

ENCROACHMENT PERMIT

DOT TR-0120 (REV 05/2023)

Permit No.
04-24-N-AP-1811In compliance with your application of September 17, 2024Dist/Co/Rte/PM
04/SF/80/PM 6.2L-Var

Reference Documents:

- Utility Notice No. _____ of _____
- Agreement No. _____ of _____
- R/W Contract No. _____ of _____
- Project code (ID): 0000001157 CFC #: _____
- Applicant's Reference/ Utility Work Order No. _____

Permit Approval Date
October 29, 2024

Performance Bond Amount (1)	Payment Bond Amount (2)
\$0	\$0

Bond Company
\$ N/A

Bond Number (1)	Bond Number (2)
\$ N/A	\$ N/A

TO: Bay Area Toll Authority
C/O: Illuminate the Arts
228 Laidley Street
San Francisco CA 94131

_____, **PERMITEE**

and subject to the following, PERMISSION IS HEREBY GRANTED to:

Encroach within State's right-of-way to remove the existing 24,000 LED fixtures and install 48,000 small (approximately 2"x3") LED light fixtures to the suspender cables of the west span of the San Francisco-Oakland Bay Bridge. The lights are in a string with height of 2 feet to 250 feet to match the height of the bridge suspender cables. The LED fixtures on each string are at one-foot intervals with each fixture to be securely attached to the cable with three (3) UV rated plastic ties. The main power and fiber line from previous installation will remain in place and used for new installation, on State Highways 04-SF-80, Post Mile 6.2/7.6, in the City of San Francisco.

A minimum of 7 days prior to the start of work under this encroachment permit, notice must be given to State Representative Chris Nesmith, at chris.nesmith@dot.ca.gov or (510) 715-8749, weekdays between 7:00 a.m. and 3:30 p.m., excluding holidays.

Notwithstanding General Provision 35, lane closures and other activities that may cause a traffic impact requires the permittee to apply for and obtain a closure ID prior to the start of work. Requests must be submitted electronically through the Lane Closure System (LCS).

THIS PERMIT IS NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER.

The following attachments are also included as part of this permit (check applicable):

- YES NO General Provisions
- YES NO Utility Maintenance Provisions
- YES NO Storm Water Special Provisions
- YES NO Special Provisions
- YES NO A Cal-OSHA Permit, if required: Permit No. _____
- YES NO As-Built Plans Submittal Route Slip for Locally Advertised Projects
- YES NO Storm Water Pollution Protection Plan

In addition to fee, the permittee will be billed actual costs for:

- YES NO Review
- YES NO Inspection
- YES Field Work
(if any Caltrans effort expended)

As-built Plans are Required

- YES NO

YES NO The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless the work is completed before October 31, 2025

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.

No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

CC:
#1: RICHARD K FONG
#2: CHRIS D NESMITH
#3: RAYGON PITTMAN
#4: EARL R SHERMAN III

APPROVED:

Dina El-Tawansy, District Director

BY

Surya Mantravadi
Surya Mantravadi (Oct 29, 2024 20:23 PDT)

SURYA N MANTRAVADI, District Permit Engineer

ADA Notice

This document is available in alternative accessible formats. For more information, please contact the Forms Management Unit at (279) 234-2284, TTY 711, in writing at Forms Management Unit, 1120 N Street, MS-89, Sacramento, CA 95814, or by email at Forms.Management.Unit@dot.ca.gov.

Illuminate is hereby recognized as a nonprofit organization responsible for the creation of the Artwork.

All work must comply with the attached "Encroachment Permit General Provisions" (TR-0045) available at [Encroachment Permit General Provisions \(TR-0045\) \(ca.gov\)](#), Art Program Special Provisions" (also available at [Encroachment Permits Manual Appendix F TOC \(ca.gov\)](#)), and the following permit special provisions:

1.0 CONTRACTOR'S AUTHORIZATION

Permittee must include the names of all contractors working pursuant to this permit, on the Contractor's Authorization form TR-0429 and have all the contractors sign and submit to Caltrans prior to beginning of construction.

2.0 TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE

Use attached lane closure charts for traffic control.

2.01 GENERAL

The permittee must be responsible for all traffic control operations and safety measures when installing the Artwork.

Traffic control must be provided by a licensed contractor.

When approved, traffic control under this permit must comply with Caltrans' Standard Plans T9 through T14 [dot.ca.gov/-/media/dot-media/programs/design/documents/locked-2023-std-plans-dor-all1y.pdf](#) or Caltrans approved site specific traffic control plans and the permit's lane closure provisions. The permittee must submit a written closure schedule request of planned closures on Monday by noon before the next week period that is defined as Sunday noon through the following Sunday noon. The State Representative must be notified of cancelled closures two (2) business days prior to the date of planned closure. The closures that are cancelled due to unanticipated events not caused by either party or other extenuating circumstances (such as unsuitable weather conditions, flood, fire, earthquake, epidemic, act of a public enemy, Governor-declared state of emergency, and/or landslide) may be rescheduled at the discretion of the State Representative.

2.02 LANE CLOSURE

The lane closure(s) under this permit must comply with the approved "Freeway Lane Requirement" and "Lane Closure Restriction for Designated Legal Holidays and Special Days" Charts, respectively, included with this permit and the following provisions:

The full width of the traveled way must be open for use by public traffic as shown in the "Lane Closure Restriction for Designated Legal Holidays and Special Days" Chart.

Designated legal holidays are: January 1st, the third Monday in February, the last Monday in May, July 4th, the first Monday in September, November 11th, Thanksgiving and Day after Thanksgiving, and December 25th. When a designated legal holiday falls on a Sunday, the following Monday must be a designated legal holiday. When November 11th falls on a

Saturday, the preceding Friday must be a designated legal holiday. The third Monday in January must also be considered a designated legal holiday.

Special Days are any days on which a major event is scheduled at AT&T Park, in downtown San Francisco, on Yerba Buena Island and/or Treasure Island, or elsewhere during which a closure of a freeway lane will cause major impact to public traffic. Major events are defined as concerts, San Francisco Giants games, and any other scheduled event such as the Bay-to-Breakers race, San Francisco Pride parade, Nike Women's Half Marathon, and Komen Race for the Cure. The contractor must expect up to 10 Special Days during any calendar month. The determination of a Special Day will be made by the State Representative. The contractor will be informed of a Special Day at least one (1) week prior to the designated Special Day.

2.03 LATE REOPENING OF CLOSURES AND LIQUIDATED DAMAGES

If a closure is not reopened to traffic by the specified time, work must be suspended. No further closures must be allowed until the State Representative has reviewed and authorized a work plan submitted by the permittee that ensures that the future closures will be reopened to traffic as scheduled. The State Representative must accept (or reject) the permittee's proposed work plan within two (2) business days of the plan submittal. The permittee must not be entitled to compensation for the suspension of work resulting from the late reopening of closures. For each 10-minute interval, or fraction thereof past the time specified to reopen the closure, a road user delay cost in the amount of \$8,900.00 per 10-minute interval must incur to the permittee.

2.04 CONTINGENCY PLAN

A detailed contingency plan must be prepared for reopening closures to traffic. The contingency plan must be submitted to the State Representative before the start of work. Otherwise, the contingency plan must be submitted to the State Representative within one business day of the State Representative's request.

The contingency plan must identify the activities, equipment, processes, and materials that may cause a delay in the opening of a closure to traffic. The contingency plan must include:

1. List of additional or alternate equipment, materials, or workers necessary to ensure continuing activities and on-time opening of closures if a problem occurs. If the additional or alternate equipment, materials, or workers are not on site, specify their location, the method of mobilizing these items, and the required time to complete the mobilization.
2. General time-scaled logic diagram displaying the major activities and sequence of planned operations. For each activity, the permittee must identify the critical event when the contingency plan will be activated.

Based on a review by the State Representative, additional materials, equipment, workers, or time to complete activities from that specified in the contingency plan may be required.

Any revision(s) to a contingency plan must be submitted to the State Representative at least three (3) business days before starting the activity requiring a contingency plan. The State Representative must complete a review of the revised contingency plan within two (2) business

days of the plan submittal.

3.0 PERSONNEL SAFETY

All the permittee's personnel must wear appropriate and approved personal protective equipment per Chapter 12 of Caltrans "Safety Manual" including hard hats and bright-colored safety vests, and shirts or jackets with retro-reflective material, while within the State right-of-way.

4.0 LIABILITY

Permittee must provide evidence of liability insurance in the amount of \$25 million, for the life of the Bay Lights 360 artwork to ensure public safety, convenience and interests, naming the State of California, the California Department of Transportation, the directors, officers, employees, and/or agents of the State of California and/or of the California Department of Transportation as additional named insureds. The applicant also must furnish a certificate of insurance and the endorsement showing those additional named insureds prior to beginning of construction.

The amount for the Certificate of Insurance may be increased. It will be determined after the testing and evaluation of interior lights.

5.0 TRANSPORTATION ART DESIGN AND DISPLAY

Lighting must be installed without damaging any portion of the Bridge; and they must be positioned along the outside and inside of the vertical suspender cables on the upper deck such that the kinetic display is angled away from the direct view of motorists and towards the City of San Francisco or the East Bay, in order to not visually impact the motorists transiting the Bridge.

Only the LED lights facing outward away from the direct view of oncoming traffic will be allowed to be turned on until such time as the conditions described in this encroachment permit have occurred. If the conditional study and evaluation determines that the lights facing traffic will not adversely effect motorists on the bridge span, and is approved by the Department and FHWA, then a separate transportation art exception and permit rider will be required before the inward facing lights can be activated.

Interior lights visible from the roadway and exterior lights visible from the Bayside must be placed on two separate circuits, both of which must be always under Caltrans control.

The interior lights proposed to be visible from the roadway must not be activated until the development and completion of a comprehensive test fully evaluating the traffic safety and operational impacts of said lights.

1. The Permittee shall prepare a complete plan of the computerized light timing program.
2. The Permittee shall procure services of a California Registered Traffic Engineer with the skills and knowledge in transportation safety to devise a plan to evaluate and approve the timing plan for lights visible from the roadway,
3. The Permittee's Traffic Engineer shall submit a test plan for concurrence and approval by Caltrans, CHP, and FHWA while acknowledging the risk that there may not be a viable comprehensive test resulting in the interior lights not being activated.
4. The Permittee shall provide the Traffic Engineer with a documented delegated

- authority to approve the proposed design feature.
5. The Permittee shall submit a signed report from the Traffic Engineer documenting:
 - a. A determination that the light timing program was a reasonable exercise of their engineering judgment, and
 - b. A commitment that the light timing program cannot change without going through.
Items 1-4a above.
 6. Activation (turning on interior lights) for public display is not allowed unless a separate permit rider is issued upon approval by Caltrans, CHP, and FHWA.
 7. Caltrans shall be provided with and maintain records of the plan, approval documentation, and delegation of authority archived in Document Retrieval System (DRS) for every light timing plan.

In accordance with the attached Caltrans memo dated August 30, 1991, the title sheet of the design plans will carry the Oversight Engineer's Block in compliance with the Caltrans Plan Preparation Manual, Chapter 2, Section 2-1.06 (available at <https://dot.ca.gov/-/media/dot-media/programs/design/documents/cadd/ppm-text-ch2-sect1-a11y.pdf>) to further protect the State for providing oversight only of a design which is different from Caltrans standards.

Permittee proceeds with understanding that installing interior lights is at their own risk, recognizing the associated sunk costs and the potential that the interior Bay Lights may not be allowed to be activated or turned on.

Activation (turning on) interior lights for testing or public display is not allowed under this permit. Interior Bay Lights shall not be activated for testing or public display unless approved via a rider to this permit.

Applicant shall request a separate permit rider to test the interior lights if and when a comprehensive testing plan has been developed by the permittee and approved by FHWA, CHP and Caltrans. The decision to activate the interior lights will be taken after evaluating the potential impacts of interior lights on traffic safety and efficient traffic flow and receiving approval by Caltrans, and concurrence by FHWA, CHP, BATA.

The permittee must obtain Caltrans' approval for the actual display and intensity of the exterior LEDs used on the project.

The exterior Bay Lights 360 must be programmed to be turned on from dusk to dawn, plus or minus 30 minutes.

The permittee must comply with Part 118 of Title 33 of the Code of Federal Regulations (CFR), commonly referred to as 33 CFR 118, for Bridge Lighting and Navigational Safety on the waterways.

The permittee must adhere to and remain in compliance with Caltrans' rules, regulations, and any additional restrictions Caltrans may apply to the transportation art project when working within the State highway right-of-way.

6.0 OWNERSHIP, OPERATION, AND MAINTENANCE

Once installed, the “Physical Artwork” as described below, must be owned by Caltrans as a gift from BATA to the people of California. Provided, however, that such ownership must not extend or operate to include liability for any accrued but unpaid obligations or any other pre-existing liabilities or obligations associated with the installation of The Bay Lights 360, none of which Caltrans must assume, whether by assignment, expressed or implied contract, under any common law doctrine of successor liability, or otherwise by operation of law, and which must be the responsibility of Illuminate and/or BATA, or other responsible party, as applicable. The gift of the Physical Artwork is made in an “as-is” condition and with all faults, without any representations.

Physical Artwork

This work consists of removing the existing 24000 LED fixtures and installing 48,000 small (Approximately 2"x3") LED light fixtures to the suspender cables of the west span of the SFO Bay Bridge.

The lights are in a string with height of 2 feet to 250 feet to match the height of the Bridge suspender cables.

The LED fixtures on each string are at one-foot intervals.

Each fixture will be securely attached to the cable with three (3) UV rated plastic ties.

The main power and fiber line from previous installation will remain in place and used for new installation.

Permittee must be responsible for all costs relative to maintenance and on-going operations of the Bay Lights, including reimbursement of Caltrans costs.

Permittee must comply with the requirements of Chapters H and K of Caltrans Maintenance Manual (available at <https://dot.ca.gov/programs/maintenance/maintenance-manual>).

Caltrans reserves the right to remove the installation at any time before or after the initial 10-years term in case of a bona fide necessity to protect public safety, convenience, and/or interests, including allowing access to suspender cables for construction, rehabilitation, painting, or necessary maintenance activities for the transportation facility itself, all as determined by Caltrans, without any obligation, compensation to, or approval from the permittee. Caltrans must use best efforts to notify the permittee of the need to remove the transportation art in order to allow for timely removal and salvage by the permittee.

Caltrans reserves the right to deactivate (turn off) the Bay Lights 360 during emergency situations or periods when the lights are deemed a risk to public safety. Deactivation will be done without advance notification to BATA, Illuminate or the artist.

As background, the original Bay Lights on the west span of the Bay Bridge were installed in accordance with Caltrans Transportation Art policy in 2013. The operation and maintenance of Bay Lights was documented in a three-party memorandum of understanding (agreement) between Caltrans, the Bay Area Toll Authority (BATA), and Illuminate the Arts (Illuminate). The agreement contemplated the parties to collaborate as follows:

- Illuminate, a California based non-profit organization, secured 100 percent of the funds

associated with the installation of the Bay Lights.

- The Bay Lights were gifted by Illuminate to Caltrans.
- Caltrans and BATA accepted the stewardship of the Bay Lights from Illuminate, including operations, repair and maintenance.
- Caltrans assumed ownership and ongoing operations and maintenance responsibilities for the Bay Lights.
- BATA was responsible for all costs relative to on-going display of the Bay Lights, including reimbursement of Caltrans costs.

To be responsive to Caltrans, FHWA, and CHP concerns relative to safety and operations, Illuminate and BATA have acknowledged the following:

- The risk with the commissioning of the interior lights potentially being disallowed resulting in the associated sunk costs of the installation of interior lights.
- The proposed Bay Lights 360 will be placed on two separate circuits, one for the exterior lights visible from the Bay side and another for interior lights visible from the roadway. Caltrans shall always have full control of both the circuits.
- The interior lights proposed to be visible from the roadway shall not be activated until completion of a comprehensive test fully evaluating their traffic safety and operational impacts.
- There is a risk that there may not be a viable comprehensive test. This would result in the interior lights not being activated.
- To protect against future liability, Illuminate will procure services of a California Registered Traffic Engineer with the skills and knowledge in transportation safety to devise the test and approve the lights timing plan, upon concurrence by Caltrans, CHP, and FHWA.
- After the testing, if the interior lights are approved with unanimous agreement by FHWA, CHP, BATA and Caltrans that motorists' safety will not be impacted, the interior lights can be activated.

7.0 ENVIRONMENTAL

Permittee must implement the required measures from the approved environmental document submitted with this project.

Permittee must comply with Bay Conservation and Development Commission's permit requirements.

Permittee must implement appropriate measures to prevent dropping any object(s) in the San Francisco Bay.

8.0 EXISTING FACILITIES

The existing Bay Lights installation must be completely removed without damage to the existing bridge structure nor disruption to the normal operation of the SFOBB.

The existing facilities within the State right-of-way that are to remain in place must be protected, preserved, and maintained. Any damaged existing facilities within the State right-of-way that are to remain in place must be repaired or replaced by the permittee at the permittee's expense. After the repair, replacement or removal of the artwork, the condition of the facilities must be equal or better in quality than they were before beginning the work. The permittee must remove materials that are not repaired.

9.0 AS-BUILT PLANS

Upon completion of the work provided herein, the Permittee must submit As-Built plans to the State Representative.

All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.

The plans are to be prominently stamped or otherwise noted "AS-BUILT" by the Permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a Department stamp must be used for producing the As-Built plans.

As-Built plans must contain the Encroachment Permit Number, County, Route, and Post Mile on each sheet.

The As-Built Plans must not include a disclaimer statement of any kind that differs from the obligations and protections provided by sections 6735 through 6735.6 of the California Business and Professions Code. Such statements constitute non-compliance with Encroachment Permit requirements and may result in the Department retaining Performance Bonds or deposits until proper plans are submitted.

Failure to comply may also result in denial of future encroachment permits or a provision requiring a public agency to supply additional bonding.

10.0 PERMIT RENEWAL

The permittee must apply for a fee-exempt encroachment permit upon reaching the Artwork end of life cycle, by submitting an encroachment permit application at least thirty (30) days in advance of the permit expiration date.

11.0 COMPLETION NOTICE

Immediately following completion of the work permitted herein, the permittee must fill out and mail the attached Notice of Completion to the State Representative.

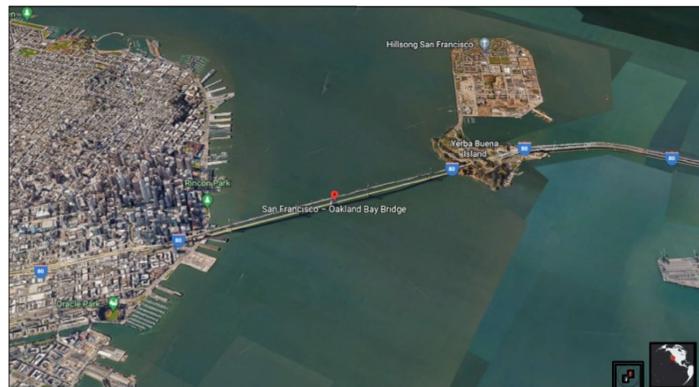
Conditional Requirements:

In addition to the requirements stated above in this permit BATA/Illuminate/Artist must also fulfill the following conditional requirements prior to securing an encroachment permit for activating the interior lights on west span of SFOBB.:

1. Permittee must enter and execute a new maintenance agreement with Caltrans prior to securing an encroachment permit for activating the interior lights on the west span of SFOBB.
2. The artist must enter and execute Copyright License and Waiver of Moral Rights in Artwork (CLAW) with Caltrans, prior to securing an encroachment permit for activating the interior lights on the west span of SFOBB.

The Bay Lights 360

LOCATION MAP



PROJECT ENGINEER	DESIGN OVERSIGHT APPROVAL	REGISTRATION NO	DATE
FADI WALIEDDINE	PRINTED NAME: Parviz Boozarpour SIGNATURE: <i>Parviz Boozarpour</i>	E12735	9/30/2026

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. The Caltrans/ electrical features are not affected.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW	E11465	12/31/2025	FADI WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360

425 Market Street: 17th Floor
San Francisco, CA 94105-2425
TEL (415) 243-4600, FAX (415) 243-9501

BAY LIGHTS 360 PROJECT		CONTRACT NO
COVER SHEET		DRAWING NO E-000
		REV A
		SCALE NO SCALE
		SHEET NO 1 OF 17

\$USERS\$ \$TIMES\$ \$DATES\$ \$FILES\$ \$SIZES\$

GENERAL NOTES

1. ALL NEW EQUIPMENT AND MATERIALS SHALL BE UL LISTED.
2. ALL EQUIPMENT LOCATED OUTDOORS SHALL BE WEATHERPROOF, MINIMUM IP66 RATED AND RECEPTACLES GFCI PROTECTED.
3. THE EXISTING 480V, FIBER-OPTIC AND CAT6 BACKBONE CABLING SHALL BE PROTECTED IN-PLACE AND REUSED FOR BAY LIGHTS 360. REFERENCE E-005.
4. THE EXISTING LED STRANDS AND LEADER CABLES FROM THE SWITCH CABINETS AND SWITCH/ROUTER CABINETS SHALL BE REMOVED.
5. TWO (2) NEW LED STRANDS AND LEADER CABLES WILL BE INSTALLED ON THE SAME SUSPENDER CABLE AS THE LED STRANDS TO BE REMOVED. FOR DETAILS, SEE DRAWING E-003.
6. THE EXISTING 30A/2P BRANCH CIRCUIT BREAKERS AT EACH OF THE FOUR (4) LOAD-CENTERS AT PIERS W2, W3, W5 AND W6 SHALL BE REPLACED WITH NEW 30A/2P CIRCUIT BREAKERS.
7. APPROVED LOCK-OUT/TAG-OUT(LOTO) PROCEDURE CAN BE COORDINATED IN THE FIELD AND INSTALLED AT EITHER LVCC III IN W4 SUBSTATION OR AT THE LOAD-CENTERS LOCATED ON THE LOWER DECK.
8. CONTRACTOR SHALL COORDINATE ALL WORK AND LANE CLOSURES WITH CALTRANS MAINTENANCE DIVISION.
9. ALL WORK SHALL BE INSTALLED TO COINCIDE WITH APPROVED CONSTRUCTION SCHEDULE.
10. REPLACE THE EXISTING BRASS TAGS ENGRAVED WITH SUSPENDER CABLE NUMBER WITH NEW TAGS (QUANTITY OF 288). EXAMPLE "SC1" THRU SC288".
11. EXISTING SWITCH CABINETS AND ROUTER/SWITCH CABINETS BACK-PANELS SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR.
12. NEW BACK-PANELS WITH ASSOCIATED POWER AND NETWORK DEVICES WILL BE PROVIDED BY LIGHTING SUPPLIER FOR INSTALLATION BY CONTRACTOR.
 - A. CONTRACTOR SHALL RE-CONNECT THE APPLICABLE EXISTING POWER, FIBER-OPTIC AND CAT6 CABLES TO THE NEW BACK-PANELS PER THE NETWORK DRAWINGS. SEE EXXX TO EXXX.
13. KNOCKOUTS (KO'S) IN THE EXISTING NETWORK CABINETS THAT ARE NO LONGER USED SHALL BE FILLED USING A WEATHERPROOF HOFFMAN CONDUIT HOLE SEAL, STAINLESS STEEL.
14. ALL EQUIPMENT TO BE INSTALLED SHALL BE PROVIDED BY LIGHTING SUPPLIER OR THE CONTRACTOR.
15. THE TWO (2) NEW LED STRANDS WILL BE CONTROLLED SEPARATELY TO ALLOW CALTRANS TO TURN OFF EITHER THE INSIDE OR OUTSIDE STRANDS INDEPENDENTLY.
16. LIGHTING SUPPLIER TO PROVIDE THE ABILITY FOR UNITED STATES COAST GUARD (USCG) TO TURN OFF BOTH LED STRANDS IF NEEDED FOR MARINE NAVIGATION REQUIREMENTS.
17. CONTRACTOR TO INSTALL CLAY DESICCANT PACKAGES IN EXISTING SWITCH AND ROUTER-SWITCH CABINETS RATED FOR MINIMUM OF 2.5 CUBIC FEET PER ENCLOSURE.

INDEX OF SHEETS

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E-001	ABBREVIATIONS, SYMBOLS, GENERAL NOTES, INDEX OF SHEETS
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E-003	ELECTRICAL ONE-LINE DIAGRAM
E-004	W4 SUBSTATION EQUIPMENT LAYOUT/ELEVATIONS
E-005	FEEDER PLAN (480V)
E-006	BRANCH CIRCUIT PLAN (120/208V)
E-007	BRANCH CIRCUIT PLAN (120/208V)
E-008	WIRING DIAGRAM (24V) LED NODE PLAN SPAN 1
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E-016	DEMOLITION PLAN TYPICAL SPAN 1 THROUGH 8

ABBREVIATIONS

A	AMPERE	SC	SUSPENSION CABLE
ASYM	ASYMMETRICAL	SS	STAINLESS STEEL
BC	BARE COPPER	STA	STATION
BKR	BREAKER	SW	SWITCH
C	CONDUIT	T	TRANSFORMER
CAB	CABINET	TB	TERMINAL BLOCK
CAT	CATEGORY OR CATALOG	TBD	TO BE DETERMINED
CB	CIRCUIT BREAKER	TD	TIME DELAY
CIC	CABLE-IN-CONDUIT	TYP	TYPICAL
CKT	CIRCUIT	UG	UNDERGROUND
CO	CONDUIT ONLY	UON	UNLESS OTHERWISE NOTED
CTRL	CONTROL	V	VOLT
DC	DIRECT CURRENT	VA	VOLT AMPERE
DISC	DISCONNECT	VAC	VOLTS AC
DMX	DIGITAL MULTIPLEX	VDC	VOLT DC
DWG	DRAWING	W	WATT
E	EXISTING	WP	WEATHERPROOF
EA	EACH	XFER	TRANSFER
EL	ELEVATION	XFMR	TRANSFORMER
ENC	ENCLOSURE		
EQUIP	EQUIPMENT		
FCBN	FULL CAPACITY BELOW NORMAL TAPS		
FO	FIBER OPTIC		
FSC	FIBER SPLICE CABINET		
FT	FEET		
G	GROUND		
GFI	GROUND FAULT INTERRUPTER		
GND	GROUNDING		
HH	HANDHOLE		
HP	HORSEPOWER		
J	JUNCTION BOX		
K	KILO		
KA	1000 AMPS		
KV	KILOVOLT		
KVA	KILOVOLT AMPERE		
KW	KILOWATT		
LED	LIGHT EMITTING DIODE		
LTG	LIGHTING		
LVCC	LOW VOLTAGE CONTROL CABINET		
MB	MAIN BREAKER		
MC	METAL CLAD		
MFR	MANUFACTURER		
MLLW	MEAN LOWER LOW WATER		
MLO	MAIN LUGS ONLY		
MTG	MOUNTING		
NC	NORMALLY CLOSED		
NEC	NATIONAL ELECTRICAL CODE		
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION		
NIC	NOT IN CONTRACT		
NM	NON METALIC		
NO	NORMALLY OPEN		
NTS	NOT TO SCALE		
P	POLE		
PB	PULL BOX		
PDS	POWER DATA SUPPLY		
PE	PHOTO ELECTRIC		
PEU	PHOTO ELECTRIC UNIT RELAY		
PEX	PHOTO ELECTRIC AUXILIARY RELAY		
PF	POWER FACTOR		
PH	PHASE		
or *			
PVC	Polyvinyl Chloride		
PWR	POWER		
RGB	RED-GREEN-BLUE		
RTU	REMOTE TERMINAL UNIT		

ELECTRICAL SYMBOL LIST

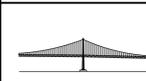
	MOLDED CASE CIRCUIT BREAKER		CONDUCTORS, NOT CONNECTED
	SINGLE LINE DIAGRAM TRANSFORMER		TW GREEN INSULATED GROUND WIRE
	GROUND		EXPOSED BARE GROUNDING CONDUCTOR
*	PHASE OR DIAMETER		EMBEDDED BARE COPPER GROUND WIRE
	WALL MOUNTED PULL BOX		CONDUIT UP
	EQUIPMENT JUNCTION BOX - FLUSH WALL OR SURFACE MOUNTED OR CEILING MOUNTED.		CONDUIT DOWN
	CONDUCTORS, CONNECTED		CAPPED CONDUIT
			LED LIGHT
			FUSED DISCONNECT

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DESIGNED BY	R. GARCIA
DRAWN BY	R. GARCIA
CHECKED BY	K. WARDDRIP
IN CHARGE	F. WALIEDDINE
DATE	06/26/24



BAY LIGHTS 360



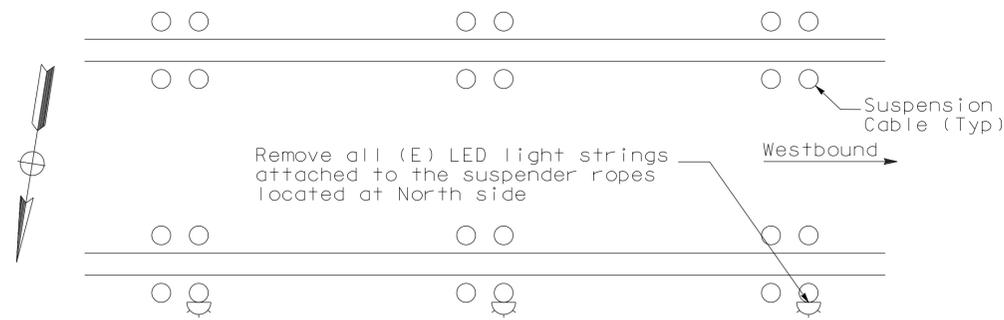
425 Market Street: 17th Floor
San Francisco, CA 94105-2425
TEL (415) 243-4600, FAX (415) 243-9501

BAY LIGHTS 360 PROJECT

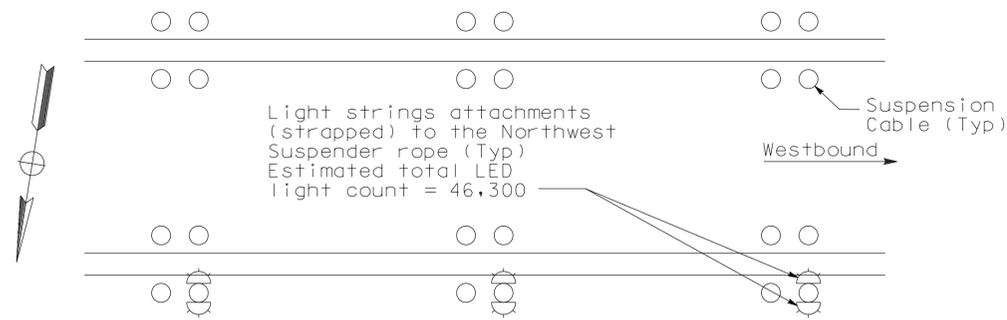
ABBREVIATIONS, SYMBOLS,
GENERAL NOTES, INDEX OF SHEETS

CONTRACT NO	
DRAWING NO	REV
E-001	A
SCALE	NO SCALE
SHEET NO	2 OF 17

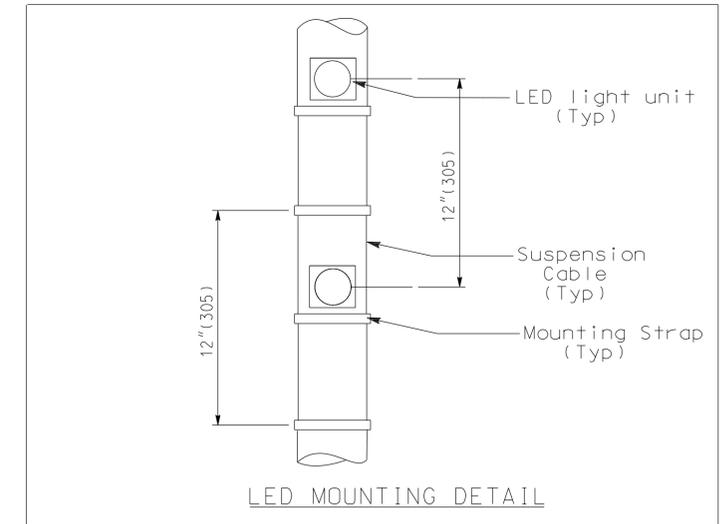
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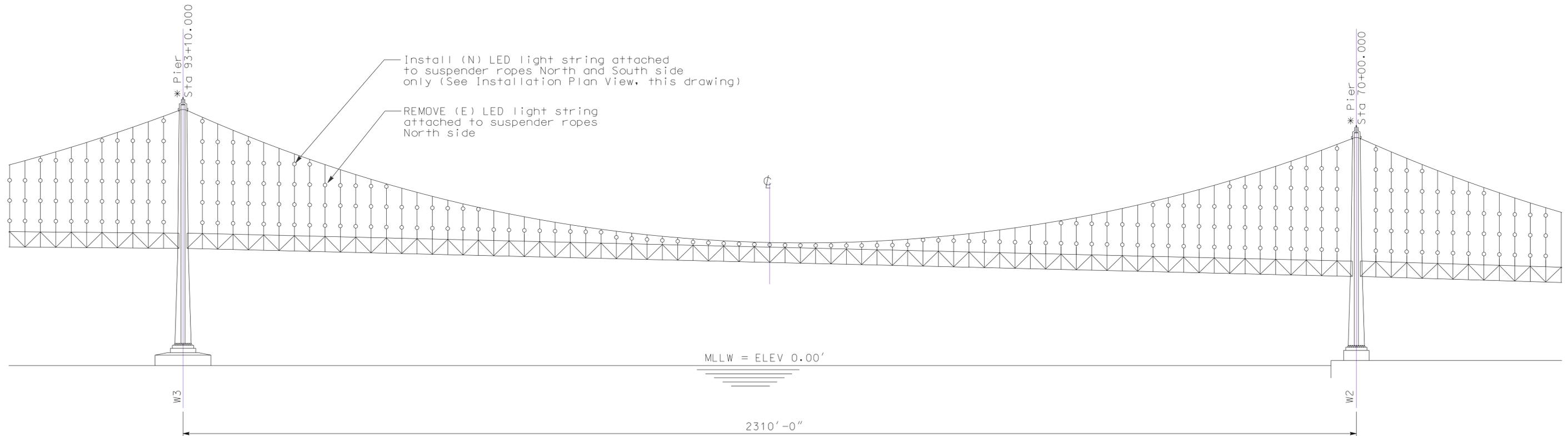
DEMOLITION - PLAN VIEW



INSTALLATION - PLAN VIEW



LED MOUNTING DETAIL



ELEVATION

TYPICAL LIGHT STRING INSTALLATION
Similar layout for W1 through YBI Anchorage

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24

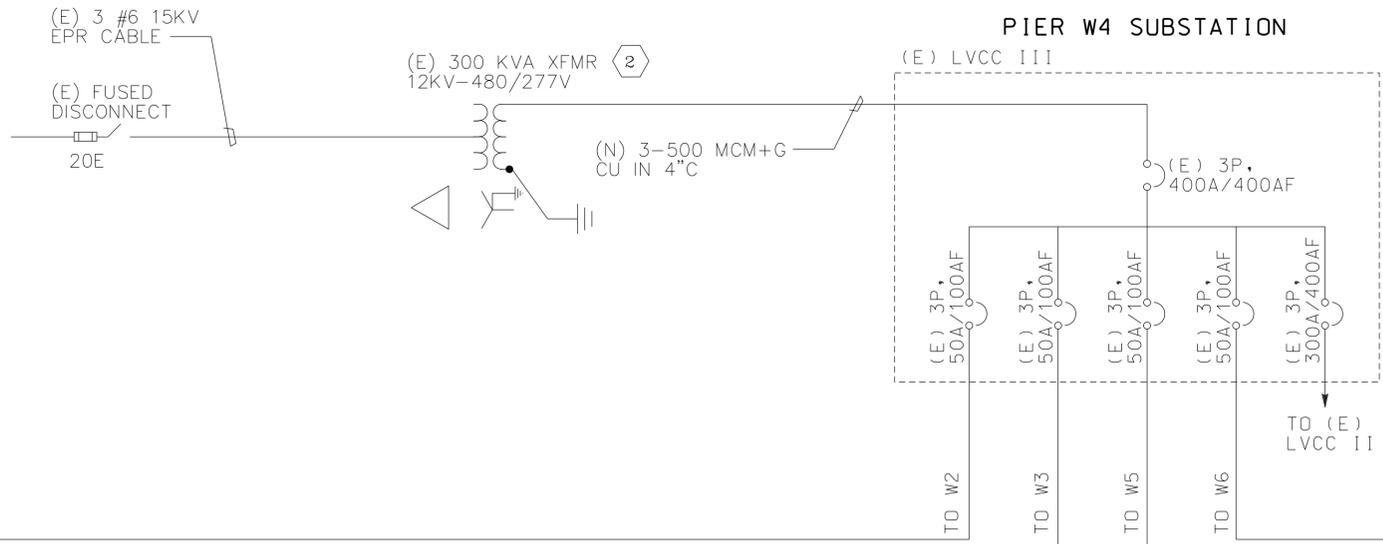


BAY LIGHTS 360

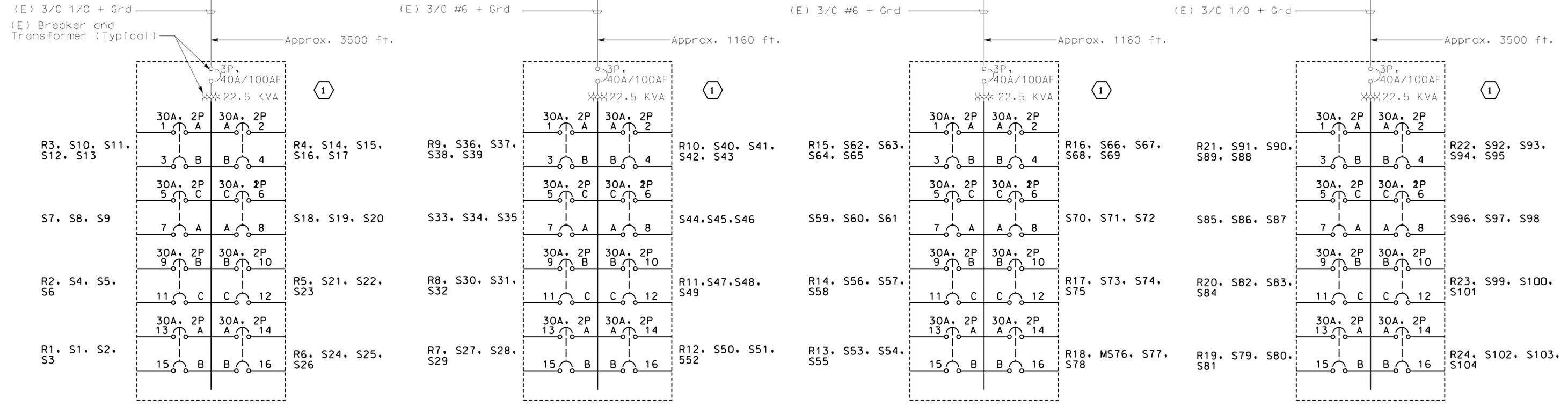
WSP 425 Market Street: 17th Floor
San Francisco, CA 94105-2425
TEL (415) 243-4600, FAX (415) 243-9501

BAY LIGHTS 360 PROJECT
ROADWAY LEVEL PARTIAL PLAN
WEST SPAN

CONTRACT NO	
DRAWING NO E-002	REV A
SCALE NO SCALE	
SHEET NO 3 OF 17	



- SHEET NOTES:**
- ① FOR LOCATION OF SUSPENSION CABLES, SEE SHEETS E-008 THRU E-015.
 - 1. FOR LOCATIONS OF LOAD CENTERS. SEE SHEET E-005.
 - 2. REPLACE THE EXISTING 30A/2P BRANCH CIRCUIT BREAKERS AT EACH OF THE FOUR (4) LOAD CENTERS AT PIERS W2, W3, W5, & W6 WITH NEW 30A/2P CIRCUIT BREAKERS.
 - 3. FOR LVCC III LOCATION. SEE SHEET E-004.



Mini Power Center
Installed at Pier W2
15 KVA, 3 Phase, 480-208/120V
W/ 2-5% FCBN Tap Changers
Similar to EATON
CAT # P48G28T21CUB
NEMA 4X ENCLOSURE

PIER W2
LOWER DECK

Mini Power Center
Installed at Pier W3
15 KVA, 3 Phase, 480-208/120V
W/ 2-5% FCBN Tap Changers
Similar to EATON
CAT # P48G28T21CUB
NEMA 4X ENCLOSURE

PIER W3
LOWER DECK

Mini Power Center
Installed at Pier W5
15 KVA, 3 Phase, 480-208/120V
W/ 2-5% FCBN Tap Changers
Similar to EATON
CAT # P48G28T21CUB
NEMA 4X ENCLOSURE

PIER W5
LOWER DECK

Mini Power Center
Installed at Pier W6
15 KVA, 3 Phase, 480-208/120V
W/ 2-5% FCBN Tap Changers
Similar to EATON
CAT # P48G28T21CUB
NEMA 4X ENCLOSURE

PIER W6
LOWER DECK

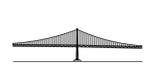
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DESIGNED BY	R. GARCIA
DRAWN BY	R. GARCIA
CHECKED BY	K. WARDDRIP
IN CHARGE	F. WALIEDDINE
DATE	06/26/24
REV	DATE BY APP REG NO EXPIRES SEAL HOLDER DESCRIPTION
A	06/26/24 RG FW PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360



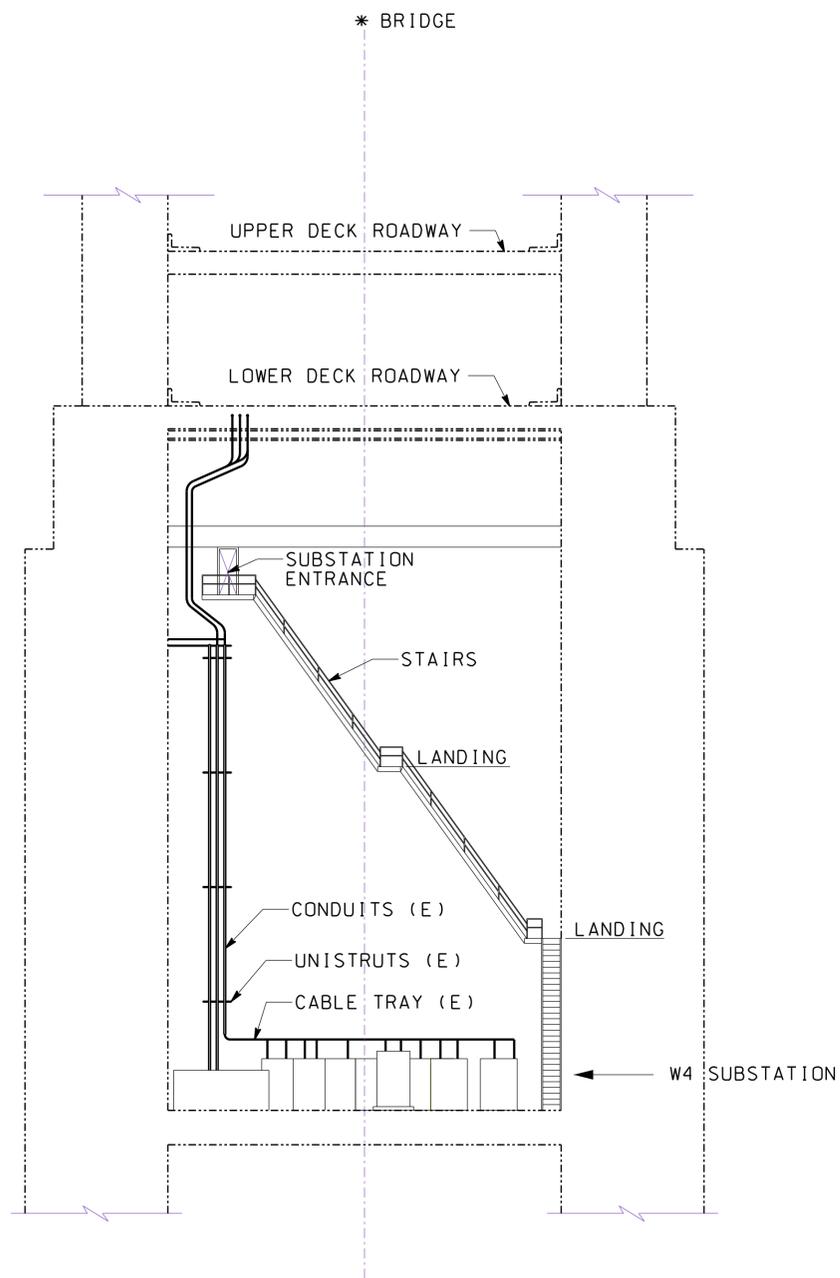
425 Market Street: 17th Floor
San Francisco, CA 94105-2425
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BAY LIGHTS 360 PROJECT

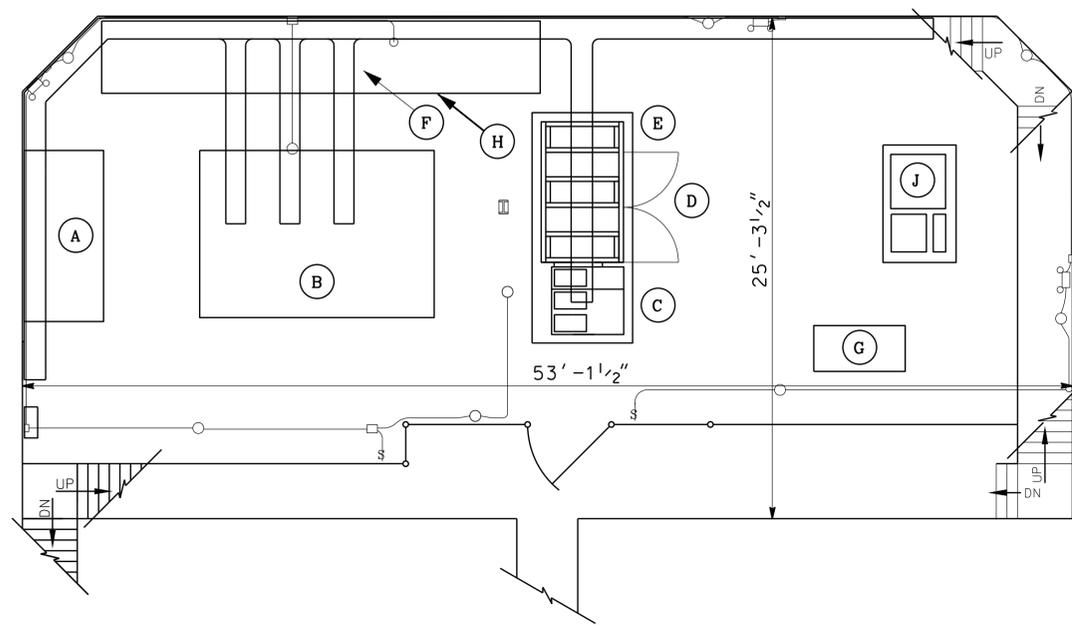
ELECTRICAL ONE-LINE DIAGRAM

CONTRACT NO	
DRAWING NO	REV
E-003	A
SCALE	NO SCALE
SHEET NO	4 OF 17

\$USERS\$ \$DATES\$ \$FILES\$ \$TIMES\$



PIER-W4 SUBSTATION ELEVATION
NTS



PIER W4 SUBSTATION LAYOUT
NTS

GENERAL NOTE:

1. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND MUST BE FIELD VERIFIED. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION.

EQUIPMENT SCHEDULE

- (A) (E) BATTERY SYSTEM AND DISCONNECT/DISTRIBUTION
- (B) (E) 12KV SWITCHGEAR
- (C) (E) 300 KVA TRANSFORMER INCOMING LINE SECTION AND PRIMARY SWITCH
- (D) (E) 300 KVA TRANSFORMER
- (E) (E) 300 KVA TRANSFORMER 480V 3PH LOAD SECTION
- (F) (E) SUBSTATION AND WEST SPAN DISTRIBUTION AND CONTROL CIRCUITS
- (G) (E) INTERNET SERVER CABINET
- (H) (E) LVCC I
- (J) (E) LVCC-III

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360

WSP 425 Market Street: 17th Floor
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BAY LIGHTS 360 PROJECT
W4 SUBSTATION
EQUIPMENT LAYOUT/ELEVATION

CONTRACT NO	
DRAWING NO E-004	REV A
SCALE NO SCALE	
SHEET NO 5 OF 17	

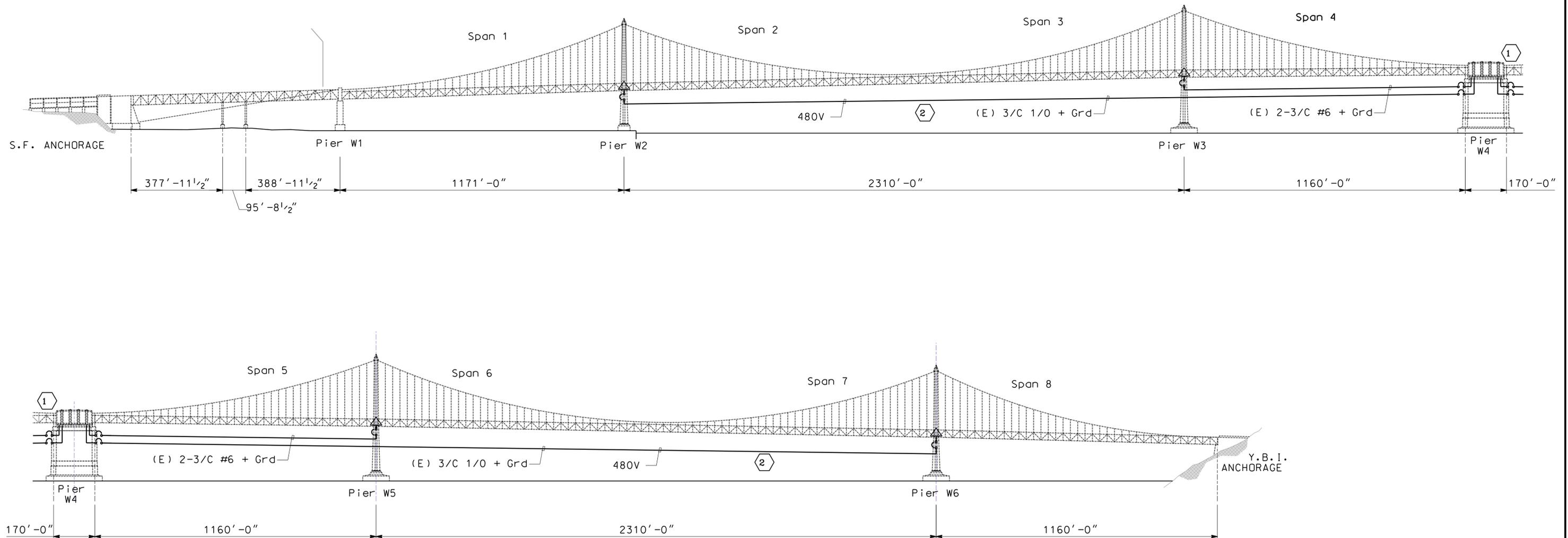


NOTES:

- EXISTING CABLES ARE 3/C MC, PVC JACKETED ARMORED CABLE.

SHEET NOTES:

- SOURCE FOR THE 480V FROM W4 SUBSTATION.
- REFER TO SHEET E-003 FOR ONE-LINE DIAGRAM



THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW			F. WALIEDDINE	PERMISSARY PROGRESS SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



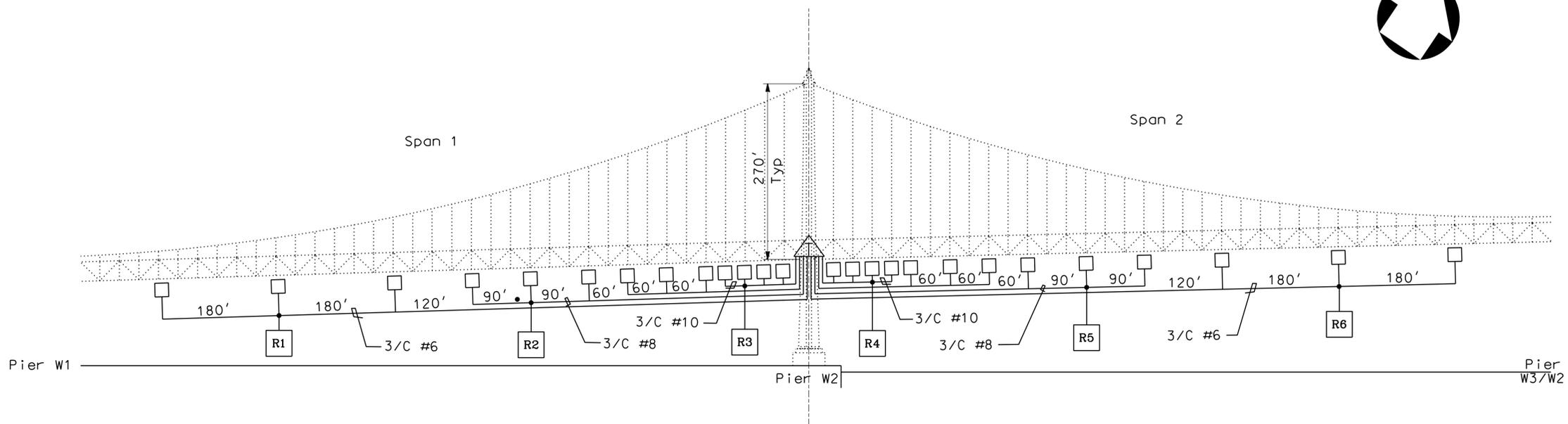
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BAY LIGHTS 360 PROJECT

FEEDER PLAN (480V)

CONTRACT NO	
DRAWING NO E-005	REV A
SCALE NO SCALE	
SHEET NO 6 OF 17	

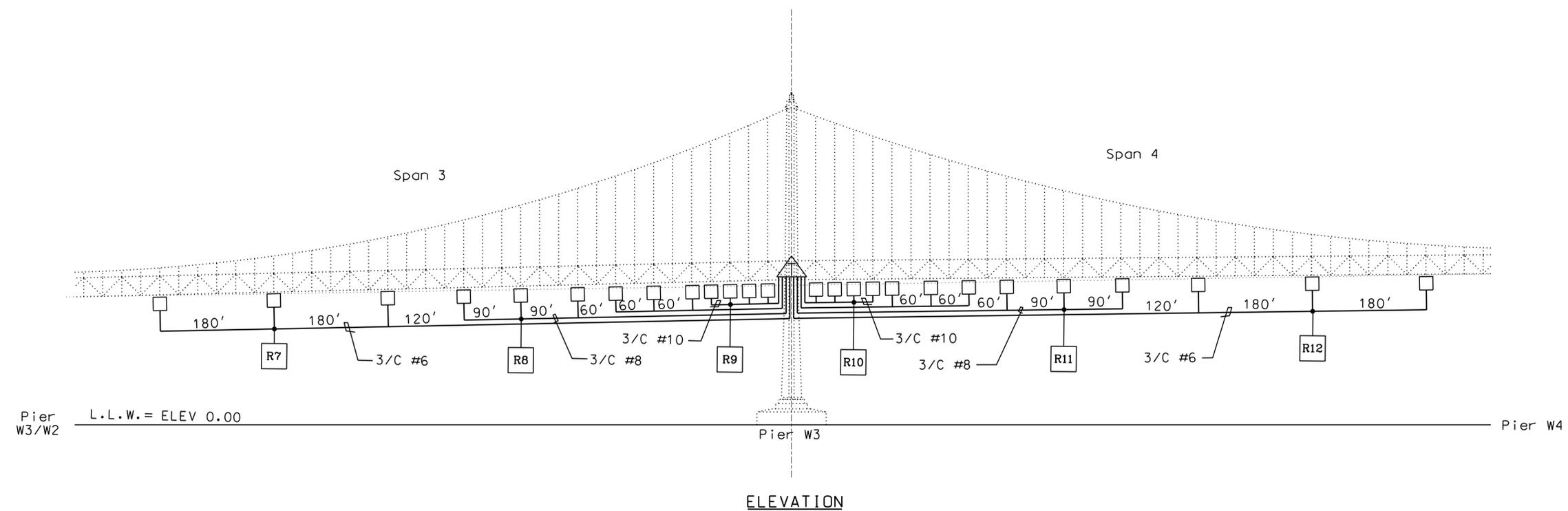


NOTES:

1. EXISTING CABLES ARE 3/C TYPE MC, PVC JACKETED ARMORED CABLE.
2. FOR LED NODE PLAN, SEE SHEETS E-008 - E-0015.
3. FOR TYPICAL PANEL CONFIGURATION, SEE SHEET E-003.
4. FOR ELECTRICAL ONE LINE DIAGRAM, SEE E-003.

LEGEND

- PANEL WITH PDS/ETHERNET SWITCH
- R ENCLOSURE WITH ROUTER



THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360

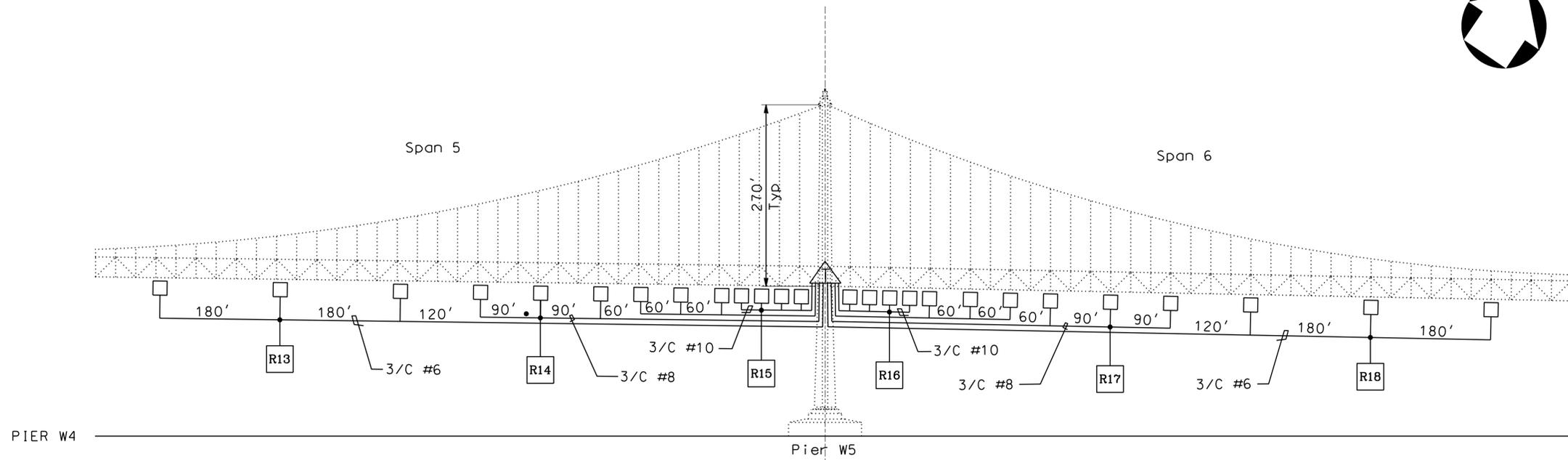
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San Francisco, CA 94105-2425
TEL (415) 243-4600, FAX (415) 243-9501

BAY LIGHTS 360 PROJECT

BRANCH CIRCUIT PLAN (120V)

CONTRACT NO	
DRAWING NO E-006	REV A
SCALE NO SCALE	
SHEET NO 7 OF 17	

\$FILES
 \$DATES
 \$TIMES
 \$USERS

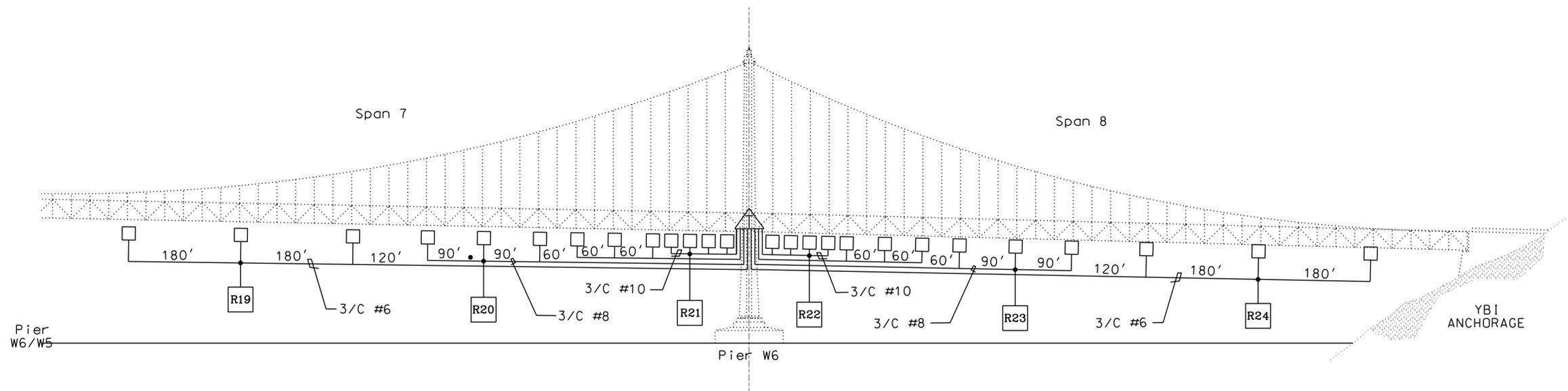


NOTES:

1. EXISTING CABLES ARE 3/C TYPE MC, PVC JACKETED ARMORED CABLE.
2. FOR LED NODE PLAN, SEE SHEETS E-008 - E-015.
3. FOR TYPICAL PANEL CONFIGURATION, SEE SHEET E-003.
4. FOR ELECTRICAL ONE LINE DIAGRAM, SEE E-003.

LEGEND

- PANEL WITH PDS/ETHERNET SWITCH
- R ENCLOSURE WITH ROUTER

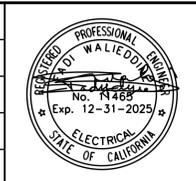


ELEVATION

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360

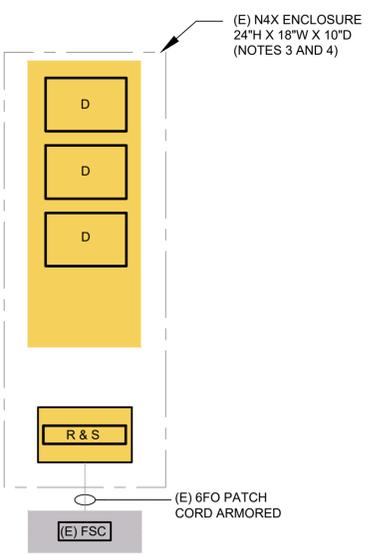
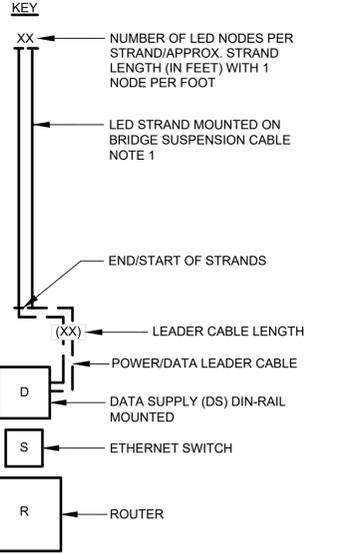
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San Francisco, CA 94105-2425
TEL (415) 243-4600, FAX (415) 243-9501

BAY LIGHTS 360 PROJECT

BRANCH CIRCUIT PLAN (120V)

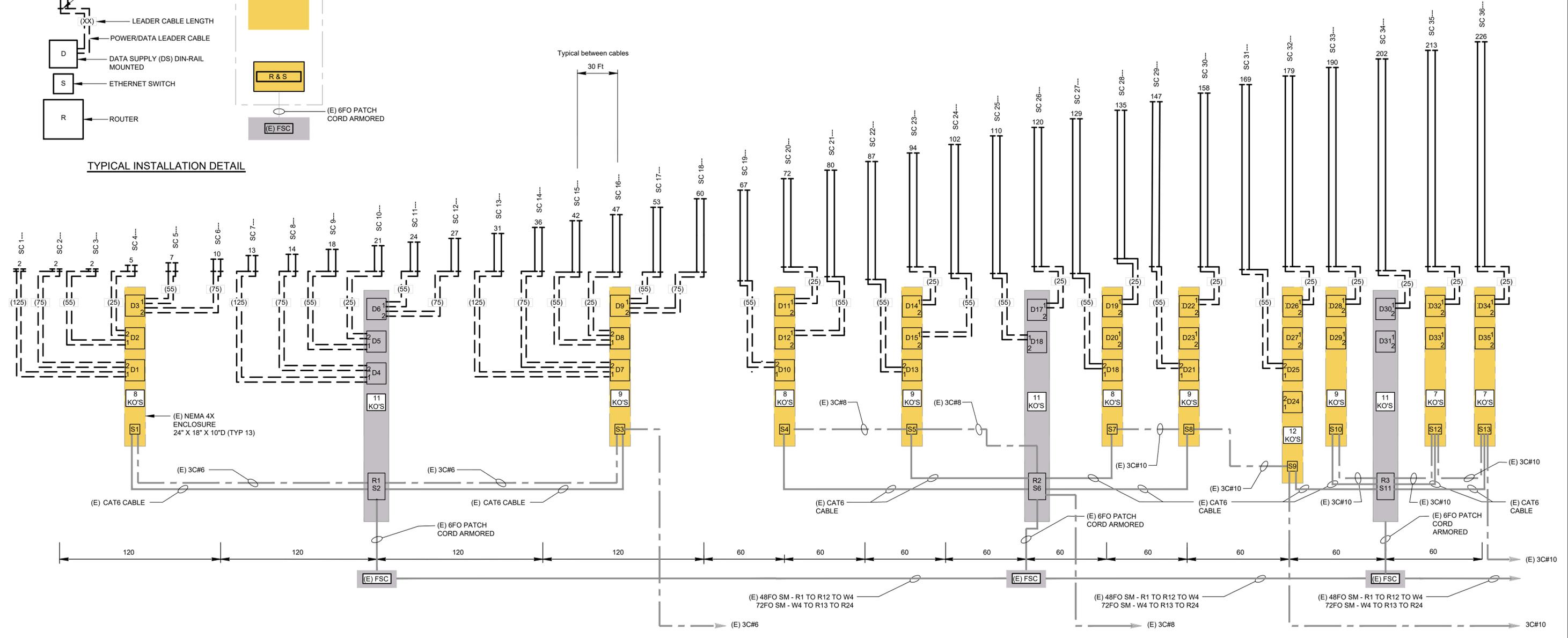
CONTRACT NO	
DRAWING NO	REV
E-007	A
SCALE	NO SCALE
SHEET NO	8 OF 17

\$USERS\$ \$TIMES\$ \$DATES\$ \$FILES\$



- NOTES:**
- LED STRANDS ARE BACK-TO-BACK ON OUTSIDE SUSPENSION CABLE.
 - FOR ORIENTATION DETAILS OF LED STRANDS, SEE PLAN VIEW ON E-002.
 - INSTALL NEW BACK PANELS PROVIDED BY LIGHTING SUPPLIER.
 - INSTALL NEW LED DRIVERS, ETHERNET SWITCHES AND ROUTERS.

TYPICAL INSTALLATION DETAIL



Pier W1	SC 1	SC 2	SC 3	SC 4	SC 5	SC 6	SC 7	SC 8	SC 9	SC 10	SC 11	SC 12	SC 13	SC 14	SC 15	SC 16	SC 17	SC 18	SC 19	SC 20	SC 21	SC 22	SC 23	SC 24	SC 25	SC 26	SC 27	SC 28	SC 29	SC 30	SC 31	SC 32	SC 33	SC 34	SC 35	SC 36	Pier W2
	SC 1	SC 2	SC 3	SC 4	SC 5	SC 6	SC 7	SC 8	SC 9	SC 10	SC 11	SC 12	SC 13	SC 14	SC 15	SC 16	SC 17	SC 18	SC 19	SC 20	SC 21	SC 22	SC 23	SC 24	SC 25	SC 26	SC 27	SC 28	SC 29	SC 30	SC 31	SC 32	SC 33	SC 34	SC 35	SC 36	

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DESIGNED BY	R. GARCIA
DRAWN BY	R. GARCIA
CHECKED BY	K. WARDRIP
IN CHARGE	F. WALIEDDINE
DATE	06/26/24

REG NO	EXPRES	SEAL HOLDER	DESCRIPTION
		F. WALIEDDINE	PERMIT SET



BAY LIGHTS 360

WSP
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San Francisco, CA 94105-2425
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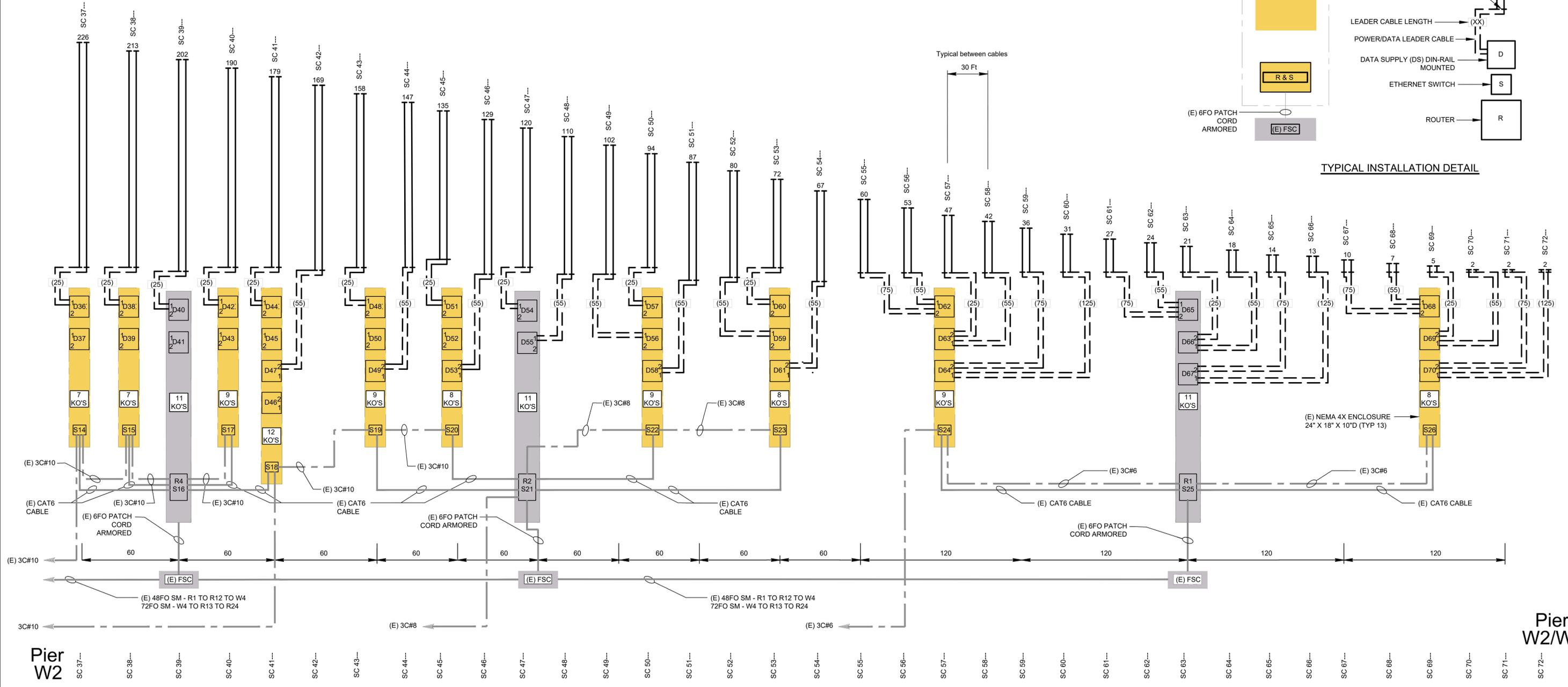
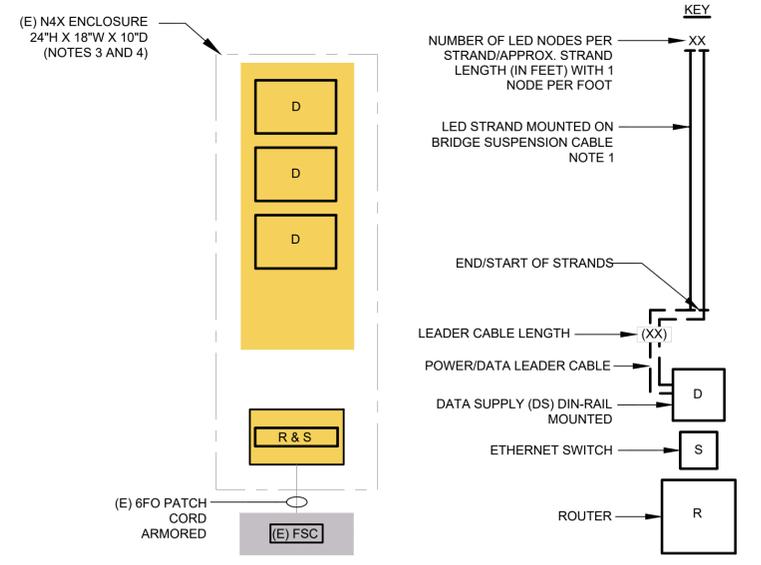
BAY LIGHTS 360 PROJECT

WIRING DIAGRAM (24v)
LED NODE PLAN & COMM. CABLING
SPAN 1

CONTRACT NO	
DRAWING NO	E-008
REV	A
SCALE	NO SCALE
SHEET NO	9 OF 17

Plot Driver=PLTDRVS\$ Pentable=PENTBLS\$

- NOTES:**
- LED STRANDS ARE BACK-TO-BACK ON OUTSIDE SUSPENSION CABLE.
 - FOR ORIENTATION DETAILS OF LED STRANDS, SEE PLAN VIEW ON E-002.
 - INSTALL NEW BACK PANELS PROVIDED BY LIGHTING SUPPLIER.
 - INSTALL NEW LED DRIVERS, ETHERNET SWITCHES AND ROUTERS.



TYPICAL INSTALLATION DETAIL

Pier W2/W3

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360

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425 Market Street: 17th Floor
San Francisco, CA 94105-2425
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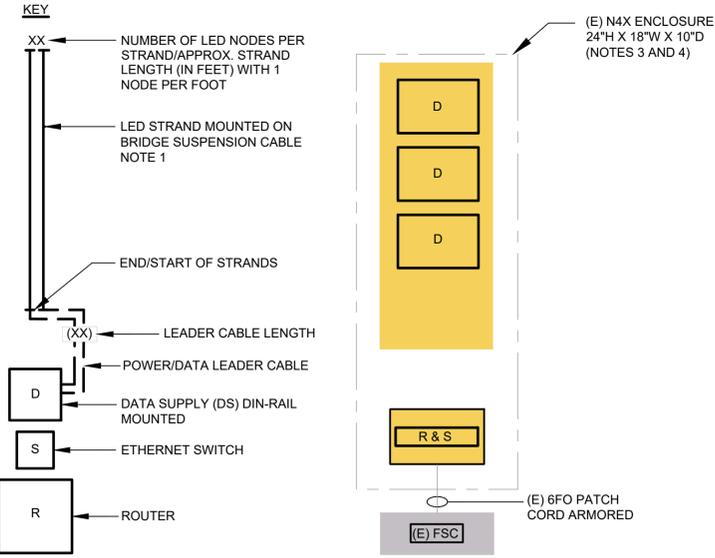
BAY LIGHTS 360 PROJECT

WIRING DIAGRAM (24v)
LED NODE PLAN & COMM. CABLING
SPAN 2

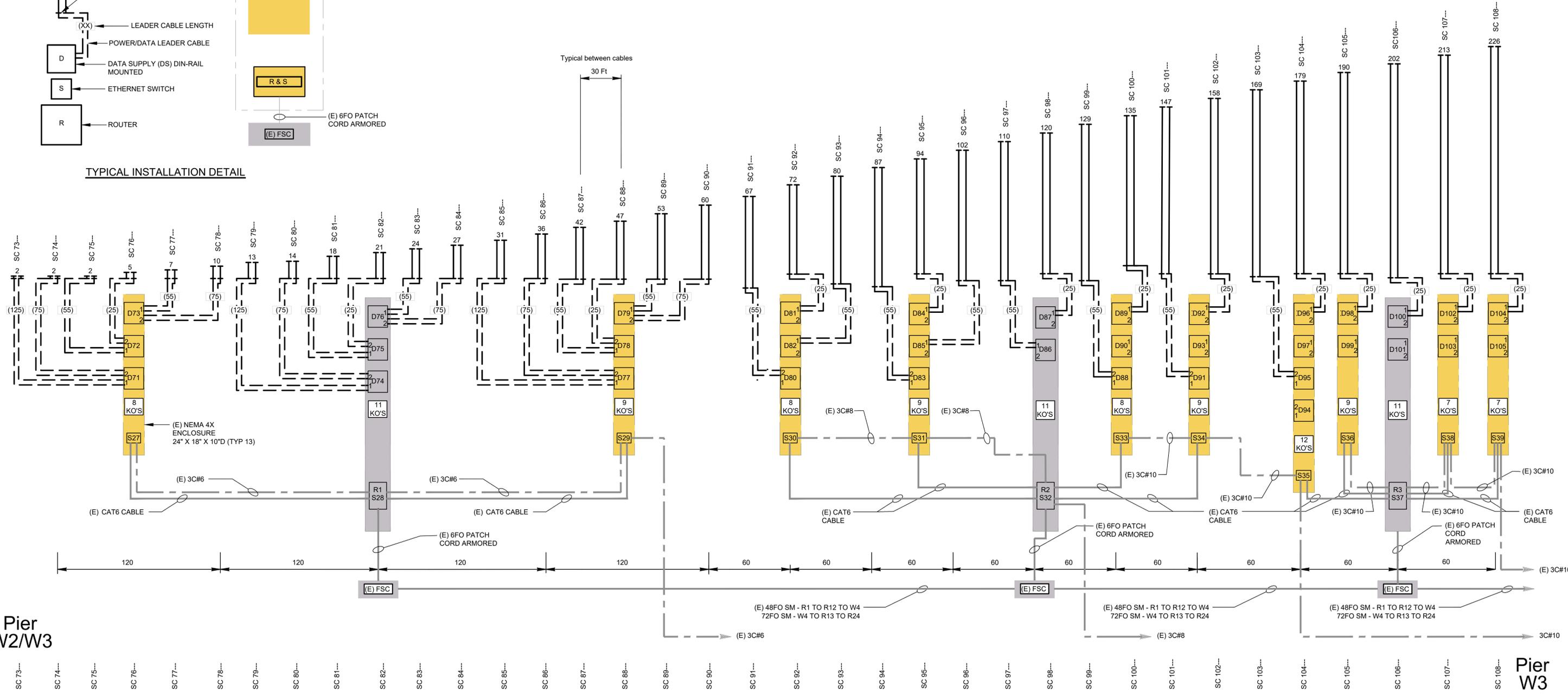
CONTRACT NO	
DRAWING NO E-009	REV A
SCALE NO SCALE	
SHEET NO 10 OF 17	

Plot Driver=PLTDRVS\$ Pentable=PENTBLS\$

- NOTES:**
- LED STRANDS ARE BACK-TO-BACK ON OUTSIDE SUSPENSION CABLE.
 - FOR ORIENTATION DETAILS OF LED STRANDS, SEE PLAN VIEW ON E-002.
 - INSTALL NEW BACK PANELS PROVIDED BY LIGHTING SUPPLIER.
 - INSTALL NEW LED DRIVERS, ETHERNET SWITCHES AND ROUTERS.



TYPICAL INSTALLATION DETAIL



Pier W2/W3

Pier W3

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	FW	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW				F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360

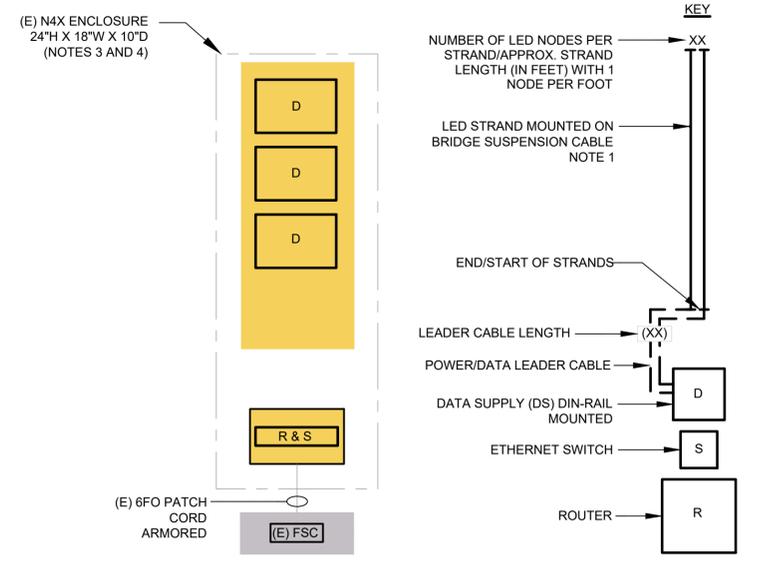
WSP 425 Market Street: 17th Floor
San Francisco, CA 94105-2425
TEL (415) 243-4600, FAX (415) 243-9501

BAY LIGHTS 360 PROJECT

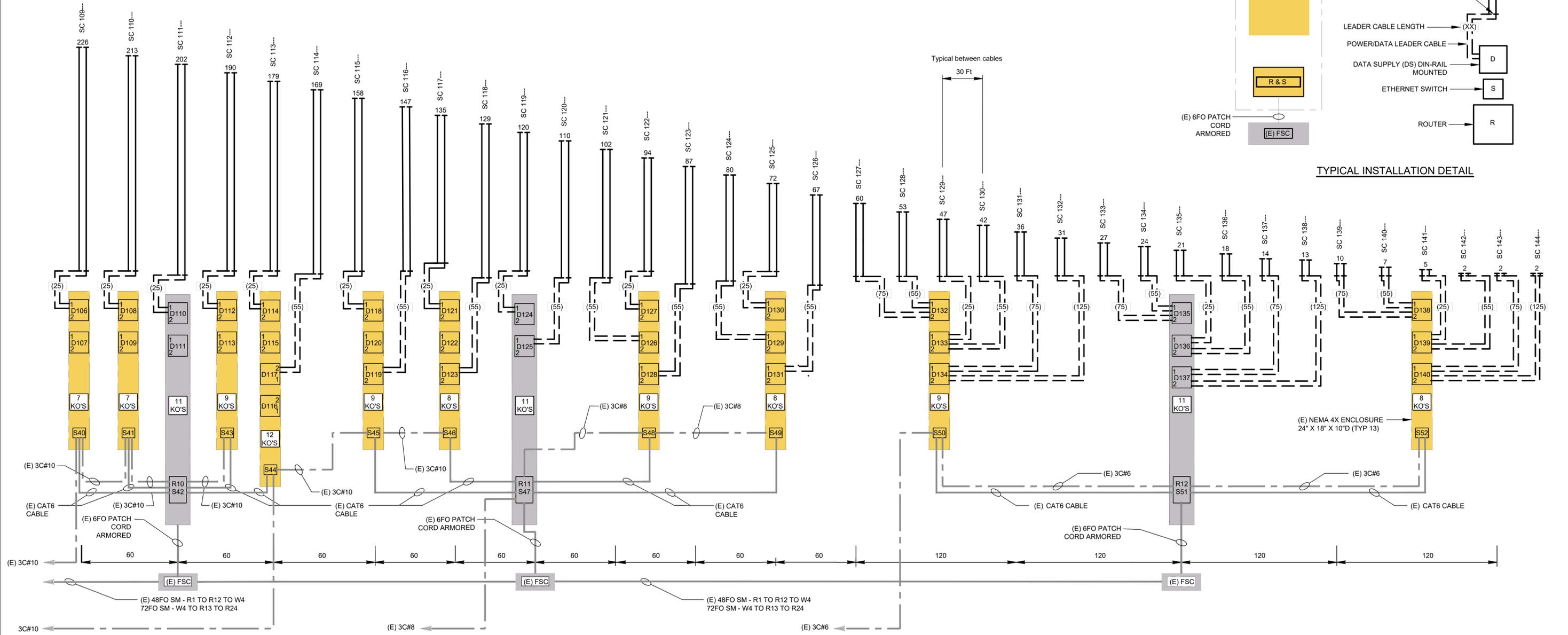
WIRING DIAGRAM (24v)
LED NODE PLAN & COMM. CABLING
SPAN 3

CONTRACT NO	
DRAWING NO E-010	REV A
SCALE NO SCALE	
SHEET NO 11 OF 17	

- NOTES:**
- LED STRANDS ARE BACK-TO-BACK ON OUTSIDE SUSPENSION CABLE.
 - FOR ORIENTATION DETAILS OF LED STRANDS, SEE PLAN VIEW ON E-002.
 - INSTALL NEW BACK PANELS PROVIDED BY LIGHTING SUPPLIER.
 - INSTALL NEW LED DRIVERS, ETHERNET SWITCHES AND ROUTERS.



TYPICAL INSTALLATION DETAIL

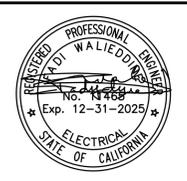


Pier W3 SC 109--- SC 110--- SC 111--- SC 112--- SC 113--- SC 114--- SC 115--- SC 116--- SC 117--- SC 118--- SC 119--- SC 120--- SC 121--- SC 122--- SC 123--- SC 124--- SC 125--- SC 126--- SC 127--- SC 128--- SC 129--- SC 130--- SC 131--- SC 132--- SC 133--- SC 134--- SC 135--- SC 136--- SC 137--- SC 138--- SC 139--- SC 140--- SC 141--- SC 142--- SC 143--- SC 144--- Pier W4

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360

425 Market Street: 17th Floor
San Francisco, CA 94105-2425
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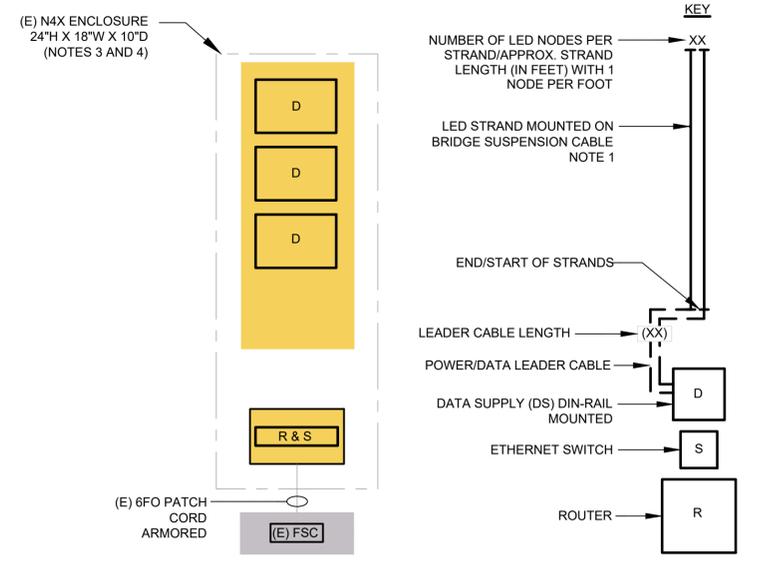
WIRING DIAGRAM (24v)
LED NODE PLAN & COMM. CABLING
SPAN 4

CONTRACT NO	
DRAWING NO E-011	REV A
SCALE NO SCALE	
SHEET NO 12 OF 17	

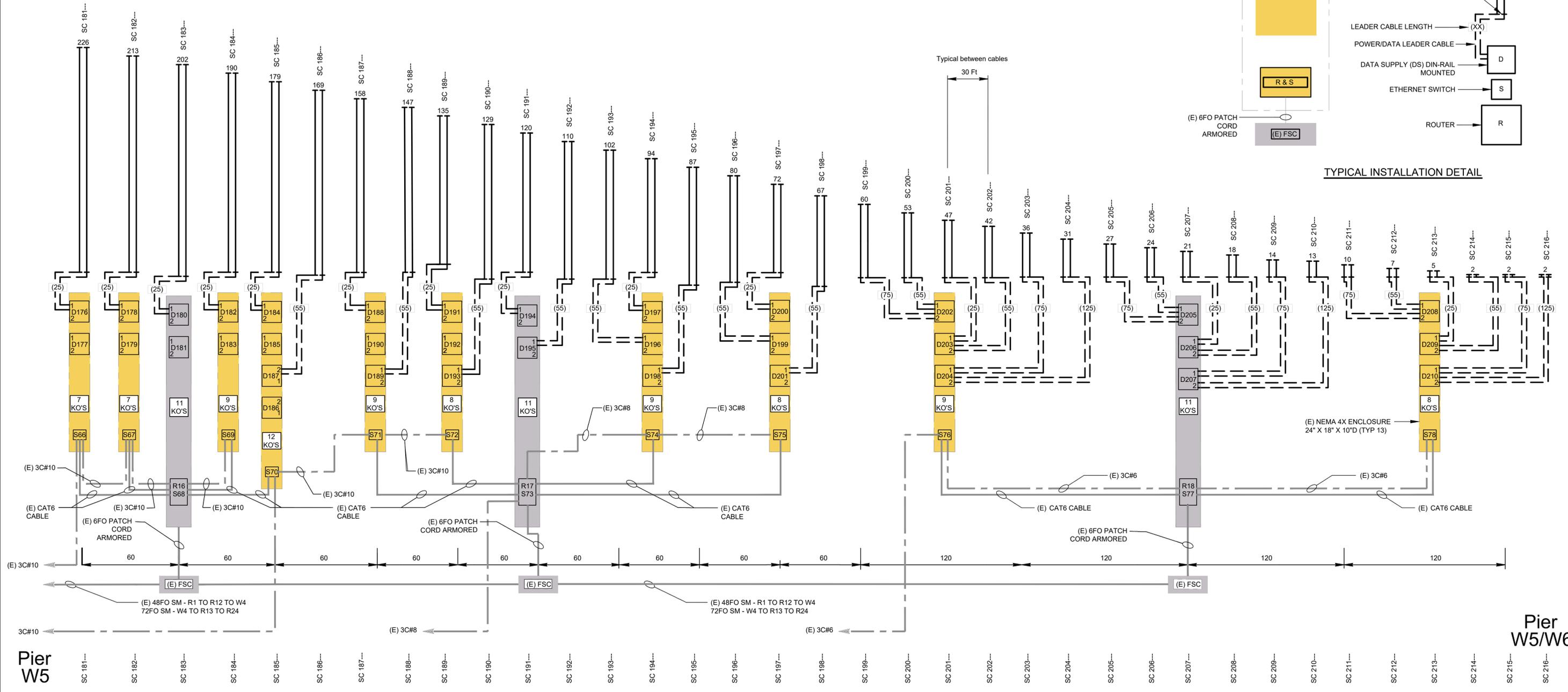
Plot Driver=PLTDRVS\$ Pentable=PENTBLS\$

NOTES:

- LED STRANDS ARE BACK-TO-BACK ON OUTSIDE SUSPENSION CABLE.
- FOR ORIENTATION DETAILS OF LED STRANDS, SEE PLAN VIEW ON E-002.
- INSTALL NEW BACK PANELS PROVIDED BY LIGHTING SUPPLIER.
- INSTALL NEW LED DRIVERS, ETHERNET SWITCHES AND ROUTERS.



TYPICAL INSTALLATION DETAIL



Pier W5/W6

Plot Driver=PLTDRVS\$
 Pentable=PENTBLS\$
 \$FILE\$
 \$DATE\$
 \$TIME\$
 \$USER\$

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
E							
D							
C							
B							
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
 DRAWN BY
R. GARCIA
 CHECKED BY
K. WARDDRIP
 IN CHARGE
F. WALIEDDINE
 DATE
06/26/24



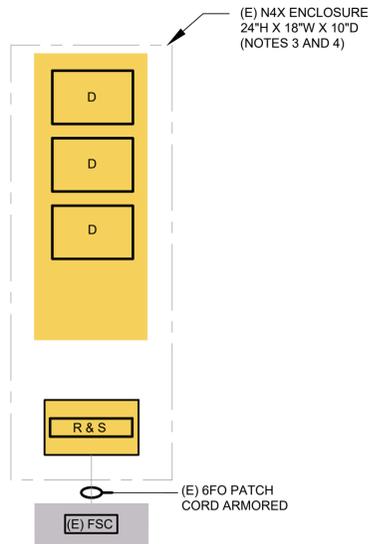
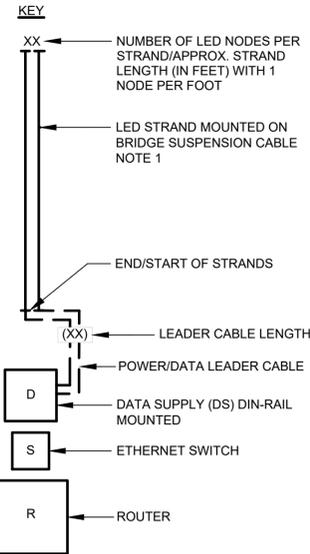
BAY LIGHTS 360

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 San Francisco, CA 94105-2425
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BAY LIGHTS 360 PROJECT

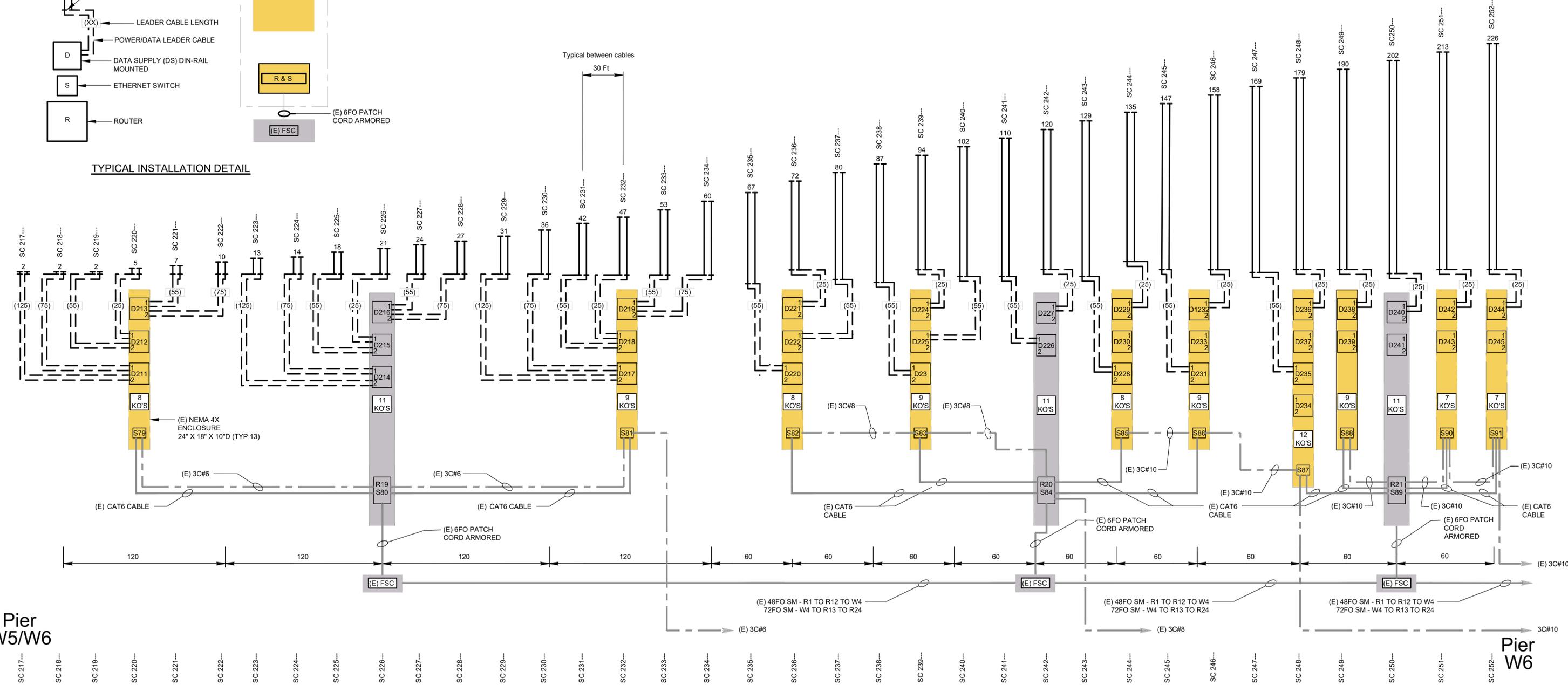
WIRING DIAGRAM (24v)
 LED NODE PLAN & COMM. CABLING
 SPAN 6

CONTRACT NO	
DRAWING NO E-013	REV A
SCALE NO SCALE	
SHEET NO 14 of 17	



- NOTES:**
- LED STRANDS ARE BACK-TO-BACK ON OUTSIDE SUSPENSION CABLE.
 - FOR ORIENTATION DETAILS OF LED STRANDS, SEE PLAN VIEW ON E-002.
 - INSTALL NEW BACK PANELS PROVIDED BY LIGHTING SUPPLIER.
 - INSTALL NEW LED DRIVERS, ETHERNET SWITCHES AND ROUTERS.

TYPICAL INSTALLATION DETAIL



Pier W5/W6

Pier W6

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
E							
D							
C							
B							
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

DESIGNED BY
R. GARCIA
DRAWN BY
R. GARCIA
CHECKED BY
K. WARDRIP
IN CHARGE
F. WALIEDDINE
DATE
06/26/24



BAY LIGHTS 360

WSP
425 Market Street: 17th Floor
San Francisco, CA 94105-2425
TEL (415) 243-4600, FAX (415) 243-9501

BAY LIGHTS 360 PROJECT

WIRING DIAGRAM (24v)
LED NODE PLAN & COMM. CABLING
SPAN 7

CONTRACT NO	
DRAWING NO E-014	REV A
SCALE NO SCALE	
SHEET NO 15 of 17	

\$FILE\$
 \$DATES\$
 \$TIME\$
 \$USER\$

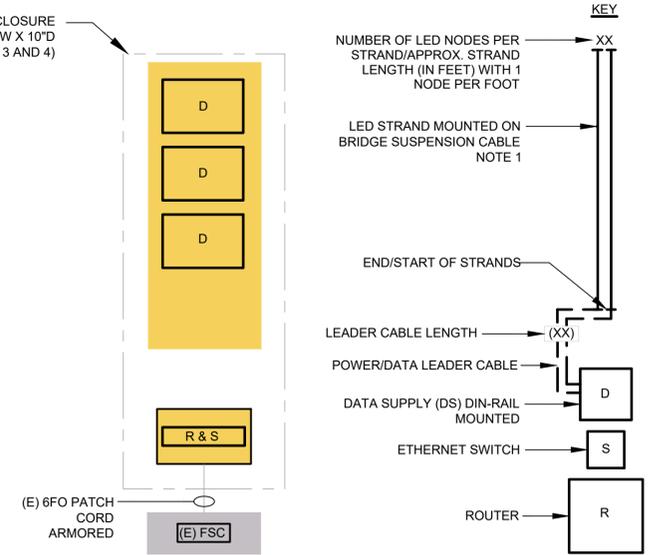
Plot Driver=PLTDRVS\$ Pentable=PENTBLS\$

NOTES:

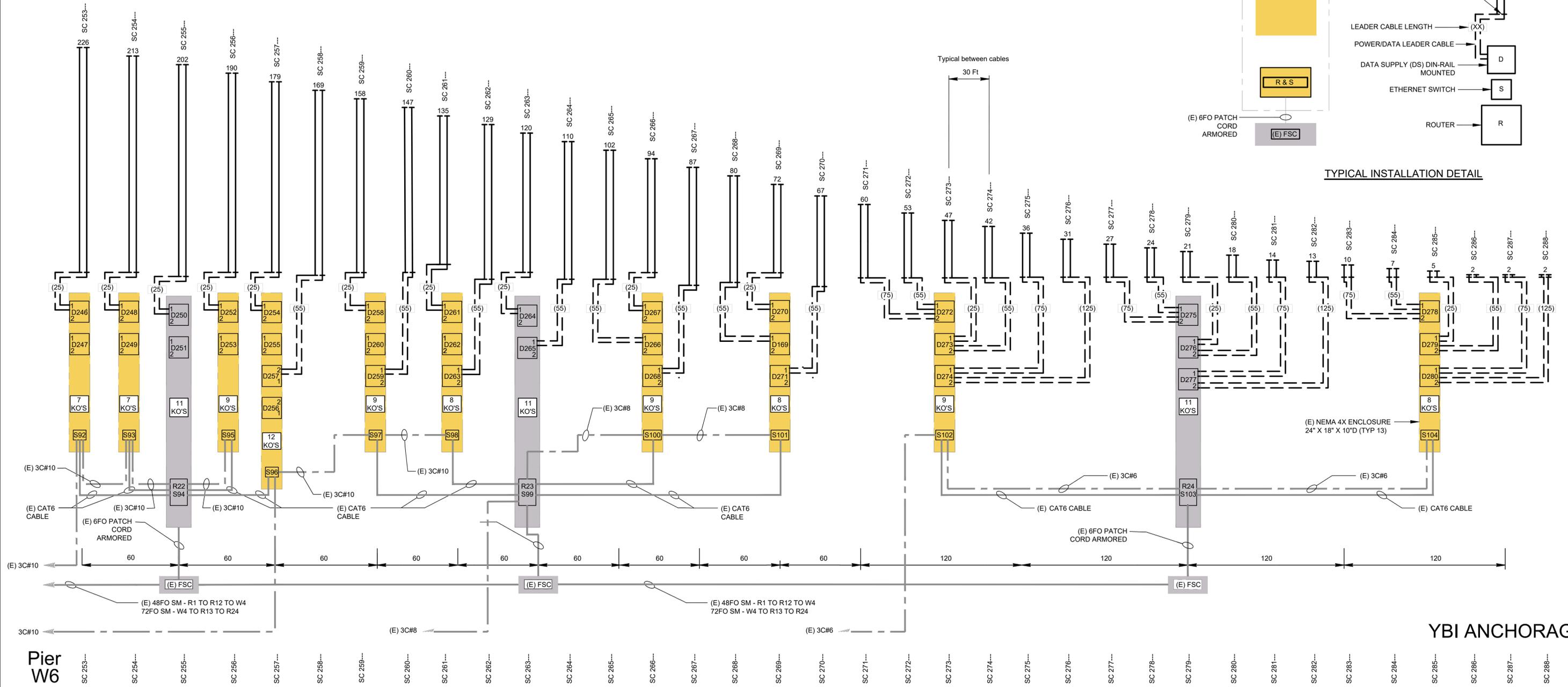
1. LED STRANDS ARE BACK-TO-BACK ON OUTSIDE SUSPENSION CABLE.
2. FOR ORIENTATION DETAILS OF LED STRANDS, SEE PLAN VIEW ON E-002.
3. INSTALL NEW BACK PANELS PROVIDED BY LIGHTING SUPPLIER.
4. INSTALL NEW LED DRIVERS, ETHERNET SWITCHES AND ROUTERS.



(E) N4X ENCLOSURE
24" H X 18" W X 10" D
(NOTES 3 AND 4)



TYPICAL INSTALLATION DETAIL



YBI ANCHORAGE

- Pier W6
- SC 253---
- SC 254---
- SC 255---
- SC 256---
- SC 257---
- SC 258---
- SC 259---
- SC 260---
- SC 261---
- SC 262---
- SC 263---
- SC 264---
- SC 265---
- SC 266---
- SC 267---
- SC 268---
- SC 269---
- SC 270---
- SC 271---
- SC 272---
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- SC 274---
- SC 275---
- SC 276---
- SC 277---
- SC 278---
- SC 279---
- SC 280---
- SC 281---
- SC 282---
- SC 283---
- SC 284---
- SC 285---
- SC 286---
- SC 287---
- SC 288---

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
A	06/26/24	RG	FW			F. WALIEDDINE	PERMIT SET

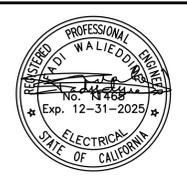
DESIGNED BY
R. GARCIA

DRAWN BY
R. GARCIA

CHECKED BY
K. WARDDRIP

IN CHARGE
F. WALIEDDINE

DATE
06/26/24



BAY LIGHTS 360

WSP 425 Market Street: 17th Floor
San Francisco, CA 94105-2425
TEL (415) 243-4600, FAX (415) 243-9501

BAY LIGHTS 360 PROJECT

WIRING DIAGRAM (24v)
LED NODE PLAN & COMM. CABLING
SPAN 8

CONTRACT NO	
DRAWING NO E-015	REV A
SCALE NO SCALE	
SHEET NO 16 of 17	

\$FILE\$
\$DATE\$
\$TIME\$
\$USER\$

Plot Driver=PLTDRVS\$ Pentable=PENTBLS\$

BAY BRIDGE LIGHTING 360

LOCATION MAP



SF OAKLAND BAY BRIDGE BAY LIGHTS
OAKLAND, CA

CORPORATE OFFICE:
P.O. Box 808
100 1st Avenue West
Oakland, Iowa 52577
+1-800-825-6020
+1-841-873-0411

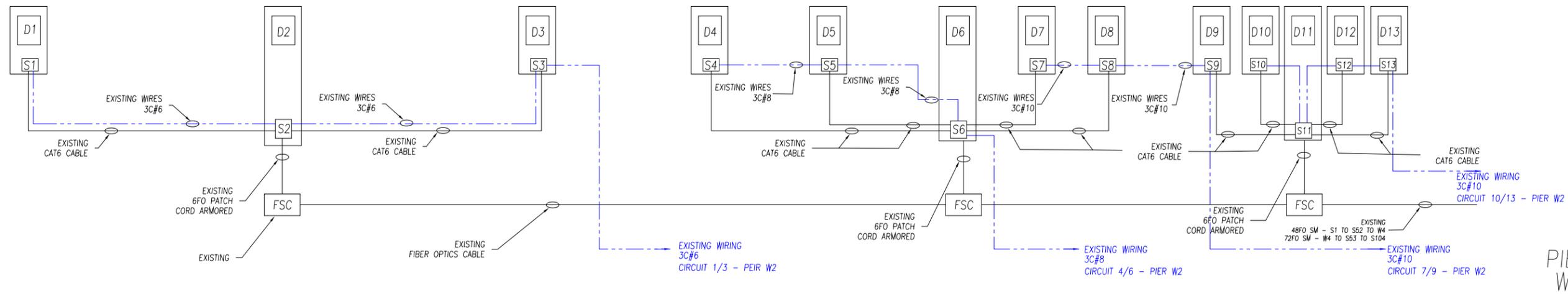
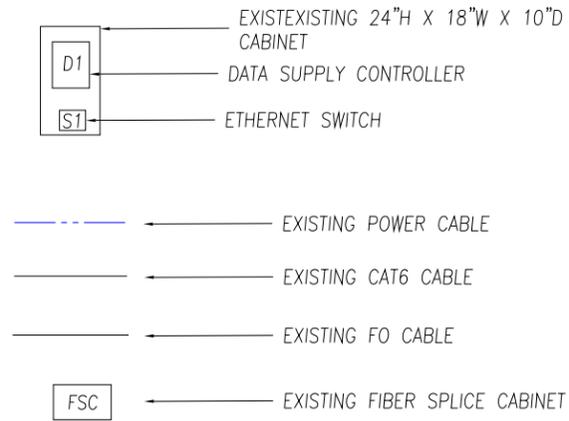
REVISIONS:

DATE: 6/5/24
BY: MFS
DRAWN BY: MFS
CHECK BY:
REPRESENTATIVE: A. DEJONG
SCALE: NTS
DATE: 6/5/24
DRAWING NUMBER:
COVER SHEET

JOB NUMBER: 217258
DRAWN BY: MFS
CHECK BY:
REPRESENTATIVE: A. DEJONG
SCALE: NTS
DATE: 6/5/24
DRAWING NUMBER:
COVER SHEET
OF SHEETS

SPAN 1

LEGEND



PIER W1

PIER W2

SF OAKLAND BAY BRIDGE BAY LIGHTS
OAKLAND, CA
DATA NETWORK DIAGRAM

CORPORATE OFFICE:
P.O. Box 808
100 1st Avenue West
Oskaloosa, Iowa 52577
+1-800-825-6020
+1-841-873-0411

REVISIONS:

DATE: BY: R/L

JOB NUMBER:
217258

DRAWN BY:
MFS

CHECK BY:

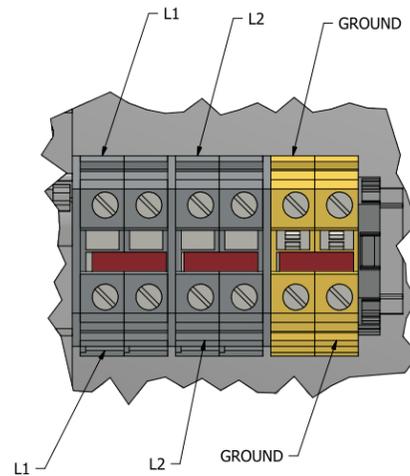
REPRESENTATIVE:
A. DEJONG

SCALE:
1 = 40

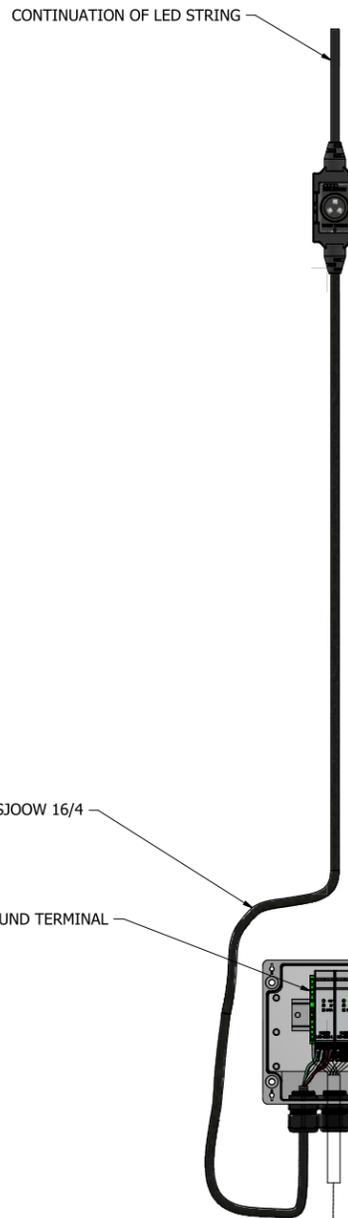
DATE:
2/13/24

DRAWING NUMBER:
217258X2

1 OF 8 SHEETS



DETAIL A
SCALE 1 / 1



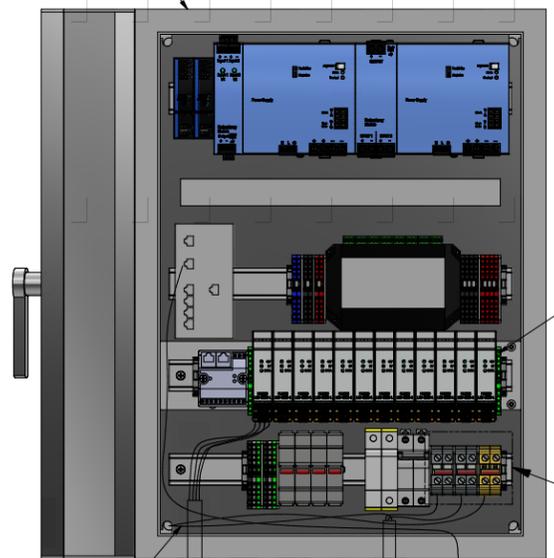
10FT MAX LEADER CABLE SJ00W 16/4

GROUND TERMINAL

WIRING SAME FOR BOTH LED CABLE STRINGS

ENCLOSURE EXISTING

GROUND TERMINAL FOR 16/9 SOOW WIRE



INCOMING GROUND TO BOX GROUND

INCOMING POWER

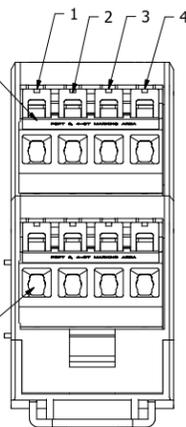
FIBER/ETHERNET IN

POWER/DATA/GROUND TO REMOTE PDC BOX
16/9 SOOW WIRE PER
1 CABLE, 2 LED STRINGS

DIFFERENTIAL POWER/DATA FROM ENCLOSURE TO REMOTE PDC SEE TABLE FOR WIRING FIELD WIRED

POSITION	WIRE COLOR	USE
GROUND TERMINAL	GREEN	GROUND
1	ORANGE	D+
2	WHITE	D-
3	BLACK	V-
4	RED	V+

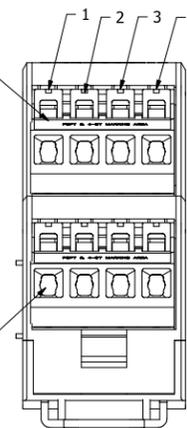
ENCLOSURE POWER/DATA FROM ENCLOSURE TO PDC FACTORY WIRED



DIFFERENTIAL POWER/DATA FROM TRANSMITTER PDC TO RECIEVER PDC SEE TABLE FOR WIRING FIELD WIRED

POSITION	WIRE COLOR	USE
GROUND TERMINAL	GREEN	GROUND
1	ORANGE	D+
2	WHITE	D-
3	BLACK	V-
4	RED	V+

NODE POWER/DATA SEE SHEET 2 FOR WIRING FIELD WIRED



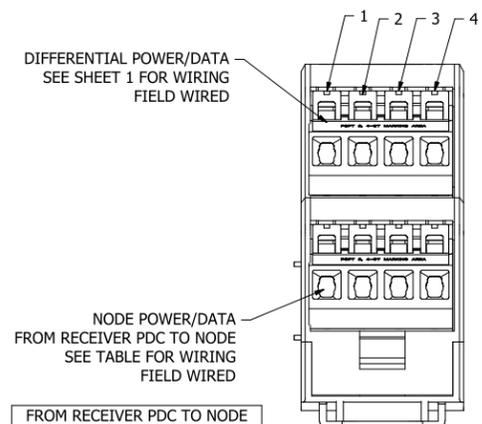
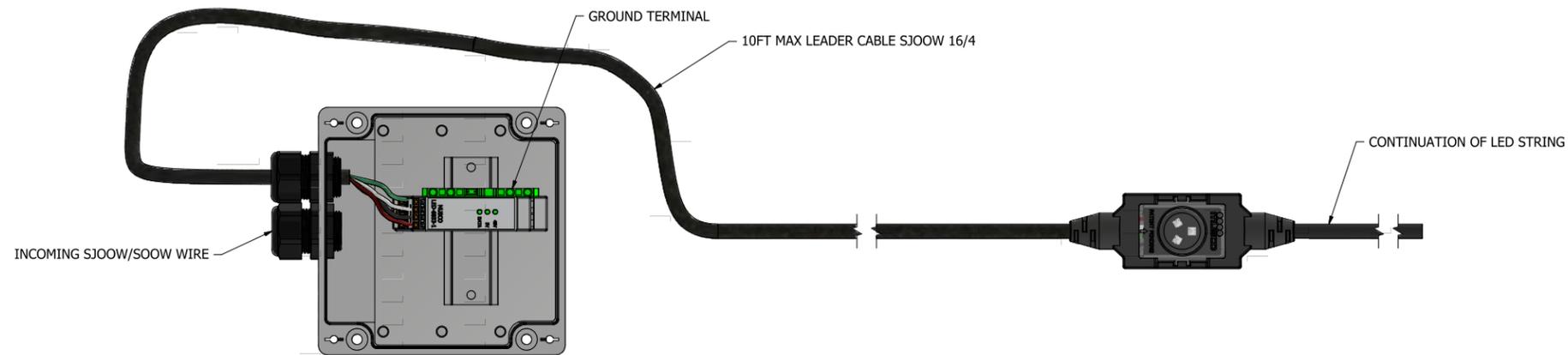
- NOTES:
 1. SEE SHEET 2
 2. SEE SHEET 2
 3. SEE SHEET 2
 4. INCOMING DATA AND POWER INTO ENCLOSURE IS FIELD TERMINATED.

SHEET 1 OF 2

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A	CREATED	AKB	4/29/24			
REV	DESCRIPTION	DRN	DATE	CKD	APVD	ECN
			MANUFACTURING: MUSCATINE, IA 52761 CORPORATE OFFICE: OSWALDOGA, IA 52577		DRWN: AKB DATE: 4/29/2024 SHEET SIZE: D	
TOLERANCES: .XX ±.01 .XXX ±.005			FINISH: **		SCALE: 1 / 4 DOCUMENT NO.	
UNLESS SPECIFIED DIMENSIONS IN INCHES			TITLE: REF, INSTALLATION LED CABLE STRING LIGHT		RDT-5546X	



FROM RECEIVER PDC TO NODE		
POSITION	WIRE COLOR	USE
1	GREEN	SIG
2	WHITE	SIG GND
3	BLACK	V-
4	RED	V+

- NOTES:
1. WIRE COMING OUT OF LED MODULE IS TERMINATED COMING FROM FACTORY IN NODE.
 2. WIRE TERMINATED WITHIN PDC BOX (RDT-5568S) IS FIELD TERMINATED.
 3. INCOMING SJOOW/SOOW WIRE IS FIELD TERMINATED INTO LOWER SECTION OF LED-6833-1
 4. SEE SHEET 1

SHEET 2 OF 2

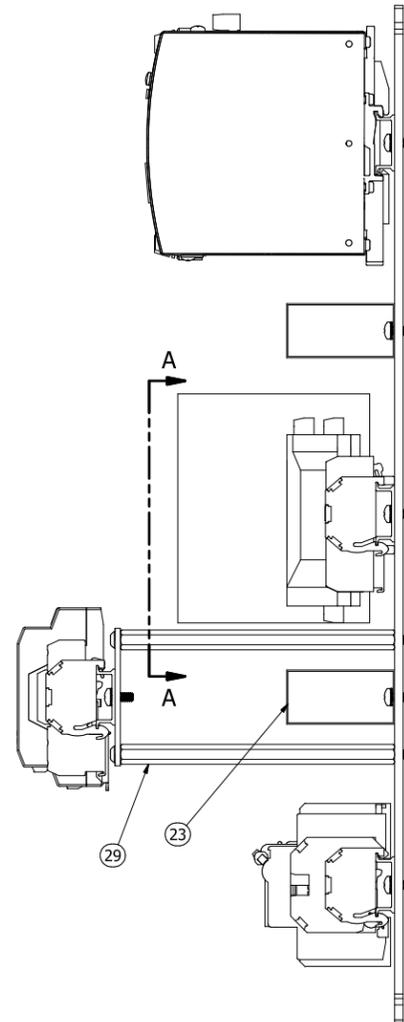
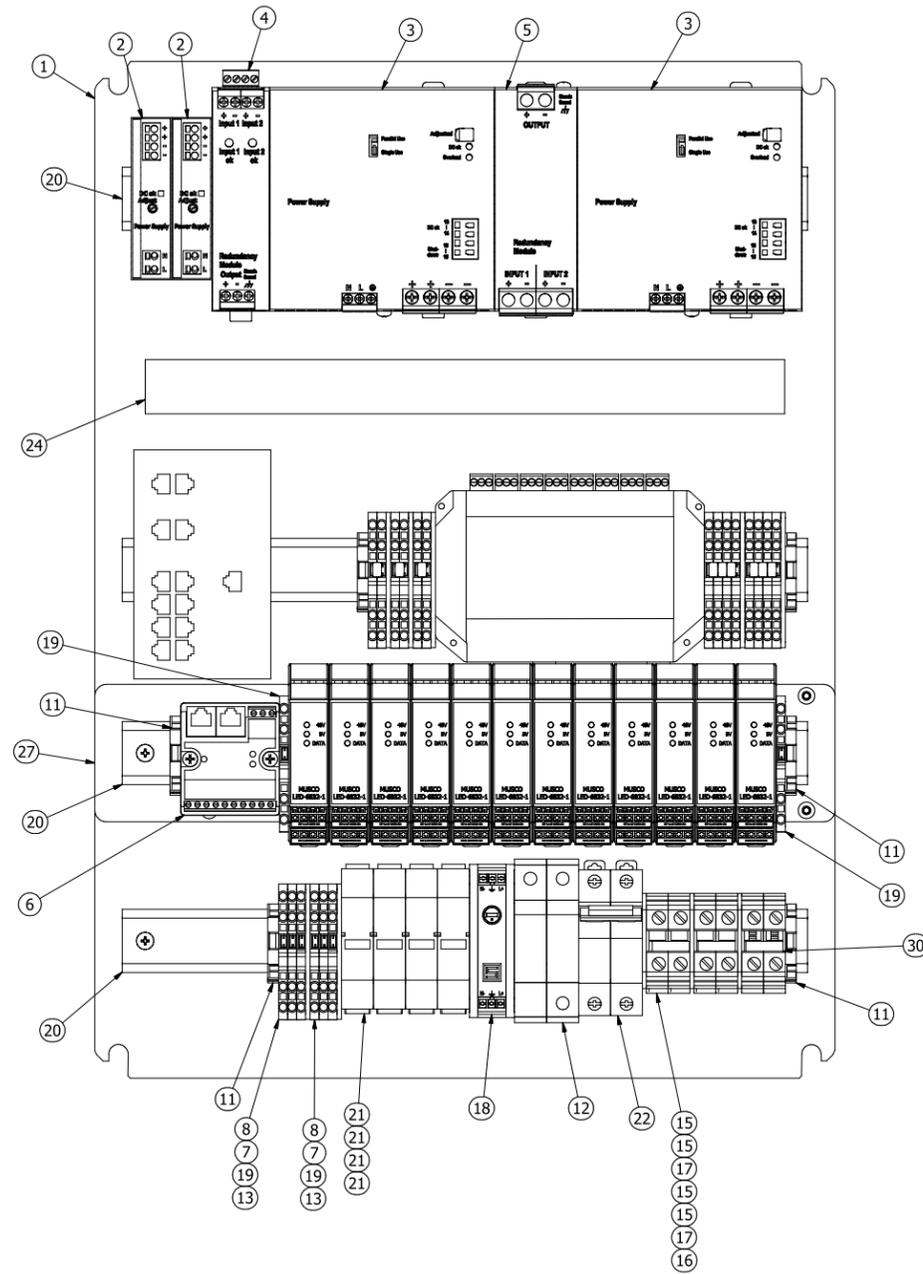
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UNLESS SPECIFIED DIMENSIONS IN INCHES

ASME Y14.5-2018

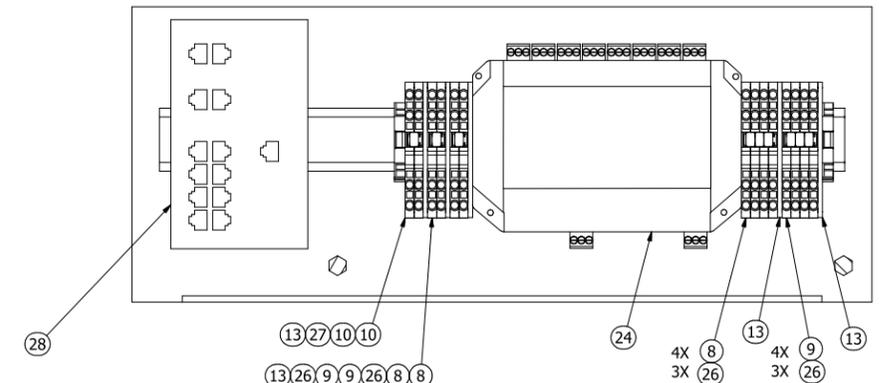
MANUFACTURING: MUSCATINE, IA 52761 CORPORATE OFFICE: OSWALDOGA, IA 52577	DRWN: AKB DATE: 4/29/2024 SHEET SIZE: D
TOLERANCES: XXX ±.01 XXX ±.005 FRACT: #1/32 ANGLES: #1°	SCALE: 1 / 2 DOCUMENT NO. RDT-5546X

A	CREATED	AKB	4/29/24			
REV	DESCRIPTION	DRN	DATE	CKD	APVD	ECN
MATERIAL: **		FINISH: **		TITLE: REF, INSTALLATION LED CABLE STRING LIGHT		



BILL OF MATERIALS PER UNIT									
ITEM	U/M	QTY	QTY	QTY	QTY	QTY	QTY	PART #	DESCRIPTION
1	EA	1	1	1	1	1	1	RDT-5220	BACK PANEL, BAY BRIDGE, ENCLOSURE
2	EA	2	2	2	2	2	2	LED-6837-1	POWER SUPPLY, PULS, 100-240V AC INPUT, 24-48V, 1.5A OUTPUT
3	EA	2	2	2	2	2	2	LED-6838-1	DIN RAIL POWER SUPPLY, 48-54VDC, 20A, 960W
4	EA	1	1	1	1	1	1	LED-6839-1	DIODE REDUNDANCY MODULE, 24V, 20A
5	EA	1	1	1	1	1	1	LED-6840-1	MOSFET REDUNDANCY MODULE, 24V, 40A
6	EA	1	1	1	1	1	1	LED-6841-1	COMPACT IP20 MULTIPROTOCOL ETHERNET I/O STATION
7	EA	2	2	2	2	2	2	CS-2057-1	TERMINAL BLOCK, 12 AWG, GRAY, 4 WIRE
8	EA	8	8	8	8	8	8	CS-2057-2	TERMINAL BLOCK, 12 AWG, BLACK, 4 WIRE
9	EA	6	6	6	6	6	6	CS-2057-3	TERMINAL BLOCK, 12 AWG, RED, 4 WIRE
10	EA	2	2	2	2	2	2	CS-2057-4	TERMINAL BLOCK, 12 AWG, BLUE, 4 WIRE
11	EA	6	6	6	6	6	6	CS-2059-1	END CLAMP, GRAY, SNAP-ON
12	EA	1	1	1	1	1	1	S90-030-32	SPD 50KA 120/150V, 2-WIRE, 1-MODE
13	EA	7	7	7	7	7	7	CS-2058-1	END PLATE, GRAY, 4 WIRE TERMINAL BLOCK
14	EA	2	2	4	4	6	12	LED-6832-1	ASSY, PDC TRANSMITTER WITH HOUSING
15	EA	4	4	4	4	4	4	LS-4903-1	TERMINAL BLOCK, GRAY, 4-16 AWG, 2 WIRE
16	EA	2	2	2	2	2	2	LED-6865-1	TERMINAL BLOCK, GRN/YEL, 4-16 AWG, 2 WIRE
17	EA	3	3	3	3	3	3	LED-6866-1	COVER, END, BIG TERMINAL BLOCK
18	EA	1	1	1	1	1	1	LED-6842-1	EMI FILTER, SCHURTER
19	EA	4	4	4	4	4	4	LED-6867-1	TERMINAL BLOCK, 12AWG, GRN/YEL, 4 WIRE
20	EA	4	4	4	4	4	4	RDT-5047-1	DIN TRACK 34MM X 7.5MM X "15" LG
21	EA	2	2	2	2	2	2	FU-300-2	FUSEHOLDER, TOUCH-SAFE - 2-POLE
22	EA	1	1	1	1	1	1	LS-5196-2	BREAKER, 20A, 2-POLE
23	EA	2	2	2	2	2	2	LED-6843-1	WIRE DUCT SOLID 2PC RIVET
24	EA	1	1	1	1	1	1	LED-6844-1	ADVATEK PIXEL CONTROLLER, 16 PORTS
25	EA	4	4	4	4	4	4	FU-180	FUSE BK/KTK-15
26	EA	9	9	9	9	9	9	CS-2061-1	JUMPER, GRAY, 12 TO 12 AWG
27	EA	1	1	1	1	1	1	RDT-5514D	PLATE, PDC BACK PANEL
28	EA	1	--	--	1	--	1	LED-6845-1	CISCO 8 PORT NETWORK SWITCH
29	EA	4	4	4	4	4	4	HDW-1975-1	STAND-OFF, MALE-FEMALE SS 3/8" HEX X 6" LG, 10-32 THREAD
30	EA	3	3	3	3	3	3	LED-6899-1	JUMPER, 2-12 GA, 2 POSITIONS, RED
31	EA	18	18	18	18	18	18	HDW-1132-4	SCREW, #10-24 X 1/2 SEMS PAN NI
32	EA	4	4	4	4	4	4	MCM-90600A123	SCREW, #10-32 X 3/8" 18-8 SS, TORX

ASSEMBLY #	PART REV	ASSEMBLY DESCRIPTION
RDT-5507S-1	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 12 PDC's, 4 PORT
RDT-5507S-2	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 12 PDC's, 8 PORT
RDT-5507S-3	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 6 PDC's, 4 PORT
RDT-5507S-4	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 4 PDC's, 8 PORT
RDT-5507S-5	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 4 PDC's, 4 PORT
RDT-5507S-6	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 2 PDC's, 4 PORT
RDT-5507S-7	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 2 PDC's, 8 PORT



SECTION A-A
SCALE 1 / 2

NOTES:
1. ASSEMBLE ITEM 25 INTO ITEM 21
2. SEE SHEET 2 FOR WIRING DIAGRAM

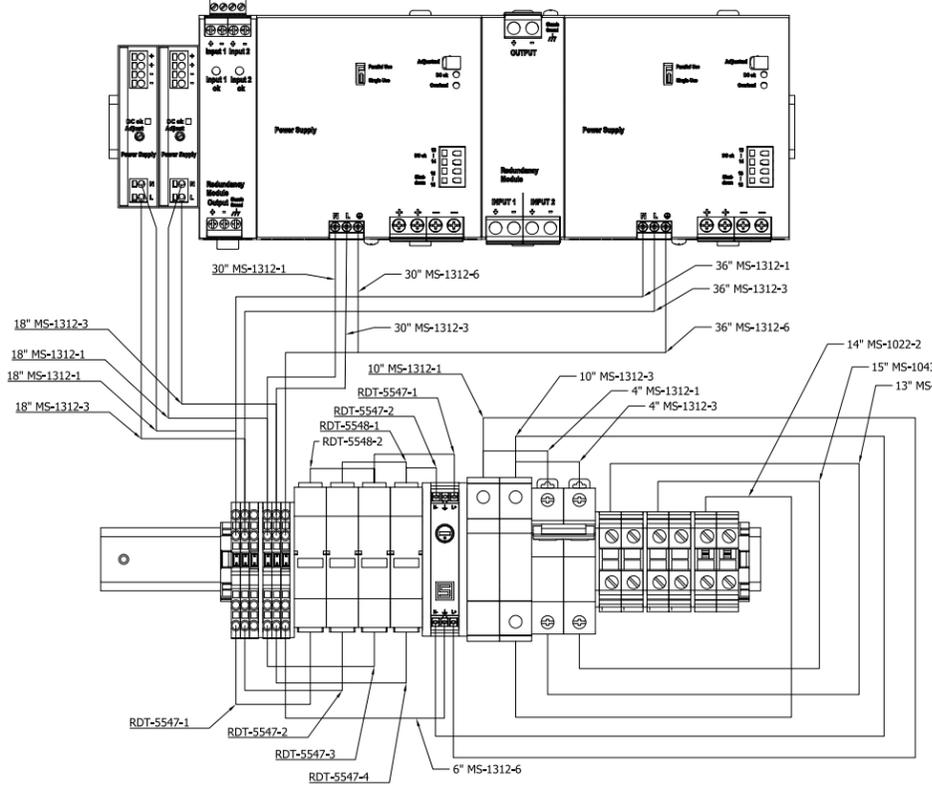
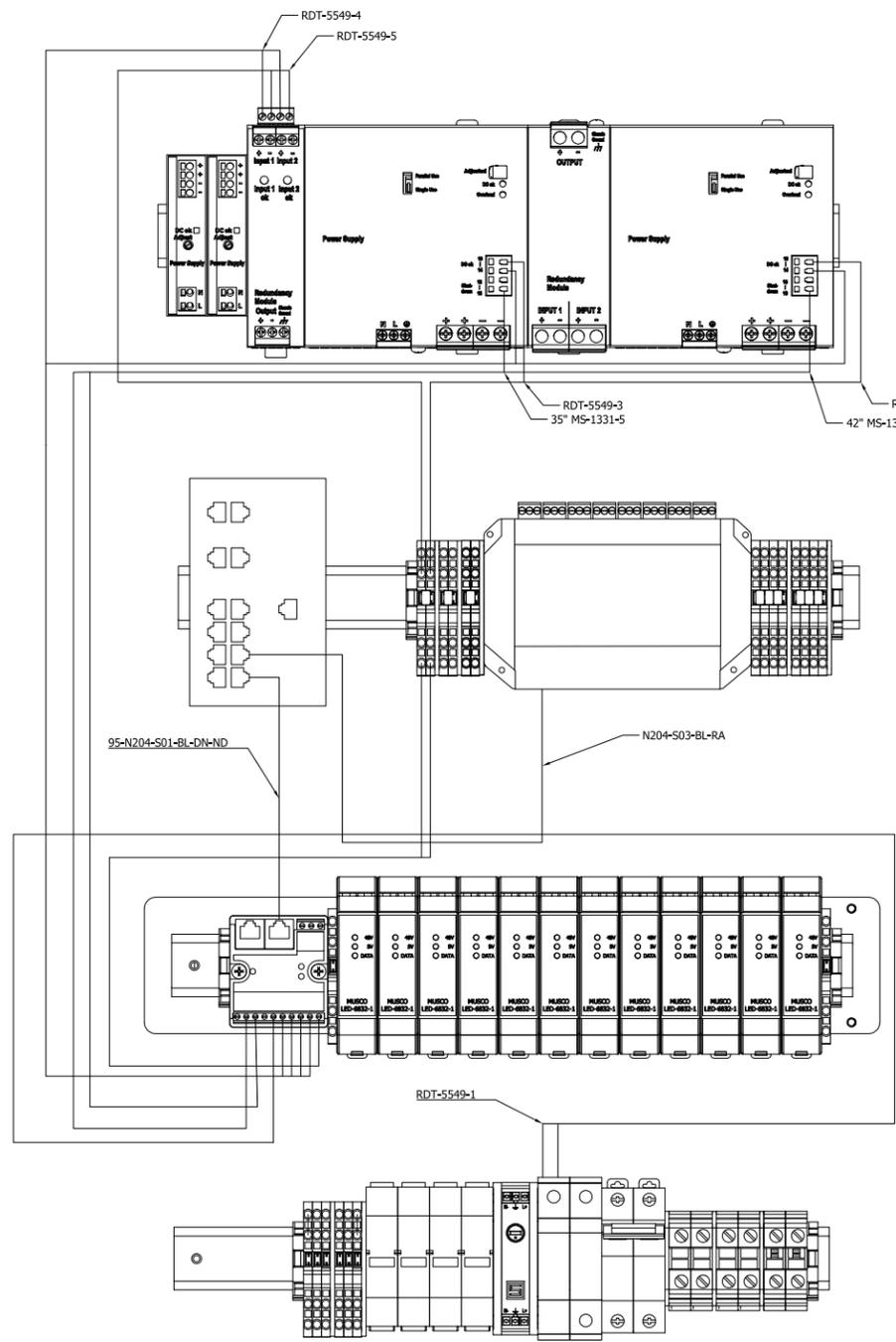
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TOLERANCES:
XX ±.01
XXX ±.005
FRACT: #1/32
ANGLES: #1°
UNLESS SPECIFIED
DIMENSIONS IN INCHES

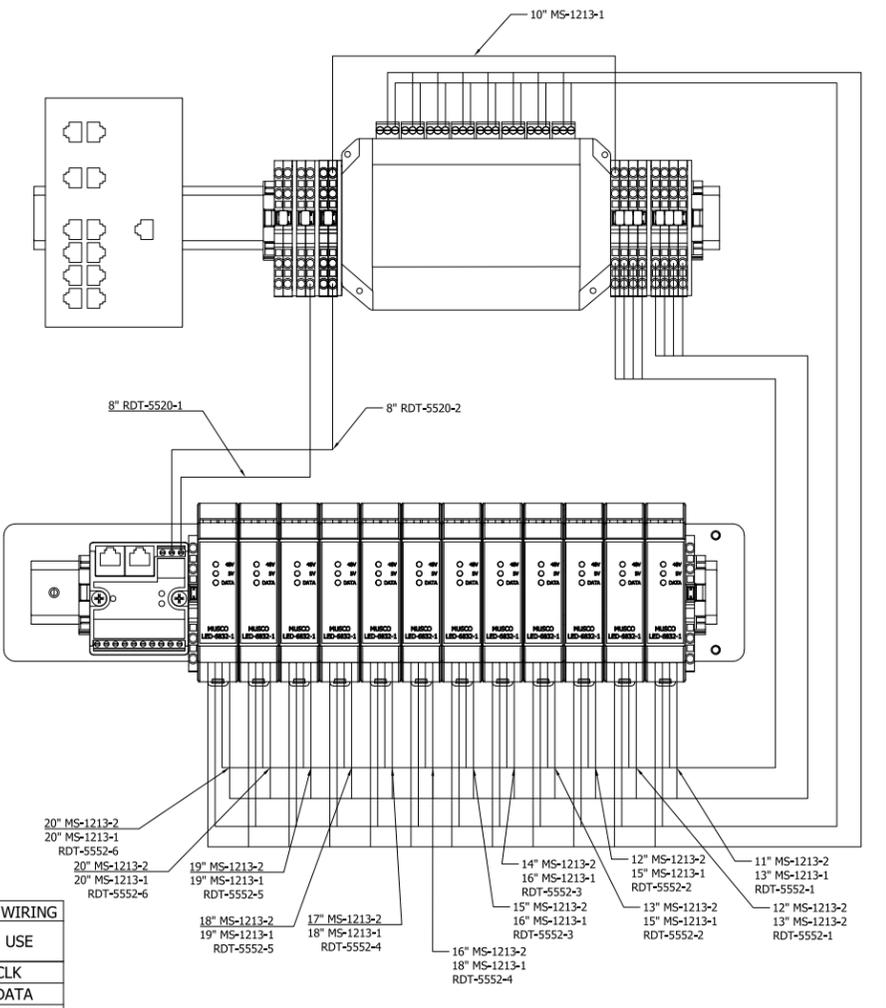
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	MATERIAL: SEE BOM					
	FINISH: NONE					
	TITLE: DOC, ASSY, BRIDGE ENCLOSURE BACK PANEL					

DRWN: AKB
DATE: 12/20/2023
SHEET SIZE: D
SCALE: 1 / 2
DOCUMENT NO.: RDT-5507S-X

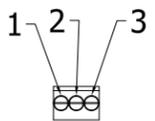


BILL OF MATERIALS PER UNIT											
ITEM#	QTY	PART #	DESCRIPTION								
33	IN	14	14	14	14	14	14	14	14	MS-1022-2	WIRE, 6 AWG, THHN/THWN-2/MTW, GREEN W/YELLOW STRIPE
34	IN	13	13	13	13	13	13	13	13	MS-1043-8	WIRE, 6 AWG, THHN/THWN-2/MTW, BLACK
35	IN	15	15	15	15	15	15	15	15	MS-1043-9	WIRE, 6 AWG, THHN/THWN-2/MTW, WHITE
36	IN	116	116	116	116	116	116	116	116	MS-1312-3	WIRE, 14 AWG, 150C, CROSSLK-WHITE
37	IN	237	237	267	267	299	413	413	413	MS-1312-1	WIRE, 14 AWG, 150C, CROSSLK-BLACK
38	IN	72	72	72	72	72	72	72	72	MS-1312-6	WIRE, 14 AWG, 150C, CROSSLK-GREEN/YELLOW
39	EA	1	1	1	1	1	1	1	1	RDT-5549-1	WIRE ASSY, 20 AWG, BLUE/YELLOW, STRIP/TWISTED, 15"
40	EA	2	2	2	2	2	2	2	2	RDT-5547-1	WIRE ASSY, 14 AWG, BLACK, FEMALE/STRIP, 5"
41	EA	2	2	2	2	2	2	2	2	RDT-5547-2	WIRE ASSY, 14 AWG, WHITE, FEMALE/STRIP, 5"
42	EA	1	1	1	1	1	1	1	1	RDT-5547-3	WIRE ASSY, 14 AWG, BLACK, FEMALE/STRIP, 6"
43	EA	1	1	1	1	1	1	1	1	RDT-5547-4	WIRE ASSY, 14 AWG, WHITE, FEMALE/STRIP, 6"
44	EA	1	1	1	1	1	1	1	1	RDT-5548-1	WIRE ASSY, 14 AWG, WHITE, FEMALE/FEMALE, 4"
45	EA	1	1	1	1	1	1	1	1	RDT-5548-2	WIRE ASSY, 14 AWG, BLACK, FEMALE/FEMALE, 4"
46	IN	103	103	128	128	157	267	267	267	MS-1312-2	WIRE, 14 AWG, 150C, CROSSLK-RED
47	EA	1	1	1	1	1	1	1	1	RDT-5549-2	WIRE ASSY, 20 AWG, BLUE/YELLOW, STRIP/TWISTED, 42"
48	EA	1	1	1	1	1	1	1	1	RDT-5549-3	WIRE ASSY, 20 AWG, BLUE/YELLOW, STRIP/TWISTED, 35"
49	EA	1	1	1	1	1	1	1	1	RDT-5549-4	WIRE ASSY, 20 AWG, BLUE/YELLOW, STRIP/TWISTED, 32/36"
50	EA	1	1	1	1	1	1	1	1	RDT-5549-5	WIRE ASSY, 20 AWG, BLUE/YELLOW, STRIP/TWISTED, 32/37"
51	IN	77	77	77	77	77	77	77	77	MS-1331-5	WIRE, 20 AWG, PVC, BROWN
52	EA	2	2	2	2	2	2	2	2	RDT-5552-1	WIRE ASSY, 18 AWG, GREEN/WHITE, STRIP, 22"
53	EA	--	--	--	--	--	--	--	--	RDT-5552-2	WIRE ASSY, 18 AWG, GREEN/WHITE, STRIP, 24"
54	EA	--	--	--	--	--	--	--	--	RDT-5552-3	WIRE ASSY, 18 AWG, GREEN/WHITE, STRIP, 28"
55	EA	--	--	--	--	--	--	--	--	RDT-5552-4	WIRE ASSY, 18 AWG, GREEN/WHITE, STRIP, 32"
56	EA	--	--	--	--	--	--	--	--	RDT-5552-5	WIRE ASSY, 18 AWG, GREEN/WHITE, STRIP, 34"
57	EA	--	--	--	--	--	--	--	--	RDT-5552-6	WIRE ASSY, 18 AWG, GREEN/WHITE, STRIP, 36"
58	IN	38	38	38	38	38	38	38	38	RDT-5520-1	WIRE, 16 AWG, AWM, 300V RATED, RED
59	IN	38	38	38	38	38	38	38	38	RDT-5520-2	WIRE, 16 AWG, AWM, 300V RATED, BLACK
60	EA	1	1	1	1	1	1	1	1	LED-6900-1	CABLE, CAT6, ETHERNET, RJ45 RIGHT M TO RJ45 M, 36"
61	EA	1	1	1	1	1	1	1	1	LED-6901-1	CABLE, CAT6, ETHERNET, RJ45 DOWN M TO RJ45 M, 12"
62	IN	8	8	8	8	8	8	8	8	MS-1331-6	WIRE, 20 AWG, PVC, BLUE

ASSEMBLY #	PART REV	ASSEMBLY DESCRIPTION
RDT-5507S-1	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 12 PDC's, 4 PORT
RDT-5507S-2	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 12 PDC's, 8 PORT
RDT-5507S-3	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 6 PDC's, 4 PORT
RDT-5507S-4	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 4 PDC's, 8 PORT
RDT-5507S-5	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 4 PDC's, 4 PORT
RDT-5507S-6	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 2 PDC's, 4 PORT
RDT-5507S-7	A	ASSY, BRIDGE ENCLOSURE BACK PANEL, 2 PDC's, 8 PORT



POSITION	WIRE COLOR	USE
1	--	CLK
2	WHT/BLUE	DATA
3	WHITE	GROUND



NOTES:
4. CUT AND STRIP WIRES TO LENGTHS INDICATED PER DIAGRAM



FIELD WIRED

ENCLOSURE POWER/DATA FROM ENCLOSURE TO PDC FACTORY WIRED

POSITION	WIRE COLOR	USE
1	GREEN	SIG
2	WHITE	SIG GROUND
3	BLACK	V-
4	RED	V+

REV	DESCRIPTION	DRN	DATE	CKD	APVD	ECN
001	MANUFACTURING: MUSCOTINE, IA 52761 CORPORATE OFFICE: OSKALOOSA, IA 52577					
	MATERIAL: SEE BOM					
	FINISH: NONE					
	TOLERANCES: XX ±.01 XXX ±.005 FRACT: 1/32 ANGLES: ±1° UNLESS SPECIFIED DIMENSIONS IN INCHES					
	TITLE: DOC, ASSY, BRIDGE ENCLOSURE BACK PANEL					
	SCALE: 1 / 2					
	DOCUMENT NO.					

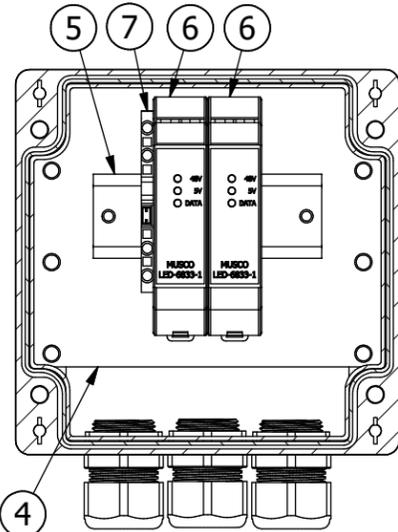
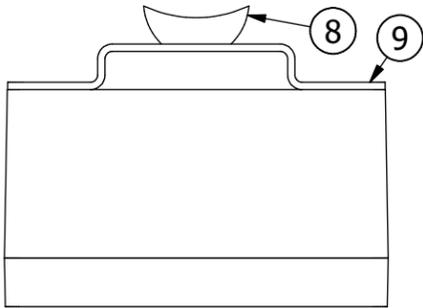
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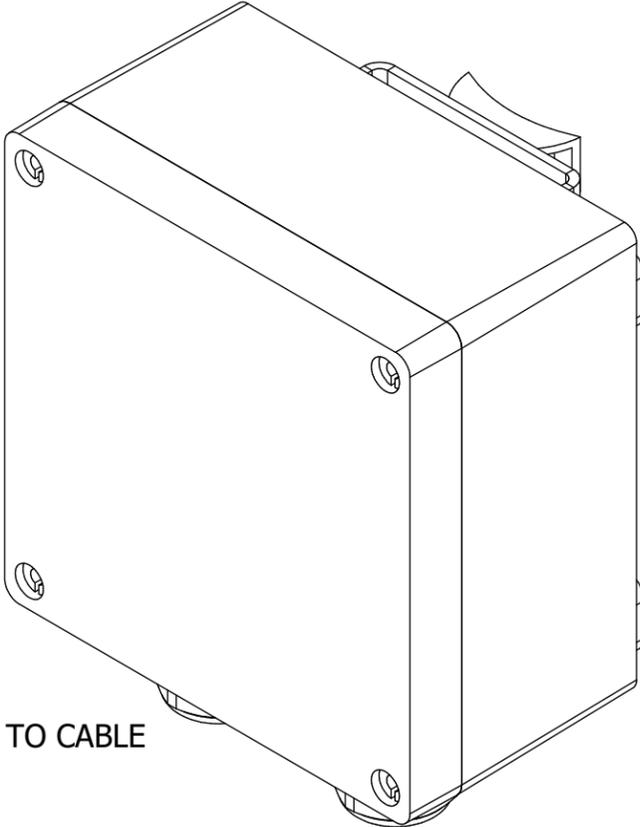
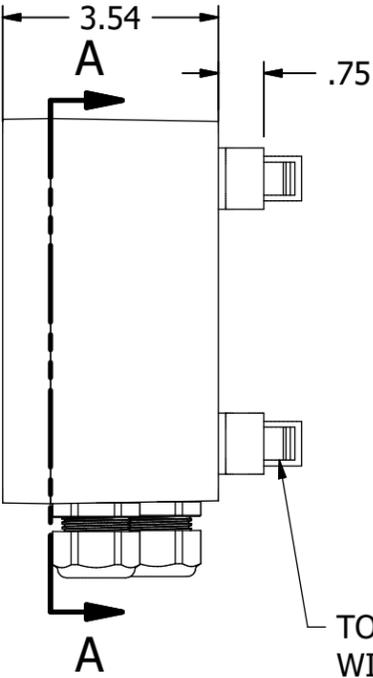
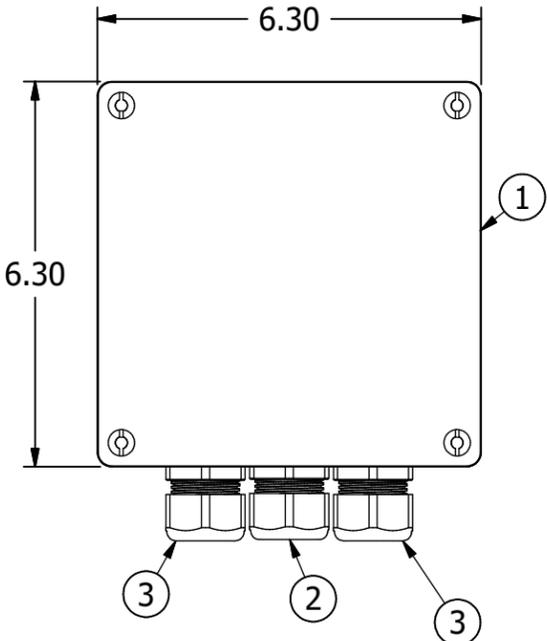
DRWN: AKB
DATE: 12/20/2023
SHEET SIZE: D

BILL OF MATERIALS PER UNIT

ITEM	U/M	QTY	PART #	DESCRIPTION
1	EA	1	CCA16169	ENCLOSURE, 5.98 X 5.98 X 3.23
2	EA	1	MCM-69915K55	CORD GRIP, .51-.71" OD, 3/4" KO, BLACK
3	EA	2	MCM-69915K56	CORD GRIP, .35-.63" OD, 3/4" KO, BLACK
4	EA	1	RDT-5566D	PLATE, REMOTE PDC BACK PANEL
5	EA	1	LS-2523-16	DIN TRACK 34MM X 7.5MM X "A" LG
6	EA	2	LED-6833-1	ASSY, PDC RECEIVER WITH HOUSING
7	EA	1	280-837	TERMINAL BLOCK, 12AWH, GRN/YEL, 4 WIRE
8	EA	2	TC5356	MNTG CRADLE 1.75X.75IN BLACK NY SCR
9	EA	2	RDT-5567D	PLATE, FORMED, REMOTE ENCLOSURE STRAP



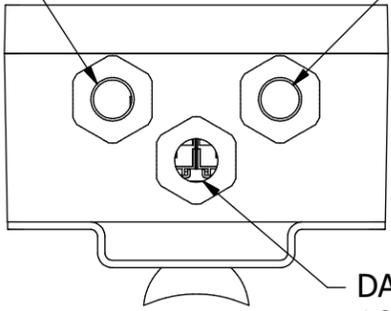
**SECTION A-A
SCALE 1 / 3**



TO BE ATTACHED TO CABLE WITH ZIP-TIE

DATA/POWER OUT
16/4 SJOOW CORD

DATA/POWER OUT
16/4 SJOOW CORD



DATA/POWER IN
16/9 SOOW CORD

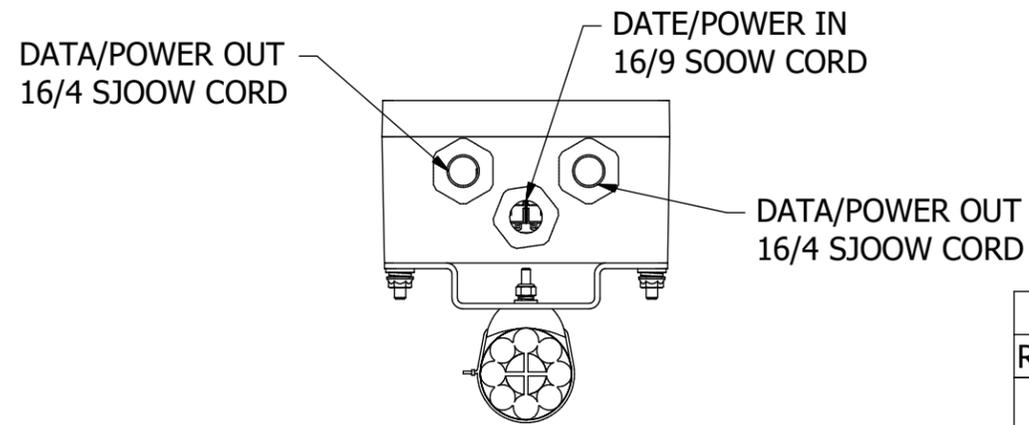
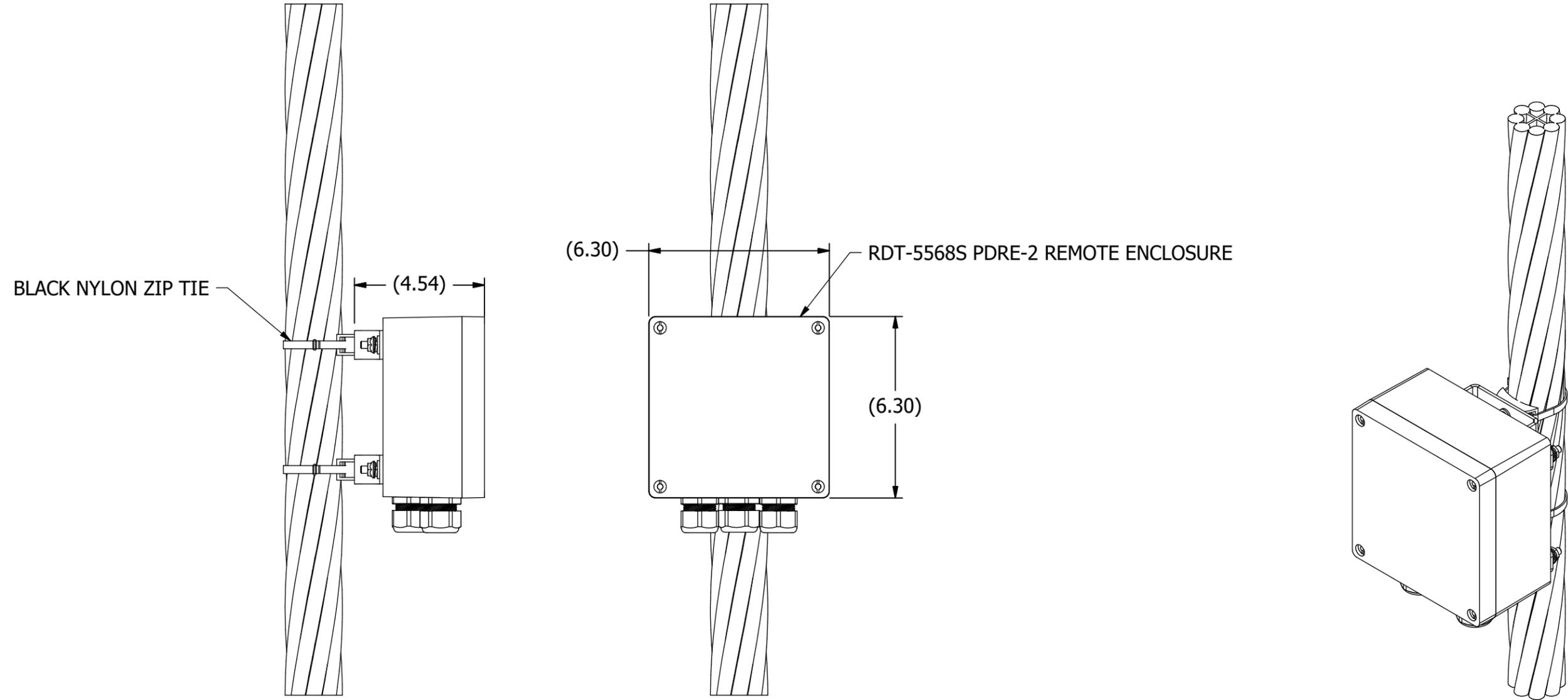
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REV	DESCRIPTION	DRN	DATE	CKD	APVD	ECN
	MANUFACTURING: MUSCATINE, IA 52761 CORPORATE OFFICE: OSKALOOSA, IA 52577					DRWN: AKB
	MATERIAL: SEE BOM					DATE: 3/18/2024
	FINISH: NONE					SHEET SIZE: B
	TITLE: ASSY, REMOTE PDC ENCLOSURE					SCALE: 1 / 3
						DOCUMENT NO. RDT-5568S

TOLERANCES:
.XX ±.01
.XXX ±.005
FRACT: ±1/32
ANGLES: ±1°
UNLESS SPECIFIED
DIMENSIONS IN INCHES



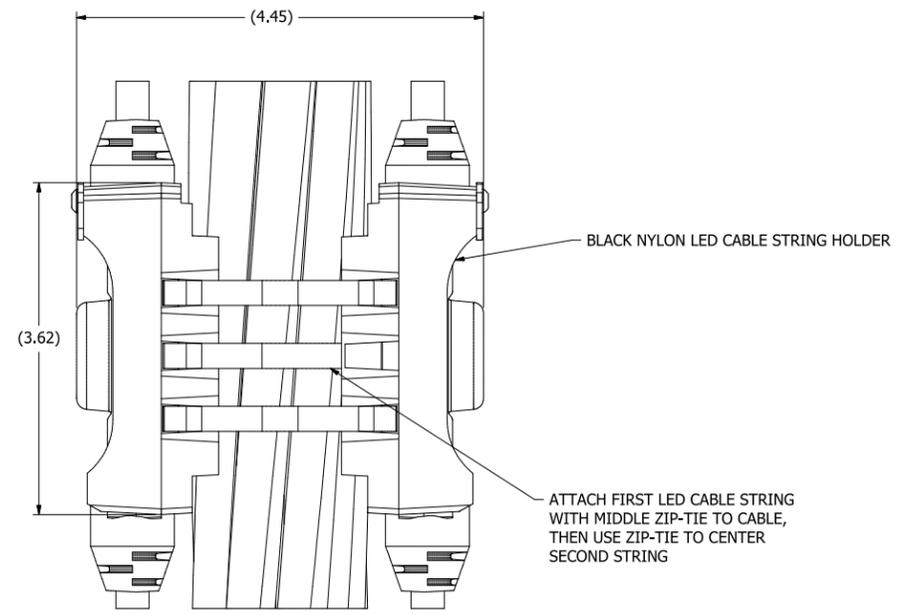
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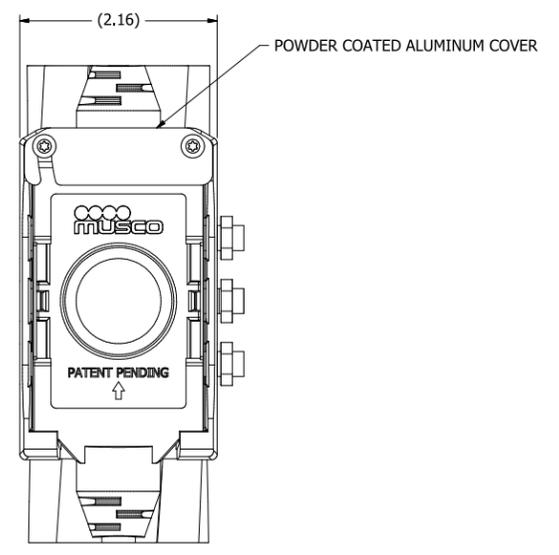


REV	DESCRIPTION	DRN	DATE	CKD	APVD	ECN
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	TOLERANCES: .XX ±.01 .XXX ±.005 FRACT: ±1/32 ANGLES: ±1°	MATERIAL:		SCALE: 1 / 4		
		FINISH:		DOCUMENT NO.		
		TITLE: REF, PDRE-2 REMOTE ENCLOSURE INSTALLATION		217258X6		

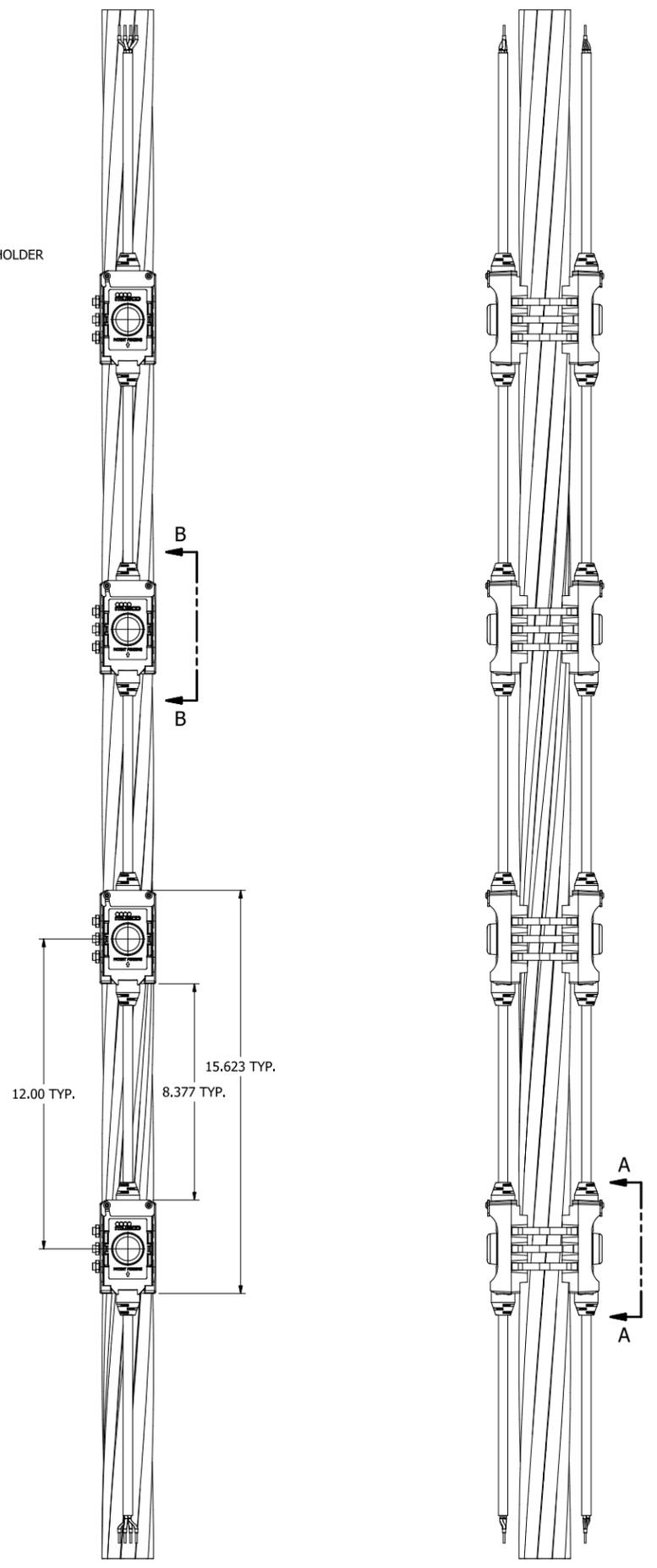
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VIEW B-B
SCALE 1 / 1

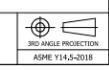


VIEW A-A
SCALE 1 / 1



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UNLESS SPECIFIED
DIMENSIONS IN INCHES

REV	DESCRIPTION	DRN	DATE	CKD	APVD	ECN
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	MATERIAL:					
	FINISH:					
	TOLERANCES: XX ±.01 XXX ±.005 FRACT: #1/32 ANGLES: #1°					
	TITLE: BAY BRIDGE METHOD OF ATTACHMENT REFERENCE					
						SCALE: 1 / 3
						DOCUMENT NO. 217258X4

DRWN: AKB
DATE: 3/14/2024
SHEET SIZE: D

Chart No. G6 Freeway Lane Requirements																									
County: SF										Route/Direction: 80/WB										Post Mile: 7.8/5.6					
Closure limits: From Treasure Island on-ramp to Beale Street																									
Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon-Thu	2	1	1	2																		4	4	3	2
Fri	2	1	1	2																			4	4	3
Sat	3	2	2	2	3	4	4																		4
Sun	3	2	2	1	2	2	3	4															4	4	2
Legend:																									
1 Provide at least 1 through freeway lane open in the direction of travel.																									
2 Provide at least 2 adjacent through freeway lanes open in the direction of travel.																									
3 Provide at least 3 adjacent through freeway lanes open in the direction of travel.																									
4 Provide at least 4 adjacent through freeway lanes open in the direction of travel.																									
Work is allowed within the highway where a shoulder or lane closure is not required.																									
REMARKS:																									

ENCROACHMENT PERMIT GENERAL PROVISIONS

TR-0045 (REV. 12/2022)

1. **AUTHORITY:** The California Department of Transportation (“Department”) has authority to issue encroachment permits under Division 1, Chapter 3, Article 1, Sections 660 through 734 of the Streets and Highways Code.
2. **REVOCACTION:** Encroachment permits are revocable on five (5) business days’ notice unless otherwise stated on the permit or otherwise provided by law, and except as provided by law for public corporations, franchise holders, and utilities. Notwithstanding the foregoing, in an emergency situation as determined by the Department, an encroachment permit may be revoked immediately. These General Provisions and any applicable Special Provisions are subject to modification or abrogation by the Department at any time. Permittees’ joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State of California (“State”) highway right-of-way may be exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay encroachment permit fees when due may result in rejection of future applications, denial of encroachment permits, and revocation of the encroachment permit if already issued.
4. **PERMITTEE AUTHORIZATION FOR OTHERS TO PERFORM WORK:** This encroachment permit allows only the Permittee and/or Permittee’s authorized contractor or agent to work within or encroach upon the State highway right-of-way, and the Permittee may not assign or transfer this encroachment permit. Any attempt to assign or transfer this encroachment permit shall be null and void. Permittee shall provide to the Department a list of Permittee’s authorized contractors/agents, in the form and at the time specified by the Department but if no time is specified then no later than the pre-construction meeting. Permittee shall keep the list current and shall provide updates to the Department immediately upon any change to the list of authorized contractors/agents, including but not limited the addition, removal, or substitution of an authorized contractor/agent, or a new address or contact information for an existing authorized contractor/agent. Permittee is responsible for the acts and/or omissions of any person or entity acting on behalf of the Permittee, even if such person or entity is not included on Permittee’s list of authorized contractors and/or agents.
5. **ACCEPTANCE OF PROVISIONS:** Permittee, and the Permittee’s authorized contractors and/or agents, understand and agree to accept and comply with these General Provisions, the Special Provisions, any and all terms and/or conditions contained in or incorporated into the encroachment permit, and all attachments to the encroachment permit (collectively “the Permit Conditions”), for any encroachment, work, and/or activity to be performed under this encroachment permit and/or under color of authority of this encroachment permit. Permittee understands and agrees the Permit Conditions are applicable to and enforceable against Permittee as long as the encroachment remains in, under, or over any part of the State highway right-of-way. The Permittee’s authorized contractors and/or agents, are also bound by the Permit Conditions. Non-compliance with the Permit Conditions by the Permittee’s authorized contractor and/or agent will be deemed non-compliance by the Permittee.
6. **BEGINNING OF WORK:** When traffic is not impacted (see General Provision Number 35), the Permittee must notify the Department’s representative two (2) business days before starting permitted work. Permittee must notify the Department’s representative if the work is to be interrupted for a period of five (5) business days or more, unless otherwise agreed upon. All work must be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this encroachment permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within State highway right-of-way must conform to all applicable Departmental construction standards including but not limited to: Standard Specifications, Standard Plans, Project Development Procedures Manual, Highway Design Manual and Special Provisions.
Other than as expressly provided by these General Provisions, the Special Provisions, the Standard Specifications, Standard Plans, and other applicable Departmental standards, nothing in these General Provisions is intended to give any third party any legal or equitable right, remedy, or claim with respect to the encroachment permit and/or to these General Provisions or any provision herein. These General Provisions are for the sole and exclusive benefit of the Permittee and the Department.
Where reference is made in such standards to “Contractor” and “Engineer,” these are amended to be read as “Permittee” and “Department’s representative,” respectively, for purposes of this encroachment permit.
8. **PLAN CHANGES:** Deviations from plans, specifications, and/or the Permit Conditions as defined in General Provision Number 5 are not allowed without prior approval from the Department’s representative and the Federal Highway Administration (“FHWA”) representative if applicable.
9. **RIGHT OF ENTRY, INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. The United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, and other state, and federal agencies, and the FHWA, through their agents or representatives, must have full access to highway

ENCROACHMENT PERMIT GENERAL PROVISIONS

facilities/encroachment area, at any and all times for the purpose of inspection, maintenance, activities needed for construction/reconstruction, and operation of the State highway right-of-way.

Upon completion of work, Permittee must request a final inspection for acceptance and approval by the Department. The local public agency Permittee must not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.

10. **PERMIT AT WORKSITE:** Permittee and Permittee's authorized contractors/agents must keep the permit package and current list of authorized contractors/agents, or copies thereof, at the work site at all times and must show such documents upon request to any Department representative or law enforcement officer. If the permit package or current list of authorized contractors/agents, or copies thereof, are not kept and made available at the work site at all times, then all work must be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee must yield start of work to ongoing, prior authorized work adjacent to or within the limits of the Permittee's project site. When existing encroachments conflict with Permittee's work, the Permittee must bear all cost for rearrangements (e.g., relocation, alteration, removal, etc.).
12. **PERMITS, APPROVALS, AND CONCURRENCES FROM OTHER AGENCIES AND/OR ENTITIES:** This encroachment permit is invalidated if the Permittee has not obtained all permits, approvals, and concurrences necessary and required by law, including but not limited to those from the California Public Utilities Commission ("CPUC"), California Occupational Safety and Health Administration ("Cal-OSHA"), local and state and federal environmental agencies, the California Coastal Commission, and any other public agency and/or entity having jurisdiction. Permittee is responsible for providing notice of the encroachment to, and obtaining concurrence from, any person or entity (whether public or private) affected by the scope of work described in the encroachment permit, regardless of whether such notice or concurrence is required by law; the Department is not responsible to provide such notice or obtain such concurrence. Permittee warrants all such permits, approvals, and concurrences have been obtained before beginning work under this encroachment permit. The Department may, at the Department's discretion, require the Permittee to demonstrate that Permittee has obtained all such permits, approvals, and concurrences, and Permittee shall demonstrate this at the time and in the manner specified by the Department.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe continuous passageway must be maintained through the work area at existing pedestrian or bicycle facilities. At no time must pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades must be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour

pedestrians to facilities across the street. Attention is directed to Section 7-1.04 "Public Safety," and to Section 12-4.04 "Temporary Pedestrian Access Routes," and to Section 16-2.02 "Temporary Pedestrian Facility," of the Department's Standard Specifications, and to California Vehicle Code section 21760, subdivision (c).

14. **PUBLIC TRAFFIC CONTROL:** The Permittee must provide traffic control protection, warning signs, lights, safety devices, etc., and take all other measures necessary for the traveling public's safety as required by law and/or the Department. While providing traffic control, the needs of all road users, including but not limited to motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act, must be an essential part of the work activity.
Lane, Bike Lane, Sidewalk, Crosswalk, and/or shoulder closures must comply with the Department's Standard Specifications and Standard Plans for Temporary Traffic Control Systems & Temporary Pedestrian Access Routes, and with the applicable Special Provisions. Where issues are not addressed in the Standard Specifications, Standard Plans, and/or Special Provisions, the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control) must be followed.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee must plan and conduct work so as to create the least possible inconvenience to the traveling public (motorized vehicles, unmotorized vehicles such as bicycles, pedestrians, person(s) with disabilities, etc.), such that traffic is not unreasonably delayed.
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this encroachment permit. If encroachment permit Special Provisions allow for the storage of equipment or materials within the State highway right-of-way, the equipment and material storage must also comply with Section 7-1.04, Public Safety, of the Department's Standard Specifications.
17. **CARE OF DRAINAGE:** Permittee must provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Department's Standard Specifications, Standard Plans, and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN STATE HIGHWAY RIGHT-OF-WAY:** Permittee is responsible for restoration and repair of State highway right-of-way resulting from permitted work (Streets and Highways Code, section 670 et seq.).
19. **STATE HIGHWAY RIGHT-OF-WAY CLEAN UP:** Upon completion of work, Permittee must remove and dispose of all scraps, refuse, brush, timber, materials, etc. off the State highway right-of-way. The aesthetics of the highway must be as it was before work started or better.
20. **COST OF WORK:** Unless stated otherwise in the encroachment permit or a separate written agreement with the Department, the Permittee must bear all costs

ENCROACHMENT PERMIT GENERAL PROVISIONS

- incurred for work within the State highway right-of-way and waives all claims for indemnification or contribution from the United States, the State, the Department, and from the Directors, officers, and employees of the State and/or the Department. Removal of Permittee's personal property and improvements shall be at no cost to the United States, the State, and the Department.
21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the Permittee actual costs at the currently set Standard Hourly Rate for encroachment permits.
22. **AS-BUILT PLANS:** When required, Permittee must submit one (1) set of folded as-built plans within thirty (30) calendar days after completion and acceptance of work in compliance with requirements listed as follows:
- a) Upon completion of the work provided herein, the Permittee must submit a paper set of As-Built plans to the Department's representative.
 - b) All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
 - c) The plans are to be prominently stamped or otherwise noted "AS-BUILT" by the Permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a Department stamp, or by signature of the Department's representative, must be used for producing the As-Built plans.
 - d) If construction plans include signing or striping, the dates of signing or striping removal, relocation, or installation must be shown on the As-Built plans when required as a condition of the encroachment permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage must show the removal, relocation, and installation dates of the appropriate staged striping and signing.
 - e) As-Built plans must contain the Encroachment Permit Number, County, Route, and Post Mile on each sheet.
 - f) The As-Built Plans must not include a disclaimer statement of any kind that differs from the obligations and protections provided by sections 6735 through 6735.6 of the California Business and Professions Code. Such statements constitute non-compliance with Encroachment Permit requirements and may result in the Department retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future encroachment permits or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the State highway right-of-way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt encroachment permit is issued to the Permittee for the purpose of providing a notice and record of work. The Permittee's prior rights must be preserved without the intention of creating new or different rights or obligations.
- "Notice and Record Purposes Only" must be stamped across the face of the encroachment permit.
24. **BONDING:** The Permittee must file bond(s), in advance, in the amount(s) set by the Department and using forms acceptable to the Department. The bonds must name the Department as obligee. Failure to maintain bond(s) in full force and effect will result in the Department stopping all work under this encroachment permit and possibly revoking other encroachment permit(s). Bonds are not required of public corporations or privately-owned utilities unless Permittee failed to comply with the provisions and/or conditions of a prior encroachment permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedure section 337.15. A local public agency Permittee also must comply with the following requirements:
- a) In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local public agency Permittee agrees to require the construction contractor to furnish both a payment and performance bond in the local public agency's name with both bonds complying with the requirements set forth in Section 3-1.05 Contract Bonds of the Department's Standard Specifications before performing any project construction work.
 - b) The local public agency Permittee must defend, indemnify, and hold harmless the United States, the State and the Department, and the Directors, officers, and employees of the State and/or Department, from all project construction related claims by contractors, subcontractors, and suppliers, and from all stop notice and/or mechanic's lien claimants. The local public agency also agrees to remedy, in a timely manner and to the Department's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the Permittee must comply with said notice at the Permittee's sole expense.
26. **ENVIRONMENTAL:**
- a) **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified archaeologist who must evaluate the site at Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.
 - b) **HAZARDOUS MATERIALS:** If any hazardous waste or materials (such as underground storage tanks, asbestos pipes, contaminated soil, etc.) are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified hazardous

ENCROACHMENT PERMIT GENERAL PROVISIONS

waste/material specialist who must evaluate the site at the Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.

Attention is directed to potential aerially deposited lead (ADL) presence in unpaved areas along highways. It is the Permittee's responsibility to take all appropriate measures to protect workers in conformance with California Code of Regulations Title 8, Section 1532.1, "Lead," and with Cal-OSHA Construction Safety Orders, and to ensure roadway soil management is in compliance with Department of Toxic Substances Control (DTSC) requirements.

- c) **BIOLOGICAL:** If any regional, state, or federally listed biological resource is identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified biologist who must evaluate the site at Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.
27. **PREVAILING WAGES:** Work performed by or under an encroachment permit may require Permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the California Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements must be directed to the California Department of Industrial Relations.
28. **LIABILITY, DEFENSE, AND INDEMNITY:** The Permittee agrees to indemnify and save harmless the United States, the State, the Department, and the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind, and description, including but not limited to those brought for or on account of property damage, invasion of privacy, violation or deprivation of a right under a state or federal law, environmental damage or penalty, or injury to or death of any person including but not limited to members of the public, the Permittee, persons employed by the Permittee, and/or persons acting on behalf of the Permittee, arising out of or in connection with: (a) the issuance and/or use of this encroachment permit; and/or (b) the encroachment, work, and/or activity conducted pursuant to this encroachment permit, or under color of authority of this encroachment permit but not in full compliance with the Permit Conditions as defined in General Provision Number 5 ("Unauthorized Work or Activity"); and/or (c) the installation, placement, design, existence, operation, and/or maintenance of the encroachment, work, and/or activity; and/or (d) the failure by the Permittee, or by anyone acting for or on behalf of the Permittee, to perform the Permittee's obligations under any part of the Permit Conditions as defined in General Provision Number 5, in respect to maintenance or any other obligation; and/or (e) any change to the Department's property or adjacent

property, including but not limited to the features or conditions of either of them, made by the Permittee or anyone acting on behalf of the Permittee; and/or (f) a defect or obstruction related to or caused by the encroachment, work, and/or activity whether conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constituting Unauthorized Work or Activity, or from any cause whatsoever. The duty of the Permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code.

It is the intent of the Department and the Permittee that except as prohibited by law, the Permittee will defend, indemnify, and hold harmless as set forth in this General Provision Number 28 regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of: the United States, the State; the Department; the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors; the Permittee; persons employed by the Permittee; and/or persons acting on behalf of the Permittee.

The Permittee waives any and all rights to any type of expressed or implied indemnity from or against the United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors.

The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the encroachment, work, and/or activity whether conducted pursuant to this encroachment permit or constituting Unauthorized Work or Activity, and further agrees to defend, indemnify, and save harmless the United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, penalties, liability, suits, or actions of every name, kind, and description arising out of or by virtue of the Americans with Disabilities Act.

The Permittee understands and agrees the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, are not personally responsible for any liability arising from or by virtue of this encroachment permit.

For the purpose of this General Provision Number 28 and all paragraphs herein, "contractors of the State and/or of the Department" includes contractors, and their subcontractors, under contract to the State and/or the Department.

This General Provision Number 28 and all paragraphs herein take effect immediately upon issuance of this encroachment permit, and apply before, during, and after the encroachment, work, and/or activity

ENCROACHMENT PERMIT GENERAL PROVISIONS

contemplated under this encroachment permit, whether such work is in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, except as otherwise provided by California law. The Permittee's obligations to defend, indemnify, and save harmless under this General Provision Number 28 take effect immediately upon issuance of this encroachment permit and have no expiration date, including but not limited to situations in which this encroachment permit expires or is revoked, the work or activity performed under this encroachment permit is accepted or not accepted by the Department, the encroachment, work, and/or activity is conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, and/or no work or activity is undertaken by the Permittee or by others on the Permittee's behalf.

If the United States or an agency, department, or board of the United States is the Permittee, the first two paragraphs of this General Provision Number 28 (beginning "The Permittee agrees to indemnify..." and "It is the intent of the parties...") are replaced by the following paragraph:

Claims for personal injury, death, or property damage allegedly caused by the negligent or wrongful act or omission of any employee of the United States acting within the scope of their official duties are subject to the Federal Tort Claims Act, as amended, 28 U.S.C. § 1346 and § 2671 et seq. (Chapter 171).

29. **NO PRECEDENT ESTABLISHED:** This encroachment permit is issued with the understanding that it does not establish a precedent.
30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**
- a) As part of the consideration for being issued this encroachment permit, the Permittee, on behalf of Permittee and on behalf of Permittee's personal representatives, successors in interest, and assigns, does hereby covenant and agree that:
 - i) No person on the grounds of race, color, or national origin may be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
 - ii) That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination must be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
 - iii) That such discrimination must not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the State highway right-of-way.
 - iv) That the Permittee must use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal

Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.

- b) That in the event of breach of any of the above nondiscrimination covenants, the State and the Department have the right to terminate this encroachment permit and to re-enter and repossess said land and the facilities thereon and hold the same as if said permit had never been made or issued.

31. **MAINTENANCE:** The Permittee is responsible at Permittee's sole expense for the encroachment, and the inspection, maintenance, repair, and condition thereof, and is responsible to ensure the encroachment does not negatively impact State highway safety, maintenance, operations, construction, State facilities, activities related to construction/reconstruction, or other encroachments. The Permittee's obligations in the preceding sentence take effect immediately upon issuance of this encroachment permit and continue until the encroachment is entirely and permanently removed. Additional encroachment permits or approval documents may be required authorizing work related to inspection, repair, and/or maintenance activities. Contact the Department for information.

32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code section 682.5 and 682.7, the Department is not responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the United States, the State, the Department, and the Directors, officers, employees, agents, and contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of any activity for which this encroachment permit is issued.

The Permittee is required, as a condition of this encroachment permit, for any event that awards prize compensation to competitors in gendered categories, for any participant level that receives prize compensation, to ensure the prize compensation for each gendered category is identical at each participant level. (Streets and Highways Code, section 682.7.)

The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the event, and further agrees to defend, indemnify, and save harmless the United State, the State and the Department, and the Directors, officers, and employees of the State and/or Department, including but not limited to the Director of the Department and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of or by virtue of the Americans with Disabilities Act.

33. **PRIVATE USE OF STATE HIGHWAY RIGHT-OF-WAY:** State highway right-of-way must not be used for private purposes without compensation to the State. The gifting

ENCROACHMENT PERMIT GENERAL PROVISIONS

of public property uses and therefore public funds is prohibited under the California Constitution, Article XVI, Section 6.

34. **FIELD WORK REIMBURSEMENT:** Permittee must reimburse the Department for field work performed by or on behalf of the Department to correct or remedy issues created by the Permittee or by others acting on behalf of the Permittee, including but not limited to hazards or damaged facilities, or to clear refuse, debris, etc. not attended to by the Permittee or by others acting on behalf of the Permittee.
35. **LANE CLOSURE REQUEST SUBMITTALS AND NOTIFICATION OF CLOSURES TO THE DEPARTMENT:** Lane closure request submittals and notifications must be in accordance with Section 12-4.02, and Section 12.4-04, of the Department's Standard Specifications or as directed by the Department's representative. The Permittee must notify the Department's representative and the Traffic Management Center ("TMC") before initiating a lane closure or conducting an activity that may cause a traffic impact. In emergency situations when the corrective work or the emergency itself may affect traffic, the Department's representative and the TMC must be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The Permittee, upon notification by the Department's representative, must immediately suspend all traffic lane, bike lane, sidewalk, crosswalk, and/or shoulder closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension must be borne by the Permittee.
37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code section 4216 et seq., including but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The Permittee must provide notification to the Department representative at least five (5) business days before, and the regional notification center at least forty-eight (48) hours before, performing any excavation work within the State highway right-of-way.
38. **COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA):** All work within the State highway right-of-way to construct and/or maintain any public facility must be designed, maintained, and constructed strictly in accordance with all applicable Federal Access laws and regulations (including but not limited to Section 504 of the Rehabilitation Act of 1973, codified at 29 U.S.C. § 794), California Access laws and regulations relating to ADA, along with its implementing regulations, Title 28 of the Code of Federal Regulations Parts 35 and 36 (28 C.F.R., Ch. I, Part 35, § 35.101 et seq., and Part 36, § 36.101 et seq.), Title 36 of the Code of Federal Regulations Part 1191 (36 C.F.R., Ch. XI, Part 1191, § 1119.1 et seq.), Title 49 of the Code of Federal Regulations Part 37 (49 C.F.R., Ch. A, Part 37, § 37.1 et seq.), the United States Department of Justice Title II and Title III for the ADA, and California Government Code section 4450 et seq., which require public facilities be made accessible to persons with disabilities.
- Notwithstanding the requirements of the previous paragraph, all construction, design, and maintenance of public facilities must also comply with the Department's Design Information Bulletin 82, "Pedestrian Accessibility Guidelines for Highway Projects" and Standard Plans & Specifications on "Temporary Pedestrian Access Routes."
39. **STORMWATER:** The Permittee is responsible for full compliance with the following:
- For all projects, the Department's Storm Water Program and the Department's National Pollutant Discharge Elimination System (NPDES) Permit requirements under Order No. 2012-0011-DWQ, NPDES No CAS000003; and
 - In addition, for projects disturbing one acre or more of soil, with the California Construction General Permit Order No. 2009-0009-DWQ, NPDES No CAS000002; and
 - In addition, for projects disturbing one acre or more of soil in the Lahontan Region with Order No. R6T-2016-0010, NPDES No CAG616002.
 - For all projects, it is the Permittee's responsibility to install, inspect, repair, and maintain all facilities and devices used for water pollution control practices (Best Management Practices/BMPs) before performing daily work activities.

ART PROGRAM (AP)

In addition to the attached Encroachment Permit General Provisions (TR-0045), the following special provisions are also applicable:

1. Artwork located within State right of way will be considered a gift to the people of California.
2. Caltrans reserves the right to reproduce the artwork for publicity type purposes.
3. No commercial advertising on State right of way is allowed. Any identification of the donor or sponsor must have prior approval by Caltrans.
4. The permittee must maintain the integrity of the artwork until further notice. The permittee agrees to remove the artwork if so ordered by Caltrans.
5. The permittee shall abide by Caltrans' safety rules and regulations, including traffic control.

ENCROACHMENT PERMIT SPECIAL PROVISIONS**STORMWATER SPECIAL PROVISIONS FOR MINIMAL OR NO IMPACT (SWSP)**

TR-0400 (Rev. 09/2024)

1. **GENERAL:** The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities ranging from more than a quarter of an acre to less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP). These provisions must be included with the permit for projects that require an Erosion and Sediment Control Plan (ESCP). The Permittee must comply with the following Special Provisions and the direction of the State Representative. All Stormwater Best Management Practices (BMPs) must conform to Section 13 Water Pollution Control of the Caltrans' Standard Specifications.
2. **NPDES REQUIREMENTS:** The Permittee must be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements (Order 2022-0033-DWQ, NPDES No. CAS000003, and any amendments and/or subsequent orders). Projects in construction with active waste discharge identification number (WDID number) may continue their coverage with the California Construction General Permit CGP (Order 2009-0009-DWQ, NPDES No. CAS000002, and any amendments and/or subsequent orders) until 9/1/2025. Privately funded projects may not extend their 2009 CGP regulatory coverage and are responsible for compliance with the CGP (Order WQ 2022-0057-DWQ NPDES No. CAS000002) after 9/1/2023. It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices (BMPs) before performing daily work activities. Installation, inspection and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, 9) tracking controls, and 10) illicit connection, illegal discharge detection and reporting. The Permittee must report to the State Representative when discharges enter receiving waters, adjacent property, and drainage systems. The Permittee must also address any illicit discharges or illegal dumping prior to start of daily work schedule by cleaning them up. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency must be provided to the State Representative within forty-eight (48) hours of reported activity. For additional information on stormwater compliance, visit the [State Water Resources Control Board's Storm Water Program](#).
3. **RESPONSIBILITY FOR DEBRIS REMOVAL:** The Permittee must be responsible for preventing project related sediment, trash, debris, and other construction waste from entering the street, storm drains, drainage swales, stormwater conveyance infrastructure, local creeks, or any other bodies of water. All existing treatment BMP's (TBMPs) must be protected in place. If an existing TBMP is damaged by the Permittee, the Permittee is responsible for complete repair to a satisfactory condition determined by the State Representative.
4. **SPOILS AND RESIDUE:** The Permittee must vacuum any saw-cut concrete waste material, debris, residue, etc. No spoils, debris, residue, etc. must be washed into a drainage system. The Permittee must ensure that Portland cement concrete and asphalt concrete grindings are not stockpiled or used in a manner that may result in an unauthorized stormwater discharge to waters of the state.
5. **SWEEPING:** Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material onto or off the State property. Minimize the amount of dust particles during sweeping activities, ensuring that the levels do not exceed the standards set by local air quality control districts or the EPA's National Ambient Air Quality standards. Use wet-vacuum whenever dust generation is excessive, or sediment pickup is ineffective. Roadways or work areas must not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of the Caltrans' Standard Specifications.
6. **VEHICLES AND EQUIPMENT:** The Permittee must prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site. If vehicle or equipment cannot be immediately removed from job site, install secondary containment to contain spill and prevent illicit non-stormwater discharge.
7. **MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT:** Maintenance and fueling of equipment must not result in any pollution at the job site. The Permittee must immediately clean up spills/leaks, and properly dispose of contaminated soil and materials. All maintenance and fueling should be conducted at an appropriate facility that is feasible. All maintenance and fueling which must occur onsite

ENCROACHMENT PERMIT SPECIAL PROVISIONS

shall be conducted as far away as practical from drain inlets, water bodies, and other stormwater conveyance systems.

8. **CLEANING VEHICLES AND EQUIPMENT:** Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. All equipment must be sanitized prior to mobilization to limit the spread of invasive plant species. The Permittee must clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. Notify the Engineer before cleaning vehicles and equipment at the job site with soap, solvents, or steam. Any water from this operation must be collected and disposed of at an appropriate site. Containment berms or dikes must be used for fueling, washing, maintaining and washing vehicles or equipment in outside areas. Containment must be performed at least one hundred (100) feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least fifty (50) feet if outside the floodplain. Keep adequate quantities of absorbent spill cleanup material and spill kits in the fueling or maintenance area and on fueling trucks.
9. **DIESEL FUELS:** The use of diesel fuel from petroleum or other fossil fuel as a form-oil or solvent is not allowed.
10. **WEATHER CONDITIONS AT WORKSITE:** Any activity that generates fine particles or dust (e.g., Saw cutting, earthwork, sanding, etc.), which could be carried off-site by stormwater, must be conducted during dry weather conditions to avoid immediate mobilization into the drainage system.
11. **WIND EROSION PROTECTION:** The use of Wind Erosion BMPs must be deployed year-round in instances where dust or fine particles could be transported off site. Potential wind erosion BMPs may include wind fence, water application, gravel, and/or hydro-mulch.
12. **HOT MIX ASPHALT:** Runoff from washing hot mix asphalt must not enter any drainage conveyances or receiving waters.
13. **PROTECTION OF DRAINAGE FACILITIES:** The Permittee must protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State Representative during grading, paving, sealing, saw-cutting, grooving and grinding, or any other activity which may result in an illicit discharge. All materials must conform to Section 13-6.02 Materials for Water Pollution Control of the Caltrans' Standard Specifications. No such protection measures must cause an obstruction to the traveling public. The Permittee must implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site (including secondary containment requirements) in accordance with Section 13-4.03B Spill Prevention and Control and for leaks and spills from vehicles and equipment each day of use in accordance with Section 13-1.03C Inspections for Water Pollution Control and Section 14-11 Hazardous Waste and Contamination for Environmental Stewardship of the Caltrans' Standard Specifications.
14. **PAINT:** Clean water-based and oil-based paint from brushes or equipment within a contained area to prevent contamination of soil, receiving waters, or storm drain systems. Handle and dispose of paints, thinners, solvents, residues, and sludges that cannot be recycled or reused as hazardous waste under section 14-11. When thoroughly dry, dispose of dry latex paint, paint cans, used brushes, rags, absorbent materials, and drop cloths as solid waste under section 14-10.
15. **CONSTRUCTION MATERIALS AND MATERIAL MANAGEMENT:** Materials necessary for erosion and sediment control must be stockpiled on site at convenient locations to facilitate prompt installation. Such materials must be implemented at all inactive disturbed areas, and prior to all qualifying rain events. A "Qualifying Precipitation Event" (QPE) is defined as a forecast with a 50% or greater probability of precipitation that results in 0.5 inches or more of rain within a 24-hour period. Do not allow soil, sediment, or other debris from stockpiles to enter storm drains, open drainages, or watercourses. Minimize stockpiles of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar. All stockpiling of such materials must conform to Section 13-4.03C(2) Material Storage and Section 13-4.03C(3) Stockpile Management for Water Pollution Control of the Caltrans' Standard Specifications.
16. **CONCRETE EQUIPMENT:** Concrete equipment must be washed in a designated washing area in a way that does not contaminate soil, receiving waters, or storm drain systems. Any concrete washout activities which result in compromised containment must be cleaned and disposed of immediately. All Designated concrete facilities, including equipment, washout areas must be contained during Qualifying Precipitation Events (QPEs) marked by clearly visible signage throughout the project area.
17. **EXISTING VEGETATION:** Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Fenced barriers may serve as an adequate buffer to prevent traffic across existing vegetation. Damaged or removed vegetation must be replaced as directed by the State Representative.
18. **SOIL DISTURBANCE:** Soil disturbing activities must be avoided during the wet weather season. If construction activities during wet weather are allowed in the permit, all necessary erosion control and soil stabilization measures must be implemented in advance of soil disturbing activity. All temporary relocation of BMPs must be completed at the end of each working day and prior to each Qualifying Precipitation Event with a 50% or greater probability of precipitation that results in 0.5 inches or more of rain within a 24-hour period. Silt and debris shall be removed from linear barriers as part of the regular inspection schedule and as deemed necessary by the State Representative.

ENCROACHMENT PERMIT SPECIAL PROVISIONS

- 19. SLOPE STABILIZATION AND TRACKING CONTROL:** Consider a certified expert in Erosion and Sediment Control in cases where slopes are disturbed or during implementation of temporary road construction for equipment and material access to the project. The Permittee is directed to comply with Section 13.5 Temporary Soil Stabilization, Section 13.6 Temporary Sediment Control, Section 13.7 Temporary Tracking Control and Section 21 Erosion Control of the Caltrans' Standard Specifications for construction during application of temporary soil stabilization and sediment/tracking control measures to minimize impacts to the soil surface. Temporary construction entrances/exits are required to be stabilized and may include gravel, rumble plates, and/or FODS. Erosion control blankets, temporary mulch, soil binders, tackifier, fiber, seed, straw, temporary covers, rigid plastic, gravel bag barriers, sediment filter bags, temporary check dams, drainage inlet protection, fiber rolls and/or silt fences may be required down slope and on temporary construction roads and entrances until permanent soil stabilization is established. Consult with manufacturer specifications regarding maintenance frequency of sediment controls. All controls must be maintained to ensure proper functionality. The Permittee must limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist or when environmental regulations prohibit their use within the project.
- 20. STOCKPILES:** All stockpiled materials must be stored at least one hundred (100) feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least fifty (50) feet if outside the floodplain. All stockpiles must be covered and protected with a temporary perimeter sediment barrier if inactive or prior to each Qualifying Precipitation Event with a 50% or greater probability of precipitation that results in 0.5 inches or more of rain within a 24-hour period. A stockpile is considered inactive after fourteen (14) days without addition or subtraction. Additionally, cold mix stockpiles must be stored on an impermeable surface and covered with nine (9) mil plastic to prevent contact with water. Minimize stockpiling of materials on the job site. Manage stockpiles by implementing the water pollution control practices in Section 13--4.03C(3) Stockpile Management for Water Pollution Control of the Caltrans' Standard Specifications for construction. Demolished material must not be allowed to enter storm drain systems and receiving waters. Use authorized covers and platforms to collect debris. Use attachments on equipment to catch debris during all demolition activities. Empty debris-catching devices daily and handle debris in accordance with Section 13-4.03D Waste Management for Water Pollution Control of the Caltrans' Standard Specifications for construction.
- 21. DISCOVERY OF CONTAMINATION:** The State Representative must be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material. Additionally, the State Representative must be notified if abandoned, underground tanks, pipes, or buried debris are encountered.
- 22. SANITARY AND SEPTIC WASTE:** Do not bury or discharge wastewater from a sanitary or septic system within the highway. A sanitary facility discharging into a sanitary sewer system must be properly connected and free from leaks. Place a portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. The Permittee must comply with local health agency regulations if using an on-site disposal system.
- 23. LIQUID WASTE:** Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free wastewater or rinse water, dredging, and wash water or rinse water running off a surface or other non-storm water liquids not covered under separate wastewater permits must be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least fifty (50) feet away from moving vehicles, equipment, concentrated flows of storm water, drainage courses, and storm drain inlets. Liquid waste may require testing to determine hazardous material content prior to disposal. All measures must conform to section 13--4.03D(5) Liquid Waste for Water Pollution Control of the Caltrans' Standard Specifications for construction.
- 24. WATER CONTROL AND CONSERVATION:** Manage water use in a way that will prevent erosion and discharge of pollutants into storm drain systems and receiving waters. Direct all runoff into areas where it can infiltrate.
- 25. PILE DRIVING:** Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from stormwater run-on when not in use. In the event of oil/grease leaks and spills from pile driving activities, immediately contain and dispose of all contaminated materials.
- 26. DEWATERING:** Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering operations must comply with the latest Caltrans guidelines including the Field Guide for Construction Site Dewatering. Contact the State Representative for approval of dewatering discharge by infiltration or evaporation, otherwise, any effluent discharged into a permitted storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee must provide the State Representative with a dewatering and discharge work plan that complies with Section 13-4.03G Dewatering for Water Pollution Control of the Caltrans' Standard Specifications for construction. Work plan also references guidelines and BMPs in the CGP and the Field Manual for Construction Site Dewatering. A 24-hour email notification of dewatering discharge to the Regional Water Board, including the implemented SWPPP and BMPs, is required by Attachment J of the CGP.