Horizontal	RM	Room
BLK	Block	HP	High Performance	RO	Rough Opening
BLKG	Blocking	HPT	High Point	RSF	Resilient Sheet Flooring
BLW	Below	HR	Hour	RT	Resilient Tile
BM	Beam	HR	Hose Rack	RWL	Rainwater Leader
BO	Bottom	HSS	Hollow Structural Steel	S	South
BRG	Bearing	HT	Height	SA	Spray Acoustic
BRK	Brick	HVAC	Heating/Ventilating/Air Conditioning	SAF	Self Adhered Flashing
BSTMT	Basement	ID	Inside Diameter/Identification	SASM	Self Adhered Sheet Membrane
BTW	Between	IDF	Intermediate Distribution Facility	SC	Sealed Concrete
BUR	Built-Up Roofing	IJ	Isolation Joint	SCD	See Civil Drawings
BW	Bottom of Wall	I	Inch	SCHED	Schedule(d)
BYND	Beyond	IN	Inch	SCR	Screen
CAB	Cabinet	INCL	Include (d), (ing)	SCW	Solid Core Wood
CB	Cement Board	INSUL	Insulate (d), (ing)	SD	Soap Dispenser
CBC	California Building Code	INT	Interior	SE	Southeast
CHBD	Chalk Board	INV	Invert	SEC	Section
CEM	Cement	ISA	International Symbol of Accessibility	SED	See Electrical Drawings
CEM P	Cement Plaster	J	Joist	SFAD	See Fire Alarm Drawings
CFMF	Cold Formed Metal Framing	JST	Joist	SFD	See Fire Protection Drawings
CG	Corner Guard	JAN	Janitor	SFSD	See Food Service Drawings
CHPS	California High Performance School	JT	Joint	SH	Shelf, Shelving
CI	Cast Iron	KIT	Kitchen	SHT	Sheet
CJ	Control Joint	LAM	Laminate (d)	SHTH	Sheathing
CL	Center Line	LAV	Lavatory	SIM	Similar
CLNG	Ceiling	LH	Left Hand	SJ	Seismic Expansion Joint
CLC	Ceiling	LNDG	Landing	SLD	See Landscape Drawings
CLR	Clear (ance)	LPT	Low Point	SLNT	Sealant
CLST	Closet	LS	Light Switch	SM	Sheet Metal
CO	Cleanout	LT	Light	SMD	See Mechanical Drawings
COL	Column	LWT	Light Weight	SND	Sanitary Napkin Dispenser
COMP	Compress (ed), (ion), (ible)	LVR	Louver	SNR	Sanitary Napkin Receptor
CONC	Concrete	MACH	Machine	SOB	Sub On Grade
CONST	Construction	MAX	Maximum	SPD	See Plumbing Drawings
CONT	Continuous, Continue (d)	MCH	Mop & Broom Holder	SPEC	Specification (s)
CONTR	Contractor	MFR	Manufacturer (er)	SQ	Square
CORR	Corridor	MH	Manhole	SSD	See Structural Drawings
CPT	Carpet (ed)	MIN	Minimum	SST	Stainless Steel
CR	Cold Rolled	MIR	Mirror	ST	Stair
CRS	Course	MISC	Miscellaneous	STA	Station
CSFH	Countersunk Flat Head	MLDG	Molding, Moulding	STC	Sound Transmission Class
CSWK	Casework	MOD	Modular	STD	Standard
CT	Ceramic Tile	MR	Moisture Resistant	STL	Steel
CTR	Center	MS	Middle School	STR	Structur (e, al)
CTSK	Countersink	MTD	Mounted	SUSP	Suspended
DA	Double Acting	MTL	Metal	SW	Southwest
DBL	Double	MTRK	Milwork	SWPPP	Storm Water Pollution Prevention Plan
DEPR	Depress (ed, ion)	N	North	T	Tread
DEPT	Department	NA	Not Applicable	T&B	Top and Bottom
DF	Drinking Fountain	NC	Noncorrosive	T&G	Tongue and Groove
DI	Diameter	NE	Northeast	TC	Top of Concrete
DIA	Dimension	NFRC	National Fenestration Rating Council	TEL	Telephone
DI	Detail	NIC	Not In Contract	TEMP	Temporary
DWG	Drawing	NO, #	Number	TF	Top of Footing
DWR	Drawer	NOM	Nominal	THK	Thick (ness)
E	East	NOM	Nominal	TJ	Top of Joist
EA	Each	NPS	Nominal Pipe Size	TKBD	Tackboard
EJ	Expansion Joint	NTP	Notice To Proceed	TOPD	Topographic
EL	Elevation	NIS	Not To Scale	TPD	Toilet Paper Dispenser
ELEV	Elevation	NUM	Number	TPO	Thermoplastic Polyolefin Overlay
EM	Entry Mat	NW	Northwest	TRANS	Transient
EMB	Embedment	OA	Overall	TSL	Top of Slab
EMER	Emergency	OC	On Center (s)	TST	Top of Steel
ENCL	Enclosure (ure)	OC	Occupancy, Occupant	TW	Top of Wall
ENL	Enlarged	OD	Outside Diameter	TYP	Typical
EPS	Extruded Polystyrene	OFCI	Owner Furnished, Contractor Installed	UL	Underwriters Laboratory
EQ	Equal	OFOI	Owner Furnished, Owner Installed	UON	Unless Otherwise Noted
EQP	Equipment	OFD	Oakland Fire Department	VCT	Vinyl Composition Tile
ERA	Exterior Roof Assembly	OPH	Opposite Hand	VERT	Vertical
ES	Elementary School	OPP	Opposite	VIF	Verify In Field
ESA	Exterior Soffit Assembly	OSH	Occupational Safety and Health Association	VIN	Vinyl
EVR	Elevator	OTS	Open to Structure	VNR	Veneer
EWA	Exterior Wall Assembly	OUSD	Oakland Unified School District, Owner	WVC	Vinyl Wall Covering
EWG	Electric Water Cooler	OVHD	Overhead	W	West, Wide, Width
EXC	Existing	OZ	Ounce	W	With
EXH	Exhaust	O	Over	WB	Wall Board
EXP	Expansion, Exposed	PAF	Powder Actuated Fasteners	WC	Water Closet/ Wheel Chair
EXT	Exterior	PBD	Particleboard	WD	Wood
EXTD	Extruded	PERF	Perforate (d)	WF	Wire Fabric
FA	Fire Alarm, Floor Assembly	PV	Post Indicator Valve	WH	Water Heater
FAB	Fabricated	PVB	Prefabricate (d)	WHBD	Whiteboard
FDO	Floor Cleanout	PL	Plate	WIC	Woodwork Institute Council
FDC	Fire Department Connection	PLM	Plastic Laminated	WIN	Window
FDN	Foundation	PLN	Plan	WLD	Welded
				WMD	Wire Mesh
				WO	Without
				WO	Where Occurs
				WP	Work Point
				WP	Waterproofing
				WT	Weight



MARIN COUNTY FIRE DEPT. CHANGEABLE MESSAGE SIGN TOMALES FIRE STATION

PROJECT NO. 41C2314-01
599 DILLON BEACH RD
TOMALES, CA 94971



SYMBOLS	
	EXTERIOR ELEVATION / ELEVATION SERIES
	INTERIOR ELEVATION / ELEVATION SERIES
	BUILDING SECTION
	DETAIL SECTION
	DETAIL CALLOUT
	VERTICAL DATUM DIMENSION
	REVISION CLOUD
	NORTH ARROW
	CEILING TAG
	ROOM TAG: Room Name and Room Number
	DOOR TAG
	WINDOW TAG
	WALL TAG
	ALIGN
LINETYPES	
	DEMOLISHED
	OVERHEAD
	CONC CONTROL JT
	CENTERLINE
	HIDDEN
	RATED WALL 1 HR.
	FIRE LANE
	PATH OF TRAVEL, ACCESSIBLE OR EGRESS AS NOTED
	FENCE LINE, CHAIN LINK

APPLICABLE CODES	
CALIFORNIA BUILDING STANDARDS CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24) 2022 EDITION	2022 CALIFORNIA ADMINISTRATIVE CODE Title 24, Part 1
2022 CALIFORNIA BUILDING CODE Title 24, Part 2	2021 International Building Code
2022 CALIFORNIA ELECTRICAL CODE Title 24, Part 3	2023 National Electrical Code
2022 CALIFORNIA MECHANICAL CODE Title 24, Part 4	Based on 2018 Uniform Mechanical Code
2022 CALIFORNIA PLUMBING CODE Title 24, Part 5	Based on the 2021 Uniform Plumbing Code
2022 CALIFORNIA ENERGY CODE Title 24, Part 6	
2022 CALIFORNIA HISTORICAL BUILDING CODE Title 24, Part 8	
2022 CALIFORNIA FIRE CODE Title 24, Part 9	Based on the 2021 International Fire Code
2022 CALIFORNIA EXISTING BUILDING CODE Title 24, Part 10	Based on the 2021 International Existing Building Code
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE Title 24, Part 11	
2022 CALIFORNIA REFERENCED STANDARDS CODE Title 24, Part 12	
Title 19, C.C.R., Public Safety, Division 1: State Fire Marshal Regulations	
NFPA 72, National Fire Alarm Code, 2022 Edition (as amended by SFM)	
Building Code Requirements for Structural Concrete & Commentary, ACI 318-08 & ACI 318R-08.	American Institute of Steel Construction, Construction Manual - 15th Addition, AISC 360-05

GENERAL NOTES	
1. DO NOT SCALE DRAWINGS. CONTRACTOR TO VERIFY ALL DIMENSIONS. IF DISCREPANCIES ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.	
THE CONTRACTOR SHALL NOT PROCEED WITH ANY CHANGES WITHOUT THE APPROVAL OF THE OWNER REPRESENTATIVE AND COUNTY OF MARIN.	
THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR JOB CONDITIONS ON THE JOB SITE INCLUDING SAFETY OF PUBLIC WORKERS, PROPERTY, AND ENSURE COMPLIANCE WITH STATE OSHA AND COUNTY OF MARIN GUIDELINES AND SAFETY REQUIREMENTS.	
THE CONTRACTOR SHALL ENSURE THAT ALL WORK PERFORMED MEETS OR EXCEEDS THE REQUIREMENTS OF THE LATEST ADOPTED EDITIONS OF THE APPLICABLE CODES MENTIONED ABOVE.	
THE CONTRACTOR SHALL PROTECT THE EXISTING BUILDINGS ADJACENT TO THE CONSTRUCTION SITE, THEIR EQUIPMENT, SYSTEM, FINISHES, AND FURNISHINGS FROM ANY DAMAGE DURING THE COURSE OF CONSTRUCTION. PUBLIC ACCESS TO ALL BUILDING AREAS MUST BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL REPAIR ALL DAMAGES TO THE ORIGINAL CONDITIONS AT NO COST TO THE COUNTY OF MARIN. THIS COST SHALL BE PAID BY THE PRIME CONTRACTOR.	
2. ALL (E) DIMENSIONS TO BE VERIFIED IN FIELD, BEFORE STARTING WORK, THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, LOCATIONS, ELEVATIONS, SIZES, CLEARANCES, ETC. REQUIRED TO COMPLETE THE WORK.	
THE CONTRACTOR AND THEIR RESPECTIVE SUBCONTRACTORS SHALL BE COMPLETELY RESPONSIBLE FOR ALL GENERAL NOTES, SPECIFICATIONS, AND OTHER PERTINENT INFORMATION AS INDICATED WITHIN THE RESPECTIVE CONSTRUCTION DRAWINGS FOR THEIR DISCIPLINE. DO NOT DELAY IF CLARIFICATION IS REQUIRED. SUBMIT REQUESTS FOR INFORMATION TO THE DESIGN CONSULTANT FOR THE RESPECTIVE DISCIPLINE AND FOLLOW FORMAL CONSTRUCTION INFORMATION EXCHANGE PRACTICES.	
ACCESS TO THE JOB SITE ON THE ROADS AND PARKING LOTS SHALL BE ARRANGED BETWEEN CONTRACTORS AND THE COUNTY OF MARIN. CONTRACTORS ENTRANCE TO THE BUILDING WILL BE LIMITED TO LOCATIONS AS DESIGNATED BY THE COUNTY OF MARIN.	
THE CONTRACTOR SHALL SCHEDULE WORK WITH MINIMUM INTERFERENCE WITH PROJECT SITE AS WELL AS COUNTY OF MARIN ACTIVITIES AND OPERATIONS. LEGALLY DISPOSE OF DEBRIS AFTER EACH WORKING DAY SO AS NOT TO DISTURB PEDESTRIAN AND EXISTING USPS ACTIVITIES. DO NOT OBSTRUCT FIRE LANES AND EXITS.	
AFTER COMPLETION OF THE PROJECT THE CONTRACTOR SHALL CLEAN THE PROJECT SITE BEFORE ACCEPTANCE BY USERS.	
3. UNLESS NOTED (E), ALL ITEMS SHALL BE (N)	
4. THE NOTES AND DRAWINGS ARE AN AID TO THE CONTRACTOR IN UNDERSTANDING THE WORK, AND SHOULD NOT BE CONSTRUED AS BEING COMPLETE IN EVERY DETAIL. IT IS THE EXPLICIT AND SPECIFIC RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE, VERIFY THE EXISTING CONDITIONS, FAMILIARIZE HIM/HERSELF THOROUGHLY WITH THE SCOPE OF WORK, AND BRING ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE ASSUMED OR ACTUAL CONDITIONS TO THE ATTENTION OF THE ARCHITECT.	

SCOPE OF WORK	
INSTALL FREESTANDING LED DOUBLE SIDED MESSAGING SIGN INCLUDING ASSOCIATED STRUCTURAL CONCRETE FOOTING, ELECTRICAL SCOPE AND DATA CONNECTIONS.	
SIGN TO BE INSTALLED PER MFR. INSTRUCTIONS/SPECIFICATIONS.	
ELECTRICAL DATA SCOPE TO INCLUDE:	
DISCONNECT AND PULL BACK OUT (E) EXTERIOR LIGHTING CONDUCTORS TO INSIDE THE BUILDING FOR THE EXTERIOR LIGHTING FIXTURES DIRECTLY IN FRONT OF THE FIRE STATION. RUN A NEW CIRCUIT FROM THE (E) ELECTRICAL PANEL IN THE ELECTRICAL ROOM FOR THE NEW SIGN. PULL BACK IN EXISTING LIGHTING CONDUCTORS WITH THE (N) POWER BRANCH CIRCUIT FOR THE NEW SIGN.	
FROM (E) EXTERIOR LIGHTING BOX TRENCH AND RUN (N) CONDUIT TO NEW SIGN LOCATION. BACKFILL TRENCH TO MATCH (E) GRADE AND SOIL TYPES. IF TRENCH INTERSECTS WITH (E) BIOSWALE THE TRENCH SHALL BE FILLED TO MATCH THE COMPOSITION OF THE BIOSWALE AND REPLANTED.	
CONNECT SIGN DATA ANTENNA TO (E) CAT 5 PORT AT THE FRONT OF THE FIRE STATION BUILDING. PROVIDE POWER TO DATA ANTENNA FROM THE SAME (N) CIRCUIT PROVIDING POWER TO THE SIGN.	
OWNER FURNISHED ITEMS	
MESSAGING SIGN TO BE OWNER FURNISHED CONTRACTOR INSTALLED (OFCI)	
CONTRACTOR RESPONSIBILITIES	
DELIVERY:	
GENERAL: SIGN IS LOCATED AT THE REAR OF THE TOMALES FIRE STATION PARKING LOT	
RECEIVING: CONTRACTOR TO RECEIVE THE PRODUCT FROM THE COUNTY AT THE PROJECT START DATE	
INSPECTION: PROMPTLY INSPECT PRODUCT JOINTLY WITH OWNER; RECORD SHORTAGES, DAMAGES OR DEFECTIVE ITEMS.	
STORAGE: PROTECT PRODUCT FROM DAMAGE OR EXPOSURE TO ELEMENTS.	
INSTALLATION	
GENERAL: ASSEMBLE, INSTALL, CONNECT, ADJUST AND FINISH PRODUCTS, AS STIPULATED IN THE RESPECTIVE SECTION OF THE DRAWINGS AND SPECIFICATIONS.	
REPAIR AND REPLACEMENT: ITEMS DAMAGED DURING HANDLING AND INSTALLATION.	
DEFERRED ITEMS	
None	

BUILDING INFORMATION	
TYPE V-B NON-RATED EXISTING CONSTRUCTION	
B OCCUPANCY	
SINGLE STORY BUILDING WITH MEZZANINE	
BUILDING EQUIPPED WITH AUTOMATIC SPRINKLER SYSTEM THROUGHOUT	
ACCEPTED BY: ROSMARIE R. GAGLIONE, P.E. DIRECTOR OF PUBLIC WORKS	DATE
PROJECT TEAM	
ARCHITECT 450 ARCHITECTS, INC. 9 PIER, SUITE 105 SAN FRANCISCO, CA 94111	ELECTRICAL ENGINEER VEKTOR ENGINEERING & CONSULTING SERVICES, INC. 2603 CAMINO RAMON, SUITE 417 SAN RAMON, CA 94583
OWNER MARIN COUNTY, DEPARTMENT OF PUBLIC WORKS P.O. BOX 4186 SAN RAFAEL, CA 94913-4186	CONTACT: MARY A. HOBSON t: 415-473-6519 e: mhobson@marincounty.org
CONTACT: RICHARD PARKER t: 415-546-0450 e: richard@450architects.com	CONTACT: SERGEY KOROLEV t: 866-835-9871 e: skorolev@ektorengineeringinc.com

SHEET LIST	
Sheet Number	Sheet Name
01	ARCHITECTURAL
A0.00	COVER SHEET
A1.00	SITE PLAN
A3.01	BUILDING ELEVATIONS
A8.01	SIGNAGE DETAILS
A8.02	SIGNAGE DETAILS
A8.03	SIGNAGE GRAPHIC ILLUSTRATIONS
A8.04	STORMWATER NOTES
02	ELECTRICAL
E0.1	SHEET INDEX, SCOPE, SYMBOLS AND ABBREVIATIONS
E0.2	SHORTHAND SPECIFICATION
E0.3	GENERAL NOTES
E0.4	ELECTRICAL EQUIPMENT SCHEDULES
E1.1	NEW SITE PLAN
E5.1	ELECTRICAL PANEL SCHEDULE
E6.1	ELECTRICAL DETAILS
E7.1	ENERGY COMPLIANCE
Grand total:	15

LOCATION MAP	
SHEET TITLE COVER SHEET	
SHEET NO. A0.00	

MARIN COUNTY FIRE DEPT. CHANGEABLE MESSAGE SIGN TOMALES FIRE STATION

PROJECT NO. 41C2314-01
599 DILLON BEACH RD
TOMALES, CA 94971

STAMP
LICENSED ARCHITECT
No. 0219678
EXPIRES 12-31-23
STATE OF CALIFORNIA

REVIEWED

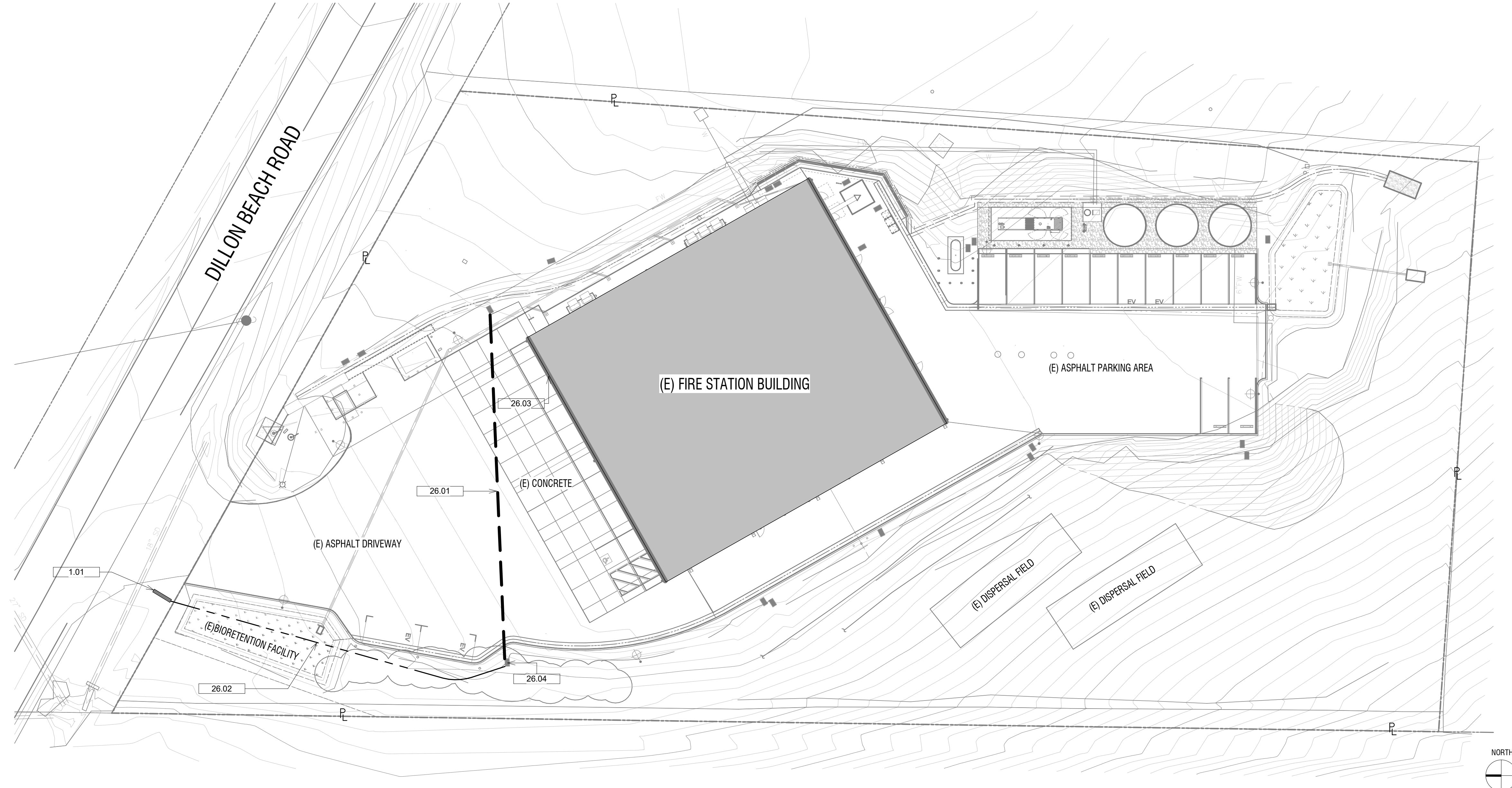
DRAWN BY: Author
CHECKED BY: Checker

Submittals		
#	ISSUE	DATE
	95% CD	07/13/2023

SHEET TITLE
COVER SHEET

SHEET NO.
A0.00

ANSI D 22 x 34" 07/26/2023 1:09:53 PM C:\Users\bj\Documents\Main\ChangeableSigns - Tomales_2023_bj\area\761K.dwg



KEYNOTE LEGEND

Key Value	Keynote Text
1.01	(N) MESSAGING SIGN, POSITION PERPENDICULAR TO ROAD. FINAL LOCATION TO BE APPROVED IN FIELD BY ARCHITECT, MARIN COUNTY PROJECT MANAGER AND MARIN FIRE DEPARTMENT REPRESENTATIVE. AVOID BELOW GRADE UTILITIES INCLUDING 18" SD AND (E) COMMUNICATION POLE GUY WIRES. ALSO SEE ELECTRICAL DRAWINGS AND SIGNAGE REFERENCE DRAWINGS.
26.01	(E) BELOW GRADE CONDUIT TO BE USED FOR (N) MESSAGING SIGN CIRCUIT. SEE ELECTRICAL DRAWINGS.
26.02	(N) BELOW GRADE ELECTRICAL CONDUIT TO (N) MESSAGING SIGN. AVOID EXISTING BIORETENTION FACILITY ELEMENTS INCLUDING PERFORATED PIPE, INLETS AND MOISTURE BARRIER. SEE TYPICAL BIORETENTION FACILITY DETAIL FOR REFERENCE. ALSO SEE ELECTRICAL DRAWINGS.
26.03	(N) WIRELESS ANTENNA MOUNTED TO (E) STEEL BEAM. SEE ELECTRICAL DRAWINGS.
26.04	(E) IN GRADE ELECTRICAL JUNCTION BOX TO BE REUSED. SEE ELECTRICAL DRAWINGS.

Department of Public Works
Capital Projects Division
3501 Civic Center Drive, Room 404
San Rafael, California 94903

450 architects

450 architects, inc.
9 pier, suite 105
the embarcadero
san francisco, california 94111

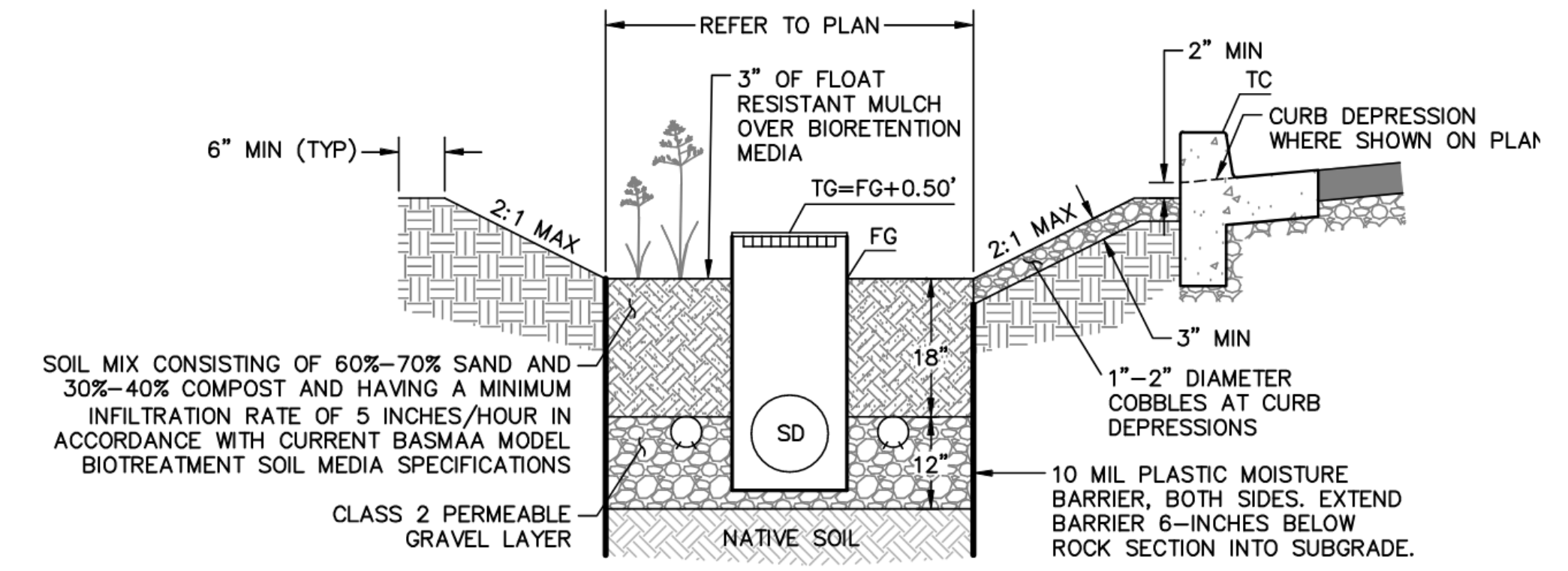
GENERAL SITE NOTES

- SEE ELECTRICAL DRAWINGS ELECTRICAL AND DATA SCOPE OF WORK

MARIN COUNTY FIRE DEPT. CHANGEABLE MESSAGE
SIGN TOMALES FIRE STATION
PROJECT NO. 41C2314-01
599 DILLON BEACH RD
TOMALES, CA 94971

1 SITE PLAN
A1.00 1" = 20'-0"

REFER TO THE LANDSCAPE ARCHITECT'S DRAWINGS FOR PLANTING.



NOTE:
BIORETENTION FACILITIES SHALL INCLUDE PERFORATED SUBDRAINS WHERE SHOWN ON PLAN. THE TOP OF SUBDRAINS SHALL MATCH THE TOP OF THE CLASS 2 PERMEABLE GRAVEL LAYER.

2 (E) BIORETENTION FACILITY TYPICAL SECTION (FOR REFERENCE)
A1.00 N.T.S.

STAMP
NOT FOR CONSTRUCTION

REVIEWED
DRAWN BY: Author
CHECKED BY: Checker

Submittals		
#	ISSUE	DATE
95%	CD	07/13/2023

SHEET TITLE
SITE PLAN

SHEET NO.
A1.00

STAMP

NOT FOR CONSTRUCTION

REVIEWED

DRAWN BY: Author
CHECKED BY: Checker

Submittals

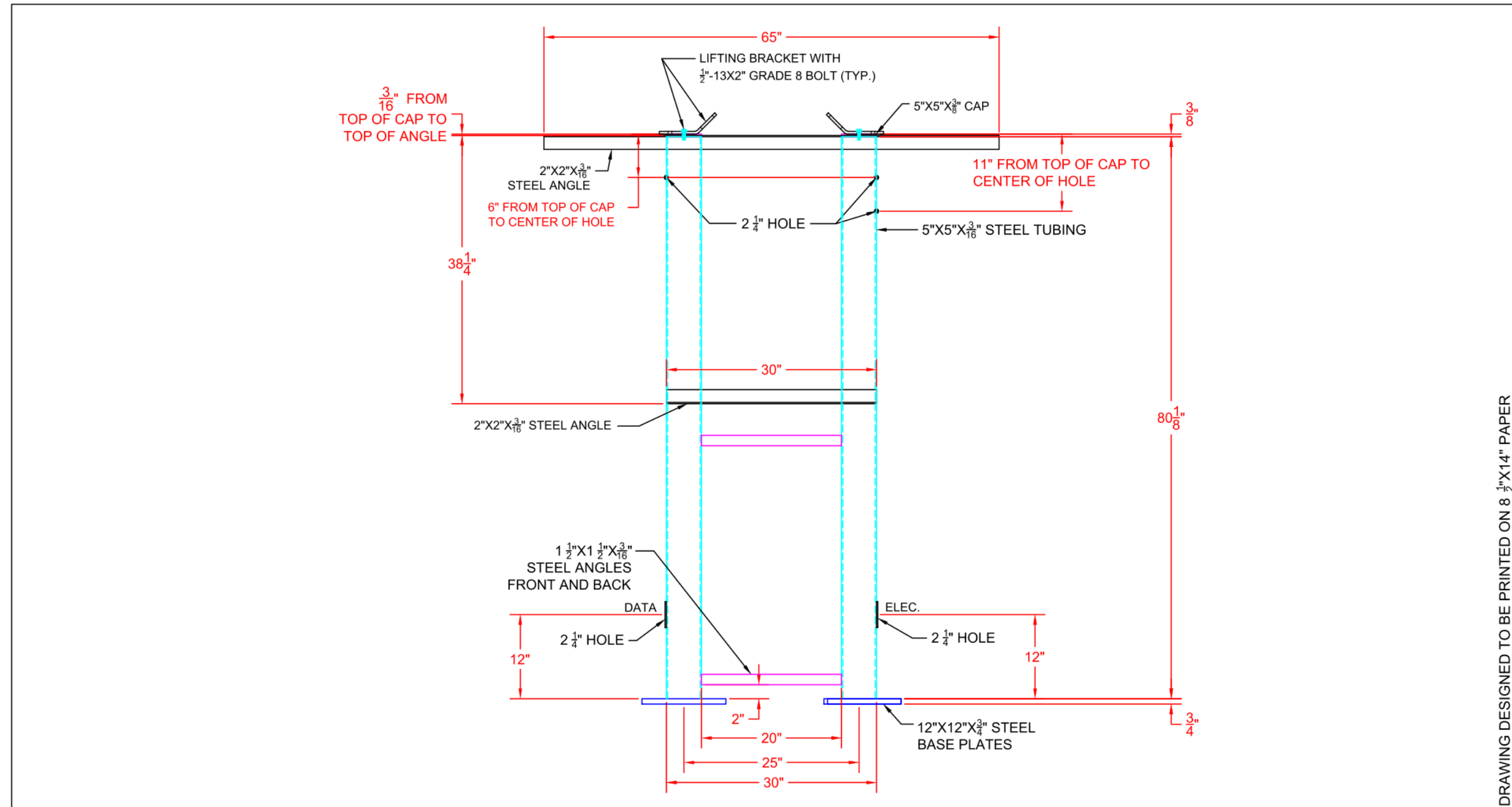
#	ISSUE	DATE
95%	CD	07/13/2023

SHEET TITLE

SIGNAGE DETAILS

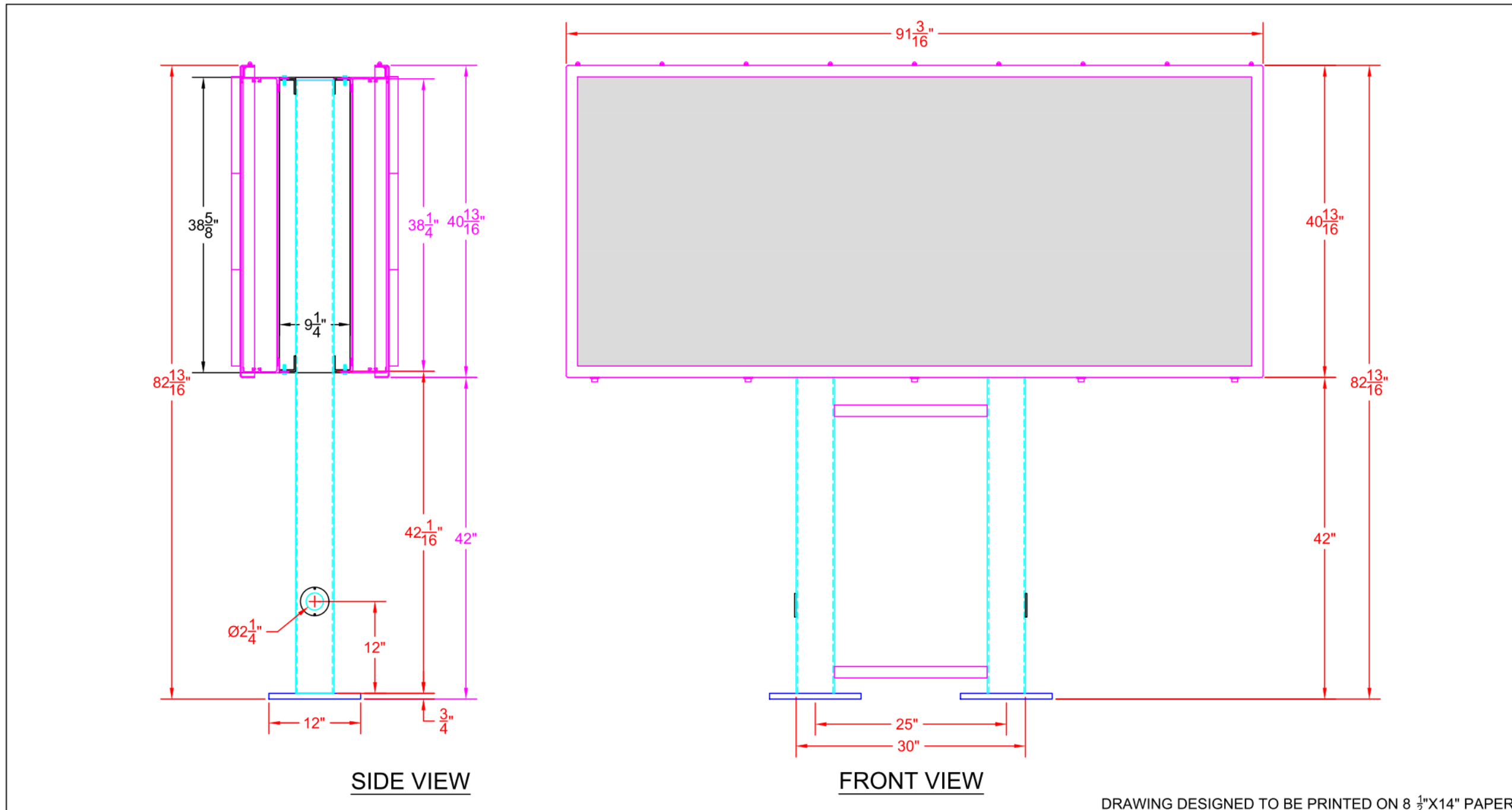
SHEET NO.

A8.01

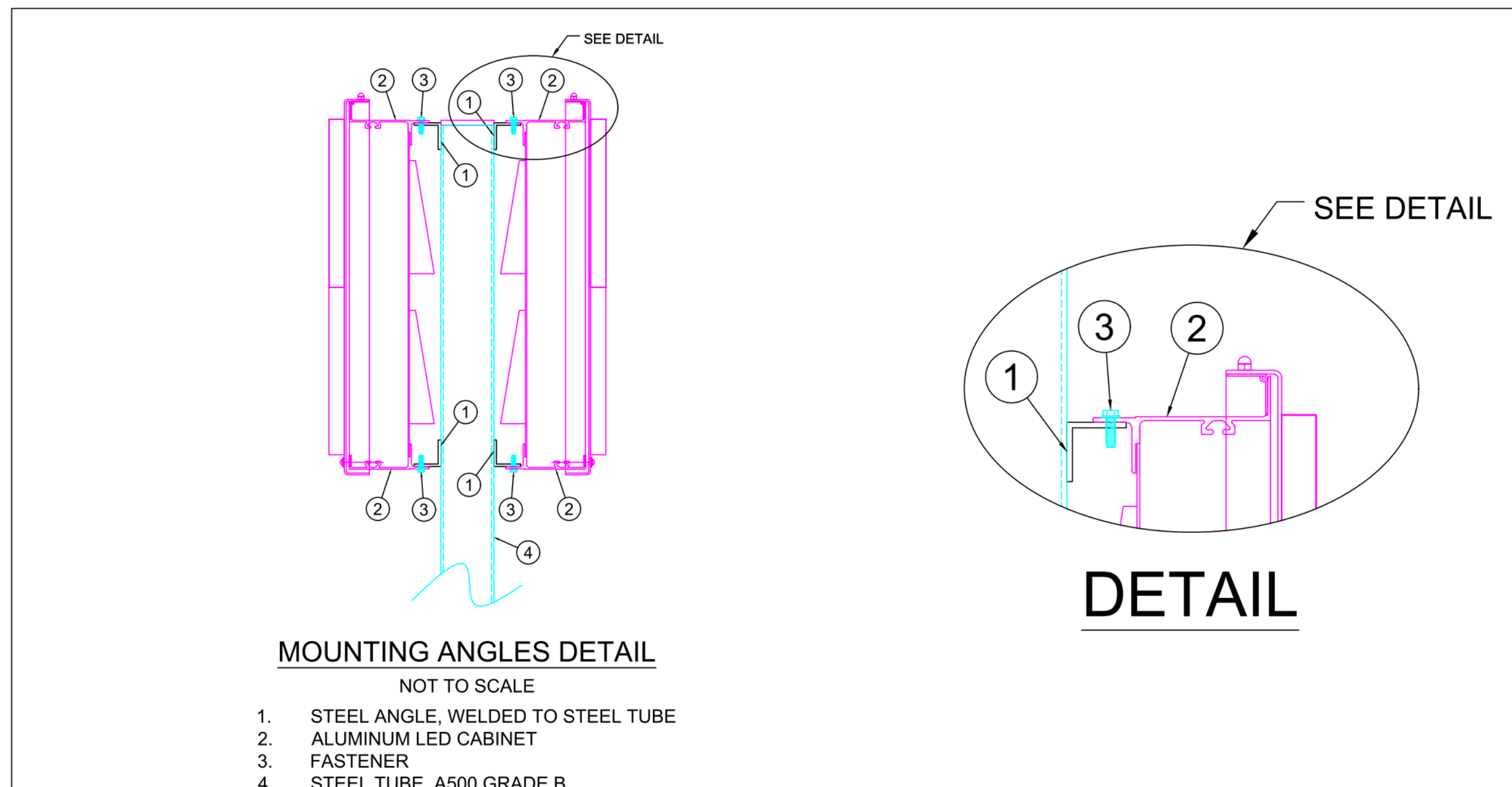


DRAWING DESIGNED TO BE PRINTED ON 8 1/2\"/>

	Date: 11-23-21 Drawn by: JRM	S.S. TEMPLATE MUST BE USED TO SET THREADED RODS INTO CONCRETE	Sign Model: POLARIS 20mm 48x112	Page 1 OF 5					
	<table border="1"> <tr> <th>REV</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>				REV	DESCRIPTION			Drawing #: POL-20mm-C-48x112
REV	DESCRIPTION								



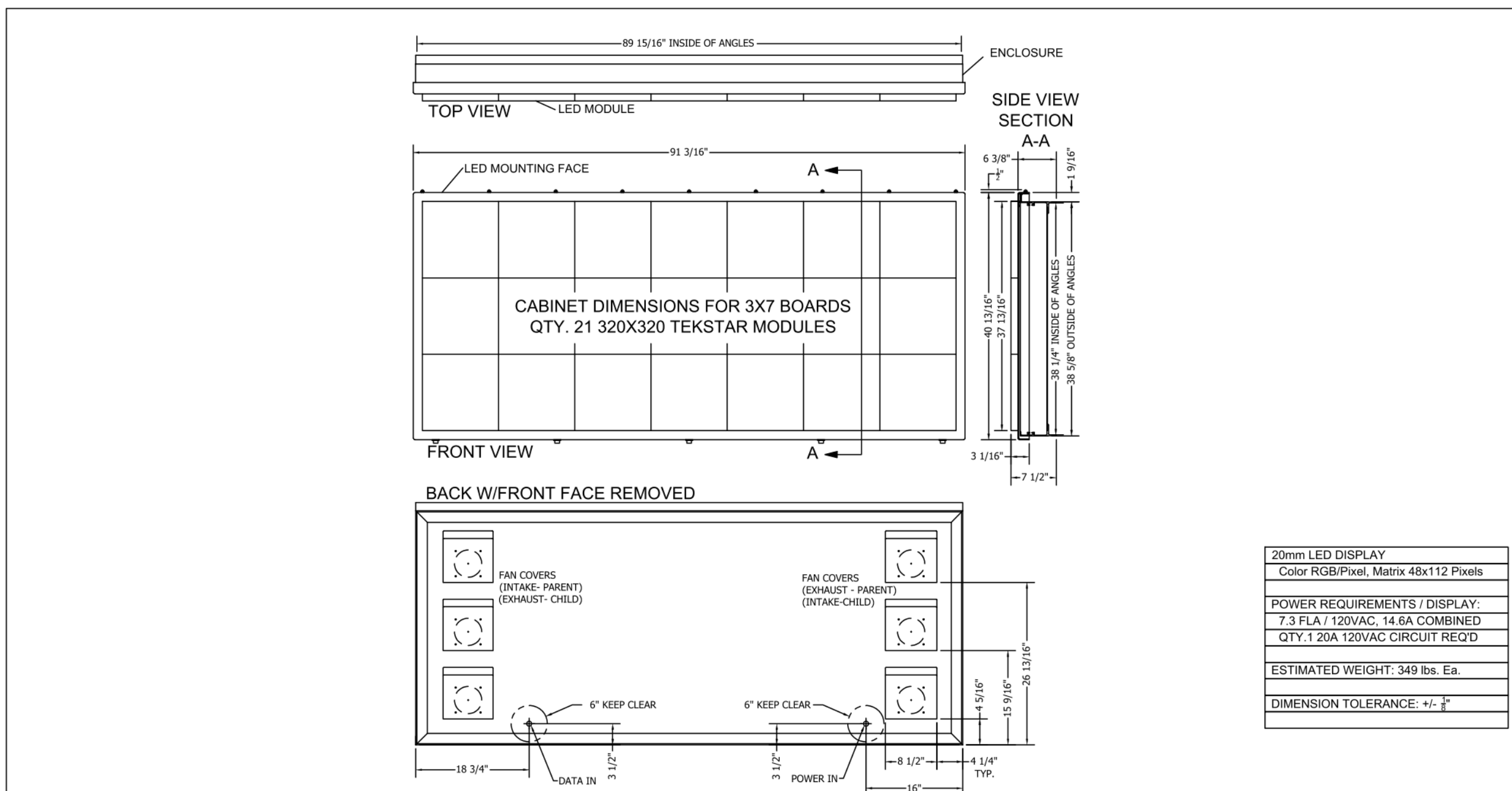
	Date: 11-23-21 Drawn by: JRM	S.S. TEMPLATE MUST BE USED TO SET THREADED RODS INTO CONCRETE	Sign Model: POLARIS 20mm 48x112	Page 2 OF 5					
	<table border="1"> <tr> <th>REV</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>				REV	DESCRIPTION			Drawing #: POL-20mm-C-48x112
REV	DESCRIPTION								



- MOUNTING ANGLES DETAIL**
NOT TO SCALE
- STEEL ANGLE, WELDED TO STEEL TUBE
 - ALUMINUM LED CABINET
 - FASTENER
 - STEEL TUBE, A500 GRADE B

DRAWING DESIGNED TO BE PRINTED ON 8 1/2\"/>

	Date: 11-23-21 Drawn by: JRM	S.S. TEMPLATE MUST BE USED TO SET THREADED RODS INTO CONCRETE	Sign Model: POLARIS 20mm 48x112	Page 3 OF 5					
	<table border="1"> <tr> <th>REV</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>				REV	DESCRIPTION			Drawing #: POL-20mm-C-48x112
REV	DESCRIPTION								

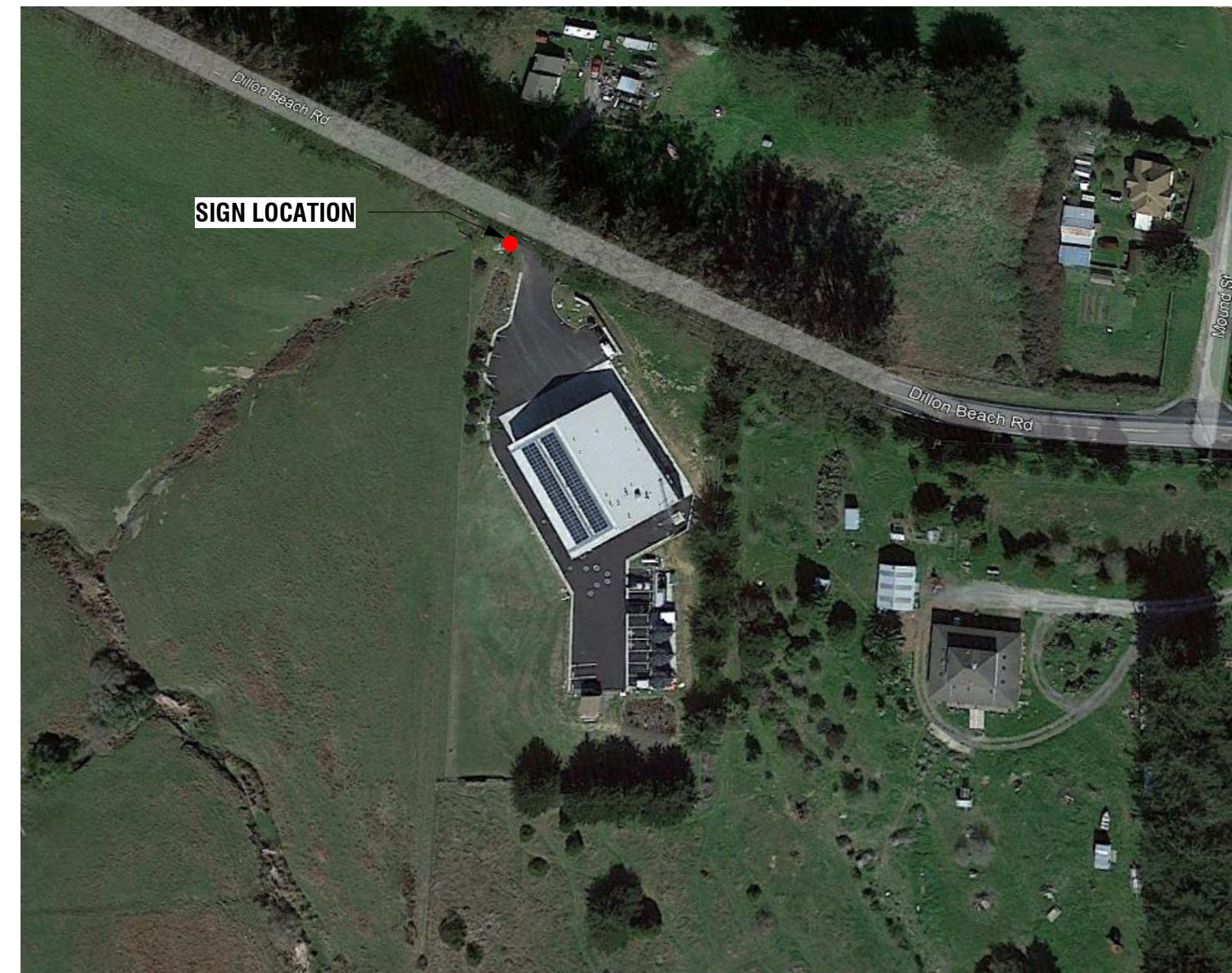


20mm LED DISPLAY
Color RGB/ Pixel Matrix 48x112 Pixels
POWER REQUIREMENTS / DISPLAY:
7.3 FLA / 120VAC, 14.6A COMBINED
QTY: 1 20A 120VAC CIRCUIT RED'D
ESTIMATED WEIGHT: 349 lbs. Ea.
DIMENSION TOLERANCE: +/- 1/8"

	Date: 11-23-21 Drawn by: JRM	S.S. TEMPLATE MUST BE USED TO SET THREADED RODS INTO CONCRETE	Sign Model: POLARIS 20mm 48x112	Page 4 OF 5					
	<table border="1"> <tr> <th>REV</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>				REV	DESCRIPTION			Drawing #: POL-20mm-C-48x112
REV	DESCRIPTION								

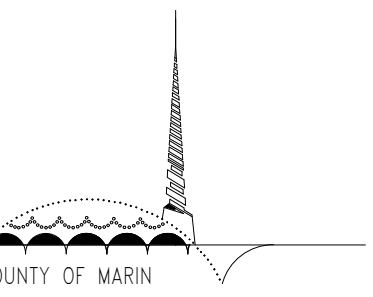


1 RENDERING (FOR REFERENCE ONLY)
A8.03 N.T.S.



2 SIGN LOCATION MAP
A8.03 N.T.S.

FOR REFERENCE ONLY



COUNTY OF MARIN
Department of Public Works
Capital Projects Division
3501 Civic Center Drive, Room 404
San Rafael, California 94903



450 architects, inc.
9 pier, suite 105
the embarcadero
san francisco, california 94111

MARIN COUNTY FIRE DEPT. CHANGEABLE MESSAGE
SIGN TOMALES FIRE STATION

PROJECT NO. 41C2314-01
599 DILLON BEACH RD
TOMALES, CA 94971

STAMP

NOT FOR
CONSTRUCTION

REVIEWED

DRAWN BY: Author

CHECKED BY: Checker

Submittals

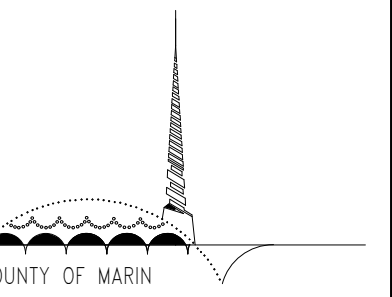
#	ISSUE	DATE
95%	CD	07/13/2023

SHEET TITLE

SIGNAGE GRAPHIC
ILLUSTRATIONS

SHEET NO.

A8.03



COUNTY OF MARIN
 Department of Public Works
 Capital Projects Division
 3501 Civic Center Drive, Room 404
 San Rafael, California 94903



450 architects, inc.
 9 pier, suite 105
 the embarcadero
 san francisco, california 94111

MARIN COUNTY FIRE DEPT. CHANGEABLE MESSAGE
 SIGN TOMALES FIRE STATION

PROJECT NO. 41C2314-01
 599 DILLON BEACH RD
 TOMALES, CA 94971

STAMP

NOT FOR
 CONSTRUCTION

REVIEWED

DRAWN BY: Author

CHECKED BY: Checker

Submittals

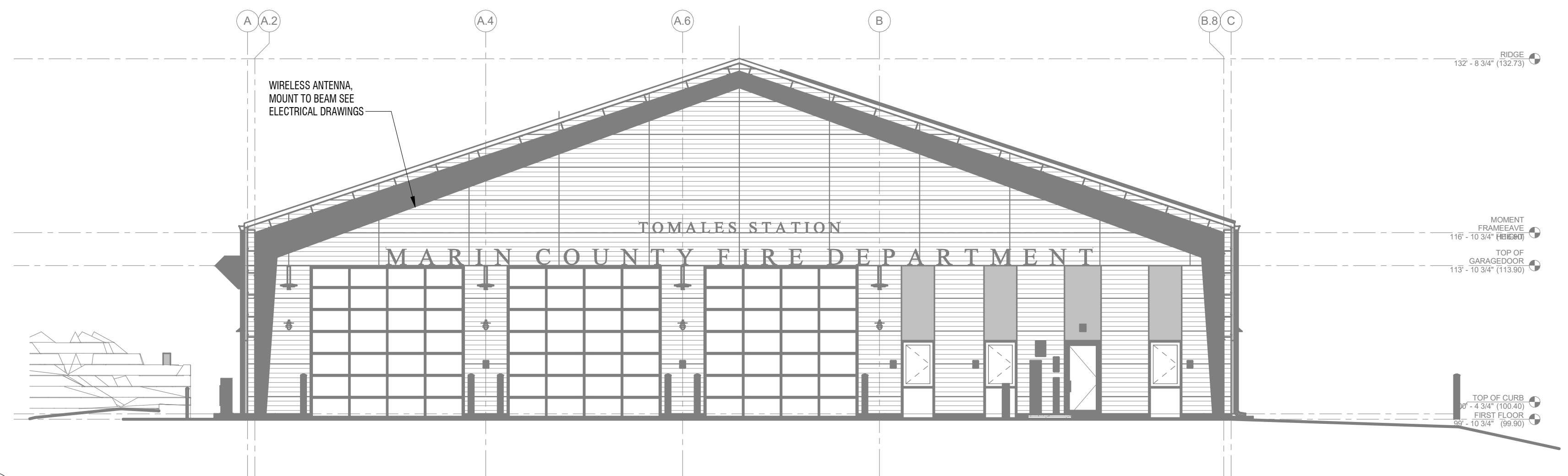
#	ISSUE	DATE
95%	CD	07/13/2023

SHEET TITLE

**BUILDING
 ELEVATIONS**

SHEET NO.

A3.01



1 NORTH ELEVATION
 A3.01 1/8" = 1'-0"

SHORTHAND ELECTRICAL SPECIFICATIONS:

PART 1 – GENERAL:

1.01 FURNISH ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION, SUPERINTENDENCE, SERVICES, EQUIPMENT, FACILITIES AND TEMPORARY CONSTRUCTION REQUIRED AND NECESSARY TO PROVIDE ALL ELECTRICAL SYSTEMS INDICATED ON THESE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL REVIEW ALL CONSTRUCTION DRAWINGS AND SPECIFICATIONS PRIOR TO BID TO COMPLETELY UNDERSTAND THE SCOPE OF WORK AND ACCOUNT FOR ALL ADDITIONAL RESOURCES AND EQUIPMENT NOT SPECIFICALLY INDICATED, BUT INFERRED AND IMPLIED, FOR A COMPLETE AND FUNCTIONAL INSTALLATION INCLUDING, BUT NOT LIMITED TO, ALL ACCESSORIES AND APPURTENANCES REQUIRED FOR TESTING AND COMMISSIONING THE VARIOUS SYSTEMS. ALL ELECTRICAL SYSTEMS MENTIONED IN THESE CONSTRUCTION DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE AND SHALL BE INSTALLED AS COMPLETE, FUNCTIONAL AND FULLY OPERATIONAL SYSTEMS.

SEE E0.1 FOR A SUMMARY OF THE ELECTRICAL SCOPE OF WORK.

A. WORK SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. PROVIDE WITHOUT ANY EXTRA CHARGE, ALL ADDITIONAL MATERIALS AND LABOR WHEN REQUIRED BY THE COMPLIANCE RULES, CODES OR REGULATIONS, WHETHER INDICATED ON RESPECTIVE CONSTRUCTION DRAWINGS OR SPECIFICATIONS OR NOT. NO CHANGE ORDERS SHALL BE ALLOWED FOR ANY MISINTERPRETATION OF THE REQUIREMENTS OF THESE DOCUMENTS.
2. PROVIDE ADDITIONAL PULL BOXES, CONDUIT, HANGERS, SUPPORTS AND OTHER ELECTRICAL HARDWARE AS NECESSARY TO INTERCONNECT ALL ELECTRICAL SYSTEMS AS REQUIRED. REVIEW AND UNDERSTAND THE REQUIREMENTS OF ANCHORAGE AND SUPPORT SECTION OF E0.3.
3. TEST AND COMMISSION THE NEW DATA CABLE. IF THEY, THEMSELVES, ARE NOT QUALIFIED, THEN THE CONTRACTOR SHALL HIRE A SPECIALIST TO TEST THESE SYSTEMS AT NO EXTRA CHARGE.
4. PROVIDE SUBMITTAL PACKAGE FOR ALL EQUIPMENT AND MATERIALS TO ELECTRICAL ENGINEER OF RECORD FOR REVIEW PRIOR TO FURNISHING.
5. PROVIDE ALL SHOP DRAWINGS TO ELECTRICAL ENGINEER OF RECORD FOR REVIEW PRIOR TO INSTALLATION, DO NOT PROCEED WITH INSTALLATION WITHOUT APPROVAL.
6. PROVIDE ALL AS-BUILT DRAWINGS TO ELECTRICAL ENGINEER OF RECORD FOR REVIEW PRIOR TO COMPLETION OF PROJECT, DO NOT RELEASE RETENTION OR CLOSE PROJECT WITHOUT FINAL APPROVAL.

1.02 CODES AND STANDARDS (ADDITIONAL TO THOSE ON E0.3):

WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING:

1. CALIFORNIA BUILDING CODE (CBC).
2. CALIFORNIA ELECTRICAL CODE (CEC).
3. CALIFORNIA FIRE CODE (CFC).
4. CALIFORNIA ENERGY CODE (CEC), TITLE 24 PART 6 ENERGY COMPLIANCE REQUIREMENTS.
5. CALIFORNIA GREEN BUILDING STANDARDS.
6. AMERICANS WITH DISABILITIES ACT (ADA).
7. NFPA 72 FIRE ALARM CODE
8. PG&E UTILITY STANDARD RISK-7510S, FIRE AND RISK ENGINEERING DESIGN FOR PG&E FACILITIES.
9. IES HANDBOOK, 10TH EDITION.
10. LEED V4 OR AS DIRECTED BY PROJECT LEED CONSULTANT.

1.03 CONTRACTOR SHALL BECOME FAMILIAR WITH THE CONDITIONS OF THE JOB SITE, CONSTRUCTION DRAWINGS AND SPECIFICATIONS, AND PLAN THE INSTALLATION OF THE ELECTRICAL WORK TO CONFORM WITH THE EXISTING CONDITIONS AND THOSE SHOWN AND SPECIFIED SO AS TO PROVIDE THE BEST POSSIBLE ASSEMBLY OF THE COMBINED WORK OF THE TRADES.

1.04 CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS REQUIRED, AND DISPOSAL FEES.

1.05 CONTRACTOR AND THEIR SUB-CONTRACTORS SHALL VISIT THE SITE AS NECESSARY PRIOR TO SUBMITTING BID TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATIONS, AND ANY OTHER PERTINENT INFORMATION SHOWN ON PLANS AND ADJUST BID TO COVER ALL WORK SHOWN OR REASONABLY IMPLIED ON PLANS AND ANY ADDITIONAL WORK DISCOVERED THAT IS REQUIRED IN FIELD. REQUIRED CHANGES DUE TO EXISTING CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGEMENT TEAM.

1.06 CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES DURING DEMOLITION OR CONSTRUCTION.

1.07 ALL MATERIALS SHALL BE UL LISTED AND AS SPECIFIED. ANY SUBSTITUTIONS SHALL BE SUBMITTED AND APPROVED PRIOR TO FURNISHING.

1.08 WARRANTIES:

- A. ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS SPECIFICATION AND/OR CONSTRUCTION DRAWINGS SHALL BE GUARANTEED BY CONTRACTOR IN WRITING FOR A PERIOD OF AT LEAST (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST DEFECTIVE MATERIALS, DESIGN AND WORKMANSHIP. CONTRACTOR SHALL APPLY FOR ALL REQUIRED EQUIPMENT AND MATERIAL WARRANTIES WITH RESPECTIVE MANUFACTURER'S AND REMAIN DIRECTLY RESPONSIBLE FOR FULFILLING THE MANUFACTURER WARRANTY OBLIGATIONS FOR THE FULL DURATION LISTED BY EACH MANUFACTURER FOR THE RESPECTIVE MATERIALS OR EQUIPMENT.
- B. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY MATERIAL OR EQUIPMENT OR SECTIONS OF THE ELECTRICAL SYSTEM, DURING THE WARRANTY PERIOD, THE CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENT AND CORRECTIONS PROMPTLY AND WITHOUT EXPENSE OR INCONVENIENCE TO THE OWNER. REPLACE OR REPAIR MATERIALS AND EQUIPMENT IN THIS SCOPE OF WORK AND ANY DAMAGE RESULTING THEREFROM.

1.09 VERIFY ELECTRICAL RATING, LOAD, CIRCUIT REQUIREMENTS, AND CONNECTIONS FOR ALL EQUIPMENT SHOWN ON CONSTRUCTION DRAWINGS, AND FURNISHED BY OTHER DISCIPLINES PRIOR TO ROUGH IN, NOTIFY ELECTRICAL ENGINEER OF RECORD AND THE ENGINEER OF RECORD OF THE RESPECTIVE DISCIPLINE OF THIS CHANGE.

1.10 PROVIDE WIRING TEST UPON COMPLETION OF WORK AND MAKE ADJUSTMENTS AS NECESSARY FOR SATISFACTORY OPERATION OF ALL ELECTRICAL SYSTEMS AS DETERMINED BY CONSTRUCTION MANAGEMENT TEAM.

1.11 DEFINITIONS

- A. "CONNECT": CONSTRUED TO MEAN MAKE FINAL ELECTRICAL CONNECTIONS FOR A COMPLETE INSTALLATION OF A FULLY OPERATING PIECE OF EQUIPMENT WITH NECESSARY ACCESSORIES.
- B. "AS DIRECTED": AS COMMUNICATED BY THE OWNER OR THEIR AUTHORIZED REPRESENTATIVE.
- C. "WORK": CONSTRUED TO MEAN ALL LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES, AND OTHER ITEMS REQUIRED FOR PROPER AND COMPLETE INSTALLATION TO REALIZE INTENDED FUNCTION OF THE EQUIPMENT TO BE INSTALLED.
- D. "WIRING": RACEWAY, FITTINGS, CONDUCTORS, CABLE, BOXES AND OTHER ITEMS REQUIRED FOR A PROPER AND COMPLETE ELECTRICAL CONNECTION.
- E. "CONCEALED": HIDDEN FROM SIGHT AS OBSERVED BY A REGULAR USER OF THE FACILITY OR PREMISES.
- F. "EXPOSED": NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE.
- G. "INDICATED", "SHOWN" OR "NOTED": AS INDICATED, SHOWN, OR NOTED ON RESPECTIVE CONSTRUCTION DRAWINGS OR SPECIFICATIONS.
- H. ALL OTHER DEFINITIONS AS PER THE ACCEPTED DEFINITIONS OF THE AMERICAN INSTITUTE OF ARCHITECTS (AIA).

1.12 SAFETY AND INDEMNITY:

- A. SAFETY: THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. SEE ALSO THOSE REQUIREMENTS DESCRIBED BY THE GENERAL NOTES ON E0.3 AND SCOPE OF WORK ON E0.1.
- B. NO ACT, SHOP DRAWING REVIEW OR CONSTRUCTION REVIEW BY THE OWNER, THE ENGINEERS OR THEIR CONSULTANTS IS INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURE, IN, ON, OR NEAR THE CONSTRUCTION SITE.
- C. INDEMNITY: THE CONTRACTOR SHALL HOLD HARMLESS, INDEMNIFY AND DEFEND THE OWNER, THEIR CONSULTANTS AND EACH OF THEIR OFFICERS, EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGE ARISING OR ALLEGED TO ARISE FROM THE PERFORMANCE OF THE WORK DESCRIBED HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, AND THEIR CONSULTANTS, AND EACH OF THEIR OFFICERS, EMPLOYEES AND AGENTS.

1.13 SUBMITTALS:

ELECTRICAL CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS FOR MATERIALS AND EQUIPMENT, AND RESPECTIVE SPECIFICATION SHEETS (IN A SINGLE COMPLETE SUBMITTAL) FOR REVIEW BY ELECTRICAL ENGINEER OF RECORD, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- A. LIGHTING FIXTURES.
- B. LIGHTING CONTROL SYSTEM AND DEVICES.
- C. WIRING DEVICES.
- D. WIRE, CONDUCTORS AND CABLES.
- E. CONDUIT, RACEWAYS, PULL BOXES, BOXES, FITTINGS, HANGERS AND SUPPORTS.
- F. TRANSFORMERS, PANELS AND DISCONNECTS.
- G. OTHER MAIN EQUIPMENT AS PART OF THIS WORK.

1.14 PROJECT CLOSEOUT:

A. SEE REQUIREMENTS ON E0.3.

1.15 CLEAN-UP AND DEMOBILIZATION:

- A. REMOVE AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS, TRASH AND DEBRIS DURING CONSTRUCTION AND TOWARDS COMPLETION OF THE PROJECT. LEAVE THE PREMISES AND SURROUNDING AREA IN A CLEAN AND ORDERLY CONDITION AS DIRECTED BY THE CONSTRUCTION MANAGEMENT TEAM. ALL MATERIALS AND EQUIPMENT SHALL BE DISPOSED OF PER GOVERNMENT REGULATIONS.

PART 2 – BASIC MATERIALS AND METHODS:

2.01 GENERAL:

- A. MATERIALS AND EQUIPMENT SHALL BE NEW, CURRENT MODELS THAT ARE SUPPORTED BY MANUFACTURER'S, AND SHALL BEAR COMPLETE IDENTIFICATION AND LABELS. PANELS AND DISCONNECT SHALL BEAR SHORT CIRCUIT CURRENT STUDY LABELS IDENTIFYING APPROACH DISTANCES AND P.P.E. REQUIRED.

2.02 CONDUITS:

- A. ELECTRICAL METALLIC TUBING (EMT) SHALL BE GALVANIZED WITH COMPRESSION STYLE FITTINGS. COUPLINGS, FITTINGS AND CONNECTORS SHALL BE INSULATED THROAT TYPE AND GALVANIZED. SETSCREW TYPE FITTINGS ARE NOT PERMITTED.
- B. RIGID (RMC) OR INTERMEDIATE METAL CONDUIT (IMC) SHALL BE GALVANIZED WITH THREADED STYLE FITTINGS. COUPLINGS AND CONNECTORS SHALL BE INSULATED THROAT TYPE AND GALVANIZED.
- C. FLEXIBLE CONDUIT SHALL BE STEEL METAL STRIP INTERLOCK CONSTRUCTION, ZINC COATED OR WITH EXTERNAL PLASTIC ARMOR, INCLUDING SUITABLE ACCESSORIES. AND SHALL BE WATER TIGHT IN WET OR EXTERIOR LOCATIONS.
- D. ALL EXTERIOR CONDUITS SHALL BE GALVANIZED RIGID (GALV. RMC) OR GALVANIZED INTERMEDIATE METAL CONDUIT (GALV. IMC). LAST 6' MAY BE FLEXIBLE CONDUIT TO EASE DEVICE PLACEMENT.
- E. ALL UNDERGROUND CONDUIT SHALL BE RIGID PVC SCHEDULE 80.
- F. ALL INTERIOR BRANCH CIRCUIT CONDUIT SHALL BE ELECTRICAL METAL TUBING (EMT) 3/4" MIN.
- G. ALL CONDUIT FITTINGS IN WET LOCATIONS, AND FOR EXTERIOR OR UNDERGROUND CONDUIT SHALL BE WATER TIGHT TYPE SPECIFIED FOR THE TYPE OF CONDUIT TO BE INTERCONNECTED AT THOSE LOCATIONS.

2.03 CONDUCTORS AND CABLE:

- A. ALL CONDUCTORS AND CABLE SHALL BE COPPER. ALUMINUM CONDUCTORS ARE NOT PERMITTED.
- B. CONDUCTORS: PROVIDE SOFT DRAWN, ANNEALED COPPER WIRE 98% CONDUCTIVITY OR BETTER, BARING THE UL LABEL, WITH 600V MIN. ELECTRICAL INSULATION RATING, #12AWG MINIMUM (USE #10AWG FOR BRANCH CIRCUIT RUNS OVER 100' OR AS INDICATED ON RESPECTIVE CONSTRUCTION DRAWINGS).
- C. CONDUCTORS #1AWG AND SMALLER USED IN DRY LOCATIONS SHALL HAVE THIN TYPE INSULATION, U.O.N.
- D. CONDUCTORS #1AWG AND SMALLER USED IN WET LOCATIONS SHALL HAVE THWN TYPE INSULATION, U.O.N.
- E. INSULATED EQUIPMENT GROUNDING CONDUCTORS, EQUIPMENT OR SYSTEM BONDING JUMPERS, AND OTHER INSULATED GROUNDING CONDUCTORS SHALL HAVE THHN TYPE INSULATION FOR DRY LOCATIONS AND THWN INSULATION FOR WET LOCATIONS, U.O.N.
- F. ALL BARE GROUNDING SYSTEM OR RING CONDUCTORS SHALL BE STRANDED COPPER #4AWG MIN. U.O.N.
- G. ALL BARE GROUNDING ELECTRODE CONDUCTORS SHALL BE STRANDED COPPER #6AWG.
- H. UNGROUNDED AND NEUTRAL CONDUCTORS #1/0AWG THROUGH #4/0AWG SHALL HAVE XHHW (55 MILS) INSULATION OR THICKER AND MORE DURABLE.
- I. UNGROUNDED AND NEUTRAL CONDUCTORS #250MCM (KCMIL) AND LARGER SHALL HAVE XHHW (65 MILS) INSULATION OR THICKER AND MORE DURABLE.
- J. ALL INSULATION SHALL HAVE A TEMPERATURE RATING OF 75 DEG. C MINIMUM.
- K. #8AWG AND LARGER SHALL BE STRANDED COPPER CONDUCTORS. SOLID CONDUCTORS MAY BE USED FOR #10AWG AND SMALLER WHERE VIBRATION IS PRESENT OR SPECIAL FLEXIBILITY IS REQUIRED; HOWEVER, ELECTRICAL ENGINEER OF RECORD SHALL APPROVE USE OF ANY SOLID CONDUCTORS PRIOR TO INSTALLATION.
- L. ALL SPLICES SHALL HAVE IN-LINE COLD SHRINK CONNECTION INSULATORS.
- M. WIRING CONNECTORS:
 1. #8AWG AND SMALLER INTERIOR WIRING SHALL BE CONNECTED WITH CONNECTORS HAVING INSULATED PRESSURE TYPE LIVE SPRING, WITH INSULATION RATED FOR 600V, 105 DEG. C MIN., USE INSULATION RATING OF 1000V, 105 DEG. C MIN. FOR LIGHTING BRANCH CIRCUITS.
 2. #6AWG AND LARGER SHALL BE CONNECTED WITH COMPRESSION TYPE CONNECTORS WITH #33+ OR SUPERIOR ELECTRICAL TAPE TO COVER PER INDUSTRY STANDARDS.

N. GROUNDING SHALL COMPLY WITH CEC REQUIREMENTS.

2.04 PANELS:

- A. ENCLOSURES SHALL BE SINGLE DOOR, DEAD FRONT OF CODE GAUGE STEEL WITH TRIM AND DOOR OF 12 GAUGE STRETCHER-LEVELED STEEL. ENCLOSURES SHALL BE 20" (MIN.) WIDE BY 5-3/4" DEEP (MAX.),

U.O.N. ALL PANELS FOR THIS PROJECT SHALL BE MANUFACTURED BY THE SAME MANUFACTURER.

1. FINISH SHALL CONSIST OF ONE COAT RUST RESISTANT PRIMER, ONE COAT GRAY ENAMEL INSIDE AND OUT.
2. ENCLOSURES SHALL BE LOCKABLE WITH FLUSH TYPE COMBINATION LATCH, AND TWO KEYS SHALL BE FURNISHED. NO PLASTIC PARTS IN THE LATCH AND LOCK MECHANISM ARE PERMITTED.
3. PANEL RATING AND BUS CAPACITIES PER RESPECTIVE PANEL SCHEDULES. BUSES SHALL BE MADE OF 98% CONDUCTIVITY OR BETTER COPPER BARS SIZED FOR CURRENT DENSITY OF 1,000 AMP/SQ. INCH OF CROSS SECTION (OR EQUIVALENT CURRENT DENSITY RATING TIN PLATED ALUMINUM).
4. CIRCUIT BREAKERS SHALL BE BOLT ON ONLY.

2.05 WIRING DEVICES:

- A. ALL WIRING DEVICES AND COVER PLATES SHALL BE COORDINATED TO MATCH FINISHES PROPOSED BY ARCHITECT PRIOR TO BEING FURNISHED AND INSTALLED.
- B. ASIDE FROM THE ENLIGHTENED LIGHTING CONTROL DEVICES, SWITCHES, RECEPTACLES, PLATES, ETC. SHALL BE PURCHASED FROM THE SAME MANUFACTURER.

2.06 BOXES:

- A. OUTLET BOXES SHALL BE 4 INCH SQUARE BY 1-1/2 INCH DEEP (OR LARGER) GALVANIZED SHEET STEEL KNOCK-OUT TYPE WITH PLASTER RING AND COVER FOR GENERAL INTERIOR USE, AND CAST METAL, FERRIS STANDARD OR SHALLOW, OR FERRIS BOX DEEP WITH MATCHING SCREW COVERS FOR EXTERIOR LOCATIONS OR LOCATIONS EXPOSED TO WATER, PROVIDE GASKETED COVERS IN EXTERIOR, WET OR DAMP LOCATIONS.
- B. COVERS FOR WEATHER PROOF EXTERIOR SERVICE OR CONVENIENCE RECEPTACLES NEAR HVAC EQUIPMENT SHALL BE IN-USE WEATHER PROOF.
- C. NEW BRANCH CIRCUIT JUNCTION BOXES SHALL USE THE SAME TYPE OF BOX AS THOSE USED FOR NEW RECEPTACLES, COORDINATE TYPE WITH OTHER DISCIPLINES.
- D. ALL EXTERIOR PULL BOXES SHALL BE OF TRAFFIC RATED CONSTRUCTION AND SHALL HAVE A TRAFFIC RATED COVER. COVER SHALL HAVE PRE-CAST OR ENGRAVED SIGN INDICATING TYPE OF CONDUCTORS OR CABLEING INSIDE, E.G. "ELECTRIC" OR "COMMS".

2.07 CONDUIT HANGERS (SEE SUPPORT AND ANCHORAGE REQUIREMENTS ON E0.3):

- A. INDIVIDUAL CONDUIT RUNS 1 INCH AND SMALLER SHALL BE ATTACHED TO STRUCTURAL MEMBERS DIRECTLY USING CONDUIT CLAMPS WITH FASTENERS ON BOTH SIDES OF THE CLAMP. USE ROD HANGERS WHEN CONDUIT RUN NEEDS TO BE EXTENDED LOWER THAN THE DIRECT ATTACHMENT TO STRUCTURAL MEMBERS ALLOWS.
- B. INDIVIDUAL CONDUIT RUNS 1-1/4 INCH AND LARGER, OR MULTIPLE PARALLEL RUNS OF CONDUIT, SHALL BE ATTACHED TO STRUCTURAL MEMBERS USING A GALVANIZED METAL CHANNEL WITH MULTIPLE FASTENERS AS REQUIRED TO SUPPORT THE ASSEMBLY AND AN APPROPRIATELY SIZED CONDUIT CLAMP SPECIFIED FOR THE SIZE CONDUIT BY MANUFACTURER OF THE METAL CHANNEL.
- C. CONTRACTOR SHALL USE METAL CHANNEL TRAPEZE TYPE CONDUIT SUPPORT FOR CONDUIT RUNS THAT REQUIRE CONDUIT RUNS 1-1/4 INCH AND LARGER, OR MULTIPLE PARALLEL RUNS OF CONDUIT, WHERE CONDUIT RUNS NEED TO BE EXTENDED LOWER THAN THE DIRECT ATTACHMENT TO STRUCTURAL MEMBERS ALLOWS.
- D. CONDUIT SUPPORT SYSTEMS SHALL BE DESIGNED FOR A MAXIMUM DEFLECTION NOT GREATER THAN 1/8 INCH.
- E. DIAMETER OF HANGER ROD SHALL NOT BE LESS THAN 3/8 INCH.

2.08 LIGHTING AND RECEPTACLE COMPLIANCE:

- A. CONTRACTOR SHALL PROVIDE A COMPLETE AND FUNCTIONING LIGHTING CONTROL SYSTEM THAT COMPLIES WITH THE REQUIREMENTS OF THE CALIFORNIA ENERGY COMMISSION TITLE 24 REQUIREMENTS.
- B. CONTRACTOR SHALL PROVIDE ADDITIONAL LIGHTING CONTROL DEVICES AND COMMISSIONING TO ACCOMMODATE OCCUPANCY CONTROL OF VARIOUS RECEPTACLES THROUGHOUT.

2.09 LIGHTING

- A. INSTALL EMERGENCY EGRESS LIGHTING FIXTURES AS INDICATED ON RESPECTIVE PLANS ALONG THE EGRESS PATH IDENTIFIED BY ARCHITECT. PROVIDE EMERGENCY EGRESS LIGHTING FIXTURE CONTROL AND COMPLY WITH REQUIREMENTS OF UL924. PROVIDE A UL924 COMPLIANT CENTRAL LIGHTING INVERTER WITH 90-MINUTE BATTERY CAPACITY.
- B. CONTRACTOR SHALL COORDINATE WITH CONSTRUCTION MANAGEMENT TEAM FOR ACCESS, QUANTITY, TRANSPORTATION AND STORAGE OF THE EXIT SIGNS, LIGHTING FIXTURES AND LIGHTING CONTROL DEVICES TO BE RE-USED.

PART 3 – EXECUTION:

3.01 GENERAL:

- A. ELECTRICAL CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND SHALL BE USED AS CLOSELY AS POSSIBLE AS ACTUAL CONSTRUCTION OF OTHER TRADES WILL PERMIT. VERIFY EXACT ROUTING OF CONDUITS AND RACEWAYS IN FIELD. EXACT LOCATIONS, DISTANCES, DIMENSIONS SHALL BE TAKEN FROM FIELD MEASUREMENTS. REPORT ALL MAJOR DEVIATIONS AND DISCREPANCIES THAT RESULT IN A 15% INCREASE IN ROUTE LENGTH TO ELECTRICAL ENGINEER OF RECORD.
- B. CONTRACTOR SHALL VERIFY ALL SCALED DIMENSIONS AND REPORT CONFLICTS TO ELECTRICAL ENGINEER OF RECORD.
- C. CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER DISCIPLINES, AND SHALL PLAN ADDITIONAL TIME TO ACCOUNT FOR ANY DEPENDENCY REQUIRED OF THEM OR REQUIRED BY THEM PRIOR TO SUBMITTING BID.
- D. ALL HOME RUNS TO RESPECTIVE PANELS ARE INDICATED AS STARTING FROM THE OUTLET CLOSEST TO THE PANEL. THE BRANCH CIRCUIT CONTINUES TOWARDS THE NEXT CLOSEST OUTLET WITH THE SAME BRANCH CIRCUIT DESIGNATION, AND SO ON, CONTINUE SUCH CIRCUITS TO THE PANEL AS THOUGH THE ROUTES WERE COMPLETELY INDICATED.
- E. CONTRACTOR SHALL NOT CUT, NOTCH OR BORE HOLES THROUGH ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF STRUCTURAL ENGINEER OF RECORD.

3.02 CONDUIT:

- A. CONTRACTOR SHALL USE GALVANIZED RIGID METAL CONDUIT (RMC) FOR ALL WIRING EXCEPT IN OR UNDER CONCRETE, IN EARTH, FILL, MASONRY WALLS, CONCRETE WALLS WHICH SHALL BE RIGID SCHEDULE 80 PVC.
- B. CONTRACTOR SHALL USE ELECTRICAL METAL TUBING (EMT) OR METAL CLAD (MC) CABLES IN TYPICAL WALLS AND CEILING AREAS.
- C. USE FLEXIBLE CONDUIT TO EASE FINAL CONNECTION, BUT IT SHALL NOT EXCEED 6' AS MEASURED FROM FINAL CONNECTION ALONG ROUTE.
- D. CONCEAL ALL CONDUIT IN WALLS AND ABOVE CEILING SPACES WHERE POSSIBLE. PROVIDE SLEEVES AND CHASES WHERE RACEWAYS PASS THROUGH WALLS. KEEP RACEWAYS WITHIN FURRING LINES ESTABLISHED ON THE DRAWINGS UNLESS SHOWN EXPOSED. AVOID OBSTRUCTION OF OPENINGS, PASSAGEWAYS AND REQUIRED CLEARANCES. ROUTE CONDUITS TO AVOID CONFLICTS WITH DUCTS, PIPING, LIGHTING FIXTURES, ETC. LOCATE ALL ADDITIONAL OPENINGS AND SPACES AND COORDINATE WITH OTHER DISCIPLINES.
- E. CONTRACTOR SHALL ALLOW FOR THE REQUIRED TIME TO PLAN AND NEATLY LAYOUT ROUTES TO AVOID UNNECESSARY CUTTING AND FITTING.
- F. CONTRACTOR SHALL INSTALL CONDUIT ROUTES PARALLEL TO EACH OTHER AND OTHER EXISTING CONDUIT ROUTES THAT ARE TO REMAIN AS PART OF THIS PROJECT. PARALLEL CONDUITS AND RACEWAYS SHALL

RUN STRAIGHT AND TRUE WITH OFFSETS THAT ARE UNIFORM AND SYMMETRICAL.

G. CONTRACTOR SHALL INSTALL CONDUIT ROUTES PERPENDICULAR TO STRUCTURAL MEMBERS IN WALLS AND ABOVE CEILINGS TO SPREAD THE WEIGHT OF THE CONDUIT THROUGH ANCHORS AND SUPPORTS AMONGST MULTIPLE STRUCTURAL MEMBERS ALONG ROUTE. DO NOT CONCENTRATE WEIGHT ON A SINGLE STRUCTURAL MEMBER.

H. SEAL AND CAP ALL SPARE CONDUITS AT BOTH ENDS.

I. PROVIDE #4 PULL CORD IN ALL CONDUITS.

3.03 CONDUCTORS AND CABLE:

A. PROVIDE NO CONDUCTORS SMALLER THAN #12AWG. PROVIDE STRANDED CONDUCTORS LARGER THAN #10AWG.

B. ALL CONDUCTORS, INCLUDING, BUT NOT LIMITED TO UNGROUNDED CONDUCTORS, EQUIPMENT GROUNDING CONDUCTORS, BONDING JUMPERS, NEUTRALS, GROUNDING ELECTRODE CONDUCTORS SHALL BE SIZED AND INSTALLED PER CEC.

3.04 OUTLET AND JUNCTION BOXES:

A. INSTALL BOXES SECURELY TO THE STRUCTURE. LOCATE BOXES SUCH THAT THE EXTENSION RING IS FLUSH WITH THE SURFACE.

B. INSTALL JUNCTION AND PULL BOXES IN ACCESSIBLE LOCATION AS REQUIRED FOR SPLICING, CONNECTIONS AND PULLING OF CONDUCTORS.

C. BOXES SHALL BE MOUNTED ON ADJUSTABLE BAR HANGERS ABOVE SUSPENDED CEILING AND ADJACENT TO STRUCTURAL MEMBERS IN WALLS.

3.05 DEVICES:

A. INSTALL SWITCH, RECEPTACLE AND OTHER FLUSH DEVICE PLATES WITH THE VERTICAL CENTER LINE PLUMB WITH ALL EDGES OF THE PLATE IN CONTACT WITH THE FINISHED SURFACE. COORDINATE COLOR WITH ARCHITECT BASED ON SURROUNDING FINISHES AT RESPECTIVE MOUNTING LOCATION.

B. BOXES FOR SWITCHES SHALL BE LOCATED WHERE INDICATED ON THE RESPECTIVE CONSTRUCTION DRAWINGS AT A MOUNTING HEIGHT OF 48" U.O.N.

3.06 PENETRATIONS

A. PROVIDE FIRE STOP SYSTEMS AT ALL PENETRATIONS THROUGH EXTERIOR AND FIRE RATED WALLS AND CEILINGS, FINAL ASSEMBLY SHALL MEET OR EXCEED THE FIRE RATING OF THE WALL BEING PENETRATED.

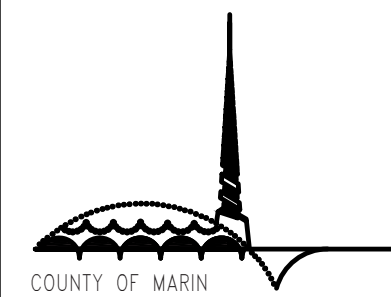
B. ALL PENETRATIONS TO THE EXTERIOR SHALL BE SLEEVED AND CAULKED WITH WATER PROOFING MATERIALS TO ENSURE A WATER TIGHT SEAL.

C. PROVIDE SEAL FITTINGS FOR CONDUIT PENETRATIONS ENTERING PLENUMS.

3.07 GROUNDING:

A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS SIZED PER CEC.

B. PROVIDE A GROUNDING BUS, OR FURNISH EQUIPMENT WITH GROUNDING BUS ALREADY INSTALLED, FOR ALL PANELS, TRANSFORMERS AND DISCONNECT SWITCHES. PROVIDE CONNECTION OF EQUIPMENT GROUNDING CONDUCTORS, BONDING JUMPERS, GROUNDING ELECTRODE CONDUCTORS AS INDICATED ON CONSTRUCTION DRAWINGS.



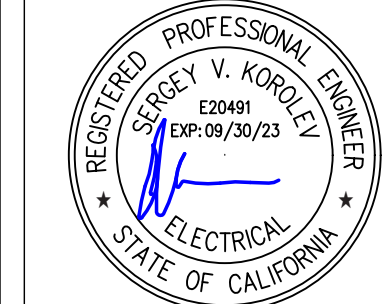
Department of Public Works
Capital Projects Division
3501 Civic Center Drive, Room 404
San Rafael, California 94903

vektor Engineering & Consulting Services, Inc.
Where engineering and technology drive innovation™
2603 Camino Ramon, Suite 417
San Ramon, CA 94583
+1 (866) VEKTOR1 (835-8671)

MARIN FIRE CHANGEABLE MESSAGE SIGNS TOMALES
FIRE STATION

PROJECT NO. 41C2314-01
599 DILLON BEACH RD.,
TOMALES, CA 94971

STAMP



REVIEWED

DRAWN BY: SDP

CHECKED BY: SVK

Submittals		
#	ISSUE	DATE
0	BID SET	07/13/2023

SHEET TITLE
**SHORTHAND
SPECIFICATIONS**

SHEET NO.

E0.2

GENERAL NOTES:

- EVERYONE'S SAFETY IS ALWAYS THE TOP PRIORITY! BE RESPONSIBLE FOR WORKING CONDITIONS ON THE JOB SITE; INCLUDING, BUT NOT LIMITED TO, THE SAFETY OF ALL PERSONS AND PROPERTY DURING PROJECT PLANNING AND CONSTRUCTION, AND WORK THAT IS PERFORMED OUTSIDE OF NORMAL WORKING HOURS.
- IMMEDIATELY NOTIFY THE COUNTY REPRESENTATIVE UPON DISCOVERY OF CONFLICTS, ADVERSE SITE CONDITIONS OR DISCREPANCIES. ALL QUESTIONS REGARDING THIS PROJECT AND THE CONSTRUCTION DOCUMENTS, INCLUDING THOSE ADDRESSED TO THE ENGINEER OF RECORD FOR VARIOUS CONDITIONS, SOME OF WHICH ARE LISTED FURTHER IN THE GENERAL NOTES, SHALL BE COORDINATED THROUGH THE CONSTRUCTION MANAGER BY FORMAL CONSTRUCTION ADMINISTRATION PROCESS.
- THE LATEST EDITION OF THE OWNER'S AND OR ARCHITECT'S GENERAL, SPECIAL AND SUPPLEMENTARY CONDITIONS, ESPECIALLY SPECIFICATION SECTIONS OF CONSTRUCTION SPECIFICATION INSTITUTE'S (CSI) DIVISIONS 25, 26, 27, 28 AND 48, AS WELL AS SEPARATE SPECIFICATIONS OR PROJECT MANUALS REQUIRED FOR THIS PROJECT, AND THESE CONSTRUCTION DRAWINGS, TOGETHER AS A COMPLETE SET ARE A PART OF THE CONSTRUCTION DOCUMENTS; AND, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ATTAIN, INTERPRET AND COMPLETELY UNDERSTAND THE LATEST EDITIONS OF THESE CONSTRUCTION DOCUMENTS PRIOR TO ANY PROPOSAL, BID AND EXECUTION OF WORK. THIS INCLUDES CONSTRUCTION DOCUMENTS APPLICABLE TO OTHER DIVISIONS WHICH MAY INTERFERE OR OTHERWISE AFFECT THE WORK OF THE CONTRACTOR AND THEIR DISCIPLINE AND OR THEIR SUB-CONTRACTORS AND THEIR RESPECTIVE DISCIPLINES; THIS IS ESPECIALLY IMPORTANT TO COORDINATE FOR THE CONTRACTOR AND THEIR SUB-CONTRACTORS.
- IF ANY CONSTRUCTION DOCUMENTS ARE UNCLEAR, THEN THE CONTRACTOR SHALL NOT PROCEED WITH ANY CONSTRUCTION AFFECTED BY THE PORTION OF THE CONSTRUCTION DRAWINGS IN QUESTION. INCONSISTENCIES AND OR DISCREPANCIES IN THE CONSTRUCTION DRAWINGS OR SPECIFICATIONS SHALL BE CLARIFIED WITH THE ENGINEER OF RECORD THROUGH FORMAL CONSTRUCTION ADMINISTRATION PROCESS IMMEDIATELY UPON DISCOVERY AND PRIOR TO INSTALLATION.
- AFTER ACHIEVING A COMPLETE UNDERSTANDING OF THE CONSTRUCTION DOCUMENTS AND THE SCOPE OF THIS PROJECT, THE CONTRACTOR SHALL VISIT THE JOBSITE PRIOR TO SUBMITTING A FINAL PROPOSAL OR BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS, AND INFORM THE ENGINEER OF RECORD OF ANY ADVERSE CONDITIONS, CONFLICTS OR INCONSISTENCIES DISCOVERED WITH THE PLANNED WORK AS DESCRIBED BY THE CONSTRUCTION DOCUMENTS THROUGH FORMAL WRITTEN CONSTRUCTION ADMINISTRATION PROCESS.
- THESE GENERAL NOTES AND THE MINIMAL REQUIREMENTS THEY DESCRIBE FOR ELECTRICAL WORK SHALL ENCOMPASS AND SHALL ALSO BE REQUIREMENTS TO SUB-DISCIPLINES OF ELECTRICAL WORK SUCH AS FIRE ALARM, SECURITY, COMMUNICATION, AND OTHER ELECTRICAL SPECIALTY TRADES. HOWEVER, IT SHALL BE NOTED THAT, THERE MAY BE ADDITIONAL SPECIFIC REQUIREMENTS IDENTIFIED BY THESE CONSTRUCTION DOCUMENTS FOR THAT SPECIFIC SUB-DISCIPLINE AND ARE LISTED UNDER THE RESPECTIVE CONSTRUCTION DOCUMENT SECTIONS RELEVANT TO THAT SUB-DISCIPLINE OR TRADE.
- THESE GENERAL NOTES ARE INTENDED TO ASSIST THE CONTRACTOR DURING CONSTRUCTION. HOWEVER, THEY DO NOT COVER ALL POSSIBLE SCENARIOS AND THE DOCUMENTS USED TO MAKE UP THE OVERALL CONSTRUCTION DOCUMENTS COME FROM MULTIPLE SOURCES: IF ANY CONFLICTS OR CONTRADICTIONS EXIST BETWEEN SPECIFICATIONS, PROJECT MANUALS, CONSTRUCTION DRAWINGS OR ANY OTHER CONSTRUCTION DOCUMENTS, THEN THE STRICTER REQUIREMENT SHALL GOVERN AS DETERMINED BY THE ENGINEER OF RECORD FOR THE BENEFIT OF THE CLIENT UNDER OVERSIGHT BY THE AHJ.
- THE SCOPE OF WORK SHALL INCLUDE LABOR, MATERIALS, EQUIPMENT, TOOLS AND OTHER SERVICES REQUIRED FOR ALL NECESSARY DEMOLITION AND COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEMS AS INDICATED AND OR SPECIFIED BY THE CONSTRUCTION DOCUMENTS.
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR DAMAGES INCURRED TO WALLS, FLOORS, CARPET, PAVEMENT, SIDEWALK, FENCES, CEILINGS AND OR OTHER SURFACES DURING CONSTRUCTION; AND THE CONTRACTOR SHALL PATCH, REPAIR, AND PAINT DAMAGED SURFACES TO RETURN THEM TO THEIR ORIGINAL CONDITION.
- ELECTRICAL CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL JUNCTION BOXES, PULL BOXES, OFFSETS, BENDS, ELBOWS OR OTHER SPECIFIC ELEMENTS WHICH MAY BE REQUIRED FOR PROPER INSTALLATION. SIZE, LOCATION OF EQUIPMENT AND WIRING ARE SHOWN TO SCALE WHERE POSSIBLE, BUT IN SOME CASES, SUCH AS LARGE SCALE SITE PLANS, ETC. NOT TO SCALE TO ENSURE OVERALL CLARITY.
- CONTRACTOR SHALL MAINTAIN HEADROOM, AND KEEP OPENINGS, ACCESS AREAS, ACCESS HATCHES OR DOORS, PATHS OF EGRESS, AND PASSAGEWAYS CLEAR DURING ALL PERIODS OF CONSTRUCTION AND ENSURE THAT THE INSTALLED EQUIPMENT AND SYSTEMS DO NOT CREATE ANY OBSTRUCTION.
- ALL MATERIAL AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED. EQUIPMENT SHALL BE LISTED, LABELED, AND INSTALLED PER A RECOGNIZED ELECTRICAL TESTING LABORATORY ADHERING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND THE MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS OF ANSI, NEMA & NBFU. CONTRACTOR SHALL REPLACE NONCOMPLIANT, DEFECTIVE AND OR DAMAGED MATERIALS AS DETERMINED BY THE ENGINEER OF RECORD FOR THE BENEFIT OF THE CLIENT UNDER OVERSIGHT BY THE AHJ.
- DEFINITIONS:
 - "FURNISH": SUPPLY AND DELIVER TO PROJECT SITE, UNLOAD, UNPACK AND ASSEMBLE, AND PUT IN PLACE.
 - "INSTALL": OPERATIONS AT PROJECT SITE INCLUDING, TEMPORARILY STORING, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS.
 - "PROVIDE": FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
 - "SHALL": USED TO QUALIFY AN ACTION WHICH IS MANDATORY.
- CONTRACTOR SHALL PROVIDE SEISMIC SUPPORT DEVICES, RESTRAINTS AND APPURTENANCES INCLUDING HANGERS, ANCHORS, SLEEVES, INSERTS, SEALS, FOR ELECTRICAL EQUIPMENT AND SYSTEMS REQUIRING SUCH SEISMIC SUPPORT IN ACCORDANCE WITH STATE, COUNTY, CITY, AND LOCAL CODES. SEISMIC RESTRAINTS AND ATTACHMENTS FOR ELECTRICAL EQUIPMENT AND SYSTEM COMPONENTS SHALL BE PROVIDED IN ACCORDANCE WITH CBC AND SMACNA REQUIREMENTS, SEE RESPECTIVE STRUCTURAL CONSTRUCTION DRAWINGS FOR REQUIREMENTS. SEE EQUIPMENT ANCHORAGE AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES.
- CONTRACTOR SHALL PROVIDE MEANS TO KEEP CONSTRUCTION MATERIALS SUCH AS CONDUITS, CONDUIT OR PIPE OPENINGS, SURFACE FINISHES, CABLES, ASSEMBLIES, FIXTURES, EQUIPMENT, CONDUCTORS, ETC. PROTECTED DURING CONSTRUCTION TO PREVENT ENTRY OF FOREIGN MATTER AND EXPOSURE TO THE ELEMENTS. CONTRACTOR SHALL RESTORE OR REPLACE ANY CONSTRUCTION MATERIALS THAT ARE DAMAGED BY NEGLECTING THESE MEANS.
- CONTRACTOR SHALL DELIVER CONSTRUCTION MATERIALS TO THE CONSTRUCTION SITE AS REQUIRED; AND, THE CONTRACTOR SHALL ENSURE THE DELIVERED CONSTRUCTION MATERIAL IS PROPERLY PACKED, CRATED AND STORED ON SITE. COORDINATE STORAGE LOCATION WITH OWNER THROUGH CONSTRUCTION MANAGER.
- UNDERTAKE THE WORK IN ITS ENTIRETY IN ACCORDANCE WITH ITS DESIGN AND PURPOSE. WORK SHALL BE CARRIED OUT IN A PROFESSIONAL MANNER WITH MAXIMUM EFFICIENCY, EXCELLENT WORKMANSHIP AND SHALL MEET THE REQUIREMENTS OF, BUT NOT LIMITED TO, THE LATEST EDITION FOR THE FOLLOWING:
 - CALIFORNIA CODE OF REGULATIONS:
 - TITLE 8 – INDUSTRIAL RELATIONS (ELEVATOR SAFETY ORDERS).
 - TITLE 19 – PUBLIC SAFETY.
 - TITLE 22 – SOCIAL SECURITY.
 - TITLE 24 – CALIFORNIA BUILDING STANDARDS CODE, (PARTS 1, 2 (CALIFORNIA BUILDING CODE), 3 (CALIFORNIA ELECTRICAL CODE), 4, 5, 6 (CALIFORNIA ENERGY CODE), 7, 8, & 9).
 - CALIFORNIA STATE AND LOCAL FIRE MARSHAL.
 - AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
 - INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).
 - INSTITUTE OF CABLE ENGINEERS ASSOCIATION (ICEA).
 - NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION STANDARDS FOR CONSTRUCTION (NECA).
 - UNDERWRITERS LABORATORIES, INC. (UL).
 - INSTRUMENT SOCIETY OF AMERICA (ISA).
 - NFPA 72.
 - STATE INDUSTRIAL ACCIDENT COMMISSION.
 - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
 - NATIONAL ELECTRICAL TESTING ASSOCIATION (NETA).
 - AUTHORITIES HAVING JURISDICTION.
- CONTRACTOR SHALL SECURE AND PAY FOR PERMITS AND FEES NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING BUT NOT LIMITED TO, CHARGES BY STATE, COUNTY, CITY, AND LOCAL GOVERNMENT AND AGENCIES. OBTAIN REQUIRED CERTIFICATES OF INSPECTION FOR THE ELECTRICAL WORK AND DELIVER THE COMPLETED DOCUMENTS TO THE OWNER BEFORE REQUESTING ACCEPTANCE AND FINAL PAYMENT FOR WORK.
- ALL DEMOLISHED MATERIALS SHALL BE DISPOSED OF PER STATE AND FEDERAL REGULATIONS BY CONTRACTOR AND OR THEIR SUB-CONTRACTORS. THE RESPECTIVE CONTRACTORS ARE RESPONSIBLE FOR ALL DISPOSAL FEES APPLICABLE TO THEIR TRADE.
- CONTRACTOR SHALL CAREFULLY LAY OUT WORK IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES. STRUCTURAL MEMBERS SHALL NOT BE CUT OR DRILLED WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD AND OWNER. HOWEVER, WHERE SUCH WORK IS NECESSARY PROVIDE CUTTING, CORING AND PATCHING OF THE CONSTRUCTION WORK WHICH MAY BE REQUIRED FOR THE PROPER INSTALLATION OF THE ELECTRICAL WORK, PATCHING SHALL BE OF THE SAME MATERIALS, WORKMANSHIP AND FINISH, AND SHALL ACCURATELY MATCH SURROUNDING WORK. AFTER COMPLETION OF WORK, CLEAN UP RESULTANT DEBRIS AND REMOVE FROM SITE.
- EQUIPMENT, ENCLOSURES, J-BOXES, GUTTERS, ETC., INSTALLED OUTDOORS OR SUBJECT TO WEATHER SHALL BE WEATHER PROOF AND UL LISTED FOR SUCH USE. RECEPTACLES INSTALLED OUTDOORS SHALL BE GFCI TYPE WITH "IN USE" TYPE WEATHERPROOF ENCLOSURES. GFCI TYPE RECEPTACLES LOCATED ON ROOF SHALL HAVE "IN USE" TYPE WEATHER PROOF ENCLOSURES, AND MUST BE LOCATED WITHIN 25' OF ROOF MOUNTED EQUIPMENT.
- CONTRACTOR SHALL INSTALL EXPOSED CONDUITS PARALLEL TO OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS, AND FOLLOW SURFACE CONTOURS AS MUCH AS POSSIBLE.
- CONTRACTOR SHALL PROVIDE ELECTRICAL FINAL CONNECTIONS TO ELECTRICAL EQUIPMENT AND OUTLETS FOR A COMPLETE AND OPERABLE SYSTEM UNLESS OTHERWISE SPECIFICALLY NOTED ON THE RESPECTIVE CONSTRUCTION DRAWINGS.
- PENETRATIONS OF FLOORS, ROOF, WALLS, AND WALL MEMBRANES REQUIRED TO HAVE A FIRE RESISTANCE RATING SHALL BE PROTECTED WITH THROUGH PENETRATION FIRE STOPS SUITABLE FOR THE METHOD OF PENETRATION. THROUGH PENETRATION FIRE STOPS SHALL BE TESTED IN ACCORDANCE WITH UL AND CBC REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE ENGRAVED LAMINATED PLASTIC NAMEPLATES FOR THE FOLLOWING EQUIPMENT INCLUDING BUT NOT LIMITED TO: METERS, PANELBOARDS, SWITCHBOARDS INCLUDING EACH INDIVIDUAL DEVICE OR PIECE OF EQUIPMENT WITHIN THE SWITCHBOARD, MOTOR CONTROL CENTERS (MCC) INCLUDING EACH DEVICE WITHIN THE MCC, ENCLOSED SWITCHES, STARTERS, CONTACTORS, CIRCUIT BREAKERS AND TRANSFORMERS.

- EQUIPMENT SHALL BE BONDED AND GROUNDED IN ACCORDANCE WITH STATE, COUNTY, CITY, AND LOCAL CODES, APPLICABLE CODES AND JURISDICTIONS. REFER TO SPECIFICATIONS FOR DETAILS. ALL FEEDERS AND BRANCH CIRCUIT CONDUITS SHALL BE PROVIDED WITH AN INSULATED EQUIPMENT GROUNDING CONDUCTOR.
- EQUIPMENT SHALL BE FULLY RATED FOR THE MAXIMUM AVAILABLE SHORT CIRCUIT CURRENT, REFER TO FEEDER LOAD SUMMARY AND CALCULATIONS TABLES FOR VOLTAGE DROP AND AVAILABLE FAULT CURRENT VALUES. FEEDER LENGTHS SHOWN ARE ESTIMATES FOR CALCULATION PURPOSES ONLY. CONTRACTOR SHALL DETERMINE ACTUAL LENGTHS BASED ON ROUTING AND FIELD CONDITIONS.
- CONTRACTOR AND THEIR SUB-CONTRACTORS SHALL BE LICENSED IN THE STATE OF CALIFORNIA AND WORKERS SHALL BE CERTIFIED IN ACCORDANCE WITH THE DEPARTMENT OF INDUSTRIAL RELATIONS, DIVISION OF APPRENTICESHIP STANDARDS AND CALIFORNIA LABOR CODE SECTION 3099.
- CONTRACTOR SHALL PROVIDE ADDITIONAL HARDWARE FOR CONNECTION TO DEVICES WHICH LUGS THAT DO NOT ACCEPT OVERSIZED CONDUCTORS, WHICH MAY BE REQUIRED DUE TO VOLTAGE DROP CALCULATIONS OR DUE TO OTHER REASONS. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OR PROPOSAL FOR THIS ADDITIONAL HARDWARE TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL.
- WHERE THE CONDUCTOR SIZE IS NOT SPECIFIED, CONTRACTOR SHALL PROVIDE BRANCH CIRCUIT CONDUCTORS SIZED SO THAT VOLTAGE DROP DOES NOT EXCEED 3% TO THE LAST DEVICE BASED ON OVERALL LENGTH OF CONDUCTORS.
- WHERE NOT SPECIFIED, BRANCH CIRCUITS WITH MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT SHALL HAVE THEIR AMPACITY DERATED PER ELECTRICAL CODE SECTION 315(B)(2), AND BASED ON THIS, THE CONTRACTOR SHALL PROVIDE APPROPRIATELY SIZED CONDUCTORS AND CONDUITS.
- POWER RECEPTACLES SHALL BE 20A RATED, HEAVY DUTY, UNLESS OTHERWISE NOTED.
- ELECTRICAL BOXES FOR POWER RECEPTACLES OR DATA OUTLETS SHALL NOT BE INSTALLED IN A BACK TO BACK CONFIGURATION, BUT SHALL BE INSTALLED SEPARATED HORIZONTALLY BY A MINIMUM OF 18" IN NOT FIRE RATED WALLS, AND A MINIMUM OF 24" IN FIRE RATED WALLS. WHERE THESE SEPARATIONS ARE NOT POSSIBLE TO MAINTAIN, THE CONTRACTOR SHALL PROVIDE SOUND DEADENING, FIRE RATED PADS AROUND THE BOXES, AND SEAL ALL GAPS WITH APPROPRIATE FIRE RATED SEALANT.
- 125 VOLT, 20 AMPERE RATED, SINGLE PHASE DUPLEX RECEPTACLES WITH GROUND FAULT CIRCUIT INTERRUPTER PROTECTION SHALL BE INSTALLED OUTDOORS, WITHIN 6 FEET OF A SINK OR WET EQUIPMENT OR OTHER SOURCE OF WATER, ELEVATOR MACHINE ROOMS AND PITS, KITCHENS, AND IN SURFACE METAL RACEWAYS OR ENCLOSURES. FEED THROUGH WIRING OF GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLES SHALL NOT BE PERMITTED, UNLESS NOTED OTHERWISE.
- ALL POWER RECEPTACLES AND DATA OUTLETS SHALL BE MOUNTED 18" A.F.F. TO THE CENTER OF THE OUTLET BOX, UNLESS OTHERWISE NOTED.
- POWDER ACTUATED FASTENERS ARE NOT PERMITTED FOR USE ON THIS PROJECT.
- FOR EQUIPMENT THAT DOES NOT HAVE SPECIFIC STRUCTURAL CONSTRUCTION DRAWINGS, DETAILS AND OR CALCULATIONS, THE CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR CALIFORNIA BASED PROJECTS AND PROVIDE THE REQUIRED HARDWARE NECESSARY FOR A COMPLETE INSTALLATION. SEE EQUIPMENT ANCHORAGE AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES.
- MINIMUM CONDUIT SIZE SHALL BE 3/4" STEEL, UNLESS OTHERWISE NOTED.
- MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG, UNLESS OTHERWISE NOTED.
- EXECUTION OF WORK SHALL BE COORDINATED WITH ALL TRADES TO AVOID CONFLICTS AND/OR DELAYS.
- WHEN NECESSARY ADJUST FIXTURE PLACEMENT TO FIELD CONDITIONS, NOTIFY ARCHITECT OF PROPOSED CHANGES.
- ALL WIRE SHALL BE STRANDED COPPER WITH 75 DEG. THHN/THWN INSULATION, UNLESS OTHERWISE NOTED, OR REQUIRED BY CODE FOR SPECIAL SYSTEMS AND APPLICATIONS, SUCH AS FIRE ALARM AND COMMUNICATION, ETC.
- STRUCTURAL INFORMATION SHOWN IN DETAILS SHALL BE FOR REFERENCE ONLY. VERIFY STRUCTURAL DETAILS WITH STRUCTURAL CONSTRUCTION DRAWINGS, DETAILS AND CALCULATIONS, AND REQUEST CLARIFICATION FROM STRUCTURAL ENGINEER AS NEEDED.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER 24 HOURS PRIOR TO PLANNED INSPECTIONS.
- SEE SPECIFICATION SECTION 26 08 00 (IF PROVIDED, OTHERWISE SEE RESPECTIVE DRAWINGS) FOR "TITLE 24" TESTING AND SYSTEM COMMISSIONING REQUIREMENTS.
- COMPLETE, POST, SUBMIT, OR MAKE AVAILABLE TO THE ENFORCEMENT AGENCY AND BUILDING OWNER FOR ALL APPLICABLE INSPECTIONS, DOCUMENTATION IN ACCORDANCE WITH TITLE 24 PART 6 SECTION 120 AND 130 TO INCLUDE, BUT NOT BE LIMITED TO:
 - INSTALLATION CERTIFICATE(S) IN COMPLIANCE WITH CEC SECTION 110.9, 130.0-130.5, 140.6-150.0, 150.2 AND APPENDIX NA7.
 - CERTIFICATE(S) OF ACCEPTANCE FORMS. LIGHTING AND POWER SYSTEMS AND DEVICES SHALL BE TESTED AND FORMS MUST BE FILED BY A CERTIFIED ACCEPTANCE TEST TECHNICIAN TO MEET TITLE 24 PART 1 AND PART 6 REQUIREMENTS.
 - APPROPRIATE CERTIFICATE(S) OF COMPLIANCE AND A LIST OF THE FEATURES, MATERIALS, AND COMPONENTS INSTALLED IN THE BUILDING(S) SHALL BE DELIVERED TO THE OWNER WITH INSTRUCTIONS ON HOW TO OPERATE THEM EFFICIENTLY.
 - MAINTENANCE INFORMATION FOR ALL FEATURES, MATERIALS, COMPONENTS, AND MANUFACTURED DEVICES THAT REQUIRE ROUTINE MAINTENANCE FOR EFFICIENT OPERATION.
 - COMMISSION SUBMITTALS AND REPORT.
- CONTRACTOR SHALL DELIVER A COMPLETE AND ACCURATE SET OF RECORD DRAWINGS DEPICTING THE COMPLETE, FULLY FUNCTIONING, AND FINAL STATE OF THE INSTALLATION, SOMETIMES REFERRED TO AS AS-BUILT DRAWINGS BY INDUSTRY TERMINOLOGY, TO BUILDING OWNER WITHIN 90 DAYS OF RECEIVING FINAL OCCUPANCY PERMIT OR FINAL INSPECTION SIGNOFF FROM THE ENFORCING AGENCY AND OR AUTHORITY HAVING JURISDICTION. IF ANY ENERGY COMPLIANCE OR EFFICIENCY CHARACTERISTICS CHANGE, THROUGH MATERIAL SUBSTITUTION OR OTHERWISE, BEFORE FINAL CONSTRUCTION AND INSTALLATION, SUCH THAT THE BUILDING NO LONGER COMPLIES WITH TITLE 24, PART 6; THE BUILDING AND OR INSTALLATION MUST BE BROUGHT BACK INTO COMPLIANCE, AND THE CHANGE SHALL BE INDICATED ON AMENDED PLANS, SPECIFICATIONS, AND CERTIFICATE(S) OF COMPLIANCE BY ENGINEER OF RECORD AND SHALL BE RE-SUBMITTED TO THE ENFORCEMENT AGENCY AND OR AUTHORITY HAVING JURISDICTION FOR VERIFICATION AND SIGNOFF, AND RE-ACCEPTED BY CONTRACTOR FOR INSTALLATION, AND RE-CERTIFIED BY THIRD PARTY FOR COMPLIANCE.
- SEE ADDITIONAL SPECIFICATIONS AND REQUIREMENTS ON E0.2.

EQUIPMENT ANCHORAGE NOTES:

ALL ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER RESPECTIVE MOUNTING DETAILS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE LATEST EDITION OF CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTERS 13, 26 AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
- MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 LBS. ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE ATTACHMENT OF THE FOLLOWING ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED CONDUIT OR RACEWAY.

- COMPONENTS WEIGHING LESS THAN 400 LBS. AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 LBS., OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

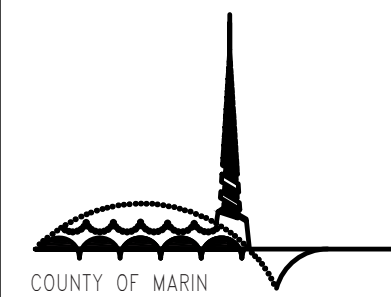
ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES:

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6 AND THE LATEST EDITION OF CBC, SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

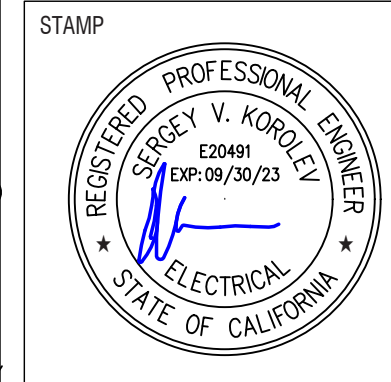
THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.



Department of Public Works
Capital Projects Division
3501 Civic Center Drive, Room 404
San Rafael, California 94903

vektor Engineering & Consulting Services, Inc.
Where engineering and technology drive innovation™
2603 Camino Ramon, Suite 417
San Ramon, CA 94583
+1 (866) VEKTOR1 (835-8671)

MARIN FIRE CHANGEABLE MESSAGE SIGNS TOMALES
FIRE STATION
PROJECT NO. 41C2314-01
599 DILLON BEACH RD.,
TOMALES, CA 94971

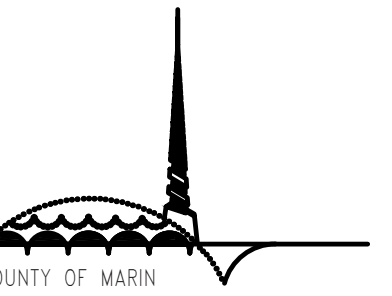


REVIEWED: _____
DRAWN BY: SDP
CHECKED BY: SVK

Submittals		
#	ISSUE	DATE
0	BID SET	07/13/2023

SHEET TITLE
GENERAL NOTES

SHEET NO.
E0.3



Department of Public Works
 Capital Projects Division
 3501 Civic Center Drive, Room 404
 San Rafael, California 94903

vektor Engineering & Consulting Services, Inc.
 "where engineering and technology drive innovation"
 2603 Camino Ramon, Suite 417
 San Ramon, CA 94583
 +1 (866) VEKTOR1 (835-8671)

BRANCH CKT. SCHEDULE:

TAG	RATED AMPS	UNGROUND CONDUCTOR (AWG)	UNGROUND CONDUCTOR QTY. IN EA. CONDUIT	GROUND CONDUCTOR (AWG)	GROUND CONDUCTOR QTY. IN EA. CONDUIT	INSULATION TYPE	INSULATION RATING (DEG. C)	VOLTAGE (L-L/L-N)	PHASE	CONDUIT DIA.	CONDUIT TYPE	CONDUIT QTY. PER CKT.	VERTICAL RISER/DISTANCE (LF)	HORIZONTAL DISTANCE (LF)	TOTAL DISTANCE W/ 15% ADDED (LF)	VOLTAGE DROP AT EQUIPMENT (% OF NOM.)
B301	20	#8	2	#12	1	THHN/THWN	75	-/120	1	1"	RPVC/EMT	1	30	310	391	2.71%

NOTES:
 1. ALL CONDUCTORS SHALL BE STRANDED COPPER UNLESS OTHERWISE NOTED.
 2. VOLTAGE DROP CALCULATED BASED ON HORIZONTAL AND VERTICAL DISTANCES OF ROUTES SHOWN ON DRAWINGS, CHANGES IN THESE ROUTES MAY CHANGE VOLTAGE DROP, 15% SAFETY FACTOR APPLIED TO ALL DISTANCES, 85% PF IS ASSUMED.

ELECTRICAL IN-GRADE ENC. SCHEDULE:

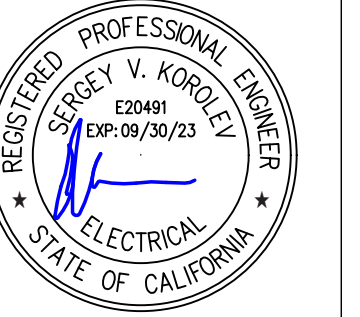
TAG	(APPROXIMATE) QTY.	MANUFACTURER	MANUFACTURER CATALOG NUMBER	MIN. EXTERIOR DIMENSIONS (EA. UNIT) " W" X " L" X " D"	MIN. INTERIOR DIMENSIONS (EA. UNIT) " W" X " L" X " D"	LID TYPE	ETCHED MARKING	REMARKS & AREA OF USE
PB301	1	OLDCASTLE INFRASTRUCTURE	B016	15-5/8" X 25-1/8" X 12"	9-1/4" X 19-1/2" X 12"	N16R	"ELECTRICAL"	SOFTSCAPE AREA ADJACENT TO (N) CHANGEABLE MESSAGE SIGN

NOTES:
 1. PROVIDE ALL REQUIRED HARDWARE AND EXPANSIONS RINGS, COVER SHALL BE ETCHED "ELECTRICAL".

MARIN FIRE CHANGEABLE MESSAGE SIGNS TOMALES
 FIRE STATION

PROJECT NO. 41C2314-01
 599 DILLON BEACH RD.,
 TOMALES, CA 94971

STAMP



REVIEWED

DRAWN BY: SDP

CHECKED BY: SVK

Submittals

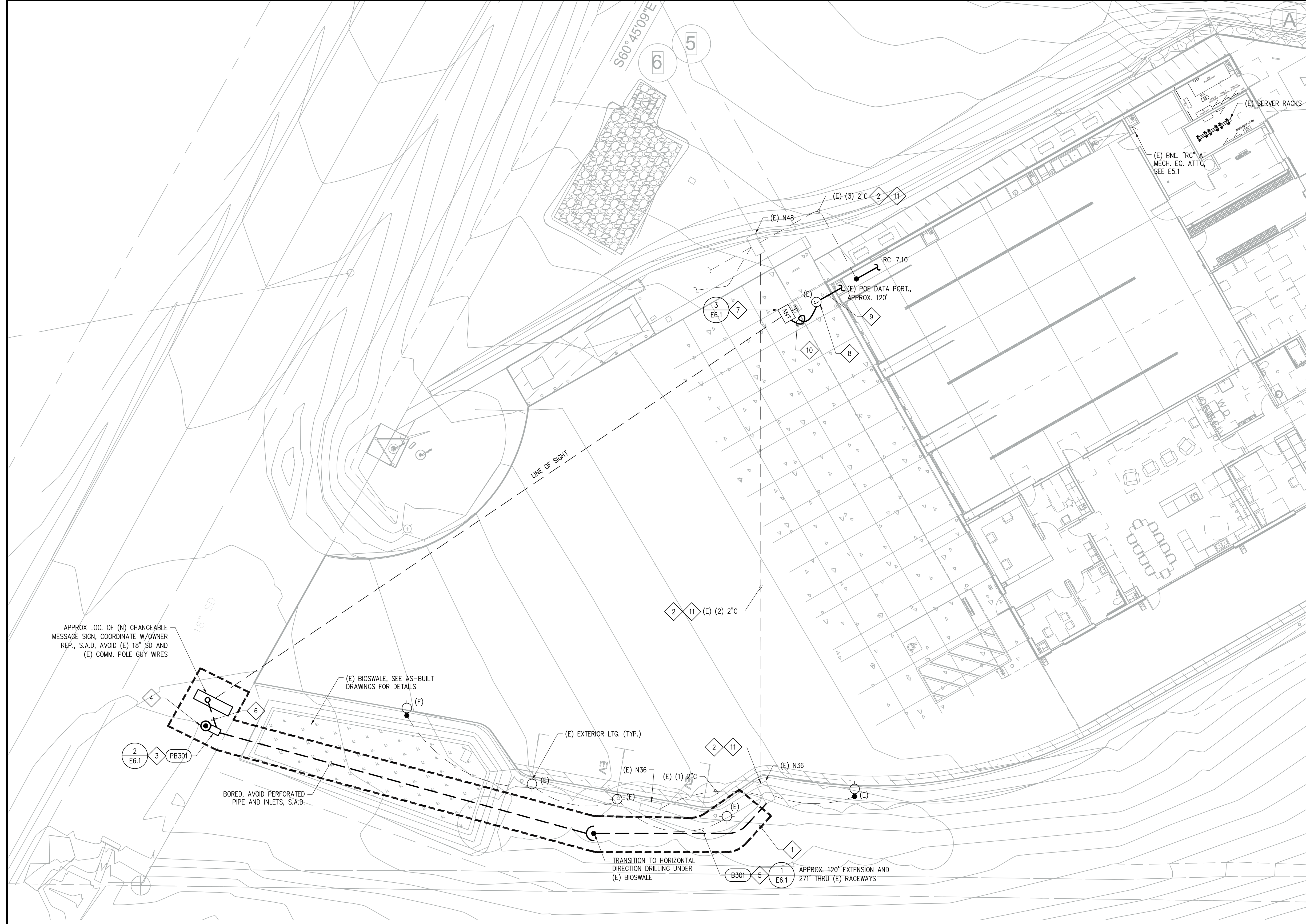
#	ISSUE	DATE
0	BID SET	07/13/2023

SHEET TITLE

**ELECTRICAL
 EQUIPMENT
 SCHEDULES**

SHEET NO.

E0.4



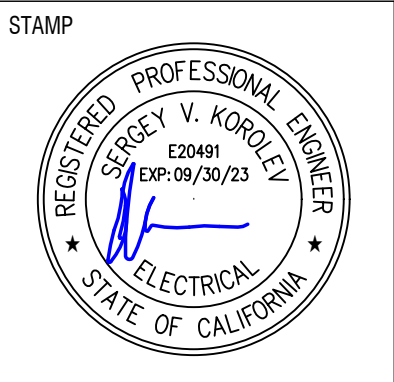
PLAN GENERAL NOTES

1. WORK SHALL NOT INTERFERE WITH ADJACENT FACILITY USE AND OR FUNCTION. CONTRACTOR SHALL COORDINATE WITH OWNER AT LEAST 2-WEEKS PRIOR TO STARTING WORK TO ESTABLISH A MUTUALLY AGREED UPON SCHEDULE.
2. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER DISCIPLINES.
3. CONTRACTOR SHALL MAINTAIN AND VERIFY CONTINUITY OF UPSTREAM AND DOWNSTREAM ELECTRICAL CIRCUITS DURING AND AFTER WORK IS COMPLETE.
4. INFORMATION PROVIDED ON THESE CONSTRUCTION DOCUMENTS WAS GATHERED FROM FIELD OBSERVATION AND PREVIOUS RECORD DRAWINGS AND SHALL BE USED WITH CAUTION; CONTRACTOR SHALL FIELD VERIFY ALL QUANTITIES, ESPECIALLY THE EXACT COUNT OF DEVICES, ROUTING, SIZES, LENGTHS AND COUNTS OF CONDUIT AND CONDUCTORS TO BE INSTALLED AND OR REMOVED PRIOR TO STARTING THE RESPECTIVE WORK.
5. CONTRACTOR SHALL FOLLOW MANUFACTURER'S MOUNTING, WIRING AND INSTALLATION INSTRUCTIONS FOR ALL ASSEMBLIES AND DEVICES UNLESS OTHERWISE NOTED.
6. IF NOT THEMSELVES QUALIFIED, THE CONTRACTOR SHALL HIRE A SIGNAL WIRE SPECIALIST TO PULL, TERMINATE, TEST AND COMMISSION THE SIGNALING CABLES.
7. COORDINATE WITH ARCHITECT FOR THE EXACT LOCATION OF ELECTRICAL EQUIPMENT ADJACENT TO PLANTS AND OTHER (E) AND (N) SITE FEATURES.
8. PROVIDE (N) PRINTED STICK ON, HEAVY DUTY, LABELS INDICATING BRANCH CIRCUITS INSIDE HANDHOLE COVER.
9. PROVIDE (N) PRINTED STICK ON, HEAVY DUTY, LABELS INDICATING BRANCH CIRCUITS INSIDE EACH (N) ENCLOSURE AND (N) JUNCTION BOX, FOR (N) IN-GRADE EQUIPMENT ATTACH LABELS TO UNDERSIDE OF LID.
10. PROVIDE (N) SHRINK WRAP WIRE LABELS FOR ALL (N) AND (E) UNGROUNDED CONDUCTORS BASED ON CIRCUIT TRACE AND INSTALLATION OF (N) EQUIPMENT.

PLAN KEY NOTES

1. PROVIDE NON-DESTRUCTIVE GROUND PENETRATING RADAR SCAN AS REQ. FOR (N) CONSTRUCTION SCOPE, AND PROVIDE REPORT CLEARLY IDENTIFYING ROUTES, SIZE, AND DEPTH OF ALL (E) U.G. UTILITIES TO E.O.R., COORDINATE WITH OTHER DISCIPLINES TO UPDATE CIVIL SURVEY FOR AS-BUILTS, COORDINATE WITH ALL OTHER TRADES.
2. DISCONNECT AND PULL OUT (E) EXTERIOR LIGHTING CONDUCTORS BACK TO (E) PNL. "RC". MANDREL AND LUBRICATE (E) RACEWAYS ALONG ROUTE AS REQ. FOR PULL IN OF (N) REPLACEMENTS. DO NOT USE (E) 2" SPARE "EV CAPABLE" CONDUIT.
3. PROVIDE (N) IN-GRADE ENC.
4. PROVIDE (N) GROUND ROD IN (N) IN-GRADE ENC., PROVIDE (N) INTERCONNECTION TO (N) CHANGEABLE MESSAGE SIGN CONC. STRUCTURE RE-BARS AND CHASSIS, USE (N) DIRECT BURIAL RATED CLAMPS AND HARDWARE, USE #4AWG BARE COPPER WIRE ROUTE W/BRANCH CIRCUIT INSIDE RACEWAY USED FOR FINAL CONNECTION.
5. PROVIDE (N) BRACH CIRCUIT EXTENSION, ALLOW 10'-0" ADDITIONAL CONDUCTOR SLACK FOR FINAL TERMINATION.
6. PROVIDE (N) BRANCH CIRCUIT EXTENSION FOR FINAL CONNECTION USING 1" WATERPROOF NM FLEX CONDUIT, ROUTE THROUGH (N) CHANGEABLE MESSAGE SIGN CONC. STRUCTURE AND STUB-UP UNDER THE POWER SIDE FLANGE OF PEDESTAL, STUB-UP TO EXTEND ABOVE (N) CONC. SURFACE 6" MIN.
7. INSTALL (N) ANTENNA AT BLDG. EXTERIOR OVERHANG, MOUNT TO UNDERSIDE OF (E) OVERHANG STEEL BEAM BY PROVIDING (N) BEAM CLAMP AND (N) HARDWARE AS REQ. (N) ANTENNA SHALL BE ORIENTED WITHIN LINE OF SIGHT OF (N) CHANGEABLE MESSAGE SIGN ANTENNA, ADJUST AS REQ. FOR A FULLY FUNCTIONING SYSTEM.
8. REMOVE (E) JUNCTION BOX FACE PLATE AND (E) RJ45 DATA PORT, PULL OUT (E) DATA CABLE BACK TO SOURCE.
9. PROVIDE (N) SIGNAL CKT. TO (E) SERVER ROOM RACK USING (E) RACEWAYS, USE BERK-TEK OSP CAT6A CABLE W/PANDUIT RJ45 CONNECTORS. COORDINATE W/MARIN COUNTY IST FOR INTERCONNECTION AT (E) SERVER RACK POE PORT.
10. PROVIDE (N) BLANK WP COVER FOR (E) JUNCTION BOX AND (N) WP GLAND, ROUTE (N) SIGNAL CKT. LOOSE TO (N) ANTENNA, SECURE ALONG ROUTE W/(N) GROMMETED SINGLE HOLE CLAMPS.
11. PROVIDE (N) BRANCH CIRCUIT FOR (N) CHANGEABLE MESSAGE SIGN AND PROVIDE (N) BRANCH CIRCUIT FOR (E) EXTERIOR LIGHTING PULL IN TOGETHER, ROUTE USING (E) RACEWAYS.

MARIN FIRE CHANGEABLE MESSAGE SIGNS TOMALES FIRE STATION
 PROJECT NO. 41C2314-01
 599 DILLON BEACH RD., TOMALES, CA 94971



REVIEWED: _____
 DRAWN BY: SDP
 CHECKED BY: SVK

Submittals		
#	ISSUE	DATE
0	BID SET	07/13/2023

SHEET TITLE
NEW SITE PLAN

SHEET NO.
E1.1

1 NEW SITE PLAN SCALE: 1" = 10'

ANSI D 227 X 34"

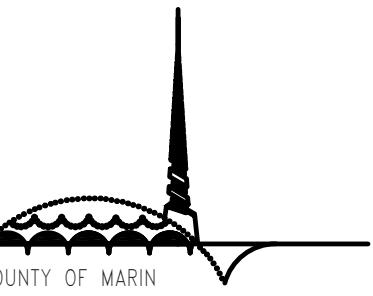
JOB: TOMALES FC		PANEL VOLTAGE (LINE-TO-LINE): 208 VAC		PANEL VOLTAGE (LINE-TO-NEUTRAL): 120 VAC		PANEL LOCATION: MECH. EQ. ATTIC						
PANEL: (E) PNL RC		PHASES: 3		NUMBER OF WIRES: 4		PANEL MOUNTING: SURFACE						
DATE: 07/24/23		BUS CURRENT RATING: 200 AMP		BUS SHORT CIRCUIT CURRENT RATING: 10 KAIC MIN		PANEL ENCLOSURE (NEMA TYPE): 1						
		MAIN CIRCUIT BREAKER (AT): - AMP		MAIN CIRCUIT BREAKER (AF): - AMP		BRANCH CIRCUIT BREAKER TYPE: V.I.F.						
		MAIN CIRCUIT BREAKER SHORT CIRCUIT CURRENT RATING: 10 KAIC MIN		MAIN CIRCUIT BREAKER TYPE: MLO		PANEL COLOR: ANSI 49						
CKT	CB	LOAD DESIGNATION		LOAD TYPE	LOAD	LOAD	LOAD TYPE	LOAD DESIGNATION	CB	TRIP	CODE	CKT
#	TRIP	POLE	DESCRIPTION	MISC. REC.	LIGHT	AMP	PHASES (AMP)	DESCRIPTION	POLE	TRIP	CODE	#
							A B C					
1	1	20	1	LIGHTS APP BAY		13.33	1.60 13.33 21.66	INDOOR LIGHTS				1
3	1	20	1	LIGHTS APP BAY		13.33	1.60 13.33	INDOOR LIGHTS	3P	30	1	4
5	1	20	1	LIGHTS APP BAY		13.33	1.60 13.33	INDOOR LIGHTS	-	-	1	6
7	1	20	1	EXTERIOR POLE/BOLLARD		8.33	1.00 8.33 16.66	EXTERIOR SCONCE	1	20	1	8
9	1	20	1	ENTRY SIGN		4.16	0.50 4.16	CHANGEABLE MESSAGE SIGN	1	20	1	10
11	1	20	1	LIGHTS APP BAY		8.33	1.00 8.33	SPARE	1	20	-	12
13	-	20	1	SPARE		0.00	0.00 0.00	SPARE	1	20	-	14
15	-	20	1	SPARE		0.00	0.00 0.00	SPARE	1	20	-	16
17	2	20	1	WATER TREATMENT		8.33	1.00 8.33 12.33	WH-1	1	20	2	20
19	2	20	1	WATER TREATMENT		8.33	1.00 8.33 12.33	SPARE	2P	20	-	22
21	2	20	1	WATER TREATMENT		8.33	1.00 8.33	SEPTIC PUMP	1	20	2	26
23	2	20	1	(E) GAS PUMP		8.33	1.00 8.33	SEPTIC PUMP	1	20	2	28
25	2	-	-			31.66	3.80 31.66 39.99	RECIRCULATION PUMP	1	20	2	30
27	2	40	3P	BOOSTER PCP		31.66	3.80 31.66	SPARE	1	20	-	32
29	2	-	-			8.33	1.00 8.33 8.33	SPARE	1	20	-	34
31	2	20	2P	PNL "CP"		8.33	1.00 8.33	SPARE	1	20	-	36
33	2	-	-			8.33	1.00 8.33	SPARE	1	20	-	38
35	2	20	1	WATER SOFTENER		8.33	1.00 8.33	SPARE	1	20	-	40
37	2	20	1	SHED		4.16	0.50 4.16 4.16	SPARE	1	20	-	42
39	-	20	1	SPARE		0.00	0.00 0.00	SPARE	1	20	-	
41	-	20	1	SPARE		0.00	0.00 0.00	SPARE	1	20	-	

CIRCUIT CODE:		TOTAL		CALCULATIONS:	
1=(CONTINUOUS, @ MAX CURRENT FOR MORE THAN OR EQUAL TO 3 HOURS, @125%)		103.13	97.47	(CODE 1) CONNECTED AVERAGE PER PH:	36.38 AMP 4.37 KVA
2=(NON-CONTINUOUS, @ MAX CURRENT FOR LESS THAN 3 HOURS, @100%)		12.38	11.71	(CODE 2) CONNECTED AVERAGE PER PH:	63.48 AMP 7.62 KVA
3=(DEMANDABLE RECEPTACLES, NEC ARTICLE 220.44)		CONNECTED	99.86	(CODE 3) CONNECTED AVERAGE PER PH:	0.00 AMP 0.00 KVA
4=(LARGEST MOTOR, @125% ADDED TO FINAL AMP/KVA)		AVERAGE	35.98	(CODE 1 W/O DEMAND FACTORS APPLIED) TOTAL:	109.13 AMP 13.11 KVA
				(CODE 2 W/O DEMAND FACTORS APPLIED) TOTAL:	190.44 AMP 22.87 KVA
				(CODE 3 W/O DEMAND FACTORS APPLIED) TOTAL:	0.00 AMP 0.00 KVA
				(CODE 1 W/ DEMAND FACTORS APPLIED) TOTAL:	136.41 AMP 16.38 KVA
				(CODE 2 W/ DEMAND FACTORS APPLIED) TOTAL:	190.44 AMP 22.87 KVA
				(CODE 3 W/ DEMAND FACTORS APPLIED) TOTAL:	0.00 AMP 0.00 KVA
				PHASE A W/ DEMAND FACTORS APPLIED:	112.71 AMP 13.54 KVA
				PHASE B W/ DEMAND FACTORS APPLIED:	107.68 AMP 12.93 KVA
				PHASE C W/ DEMAND FACTORS APPLIED:	106.47 AMP 12.79 KVA
				PHASE A DEMAND FACTOR:	109.29%
				PHASE B DEMAND FACTOR:	110.47%
				PHASE C DEMAND FACTOR:	107.56%
				AVERAGE DEMAND FACTOR:	109.11%
				AVERAGE CONNECTED AMP/PH @ 208V, 3PH:	99.86 AMP 35.98 KVA
				LARGEST CONNECTED MOTOR @ 125%:	0.00 AMP 0.00 KVA
				AMPS W/ DEMAND FACTORS APPLIED @ 208V, 3P:	108.95 AMP 39.25 KVA

ISSUE DATE: 7/24/2023 BY: VEKTOR ENGINEERING AND CONSULTING SERVICES, INC.

PANELS GENERAL NOTES

- CONTRACTOR SHALL COMPLY WITH ALL NOTES AS LISTED FOR EACH RESPECTIVE ELECTRICAL PANEL.
- CONTRACTOR SHALL PROVIDE (N) TYPED PANEL SCHEDULE FOR EACH (N) OR (E) ELECTRICAL PANEL, PLACE IN CLEAR PLASTIC SLEEVE AND ATTACH TO INNER SURFACE OF PANEL DOOR.



Department of Public Works
 Capitol Projects Division
 3501 Civic Center Drive, Room 404
 San Rafael, California 94903

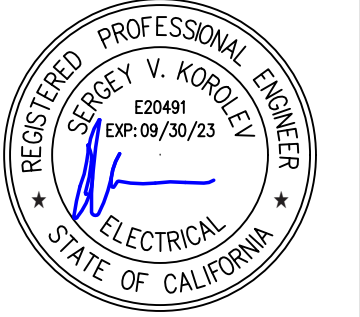
vektor Engineering & Consulting Services, Inc.
Where engineering and technology drive innovation™
 2603 Camino Ramon, Suite 417
 San Ramon, CA 94583
 +1 (866) VEKTOR1 (835-8671)

MARIN FIRE CHANGEABLE MESSAGE SIGNS TOMALES

FIRE STATION

PROJECT NO. 41C2314-01
 599 DILLON BEACH RD.,
 TOMALES, CA 94971

STAMP



REVIEWED

DRAWN BY: SDP

CHECKED BY: SVK

Submittals

#	ISSUE	DATE
0	BID SET	07/13/2023

SHEET TITLE
ELECTRICAL PANEL SCHEDULES

SHEET NO.
E5.1

