City of Long Beach
Working Together to Serve

Department of Public Works

Palo Verde Avenue Pedestrian Bridge Sign Project

Contract Documents
Plans and Specifications
Project Number 3003210017

Specification R-7259/B-4849

Project Management Bureau
Long Beach, California

Online Mandatory Prebid Conference
On October 20, 2026 at 9:00 A.M.

Mandatory Job-Site Walk-Through
On October 20, 2026 at 11:30 A.M.

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NOTICE INVITING BIDS
FOR
PALO VERDE AVENUE PEDESTRIAN BRIDGE SIGN PROJECT

RECEIPT OF BIDS: Bids will be accepted on behalf of the City, Owner of the work, until 10:00 am on November 10, 2026 for Palo Verde Avenue Pedestrian Bridge Sign Project via the City's online portal https://longbeachbuys.buyspeed.com/ keyword Project R-7259.

MANDATORY PRE-BID CONFERENCE AND JOB-SITE WALK-THROUGH: The City will conduct a mandatory pre-bid conference to review bidding processes, Project Labor Agreement (PLA), at 9:00am on October 20, 2026. Prospective Bidders must attend this meeting.

The pre-bid conference will be conducted via Microsoft Teams. Prospective Bidders must attend this meeting. The meeting can be accessed online via the following link or by phone:

Palo Verde Avenue Pedestrian Overcrossing Bridge R-7259 Pre Bid Virtual Teams Meeting

Meeting ID: 244 616 748 949 827
Passcode: Dc2gm3DF

Dial in by phone
+1 951-344-4988, 984456970# United States, Riverside
Phone conference ID: 984 456 970#

The job-site walk-through will be conducted on site on **Tuesday October 20, 2026 at 11:30 a.m**. We will be meeting at cul-de-sac at E 5th St near Channel View Park. Job-site walk-through is mandatory. Prospective Bidders must also attend this meeting.

DESCRIPTION OF WORK: The work to be done consists of fabrication and installation of a gateway sign signifying the entrance to the City via 7th Street. The sign will be mounted on the Long Beach Bridge over 7th Street near Channel View Park, and will include LED lighting to illuminate the façade of the Long Beach letters. Bids are required for the entire Work.

LONG BEACH SMALL BUSINESS ENTERPRISE (LBSBE) PROGRAM: Bidders are advised that this project is subject to the City's Small Business (SBE), Very Small Business, (VSBE), and Local Small Business (LSBE) Enterprise Program ("LBSBE Program") established by City Ordinance no. ORD 11-0010. A 10% combined SBE/VSBE/LSBE goal has been assigned to this project. See Division C and E of the Specifications.

PROJECT LABOR AGREEMENT (PLA): This work is covered by a Citywide Project Labor Agreement (PLA) entered into by the City of Long Beach with the Los Angeles/Orange Counties Building and Construction Trades Council and the signatory Craft Unions. The PLA establishes the labor relations Policies and Procedures for the City, the Contractor and subcontractors awarded contracts for the work and for the craft persons employed by the Contractor or subcontractor while engaged in the work. See Division E of the Specifications for the applicable PLA.

CONTRACTOR'S LICENSE: The Contractor shall possess a valid California Class A Contractor license at the time of bid. The City may deem any Bidder who fails to possess the required license to be non-responsive at the time of bid opening.

MINIMUM QUALIFICATIONS: Please note that for this work, minimum qualifications Apply. Information concerning these requirements can be found in Division C of the specifications. Bidders are required to complete the Bidders Qualifications Form and submit as part of the Bid Package.

PLANS AND SPECIFICATIONS: Plans and specifications are posted on the City's website at the URL http://www.longbeach.gov/finance/business-info/purchasing-division/ on the "Bids/RFPs" tab and available for free download, however, you must be registered (registration is free and may be accomplished at the same URL) and logged in to view or download the documents.

BID SECURITY: Bidders must **scan and upload** with their bid documents, a certified check or bank draft payable to the City of Long Beach, drawn on a solvent bank in the United States of America, or a satisfactory bond in an amount not less than 10 percent of the bid. The **original** of the above instrument shall be submitted to the City Clerk in a sealed envelope and **must be received and time/date stamped by the City Clerk's Office no later than the time and date stated for receipt of bids.** The outside of the envelope shall clearly state "Bid Security for Specification R-7259 PALO VERDE AVENUE PEDESTRIAN BRIDGE SIGN PROJECT. DO NOT OPEN WITH REGULAR MAIL." The City Clerk's Office is located at 411 W. Ocean Blvd, 1st Floor, Long Beach, CA 90802. The bid security may be submitted through certified mail or in-person. Bidders may proceed directly to Window 12 without pulling a service ticket.

The bid security shall serve as a guarantee that the Bidder, if awarded the Contract, will execute, and deliver to the City, no later than 15 calendar days after the date shown on the "Notice of Award," the following items:

1. The Contract for doing the work, and
2. A corporate surety bond in favor of the City of Long Beach in an amount not less than 100 percent of the Contract price for the faithful performance of the Contract, and
3. A corporate surety bond in an amount not less than 100 percent of the Contract price for the payment of all labor and material claims, and
4. Evidence of required insurance coverage as written in Division H of the Bid Specifications.

Failure to submit the items noted above when specified may result in the City, in its sole discretion, declaring the bid security forfeited and depositing the same into the City Treasury.

The City will retain the bid security accompanying all bids until it awards the Contract. The City will retain the bid security submitted with the bid of the Bidder to whom an award of Contract is made, and the bid security of the next higher bid, until the Contract between the Bidder to whom award of the Contract is made and the City has been executed.

RETENTION: In the event the contract to be awarded hereunder, including Bid Specifications and other documents incorporated therein by reference, provides for the withholding of monies by the City to ensure performance of such contract, the Contractor may: a) deposit with the City as a substitute for said monies, securities listed in Section 16430 of the California Government Code or bank or savings and loan certificates of deposit, or both, equivalent to the amount withheld; or, b) request payment of retentions earned directly to the escrow agent at the expense of the Contractor, provided Contractor requests, in writing, to make such substitution within five (5) days of the date of the Notice of Award of the Contract and bears all expenses in connection therewith. Either option shall be in accordance with Public Contract Code Section 22300.

CALIFORNIA WAGE RATE REQUIREMENTS: This project is a public work under Labor Code § 1720 et seq. Pursuant to Division 2, Part 7, Chapter 1 of the Labor Code of the State of California, the Director of Public Works of the City by and on behalf of the City Council has obtained from the Director of the Department of Industrial Relations of the State of California the general prevailing rate of per diem wages, and the general prevailing rate of holiday and overtime work in the locality in which the public work is to be performed for each craft, classification or type of workers needed to perform the work. Copies of the prevailing rate of per diem wages are on file in the office of the City Engineer, 5th Floor, City Hall, 411 West Ocean Boulevard, Long Beach, California 90802. The Contractor to whom the Contract is awarded, and its subcontractors, shall pay to all workers in the performance of the work not less than the prevailing rate of wages needed to execute the contract. Copies of schedules of prevailing wage rates may be obtained on the California Department of Industrial Relations website http://www.dir.ca.gov/dlsr. This project will be subject to the 2026-1 prevailing wage rate, as determined by the Director of the Department of Industrial Relations for the State of California. Bidders are directed to Section 7-2, “Labor,” of the Standard Specifications, and to Division H, Subsection 7-2.2, “Prevailing Wages,” for requirements concerning payment of prevailing wages, payroll records, and hours of labor**.**

DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) COMPLIANCE: This project is subject to the following: No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project

is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractors are further cautioned that certified payrolls shall be submitted electronically directly to the Department of Industrial Relations.

CERTIFIED PAYROLL SUBMISSION TO THE CITY OF LONG BEACH: Pursuant to the provisions of Labor Code Section 1776, Contractor shall keep and shall cause each subcontractor performing any portion of the work under this Contract to keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor or subcontractor in connection with the work. Such payroll records for Contractor and all subcontractors shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor pursuant to the provisions of Section 1776 of the Labor Code. Contractor's failure to furnish such records to City or City's authorized Labor Compliance representative in the manner provided herein for notices shall entitle City to withhold the penalty prescribed by law from progress payments due to Contractor.

Each contractor and every subcontractor and supplier shall be required to submit certified payrolls and labor compliance documentation electronically at the discretion of and the manner specified by the City of Long Beach. Electronic submittal will be a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor will be given a Log On identification and password to access the City of Long Beach reporting system. The foregoing is in addition to, and not in lieu of, any other requirements or obligations established and imposed by any department of the City with regard to submission and retention of certified payroll records for Contractor and subcontractors.

APPRENTICESHIP EMPLOYMENT (CONTRACTS OVER $30,000 ONLY): The Contractor shall comply with Section 1777.5 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under the Contractor and, by submitting a Bid and executing the Contract, the Contractor stipulates that it shall so comply. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

PENALTIES: Contractor and subcontractors are subject to penalties, including, but not limited to, under Labor Code §§ 1775, 1776, 1777.7 and 1813, for failure to comply with Labor Code § 1720 et seq. The Awarded Contractor expressly agrees to comply with the penalty provisions of California Labor Code section 1776.

(SEAL) /s/ MONIQUE DE LA GARZA
CITY CLERK, CITY OF LONG BEACH, CALIFORNIA

_____ /s/ THOMAS B. MODICA
DATE CITY MANAGER

End of Division A – Notice Inviting Bids

DIVISION B
INSTRUCTIONS TO BIDDERS

DIVISION B

INSTRUCTIONS TO BIDDERS

Please read these instructions carefully. If you do not submit a complete bid, the City may determine that your bid is non-responsive, in which case the City will reject your bid.

ATTENDANCE AT MANDATORY PRE-BID CONFERENCE AND JOB SITE WALK THROUGH: Attendance at the pre-bid conference and job site walk through is mandatory. Failure to attend the pre-bid conference and follow procedures to confirm attendance shall be cause for rejection of the bid. See Division A of the Specifications for the date and time of the Pre-Bid Conference.

SUBMISSION OF BID: The bid shall be submitted online at https://longbeachbuys.buyspeed.com/bso/ keyword R-7259. Bidders must be registered on the City's portal to access the bidding page and to download the plans and specifications. All documents to be submitted with the bid are contained in Division C of this Specification and the issued Addenda found under the online bid portal. These documents shall be scanned and uploaded with the bid. The originals of the Bidder's Bond, and any other document which may require notarization, must be placed in a sealed envelope, clearly marked on the outside with **Specification R-7259 Palo Verde Pedestrian Overcrossing Sign Project,** DO NOT OPEN WITH REGULAR MAIL," and these originals must be received by the City Clerk at the address shown in the Notice Inviting Bids by the time and date stated therein. These originals may be mailed or sent via package delivery service to City of Long Beach, 411 W. Ocean Blvd, Attn: City Clerk, Long Beach, CA 90802, but the City is not responsible for lost or misdirected mail. The City Clerk's time-stamp clock is the official time for receipt of documents. The Bidders shall attend a mandatory pre-bid conference as required in the Notice Inviting Bids. Failure of the Bidder to attend the mandatory pre-bid conference will result in its Bid not being accepted and/or being rejected. Bidders are strongly encouraged to send an individual who is responsible for the bid, and not a runner. Bid submission processes and how to access the bidding system will be discussed at the pre-bid conference.

PROJECT LABOR AGREEMENT (PLA): This work is covered by a Citywide Project Labor Agreement (PLA) entered into by the City of Long Beach with the Los Angeles/Orange Counties Building and Construction Trades Council and the signatory Craft Unions. The PLA establishes the labor relations Policies and Procedures for the City, the Contractor and subcontractors awarded contracts for the Work and for the craft persons employed by the Contractor or subcontractor while engaged in the Work.

The work covered by this Agreement shall be limited to any and all demolition, construction and rehabilitation work pursuant to prime multi-trade and specialty contracts and all subcontracts, of whatever tier, entered into by the City that exceed $750,000 for non-street/right of way projects and $1,000,000 for street/right of way projects.

The goal of the PLA is to provide that the Work bring full employment and economic benefit to the City and its residents. With the PLA, the parties have established a framework for fair wages, hours and working conditions through which these goals may be achieved, and which will permit the utilization of the most modern, efficient and

effective procedures for construction, assure a sufficient supply of skilled craft persons, and reduce or eliminate the causes of disruptions or interference with the Work.

The PLA contains a local hiring goal of 40%, calculated based on total hours worked. The local hire provision requires best efforts to utilize qualified workers residing in first tier zip codes (which include all of the City of Long Beach), then in second tier zip codes (which reflect the Gateway Cities), and finally in Los Angeles and Orange Counties.

In addition, there is a provision with a goal of 10% to hire Transitional Workers and Veterans. The term Local Resident, as used herein, shall mean an individual whose primary place of residence is within the Counties of Los Angeles or Orange. The City of Long Beach will utilize a PLA Administrator who will work with the contractors, residents, Long Beach City College, Pacific Gateway, and the Trades to oversee the provisions of the Agreement.

Furthermore, the general contractor will be required to hire a "Jobs Coordinator" to provide additional outreach efforts connecting Long Beach residents to job opportunities. The term Jobs Coordinator means an independent third-party individual, entity, or employee with whom the prime contractor enters into a contract or employs to facilitate implementation of the targeted hiring requirements of the PLA.

This work will provide many opportunities for local residents and local small business enterprises to participate. It is the City's policy that contractors will cooperate with all efforts of the City, the PLA Administrator, the Jobs Coordinator (if applicable), and other organizations retained by the City to encourage and assist in the participation of local residents and local small businesses in the Work.

Contractor and all its subs will be required to sign a Letter of Assent to acknowledge and agree to comply with all provisions of the PLA. Refer to Division E of the Specifications for the applicable PLA and Letter of Assent.

EXAMINATION OF SITE AND WORK: Each Bidder must fully inform itself of the conditions relating to the work and the employment of labor for the work. A Contractor's failure to do so will not relieve it of the obligation to furnish all material and labor necessary to complete the Work.

TIME FOR COMPLETION: The Work must be completed within **45** working days after the commencement date stated in the Notice to Proceed.

CONTACT: Before the bid opening, prospective Bidders shall direct any communications regarding this Work to:

City of Long Beach, Department of Public Works
Project Management Bureau
5h Floor, City Hall
411 W. Ocean Boulevard
Long Beach, CA 90802
Attention: **Kimvy Nguyen**
E-mail: **kimvy.nguyen@psomas.com**

Communications may be written or oral, but the City is not bound by any oral interpretation of the Contract Documents made by any City employee, nor does the City guarantee the accurate transcription of oral questions.

PROPRIETARY INFORMATION: Responses to the Notice Inviting Bids become the exclusive property of the City of Long Beach. All bids submitted in response to the Notice Inviting Bids are a matter of public record and shall be regarded as public records. Exceptions will be those elements in each bid that are defined by the Bidder as business or trade secrets and are marked as “Trade Secrets,” “Confidential,” or “Proprietary.”

The City shall not be liable or responsible in any way for disclosure of any records not marked as “Trade Secrets,” “Confidential,” or “Proprietary.” The City shall not be liable or responsible in any way for disclosure of any records so marked if disclosure is deemed to be required by law or by a court order.

BIDS SHALL REMAIN OPEN: The Bidder shall guarantee the Total Bid Price for 160 calendar days after City Council meeting date is scheduled.

INTERPRETATION AND MISUNDERSTANDINGS OF PLANS AND DOCUMENTS: Bidders may submit to the Project Manager written requests for interpretation or correction of the Plans, Specifications, or other Contract Documents. Bidders shall not make such requests later than fourteen (14) calendar days prior to the date of bid opening. Bidders submitting such requests are responsible for their timely delivery. The City will interpret or correct the Contract Documents only by a written Addendum, and such Addenda will be posted to the web address noted in Division A. The City is not bound by any oral interpretation of the Contract Documents made by any City employee.

If Bidder fails to raise any issue regarding such interpretation or correction or if the City fails to respond to a request, Bidder will be deemed to have accepted all risks associated with that issue. Bidder specifically waives the right to request a Change Order, equitable adjustment, or to request additional time, or to seek recovery in quantum meruit in conjunction with any such issue. Bidder further waives the right to assert arguments of estoppel or implied or express warranty of design with regard to any such issue.

ITEM EQUIVALENCY: Any Bidder desiring to bid an "approved equal" item shall submit a request to do so to the City in writing no later than fourteen (14) calendar days prior to the date of the bid opening. The request shall include all data necessary to substantiate that the item is equal. The City will notify the Bidder, in writing, of approval or disapproval of the proposed item no later than five (5) calendar days prior to the date of the bid opening. Submit written approvals with your bid.

EQUAL EMPLOYMENT OPPORTUNITY: The City of Long Beach is an equal opportunity employer and requires all Bidders to comply with policies and regulations concerning equal employment opportunity.

IRAN CONTRACTING ACT: In accordance with California Public Contracting Code Section 2200-2208, all Bidders submitting proposals for, entering into, or renewing contracts with the City and estimated at $1,000,000 or more are required to complete,

sign and submit the “Iran Contracting Act of 2010 Compliance Affidavit” contained in Division C.

TAXES: Bidders shall not mention Sales Tax, Use Tax, or any other tax in their bids. All bid amounts will be deemed to include such taxes.

BID PREPARATION: The Bid Form included in Division C is provided to assist Bidders in the preparation of their bid, but bids shall be entered electronically as directed above and in Division A. Bidders shall complete all items of the bid. The Unit Price shall control, regardless of the extended total for that item. If the unit price is less than one cent, Bidders shall include the proper number of zeros. Selection of "NO BID" for any bid item will render the bid non-responsive."

Bidders shall not modify the bid in any way. The City will not consider substitutions except as described in “Item Equivalency”.

Bidders shall provide a bid for the base Bid and, as directed by instructions on the bid Document, a separate bid for each of the alternates.

The electronic bidding system will total the amount bid. The TOTAL AMOUNT BID may be used by the City for comparison in determining the apparent low bid at the time of bid opening. The sum of the mathematically correct extended totals for each item under the ITEM TOTAL column shall be deemed the Bidder’s intended bid. Any errors shall, at the option of the City, constitute grounds for the City’s rejection of the bid.

Bidders are cautioned that the electronic bidding system will cease allowing entry at the time stated for bid opening, regardless of when entry was begun. Bidders are reminded to begin bid submission with sufficient time to complete the entries.

The City will not consider oral, telephonic, fax, or paper bids.

Bidders shall sign the Bidder Information / Signature Form properly, in longhand.

The City will not consider any bid that does not meet these requirements.

LISTING SUBCONTRACTORS: Bidders must submit the list of subcontractors on this Project that is required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100, et. seq.). Failure to list a subcontractor for an item of work at time of bid is an acknowledgement that the Bidder will perform such work with its own forces.

ADDENDA ACKNOWLEDGEMENT: All Addenda issued before the time Bids are due shall form a part of the Contract Documents. It is the Bidders’ responsibility to determine what Addenda are issued. Bidders may do so by accessing the website shown in Division A. The City may deem any bid that fails to acknowledge all Addenda to be non-responsive. Bidders should acknowledge each Addenda by signing the signature block found in each Addenda and uploading with Division C bid documents.

BID SECURITY: Bidders shall include with their bids in the manner described above in the Bid Security section shown in Division A - Notice Inviting Bids. The City will reject any bid not accompanied by such bid security.

DELIVERY OF BID: Bidders shall input their bids online via the City's bidding portal. No paper bids will be accepted.

WITHDRAWAL OF BIDS: Bidders may withdraw their bids before the time set for the bid opening in the Notice Inviting Bids. Bidders may not withdraw their Bids after that time without forfeiture of the bid security. Withdrawal of the bid will not prejudice any Bidder's right to submit a new bid, if there is time to do so.

LATE BIDS: The City will reject, and the bidding system will not allow, any bid received after the time set for the bid opening whether or not the bids are opened exactly at the time set in the Notice Inviting Bids.

TELEPHONES: The City does not provide telephones for use by Bidders.

BID ALTERNATES: Please see the bid form.

BID OPENING: All timely received bids will be subject to further evaluation with respect to:

- The responsiveness of the bid
- Determination that Bidder is responsible

AWARD OF CONTRACT AND OWNER'S RIGHTS RESERVED: If the City awards the Contract, it will award the Contract to the lowest responsible Bidder as determined solely by the City. The City reserves the right to reject any or all bids, and, to the extent not prohibited by law, to waive any minor irregularity or informality in any bid that does not give the Bidder a competitive advantage over other Bidders and to take the Bids under advisement for the bid guarantee period shown above, as may be necessary in the best interests of the City.

End of Division B - Instructions to Bidders

DIVISION C
BID DOCUMENTS

BIDDER'S NAME: _____

BID TO THE CITY OF LONG BEACH
PALO VERDE PEDESTRIAN OVERCROSSING SIGN PROJECT

In accordance with the Notice Inviting Bids for this Work in the City of Long Beach, California, to be opened on **November 10, 2026 at 10:00 am.,** we offer to furnish all necessary labor, tools, materials, appliances and equipment for and perform all Work mentioned in the Notice Inviting Bids, in full compliance with Plans & Specifications No. R-7259 at the prices listed below.

We certify that we have examined the site and that the Bid is complete. By signing the Bid, we certify that the Contractor will not submit a claim based on failure to examine the site thoroughly.

The base bid total shall be used for determining the lowest bidder.

BASE BID –

ITEM NO.	CALTRANS ITEM CODE	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE (IN FIGURES)	ITEM TOTAL (IN FIGURES)
1.	070030	LEAD COMPLIANCE PLAN	1	LS		
2.	120090	CONSTRUCTION AREA SIGNS	1	LS		
3.	120100	TRAFFIC CONTROL SYSTEM	1	LS		
4.	120101	TRAFFIC CONTROL SUPERVISOR	54	DAY		
5.	120110	FLASHING ARROW SIGN	4	EA		
6.	120116	TYPE II BARRICADE	30	EA		
7.	120182	PORTABLE DELINEATOR	263	EA		
8.	128651	PORTABLE CHANGEABLE MESSAGE SIGN (EA)	8	EA		
9.	130100	JOB SITE MANAGEMENT	1	LS		
10.	141110	WORK AREA MONITORING (BRIDGE)	1	LS		
11.	510501A	MINOR CONCRETE (NONSHRINK GROUT)	55	CF		
12.	550102	STRUCTURAL STEEL (BRIDGE)	5,300	LB		
13.	600002A	GRAFFITI REMOVAL	111	SQFT		
14.	750501	MISCELLANEOUS METAL (BRIDGE)	207	LB		
15.	770300A	LIGHTING SYSTEM (CITY)	1	LS		

ITEM NO.	CALTRANS ITEM CODE	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE (IN FIGURES)	ITEM TOTAL (IN FIGURES)
16.	770200A	MODIFYING ELECTRICAL SYSTEM (CITY)	1	LS		
17.	780401A	COMMUNITY IDENTIFICATION (PANELS)	1	LS		
18.	780402A	COMMUNITY IDENTIFICATION (LETTERS)	1	LS		
19.	780436A	PREPARE AND PAINT CONCRETE BRIDGE PIER	2	EA		
20.	780460	ANTI-GRAFFITI COATING	1,200	SQFT		
21.	999990	MOBILIZATION 5% MAX	1	LS		

BASE BID TOTAL _____

We understand that these quantities are estimates only and are given solely for the purpose of facilitating the comparison of Bids, and that the Contractor's compensation will be computed on the basis of the actual quantities in the completed Work.

DO NOT SUBMIT THIS FORM AS YOUR BID. BIDS ARE TO BE SUBMITTED ELECTRONICALLY AS DESCRIBED IN DIVISION B.

(Continued on Next Page)

BIDDER INFORMATION / SIGNATURE

Signature**	Legal Name of Company
	Print Name / Title
	Names of Other General Partners
State of Incorporation	Names of Other Partners
State Where Registered as LLC	City of Long Beach Business License Number
Business Address (Actual Address -Not A Post Office Box)	City of Long Beach Business License Expiration Date
Telephone Number / Fax Number	Address on City Business License
Email Address of Individual to Contact	
Contractor's License Number	DIR Registration Number

bi

**

_____ If Bidder is an individual, set forth his/her signature.

_____ If Bidder is a joint venture, set forth the name of the joint venture with the signature of an authorized representative of each venture.

_____ If Bidder is a general partnership, set forth the signature of the general partner.

_____ If Bidder is a limited partnership, provide names of other partners.

_____ If Bidder is a limited liability company, set forth legal name of company with signature of a member or manager authorized to bind the company

_____ If the Bidder is a corporation, set forth the legal name of the corporation with the signature of an officer of the corporation.

(Continued on Next Page)

The following information will be used for statistical analysis only.

Is the Bidder a Disadvantaged Business (DBE)?___ If yes, certification No. _____
Is the Bidder a Minority-Owned Business? _____ Which racial minority? _____
Is the Bidder a Women-Owned Business? _____
Is the Bidder a certified Small Business?_____ If yes, certification No._____

Where did your company first hear about this City of Long Beach Public Works project?

_____

_____

BIDDER'S QUALIFICATIONS

1. ORGANIZATION

1.1 How many years has your organization been in business as a licensed Contractor? _____

1.2 How many years has your organization been in business under its present name? _____

1.2.1 Under what other names has your organization operated? _____

1.3 If your organization is a corporation, answer the following:

1.3.1 Date of incorporation: _____

1.3.2 State of incorporation: _____

1.3.3 Corporate ID number: _____

1.3.4 President's name: _____

1.3.5 Agent for Service of Process: _____

1.4 If your organization is a partnership, answer the following:

1.4.1 Date of organization: _____

1.4.2 Type of partnership (if applicable): _____

1.4.3 Name(s) of general partner(s): _____

1.5 If your organization is individually owned, answer the following:

1.5.1 Date of organization: _____

1.5.1 Name of owner: _____

2. LICENSING

2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business and indicate registration or license numbers, if applicable.

_____

_____

2.2 In the last 10 years, has your contractor's license been revoked at any time? ____

3. FINANCIAL RESOURCES

3.1 In the past five years, has a bonding company completed a contract on your behalf, or paid for completion because your firm was terminated or found in default? _____

4. EXPERIENCE

4.1 List classifications of work your organization typically performs with its own forces.

_____

_____

_____

4.2 Claims and Suits (If the answer to any of the questions below is yes, please attach specifics.)

4.2.1 Has your organization ever failed to complete any work awarded to it? _____

4.2.2 Are there any judgments, claims, suits or arbitration proceedings pending against your organization or its officers within the last five (5) years, or such actions related to labor compliance, prevailing wages, or the Department of Industrial Relations within said period?

_____

4.2.3 Has your organization filed any law suits or requested arbitration related to construction within the last five (5) years? _____

4.3 Has your firm, or any firm with which any of your company's owners, officers, partners, or employees was associated, been debarred from bidding on, accepting, or performing any government agency or public works project(s), either as a prime contractor or subcontractor? _____

4.4 On a separate sheet, list major construction projects your organization has in progress. Indicate name of the project, project description, Contract amount, owner, architect/engineer, percent complete and scheduled completion.

_____

4.4.1 Indicate total value of work in progress and under Contract: _____

4.5 On a separate sheet, list all projects your organization has completed in the past five years. Indicate name of project, project description, Contract amount, owner, owner's phone number, project manager, completion date, and percentage of the cost of the work performed with your own forces. ('None', 'N/A' or its equivalent is not an acceptable response and will be a basis for disqualifying your bid as non-responsive.)

_____

4.5.1 Indicate average annual value of construction work performed during the past five years:

_____

_____

5. MINIMUM QUALIFICATIONS

5.1 The minimum acceptable experience to be qualified for this project is as follows:

5.1.1 The Contractor, as a Prime Contractor for public agency, must have completed at least 1 project of similar scope to this project within the last three calendar years (from the date of bid opening) and a minimum of 1 project must be at least 80% of total contract amount bid under this project.

5.2 List project(s) to satisfy minimum qualifications noted above. 'None', 'N/A' or its equivalent is not an acceptable response and will be a basis for disqualifying your bid as non-responsive.:

Project Name: _____
Agency/Owner: _____
Project Manager: _____
Phone Number: _____
Contract Amount: _____
Scope of Work: _____
_____

Name of Project: _____
Agency/Owner: _____
Project Manager: _____
Phone Number: _____
Contract Amount: _____
Scope of Work: _____
_____

Name of Project: _____
Agency/Owner: _____
Project Manager: _____
Phone Number: _____
Contract Amount: _____
Scope of Work: _____
_____

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this _____ day of _____, 20____ at _____, California by:

_____
Company/Contractor Name

_____
Signature

_____
Signer's Name (print/type)

_____
Title (print/type)

LIST OF SUBCONTRACTORS

In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act" Division 2 Part 1, Chapter 4 of the California Public Contract Code, the Bidder shall set forth hereon the name, the location of the place of business, Department of Industrial Relations registration number, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one- half of 1 percent of the prime contractor's total bid or ten thousand dollars ($10,000), whichever is greater. The prime contractor shall set forth thereon the portion of the work (type and dollar value) that will be done by each subcontractor. The prime contractor shall list only one subcontractor for each portion as defined by the prime contractor in his or her bid. Information requested, other than the sub contractor's name, location of business, contractor license number and the portion of work that will be done by each subcontractor may be submitted by the prime contractor within 24 hours after the deadline for submission of bids.

Name _____ Type of Work _____

Address _____

City _____ Dollar Value of Subcontract $ _____

Phone No. _____

License No. _____ DIR Registration No. _____

Name _____ Type of Work _____

Address _____

City _____ Dollar Value of Subcontract $ _____

Phone No. _____

License No. _____ DIR Registration No. _____

Name _____ Type of Work _____

Address _____

City _____ Dollar Value of Subcontract $ _____

Phone No. _____

License No. _____ DIR Registration No. _____

Name _____ Type of Work _____

Address _____

City _____ Dollar Value of Subcontract $ _____

Phone No. _____

License No. _____ DIR Registration No. _____

Name _____ Type of Work _____

Address _____

City _____ Dollar Value of Subcontract $ _____

Phone No. _____

License No. _____ DIR Registration No. _____

Contractor directs the City's attention to Continuous Bidder's Bond (CBB) # _____ CC-LM-C, on file in the office of the City Clerk of the City of Long Beach. If a CBB is not on file, please accept the bidder's bond listed below:

CITY OF LONG BEACH BIDDER'S BOND

KNOW ALL THOSE BY THESE PRESENTS: That we, _____ _____, as Principal, and _____ _____, a corporation, organized and existing under and by virtue of the laws of the State of _____, with its principal place of business in the City of _____ _____, State of _____, with a paid up capital of not less than Two Hundred Fifty Thousand Dollars ($250,000.00), incorporated, as aforesaid, for the purpose of making, guaranteeing or becoming a surety upon bonds and undertakings required or authorized by law, and having heretofore complied with all of the requirements of the law of the State of California regulating the formation or admission of such corporation to transact business in this State, as Surety, are held firmly bound unto the City of Long Beach, a municipal corporation, organized under the laws of the State of California, and situated in the County of Los Angeles, in the sum of _____ Dollars ($_____) lawful money of the United States of America, for the payment whereof the Principal and sureties bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of the above obligation is such that:

If the bid of said Principal shall be accepted by the City of Long Beach and the contract for delivery of goods, materials, equipment or supplies, or for the furnishings of services, materials, supplies, labor and performing work, all as specified in the Specifications, notice inviting bids, and bid is awarded to the Principal, and if Principal shall execute and submit all contract documents and insurance within fifteen (15) calendar days after delivery of them to Principal, and if Principal shall, in connection with said contract, furnish and deliver to the City of Long Beach a good and sufficient faithful performance bond, if required in the notice inviting bids, and a good and sufficient labor and material (payment) bond, if required in the notice inviting bids, with Surety or Sureties, then this obligation shall be void; otherwise it shall remain in full force and effect.

_____

_____

Principal

_____

_____

Surety

The bond shall be signed by both parties and all signatures shall be notarized

USE OF A NON-CITY OF LONG BEACH BID BOND MAY BE CAUSE FOR REJECTION

NONCOLLUSION DECLARATION TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [Date], at _____[City], _____ [State].

WORKERS' COMPENSATION CERTIFICATION

In accordance with California Labor Code Sections 1860 and 3700, I certify that I am aware of the provisions of Section 3700 which requires every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with said provisions before commencing the performance of the Work of this contract.

Contractor's Name:

_____

Signature of Contractor, or a corporate officer of Contractor, or a general partner of Contractor

_____

Title: _____

Date: _____

CITY OF LONG BEACH
CERTIFICATION OF SITE EXAMINATION

Each bidder shall be fully informed of the conditions relating to the construction of the work and the employment of labor thereon. Failure to do so will not relieve Contractor of the obligation to furnish all material and labor necessary to carry out the provisions of the Contract Documents.

Each bidder shall examine the site for the work described herein. Bidders shall attend a mandatory pre-bid inspection of the building and site, conducted by the City, if specified by the Special Provisions. Failure to attend the mandatory pre-bid inspection shall be cause for rejection of the bid.

This is to certify that I have examined the site and the bid is complete and there will be no additional payment for failure to examine the site thoroughly.

_____ _____

Date of Site Examination Company

_____

Printed Name of Company Representative

_____

Signature of Representative

_____

Date

ATTACHMENT

Debarment, Suspension, Ineligibility Certification

(Please read attached *Acceptance of Certification* and *Instructions for Certification* before completing)

This certification is required by federal regulations implementing Executive Order

1. The potential recipient of Federal assistance funds certifies, by submission of proposal, that:
   - Neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency;
   - Have not within three (3) year period preceding this bid/agreement/proposal had a civil judgment rendered against them for commission of fraud or been convicted of a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
   - Are not presently or previously indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in the above paragraph of this certification; and
   - Have not within a three (3) year period preceding this bid/agreement/proposal had one or more public (Federal, State, or local) transactions terminated for cause of default.
2. Where the potential prospective recipient of Federal assistance funds is unable to certify to any of the statement in this certification, such prospective participant shall attach an explanation to the applicable bid/agreement/proposal.

_____

Signature of Authorized Representative

_____

Title of Authorized Representative

_____ _____

Business/Contractor/ Agency Date

City of Long Beach
Business Relations – Purchasing Division

Acceptance of Certification

1. This bid/agreement/proposal or like document has the potential to be a recipient of Federal funds. In order to be in compliance with Code of Federal Regulations, the City requires this completed form. By signing and submitting this document, the prospective bidder/proposer is providing the certification and acknowledgement as follows:
2. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549.
3. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
4. The potential recipient of Federal assistance funds agrees by submitting this bid/agreement/proposal or like document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

Instructions for completing the form, *Attachment –Debarment Certification*

1. The City of Long Beach sometimes receives Federal funding on certain purchases/projects. To ensure that the City is in compliance with Federal regulations we require this form to be completed.
2. The City of Long Beach checks the System for Award Management at *www.sam.gov* to confirm that vendors who are awarded City contracts and/or purchase orders are not debarred or suspended. Prospective contractors should perform a search on this website for your company and or persons associated with your business under "Search Records". The finding that "Your search returned no results" is an indicator of compliance.
3. If your business is in compliance with the conditions in the form, please have the appropriate person complete and sign this form and return with your bid/proposal/agreement.
4. If at anytime, your business or persons associated with your business become debarred or suspend, we require that you inform us of this change in status.
5. If there are any exceptions to the certification, please include an attachment. Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception, indicate to whom it applies, initiating agency and dates of action.

Note: Providing false information may result in criminal prosecution or administrative sanctions.

If you have any questions on how to complete this form, please contact the City of Long Beach, Business Relations, Purchasing Division at 562-570-6200.

INFORMATION TO COMPLY WITH LABOR CODE SEC. 2810

To comply with Labor Code Sec. 2810, Contractor shall complete and submit this Information Sheet which shall be incorporated into and be a part of the Contract:

1) Workers' Compensation Insurance:

   A. Policy Number: _____

   B. Name of Insurer (**NOT** Broker): _____

   C. Address of Insurer: _____

   D. Telephone Number of Insurer: _____

2) For vehicles owned by Contractor and used in performing work under this Contract:

   A. VIN (Vehicle Identification Number): _____

   B. Automobile Liability Insurance Policy Number: _____

   C. Name of Insurer (**NOT** Broker): _____

   D. Address of Insurer: _____

   E. Telephone Number of Insurer: _____

3) Address of Property used to house workers on this Contract, if any: _____

   _____

4) Estimated total number of workers to be employed on this Contract: _____

5) Estimated total wages to be paid those workers: _____

6) Dates (or schedule) when those wages will be paid: _____

   _____
   (Describe schedule: For example, weekly or every other week or monthly)

7) Estimated total number of independent contractors to be used on this Contract:_

   _____

8) Taxpayer's Identification Number: _____

CERTIFICATION OF COMPLIANCE WITH THE EQUAL BENEFITS ORDINANCE

Section 1. CONTRACTOR/VENDOR INFORMATION

Name: _____ Federal Tax ID No.: _____
Address: _____
City:_____State: _____ZIP: _____
Contact Person: _____Telephone: _____
Email: _____Fax: _____

Section 2. COMPLIANCE QUESTIONS

A. The EBO is inapplicable to this Contract because the Contractor/Vendor has no employees. _____Yes _____No

B. Does your company provide (or make available at the employees' expense) any employee benefits? _____Yes _____No

(If "yes," proceed to Question C. If "no," proceed to section 5, as the EBO does not apply to you.)

C. Does your company provide (or make available at the employees' expense) any benefits to the spouse of an employee?

_____Yes _____No

D. Does your company provide (or make available at the employees' expense) any benefits to the domestic partner of an employee?

_____Yes _____No (If you answered "no" to both questions C and D, proceed to section 5, as the EBO is not applicable to this contract. If you answered "yes" to both Questions C and D, please continue to Question E. If you answered "yes" to Question C and "no" to Question D, please continue to section 3.)

E. Are the benefits that are available to the spouse of an employee identical to the benefits that are available to the domestic partner of an employee? _____Yes ____No

(If "yes," proceed to section 4, as you are in compliance with the EBO. If "no," continue to section 3.)

Section 3. PROVISIONAL COMPLIANCE

A. Contractor/Vendor is not in compliance with the EBO now but will comply by the following date:

_____By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor/Vendor submits evidence of taking reasonable measures to comply with the EBO; or

_____At such time that the administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor/vendor's infrastructure, not to exceed three months; or

_____Upon expiration of the contractor's current collective bargaining agreement(s).

B. If you have taken all reasonable measures to comply with the EBO but are unable to do so, do you agree to provide employees with a cash equivalent? (The cash equivalent is the amount of money your company pays for spousal benefits that are unavailable for domestic partners.)

____Yes ____ No

Section 4. REQUIRED DOCUMENTATION

At time of issuance of purchase order or contract award, you may be required by the City to provide documentation (copy of employee handbook, eligibility statement from your plans, insurance provider statement, etc.) to verify that you do not discriminate in the provision of benefits.

Section 5. CERTIFICATION

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually. By signing this certification, I further agree to comply with all additional obligations of the Equal Benefits Ordinance that are set forth in the Long Beach Municipal Code and in the terms of the contract or purchase order with the City.

Executed this ____ day of _____, 20__, at _____, _____

Name: _____ Signature: _____

Title: _____ Federal Tax ID No.: _____

EQUAL BENEFITS ORDINANCE DISCLOSURE FORM

As a condition of being awarded a contract with the City of Long Beach ("City"), the selected Contractor/Vendor ("Contractor") may be required during the performance of the Contract, to comply with the City's nondiscrimination provisions of the Equal Benefits Ordinance ("EBO") set forth in the Long Beach Municipal Code section 2.73 et seq. The EBO requires that during the performance of the contract, the Contractor shall provide equal benefits to its employees with spouses and employees with domestic partners. Benefits include but are not limited to, health benefits, bereavement leave, family medical leave, membership and membership discounts, moving expenses, retirement benefits and travel benefits. A cash equivalent payment is permitted if an employer has made all reasonable efforts to provide domestic partners with access to benefits but is unable to do so. A situation in which a cash equivalent payment might be used if where the employer has difficulty finding an insurance provider that is willing to provide domestic partner benefits.

<u>The EBO is applicable to the following employers:</u>

- For-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements and other construction projects in the amount of $100,000 or more

- For-profit entities that generate $350,000 or more in annual gross receipts leasing City property pursuant to a written agreement for a term exceeding 29 days in any calendar year

Contractors who are subject to the EBO must certify to the City before execution of the contract that they are in compliance with the EBO by completing the EBO Certification Form, attached, or that they have been issued a waiver by the City. Contractors must also allow authorized City representatives access to records so the City can verify compliance with the EBO.

The EBO includes provisions that address difficulties associated with implementing procedures to comply with the EBO. Contractors can delay implementation of procedures to comply with the EBO in the following circumstances:

1) By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor/Vendor submits evidence of taking reasonable measures to comply with the EBO; or

2) At such time that the administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor/Vendor's infrastructure, not to exceed three months; or

3) Upon expiration of the Contractor's current collective bargaining agreement(s).

Compliance with the EBO

If a Contractor has not received a waiver from complying with the EBO and the timeframe within which it can delay implementation has expired but it has failed to comply with the EBO, the Contractor may be deemed to be in material breach of the Contract. In the event of a material breach, the City may cancel, terminate or suspend the City agreement, in whole or in part. The City also may deem the Contractor an irresponsible bidder and disqualify the Contractor from contracting with the City for a period of three years. In addition, the City may assess liquidated damages against the Contractor which may be deducted from money otherwise due the Contractor. The City may also pursue any other remedies available at law or in equity.

By my signature below, I acknowledge that the Contractor understands that to the extent it is subject to the provisions of the Long Beach Municipal Code section 2.73, the Contractor shall comply with this provision.

Printed Name:_____ Title:_____

Signature:_____ Date:_____

Business Entity Name:_____

IRAN CONTRACTING ACT OF 2010 COMPLIANCE AFFIDAVIT

(California Public Contract Code Sections 2200-2208)

The California Legislature adopted the Iran Contracting Act of 2010 to respond to policies of Iran in a uniform fashion (PCC § 2201(q)). The Iran Contracting Act prohibits bidders engaged in investment activities in Iran from bidding on, submitting proposals for, or entering into or renewing contracts with public entities for goods and services of one million dollars ($1,000,000) or more (PCC § 2203(a)). A bidder who "engages in investment activities in Iran" is defined as either:

1. A bidder providing goods or services of twenty million dollars ($20,000,000) or more in the energy sector of Iran, including provision of oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; **or**
2. A bidder that is a financial institution (as that term is defined in 50 U.S.C. § 1701) that extends twenty million dollars ($20,000,000) or more in credit to another person, for 45 days or more, if that person will use the credit to provide goods or services in the energy sector in Iran and is identified on a list created by the California Department of General Services (DGS) pursuant to PCC § 2203(b) as a person engaging in the investment activities in Iran.

The bidder shall certify that at the time of submitting a bid for new contract or renewal of an existing contract, the bidder is **not** identified on the DGS list of ineligible businesses or persons and that the bidder is **not** engaged in investment activities in Iran in violation of the Iran Contracting Act of 2010.

California law establishes penalties for providing false certifications, including civil penalties equal to the greater of $250,000 or twice the amount of the contract for which the false certification was made; contract termination; and three-year ineligibility to bid on contracts (PCC § 2205).

To comply with the Iran Contracting Act of 2010, the bidder shall provide its vendor or financial institution name, and City Business Tax Registration Certificate (BRTC) if available, in completing **ONE** of the options shown below.

OPTION #1: CERTIFICATION

I, the official named below, certify that I am duly authorized to execute this certification on behalf of the bidder or financial institution identified below, and that the bidder or financial institution identified below is **not** on the current DGS list of persons engaged in investment activities in Iran and is **not** a financial institution extending twenty million dollars ($20,000,000) or more in credit to another person or vendor, for 45 days or more, if that other person or vendor will use the credit to provide goods or services in the energy sector in Iran and is identified on the current DSG list of persons engaged in investment activities in Iran.

Vendor Name/Financial Institution (printed)		*BTRC (or n/a)*
By (Authorized Signature)		
Print Name and Title of Person Signing		
Date Executed	*City Approval (Signature)*	*(Print Name)*

OPTION #2: EXEMPTION

Pursuant to PCC § 2203(c) and (d), a public entity may permit a bidder or financial institution engaged in investment activities in Iran, on a case-by-case basis, to be eligible for, or to bid on, submit a proposal for, or enter into, or renew, a contract for goods and services. If the bidder or financial institution identified below has obtained an exemption from the certification requirement under the Iran Contracting Act of 2010, the bidder or financial institution shall complete and sign below and attach documentation demonstrating the exemption approval.

Vendor Name/Financial Institution (printed)		*BTRC (or n/a)*
By (Authorized Signature)		
Print Name and Title of Person Signing		
Date Executed	*City Approval (Signature)*	*(Print Name)*

CITY OF LONG BEACH

LONG BEACH SBE PROGRAM (LBSBE) ACKNOWLEDGEMENT

REQUIRED OF ALL PROPOSERS/BIDDERS

(This acknowledgment will become part of the contract for the selected Proposer/Bidder)

Solicitation Name:_____

Solicitation Number:_____

This solicitation has the following combined LBSBE Goal 10 %:

If awarded the contract, the selected Proposer/Bidder commits to achieving the LBSBE combined goal assigned to the solicitation by committing subcontracts as stated on the SBE-2 LBSBE Commitment Form submitted with the bid/proposal. If the contractor did not demonstrate goal attainment, then Good Faith Efforts shall be completed and submitted with the bid/proposal

The selected Proposer/Bidder's performance towards goal attainment will be monitored throughout the duration of the contract, and the business enterprise achievement levels will be calculated at the end of the contract term.

Any reduction, increase, or other change to the SBE, VSBE, or LSBE Subcontract amounts stated on the submitted SBE-2 LBSBE Commitment Form without prior written approval of the City is considered an unauthorized subcontractor substitution, and the awarded Proposer/Bidder may be subject to a penalty. A subcontract dollar value increased or reduced solely as the result of a Change Order
issued by the City to add or delete from the original scope of work shall not be subject to a penalty for an unauthorized subcontractor substitution.

Proposers/Bidders must list all LBSBE program certified subcontractors on the SBE-2 Form and include all requested information. The City will verify subcontractor SBE/VSBE/LSBE status during the responsiveness review.

PENALTIES:
Violation of the LBSBE Program Participation Instructions and Ordinance (ORD-11-0010) may result in financial penalties. The City may withhold up to 10% of a progess payment until the contractor/consultant is brought into compliance.

REPORTING REQUIREMENTS:
The selected Proposer/Bidder shall submit monthly progress reports to the City Labor Compliance Division or their authorized representative. This report will list the SBE, VSBE, and/or LSBE subcontractors utilized during the reporting period. The City will not process or pay selected Proposer/Bidder's subsequent invoices if the Subcontractor Utilization Reports are not submitted monthly as directed by Labor Compliance or their representatives.

The Contractor must submit the Final Subcontracting Report within fifteen (15) calendar days after a request for the report by the City.

Bidder/Proposer shall submit this Attachment A and Attachment B (SBE-2 Form) of these Bidder Instructions with their bid/proposal. If Attachment B does not demonstrate goal attainment, Attachment C (GFE) shall also be submitted with supporting documentation.

CERTIFICATION

The Bidder/Proposer certifies that he/she has read and understood the LBSBE Program Participation Instructions and further certifies that, if awarded the Contract, he/she shall fully comply with the City's LBSBE Program.

Company Name, Address and Phone Number

Signature of Officer or other Authorized Representative Date

Print Name and Title of Officer or Other Authorized Representative

Project Title / Bid Number

CITY OF LONG BEACH

COLB SBE-2 FORM
LBSBE PROGRAM AWARDEE COMMITMENT PLAN

SECTION 1

BID #:		**Project Name:**		**Date:**	
Combined SBE/VSBE/LSBE Goal % Assigned to Contract:	10%	**Prime base bid amount:**	$		
Prime Contractor/Consultant Name:					

SECTION 2

If awarded the contract, the Prime commits to subcontracting out to the following LBSBE certified businesses in order to meet or exceed the project specific combined LBSBE goal. If you as the Prime are LBSBE certified, be sure to include your business on the list. You must list all LBSBE certified subcontractors/subconsultants. LBSBE status will be verified by City staff. Fill out all fields. Failure to provide complete and legible information on this form may result in your business not receiving full credit. Utilize multiple copies if needed.

Business Name, City, State, Contact Person, Phone #	Indicate "SBE","VSBE" and/or,"LSBE"	Indicate if Prime, Sub or Supplier	Brief Description of Work	$ Value of contract	% of Total Prime Base Bid
Ex #1: ABC Land Surveyors Long Beach, CA Mr. Joe Smith, (562) 555-1212	*VSBE,LSBE*	*1st tier sub*	*Land surveying*	*$100,000*	*20%*
			TOTAL:	***$_____***	***_____%***

Responses to the following questions will be verified by City Staff:

1)Have you committed to subcontracting out to a COMBINATION of SBE, VSBE, and LSBE businesses? ☐ *Yes* ☐ *No*

2)Have you demonstrated attaining the project specific LBSBE goal ? ☐ *Yes* ☐ *No*

3) If no to #2 above, did you submit Good Faith Effort as part of your bid/proposal? ☐ *Yes* ☐ *No*

Completed by: Bidder/Proposer Contact (please print or type) Phone #

Signature Date Email

INSTRUCTIONS FOR COLB SBE-2 FORM:
LBSBE PROGRAM AWARDEE COMMITMENT PLAN

SECTION 1:

Bid# - The number assigned to the bid.

Project Name - The name of the project (usually the bid/RFP title).

Date - The date the form is being filled out.

Combined SBE/VSBE/LSBE Goal % - The LBSBE goal assigned to the procurement, as stated in the LBSBE Participation Instructions.

Base Bid Amount - The total amount the bidder/proposer proposed for the project.

Prime Contractor/Consultant Business Name - Legal name of the business completing the form and submitting the bid/proposal.

SECTION 2:

1. List all Long Beach SBE Program (LBSBE) certified SBE/VSBE/LSBE subcontractors, vendors, suppliers, and other businesses that will render materials or services under this contract. If the prime contractor is an LBSBE certified SBE/VSBE/LSBE, list the prime first.

2. Completely fill out all fields - Ensure accuracy of subcontract amounts. This SBE-2 Form will be referred to throughout the life of the contract as your Commitment Plan. Awardee will be required to submit monthly reports demonstrating utilization and payment to the contractors listed.

3. For a business to be counted toward meeting the SBE/VSBE/LSBE goals, the business must be SBE certified on the City's online vendor database *Long Beach Buys,* or have a valid, unexpired PlanetBids LBSBE certification.

4. The prime contractor must verify the current eligibility status of each SBE/VSBE/LSBE, prior to listing the business(s) on the Commitment Plan. This can be done by locating the business on the City's Long Beach Buys platform and viewing their certifications.

5. The City does NOT issue VSBE certifications; VSBE eligibility will be reviewed and determined upon submittal of the Commitment Plan. VSBE status can be determined by viewing the businesses vendor profile on Long Beach Buys.

6. LSBE's will have "local" designation on their vendor profile, or will show Long Beach as the business location on the vendor profile.

7. The City reserves the right to request proof of payment from the prime contractor/subcontractor to the lower tier sub/vendor/supplier prior to contract close-out.

8. All SBEs/VSBEs/LSBEs, regardless of tier, MUST be LBSBE certified for the materials/services (NAICS Codes) that they will be rendering for the contract. All SBEs/VSBEs/LSBEs, regardless of tier, MUST provide materials/services directly applicable to the contract.

9. Use multiple copies of this form if necessary

CITY OF LONG BEACH

City of Long Beach LBSBE Program

Good Faith Effort (GFE) and Statement of GFE Compliance

Business Name:	
Project Name:	
Bid Number:	

If a Bidder/Proposer has not fully met the **established combined LBSBE goal** for this project, then the Bidder/Proposer must document it has met the GFE requirements by completing this Form and providing supporting documentation. Detailed information of the City's GFE requirements can be found in City LBSBE Program Participation Instructions included with the bid. The Bidder must submit the GFE with their bid/ proposal if they were not able to meet the goal. Failure to do so constitutes grounds for rejection of the Bid. Below is a list of Good Faith Efforts as defined in the LBSBE Program Participation Instructions. Each item is worth 10 points. A Bidder must received at least 70 of a total of 100 points to be found responsive for the LBSBE program if they have not demonstrated meeting the project specific LBSBE goal on the SBE-2 form. Please place an "X" in the first column for each item you are claiming credit. Failure to achieve the minimum number of Good Faith Efforts points stated in the box below constitutes grounds for rejection of your bid.

NOTE: All actions necessary to earn GFE Points must be undertaken prior to Bid Opening.

Total Available GFE Points is: 100 | **Minimum Number of GFE Points Required for responsiveness: 70**

	Points	Good Faith Effort (GFE)
☐	10	**Attend the Pre-bid/Pre-Proposal Meeting. T**he bidder/proposer must submit written evidence that he/she attended the pre-bid conference or pre-proposal meeting.
☐	10	**Subdivide the Work.** The Bidder must demonstrate to the City's satisfaction that it broke down or combined elements of work into economically feasible units to facilitate SBE, VSBE and LSBE participation. In awarding points the City will consider the number and dollar value of the scopes of work the Bidder listed in its GFE supporting documentation and whether those scopes would be sufficient to meet the established Subcontracting Goal. Simply restating the City's subcontracting scopes as listed in the City's Solicitation Documents
☐	10	**Advertise**. The bidder/proposer shall submit written evidence of commercial advertising (via web or print) for small business subcontractors/subconsultants at least **14 calendar days** prior to the bid/proposal due date. A copy of the advertisement showing the advertisement date(s), name of publication, type of work and amount of work that is being solicited, must be provided.
☐	10	**Use Public Databases**. The bidder/proposer must submit written evidence of using the City's LBSBE database and/ or other small business databases; minority business, and women-owned business associations and/or chambers of commerce to help solicit subcontractors in the disciplines the work was subdivided out to.
☐	10	**Directly Solicit Small Businesses.**The bidder/proposer must submit written evidence of directly soliciting the small business subcontractors/subconsultants found in the public database search at least 14 calendar days prior to the bid/proposal due date, or as specified by City SBE staff. A copy of the written notices sent directly to each small business must be provided. A direct solicitation should include the company name, project name, scope of work, date of contact, person contacted, amount of work, and a brief specific description of the work being solicited.

☐	10	**Provide Relevant Information to Interested Small Businesses**.The bidder/proposer must submit written evidence that he/she has provided interested small businesses with additional information about the requirements of the contract, how to obtain plans and specifications, and responded to any project specific questions.
☐	10	**Conduct Follow-Up:** The bidder/proposer must submit written evidence of specific activities used to follow up on any unsuccessful initial solicitations from the Direct Solicitations above. A copy of the written follow-up must be provided, or phone conversations annotated on an outreach log. This GFE is not valid unless the "Directly Solicit Small Businesses" GFE has been completed.
☐	10	**Offer Assistance.** The bidder/proposer must demonstrate that he/she has offered to assist small businesses in obtaining bonding, insurance or equipment. This can be satisfied by publishing assistance in the add, or by directly offering assistance in your outreach and solicitations.
☐	10	**Negotiate.** The bidder/proposer must submit written evidence that he/she has negotiated in good faith with interested small businesses. Documentation must include company name, contact person, method of contact, and specific items that were negotiated (scope of work, materials, equipment, insurance, bonding, personnel, timing of project, etc.).
☐	10	**Document Bid and Negotiation Results.** For any negotiations which were unsuccessful and/or bids/proposals received but not accepted, the bidder/proposer submitted the unsuccessful bidder's/proposer's company name, telephone number, contact person, price bid (if applicable), and the reason for rejecting the bid or proposal. If price is the reason for rejecting the bid/proposal, list the price bid by both the SBE/VSBE/LSBE and the low bidder for that element of work.

Refer to the LBSBE Program Participation Instructions for more details on GFE.

Total GFE Points (Claimed by Bidder)_____

Bidder/Proposer Representive:_____

Bidder/Proposer Signature:_____

Date:_____ Bids Due:_____

DIVISION D
POST-BID DOCUMENTS

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CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

CONTRACT

THIS CONTRACT is made and entered, in duplicate, as of _____, 20__ for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting held on _____, 20__, by and between _____, a California corporation/partnership/limited liability company ("Contractor"), whose address is _____, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, pursuant to a Notice Inviting Bids for _____ in the City of Long Beach, California, dated _____, 20__, and published by City, bids were received, publicly opened and declared on the date specified in said Notice; and

WHEREAS, the City Manager accepted the bid of Contractor; and

WHEREAS, the City Council authorized the City Manager to enter a contract with Contractor for the work described in Project Plans and Specifications No. R-____;

NOW, THEREFORE, in consideration of the mutual terms and conditions herein, the parties agree as follows:

1. SCOPE OF WORK. Contractor shall furnish all necessary labor, supervision, tools, materials, supplies, appliances, equipment and transportation for the work described in "Project Plans and Specifications No. R-____ for _____ in the City of Long Beach, California," said work to be performed according to the Contract Documents identified below. However, this Contract is intended to provide to City complete and finished work and, to that end, Contractor shall do everything necessary to complete the work, whether or not specifically described in the Contract Documents.

2. PRICE AND PAYMENT.

A. City shall pay to Contractor the amount(s) for materials and work identified in Contractor's Bid for _____ in the City of Long Beach, California, attached hereto as Exhibit "A"; provided, however, that the

total compensation to Contractor shall not exceed the maximum cumulative amount of _____ Dollars ($_____) for the estimated quantities established in the Bid, subject to additions or deductions as provided in the Contract Documents.

B. Contractor shall submit requests for progress payments and City will make payments in due course of payments in accordance with Section 9 of the Standard Specifications for Public Works Construction (latest edition) (the "Greenbook").

3. CONTRACT DOCUMENTS.

A. The Contract Documents include: The Notice Inviting Bids, Project Specifications No. R-____ (which may include by reference the Standard Specifications for Public Works Construction, latest edition, and any supplements thereto, collectively the "Standard Specifications"); the City of Long Beach Standard Plans; Project Drawing No. _____ for this work; the California Code of Regulations; the various Uniform Codes applicable to trades; the prevailing wage rates; Instructions to Bidders; the Bid; the bid security; the City of Long Beach Disadvantaged, Minority and Women-Owned Business Enterprise Program; this Contract and all documents attached hereto or referenced herein including but not limited to insurance; Bond for Faithful Performance; Payment Bond; Notice to Proceed; Notice of Completion; any addenda or change orders issued in accordance with the Standard Specifications; any permits required and issued for the work; approved final design drawings and documents; and the Information Sheet ("Contract Documents"). These Contract Documents are incorporated herein by the above reference and form a part of this Contract.

B. Notwithstanding Section 2-5.2 of the Standard Specifications, if any conflict or inconsistency exists or develops among or between Contract Documents, the following priority shall govern: 1) Permit(s) from other public agencies; 2) Change Orders; 3) this Contract (including any and all amendments hereto); 4) Addenda (which shall include written clarifications, corrections and

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changes to the bid documents and other types of written notices issued prior to bid opening; 5) Project Specifications; 6) Project Plans (including drawings); 7) the City of Long Beach Standard Plans; 8) Standard Specifications (as identified in Section 3.A. of the Greenbook); 9) other reference specifications; 10) other reference plans; 11) the Bid; and 12) the Notice Inviting Bids.

4. TIME FOR CONTRACT. Contractor shall commence work on a date to be specified in a written "Notice to Proceed" from City and shall complete all work within _____ (___) working/calendar days thereafter, subject to strikes, lockouts and events beyond the control of Contractor. Time is of the essence hereunder. City will suffer damage if the work is not completed within the time stated, but those damages would be difficult or impractical to determine. So, Contractor shall pay to City, as liquidated damages, the amount stated in the Contract Documents.

5. ACCEPTANCE OF WORK NOT TO CONSTITUTE A WAIVER. The acceptance of any work or the payment of any money by City shall not operate as a waiver of any provision of any Contract Document, of any power reserved to City, or of any right to damages or indemnity hereunder. The waiver of any breach or any default hereunder shall not be deemed a waiver of any other or subsequent breach or default.

6. WORKERS' COMPENSATION CERTIFICATION. Concurrently herewith, Contractor shall submit certification of Workers' Compensation coverage in accordance with California Labor Code Sections 1860 and 3700, a copy of which is attached hereto as Exhibit "B".

7. CLAIMS FOR EXTRA WORK. No claim shall be made at any time upon City by Contractor for and on account of any extra or additional work performed or materials furnished, unless such extra or additional work or materials shall have been expressly required by the City Manager and the quantities and price thereof shall have been first agreed upon, in writing, by the parties hereto.

8. CLAIMS. Contractor shall, upon completion of the work, deliver possession thereof to City ready for use and free and discharged from all claims for labor

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and materials in doing the work and shall assume and be responsible for, and shall protect, defend, indemnify and hold harmless City from and against any and all claims, demands, causes of action, liability, loss, costs or expenses for injuries to or death of persons, or damages to property, including property of City, which arises from or is connected with the performance of the work.

9. INSURANCE. Prior to commencement of work, and as a condition precedent to the effectiveness of this Contract, Contractor shall provide to City evidence of all insurance required in the Contract Documents.

In addition, Contractor shall complete and deliver to City the form ("Information Sheet") attached as Exhibit "C" and incorporated by reference, to comply with Labor Code Section 2810.

10. WORK DAY. Contractor shall comply with Sections 1810 through 1815 of the California Labor Code regarding hours of work. Contractor shall forfeit, as a penalty to City, the sum of Twenty-Five Dollars ($25.00) for each worker employed by Contractor or any subcontractor for each calendar day such worker is required or permitted to work more than eight (8) hours unless that worker receives compensation in accordance with Section 1815.

11. PREVAILING WAGE RATES. Contractor is directed to pay the general rate of per diem wages for each craft, classification, or type of worker needed to execute the contract (prevailing wage rates). Copies of the current prevailing rate of per diem wages are on file at its principal office (Labor Compliance Division, 411 W. Ocean Boulevard, 6th Floor, Long Beach, California, 90802), and shall be made available to any interested party upon request. Contractor is required to post a copy of the determination of the director of the prevailing rate of per diem wages at each job site. Pursuant to Section 1775, Contractor shall forfeit, as a penalty to the City, up to Two Hundred Dollars ($200) for each laborer, worker or mechanic employed for each calendar day, or portion thereof, that such laborer, worker or mechanic is paid less than the prevailing wage rates for any work done by Contractor, or any subcontractor, under this Contract. The difference

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between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or subcontractor. If the California minimum wage is increased in the future to an amount above that shown in the prevailing wage determination, the basic hourly rate in that determination automatically increases to the new minimum wage.

12. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE. Contractor is advised that this work constitutes a public work of improvement subject to California Labor Code Division 2, Part 7, Chapter 1, Articles 1-5, §§1720-1861. Pursuant to Labor Code Section 1771.1. Contractor or subcontractors shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public contract Code, or engage in the performance of any contract for public work, as defined in the California Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. Contract (or associated subcontracts) shall not be entered into without proof of the Contractor's (or subcontractor's) current registration to perform public work pursuant to Section 1725.5. All work conducted in support of this public work of improvement is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor will abide by all applicable apprenticeship requirements in the California Labor Code Section 1777.5 and will be responsible for subcontractor apprenticeship compliance to the same.

13. CERTIFIED PAYROLL RECORDS.

A. Pursuant to the provisions of Labor Code Section 1776, Contractor shall keep and shall cause each subcontractor performing any portion of the work under this Contract to keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor or subcontractor in connection with the work. Such payroll records for Contractor and

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all subcontractors shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor pursuant to the provisions of Section 1776 of the Labor Code. Contractor's failure to furnish such records to City or City's authorized Labor Compliance representative in the manner provided herein for notices shall entitle City to withhold the penalty prescribed by law from progress payments due to Contractor.

B. Contractor shall submit to the City certified payroll records for Contractor and all subcontractors performing any portion of the work under this Contract on a monthly basis. Certified payroll records for Contractor and all subcontractors shall be maintained during the course of the work and shall be kept by Contractor for at least three (3) years after completion of the work.

C. The foregoing is in addition to, and not in lieu of, any other requirements or obligations established and imposed by any department of the City with regard to submission and retention of certified payroll records for Contractor and subcontractors.

14. COORDINATION WITH GOVERNMENTAL REGULATIONS.

A. If the work is terminated pursuant to an order of any Federal or State authority, Contractor shall accept as full and complete compensation under this Contract such amount of money as will equal the product of multiplying the Contract price stated herein by the percentage of work completed by Contractor as of the date of such termination, and for which Contractor has not been paid. If the work is so terminated, the City Engineer, after consultation with Contractor, shall determine the percentage of work completed and the determination of the City Engineer shall be final.

B. If Contractor is prevented, in any manner, from strict compliance with the Plans and Specifications due to any Federal or State law, rule or regulation, in addition to all other rights and remedies reserved to the parties City may by resolution of the City Council suspend performance hereunder until the

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cause of disability is removed, extend the time for performance, make changes in the character of the work or materials, or terminate this Contract without liability to either party.

15. NOTICES.

A. Any notice required hereunder shall be in writing and personally delivered or deposited in the U.S. Postal Service, first class, postage prepaid, to Contractor at the address first stated herein, and to the City at 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager. Notice of change of address shall be given in the same manner as stated herein for other notices. Notice shall be deemed given on the date deposited in the mail or on the date personal delivery is made, whichever first occurs.

B. Except for stop notices and claims made under the Labor Code, City will notify Contractor when City receives any third party claims relating to this Contract in accordance with Section 9201 of the Public Contract Code.

16. BONDS. Contractor shall, simultaneously with the execution of this Contract, execute and deliver to City a good and sufficient corporate surety bond, in the form attached hereto and in the amount specified therein, conditioned upon the faithful performance of this Contract by Contractor, and a good and sufficient corporate surety bond, in the form attached hereto and in the amount specified therein, conditioned upon the payment of all labor and material claims incurred in connection with this Contract.

17. COVENANT AGAINST ASSIGNMENT. Neither this Contract nor any of the moneys that may become due Contractor hereunder may be assigned by Contractor without the written consent of City first had and obtained, nor will City recognize any subcontractor as such, and all persons engaged in the work of construction will be considered as independent contractors or agents of Contractor and will be held directly responsible to Contractor.

18. RESPONSIBILITY OF CONTRACTOR. Contractor shall have the responsibility to ensure compliance with all applicable federal, state, and local laws,

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regulations, and policies for itself and all subcontractors. Notwithstanding anything to the contrary in the Standard Specifications, Contractor shall have the responsibility, care and custody of the work. If any loss or damage occurs to the work that is not covered by collectible commercial insurance, excluding loss or damage caused by earthquake or flood or the negligence or willful misconduct of City, then Contractor shall immediately make the City whole for any such loss or pay for any damage. If Contractor fails or refuses to make the City whole or pay, then City may do so and the cost and expense of doing so shall be deducted from the amount due Contractor from City hereunder.

19. CONTINUATION. Termination or expiration of this Contract shall not terminate the rights or liabilities of either party which rights or liabilities accrued or existed prior to termination or expiration of this Contract.

20. TAXES AND TAX REPORTING.

A. As required by federal and state law, City is obligated to and will report the payment of compensation to Contractor on Form 1099-Misc. Contractor shall be solely responsible for payment of all federal and state taxes resulting from payments under this Contract. Contractor shall submit Contractor's Employer Identification Number (EIN), or Contractor's Social Security Number if Contractor does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Contractor acknowledges and agrees that City has no obligation to pay Contractor until Contractor provides one of these numbers.

B. Contractor shall cooperate with City in all matters relating to taxation and the collection of taxes, particularly with respect to the self-accrual of use tax. Contractor shall cooperate as follows: (i) for all leases and purchases of materials, equipment, supplies, or other tangible personal property totaling over $100,000 shipped from outside California, a qualified Contractor shall complete and submit to the appropriate governmental entity the form in Appendix "A" attached hereto; and (ii) for construction contracts and subcontracts totaling Five Million Dollars ($5,000,000.00) or more, Contractor shall obtain a sub-permit from the

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California Department of Tax and Fee Administration ("CFTA") for the Work site. "Qualified" means that the Contractor purchased at least Five Hundred Thousand Dollars ($500,000.00) in tangible personal property that was subject to sales or use tax in the previous calendar year.

C. Contractor shall create and operate a buying company, as defined in CFTA Regulation 1699, subpart (i), in City if Contractor will purchase over Five Million Dollars ($5,000,000.00) in tangible personal property subject to California sales and use tax.

D. In completing the form and obtaining the permit(s), Contractor shall use the address of the Work site as its business address and may use any address for its mailing address. Copies of the form and permit(s) shall also be delivered to the City Engineer. The form must be submitted and the permit(s) obtained as soon as Contractor receives a Notice to Proceed. Contractor shall not order any materials or equipment over One Hundred Thousand Dollars ($100,000.00) from vendors outside California until the form is submitted and the permit(s) obtained and, if Contractor does so, it shall be a material breach of this Contract. In addition, Contractor shall make all purchases from the Long Beach sales office of its vendors if those vendors have a Long Beach office and all purchases made by Contractor under this Contract which are subject to use tax of Five Hundred Thousand Dollars ($500,000.00) or more shall be allocated to the City of Long Beach. Contractor shall require the same cooperation with City, with regards to subsections B, C and D under this section (including forms and permits), from its subcontractors and any other subcontractors who work directly or indirectly under the overall authority of this Contract.

E. Contractor shall not be entitled to and by signing this Contract waives any claim or damages for delay against City if Contractor does not timely submit these forms to the appropriate governmental entity. Contractor may request a waiver to subsections B, C, and/or D. Waiver requests must be submitted in writing

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and will be subject to City review and approval. Contractor may contact the Financial Management Department, Budget Management Bureau at (562) 570-6425 for assistance with the form.

21. ADVERTISING. Contractor shall not use the name of City, its officials or employees in any advertising or solicitation for business, nor as a reference, without the prior approval of the City Manager, City Engineer or designee.

22. NO PECULIAR RISK. Contractor acknowledges and agrees that the work to be performed hereunder does not constitute a peculiar risk of bodily harm and that no special precautions are required to perform said work.

23. THIRD PARTY BENEFICIARY. This Contract is intended by the parties to benefit themselves only and is not in any way intended or designed to or entered for the purpose of creating any benefit or right of any kind for any person or entity that is not a party to this Contract.

24. SUBCONTRACTORS. Contractor agrees to and shall bind every subcontractor to the terms of this Contract; provided, however, that nothing herein shall create any obligation on the part of City to pay any subcontractor except in accordance with a court order in an action to foreclose a stop notice. Failure of Contractor to comply with this Section shall be deemed a material breach of this Contract. A list of subcontractor(s) submitted by Contractor in compliance with Public Contract Code Sections 4100 et seq. is attached hereto as Exhibit "D" and incorporated herein by this reference.

25. FEDERAL-AID PROVISIONS. The work to be performed under this Contract will be financed in whole or in part with Federal funds, as granted by the California Department of Transportation (CalTrans). Therefore all of the statutes, rules and regulations promulgated by the Federal Government and applicable to work financed in whole or in part with Federal funds and associated CalTrans requirements will apply to such work, including federal prevailing wage rates (also known as “Davis Bacon” wage rates). The City refers Contractor to the CalTrans Local Assistance Procedure Manual

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Exhibit 12-G, which includes the United States Department of Transportation Form Federal Highway Administration (FHWA) 1273 "Required Contract Provisions, Federal-Aid Construction Contracts," and which is attached hereto as Exhibit "E" and incorporated by reference.

26. FEDERAL DAVIS BACON REQUIREMENTS. Federal-aid Work is subject to the requirements of the Davis Bacon Act. The City refers Contractor to Exhibit "E" for additional detail regarding this obligation of Contractor and all subcontractors. Contractor and all subcontractors must comply with the Federal Prevailing Wage Determinations attached as Exhibit "F" and all record keeping requirements of the Davis Bacon Act. If both state and federal wage rates apply to a scope of work, Contractor and all subcontractors must pay the higher of the wage rates.

27. DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS. This Agreement is subject to 49 CFR Part 26 entitled "Participation by Disadvantaged Enterprises in Department of Transportation Financial Assistance Programs." The City has a Disadvantaged Business Enterprise (DBE) Program applicable to this Project. Contractor shall ensure it is fully informed regarding the DBE requirements of this Project. City refers Contractor to Exhibit "E", which contains additional detail regarding this requirement. The DBE goal for this project is 16%. Contractor shall maintain records of all subcontractor agreements entered into with DBE subcontractors and records of materials purchased from DBE suppliers. Contractor shall submit all forms identified and required by the City's Labor Compliance Office and its DBE consultants assigned to the Project.

28. NON-DISCRIMINATION CLAUSE AND STATEMENT OF COMPLIANCE.

A. Contractor's signature affixed herein and dated shall constitute a certification under penalty of perjury under the laws of the State of California that the Contractor has, unless exempt, complied with the nondiscrimination program requirements of Gov. Code §12990 and 2 CCR § 8103.

B. During the performance of this Agreement, Contractor and its

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subcontractors shall not deny the Agreement's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. Contractor and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.

C. Contractor and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 et seq.), the applicable regulations promulgated there under (2 CCR §11000 et seq.), the provisions of Gov. Code §§11135-11139.5, and the regulations or standards adopted by City to implement such article. The applicable regulations of the Fair Employment and Housing Commission implementing Gov. Code §12990 (a-f), set forth 2 CCR §§8100-8504, are incorporated into this Agreement by reference and made a part hereof as if set forth in full.

D. Contractor shall permit access by representatives of the Department of Fair Employment and Housing and the City upon reasonable notice at any time during the normal business hours, but in no case less than twenty-four (24) hours' notice, to such of its books, records, accounts, and all other sources of information and its facilities as said Department or City shall require to ascertain compliance with this clause.

E. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

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F. Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this Agreement.

G. Contractor, with regard to the work performed under this Agreement, shall act in accordance with Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d et seq.). Title VI provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the United States shall, on the basis of race, color, national origin, religion, sex, age, disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.

H. Contractor shall comply with regulations relative to non-discrimination in federally assisted programs of the U.S. Department of Transportation (49 CFR Part 21 - Effectuation of Title VI of the Civil Rights Act of 1964). Specifically, the Contractor shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR §21.5, including employment practices and the selection and retention of subcontractors.

I. Contractor and subcontractors will never exclude any person from participation in, deny any person the benefits of, or otherwise discriminate against anyone in connection with the award and performance of any contract covered by 49 CFR 26 on the basis of race, color, sex, or national origin. In administering the City components of the DBE Program Plan, Contractor and subcontractors will not, directly, or through contractual or other arrangements, use criteria or methods of administration that have the effect of defeating or substantially impairing accomplishment of the objectives of the DBE Program Plan with respect to individuals of a particular race, color, sex, or national origin.

29. RECORD RETENTION/AUDIT.

A. Contractor and all subcontractors must maintain all books, documents, papers, accounts, accounting records, and other evidence pertaining to

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the performance of the Contract and make such workpapers and materials available at their respective offices at all reasonable times during the Contract period and for five (5) years from the date of final payment under the Contract or all other pending matters related to the Project are closed, whichever is later. The City, CalTrans, FHWA, or any duly authorized representative of the Federal government having jurisdiction under Federal laws or regulations (including the basis of Federal funding in whole or in part) shall have access to any books, records, and documents of the Contractor and subcontractors that are pertinent to the Project and/or Contract Documents for audits, examinations, workpaper review, excerpts, and transactions, and copies thereof shall be furnished if requested without limitation.

B. Notwithstanding the foregoing, Contractor and all subcontractors must maintain the foregoing records for longer than five years in the following circumstances: (a) If any litigation, claim, or audit is started before the expiration of the 5-year period, the records must be retained until all litigation, claims, or audit findings involving the records have been resolved and final action taken; (b) When the City is notified in writing by the Federal awarding agency, cognizant agency for audit, oversight agency for audit, cognizant agency for indirect costs, or pass-through entity to extend the retention period; or (c) As otherwise instructed by the City or any oversight agency.

30. NO DUTY TO INSPECT. No language in this Contract shall create and City shall not have any duty to inspect, correct, warn of or investigate any condition arising from Contractor's work hereunder, or to insure compliance with laws, rules or regulations relating to said work. If City does inspect or investigate, the results thereof shall not be deemed compliance with or a waiver of any requirements of the Contract Documents.

31. GOVERNING LAW. This Contract shall be governed by and construed pursuant to the laws of the State of California (except those provisions of California law pertaining to conflicts of laws).

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32. INTEGRATION. This Contract, including the Contract Documents identified in Section 3 hereof, constitutes the entire understanding between the parties and supersedes all other agreements, oral or written, with respect to the subject matter herein.

33. NONDISCRIMINATION. In connection with performance of this Contract and subject to federal laws, rules and regulations, Contractor shall not discriminate in employment or in the performance of this Contract on the basis of race, religion, national origin, color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or disability. It is the policy of the City to encourage the participation of Disadvantaged, Minority and Women-Owned Business Enterprises, and the City encourages Contractor to use its best efforts to carry out this policy in the award of all subcontracts.

34. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in accordance with the provisions of the Ordinance, this Contract is subject to the applicable provisions of the Equal Benefits Ordinance ("EBO"), section 2.73 et seq. of the Long Beach Municipal Code, as amended from time to time.

A. During the performance of this Contract, the Contractor certifies and represents that the Contractor will comply with the EBO. The Contractor agrees to post the following statement in conspicuous places at its place of business available to employees and applicants for employment:

"During the performance of a Contract with the City of Long Beach, the Contractor will provide equal benefits to employees with spouses and its employees with domestic partners. Additional information about the City of Long Beach's Equal Benefits Ordinance may be obtained from the City of Long Beach Business Services Division at 562-570-6200."

B. The failure of the Contractor to comply with the EBO will be deemed to be a material breach of the Contract by the City.

C. If the Contractor fails to comply with the EBO, the City may cancel, terminate or suspend the Contract, in whole or in part, and monies due or to

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become due under the Contract may be retained by the City. The City may also pursue any and all other remedies at law or in equity for any breach.

D. Failure to comply with the EBO may be used as evidence against the Contractor in actions taken pursuant to the provisions of Long Beach Municipal Code 2.93 et seq., Contractor Responsibility.

E. If the City determines that the Contractor has set up or used its contracting entity for the purpose of evading the intent of the EBO, the City may terminate the Contract on behalf of the City. Violation of this provision may be used as evidence against the Contractor in actions taken pursuant to the provisions of Long Beach Municipal Code section 2.93 et seq., Contractor Responsibility.

35. DEFAULT. Default shall include but not be limited to Contractor's failure to perform in accordance with the Plans and Specifications, failure to comply with any Contract Document, failure to pay any penalties, fines or charges assessed against Contractor by any public agency, failure to pay any charges or fees for services performed by the City, and if Contractor has substituted any security in lieu of retention, then default shall also include City's receipt of a stop notice. If default occurs and Contractor has substituted any security in lieu of retention, then in addition to City's other legal remedies, City shall have the right to draw on the security in accordance with Public Contract Code Section 22300 and without further notice to Contractor. If default occurs and Contractor has not substituted any security in lieu of retention, then City shall have all legal remedies available to it.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

(company), a corporation

_____, 2022 By_____
Name_____
Title_____

_____, 2022 By_____

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Name_____
Title_____

"Contractor"

CITY OF LONG BEACH, a municipal corporation

_____, 2022 By_____
City Manager

"City"

This Contract is approved as to form on _____, 2022.

CHARLES PARKIN, City Attorney

By _____
Deputy

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CONTRACT

THIS CONTRACT is made and entered, in duplicate, as of _____, 20__ for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting held on _____, 20__, by and between _____, a California corporation/partnership/limited liability company ("Contractor"), whose address is _____, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, pursuant to a Notice Inviting Bids for _____ in the City of Long Beach, California, dated _____, 20__, and published by City, bids were received, publicly opened and declared on the date specified in said Notice; and

WHEREAS, the City Manager accepted the bid of Contractor; and

WHEREAS, the City Council authorized the City Manager to enter a contract with Contractor for the work described in Project Plans and Specifications No. R-____;

NOW, THEREFORE, in consideration of the mutual terms and conditions herein, the parties agree as follows:

1. SCOPE OF WORK. Contractor shall furnish all necessary labor, supervision, tools, materials, supplies, appliances, equipment and transportation for the work described in Project Plans and Specifications No. R-____ for _____ in the City of Long Beach, California, said work to be performed according to the Contract Documents identified below. However, this Contract is intended to provide to City complete and finished work and, to that end, Contractor shall do everything necessary to complete the work, whether or not specifically described in the Contract Documents.

2. PRICE AND PAYMENT.

A. City shall pay to Contractor the amount(s) for materials and work identified in Contractor's Bid for _____ in the City of Long Beach, California, attached hereto as Exhibit "A"; provided, however, that the total compensation to Contractor shall not exceed the maximum cumulative amount

of _____ Dollars ($_____) for the estimated quantities established in the Bid, subject to additions or deductions as provided in the Contract Documents.

B. Contractor shall submit requests for progress payments and City will make payments in due course of payments in accordance with Section 9 of the Standard Specifications for Public Works Construction (latest edition) (the "Greenbook").

3. CONTRACT DOCUMENTS.

A. The Contract Documents include: The Notice Inviting Bids, Project Specifications No. R-____ (which may include by reference the Standard Specifications for Public Works Construction, latest edition, and any supplements thereto, collectively the "Standard Specifications"); the City of Long Beach Standard Plans; Project Drawing No. _____ for this work; the California Code of Regulations; the various Uniform Codes applicable to trades; the prevailing wage rates; Instructions to Bidders; the Bid; the bid security; the City of Long Beach Disadvantaged, Minority and Women-Owned Business Enterprise Program; the Citywide Project Labor Agreement; this Contract and all documents attached hereto or referenced herein including but not limited to insurance; Bond for Faithful Performance; Payment Bond; Notice to Proceed; Notice of Completion; any addenda or change orders issued in accordance with the Standard Specifications; any permits required and issued for the work; approved final design drawings and documents; the Information Sheet; and the Letter of Assent ("Contract Documents"). These Contract Documents are incorporated herein by the above reference and form a part of this Contract.

B. Notwithstanding Section 2-5.2 of the Standard Specifications, if any conflict or inconsistency exists or develops among or between Contract Documents, the following priority shall govern: 1) Permit(s) from other public agencies; 2) Change Orders; 3) this Contract (including any and all amendments hereto); 4) Addenda (which shall include written clarifications, corrections and

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changes to the bid documents and other types of written notices issued prior to bid opening; 5) Project Specifications; 6) Project Plans (including drawings); 7) the City of Long Beach Standard Plans; 8) Standard Specifications (as identified in Section 3.A. of the Greenbook); 9) other reference specifications; 10) other reference plans; 11) the Bid; and 12) the Notice Inviting Bids.

4. TIME FOR CONTRACT. Contractor shall commence work on a date to be specified in a written Notice to Proceed from City and shall complete all work within _____ (___) working/calendar days thereafter, subject to strikes, lockouts and events beyond the control of Contractor. Time is of the essence hereunder. City will suffer damage if the work is not completed within the time stated, but those damages would be difficult or impractical to determine. So, Contractor shall pay to City, as liquidated damages, the amount stated in the Contract Documents.

5. ACCEPTANCE OF WORK NOT TO CONSTITUTE A WAIVER. The acceptance of any work or the payment of any money by City shall not operate as a waiver of any provision of any Contract Document, of any power reserved to City, or of any right to damages or indemnity hereunder. The waiver of any breach or any default hereunder shall not be deemed a waiver of any other or subsequent breach or default.

6. WORKERS' COMPENSATION CERTIFICATION. Concurrently herewith, Contractor shall submit certification of Workers' Compensation coverage in accordance with California Labor Code Sections 1860 and 3700, a copy of which is attached hereto as Exhibit “B”.

7. CLAIMS FOR EXTRA WORK. No claim shall be made at any time upon City by Contractor for and on account of any extra or additional work performed or materials furnished, unless such extra or additional work or materials shall have been expressly required by the City Manager and the quantities and price thereof shall have been first agreed upon, in writing, by the parties hereto.

8. CLAIMS. Contractor shall, upon completion of the work, deliver possession thereof to City ready for use and free and discharged from all claims for labor

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and materials in doing the work and shall assume and be responsible for, and shall protect, defend, indemnify and hold harmless City from and against any and all claims, demands, causes of action, liability, loss, costs or expenses for injuries to or death of persons, or damages to property, including property of City, which arises from or is connected with the performance of the work.

9. INSURANCE. Prior to commencement of work, and as a condition precedent to the effectiveness of this Contract, Contractor shall provide to City evidence of all insurance required in the Contract Documents.

In addition, Contractor shall complete and deliver to City the form ("Information Sheet") attached as Exhibit "C" and incorporated by reference, to comply with Labor Code Section 2810.

10. WORK DAY. Contractor shall comply with Sections 1810 through 1815 of the California Labor Code regarding hours of work. Contractor shall forfeit, as a penalty to City, the sum of Twenty-Five Dollars ($25.00) for each worker employed by Contractor or any subcontractor for each calendar day such worker is required or permitted to work more than eight (8) hours unless that worker receives compensation in accordance with Section 1815.

11. PREVAILING WAGE RATES. Contractor is directed to pay the general rate of per diem wages for each craft, classification, or type of worker needed to execute the contract (prevailing wage rates). Copies of the current prevailing rate of per diem wages are on file at its principal office (Labor Compliance Division, 411 W. Ocean Boulevard, 6th Floor, Long Beach, California, 90802), and shall be made available to any interested party upon request. Contractor is required to post a copy of the determination of the director of the prevailing rate of per diem wages at each job site. Pursuant to Section 1775, Contractor shall forfeit, as a penalty to the City, up to Two Hundred Dollars ($200) for each laborer, worker or mechanic employed for each calendar day, or portion thereof, that such laborer, worker or mechanic is paid less than the prevailing wage rates for any work done by Contractor, or any subcontractor, under this Contract. The difference

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between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or subcontractor.

12. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE. Contractor is advised that this work constitutes a public work of improvement subject to California Labor Code Division 2, Part 7, Chapter 1, Articles 1-5, §§1720-1861. Pursuant to Labor Code Section 1771.1. Contractor or subcontractors shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public contract Code, or engage in the performance of any contract for public work, as defined in the California Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. Contract (or associated subcontracts) shall not be entered into without proof of the Contractor's (or subcontractor's) current registration to perform public work pursuant to Section 1725.5. All work conducted in support of this public work of improvement is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor will abide by all applicable apprenticeship requirements in the California Labor Code Section 1777.5 and will be responsible for subcontractor apprenticeship compliance to the same.

13. CERTIFIED PAYROLL RECORDS.

A. Pursuant to the provisions of Labor Code Section 1776, Contractor shall keep and shall cause each subcontractor performing any portion of the work under this Contract to keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor or subcontractor in connection with the work. Such payroll records for Contractor and all subcontractors shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor pursuant to the provisions of Section 1776 of the Labor Code. Contractor's failure to furnish such records to City

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or City's authorized Labor Compliance representative in the manner provided herein for notices shall entitle City to withhold the penalty prescribed by law from progress payments due to Contractor.

B. Contractor shall submit to the City certified payroll records for Contractor and all subcontractors performing any portion of the work under this Contract on a monthly basis. Certified payroll records for Contractor and all subcontractors shall be maintained during the course of the work and shall be kept by Contractor for at least three (3) years after completion of the work.

C. The foregoing is in addition to, and not in lieu of, any other requirements or obligations established and imposed by any department of the City with regard to submission and retention of certified payroll records for Contractor and subcontractors.

14. COORDINATION WITH GOVERNMENTAL REGULATIONS.

A. If the work is terminated pursuant to an order of any Federal or State authority, Contractor shall accept as full and complete compensation under this Contract such amount of money as will equal the product of multiplying the Contract price stated herein by the percentage of work completed by Contractor as of the date of such termination, and for which Contractor has not been paid. If the work is so terminated, the City Engineer, after consultation with Contractor, shall determine the percentage of work completed and the determination of the City Engineer shall be final.

B. If Contractor is prevented, in any manner, from strict compliance with the Plans and Specifications due to any Federal or State law, rule or regulation, in addition to all other rights and remedies reserved to the parties City may by resolution of the City Council suspend performance hereunder until the cause of disability is removed, extend the time for performance, make changes in the character of the work or materials, or terminate this Contract without liability to either party.

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15. NOTICES.

A. Any notice required hereunder shall be in writing and personally delivered or deposited in the U.S. Postal Service, first class, postage prepaid, to Contractor at the address first stated herein, and to the City at 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager. Notice of change of address shall be given in the same manner as stated herein for other notices. Notice shall be deemed given on the date deposited in the mail or on the date personal delivery is made, whichever first occurs.

B. Except for stop notices and claims made under the Labor Code, City will notify Contractor when City receives any third party claims relating to this Contract in accordance with Section 9201 of the Public Contract Code.

16. BONDS. Contractor shall, simultaneously with the execution of this Contract, execute and deliver to City a good and sufficient corporate surety bond, in the form attached hereto and in the amount specified therein, conditioned upon the faithful performance of this Contract by Contractor, and a good and sufficient corporate surety bond, in the form attached hereto and in the amount specified therein, conditioned upon the payment of all labor and material claims incurred in connection with this Contract.

17. COVENANT AGAINST ASSIGNMENT. Neither this Contract nor any of the moneys that may become due Contractor hereunder may be assigned by Contractor without the written consent of City first had and obtained, nor will City recognize any subcontractor as such, and all persons engaged in the work of construction will be considered as independent contractors or agents of Contractor and will be held directly responsible to Contractor.

18. RESPONSIBILITY OF CONTRACTOR. Notwithstanding anything to the contrary in the Standard Specifications, Contractor shall have the responsibility, care and custody of the work. If any loss or damage occurs to the work that is not covered by collectible commercial insurance, excluding loss or damage caused by earthquake or flood or the negligence or willful misconduct of City, then Contractor shall immediately make the

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City whole for any such loss or pay for any damage. If Contractor fails or refuses to make the City whole or pay, then City may do so and the cost and expense of doing so shall be deducted from the amount due Contractor from City hereunder.

19. CONTINUATION. Termination or expiration of this Contract shall not terminate the rights or liabilities of either party which rights or liabilities accrued or existed prior to termination or expiration of this Contract.

20. TAXES AND TAX REPORTING.

A. As required by federal and state law, City is obligated to and will report the payment of compensation to Contractor on Form 1099-Misc. Contractor shall be solely responsible for payment of all federal and state taxes resulting from payments under this Contract. Contractor shall submit Contractor's Employer Identification Number (EIN), or Contractor's Social Security Number if Contractor does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Contractor acknowledges and agrees that City has no obligation to pay Contractor until Contractor provides one of these numbers.

B. Contractor shall cooperate with City in all matters relating to taxation and the collection of taxes, particularly with respect to the self-accrual of use tax. Contractor shall cooperate as follows: (i) for all leases and purchases of materials, equipment, supplies, or other tangible personal property totaling over One Hundred Thousand Dollars ($100,000.00) shipped from outside California, a qualified Contractor shall complete and submit to the appropriate governmental entity the form in Appendix "A" attached hereto; and (ii) for construction contracts and subcontracts totaling Five Million Dollars ($5,000,000.00) or more, Contractor shall obtain a sub-permit from the California Department of Tax and Fee Administration ("CFTA") for the Work site. "Qualified" means that the Contractor purchased at least Five Hundred Thousand Dollars ($500,000.00) in tangible personal property that was subject to sales or use tax in the previous calendar year.

C. Contractor shall create and operate a buying company, as

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defined in CFTA Regulation 1699, subpart (i), in City if Contractor will purchase over Five Million Dollars ($5,000,000.00) in tangible personal property subject to California sales and use tax.

D. In completing the form and obtaining the permit(s), Contractor shall use the address of the Work site as its business address and may use any address for its mailing address. Copies of the form and permit(s) shall also be delivered to the City Engineer. The form must be submitted and the permit(s) obtained as soon as Contractor receives a Notice to Proceed. Contractor shall not order any materials or equipment over One Hundred Thousand Dollars ($100,000.00) from vendors outside California until the form is submitted and the permit(s) obtained and, if Contractor does so, it shall be a material breach of this Contract. In addition, Contractor shall make all purchases from the Long Beach sales office of its vendors if those vendors have a Long Beach office and all purchases made by Contractor under this Contract which are subject to use tax of Five Hundred Thousand Dollars ($500,000.00) or more shall be allocated to the City of Long Beach. Contractor shall require the same cooperation with City, with regards to subsections B, C and D under this section (including forms and permits), from its subcontractors and any other subcontractors who work directly or indirectly under the overall authority of this Contract.

E. Contractor shall not be entitled to and by signing this Contract waives any claim or damages for delay against City if Contractor does not timely submit these forms to the appropriate governmental entity. Contractor may request a waiver to subsections B, C, and/or D. Waiver requests must be submitted in writing and will be subject to City review and approval. Contractor may contact the Financial Management Department, Budget Management Bureau at (562) 570-6425 for assistance with the form.

21. ADVERTISING. Contractor shall not use the name of City, its officials or employees in any advertising or solicitation for business, nor as a reference, without the

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CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

prior approval of the City Manager, City Engineer or designee.

22. AUDIT. City shall have the right at all reasonable times during performance of the work under this Contract for a period of five (5) years after final completion of the work to examine, audit, inspect, review, extract information from and copy all books, records, accounts and other documents of Contractor relating to this Contract.

23. NO PECULIAR RISK. Contractor acknowledges and agrees that the work to be performed hereunder does not constitute a peculiar risk of bodily harm and that no special precautions are required to perform said work.

24. THIRD PARTY BENEFICIARY. This Contract is intended by the parties to benefit themselves only and is not in any way intended or designed to or entered for the purpose of creating any benefit or right of any kind for any person or entity that is not a party to this Contract.

25. SUBCONTRACTORS. Contractor agrees to and shall bind every subcontractor to the terms of this Contract; provided, however, that nothing herein shall create any obligation on the part of City to pay any subcontractor except in accordance with a court order in an action to foreclose a stop notice. Failure of Contractor to comply with this Section shall be deemed a material breach of this Contract. A list of subcontractor(s) submitted by Contractor in compliance with Public Contract Code Sections 4100 et seq. is attached hereto as Exhibit "D" and incorporated herein by this reference.

26. NO DUTY TO INSPECT. No language in this Contract shall create and City shall not have any duty to inspect, correct, warn of or investigate any condition arising from Contractor's work hereunder, or to insure compliance with laws, rules or regulations relating to said work. If City does inspect or investigate, the results thereof shall not be deemed compliance with or a waiver of any requirements of the Contract Documents.

27. GOVERNING LAW. This Contract shall be governed by and

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construed pursuant to the laws of the State of California (except those provisions of California law pertaining to conflicts of laws).

28. INTEGRATION. This Contract, including the Contract Documents identified in Section 3 hereof, constitutes the entire understanding between the parties and supersedes all other agreements, oral or written, with respect to the subject matter herein.

29. NONDISCRIMINATION. In connection with performance of this Contract and subject to federal laws, rules and regulations, Contractor shall not discriminate in employment or in the performance of this Contract on the basis of race, religion, national origin, color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or disability. It is the policy of the City to encourage the participation of Disadvantaged, Minority and Women-Owned Business Enterprises, and the City encourages Contractor to use its best efforts to carry out this policy in the award of all subcontracts.

30. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in accordance with the provisions of the Ordinance, this Contract is subject to the applicable provisions of the Equal Benefits Ordinance ("EBO"), section 2.73 et seq. of the Long Beach Municipal Code, as amended from time to time.

A. During the performance of this Contract, the Contractor certifies and represents that the Contractor will comply with the EBO. The Contractor agrees to post the following statement in conspicuous places at its place of business available to employees and applicants for employment:

"During the performance of a Contract with the City of Long Beach, the Contractor will provide equal benefits to employees with spouses and its employees with domestic partners. Additional information about the City of Long Beach's Equal Benefits Ordinance may be obtained from the City of Long Beach Business Services Division at 562-570-6200."

B. The failure of the Contractor to comply with the EBO will be deemed to be a material breach of the Contract by the City.

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C. If the Contractor fails to comply with the EBO, the City may cancel, terminate or suspend the Contract, in whole or in part, and monies due or to become due under the Contract may be retained by the City. The City may also pursue any and all other remedies at law or in equity for any breach.

D. Failure to comply with the EBO may be used as evidence against the Contractor in actions taken pursuant to the provisions of Long Beach Municipal Code 2.93 et seq., Contractor Responsibility.

E. If the City determines that the Contractor has set up or used its contracting entity for the purpose of evading the intent of the EBO, the City may terminate the Contract on behalf of the City. Violation of this provision may be used as evidence against the Contractor in actions taken pursuant to the provisions of Long Beach Municipal Code section 2.93 et seq., Contractor Responsibility.

31. PROJECT LABOR AGREEMENT. This Project is covered by a Citywide Project Labor Agreement ("PLA") entered into by the City of Long Beach with the Los Angeles/Orange Counties Building and Construction Trades Council and the signatory Craft Unions. The PLA contains a local hiring goal of 40%, calculated based on total hours worked. The local hire provision requires best efforts to utilize qualified workers residing in first tier zip codes (which include all of the City of Long Beach), then in second tier zip codes (which reflect the Gateway Cities), and finally in Los Angeles and Orange Counties. However, if Project work is funded in full or in part by State of California Tideland funds, then the local hire provision requires best efforts to utilize qualified workers residing within the Counties of Los Angeles or Orange. In addition, there is a provision with a goal of ten percent (10%) to hire Transitional Workers and Veterans. Contractor shall complete and deliver to City the form ("Letter of Assent") attached hereto as Exhibit "E" and incorporated by reference, to comply with the PLA. Contractor agrees to work with the City and its selected Independent Jobs Coordinator, if applicable, to promote the local hiring goals and objectives of the PLA.

32. DEFAULT. Default shall include but not be limited to Contractor's

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failure to perform in accordance with the Plans and Specifications, failure to comply with any Contract Document, failure to pay any penalties, fines or charges assessed against Contractor by any public agency, failure to pay any charges or fees for services performed by the City, and if Contractor has substituted any security in lieu of retention, then default shall also include City's receipt of a stop notice. If default occurs and Contractor has substituted any security in lieu of retention, then in addition to City's other legal remedies, City shall have the right to draw on the security in accordance with Public Contract Code Section 22300 and without further notice to Contractor. If default occurs and Contractor has not substituted any security in lieu of retention, then City shall have all legal remedies available to it.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

(company), a corporation

_____, 2021 By_____
Name_____
Title_____

_____, 2021 By_____
Name_____
Title_____

"Contractor"

CITY OF LONG BEACH, a municipal corporation

_____, 2021 By_____
City Manager

"City"

This Contract is approved as to form on _____, 2021.

CHARLES PARKIN, City Attorney

By _____
Deputy

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

Performance Bond
No. _____

PERFORMANCE BOND
(Bond for Faithful Performance)

WHEREAS, The CITY OF LONG BEACH, a municipal corporation of the State of California, hereinafter the "City" or "Obligee," have conditionally awarded to _____ designated as the "Contractor" or "Principal" herein, a contract for the work ("Work") described as follows:

_____
_, as described in Specification No.: _____, Addenda/Addendum No. _____ and related drawings.

WHEREAS, the Principal is about to enter into a Contract with Obligee for performance of the Work, which Contract, and all Contract Documents set forth therein are incorporated herein by this reference.

WHEREAS, the Principal is required to furnish a bond guaranteeing the prompt, full and faithful performance of its obligations under the Contract Documents concurrently with delivery to Obligee of the executed Contract.

NOW, THEREFORE, we the undersigned Contractor, as Principal, and _____, an admitted surety insurer in the State of California, as Surety, are held and firmly bound unto THE CITY OF LONG BEACH, a municipal corporation of the State of California (hereinafter the "City" or "Obligee") in the penal sum of _____ Dollars ($_____) lawful money of the United States, for the payment of which sum, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

If the Principal shall promptly, fully and faithfully perform each and all of the obligations and things to be done and performed by the Principal in strict accordance with the terms of the Contract Documents as said Contract Documents may be modified or amended from time to time; and if the Principal shall indemnify and save harmless the Obligee and all of its officers, agents and employees from any and all losses, liability and damages, claims, judgments, stop notices, costs, and fees of every description, whether imposed by law or equity, which may be incurred by the Obligee by reason of the failure or default on the part of the Principal in the performance of any or all of the terms or the obligations of the Contract Documents, as they may be amended and supplemented including, but not limited to, its liability for liquidated damages for delay, all warranties or guarantees required thereunder and indemnity obligations; then this obligation shall be void; otherwise, it shall be, and remain, in full force and effect.

Whenever the Principal shall be, and is declared by the Obligee to be in default under the Contract, which shall include without limitation, any breach or default of the Contract Documents, then, after written notice from the Obligee to the Surety, as provided for below, the Surety shall either remedy the default or breach by the Principal or shall promptly and faithfully take charge of the Work of and complete the Work in accordance with the requirements of the Contract Documents with a contractor other than the Principal at its own expense and make available as work progresses sufficient funds to pay the cost of completion less the balance of the Contract price including other costs and damages for which the surety may be liable hereunder; provided, however, that the procedure by which the Surety undertakes to discharge its obligations under this Bond shall be subject to the advance written approval of the Obligee.

Within fifteen (15) days of Obligee's written notice to the Surety of the failure of performance of the Contract by the Principal, it shall be the duty of the Surety to give to the Obligee an unequivocal notice in writing of the Surety's election to remedy the default(s) of the Principal promptly, or to arrange for performance of the Contract promptly by a Contractor other than the Principal, time being of essence to this Bond. In said Notice of Election, the Surety shall state the date of commencement of its cure or remedy of the Principal's default(s) or its performance of the Contract. The Surety's obligations for cure or remedy, include but are not limited to: correction of defective work and completion of the Contract, additional legal, design professional and delay costs arising from Surety's actions or failure to act; and liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance by the Principal. The Surety shall give prompt written notice to the Obligee upon completion of the cure or remedy of the Principal's default(s) of its performance of the Construction Contract.

If the Surety does issue its Notice of Election and does not proceed to cure or remedy the Principal's default(s) of its performance of the Work with reasonable promptness, the Surety shall be deemed to be in default on this bond fifteen (15) days after receipt of a written notice from Obligee to the Surety demanding that the Surety perform its obligations under this Bond, and the Obligee shall be entitled to enforce any remedy available to Obligee.

DRAFT

The Surety and Principal, for value received, hereby stipulate and agree that no change, extension of time, modification, alteration or addition to the terms of the Contract or Contract Documents or to the Work to be performed thereunder shall in any way affect or release the Principal or Surety or their respective heirs, executors, administrators, successors and assigns from their obligations on this bond, and Surety does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or Contract Documents, or to the Work. No premature payment by the City to the Principal shall release or exonerate the Surety, unless the Officer or Board of the City ordering the payment shall have actual notice at the time the order is made that the payment is in fact premature, and then only to the extent that such payment shall result in actual loss to the Surety, but in no event more than the amount of such premature payment.

FURTHER, Principal and Surety agree that if Obligee is required to engage the services of attorneys in connection with enforcement of the bond, each shall pay Obligee's reasonable attorneys' fees incurred, with or without suit, in addition to the above penal sum.

The guarantees contained herein shall survive the final completion of the Work called for in the Contract Documents with respect to the obligations and liabilities of the Principal which survive such final completion.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above-named, on the _____ day of _____, 20__.

_____ Surety Name	_____ Principal Name
By: _____ Signature	By: _____ Signature
Name: _____ Printed Name	Name: _____ Printed Name
Title: _____	Title:_____
Address: _____	By: _____ Signature
Telephone: _____	Name: _____ Printed Name
_____ Attorney-in-Fact	Title: _____
_____ Signature	

(Attach Attorney-in-Fact Certificate, Corporate Seal and Surety Seal)

_____, 20__	_____, 20__
Approved as to form.	Approved as to sufficiency.
DAWN MCINTOSH, City Attorney	CITY OF LONG BEACH, a municipal corporation
By: _____ Deputy City Attorney	By: _____ City Manager/City Engineer

NOTE:

1. Execution of this bond must be acknowledged by both PRINCIPAL and SURETY before a Notary Public and Notary's certificate of each acknowledgment must be attached.

2. A corporation must execute this bond by duly authorized officers or agents, and a certified copy of a resolution of its Board of Directors authorizing such execution, or other evidence of authority for such execution, must be attached if executed by persons other than the officers listed in Section 313, California Corporations Code.

DRAFT

Payment Bond
No. _____

PAYMENT BOND
(Labor and Material Bond)

WHEREAS, The CITY OF LONG BEACH, a municipal corporation, hereinafter the "City" or "Obligee," have conditionally awarded to _____ designated as the "Contractor" or "Principal" herein, a contract for the work ("Work") described as follows:

_____, as described in Specification No.: _____, Addenda/Addendum No. _____ and related drawings.

WHEREAS, the Principal is about to enter into a Contract with the Obligee for the performance of the Work, which Contract and all Contract Documents set forth therein are incorporated herein by this reference.

WHEREAS, by the terms of said Contract Documents, as well as Civil Code Sections 9550 and 9554, Principal is required to furnish a bond for the prompt, full and faithful payment to any Claimant, as hereinafter defined, for all labor, materials or services used or reasonably required for use in the performance of the Work of the Project;

NOW THEREFORE, we the undersigned Contractor, as Principal, and _____ admitted as a surety insurer in the State of California ("Surety"), are held and firmly bound to the City for payment of the penal sum of _____ Dollars ($_____) lawful money of the United States, for which payment we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, shall fail to pay any of the persons named in Civil Code Section 9100 ("Claimants"), for all labor, materials or services used or reasonably required for use in performance of the Work of the Project, or for any amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such Claimant on the Project, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor, that the surety or sureties herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void.

If suit is brought upon this bond, the said Surety will pay reasonable attorney's fees to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 9100 so as to give a right of action to such persons or the assigns in any suit brought upon this bond.

The Surety and Principal, for value received, hereby stipulate and agree that no change, extension of time, modification, alteration or addition to the terms of the Contract or Contract Documents or to the Work to be performed thereunder shall in any way affect or release the Principal or Surety or their respective heirs, executors, administrators, successors and assigns from their obligations on this bond, and Surety does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or Contract Documents, or to the Work. No premature payment by the City to the Principal shall release or exonerate the Surety, unless the Officer or Board of the City ordering the payment shall have actual notice at the time the order is made that the payment is in fact premature, and then only to the extent that such payment shall result in actual loss to the Surety, but in no event more than the amount of such premature payment.

DRAFT

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above-named, on the _____ day of _____, 20___.

_____ Surety Name	_____ Principal Name
By: _____ Signature	By: _____ Signature
Name: _____ Printed Name	Name: _____ Printed Name
Title: _____	Title: _____
Address: _____	By: _____ Signature
Telephone: _____	Name: _____ Printed Name
	Title: _____
_____ Attorney-in-Fact	
_____ Signature	

(Attach Attorney-in-Fact Certificate, Corporate Seal and Surety Seal)

_____, 20__	_____, 20__
Approved as to form.	Approved as to sufficiency.
DAWN MCINTOSH, City Attorney	CITY OF LONG BEACH, a municipal corporation
By:	By:
_____ Deputy City Attorney	_____ City Manager/City Engineer

NOTE:

1. Execution of this bond must be acknowledged by both PRINCIPAL and SURETY before a Notary Public and Notary's certificate of each acknowledgment must be attached.

2. A corporation must execute this bond by duly authorized officers or agents, and a certified copy of a resolution of its Board of Directors authorizing such execution, or other evidence of authority for such execution, must be attached if executed by persons other than the officers listed in Section 313, California Corporations Code.

DRAFT

Return completed certificates to:
City of Long Beach, 10th floor
411 W. Ocean Boulevard, Risk Mgmt.
Long Beach, California 90802

CERTIFICATE OF INSURANCE
CITY OF LONG BEACH, CA
("the City")
A Municipal Corporation

Only this Certificate of Insurance Form will be Accepted

This certifies to the City that the following described policies have been issued to the Insured named below and are in force at this time.

Insured: .
Address:
Description of project:

Approved as to Sufficiency: _____
City Engineer

Approved as to Form: _____, 20_____
DAWN MCINTOSH, City Attorney

by _____ Deputy City Attorney

POLICIES AND INSURERS	LIMITS	POLICY NUMBER	EXPIRATION DATE
Workers' Compensation and Employer's Liability _____ (Name of Insurer)	Statutory workers comp _____ Employer's liability* $_____ * Minimum $1,000,000 per accident		
General Liability* Policy form equivalent to: CG 00 01 ___ CG 00 02 ___ GL 00 02 ___ _____ (Name of Insurer)	$_____ per occurrence or $_____ per claim $_____ general aggregate * Minimum $1,000,000 combined single limit per occurrence and $2,000,000 General Aggregate		
Commercial Auto Liability* Symbol _____ _____ (Name of Insurer)	$_____ BI per accident $_____ PD per accident $_____ BI per person or $_____ combined single limit each accident * Minimum $1,000,000 combined single limit per occurrence		
Excess/Umbrella Liability Claims-made ___ Occurrence ___ Umbrella ___ Excess ___ _____ (Name of Insurer)	$_____ per occurrence or $_____ per claim $_____ general aggregate Self-insured retention $_____		

The following coverages or conditions are in effect:	**YES**	**NO**
The City, its officials, and employees are named on all liability policies described above as insureds as respects: (a) activities performed for the City by or on behalf of the Named Insured, (b) products and completed operation of the Named Insured, and (c) premises owned, leased, or used by the Named Insured.		
Products and Completed Operations		
The undersigned will mail to the City 30 days' written notice of cancellation or reduction of coverage or limits.		
Cross Liability Clause (or equivalent wording)		
Personal Injury, Perils A, B, and C		
Broad Form Property Damage		
X, C, and U Hazards included		
Contractual Liability Coverage applying to this contract		
Liquor Liability		
Coverage afforded the City, its officials, employees, and agents as Insureds applies as primary and not excess or contributing to any insurance issued in the name of the City.		
Waiver of subrogation from Workers' Compensation insurer.		

This certificate is issued as a matter of information. This certificate is not an insurance policy and does not amend, extend, or alter the coverage afforded the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions, and conditions of such policies.

Agent or Brokerage_____ Insurance Company _____

Address_____ Home Office _____

Name of Person to be Contacted_____ Authorized Signature_____ Date _____

(____)_____-
Telephone Number

Note: Authorized signatures may be the agent's if agent has placed insurance through an agency agreement with the insurer. If insurance is brokered, authorized signature must be that of official of insurer.

GENERAL LIABILITY ENDORSEMENT
CITY OF LONG BEACH
411 WEST OCEAN BLVD., LONG BEACH, CA 90802

A. POLICY INFORMATION

1. Insurance Company _____; Policy Number _____

2. Policy Term (from) _____(to)_____; Endorsement Effective Date _____

3. Named Insured _____

4. Address of Named Insured_____

5. Limit of Liability* Any One Occurrence/Aggregate $
   * Minimum $1,000,000 combined single limit per occurrence with $2,000,000 General Aggregate

6. Deductible or Self-Insured Retention (Nil unless otherwise specified): $

7. Coverage is equivalent to:
   Comprehensive General Liability Form GL 00 02 (Ed. 1/73) _____
   Commercial General Liability "occurrence" form CG 00 01 _____
   Commercial General Liability "claims-made" form CG 00 02 _____

8. If this policy is "claims-made," the retroactive date is _____.

Note: The City's standard insurance requirements specify "occurrence" coverage. "Claims-made" coverage requires special approval.

B. POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto, it is agreed as follows:

1. INSURED. The City, its elected or appointed officials, employees, and agents are included as insureds with regard to damages and defense of claims arising from (a) activities performed by or on behalf of the Named Insured, (b) products and completed operations of the Named Insured, or (c) premises owned, leased, or used by the Named Insured.

2. CONTRIBUTION NOT REQUIRED. As respects: (a) work performed by the Named Insured for or on behalf of the City; or (b) products sold by the Named Insured to the City; or (c) premises leased by the Named Insure from the City, the insurance afforded by this policy shall be primary insurance as respects the City, its elected or appointed officials, employees, or agents; or stand in an unbroken chain of coverage excess of the Named Insured's schedule underlying primary coverage. In either event, any other insurance maintained by the City, its elected or appointed officials, employees or agents shall be in excess of this insurance and shall not contribute to it.

3. SCOPE OF COVERAGE. This policy, if primary, affords coverage at least as broad as:
   (1) Insurance Services Office form number GL 00 02 (Ed.1/73), Comprehensive General Liability Insurance and Insurance Services Office form number GL 04 04 Broad Form Comprehensive General Liability endorsement; or

(2) Insurance Services Office Commercial General Liability Coverage, "occurrence" form CG 00 01 11 85 or 11 88 or "claims-made" form CG 00 02; or

(3) If excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding sections (1) and (2).

4. SEVERABILITY OF INTEREST. The insurance afforded by this policy applies separately to each insured which is seeking coverage or against whom a claim is made or a suit is brought, except with respects to the Company's limit of liability.

5. PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, its elected or appointed officials, employees, or agents.

6. CANCELLATION NOTICE. The insurance afforded by this policy shall not be cancelled, nonrenewed, reduced in coverage, or materially changed in coverage or limits except after thirty (30) days' prior written notice by certified mail return receipt requested has been given to the City. Such notice shall be addressed as shown in the heading of this statement.

C. INCIDENT AND CLAIM REPORTING PROCEDURE

Incidents and claims are to be reported to the insurer at:

Attn:

Name and title Department

Company

Address City State Zip Code

(_____) _____ - _____ (_____) _____ - _____

Telephone number Fax number

D. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, _____(print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company.

SIGNATURE OF AUTHORIZED REPRESENTATIVE (original signature required on endorsement furnished to the City)

TITLE: _____ DATE: _____

ADDRESS: _____

PHONE NUMBER: _____ FAX NUMBER: _____

AUTO LIABILITY ENDORSEMENT
CITY OF LONG BEACH
411 WEST OCEAN BLVD., LONG BEACH, CA 90802

A. POLICY INFORMATION

1. Insurance Company _____; Policy Number

2. Policy Term (from) _____(to)_____; Endorsement Effective Date

3. Named Insured

4. Address of Named Insured

5. Limit of Liability* Any One Occurrence/Aggregate $
   * Minimum $1,000,000 combined single limit per occurrence

6. Deductible of Self-Insured Retention (Nil unless otherwise specified): $

B. POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto, it is agreed as follows:

1. INSURED. The City, its elected or appointed officials, employees, and agents are included as insureds with regard to damages and defense of claims arising from the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired, or borrowed by the Named Insured, regardless of whether liability is attributable to the Named Insured or a combination of the Named Insured and the City, its elected or appointed officials, employees, and agents.

2. CONTRIBUTION NOT REQUIRED. As respects work performed by the Named Insured for or on behalf of the City, the insurance afforded by this policy shall: (a) be primary insurance as respects the City, its elected or appointed officials, employees, or agents; or (b) stand in an unbroken chain of coverage excess of the Named Insured's primary coverage. In either event, any other insurance maintained by the City, its elected or appointed officials, employees, or agents shall be in excess of this insurance and shall not contribute to it.

3. SCOPE OF COVERAGE. This policy, if primary, affords coverage at least as broad as:

   (1) Insurance Services Office form number CA 00 01 06 92, Code 1 ("Any Auto") and endorsement CA 00 25.

   (2) If excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding section (1).

4. SEVERABILITY OF INTEREST. The insurance afforded by this policy applies separately to each insured which is seeking coverage or against whom a claim is made or a suit is brought, except with respects to the Company's limit of liability.

5. PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, its elected or appointed officials, employees, or agents.

6. CANCELLATION NOTICE. The insurance afforded by this policy shall not be cancelled, nonrenewed, reduced in coverage, or materially changed in coverage or limits except after thirty (30) days' prior written notice by certified mail return receipt requested has been given to the City. Such notice shall be addressed as shown in the heading of this statement.

C. INCIDENT AND CLAIM REPORTING PROCEDURE

Attn:
Name and title Department

Company

Address City State Zip Code

(_____) _____ - _____ (_____) _____ - _____
Telephone number Fax number

D. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, _____(print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company.

SIGNATURE OF AUTHORIZED REPRESENTATIVE (original signature required on endorsement furnished to the City)

TITLE: _____ DATE: _____

ADDRESS: _____

PHONE NUMBER: _____ FAX NUMBER: _____

WORKER'S COMPENSATION/EMPLOYERS LIABILITY ENDORSEMENT
CITY OF LONG BEACH
411 WEST OCEAN BLVD., LONG BEACH, CA 90802

A. POLICY INFORMATION

1. Insurance Company _____ ("the Company");
   Policy Number

2. Effective date of this Endorsement _____ Expiration Date

3. Named Insured

4. Employer's Liability Limit*(Coverage B) $
   * Minimum $1,000,000 per accident

B. POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium and notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto, it is agreed as follows:

1. CANCELLATION NOTICE. The insurance afforded by this policy shall not be cancelled, nonrenewed, reduced in coverage, or materially changed in coverage or limits except after thirty (30) days' prior written notice by certified mail return receipt requested has been given to the City. Such notice shall be addressed as shown in the heading of this endorsement.

2. WAIVER OF SUBROGATION. The Insurance Company agrees to waive all rights of subrogation against the City, its elected or appointed officials, agents, and employees for losses paid under the terms of this policy which arise from work performed by the Named Insured for the City.

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, _____ (print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company.

SIGNATURE OF AUTHORIZED REPRESENTATIVE (original signature required on endorsement furnished to the City)

TITLE: _____ DATE: _____

ADDRESS: _____

TELEPHONE: _____ FAX NUMBER: _____

EXCESS LIABILITY ENDORSEMENT
CITY OF LONG BEACH
411 WEST OCEAN BLVD., LONG BEACH, CA 90802

A. POLICY INFORMATION

1. Insurance Company _____; Policy Number

2. Policy Term (from) _____(to)_____; Endorsement Effective Date

3. Named Insured

4. Address of Named Insured

5. Limit of Liability Any One Occurrence/Aggregate $

6. Deductible of Self-Insured Retention (Nil unless otherwise specified): $

7. Bodily Injury and Property Damage Coverage is:
   _____ "claims-made"
   _____ "occurrence"
   If claims-made, the retroactive date is _____.

Note: The City's standard insurance requirements specify "occurrence" coverage. "Claims-made" coverage requires special approval.

B. POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto, it is agreed as follows:

1. INSURED. The City, its elected or appointed officials, employees, and agents are included as insureds with regard to damages and defense of claims arising from (a) activities performed by or on behalf of the Named Insured, (b) products and completed operations of the Named Insured, or (c) premises owned, leased, or used by the Named Insured.

2. CONTRIBUTION NOT REQUIRED. As respects: (a) work performed by the Named Insured for or on behalf of the City; or (b) products sold by the Named Insured to the City; or (c) premises leased by the Named Insure from the City, the insurance afforded by this policy shall be primary insurance as respects the City, its elected or appointed officials, employees, or agents; or stand in an unbroken chain of coverage excess of the Named Insured's schedule underlying primary coverage. In either event, any other insurance maintained by the City, its elected or appointed officials, employees or agents shall be in excess of this insurance and shall not contribute to it.

3. SCOPE OF COVERAGE. Affords coverage which is at least as broad as the primary insurance forms referenced in the preceding endorsements.

4. SEVERABILITY OF INTEREST. The insurance afforded by this policy applies separately to each insured which is seeking coverage or against whom a claim is made or a suit is brought, except with respects to the Company's limit of liability.

5. PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, its elected or appointed officials, employees, or agents.

6. CANCELLATION NOTICE. The insurance afforded by this policy shall not be cancelled, nonrenwed, reduced in coverage, or materially changed in coverage or limits except after thirty (30) days' prior written notice by certified mail return receipt requested has been given to the City. Such notice shall be addressed as shown in the heading of this statement.

C. INCIDENT AND CLAIM REPORTING PROCEDURE

Incidents and claims are to be reported to the insurer at:

Attn:

Name and title Department

Company

Address City State Zip Code

(_____) _____ - _____ (_____) _____ - _____

Telephone number Fax number

D. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, _____(print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company.

SIGNATURE OF AUTHORIZED REPRESENTATIVE (original signature required on endorsement furnished to the City)

TITLE: _____ DATE: _____

ADDRESS: _____

TELEPHONE: _____ FAX NUMBER: _____

BID PROTEST PROCEDURES

Section 1: Who May Protest

Only a bidder who has actually submitted a bid proposal is eligible to protest a bid. The City will not accept or entertain bid protests from manufacturers, vendors, suppliers, subcontractors or the like. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest.

Section 2: Time for Protest

Alleged defects or improprieties in the Contract Documents are required to be filed with the City prior to the date on which bids were opened, otherwise protests of that nature shall be deemed waived.

If thereafter, a bidder desiring to protest a bid shall file the protest within five (5) business days following the date on which bids were opened. The City Engineer must receive the protest by the close of business on the fifth (5th) business day following the bid opening.

The protest and all supporting documents shall be submitted to the City Clerk in a sealed envelope and **must be received and time/date stamped by the City Clerk's Office no later than the time and date stated for receipt of bid protest.** The outside of the envelope shall clearly state "Bid Protest for R-7259 Palo Verde Avenue Pedestrian Overcrossing Sign". The City Clerk's Office is located at 411 W. Ocean Blvd, 1st Floor, Long Beach, CA 90802. Bidders may proceed directly to Window 12 without pulling a service ticket.

Section 3: Form of Protest

The protest must be in writing and signed by the individual who signed the bid or, if the bidder is a corporation, by an officer of the corporation, and addressed to the City Engineer. A protest shall not be made by e-mail or fax and the City will not accept such. A protest must set forth a complete and detailed statement of the grounds for the protest and include all relevant information to support the grounds stated, must refer to the specific portion(s) of the Contract Documents upon which the protest is based, and shall include a valid e-mail address, street address and phone number sufficient to ensure the City's response will be received.

The Bid protest must be accompanied by a certified or cashier's check payable to the City of Long Beach, Public Works Department, Error! Use the Home tab to apply Cover Spec Number Text to the text that you want to appear here. in the sum of $1,000.00 for each Bid that the Bid protestor is challenging. The amount of this Bid protest fee is mandatory, nonrefundable, and is based on the City's estimated reasonable cost to process each Bid protest.

Section 4: Additional Information

Once the protest is received by the City Engineer, the City will not accept additional information on the protest unless the City itself requests it. In that case, the additional information must be submitted within three (3) business days after the request is made and must be received by the City Engineer by the close of business on the third (3rd) business day.

Section 5: City Response to Protest

The City Engineer or designee will respond, by e-mail and regular mail to the addresses provided in the protest, with a decision regarding the protest within ten (10) business days following receipt of the protest or, if applicable, the receipt of requested additional information. This decision shall be final.

Section 6: Limitation of Remedy

The procedure and time limits set forth herein are mandatory and are the bidder's sole and exclusive remedy in the event of bid protest. The bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.

CITY OF LONG BEACH

Department of Public Works
411 West Ocean Boulevard, 5th Floor Long Beach, CA 90802
(562) 570-6383

DATE: ####

Company Name
1234 Long Beach Ave.
City, Sate, Zip code

SPECIFICATION NO.: R-####
CONTRACT NO.: xxxxx
PROJECT NO.: 30*********

CONTRACT CHANGE ORDER NO. [insert current CCO #]

ATTENTION: [Company Representative]

PROJECT: Name of Project

The Contractor is hereby directed to make the herein described changes from the plans and specifications. The following change is hereby made a part of the Contract Documents enumerated in the Agreement between City and Contractor on the date referenced above and shall be performed under the same terms and conditions as required by the original Contract Documents. Except as modified herein, the original Contract Documents and all prior amendments shall remain in full force and effect and all of the terms of the Contract Documents are hereby incorporated in this Contract Change Order.

Contract Summary – Financial:

Original Contract Amount	$
Previous Contract Change Orders Amount	$
Previous Contract Amount	$
This Contract Change Order	$
New Total Contract Amount	$

Contract Summary - Schedule:

First Working Day	
# Working Days Specified in Contract	
Original Contract Completion Date	MM/DD/YYYY
Non-working Days due to Weather Delays	
Non-working Days due to Suspension of Work	
Time Extensions by Previous Change Order(s)	## Working Days
Previous Contract Complete Date	MM/DD/YYYY
Time Extension by this Change Order	## Working Days
New Contract Completion Date	MM/DD/YYYY

Description of work to be done, estimates of quantities, prices to be paid, and time extensions, if any:

Item #	Description:	CCO Quantity	Unit	CCO Unit Cost	New CCO Cost:	Add'l Working Days:
CCO 2.01	**Repairs to the VAVs and Upgrades to the Controls.** Provide all labor, materials, equipment, tools and incidentals required to complete the following: Replace 50 number VAV controllers for new better controllability and diagnostics. Furnish and install two new LON controllers for the existing two Liebert units and program the new controllers. Furnish the following spare parts – five Distech LON VAV controllers, five Distech thermostats, five air temperature sensors, directed by the Construction Manager. The lead time for the VAV controllers is 5 weeks.	1	LS	$##	$##	## Working Days
	Net Bid Item Quantity Adjustment:				$##	
	New Extra Work/NTE Agreed Price				$##	
	Total This Contract Change Order				**$##**	
	This Time Extension					**## Working Days**

This Change Order shall be the full compromise and settlement of all adjustments to the Contract Price and Contract Time for all items of this Change Order. The prices and amounts set forth herein shall be considered full compensation for all obligations to the Contractor associated with this Change Order, including but not limited to furnishing all equipment, materials, labor, field and office overhead, mark-ups and profit, except as may be otherwise noted herein and the City will not be liable for any claim of the Contractor for extra compensation resulting from performance of the requirements of this Change Order, in accordance with the General Conditions.

The Contractor, on behalf of itself, all Subcontractors, and all Suppliers, expressly waives the benefits of the provisions of Section 1542 of the Civil Code, which reads as follows: "A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY."

If issued a unilateral change order, the Contractor shall promptly advise the City of the Contractor's agreement or disagreement with the method, if any, provided in the Unilateral Change Order for determining the proposed adjustment in the Contract Price or Contract Time. If the Contractor does not indicate its disagreement with the method of pricing provided in the Unilateral Change Order, Contractor shall be deemed to agree with the method of pricing the change. If the Contractor signs this Unilateral Change Order, such agreement shall be effective immediately and shall be deemed to be a mutually agreed Change Order.

Reviewed and Recommended By:

_____

[Print Name], Construction Manager (Date)

_____

[Print Name], Project Manager (Date)

_____

[Print Name], Project Management Officer/Division Manager (Date)

Approved By:

_____

[Print Name], [Title], Contractor (Date)

_____

[Print Name], Public Works Director or Designee (Date)

CITY OF LONG BEACH

Department of Public Works
411 West Ocean Boulevard, 5th Floor Long Beach, CA 90802
(562) 570-6383

DATE: November 1, 2022

PROJECT: Change Order Evaluation Improvement	R-#### CONTRACT NO.: ##### PROJECT NO.: ##########

CONTRACT CHANGE ORDER NO. [insert current CCO #] SUPPORTING DOCUMENTATION

Change Order #[insert current CCO #] Amount: **$500,000**

Change Order #[insert current CCO #] Working Days Added: **0**

City Council Action Date(s): ***January 4, 2021 (ITEM C-22)***

Contract Summary – Financial:

Original Contract Amount	$3,500,000
Original Approved Contingency	$500,000
Contract Amendments	n/a
Additional Contingency Approved	n/a
Original Contract + Contingency + Amendments	$4,000,000
Total Contract Change Orders (Including this Contract Change Order)	$500,000
New Total Contract Amount	$4,000,000
Total Contingency Used	$500,000
Remaining Contingency	$0
Percent of Contingency Used	100%
Project Funding Source	Measure A & AB 32

Justification for Change Order:

This is an example cover sheet for a hypothetical project. This section would be a brief description (2-5 sentences) of what the change order is for and why it is a justified request of contingency, extension of contract, etc. Example table below:

Item #	Description/Justification:	Ref. Documents:
CCO ##		Refer to attached documents

Change Order History:

Change Order #	Date Approved	Type of Change Order	Change Order Amount ($)	Authorized Contingency ($)	Contingency Balance ($)
ORIGINAL					
1		Schedule Change			
2		No-Cost			
3		Cost Increase			
4		No-Cost			
5		Cost Increase, Contract Amendment			
6		Cost Increase			

Reviewed and Recommended By:

_____

Construction Manager (Date)

Approved By:

_____

Project Management Officer (Date)

DIVISION E

FEDERAL, STATE AND LOCAL REQUIREMENTS

35891

PROJECT LABOR AGREEMENT

BY AND BETWEEN

THE CITY OF LONG BEACH

AND

LOS ANGELES/ORANGE COUNTIES

BUILDING AND CONSTRUCTION TRADES COUNCIL

AND THE SIGNATORY CRAFT COUNCILS AND UNIONS

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35891

CITY OF LONG BEACH
PROJECT LABOR AGREEMENT

This Project Labor Agreement ("Agreement") is entered into effective as of May 6, 2021, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting held on February 2, 2021, by and between the City of Long Beach, a municipal corporation ("City"), the Los Angeles/Orange Counties Building and Construction Trades Council ("Trades Council"), and the signatory Craft Councils and Local Unions signing this Agreement (collectively, the "Union" or "Unions"). This Agreement establishes the labor relations policies and procedures for the City, the Contractors awarded contracts for Project Work and for the crafts persons employed by the Contractors and represented by the Unions engaged in the Project Work as more fully described below. The City, Trades Council and Unions are hereinafter referred to herein, as the context may require, as "Party" or "Parties."

It is understood by the Parties to this Agreement that for the duration of this Agreement, it shall be the policy of the City for all Project Work to be contracted exclusively to Contractors who agree to execute and be bound by the terms of this Agreement, directly or through the Letter of Assent (a form of which is attached as **"Attachment A"**), and to require each of its subcontractors, of whatever tier, to become bound. The City shall include, directly or by incorporation by reference, the requirements of this Agreement in the advertisement of and/or specifications for each and every contract for Project Work to be awarded by the City.

It is further understood that the City shall actively administer and enforce the obligations of this Agreement to ensure that the benefits envisioned from it flow to all signatory Parties, the Contractors and crafts persons working under it, and the residents of the City. The City shall therefore designate a "PLA Administrator," either from its own staff or an independent contractor, to serve as the City's liaison for Contractors and other persons; monitor compliance with this Agreement; assist, as the authorized representative of the City, in developing and implementing the programs referenced herein, all of which are critical to fulfilling the intent and purposes of the Parties and this Agreement; and to otherwise implement and administer this Agreement. For such purposes, each Contractor recognizes the PLA Administrator, its successors or assigns, as its agent; and together with City and the Unions, the PLA Administrator shall be considered a "negotiating party" of this Agreement.

ARTICLE 1
DEFINITIONS

Section 1.1 "Agreement" or "PLA" means this Project Labor Agreement.

Section 1.2 "Apprentice" means those employees indentured and participating in a Joint Labor/Management Apprenticeship Program approved by the State of California, Department of Industrial Relations, Division of Apprenticeship Standards.

Section 1.3 "Construction Contract" or "Construction Contracts" means any contract entered into by the City, as more fully described in Article 2.

Section 1.4 "Contractor" or "Subcontractor" or "Employer" means any individual firm, partnership or corporation, or combination thereof, including joint ventures, which is an independent business enterprise and which has entered into a Construction Contract with the City or any of its contractors or any of the City's or contractor's subcontractors of any tier, with respect to the construction of any part of a Project under contract terms and conditions approved by the City and which incorporate this Agreement.

Section 1.5 "City" means the City of Long Beach.

Section 1.6 "Joint Labor/Management Apprenticeship Program" means a joint Union and Contractor administered apprenticeship program certified by the State of California, Department of Industrial Relations, Division of Apprenticeship Standards.

Section 1.7 "Letter of Assent" means the document that each Contractor (of any tier) must sign and submit to the City before beginning any Project Work, which formally binds such Contractor(s) to adherence to all the forms, requirements and conditions of this Agreement in the form attached hereto as "**Attachment A.**"

Section 1.8 "Project", "Project Work" or "City Project" means the demolition and construction work to be performed on City property or within easements secured by the City consisting of the construction of public works, pursuant to a Construction Contract entered into by the City, as more fully described in Article 2.

Section 1.9 "Schedule A Agreements" means the local collective bargaining agreements (Master Labor Agreements) of the signatory Unions having jurisdiction over the Project Work and which have signed this Agreement.

Section 1.10 "Subscription Agreement" means the contract between a Contractor and a Union's Labor/Management Trust Fund(s) that allows the Contractor to make the appropriate fringe benefit contributions in accordance with the terms of Schedule A.

Section 1.11 The use of masculine or feminine gender or titles in this Agreement should be construed as including both genders and not as gender limitations unless the Agreement clearly requires a different construction. Further, the use of Article titles and/or Section headings are for information only, and carry no legal significance.

ARTICLE 2
SCOPE OF THE AGREEMENT

Section 2.1 General This Agreement shall apply and is limited to all of the City's Project Work, as specified in Section 2.2 of this Article, performed by those Contractor(s) of whatever tier that have contracts awarded for such work, for the development of the City's facilities which, jointly, constitute the Project, and have been designated by the City for construction or rehabilitation.

Section 2.2 Specific

(a) The work covered by this Agreement shall be limited to any and all demolition, construction and rehabilitation work pursuant to prime multi-trade and specialty contracts and all subcontracts, of whatever tier, that flow from these contracts entered into by the City (excluding City Charter-commissioned departments, except for the Public Works Department, which shall be covered) that exceed seven hundred and fifty thousand dollars ($750,000) for non-street/right of way projects and one million dollars ($1,000,000) for street/right of way projects, and is not intended to, and shall not apply to any work performed at any time prior to the effective date, or after the expiration or termination of this Agreement, except as provided herein, or on other City projects. This Agreement shall in no way limit the City's right to terminate, modify or rescind any construction contract and/or any related subcontract or agreement. Should the City remove or terminate any contract or agreement for construction that does not fall within the scope of this Agreement and thereafter authorize that work be commenced on any contract for such construction, the contract for construction may, at the sole election of the City, be performed under the terms of this Agreement.

(b) Work covered by this Agreement shall also include projects built by, with or for the City where the City has a "Proprietary Interest" in a project. For the purposes of this section 2.2, Proprietary Interest means: (1) the City provides (a) a cash payment, (b) transient occupancy tax rebate, (c) a loan with provisions conditionally forgiving interest or principal, or (d) real property for less than fair market value for that Project, and (2) the present value of that payment, rebate, loan or real property benefit exceeds one million dollars. This definition of Proprietary Interest excludes (1) projects conducted by, with or for a nonprofit or 501(c)(3) organization, and (2) City assisted or related developments, all of or a portion of which are subject to a recorded affordable housing restrictions.

(c) Beginning after five (5) years from the effective date of this Agreement, the Parties shall meet and discuss potential changes to the thresholds reflected above in Section 2.2(a), with any agreement reached to be put in writing and signed by the Parties.

Section 2.3 Bundling of Contracts

(a) The City, in its sole discretion, may seek to group (or "bundle") for bidding, contracts not meeting the threshold of Section 2.2 above. (Small contracts for like types of work, scheduled to be undertaken at the same facility or on the same project site, and within the same timeframe, will be considered for such bundling, consistent with economies of scale, and the purposes of this Agreement); and

(b) Project Work will not be intentionally split, divided or otherwise separated for contract award purposes to avoid application of this Agreement.

Section 2.4 Applicability The Parties agree that this Agreement will be made available to, and will fully apply to, any successful bidder for Project Work, without regard to whether that successful bidder performs work at other sites on either a union or non-union basis. This Agreement shall not apply to any work of any Contractor other than that on Project Work specifically covered by this Agreement.

Section 2.5 Exclusions Items specifically excluded from the scope of this Agreement include the following:

(a) Work of non-manual employees, including but not limited to: superintendents; teachers; supervisors (except those covered by Schedule A Agreements above the level of general foreman); staff engineers; time keepers; mail carriers; clerks; office workers; messengers; guards; safety personnel; emergency medical and first aid technicians; and other professional, engineering, executive, administrative, supervisory and management employees;

(b) Equipment and machinery owned or controlled and operated by the City;

(c) All off-site manufacture and handling of materials, equipment or machinery; provided, however, that lay down or storage areas for equipment or material and manufacturing (prefabrication) sites, dedicated solely to the Project, and the movement of materials or goods between such locations and a Project site are within the scope of this Agreement;

(d) All work performed by City employees, the PLA Administrator, design teams (including, but not limited to architects engineers and master planners), or any other consultants for the City (including, but not limited to, project managers and construction managers and their employees were not engaged in Project Work) and their sub-consultants, and other employees of professional service organizations, not performing manual labor within the scope of this Agreement; provided, however, that it is understood and agreed that Building/Construction Inspector and Field Soils and Materials Testers (Inspectors) not employed by the City are a covered craft under the PLA. (This inclusion applies to the scope of work defined in the State of California Wage Determination for said Craft. This shall also specifically include such work where it is referred to by utilization of such terms as "quality control" or "quality assurance." Every Inspector performing under the Wage classification of Building/Construction Inspector and Field Soils and Material Testers under a professional services agreement of a construction contract shall be bound to all applicable requirements of the PLA.) Covered Work as defined by this Agreement shall be performed pursuant to the terms and conditions of this Agreement regardless of the manner in which the work was awarded;

(e) Any work performed near, or leading to a site of work covered by this Agreement and undertaken by state, county or other governmental bodies, or their Contractors; or by public utilities (including but not limited to Long Beach Water, Southern California Edison, any solar energy provider, etc.), or their Contractors; and/or by adjacent third party landowners; and/or by the City or its Contractors (for work which is not within the scope of this Agreement);

(f) Maintenance of leased equipment and on-site supervision of such work;

(g) Work by employees of a manufacturer or vendor supervising the work of Craft employees under this Agreement, necessary to maintain such manufacturer's or vendor's warranties or guaranty;

(h) Non-construction support services contracted by the City, City consultants, the PLA Administrator, or Contractor in connection with a Project;

(i) Laboratory work for testing;

(j) All work by employees of the City or its contractors involving services, operation and/or general maintenance and/or repair and/or cleaning work;

(k) All work performed by Long Beach Gas and Oil including, but not limited to gas pipeline work;

(l) All work pursuant to "as-needed" contracts with the City, including but not limited to individual projects performed under job order contracts (JOCs) that are below the dollar threshold specified in Section 2.2(a), notwithstanding a total not-to-exceed amount on a JOC above such dollar threshold; and

(m) All transportation of goods and materials to and from the project site except: (1) in those instances where it is necessary to set up a work area adjacent to the project site, then the transportation of goods and materials from the ancillary site to the project site will be covered under the Agreement, (2) the hauling of soil, sand, gravel, rocks, concrete, asphalt, excavation materials, and construction debris from a public works site to an outside disposal location will be covered under the Agreement, but the hauling of recyclable materials that have been separated from other materials at the jobsite prior to transportation and that are to be sold at fair market value to a bona fide purchaser will not be covered by the Agreement.

Section 2.6 Awarding of Contracts

(a) The City and/or the Contractors, as appropriate, have the absolute right to award contracts or subcontracts on Project Work to any Contractor notwithstanding the existence or non-existence of any agreements between such Contractor and any Union parties, provided only that such Contractor is ready, willing, and able to execute and comply with this Agreement should such Contractor be awarded work covered by this Agreement.

(b) It is agreed that all Contractors and subcontractors of whatever tier, who have been awarded contracts for work covered by this Agreement, shall be required to accept and be bound to the terms and conditions of this Agreement, and shall evidence their acceptance by the execution of the Letter of Assent set forth in "**Attachment A**" hereto, prior to the commencement of work. At the time that any Contractor enters into a subcontract with any subcontractor of any tier providing for the performance of the construction contract, the Contractor shall provide a copy of this Agreement to said subcontractor and shall require the subcontractor, as a part of accepting the award of a construction subcontract, to agree in writing in the form of a Letter of Assent to be bound by each and every provision of this Agreement

prior to the commencement of work on the Project. No Contractor or subcontractor shall commence Project Work without having first provided a copy of the Letter of Assent as executed by it to the PLA Administrator and to the Trades Council before the commencement of Project Work.

(c) The City agrees that to the extent permitted by law and consistent with the economy and efficiency of construction and operation, it will use its best efforts to purchase materials, equipment and supplies which will not create labor strife. Under all circumstances, however, the City shall retain the absolute right to select the lowest reliable and responsible bidder for the award of contracts on all projects.

Section 2.7 Coverage Exception

(a) This Agreement shall not apply if the City receives funding or assistance from any Federal, State, local or other public entity for the Construction Contract if a requirement, condition or other term of receiving that funding or assistance, at the time of the awarding of the contract, is that the City not require, bidders, contractors, subcontractors or other persons or entities to enter into an agreement with one or more labor organizations. The City agrees that it will make every effort to establish the enforcement of this Agreement with any governmental agency or granting authority.

(b) In case of conflict other than those stated in Section 2.7(a), where particular provisions of this Agreement would be prohibited by Federal or State law, or where the application of this Agreement would violate or be inconsistent with the terms, conditions or contingencies of a grant or a contract with an agency of the United States or the State of California, then the PLA Administrator shall adapt requirements of this Agreement into a set of contract provisions that advance the purposes of this Agreement to the maximum extent feasible without conflicting with Federal or State law or with terms, conditions or contingencies of the State or Federal grant or contract in question. The City shall include this set of contract provisions in the public works or improvement contract with regard to the project or portions of the project for which this Agreement would conflict with Federal or State requirements.

(c) Should City partner with another public agency wherein City and such other public agency jointly fund or construct a Project which would otherwise be considered a "Covered Project" under the terms of this Agreement, the Unions agree to meet and discuss the application of the terms and conditions of this Agreement to such other Project with such other public agency. In the event the public agency partner does not agree to be bound by the terms of this Agreement, the said project shall be exempt from this Agreement.

(d) The Parties or the Trades Council, together and/or separately, shall not be precluded from entering into other project labor agreements, that are separate and apart from this Agreement, for specific City projects including but not limited to future projects such as for the new Belmont Plaza Pool, which may supersede and override this Agreement in its entirety.

(e) Should the City receive funding or assistance from any federal agency that prohibits the use of a geographic-based hiring preference, then such geographic-based hiring

preferences, as set forth in Sections 3.5, 3.6, 3.8 and 14.1 herein, shall not apply to the work funded by such federal source.

Section 2.8 Schedule A's

(a) The provisions of this Agreement, including the Schedule A's (which are the local Master Labor Agreements of the signatory Unions having jurisdiction over the work on the Project, as such may be changed from time-to-time and which are incorporated herein by reference), shall apply to the work covered by this Agreement, notwithstanding the provisions of any other local, area and/or national agreement which may conflict with or differ from the terms of this Agreement. However, such does not apply to work performed under the National Cooling Tower Agreement, the National Stack Agreement, the National Transit Division Agreement (NTD), or within the jurisdiction of the International Union of Elevator Constructors and all instrument calibration and loop checking work performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, except that Articles dealing with Work Stoppages and Lock-Outs, Work Assignments and Jurisdictional Disputes, and Settlement of Grievances and Disputes shall apply to such work. It is specifically agreed that no later agreement shall be deemed to have precedence over this Agreement unless signed by all Parties signatory hereto who are then currently employed or represented at the Project. Where a subject covered by the provisions of this Agreement is also covered by a Schedule A, the provisions of this Agreement shall apply. Where a subject is covered by a provision of a Schedule A and not covered by this Agreement, the provisions of the Schedule A shall prevail. Any dispute as to the applicable source between this Agreement and any Schedule A for determining the wages, hours of working conditions of employees on this Project shall be resolved under the procedures established in Article 10.

(b) It is understood that this Agreement, together with the referenced Schedule A's, constitutes a self-contained, stand-alone agreement and by virtue of having become bound to this Agreement, the Contractor will not be obligated to sign any other local, area or national collective bargaining agreement as a condition of performing work within the scope of this Agreement (provided, however, that the Contractor may be required to sign a uniformly applied, non-discriminatory Participation or Subscription Agreement at the request of the trustees or administrator of a trust fund established pursuant to Section 302 of the Labor Management Relations Act, and to which such Contractor is bound to make contributions under this Agreement, provided that such Participation Agreement does not purport to bind the Contractor beyond the terms and conditions of this Agreement and/or expand its obligation to make contributions pursuant thereto). It shall be the responsibility of the prime Contractor to have each of its subcontractors sign the documents described herein, with the appropriate Craft Union prior to the subcontractor beginning work on covered Projects.

Section 2.9 Workers' Compensation Carve-out The Parties recognize the potential which the Project Work may provide for the implementation of a cost effective workers' compensation system, as permitted by revised California Labor Code Section 3201.5, and it is understood that the City is in an ongoing review of the value of such a program. Should the City request, the Union parties agree to meet and negotiate in good faith with representatives of the City for the development, and subsequent implementation, of an effective program involving improved and

revised dispute resolution and medical care procedures for the delivery of workers' compensation benefits and medical coverage as permitted by the California Labor Code.

Section 2.10 Binding Signatories Only This Agreement shall only be binding on the signatory Parties hereto, and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any such Party not performing Project Work.

Section 2.11 Other City Work This Agreement shall be limited to the construction work within the scope of this Agreement including, specifically, site preparation and related demolition work, and new construction and major rehabilitation work for new or existing facilities referenced in Section 2.2 above. Nothing contained herein shall be interpreted to prohibit, restrict, or interfere with the performance of any other operation, work or function not covered by this Agreement, which may be performed by City employees or contracted for by the City for its own account, on its property or in and around a Project site.

Section 2.12 Separate Liability It is understood that the liability of the Contractor(s) and the liability of the separate Unions under this Agreement shall be several and not joint. The Unions agree that this Agreement does not have the effect of creating any joint employment status between or among the City or PLA Administrator and/or any Contractor.

Section 2.13 Completed Project Work As areas of covered work are accepted by the City, this Agreement shall have no further force or effect on such items or areas except where the Contractor is directed by the City or its representatives to engage in repairs, modification, check-out and/or warranties functions required by its contract(s) with the City.

Section 2.14 Progress Reports City staff will provide annual reports to the City Council detailing the progress made in meeting the stated goals of this Agreement.

ARTICLE 3
UNION RECOGNITION AND EMPLOYMENT

Section 3.1 Recognition The Contractor recognizes the Trades Council and the Unions as the sole and exclusive bargaining representative for the employees engaged in Project Work. Contractors further recognize that the Unions shall be the primary source of all craft labor employed on the Projects. In the event that a Contractor has its own core workforce, said Contractor shall follow the procedures outlined below.

Section 3.2 Contractor Selection of Employees The Contractor shall have the right to determine the competency of all employees, the number of employees required, the duties of such employees within their craft jurisdiction, and shall have the sole responsibility for selecting employees to be laid off, consistent with Section 3.3 and Section 4.3, below. The Contractor shall also have the right to reject any applicant referred by a Union for any reason subject to Section 3.4 herein, and subject to any reporting pay required by Section 6.6; provided, however, that such right is exercised in good faith and not for the purpose of avoiding the Contractor's commitment to employ qualified workers through the procedures endorsed in this Agreement.

Section 3.3 Referral Procedures

(a) For signatory Unions now having a job referral system contained in a Schedule A, the Contractor agrees to comply with such system and it shall be used exclusively by such Contractor, except as modified by this Agreement. Such job referral system will be operated in a nondiscriminatory manner and in full compliance with federal, state, and local laws and regulations which require equal employment opportunities and non-discrimination. All of the foregoing hiring procedures, including related practices affecting apprenticeship, shall be operated so as to consider the goals of the City to encourage employment of City residents and utilization of small local businesses on the Project, and to facilitate the ability of all Contractors to meet their employment needs.

(b) The local Unions will exert their best efforts to recruit and refer sufficient numbers of skilled craft workers to fulfill the labor requirements of the Contractor, including specific employment obligations to which the Contractor may be legally and/or contractually obligated; and to refer apprentices as requested to develop a larger, skilled workforce. The Unions will work with their affiliated regional and national unions, and jointly with the PLA Administrator and others designated by the City, to identify and refer competent craft persons as needed for Project Work, and to identify and hire individuals, particularly residents of the City, for entrance into joint labor/management apprenticeship programs, or to participate in other identified programs and procedures to assist individuals in qualifying and becoming eligible for such apprenticeship programs, all maintained to increase the available supply of skilled craft personnel for Project Work and future construction of maintenance work to be undertaken by the City.

(c) The Union shall not knowingly refer an employee currently employed by a Contractor on a covered Project to any other Contractor.

Section 3.4 Non-Discrimination in Referral, Employment, and Contracting The Unions and Contractors agree that they will not discriminate against any employee or applicant for employment in hiring and dispatching on the basis of race, color, religion, sex, gender, gender identity/expression, national origin, age, membership in a labor organization, sexual orientation, political affiliation, marital status, military or veteran status, medical condition, genetic information, or disability. Further, it is recognized that the City has certain policies, programs, and goals for the utilization of local small business enterprises. The Parties shall jointly endeavor to assure that these commitments are fully met, and that any provisions of this Agreement which may appear to interfere with local small business enterprises successfully bidding for work within the scope of this Agreement shall be carefully reviewed, and adjustments made as may be appropriate and agreed upon among the Parties, to ensure full compliance with the spirit and letter of the City's policies and commitment to its goals for the significant utilization of local small businesses as direct Contractors or suppliers for Project Work.

Section 3.5 Employment of City Residents

(a) The Unions and Employers agree that, to the extent allowed by law, and as long as they possess the requisite skills and qualifications, the Unions will exert their best efforts to

refer and/or recruit sufficient numbers of skilled craft "Local Residents" as defined herein, to fulfill the requirements of the Employers. In recognition of the fact that the City and the communities surrounding Project Work will be impacted by the construction of the Project Work, the parties agree to support the hiring of workers from the residents of these surrounding areas. Towards that end, the Unions shall exert their best efforts to encourage and provide referrals and utilization of qualified workers residing in those first tier zip codes which include all of the City of Long Beach, as set forth in "**Attachment B**" attached hereto. If the Unions cannot provide the Employers in the attainment of a sufficient number of Local Residents from within the first tier zip codes, the Unions shall exert their best efforts to then recruit and identify for referral Local Residents residing in second tier zip codes which reflect the Gateway Cities, as set forth in "**Attachment B**" attached hereto. If the Unions still have not provided the Employers in the attainment of a sufficient number of Local Residents, the Unions shall then exert their best efforts to recruit and identify for referral Local Residents residing within Orange and Los Angeles counties.

(1) Where Project Work is funded in full or in part by State of California Tideland funds, the term Local Resident, as used in this section, shall mean an individual whose primary place of residence is within the Counties of Los Angeles or Orange.

(b) A goal of 40% of the total work hours shall be from workers residing within the areas described in (a) above.

(c) The City is in the process of establishing referral mechanisms to ensure the recruitment, training and placement of Transitional Workers and veterans into apprentice programs, with a goal of 10% of such Transitional Workers and veterans being placed from such programs. "Transitional Workers" means an individual who, prior to commencing work on the project, faces one of the following barriers to employment: (1) being homeless; (2) being a custodial single parent; (3) receiving public assistance; (4) lacking a GED or high school diploma; (5) having a criminal record or other involvement with the criminal justice system; (6) suffering from chronic unemployment ; (7) emancipated from the foster care system; (8) being a veteran of the Iraq/Afghanistan war.

(d) The Trades Council agrees to support the operation of pre-apprentice referral programs in Long Beach. Further, the Unions agree to place on their referral roles or in their apprenticeship training programs, as appropriate and needed, qualified persons sent to them by the PLA Administrator, the Building Trades non-profit Apprenticeship Readiness Fund's: Apprenticeship Readiness Coordinator and Apprenticeship Coordinator for the Long Beach Unified School District. This shall include, but is not limited to, those individuals who have received an MC3 completion certificate from an apprenticeship preparation program that utilizes the Building Trades multi-craft core curriculum (MC3) including, but not limited to, the Long Beach Community College District's MC3 Pre-Apprenticeship Program. Such individuals must meet the qualifications and minimum requirements for the respective craft Union, or their respective apprenticeship or training programs, in order to be placed on the referral roles or placed into such apprenticeship or training programs.

Section 3.6 Requirements on Contractors

(a) To facilitate the dispatch of Local Residents, Transitional Workers and veterans, all Contractors will be required to utilize the Craft Employee Request Form whenever they are requesting the referral of any employee from a Union referral list for any Covered Project, a sample of which is attached as "Attachment C." This form must also be sent to the PLA Administrator at Pacific Gateway at the time of request. When Local Residents, Transitional Workers and veterans are requested by the Employers, the Unions will refer such workers regardless of their place in the Unions' hiring halls' list and normal referral procedures.

(b) The City will require the prime contractor to hire a "Jobs Coordinator" who shall provide additional outreach efforts in connecting Long Beach residents with job opportunities. The term Jobs Coordinator means an independent third-party individual, entity or employee with whom the prime contractor enters into a contract or employs to facilitate implementation of the targeted hiring requirements of the PLA. The Jobs Coordinator must be able to demonstrate or document to the City the requisite qualifications and/or experience to fulfill the duties and responsibilities as outlined in PLA.

(c) All Contractors shall use a skilled and trained workforce, as defined and in accordance with Public Contract Code section 2601, in the performance of all Project Work.

Section 3.7 Helmets to Hardhats The Employers and the Unions recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in the building and construction industry. The employers and Unions agree to utilize the services of the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the Parties. For purposes of this Agreement the term "Eligible Veteran" shall have the same meaning as the term "veteran" as defined under Title 5, Section 2108(1) of the United States Code as the same may be amended or re-codified from time to time. It shall be the responsibility of each qualified applicant to provide the Unions with proof of his/her status as an Eligible Veteran.

The Unions and Employers agree to coordinate with the Center to create and maintain an integrated database of veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Unions will give credit to such veterans for bona fide, provable past experience.

Section 3.8 Core Employees

(a) Except as otherwise provided in separate collective bargaining agreement(s) to which the Contractor is signatory, Contractors may employ, as needed, first, a member of his core workforce, then an employee through a referral from the appropriate Union hiring hall, then a second core employee, then a second employee through the referral system, and so on until a maximum of five (5) core employees are employed, thereafter, all additional employees in the

affected trade or craft shall be requisitioned from the craft hiring hall in accordance with Section 3.3. In the laying off of employees, the number of core employees shall not exceed one-half plus one of the workforce for an employer with 10 or fewer employees, assuming the remaining employees are qualified to undertake the work available. This provision applies only to employees not currently working under a current Schedule A Agreement and is not intended to limit the transfer provisions of the Schedule A Agreement of any trade. As part of this process, and in order to facilitate the contract administration procedures, as well as appropriate fringe benefit fund coverage, all Contractors shall require their core employees and any other persons employed other than through the referral process, to register with the appropriate Union hiring hall, if any, prior to their first day of employment at a project site.

(b) The core work force is comprised of those employees whose names appeared on the Contractor's active payroll for sixty (60) of the one hundred (100) working days immediately before award of Project Work to the Contractor; who possess any license required by state or federal law for the Project Work to be performed; who have worked at least two thousand (2,000) hours in the three years prior to project award in the applicable trade or craft in which they are employed; who have the ability to safely perform the basic functions of the applicable trade and who have been residing within the first or second tier zip codes described in Section 3.5(a) for the one hundred (100) working days immediately prior to the award of Project Work to the Contractor.

(c) Prior to each Contractor performing any work on the Project, each Contractor shall provide a list of his core employees to the PLA Administrator and the Trades Council. Failure to do so will prohibit the Contractor from using any core employees. Upon request by any Party to this Agreement, the Contractor hiring any core employee shall provide satisfactory proof (i.e., payroll records, quarterly tax records, driver's license, voter registration, postal address and such other documentation) evidencing the core employee's qualification as a core employee to the PLA Administrator and the Trades Council.

(d) The provisions of this Section 3.8 shall only apply to employees who are not working under the terms of a Schedule A Agreement at the time of their transfer to work covered under this Agreement and is not intended to limit the transfer provisions of the Schedule A Agreements of any of the Unions signatory hereto.

Section 3.9 Time for Referral If any Union's registration and referral system does not fulfill the requirements for specific classifications requested by any Contractor within forty-eight (48) hours (excluding Saturdays, Sundays and holidays), that Contractor may use employment sources other than the Union registration and referral services and may employ applicants meeting such standards from any other available source. The Contractors shall inform the Union of any applicants hired from other sources within forty-eight (48) hours of such applicant being hired, and such applicants shall register with the appropriate hiring hall, if any, before commencing work.

Section 3.10 Lack of Referral Procedure If a signatory Union does not have a job referral system as set forth in Section 3.3 above, the Contractors shall give the Union equal opportunity

to refer applicants. Contractors shall notify the Union of employees so hired, as set forth in Section 3.5.

Section 3.11 Union Membership Employees are not required to become or remain union members as a condition of performing Covered Work under this Agreement. Employers shall make and transmit all deductions for union dues, fees, and assessments that have been authorized by employees in writing in accordance with the applicable Master Agreement. Nothing in this Section 3.11 is intended to supersede the requirements of applicable Master Agreements as to those Employers otherwise signatory to such Master Agreements and as to the employees of those Employers who are performing Covered Work.

Section 3.12 Individual Seniority Except as provided in Section 4.3, individual seniority shall not be recognized or applied to employees working on the Project; provided, however, that group and/or classification seniority in a Union's Schedule A as of the effective date of this Agreement shall be recognized for purposes of layoffs.

Section 3.13 Foremen The selection and number of craft foreman and/or general foreman shall be the responsibility of the Contractor. All foremen shall take orders exclusively from the designated Contractor representatives. Craft foreman shall be designated as working foreman at the request of the Contractors.

Section 3.14 Out of State Workers In determining compliance with the targeted hiring goals of Section 3.5 above, hours of Project Work performed by residents of states other than California will be excluded from the calculation. Additionally, the residency requirement in Section 3.8(b) shall not apply to workers residing out of state.

ARTICLE 4
UNION ACCESS AND STEWARDS

Section 4.1 Access to Project Sites Authorized representatives of the Union shall have access to Project Work sites, provided that they do not interfere with the work of employees and further provided that such representatives fully comply with posted visitor, security and safety rules.

Section 4.2 Stewards

(a) Each signatory Union shall have the right to dispatch a working journeyperson as a steward for each shift, and shall notify the Contractor in writing of the identity of the designated steward or stewards prior to the assumption of such person's duties as steward. Such designated steward or stewards shall not exercise any supervisory functions. There will be no non-working stewards. Stewards will receive the regular rate of pay for their respective crafts.

(b) In addition to his/her work as an employee, the steward should have the right to receive, but not to solicit, complaints or grievances and to discuss and assist in the adjustment of the same with the employee's appropriate supervisor. Each steward should be concerned only with the employees of the steward's Contractor and, if applicable, subcontractor(s), and not with

the employees of any other Contractor. A Contractor will not discriminate against the steward in the proper performance of his/her Union duties.

(c) When a Contractor has multiple, non-contiguous work locations at one site, the Contractor may request and the Union shall appoint such additional working stewards as the Contractor requests to provide independent coverage of one or more such locations. In such cases, a steward may not service more than one work location without the approval of the Contractor.

(d) The stewards shall not have the right to determine when overtime shall be worked or who shall work overtime.

Section 4.3 Steward Layoff/Discharge Contractor agrees to notify the appropriate Union twenty-four (24) hours before the layoff of a steward, except in the case of disciplinary dischargefor just cause. If the steward is protected against such layoff by the provisions of the applicable Schedule A, such provisions shall be recognized when the steward possesses the necessary qualifications to perform the remaining work. In any case in which the steward is discharged or disciplined for just cause, the appropriate Union will be notified immediately by the Contractor, and such discharge or discipline shall not become final (subject to any later filed grievance) until twenty-four (24) hours after such notice has been given.

Section 4.4 Employees on Non-Project Work On work where the personnel of the City may be working in close proximity to the construction activities covered by this Agreement, the Union agrees that the Union representatives, stewards, and individual workers will not interfere with the City personnel, or with personnel employed by any other employer not a Party to this Agreement.

ARTICLE 5
WAGES AND BENEFITS

Section 5.1 Wages All employees covered by this Agreement shall be classified in accordance with work performed and paid by the Contractors the hourly wage rates for those classifications in compliance with the applicable prevailing wage rate determination established pursuant to applicable law. If a prevailing rate increases under law, the Contractor shall pay that rate as of its effective date under the law. This Agreement does not relieve Contractors from any independent contractual or other obligation they may have to pay wages in excess of the prevailing wage rate as required.

Section 5.2 Benefits

(a) Contractors shall pay contributions to the established employee benefit funds in the amounts designated in the appropriate Schedule A and make all employee–authorized deductions in the amounts designated in the appropriate Schedule A, however, such contributions shall not exceed the contribution amounts set forth in the applicable prevailing wage determination. Notwithstanding Section 2.8(a) herein, Contractors that are direct signatories to one or more of the Schedule A Agreements are required to make all contributions set forth in

those Schedule A Agreements without reference to the foregoing. Bona fide jointly-trusteed benefit plans or authorized employee deduction programs established or negotiated under the applicable Schedule A or by the Parties to this Agreement during the life of this Agreement may be added.

(b) The Contractor adopts and agrees to be bound by the written terms of the applicable, legally established, trust agreement(s) specifying the detailed basis on which payments are to be made into, and benefits paid out of, such trust funds for its employees. The Contractor authorizes the Parties to such trust funds to appoint trustees and successor trustees to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the Contractor.

(c) Each Contractor and subcontractor is required to certify to the PLA Administrator that it has paid all benefit contributions due and owing to the appropriate Trust(s) prior to the receipt of its final payment and/or retention. Further, upon timely notification by a Union to the PLA Administrator, the PLA Administrator shall work with any prime Contractor or subcontractor who is delinquent in payments to assure that proper benefit contributions are made, to the extent of requesting the City or the prime Contractor to withhold payments otherwise due such Contractor, until such contributions have been made or otherwise guaranteed.

Section 5.3 Wage Premiums Wage premiums, including but not limited to pay based on height of work, hazard pay, scaffold pay and special skills shall not be applicable to work under this Agreement, except to the extent provided for in any applicable prevailing wage determination.

ARTICLE 6
HOURS OF WORK, OVERTIME, SHIFTS AND HOLIDAYS

Section 6.1 Hours of Work Eight (8) hours per day between the hours of 6:00 a.m. and 5:30 p.m., plus one-half (½) hour unpaid lunch approximately mid-way through the shift, shall constitute the standard work day. Forty (40) hours per week shall constitute a regular week's work. The work week will start on Sunday and conclude on Saturday. The foregoing provisions of this Article are applicable unless otherwise provided in the applicable prevailing wage determination, or unless changes are permitted by law and such are agreed upon by the Parties. Nothing herein shall be construed as guaranteeing any employee eight (8) hours per day or forty (40) hours per week, or a Monday through Friday standard work schedule.

Section 6.2 Place of Work Employees shall be at their place of work (as designated by the Contractor), at the starting time and shall remain at their place of work, performing their assigned functions, until quitting time. The place of work is defined as the gang or tool box or equipment at the employee's assigned work location or the place where the foreman gives instructions. The Parties reaffirm their policy of a fair day's work for a fair day's wage. Except as indicated in Section 6.6, there shall be no pay for time not worked unless the employee is otherwise engaged at the direction of the Contractor.

Section 6.3 Overtime Overtime shall be paid in accordance with the requirements of the applicable prevailing wage determination. There shall be no restriction on the Contractor's scheduling of overtime or the nondiscriminatory designation of employees who will work overtime. There shall be no pyramiding of overtime (payment of more than one form of overtime compensation for the same hour) under any circumstances.

Section 6.4 Shifts and Alternate Work Schedules

(a) Alternate starting and quitting time and/or shift work may be performed at the option of the Contractor upon three (3) days' prior notice to the affected Union(s), unless a shorter notice period is provided for in the applicable Schedule A If two shifts are worked, each shall consist of eight (8) hours of continuous work exclusive of a one-half (½) hour non-paid lunch period, for eight (8) hours pay. The last shift shall start on or before 6:00 p.m. The first shift starting at or after 6:00 a.m. is designated as the first shift, with the second shift following.

(b) Contractors, the Trades Council and the Union recognize the economic impact upon the City and City residents of the Project being undertaken by the City and agree that all Parties to this Agreement desire and intend Project Work to be undertaken in a cost efficient and effective manner to the highest standard of quality and craftsmanship. Recognizing the economic conditions, the Parties agree that, except to the extent permitted by law, employees performing Project Work shall not be entitled to any differentials or additional pay based upon the shift or work schedule of the employees. Instead, all employees working on Project Work shall be paid at the same base rate regardless of shift or work schedule worked.

(c) Because of operational necessities, the second shift may, at the City's direction, be scheduled without the preceding shift having been worked. It is recognized that the City's operations and/or mitigation obligations may require restructuring of normal work schedules. Except in an emergency or when specified in the City's bid specification, the Contractor shall give affected Union(s) at least three (3) days' notice of such schedule changes.

Section 6.5 Holidays Recognized holidays on this Project shall be those set forth and governed by the prevailing wage determination(s) applicable to this Project.

Section 6.6 Show-up Pay

(a) Except as otherwise required by State law, Employees reporting for work and for whom no work is provided, except when given prior notification not to report to work, shall receive two (2) hours pay at the regular straight time hourly rate. Employees who are directed to start work shall receive four (4) hours of pay at the regular straight time hourly rate. Employees who work beyond four (4) hours shall be paid for actual hours worked. Whenever reporting pay is provided for employees, they will be required to remain at the Project Site and available for work for such time as they receive pay, unless released earlier by the principal supervisor of the Contractor(s) or his/her designated representative. Each employee shall furnish his/her Contractor with his/her current address and telephone number, and shall promptly report any changes to the Contractor.

(b) An employee called out to work outside of his/her shift shall receive a minimum of two (2) hours pay at the appropriate rate. This does not apply to time worked as an extension of (before or after) the employee's normal shift.

(c) When an employee leaves the job or work location of his/her own volition, or is discharged for cause or is not working as a result of the Contractor's invocation of Section 12.2 herein, the employee shall only be paid for actual time worked.

Section 6.7 Meal Periods The Contractor will schedule a meal period of no more than one-half hour duration at the work location at approximately mid-point of the schedule shift; provided, however, that the Contractor may, for efficiency of the operation, establish a schedule which coordinates the meal periods of two or more crafts. An employee may be required to work through his/her meal period because of an emergency or a threat to life or property, or for such other reasons as are in the applicable Schedule A, and if he/she is so required, he/she shall be compensated in the manner established in the applicable Schedule A.

Section 6.8 Make-up Days To the extent permitted by the applicable general wage determination, when an employee has been prevented from working for reasons beyond the control of the employer, including, but not limited to inclement weather or other natural causes, during the regularly scheduled work week, a make-up day may be worked on a non-regularly scheduled work day for which an employee shall receive eight (8) hours pay at the straight time rate of pay or any premium rate required for such hours under the state prevailing wage law.

ARTICLE 7
WORK STOPPAGES AND LOCK-OUTS

Section 7.1 No Work Stoppages or Disruptive Activity The Trades Council and the Unions signatory hereto agree that neither they, and each of them, nor their respective officers or agents or representatives, shall incite or encourage, condone or participate in any strike, walk-out, slow-down, picketing, observing picket lines or other activity of any nature or kind whatsoever, for any cause or dispute whatsoever with respect to or in any way related to Project Work, or which interferes with or otherwise disrupts, Project Work, or with respect to or related to the City or Contractors or subcontractors, including, but not limited to, economic strikes, unfair labor practice strikes, safety strikes, sympathy strikes and jurisdictional strikes whether or not the underlying dispute is arbitrable. Any such actions by the Trades Council, or Unions, or their members, agents, representatives or the employees they represent shall constitute a violation of this Agreement. The Trades Council and the Union shall take all steps necessary to obtain compliance with this Article and neither should be held liable for conduct for which it is not responsible.

Section 7.2 Employee Violations The Contractor may discharge any employee violating Section 7.1 above and any such employee will not be eligible for rehire under this Agreement.

Section 7.3 Standing to Enforce The City, the PLA Administrator, or any Contractor affected by an alleged violation of Section 7.1 shall have standing and the right to enforce the obligations established therein.

Section 7.4 Expiration of Schedule A's If the Schedule A Agreement, or any local, regional, and other applicable collective bargaining agreements expire during the term of the Project, the Union(s) agree that there shall be no work disruption of any kind as described in Section 7.1 above as a result of the expiration of any such agreement(s) having application on this Project and/or failure of the involved Parties to that agreement to reach a new contract. Terms and conditions of employment established and set at the time of bid shall remain established and set. Otherwise to the extent that such agreement does expire and the parties to that agreement have failed to reach concurrence on a new contract, work will continue on the Project on one of the following two (2) options, both of which will be offered by the Unions involved to the Contractors affected:

(a) Each of the Unions with a contract expiring must offer to continue working on the Project under interim agreements that retain all the terms of the expiring contract, except that the Unions involved in such expiring contract may each propose wage rates and employer contribution rates to employee benefit funds under the prior contract different from what those wage rates and employer contributions rates were under the expiring contracts. The terms of the Union's interim agreement offered to Contractors will be no less favorable than the terms offered by the Union to any other employer or group of employers covering the same type of construction work in Los Angeles County.

(b) Each of the Unions with a contract expiring must offer to continue working on the Project under all the terms of the expiring contract, including the wage rates and employer contribution rates to the employee benefit funds, if the Contractor affected by that expiring contract agrees to the following retroactive provisions: if a new Schedule A Agreement, local, regional or other applicable labor agreement for the industry having application at the Project is ratified and signed during the term of this Agreement and if such new labor agreement provides for retroactive wage increases, then each affected Contractor shall pay to its employees who performed work covered by this Agreement at the Project during the hiatus between the effective dates of such expired and new labor agreements, an amount equal to any such retroactive wage increase established by such new labor agreement, retroactive to whatever date is provided by the new labor agreement for such increase to go into effect, for each employee's hours worked on the Project during the retroactive period. All Parties agree that such affected Contractors shall be solely responsible for any retroactive payment to its employees.

(c) Some Contractors may elect to continue to work on the Project under the terms of the interim agreement option offered under paragraph (a) above and other Contractors may elect to continue to work on the Project under the retroactivity option offered under paragraph (b) above. To decide between the two options, Contractors will be given one week after the particular labor agreement has expired or one week after the Union has personally delivered to the Contractors in writing its specific offer of terms of the interim agreement pursuant to paragraph (a) above, whichever is the later date. If the Contractor fails to timely select one of the two options, the Contractor shall be deemed to have selected option (b).

Section 7.5 No Lockouts Contractors shall not cause, incite, encourage, condone or participate in any lock-out of employees with respect to Project Work during the term of this Agreement. The term "lock-out" refers only to a Contractor's exclusion of employees in order to

secure collective bargaining advantage, and does not refer to the discharge, termination or layoff of employees by the Contractor for any reason in the exercise of rights pursuant to any provision of this Agreement, or any other agreement, nor does "lock-out" include the City's decision to stop, suspend or discontinue any Project Work or any portion thereof for any reason.

Section 7.6 Best Efforts to End Violations

(a) If a Contractor contends that there is any violation of this Article or Section 8.3, it shall notify, in writing, the Executive Secretary of the Trades Council, the Senior Executive of the involved Union(s) and the PLA Administrator. The Executive Secretary and the leadership of the involved Union(s) will immediately instruct, order and use their best efforts to cause the cessation of any violation of the relevant Article.

(b) If the Union contends that any Contractor has violated this Article, it will notify the Contractor and the PLA Administrator, setting forth the facts which the Union contends violate the Agreement, at least twenty-four (24) hours prior to invoking the procedures of Section 7.8. The PLA Administrator shall promptly order the involved Contractor(s) to cease any violation of the Article.

Section 7.7 Withholding of services for failure to pay wages and fringe benefits

Notwithstanding any provision of this Agreement to the contrary, it shall not be a violation of this Agreement for any Union to withhold the services of its members (but not the right to picket) from a particular Contractor who:

(a) fails to timely pay its weekly payroll; or

(b) fails to make timely payments to the Union's Joint Labor/Management Trust Funds in accordance with the provisions of the applicable Schedule A Agreements. Prior to withholding its members services for the Contractor's failure to make timely payments to the Union's Joint Labor/Management Trust Funds, the Union shall give at least ten (10) days (unless a lesser period of time is provided in the Union's Schedule A Agreement, but in no event less than forty-eight (48) hours) written notice of such failure to pay by registered or certified mail, return receipt requested, and by facsimile transmission to the involved Contractor and to the City. Union will meet within the ten (10) day period to attempt to resolve the dispute.

(c) Upon the payment of the delinquent Contractor of all monies due and then owing for wages and/or fringe benefit contributions, the Union shall direct its members to return to work and the Contractor shall return all such members back to work.

Section 7.8 Expedited Enforcement Procedure Any party, including the City, which the Parties agree is a Party to the Agreement for purposes of this Article and an intended beneficiary of this Article, or the PLA Administrator, may institute the following procedures, in lieu of or in addition to any other action at law or equity, when a breach of Section 7.1 or 7.5, above, or Section 8.3 is alleged.

(a) The Party invoking this procedure shall notify the person named in "**Attachment D**", who has been selected by the negotiating Parties, and whom the Parties agree shall be the permanent arbitrator under this procedure. If the permanent arbitrator is unavailable at any time, the party invoking this procedure shall notify one of the alternates selected by the Parties, as set forth under section 10.2, Step 3 (a), in that order on an alternating basis. Expenses incurred in arbitration shall be borne equally by the Parties involved in the arbitration and the decision of the arbitrator shall be final and binding on the Parties, provided, however, that the arbitrator shall not have the authority to alter or amend or add to or delete from the provisions of this Agreement in any way. Notice to the arbitrator shall be by the most expeditious means available, with notices to the Parties alleged to be in violation, and to the Trades Council if it is a Union alleged to be in violation. For purposes of this Article, written notice may be given by telegram, facsimile, hand delivery or overnight mail and will be deemed effective upon receipt.

(b) Upon receipt of said notice, the arbitrator named above or his/her alternate shall sit and hold a hearing within twenty-four (24) hours if it is contended that the violation still exists, but not sooner than twenty-four (24) hours after notice has been dispatched to the Executive Secretary and the Senior Official(s) as required by Section 7.6, as above.

(c) The arbitrator shall notify the Parties of the place and time chosen for this hearing. Said hearing shall be completed in one session, which, with appropriate recesses at the arbitrator's discretion, shall not exceed 24 hours unless otherwise agreed upon by all Parties. A failure of any Party or Parties to attend said hearings shall not delay the hearing of evidence or the issuance of any award by the arbitrator.

(d) The sole issue at the hearing shall be whether or not a violation of Sections 7.1 or 7.5, above, or Section 8.3 herein has in fact occurred. The arbitrator shall have no authority to consider any matter in justification, explanation or mitigation of such violation or to award damages, (except for damages as set forth in 7.8 below) which issue is reserved for court proceedings, if any. The award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without an opinion. If any Party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The arbitrator may order cessation of the violation of the Article and other appropriate relief, and such award shall be served on all Parties by hand or registered mail upon issuance.

(e) Such award shall be final and binding on all Parties and may be enforced by any court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to herein above in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other Party. In any judicial proceeding to obtain a temporary order enforcing the arbitrator's award as issued under Section 7.7(d) of this Article, all Parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any Party's right to participate in a hearing for a final order of enforcement. The court's order or orders enforcing the arbitrator's award shall be served on all Parties by hand or by delivery to their address as shown on this Agreement (for a Union), as shown on their business contract for work under this Agreement (for a Contractor) and to the

representing Union (for an employee), by certified mail by the Party or Parties first alleging the violation.

(f) Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance hereto are hereby waived by the Parties to whom they accrue.

(g) The fees and expenses of the arbitrator shall be equally divided between the Party or Parties initiating this procedure and the respondent Party or Parties.

ARTICLE 8
WORK ASSIGNMENTS AND JURISDICTIONAL DISPUTES

Section 8.1 Assignment of Work The assignment of Project Work will be solely the responsibility of the Employer performing the work involved; and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.

Section 8.2 The Plan All jurisdictional disputes on this Project between or among the building and construction trades Unions and the Employers parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Employers and Unions parties to this Agreement.

(a) If a dispute arising under this Article involves the Southwest Regional Council of Carpenters or any of its subordinate bodies, an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsch, and Thomas Pagan, and the Arbitrator's hearing on the dispute shall be held at the offices of the Trades Council within 14 days of the selection of the Arbitrator. All other procedures shall be as specified in the Plan.

Section 8.3 No Work Disruption Over Jurisdiction All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Employer's assignment shall be adhered to until the dispute is resolved. Individuals violating this section shall be subject to immediate discharge.

Section 8.4 Pre-Job Conferences As provided in Article 16, each Contractor will conduct a pre-job conference with the appropriate affected Union(s) prior to commencing work. The Trades Council and the PLA Administrator shall be advised in advance of all such conferences and may participate if they wish.

Section 8.5 Resolution of Jurisdictional Disputes If any actual or threatened strike, sympathy strike, work stoppage, slow down, picketing, hand-billing or otherwise advising the public that a labor dispute exists, or interference with the progress of Project Work by reason of a jurisdictional dispute or disputes occurs, the Parties shall exhaust the expedited procedures set

forth in the Plan, if such procedures are in the plan then currently in effect, or otherwise as in Article 7 above.

ARTICLE 9
MANAGEMENT RIGHTS

Section 9.1 Contractor and City Rights The Contractors and the City have the sole and exclusive right and authority to oversee and manage construction operations on Project Work and expressly reserve their management rights and all rights conferred upon them by law without any limitations unless expressly limited or required by a specific provision of this Agreement or a Schedule A Agreement. These rights include, but are not limited to, the right to:

(a) Plan, direct and control operations of all work;

(b) Hire, promote, transfer and layoff their own employees, respectively, as deemed appropriate to satisfy work and/or skill requirements;

(c) Promulgate and require all employees to observe reasonable job rules and security and safety regulations;

(d) Discharge, suspend or discipline their own employees for just cause;

(e) Utilize, in accordance with City approval, any work methods, procedures or techniques, and select, use and install any types or kinds of materials, apparatus or equipment, regardless of source of manufacture or construction; assign and schedule work at their discretion; and

(f) Assign overtime, determine when it will be worked and the number and identity of employees engaged in such work, subject to such provisions in the applicable Schedule A(s) requiring such assignments be equalized or otherwise made in a nondiscriminatory manner.

Section 9.2 Specific City Rights In addition to the following and other rights of the City enumerated in this Agreement, the City expressly reserves its management rights and all the rights conferred on it by law. The City's rights (and those of the Contract Administrator on its behalf) include but are not limited to the right to:

(a) Inspect any construction site or facility to ensure that the Contractor follows the applicable safety and other work requirements;

(b) Require Contractors to establish a different work week or shift schedule for particular employees as required to meet the operational needs of the Project Work at a particular location;

(c) At its sole option, terminate, delay and/or suspend any and all portions of the covered work at any time; prohibit some or all work on certain days or during certain hours of the day to accommodate the ongoing operations of the City's Facilities and/or to mitigate the

effect of ongoing Project Work on businesses and residents in the neighborhood of the Project site; and/or require such other operational or schedule changes it deems necessary, in its sole judgment, to effectively maintain its primary mission and remain a good neighbor to those in the area of its facilities. (In order to permit the Contractors and Unions to make appropriate scheduling plans, the City will provide the PLA Administrator, and the affected Contractor(s) and Union(s) with reasonable notice of any changes it requires pursuant to this section; provided, however, that if notice is not provided in time to advise employees not to report for work, show-up pay shall be due pursuant to the provision of Article 6, Section 6.6);

(d) Approve any work methods, procedures and techniques used by Contractors whether or not these methods, procedures or techniques are part of industry practices or customs; and

(e) Investigate and process complaints, through the PLA Administrator, in the matter set forth in Articles 7 and 10.

Section 9.3 Use of Materials There should be no limitations or restriction by Union upon a Contractor's choice of materials or design, nor, regardless of source or location, upon the full use and utilization, of equipment, machinery, packaging, precast, prefabricated, prefinished, or preassembled materials, tools or other labor saving devices, subject to the application of the State Public Contracts and Labor Codes as required by law in reference to offsite construction. Generally, the onsite installation or application of such items shall be performed by the craft having jurisdiction over such work. The City and the PLA Administrator shall advise all Contractors of, and enforce as appropriate, the off-site application of the prevailing wage law as it affects Project Work.

Section 9.4 Special Equipment, Warranties and Guaranties

(a) It is recognized that certain equipment of a highly technical and specialized nature may be installed at Project Work sites. The nature of the equipment, together with the requirements for manufacturer's warranties, may dictate that it be prefabricated pre-piped and/or pre-wired and that it be installed under the supervision and direction of the City's and/or manufacturer's personnel. The Unions agree to install such equipment without incident.

(b) The Parties recognize that the Contractor will initiate from time to time the use of new technology, equipment, machinery, tools, and other labor-savings devices and methods of performing Project Work. The Union agrees that they will not restrict the implementation of such devices or work methods. The Unions will accept and will not refuse to handle, install or work with any standardized and/or catalogue: parts, assemblies, accessories, prefabricated items, preassembled items, partially assembled items, or materials whatever their source of manufacture or construction.

(c) If any disagreement between the Contractor and the Unions concerning the methods of implementation or installation of any equipment, or device or item, or method of work, arises, or whether a particular part or pre-assembled item is a standardized or catalog part or item, the work will precede as directed by the Contractor and the Parties shall immediately

consult over the matter. If the disagreement is not resolved, the affected Union(s) shall have the right to proceed through the procedures set forth in Article 10.

ARTICLE 10
SETTLEMENT OF GRIEVANCES AND DISPUTES

Section 10.1 Cooperation and Harmony on Site

(a) This Agreement is intended to establish and foster continued close cooperation between management and labor. The Trades Council shall assign a representative to this Project for the purpose of assisting the local Unions, and working with the PLA Administrator, together with the Contractors, to complete the construction of the Project economically, efficiently, continuously and without any interruption, delays or work stoppages.

(b) The PLA Administrator, the Contractors, Unions, and employees collectively and individually, realize the importance to all Parties of maintaining continuous and uninterrupted performance Project Work, and agree to resolve disputes in accordance with the grievance provisions set forth in this Article or, as appropriate, those of Article 7 or 8.

(c) The PLA Administrator shall oversee the processing of grievances under this Article and Articles 7 and 8, including the scheduling and arrangements of facilities for meetings, selection of the arbitrator from the agreed-upon panel to hear the case, and any other administrative matters necessary to facilitate the timely resolution of any dispute; provided, however, it is the responsibility of the principal parties to any pending grievance to insure the time limits and deadlines are met.

Section 10.2 Processing Grievances Any questions arising out of and during the term of this Agreement involving its interpretation and application, which includes applicable provisions of the Schedule A's, but not jurisdictional disputes or alleged violations of Section 7.1 and 7.4 herein and similar provisions, shall be considered a grievance and subject to resolution under the following procedures.

Step 1. Employee Grievances When any employee subject to the provisions of this Agreement feels aggrieved by an alleged violation of this Agreement, the employee shall, through his local Union business representative or, job steward, within ten (10) working days after the occurrence of the violation, give notice to the work site representative of the involved Contractor stating the provision(s) alleged to have been violated. A business representative of the local Union or the job steward and the work site representative of the involved Contractor shall meet and endeavor to resolve the matter within ten (10) working days after timely notice has been given. If they fail to resolve the matter within the prescribed period, the grieving party may, within ten (10) working days thereafter, pursue Step 2 of this grievance procedure provided the grievance is reduced to writing, setting forth the relevant information, including a short description thereof, the date on which the alleged violation occurred, and the provision(s) of the Agreement alleged to have been violated. Grievances and disputes settled at Step 1 shall be non-precedential except as to the parties directly involved.

Union or Contractor Grievances Should the Union(s) or any Contractor have a dispute with the other Party(ies) and, if after conferring within ten (10) working days after the disputing Party knew or should have known of the facts or occurrence giving rise to the dispute, a settlement is not reached within five (5) working days, the dispute shall be reduced to writing and processed to Step 2 in the same manner as outlined in Step 1 above for the adjustment of an employee complaint.

Step 2. The business manager of the involved local Union or his designee, together with the site representative of the involved Contractor, and the labor relations representative of the PLA Administrator, shall meet within seven (7) working days of the referral of the dispute to this second step to arrive at a satisfactory settlement thereof. If the Parties fail to reach an agreement, the dispute may be appealed in writing in accordance with the provisions of Step 3 within seven (7) calendar days after the initial meeting at Step 2.

Step 3. (a) If the grievance shall have been submitted but not resolved under Step 2, either the Union or Contractor Party may request in writing to the PLA Administrator (with copy (ies) to the other Party (ies)) within seven (7) calendar days after the initial Step 2 meeting, that the grievance be submitted to an arbitrator selected from the agreed upon list in "**Attachment D**" attached hereto, on a rotational basis in the order listed. The decision of the arbitrator shall be final and binding on all Parties and the fee and expenses of such arbitrations shall be borne equally by the involved Contractor(s) and the involved Union(s).

(b) Failure of the grieving Party to adhere to the time limits established herein shall render the grievance null and void. The time limits established herein may be extended only by written consent of the Parties involved at the particular step where the extension is agreed upon. The arbitrator shall have the authority to make decisions only on issues presented and shall not have the authority to change, amend, add to or detract from any of the provisions of this Agreement.

(c) The fees and expenses incurred by the arbitrator, as well as those jointly utilized by the Parties (i.e., conference room, court reporter, etc.) in arbitration, shall be divided equally by the Parties to the arbitration, including Union(s) and Contractor(s) involved.

Section 10.3 Limit on Use of Procedures The procedures contained in this Article shall not be applicable to any alleged violation of Articles 7 or 8, with a single exception that any employee discharged for violation of Section 7.2, or Section 8.3, may resort to the procedures of this Article to determine only if he/she was, in fact, engaged in that violation.

Section 10.4 Notice The PLA Administrator (and the City, in the case of any grievance regarding the Scope of this Agreement), shall be notified by the involved Contractor of all actions at Steps 2 and 3, and further, the PLA Administrator shall, upon its own request, be permitted to participate fully as a party in all proceedings at such steps.

ARTICLE 11
REGULATORY COMPLIANCE

Section 11.1 Compliance with All Laws The Trades Council and all Unions, Contractors, subcontractors and their employees shall comply with all applicable federal and state laws, ordinances and regulations including, but not limited to, those relating to safety and health, employment and applications for employment. All employees shall comply with the safety regulations established by the City, the PLA Administrator or the Contractor. Employees must promptly report any injuries or accidents to a supervisor.

Section 11.2 Prevailing Wage Compliance All Contractors shall comply with the state laws and regulation on prevailing wages. Compliance with this obligation may be enforced by the appropriate parties through Article 10 above, or by pursing the remedies available under state law through the Labor Commissioner or the Department of Industrial Relations.

Section 11.3 Violations of Law Should there be a finding by a Court or administrative tribunal of competent jurisdiction that a Contractor has violated federal and/or state law or regulation, the City, upon notice to the Contractor that it or its subcontractors is in such violation (including any finding of non-compliance with the California prevailing wage obligations as enforced pursuant to DIR regulations), the City, and in the absence of the Contractor or subcontractor remedying such violation, may take such action as it is permitted by law or contract to encourage that Contractor to come into compliance, including, but not limited to, assessing fines and penalties and/or removing the offending Contractor from Project Work.

ARTICLE 12
SAFETY AND PROTECTION OF PERSON AND PROPERTY

Section 12.1 Safety

(a) It shall be the responsibility of each Contractor to ensure safe working conditions and employee compliance with any safety rules contained herein or established by the City or the Contractor, whichever is most restrictive shall apply. It is understood that employees have an individual obligation to use diligent care to perform their work in a safe manner and to protect themselves and the property of the Contractor and the City.

(b) Employees shall be bound by the safety, security and visitor rules established by the Contractor and/or the City. These rules will be published and posted. An employee's failure to satisfy his/her obligations under this section will subject him/her to discipline, up to and including discharge.

(c) The Contractor shall comply with all of the requirements of the Pipeline and Hazardous Materials Safety Administration Drug and Alcohol Testing Regulations, 49 CFR Part 199, for pipeline operators, the Federal Highway Administration Drug and Alcohol Testing Regulations, 49 CFR Part 382, for drivers of commercial motor vehicles and the Procedures for Transportation Workplace Drug and Alcohol Testing Programs, 49 CFR Part 40. It is the responsibility of the Contractor to be familiar with the requirements of these regulations.

(d) Prior to the start of work, the Contractor shall provide adequate documentation to substantiate full compliance with these regulations. This documentation shall include, but not be limited to; a current copy of the Contractor's written Drug and Alcohol testing policy indicating:

1. Type of tests (pre-employment, preventative, post-accident, etc.) and details of the testing procedures employed;

2. Name of the Medical Review Officer and Substance Abuse Professional and an outline of their responsibilities;

3. Name of the testing laboratory and proof of National Institute on Drug Abuse (N.I.D.A.) certification by the U.S. Department of Health and Human Services; and Collection agency name.

The City, in its sole discretion, will determine whether the policy submitted is compliant with the applicable regulations. The City reserves the right to reject any contractor or subcontractor that does not meet the above applicable Drug and Alcohol Testing Program regulations.

Ten (10) days prior to start of construction, the Contractor shall submit to the applicable City Project Engineer a copy of the summary of results of the previous 3 month's drugs tests. This summary should include only the total number of persons tested each month and the number of positive and negative test results for each month. The names of those persons tested shall not be included in the summary report. The City reserves the right, in accordance with the provisions of 49 CRF Part 199, to inspect the Contractor's program records, upon request.

Section 12.2 Suspension of Work for Safety A Contractor may suspend all or a portion of the job to protect the life and safety of employees. In such cases, employees will be compensated only for the actual time worked; provided, however, that where the Contractor requests employees to remain at the site and be available for work, the employees will be compensated for stand-by time at their basic hourly rate of pay.

Section 12.3 Water and Sanitary Facilities The Contractor shall provide adequate supplies of drinking water and sanitary facilities for all employees as required by state law or regulation.

ARTICLE 13
TRAVEL AND SUBSISTENCE

Travel expenses, travel time, subsistence allowances, zone rates and parking reimbursements shall be paid in accordance with the applicable Schedule A Agreement unless superseded by the applicable prevailing wage determination.

ARTICLE 14
APPRENTICES

Section 14.1 Importance of Training The Parties recognize the need to maintain continuing support of the programs designed to develop adequate numbers of competent workers

in the construction industry, the obligation to capitalize on the availability of the local work force in the area served by the City, and the opportunities to provide continuing work under the construction program. To these ends, the Parties will facilitate, encourage, and assist local residents to commence and progress in Labor/Management Apprenticeship and/or training Programs in the construction industry leading to participation in such apprenticeship programs. The City and the Trades Council will work cooperatively to identify, or establish and maintain, effective programs and procedures for persons interested in entering the construction industry and which will help prepare them for the formal joint labor/management apprenticeship programs maintained by the signatory Unions.

Section 14.2 Use of Apprentices

(a) Apprentices used on Projects under this Agreement shall be registered in Joint Labor Management Apprenticeship Programs approved by the State of California. Apprentices may comprise up to thirty percent (30%) of each craft's work force (calculated by hours worked) at any time, unless the standards of the applicable joint apprenticeship committee confirmed by the Division of Apprenticeship Standards ("DAS"), establish a lower or higher maximum percentage. Where the standards permit a higher percentage, such percentage shall apply on Project Work. Where the applicable standards establish a lower percentage, the applicable Union will use its best efforts with the Joint Labor Management apprenticeship committee and, if necessary, the DAS to permit up to thirty percent (30%) apprentices on the Project.

(b) The Unions agree to cooperate with the Contractor in furnishing apprentices as requested up to the maximum percentage. The apprentice ratio for each craft shall be in compliance, at a minimum, with the applicable provisions of the Labor Code relating to utilization of apprentices. The City shall encourage such utilization, and, both as to apprentices and the overall supply of experienced workers, the PLA Administrator will work with the Trades Council to assure appropriate and maximum utilization of apprentices and the continuing availability of both apprentices and journey persons.

(c) The Parties agree that apprentices will not be dispatched to Contractors working under this Agreement unless there is a journeymen working on the project where the apprentice is to be employed who is qualified to assist and oversee the apprentice's progress through the program in which he is participating.

(d) All apprentices shall work under the direct supervision of a journeyman from the trade in which the apprentice is indentured. A journeyman shall be defined as set forth in the California Code of Regulations, Title 8 [apprenticeship] section 205, which defines a journeyman as a person who has either completed an accredited apprenticeship in his or her craft, or has completed the equivalent of an apprenticeship in length and content of work experience and all other requirements in the craft which has workers classified as journeyman in the apprenticeable occupation. Should a question arise as to a journeyman's qualification under this subsection, the Contractor shall provide adequate proof evidencing the worker's qualification as a journeyman to the Trades Council.

Section 14.3 Joint Subcommittee on Training and Apprenticeship To carry out the intent and purposes of this Article, a subcommittee of the Labor Management Committee established pursuant to Article 17 may be established, jointly chaired by a designee of the City and a designee of the Trades Council, to oversee the identification and/or effective development of procedures and programs leading to the full utilization of apprenticeship programs, and to work with representatives of each signatory craft's joint apprenticeship committee ("CJAC") and representatives of the City's technical schools to establish appropriate criteria for recognition by such CJAC's of the educational and work experience possessed by City students and graduates toward qualifying for entry or advanced level in the apprenticeship programs under the direction under such CJAC's. The Subcommittee will meet as necessary at the call of the joint chairs to promptly facilitate its purposes in an expeditious manner as soon as this Agreement becomes effective. In addition to the joint chairs, the membership of the committee will consist of at least three representatives of the signatory local Unions and three representatives of Contractors signatory to this Agreement and experienced in overseeing and participating in joint labor management apprenticeship programs (or organizations to which the Contractors belong).

ARTICLE 15
WORKING CONDITIONS

Section 15.1 Meal and Rest Periods There will be no non-working times established during working hours except as may be required by applicable state law or regulations. Meal periods and Rest periods shall be as provided for in Wage Order 16. Individual coffee containers will be permitted at the employees' work location; however, there will be no organized coffee breaks.

Section 15.2 Work Rules The City, the PLA Administrator, and/or relevant Contractor shall establish such reasonable work rules as they deem appropriate and not inconsistent with this Agreement. These rules will be posted at the work sites by the Contractor and may be amended thereafter as necessary. Failure to observe these rules and regulations by employees may be grounds for discipline up to and including discharge.

Section 15.3 Emergency Use of Tools and Equipment There should be no restrictions on the emergency use of any tools by any qualified employee or supervisor, or on the use of any tools or equipment for the performance of work within the jurisdiction, provided the employee can safely use the tools and/or equipment involved and is compliance with applicable governmental rules and regulations.

Section 15.4 Access Restrictions for Cars Recognizing the nature of the work being conducted on the site, employee access by a private automobile may be limited to certain roads and/or parking areas.

ARTICLE 16
PRE-JOB CONFERENCES

Section 16.1 Each Primary Contractor which is awarded a Construction Contract by the City for Project Work shall conduct a Pre-Job conference with the appropriate affected Union(s) prior to commencing work. All Contractors who have been awarded contracts by the Primary

Contractor shall attend the Pre-Job conference. The Trades Council and the PLA Administrator shall be advised in advance of all such conferences and may participate if they wish. All work assignments shall be disclosed by the Primary Contractor and all Contractors at the Pre-Job conference in accordance with industry practice. Should there be any formal jurisdictional dispute raised under Article 8, the PLA Administrator shall be promptly notified. Primary Contractor shall have available at the Pre-Job conference the plans and drawing for the work to be performed on the Project.

ARTICLE 17
LABOR/MANAGEMENT COOPERATION

Section 17.1 Joint Committee The Parties to this Agreement shall establish a six (6) person Joint Administrative Committee (JAC). This JAC shall be comprised of three (3) representatives selected by the City and three (3) representatives selected by the Trades Council to monitor compliance with the terms and conditions of this Agreement and to recommend amendments to this Agreement, with the exception of the dollar threshold specified in Section 2.2(a) and the term of this Agreement under Section 22.1, when doing so would be to the mutual benefit of the Parties. Each representative shall designate an alternate who shall serve in his or her absence for any purpose contemplated by this Agreement. A quorum will consist of at least two (2) representatives selected by the City and at least two (2) representatives selected by the Trades Council. For voting purposes, only an equal number of City and Union representatives present may constitute a voting quorum.

Section 17.2 Functions of Joint Committee The Committee shall meet on a schedule to be determined by the Committee or at the call of the joint chairs, to discuss the administration of the Agreement, the progress of the Project, general labor management problems that may arise, and any other matters consistent with this Agreement. Substantive grievances or disputes arising under Articles 7, 8 or 10 shall not be reviewed or discussed by this Committee, but shall be processed pursuant to the provisions of the appropriate Article. The PLA Administrator shall be responsible for the scheduling of the meetings, the preparation of the agenda topics for the meetings, with input from the Unions the Contractors and the City. Notice of the date, time and place of meetings, shall be given to the Committee members at least three (3) days prior to the meeting. The PLA Administrator shall prepare quarterly reports on apprentice utilization and the training and employment of City residents, and a schedule of Project Work and estimated number of craft workers needed. The Committee or an appropriate subcommittee, may review such reports and make any recommendations for improvement, if necessary, including increasing the availability of skilled trades, and the employment of local residents or other individuals who should be assisted with appropriate training to qualify for apprenticeship programs.

Section 17.3 Subcommittees The Committee may form subcommittees to consider and advise the full Committee with regard to safety and health issues affecting the Project and other similar issues affecting the overall Project, including any workers compensation program initiated under this Agreement.

ARTICLE 18
SAVINGS AND SEPARABILITY

Section 18.1 Savings Clause It is not the intention of the City, the PLA Administrator, Contractor or the Union parties to violate any laws governing the subject matter of this Agreement. The Parties hereto agree that in the event any provision of this Agreement is finally held or determined to be illegal or void as being in contravention of any applicable law or regulation, the remainder of the Agreement shall remain in full force and effect unless the part or parts so found to be void are wholly inseparable from the remaining portions of this Agreement. Further, the Parties agree that if and when any provision(s) of this Agreement is finally held or determined to be illegal or void by a court of competent jurisdiction, the Parties will promptly enter into negotiations concerning the substantive effect of such decision for the purposes of achieving conformity with the requirements of any applicable laws and the intent of the Parties hereto. If the legality of this Agreement is challenged and any form of injunctive relief is granted by any court, suspending temporarily or permanently the implementation of this Agreement, then the Parties agree that all Project Work that would otherwise be covered by this Agreement should be continued to be bid and constructed without application of this Agreement so that there is no delay or interference with the ongoing planning, bidding and construction of any Project Work.

Section 18.2 Effect of Injunctions or Other Court Orders The Parties recognize the right of the City to withdraw, at its absolute discretion, the utilization of the Agreement as part of any bid specification should a Court of competent jurisdiction issue any order, or any applicable statute which could result, temporarily or permanently in delay of the bidding, awarding and/or construction on the Project. Notwithstanding such an action by the City, or such court order or statutory provision, the Parties agree that the Agreement shall remain in full force and the fact on covered Project Work to the maximum extent legally possible.

ARTICLE 19
WAIVER

A waiver of or a failure to assert any provisions of this Agreement by any or all of the Parties hereto shall not constitute a waiver of such provision for the future. Any such waiver shall not constitute a modification of the Agreement or change in the terms and conditions of the Agreement and shall not relieve, excuse or release any of the Parties from any of their rights, duties or obligations hereunder.

ARTICLE 20
AMENDMENTS AND AMBIGUITY

The provisions of this Agreement can be renegotiated, supplemented, rescinded or otherwise altered only by mutual agreement in writing, hereafter signed by the negotiating Parties hereto. In the event of any conflict or ambiguity between this Agreement and any Attachment or exhibit, the provisions of this Agreement shall govern.

ARTICLE 21
WORK OPPORTUNITIES PROGRAM

Section 21.1 Work Opportunities The Parties to this Agreement support the development of increased numbers of skilled construction workers from among the Area Residents residing within the City of Long Beach ("Area Residents"), to meet the labor needs of the Project, specifically, and the requirements of the local construction industry generally. Towards that end the Parties agree to cooperate respecting the establishment of a work opportunities program for these Area Residents, the primary goals of which shall be to maximize construction work opportunities for traditionally underrepresented members of the community. In furtherance of the foregoing, the Unions specifically agree to:

(a) Encourage the referral and utilization, to the extent permitted by law and hiring hall practices, of qualified Area Residents as journeymen, and apprentices on the Project and entrance into such qualified apprenticeship and training programs as may be operated by signatory Unions; and

(b) Assist Area Residents in contacting pre-apprenticeship programs that utilize the Building Trades multi-craft core curriculum (MC3) including Long Beach City College's MC3 Pre-Apprenticeship Program and the Apprenticeship Training Committees for the crafts and trades they are interested in. The Unions shall assist Area Residents who are seeking Union jobs on the Project and Union membership in assessing their work experience and giving them credit for provable past experience in their relevant craft or trade, including experience gained working for non-union Contractors. The Unions shall put on their rolls qualified bona fide Area Residents for work on this Project; and

(c) Support local events and programs designed to recruit and develop adequate numbers of qualified workers in the construction industry.

(d) Allow tours of their JAC training facilities, as requested; and

(e) Provide a contact information list for all Union representatives and Joint Apprenticeship Committee representatives; and

ARTICLE 22
DURATION OF THE AGREEMENT

Section 22.1 Duration

(a) This Agreement shall be effective from the date signed by all Parties and shall remain in effect for a period of ten (10) years. Any covered Project awarded during the term of this Agreement shall continue to be covered hereunder, until completion of the Project, notwithstanding the expiration date of this Agreement.

(b) This Agreement may be extended by written mutual consent of the City and the signatory Unions for such further periods as the Parties shall agree to.

Section 22.2 Turnover and Final Acceptance of Completed Work

(a) Construction of any phase, portion, section, or segment of Project Work shall be deemed complete when such phase, portion, section or segment has been turned over to the City by the Contractor and the City has accepted such phase, portion, section, or segment. As areas and systems of the Project are inspected and construction-tested and/or approved and accepted by the City or third parties with the approval of the City, the Agreement shall have no further force or effect on such items or areas, except when the Contractor is directed by the City to engage and repairs or modifications required by its contract(s) with the City.

(b) Notice of each final acceptance received by the Contractor will be provided to the Trades Council with the description of what portion, segment, etc. has been accepted. Final acceptance may be subject to a "punch" list, and in such case, the Agreement will continue to apply to each such item on the list until it is completed to the satisfaction of the City and Notice of Completion is issued by the City or its representative to the Contractor. At the request of the Union, complete information describing any "punch" list work, as well as any additional work required of a Contractor at the direction of the City pursuant to (a) above, involving otherwise turned-over and completed facilities which have been accepted by the City, will be available from the PLA Administrator.

IN WITNESS whereof the Parties have caused this Project Labor Agreement to be executed as of the date and year above stated.

CITY OF LONG BEACH

By: Linda F. Tatum 5/6/2021
Thomas B. Modica
City Manager

LOS ANGELES/ORANGE COUNTIES BUILDING & CONSTRUCTION TRADES COUNCIL

By: _____
Ron Miller
Executive Secretary

EXECUTED PURSUANT TO SECTION 301 OF THE CITY CHARTER

APPROVED AS TO FORM
April 29, 2021
CHARLES PARKIN, City Attorney
By _____
ERIN WEESNER-MCKINLEY
DEPUTY CITY ATTORNEY

DocuSign Envelope ID: 53DB3711-066A-4635-A578-12B229F8C67F

LOS ANGELES/ORANGE COUNTIES BUILDING AND CONSTRUCTION TRADES COUNCIL CRAFT UNIONS AND DISTRICT COUNCILS

Asbestos Heat & Frost Insulators (Local 5)	DocuSigned by: Mike Patterson (Heat & Frost #5) 11199ACC98CF44A...
Boilermakers (Local 92)	DocuSigned by: Luis Miramontes (Boilermakers #92)
Bricklayers & Allied Craftworkers (Local 4)	Jose Aldaco (BAC #4)
Cement Masons (Local 500)	Jack Alvarado
Electricians (Local 11)	Joel Barton (IBEW #11)
Elevator Constructors (Local 18)	Tony Gazzaniga (Elevator Constructors #18)
Gunite Workers (Local 345)	Ed Learn (Gunite #345)
Iron Workers (Reinforced – Local 416)	Vidal Zamarano (IronWorkers #416)
Iron Workers (Structural – Local 433)	keith Harkey – Local 433 Ironworkers
Laborers (Local 1184)	Michael Dea (LiUNA #1184)
Laborers (Local 1309)	Mario Suales LiUNA local 1309
Laborers (Local 300) (Remediation)	DocuSigned by: Sergio Rascon (LiUNA #300)
Operating Engineers (Local 12)	Ron Sikorski (Operating Engineers 12)
Operating Engineers (Local 12)	David Sikorski
Operating Engineers (Local 12)	Larry Davison
Painters & Allied Trades DC 36	Mark Bartlett
Pipe Trades (Local 250)	Glenn Santa Cruz (UA #250)
Pipe Trades (Local 345)	Ricardo Perez (UA #345)
Pipe Trades (Plumbers Local 78)	Jeremy Diaz (Plumbers #78)
Pipe Trades (Sprinkler Fitters Local 709)	Todd Golden (Sprinklerfitters #709)
Plasterers (Local 200)	Tom Castleman (Plasterers #200)
Plaster Tenders (Local 1414)	Jim Preciado (Plaster Tenders #1414)
Roofers & Waterproofers (Local 36)	Cliff Smith (Roofers #36)
Sheet Metal Workers (Local 105)	Luther Medina
Teamsters (Local 986)	Caesar Borgas (Teamsters #986)
Southwest Regional Council of Carpenters	Stephen Arauza B66C6F62284F439...

ATTACHMENT A

LETTER OF ASSENT

To be signed by all contractors awarded work covered by the City of Long Beach Project Labor Agreement prior to commencing work.

[Contractor's Letterhead]
PLA Administrator
City of Long Beach
1234 address
City, state, zip code
Attn: _____

Re: Project Labor Agreement - Letter of Assent

Dear Sir:

This is to confirm that [name of company] agrees to be party to and bound by the City of Long Beach Project Labor Agreement effective_____, 2021, as such Agreement may, from time to time, be amended by the negotiating parties or interpreted pursuant to its terms. Such obligation to be a party and bound by this Agreement shall extend to all work covered by the agreement undertaken by this Company on the project and this Company shall require all of its contractors and subcontractors of whatever tier to be similarly bound for all work within the scope of the Agreement by signing and furnishing to you an identical letter of assent prior to their commencement of work.

Sincerely.

[Name of Construction Company]

By: [_____] Name and Title of Authorized Executive

Contractor's State License No.: _____

Project Name: _____

[Copies of this letter must be submitted to the PLA Administrator and to the Trades Council Consistent with Article 2, Section 2.6 (b).]

ATTACHMENT B

FIRST TIER ZIP CODES (CITY BOUNDARY)

90802	Long Beach
90803	Long Beach
90804	Long Beach
90805	Long Beach
90806	Long Beach
90807	Long Beach
90808	Long Beach
90809	Long Beach
90810	Long Beach
90813	Long Beach
90814	Long Beach
90815	Long Beach
90822	Long Beach

SECOND TIER ZIP CODES (GATEWAY CITIES)

90001	Florence/South Central	90605	Whittier/South Whittier
90022	East Los Angeles	90606	Whittier
90023	East Los Angels	90638	La Mirada
90040	Commerce	90639	La Mirada
90058	Vernon	90640	Montebello
90201	Bell/Bell Gardens/Cudahy	90650	Norwalk
90220	Compton/Rancho Dominguez	90660	Pico Rivera
90221	Compton/East Rancho Dominguez	90670	Santa Fe Springs
90222	Compton/Rosewood/Willowbrook	90701	Artesia/Cerritos
90240	Downey	90703	Cerritos
90241	Downey	90704	Avalon
90242	Downey	90706	Bellflower
90262	Lynwood	90712	Lakewood
90270	Maywood	90713	Lakewood
90280	South Gate	90715	Lakewood
90601	Whittier	90716	Hawaiian Gardens
90602	Whittier	90723	Paramount
90603	Whittier	90755	Signal Hill
90604	Whittier	91744	Industry

THIRD TIER

(LOS ANGELES AND ORANGE COUNTY RESIDENTS)

ATTACHMENT C

CITY OF LONG BEACH
CRAFT REQUEST FORM

TO THE CONTRACTOR: Please complete and fax this form to the applicable union to request craft workers that fulfill the hiring requirements for this project. After faxing your request, please call the Local to verify receipt and substantiate their capacity to furnish workers as specified below. Please print your Fax Transmission Verification Reports and keep copies for your records.

The City of Long Beach Project Labor Agreement establishes a goal that 40% of the total work hours shall be from workers residing: first, in those first tier zip codes which include all of the City of Long Beach, as attached hereto, second, in those second tier zip codes which reflect the Gateway Cities, as attached hereto, and third, residing within the Counties of Orange and Los Angeles. Where Project Work is funded in full or in part by State of California Tideland funds, the term Local Resident, as used herein, shall mean an individual whose primary place of residence is within the Counties of Los Angeles or Orange. For Dispatch purposes, employees residing within any of these three (3) areas shall be referred to as Local Residents.

The PLA establishes a further goal that 10% of the total work hours shall be from transitional workers and veterans. "Transitional Workers" means an individual whose income as an unrelated individual or whose family income is below seventy percent (70%) of the Lower Living Standard Income Level as determined and published by the United States Department of Labor applicable to the area in which the individual resides, and as verified by the Pacific Gateway Workforce Investment Network.

TO THE UNION: Please complete the "Union Use Only" section on the next page and fax this form back to the requesting Contractor. Be sure to retain a copy of this form for your records.

CONTRACTOR USE ONLY

To: Union Local #_____ **Fax#** (___) _____ **Date:**_____

Cc: PLA Administrator

From: Company:_____ Issued By: _____

Contact Phone :(___) _____ Contact Fax: (___) _____

PLEASE PROVIDE ME WITH THE FOLLOWING UNION CRAFT WORKERS.

Craft Classification (i.e., plumber, painter, etc.)	Journeyman or Apprentice	Local Resident, Transitional Workers, Veteran, or General Dispatch	Number of workers needed	Report Date	Report Time
TOTAL WORKERS REQUESTED = _____					

Please have worker(s) report to the following work address indicated below:

Project Name:_____ Site:_____ Address: _____

Report to: _____ On-site Tel: _____ On-site Fax: _____

Comment or Special Instructions: _____

UNION USE ONLY

Date dispatch request received:
Dispatch received by:
Classification of worker requested:
Classification of worker dispatched:

WORKER REFERRED

Name:
Date worker was dispatched:
Is the worker referred a: (check all that apply)

JOURNEYMAN	Yes _____	No _____
APPRENTICE	Yes _____	No _____
LOCAL RESIDENT	Yes _____	No _____
TRANSITIONAL WORKERS OR VETERAN	Yes _____	No _____
GENERAL DISPATCH FROM OUT OF WORK LIST	Yes _____	No _____

ATTACHEMENT D - ARBITRATORS

(1) Edna Francis

(2) Louis Zigman

(3) Fredric Horowitz

(4) Sara Adler

(5) Michael Prihar

(6) Walt Daugherty

(7) Michael Rappaport

Equal Benefits Ordinance:

Bidders are advised that any contract awarded pursuant to this procurement process shall be subject to the applicable provisions of Long Beach Municipal Code Section 2.73 et seq., the Equal Benefits Ordinance. Bidders shall refer to Division C for further information regarding the requirements of the Ordinance.

All Bidders shall complete and return, with their bid, the Equal Benefits Ordinance Compliance form contained in Division C. Unless otherwise specified in this procurement package, Bidders do not need to submit supporting documentation with their bids. However, supporting documentation verifying that the benefits are provided equally shall be required if the Bidder is selected for award of a contract.

CITY OF LONG BEACH

DEPARTMENT OF FINANCIAL MANAGEMENT

Business Services Bureau

LONG BEACH SMALL BUSINESS ENTERPRISE PROGRAM (LBSBE PROGRAM)

PARTICIPATION INSTRUCTIONS

Rev. May 2022

INSTRUCTIONS TO BIDDERS

SUMMARY

The Long Beach Small Business Enterprise Program ("LBSBE Program") shall apply to all City Manager Departments, in accordance with Ordinance NO. ORD-11-0010, adopted June 7, 2011 and enacted on July 8, 2011.

Each prospective bidder/proposer who is successful in an LBSBE Program-applicable bid to provide goods or services to the City must comply with the City's LBSBE policy. The City sets project specific combined Small (SBE), Very Small (VSBE) and Local Small (LSBE) goals. Proposers must either demonstrate the intent to meet the goal on the LBSBE Awardee Commitment Plan Form (SBE-2 Form) or show Good Faith Efforts of an attempt to meet the goal. The goal is considered as a percentage of the prime contractor's base bid.

Prime bidders/proposers are required to submit an SBE-2 Form with their bid or proposal by the required due date to illustrate their intent to meet the combined SBE/VSBE/LSBE project specific goal. A combined goal means that portions of the work must be subcontracted out to a mix of Long Beach Certified SBE, VSBE and/or LSBE contractors. The goal cannot be attained by subcontracting out to only one of the three business enterprise types, it must be a combination of them. The combined total of SBE/VSBE/LSBE contracted work must equal or exceed the assigned goal as compared to the prospective bidder's base bid. ***To count towards goal attainment, the SBE, VSBE and LSBEs must have a valid, non-expired Long Beach Small Business Enterprise Certification (LBSBE) from either PlanetBids or Long Beach Buys.***

If the prime bidder/proposer commitment plan (SBE-2 Form) does not illustrate intent to meet the combined SBE/VSBE/LSBE project goal, the bidder/proposer is required to submit a Good Faith Effort (GFE), and pass the GFE evaluation, for the bid/proposal to remain responsive.

Bidder/Proposer must submit a signed LBSBE Acknowledgment Form (Attachment A), the SBE-2 LBSBE Awardee Commitment Form (Attachment B), and if applicable, the GFE Form and supporting documents (Attachment C)

The successful prime bidder/proposer will be required to submit a monthly SBE/VSBE/LSBE utilization report to the assigned Labor Compliance Consultant. Staff will review and verify utilization and payments made to small businesses for compliance.

SETTING PROJECT SPECIFIC GOALS

The City Labor Compliance Division will review each bid opportunity (project) to determine whether the LBSBE program will apply and an associated combined goal assigned. Setting a project specific goal consists of the following:

- Evaluation of the engineers estimate to determine whether there are reasonable subcontracting opportunities;

- Review of various databases to determine the availability of SBE subcontractors identified in the subcontracting work areas, by NAICS code;

- Review of the historical assignment and achievement of subcontractor utilization on the same/similar projects.

If the City determines that there are sufficient SBEs available in the identified work areas, a mandatory LBSBE combined goal will be set for the project by establishing the percentage of the total contract amount for which a combination of SBE,VSBE and LSBE must be utilized.

Since the LBSBE Program is a mandatory program, Bidders/Proposers are strongly encouraged to attend pre-bid/pre-proposal meetings for projects with LBSBE participation levels so that they will understand the requirements of the LBSBE Program. The City will verify the LBSBE status of the proposed subcontractors, regardless of the dollar amount of work to be performed.

It is important to note that if a Prime Contractor is itself LBSBE certified as an SBE, their participation in the contract will count towards the combined goal. If the Prime Contractor is also a VSBE or LSBE, they will be considered as having met the combined goal so long as their participation in the contract meets or exceed the assigned percentage.

SBE/VSBE/LSBE GOAL ATTAINMENT

The SBE Participation goal can be achieved in the following manner(s):

a) **Non-SBE prime contractors/consultants** shall meet the combined SBE/VSBE/LSBE participation goal by subcontracting work to at least two of the following three certification types: SBE, VSBE, LSBE; or document and submit an acceptable good faith effort for their bid or proposal to be deemed responsive.

b) **SBE prime contractors/consultants** are deemed to have met the SBE component of the combined SBE/VSBE/LSBE participation goal but shall subcontract out to VSBE or LSBE businesses in order to achieve the combined goal, or document and submit an acceptable good faith effort, for their bid or proposal to be deemed responsive.

c) **VSBE or LSBE prime contractors/consultants** are deemed to have met both components of the combined SBE/VSBE/LSBE participation goal if the percentage of work the Prime participates in is equal to or greater than the project specific goal.

Contractors having demonstrated goal attainment on the SBE-2 form are required to utilize those subcontractors during the project for the annotated amount. Any changes in value or substitutions must be approved by the City. Penalties can be assessed for non-compliance, per City Ordinance No. ORD 11-0010.

SBE/VSBE/LSBE ELIGIBILITY REQUIREMENTS

Only those Small, Very Small and Local Small Business Enterprises with a current and valid City of Long Beach SBE Certification on PlanetBids or Long Beach Buys shall be eligible for the fulfillment of the SBE/VSBE/LSBE participation goal. Vendors will have the "LBSBE" designation on their PlanetBids or Long Beach Buys vendor profile. Listings of LBSBE certified vendors may be obtained from either procurement platform. If a Small Business Enterprise elects to compete for City business without being certified through the PlanetBids system as an LBSBE, they may do so, but any bid submitted will not be counted towards fulfillment of the SBE participation goal. All SBE, VSBE and LSBE businesses should be encouraged to apply for the LBSBE certification over Long Beach Buys.

Prime contractors will be responsible for determining LBSBE and SBE/VSBE/LSBE status of their subcontractors at the time of bid/proposal submission for the purpose of meeting the combined goal. This information will be entered on the SBE-2 form and submitted with the bid. It will be verified by City Labor Compliance staff. The specific categories of work that the applicable contractors will be performing on the project must be relevant from the North American Industry Classification System (NAICS) codes for which they were certified in order to receive combined goal credit.

LONG BEACH SMALL BUSINESS ENTERPRISE PROGRAM CERTIFICATION

An SBE desiring certification with the City of Long Beach must complete the online certification process over Long Beach Buys. The City is no longer certifying or re-certifying vendors over PlanetBids, though we will recognize unexpired PlanetBids certifications towards goal attainment. The online certification process for Long Beach Buys can be viewed at the link below or by visiting the City website, www.longbeach.gov/purchasing and entering the Long Beach Buys portal. Please note printed certificates are not provided over Long Beach Buys, however City Staff will update the vendor's profile to reflect LBSBE status and applicable NAICS codes after evaluating their application.

Long Beach Buys Portal

Long Beach Buys will do an initial pre-qualification for SBE certification upon application submittal. If pre-approved, the City Labor Compliance Division, will review the full application and determine final LBSBE certification status. The City will also verify VSBE status during the LBSBE application process and will update the vendor profile as required to reflect the VSBE or "microbusiness" designation.

SBE, VSBE, LSBE QUALIFICATION CRITERIA

The City determines **SBE eligibility** by utilizing federal U.S. Small Business Administration (SBA) size standards either by the average gross annual revenue or by the number of employees, based on North American Industrial Classification System (NAICS) codes. To see if your business qualifies, view the SBA's Table of Small Business Size Standards.

In addition, for a small business to be eligible for certification, the small business must be a for-profit business and must meet the following requirements as set forth from the California Department of General Services:

- Be independently owned and operated
- Not dominant in field of operation
- Principal office located in California
- Owners (officers, if a corporation) domiciled in California; and,

- Including affiliates, be either a business with 100 or fewer employees; A manufacturer with 100 or fewer employees; or, an average annual gross receipts of $15 million or less, over the last three tax years, unless a larger threshold is provided in the SBA Table of Small Business Size Standards

To count towards the project specific combined goal, the business must have an unexpired City of Long Beach SBE (LBSBE) certification over the PlanetBids or Long Beach Buys vendor portal.

In addition to the SBE requirements above, **VSBE or microbusiness eligibility** is determined utilizing maximum allowable annual gross revenues consistent with those of the State of California's Department of General Services' "micro-business" designation. The current guidelines for this designation can be accessed on the California Department of General Services website. Currently, a small business will automatically be designated as a micro business if gross annual receipts are $5,000,000 or less or the small business is a manufacturer with 25 or fewer employees.

To count towards the project specific combined goal, the business must also have an unexpired City of Long Beach SBE certification over the PlanetBids or Long Beach Buys vendor portal.

In addition to the SBE requirements above, **Local Small Business Enterprise** eligibility shall be determined by the criteria established in Municipal Code section 2.84.030, subdivisions (1) and (2), which states: The business must have a current, valid business license from the City of Long Beach showing a place of business within City limits; and have a current, valid seller's permit showing a place of business within City limits.

To count towards the project specific combined goal, the business must have an unexpired City of Long Beach SBE certification over the PlanetBids or Long Beach Buys vendor portal.

SBE-2 LBSBE AWARDEE COMMITMENT PLAN FORM

For LBSBE designated contracts or proposals, prime contractors must submit a completed LBSBE Awardee Commitment Plan (COLB FORM SBE-2) to the City of Long Beach as part of their proposal. This form is **Attachment B** of these Participation Instructions. It will list information for each LBSBE Certified SBE, VSBE and LSBE to be used for contract goal satisfaction. This form must be submitted regardless of whether the goal was attained or not. If the goal cannot be attained, a good faith effort explaining why the goal could not be reached shall also be submitted. The Labor Compliance Division will approve the initial SBE commitment or good faith effort submitted by the prime contractor. See Attachment B for further instructions.

During the term of the contract, the awarded contractor will be required to utilize all subcontractors listed on the SBE-2 Form in the amount and percentage specified on the form, unless the City approves a change in the scope of work that would eliminate or reduce the utilization of an SBE, VSBE, or LSBE.

SBE/VSBE/LSBE GOOD FAITH EFFORTS

A bidder/proposer whose bid or proposal fails to meet the combined participation goal shall be found responsive if an acceptable Good Faith Effort is demonstrated. Each of the 10 criteria below will be

assigned 10 points. The bidder/proposer must achieve a score of 70 out of a possible 100 points in order to be determined responsive for GFE. GFE shall be annotated on **Attachment C** of these Bidder Instructions, and submitted as part of the bid along with all supporting documents, as applicable.

1. **Attend Pre-Bid/Pre-Proposal Meeting**: The bidder/proposer must submit written evidence that he/she attended the pre-bid conference or pre-proposal meeting.

   Note: To receive credit for attending the pre-bid/proposal meeting, the attendee must be a person who will be directly involved with the project, i.e., owner, project manager, etc. A copy of the sign-in sheet must be submitted. If no pre- proposal meeting is held, the bidder/proposer will receive 10-points credit for this criterion.

2. **Subdivide the Work**: The bidder/proposer must demonstrate that he/she prepared and followed a plan to subdivide the work into disciplines or work elements that could be economically performed by small businesses. It is the bidder's/proposer's responsibility to demonstrate that sufficient work was made available to SBEs, VSBEs and LSBEs to meet project specific LBSBE goal requirements.

   Note: The work should be subdivided into categories or disciplines to allow for maximum SBE, VSBE and LSBE participation. For example:

Name of Project:	*Fuel Tank Replacements*
Work Elements include but are not limited to:	*Hazardous waste collection- 10%; Site preparation 20%; Poured concrete and foundation contractors- 10%; construction equipment rentals: 10%; electrical : 15%; all other specialty contractors: 35%*

3. **Advertise**: The bidder/proposer shall submit written evidence of commercial advertising (via web or print) for small business subcontractors/subconsultants at least **14 calendar days** prior to the bid/proposal due date. A copy of the advertisement showing the advertisement date(s), name of publication, type of work and amount of work that is being solicited, must be provided.

   Note: A copy of the actual advertisement showing the advertisement date and name of the publications must be provided.

4. **Use Public Databases:** The bidder/proposer must submit written evidence of using the City's LBSBE database, small business, minority business, and women-owned business associations and chambers of commerce, or any other small business database to help solicit subcontractors in the disciplines in which the work was subdivided.

   Note: A printout of the list(s) of contractors found in the public database(s) search must be provided, including the database source. ***Note that if they are not LBSBE certified, they must become certified prior to the bid/proposal due date****. Some good sources are:*

   a. City of Long Beach PlanetBids

https://pbsystem.planetbids.com/portal/15810/portal-home

b. City of Long Beach Long Beach Buys
https://longbeachbuys.buyspeed.com/bso/view/search/external/advancedSearch.xhtml

c. Port of Long Beach
https://pbsystem.planetbids.com/portal/19236/portal-home

d. Los Angeles Community College District
http://www.build-laccd.org/ced/business

e. California Unified Certification Program database
https://californiaucp.dbesystem.com/

5. **Directly Solicit Small Businesses**: The bidder/proposer must submit written evidence of directly soliciting the small business subcontractors/subconsultants found in the public database search at least 14 calendar days prior to the bid/proposal due date, or as specified by City SBE staff. A copy of the written notices sent directly to each small business must be provided. A direct solicitation should include the company name, project name, scope of work, date of contact, person contacted, amount of work, and a brief specific description of the work being solicited.

   Note: Create a contact log to include with your solicitation documents that includes the following information: name of company, name of project, scope of work required, date of contact, method of contact (in-person, phone, fax, email), person contacted, result of contact (waiting for response, waiting for bid/proposal, left message, no answer, etc.). This will help track the follow up in #8 below.

6. **Provide Relevant Information to Interested Small Businesses**: The bidder/proposer must submit written evidence that he/she has provided **interested** small businesses with additional information about the requirements of the contract (i.e. how to obtain plans and specifications, or responded to any project specific questions).

   Note: provide a printout of the email conversation showing you responded to Interested Small Businesses inquiries, or summarize phone conversations on a phone log.

7. **Conduct Follow-Up**: The bidder/proposer must submit written evidence of specific activities used to follow up on any unsuccessful initial solicitations from #5 above. A copy of the written follow-up must be provided, or phone conversations annotated on an outreach log.

   Note: Follow-up activities must include documentation of repeat contact efforts if the first contact was unsuccessful.

8. **Offer Assistance**: The bidder/proposer must demonstrate that he/she has offered to assist small businesses in obtaining bonding, insurance or equipment.

Note: Submitting the offer to assist with bonding/insurance/equipment included in the ad copy and also in direct written solicitations satisfies this requirement.

9. **Negotiate**: The bidder/proposer must submit written evidence that he/she has negotiated in good faith with interested small businesses. Documentation must include company name, contact person, method of contact, and specific items that were negotiated (scope of work, materials, equipment, insurance, bonding, personnel, timing of project, etc.).

   Note: Negotiations include give-and-take by both parties with the intention of reaching a mutually satisfactory agreement. This includes responding in writing to bids/proposals from small businesses.

10. **Document Bid and Negotiation Results**: For any negotiations which were unsuccessful and for any bids/proposals received from subcontractors but not accepted, the bidder/proposer must submit the unsuccessful bidder's/proposer's company name, telephone number, contact person, price bid (if applicable), and the reason for rejecting the bid or proposal. If price is the reason for rejecting the bid/proposal, list the price bid by both the SBE/VSBE/LSBE and the low bidder for that element of work.

    Note: For successful bids/proposals, Contractor must submit the name of the successful bidder/proposer(s) on COLB Form SBE-2 Commitment Plan. Please refer to the ITB or RFP for submittal deadlines.

MONTHLY REPORTING

The Awarded Contractor will utilize a City-designated form to report monthly utilization of LBSBEs as a means of monitoring goal attainment. Contractor shall cooperate with City personnel in providing such information as requested by the City or its assigned Labor Compliance Consultants in order to ensure compliance. A final LBSBE utilization report will be submitted to the City or designee within 15 days of project completion. These forms will be provided to the awardee at the pre-construction meeting.

If an awardee substitutes an SBE/VSBE/LSBE subcontractor, the awardee shall provide proof, to the satisfaction of LBSBE staff, that a good faith effort was made to replace that subcontractor's participation percentage with another SBE/VSBE/LSBE business, to meet the combined SBE/VSBE/LSBE participation percentage specified on the Awardee's Commitment Plan. At project closeout, if the prime Contractor fails to meet the combined SBE/VSBE/LSBE participation percentage specified on its Commitment Plan, or fails to provide proof that it made a good faith effort to do so, the Contractor may be considered to be in material breach of contract.

CONTACT INFORMATION

For questions or assistance, please contact the Labor Compliance Division:

Labor Compliance Division
Department of Financial Management
411 W. Ocean Blvd., 7th Floor
Long Beach, CA 90802
(562) 570-6200 Telephone
Email: sbe@longbeach.gov

City of Long Beach
LBSBE Program
SUBCONTRACTOR UTILIZATION REPORT

Project Title:_____ **Report Date**_____

PRIME CONTRACTOR INFORMATION	AMOUNT
Name:	Authorized Contract Amount: $
Address:	Amended Contract Amount to Date: $
	LBSBE %Goal Assigned to Bid:
	LBSBE %Goal Committed to:
Project Manager/ Contact Person:	Total Contract Amount to Date: $
Telephone No:	Total Amount Invoiced to Date to Long Beach SBE/VSBE/LSBE businesses: $
Email Address:	
Category Group (check all that apply): ☐ LBSBE ☐ SBE ☐ VSBE (MICRO) ☐ LSBE (LOCAL)	Comments:

CONTRACT DETAILS

APPROVED SUBCONTRACTOR INFORMATION	PROFILE INFORMATION	AMOUNT INVOICED/GROSS RECEIPTS	PROPOSED	% UTILIZED TO DATE
Name:		For this period: $	$	%
Address:				
City/State/Zip:				
Contact Name:	LBSBE Category Group: ☐ [SBE ☐ [VSBE ☐ [LSBE (LOCAL)	To date: $	%	
Telephone Number:				
Email Address:				
Long Beach Small Business Enterprise (LBSBE)? ☐ Yes ☐ No				

Revised: June 2022

APPROVED SUBCONTRACTOR INFORMATION	PROFILE INFORMATION	AMOUNT INVOICED/GROSS RECEIPTS	PROPOSED	% UTILIZED TO DATE
Name: Address: City/State/Zip: Contact Name: Telephone Number: Email Address: Long Beach Small Business Enterprise (LBSBE)? ☐ Yes ☐ No	LBSBE Category Group: ☐ [SBE ☐ [VSBE ☐ [LSBE (LOCAL)	For this period: $ To date: $	$ %	% %

APPROVED SUBCONTRACTOR INFORMATION	PROFILE INFORMATION	AMOUNT INVOICED/GROSS RECEIPTS	PROPOSED	% UTILIZED TO DATE
Name: Address: City/State/Zip: Contact Name: Telephone Number: Email Address: Long Beach Small Business Enterprise (LBSBE)? ☐ Yes ☐ No	LBSBE Category Group: ☐ [SBE ☐ [VSBE ☐ [LSBE (LOCAL)	For this period: $ To date: $	$ %	% %

APPROVED SUBCONTRACTOR INFORMATION	PROFILE INFORMATION	AMOUNT INVOICED/GROSS RECEIPTS	PROPOSED	% UTILIZED TO DATE
Name: Address: City/State/Zip: Contact Name: Telephone Number: Email Address: Long Beach Small Business Enterprise (LBSBE)? ☐ Yes ☐ No	LBSBE Category Group: ☐ [SBE ☐ [VSBE ☐ [LSBE (LOCAL)	For this period: $ To date: $	$ %	% %

I certify under the penalty of perjury that the information contained on this form is true and correct and that the subcontractors listed above are selected firms that were included in the approved LBSBE Participation Plan (SBE-2). I agree to comply with any applicable SLBSBE Program provisions for substitutions and I further understand and agree that any and all changes or substitutions of subcontractors must be authorized by City Staff prior to utilization.

NAME: _____ TITLE: _____ PHONE: _____

SIGNATURE: _____ DATE: _____

WEB BASED PROJECT MANAGEMENT SYSTEM

A. The City will implement and utilize a web-based project management system for the duration of this project. The web-based system will be Orion Construction Management Software (OCMS) or similar and shall be utilized by the CONTRACTOR for the submission of all data and documents for the duration of the Contract. Access and instructions will be provided by the City. The OCMS will be made available to the CONTRACTOR's Project Manager(s), CONTRACTOR's Superintendent, Subcontractor Project Managers, ENGINEER's Consultants and DESIGN ENGINEER. The use of this system is to facilitate electronic exchange of information, automation of key processes, and overall management of the Contract. The OCMS shall be the primary means of project information submission and management. The City will not respond to information that is submitted in any other manner when required to be submitted through the system. Paper documents shall only be submitted where required. If the event of a conflict between the paper documents and the electronic version, the paper documents will govern.

B. The City may deduct the actual cost of managing and archiving correspondence, or any other project related documentation, transmitted outside of the OCMS (i.e. email). Costs will be tracked on a time and materials basis and be deducted from monthly progress payments owed to the CONTRACTOR in the month the costs were incurred.

C. **USER ACCESS LIMITATIONS:** The City and their representatives will control the CONTRACTOR's access to OCMS by allowing access and assigning user profiles to accepted CONTRACTOR personnel. User profiles will define levels of access into the system; determine assigned function-based authorizations (determines what can be seen) and user privileges (determines what they can do). Subcontractors and suppliers will be provided access to OCMS through the CONTRACTOR. Entry of information exchanged and transferred between the CONTRACTOR and its subcontractors and suppliers on OCMS shall be the responsibility of the CONTRACTOR.

D. **COMPUTER REQUIREMENTS:** The CONTRACTOR shall use computer hardware and software that meets the requirements of the OCMS system as recommended by Bentley Systems to access and utilize OCMS. As recommendations are modified by OCMS, the CONTRACTOR will upgrade their system(s) to meet or exceed the recommendations. Upgrading of CONTRACTOR's computer systems will not be justification for a cost or time modification to the Contract. The CONTRACTOR will ensure that connectivity to the OCMS system (whether at the home office or job site) is accomplished through DSL, cable, T-1 or wireless communications systems. The minimum bandwidth requirement for using the system is 128kb/s. It is recommended a faster connection be used when uploading pictures and files into the system. OCMS currently supports Mozilla's Firefox, Apple's Safari, Google's Chrome, and Microsoft's Internet Explorer web browsers for accessing the application.

E. CONTRACTOR RESPONSIBILITY

1. The CONTRACTOR shall be responsible for the validity of their information placed in OCMS and for the abilities of their personnel. Accepted users shall be knowledgeable in the use of computers, including Internet Browsers, email programs, CAD drawing applications, and Adobe Portable Document Format (PDF) document distribution program. The CONTRACTOR shall utilize the existing forms in OCMS to the maximum extent possible. If a form does not exist in OCMS the

CONTRACTOR must include a form of their own or provided by the City representative as an attachment to a submittal. Adobe PDF documents shall be created through electronic conversion rather than optically scanned whenever possible. The CONTRACTOR is responsible for the training of their personnel in the use of OCMS (outside what is provided by the City) and the other programs indicated above as needed.

2. Provide a list of CONTRACTOR's key OCMS personnel for the City's representative acceptance. CONTRACTOR is responsible for adding and removing users from the system. The City's representative may perform a security check on all potential users. The CONTRACTOR will be allowed to add additional personnel and subcontractors to OCMS.

F. **CONNECTIVITY PROBLEMS:** The CONTRACTOR is responsible for its own connectivity to the Internet. OCMS response time is dependent on the CONTRACTOR's equipment, including processor speed, Internet access speed, etc. and current traffic on the Internet. The City will not be liable for any delays associated from the usage of OCMS including, but not limited to: slow response time, down time periods, connectivity problems, or loss of information. Under no circumstances shall the usage of the OCMS be grounds for a time extension or cost adjustment to the Contract.

G. **TRAINING:** The City will arrange for up to three (3) 4-hour training sessions on the OCMS system to be provided to the CONTRACTOR. The days and times of the training will be coordinated with the CONTRACTOR following execution of the Contract.

H. Payment for use of the OCMS system shall be considered incidental to the work and included in other bid items in the Bid Form. No additional payment shall be made.

CONSTRUCTION AND DEMOLITION ORDINANCE REQUIREMENTS

CITY WILL PAY ADMINISTRATION FEE. CONTRACTOR RESPONSIBLE FOR DEPOSIT FEE AND COMPLETION OF THE FORMS.

FOR MORE INFORMATION VIEW THE WEBSITE AT:
https://www.longbeach.gov/lbds/building/cd/

CITY OF LONG BEACH

Community Development Department
Building and Safety Bureau
411 W. Ocean Boulevard, 2nd Floor, Long Beach, CA 90802
562.570.PMIT (7648) | longbeach.gov/lbcd

INFORMATION BULLETIN

IB-033

Eff: 11-05-2007 Rev: 10-1-2025

Construction and Demolition Management Plan Information and Instruction Sheet

Why is there a recycling ordinance?
The State of California through its California Green Building Standards Code and as part of the City's commitment to sustainable development requires that certain construction and/or demolition projects divert at least 65% of waste through recycling, salvage, or deconstruction.

Refundable Performance Deposit
The Construction and Demolition Debris Recycling (C&D) Program, which took effect on November 5, 2007, encourages permit applicants to recycle 65% of all C&D materials. To assure uniform compliance with this program, a refundable performance deposit (aka C&D Deposit) will be required.

1. Applicants are required to submit a refundable Performance Deposit of either 3% of the project value or $56,999.00 whichever is less. The minimum deposit is $1,712.00 per project.
2. Applicants are also required to pay a non-refundable administrative review fee of either $230.00 for residential projects or $454.00 for commercial/industrial projects.

The Construction & Demolition Management Plan (CDMP)
The CDMP is designed to assist in estimating and determining the amount of construction and/or demolition debris diverted or disposed during the life of a construction project.

1. **Diversion Rate Estimators**
   The Department has created an automated estimator that will calculate, by the type of construction, the amount of estimated waste that must be diverted. By entering the project/remodeled/altered size under the appropriate type of construction, the amount of construction and/or demolition debris that could potentially be generated from a construction project will be automatically estimated. The completed CDMP will be given to the permittee at permit issuance.
2. **Final Compliance Report**
   Within 30 days after receipt of Certificate of Occupancy, final inspection, or the completion of demolition, the Final Compliance Report must be signed and submitted with the following information:
   a. Proof that C&D materials were taken to a certified diversion facility that processes and recycles mixed debris. See our City website for links to the nearest facility: longbeach.gov/lbcd/building/cd/
   b. Recycling receipts indicating: **Origin of recycled material, tonnage or quantity recycled/diverted and material type(s).**
   c. The waste facilities must be told that the receipts “Shall indicate that the material is being recycled”.

Submit the Final Compliance Report and the appropriate recycling receipts by email at: construct-demo@longbeach.gov or in person at the Development Permit Center located at Long Beach City Hall, 411 W. Ocean Blvd., 2nd Floor. **IMPORTANT:** The City will not accept receipts that indicate "REFUSE, WASTE, MSW, OR TRASH" Material(s) must be recycled. In addition, hauler's receipts will not be accepted.

3. **Verification**
   Once documentation is received, and the Compliance Official has reviewed and verified diversion requirements have been met, a check will be issued to the person/organization stated in the CDMP (Item I) based on the following criteria:
   a. If full compliance is met (65% of waste material associated with this project diverted with no more than 20% from recycling or reuse of inert materials, such as asphalt, brick, concrete and ceramics) a full release of the waste diversion deposit will be approved.
   b. If partial compliance is determined, (established as a percentage less than 65% of diverted waste materials) a partial return of the C&D deposit will be released in proportion to the actual materials diverted.
   c. If all required documentation is not received within the prescribed 90 days after final inspection or if it is determined that diversion of waste was not achieved, the waste diversion deposit shall be forfeited.
4. **Exemptions**
   Exemptions for noncompliance with the recycling weights may be granted based on the following considerations:
   a. An emergency situation exists.
   b. Contamination by hazardous substances.
   c. Low recyclability of specific materials (i.e., roofing materials).
   d. All exemptions must be applied for in writing and submitted with the Final Compliance Report.
5. **Appeals**
   The owner or authorized agent of the owner may appeal a decision rendered by the Compliance Officer relating to determination of a partial or total forfeiture of the waste diversion deposit. Notice of any appeal must be filed within ten (10) calendar days from the date that such ruling is made. A Hearing Officer designated by the Department of Development Services shall review the appeal. The decision of the Hearing Officer upon such appeal, relative to any matter within the jurisdiction of the Compliance Official, shall be final and shall not be appealable to the City Council or to any other City body or official.

Reference Sheet
FORM-031 Construction & Demolition Management Plan can be obtained from longbeach.gov/lbcd/forms/.

To request this information in an alternative format or to request a reasonable accommodation, please contact the Community Development Department at longbeach.gov/lbcd and 562.570.3807. A minimum of three business days is requested to ensure availability; attempts will be made to accommodate requests with shorter notice.

CITY OF LONG BEACH

Community Development Department
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411 West Ocean Boulevard, 2nd Floor, Long Beach, CA 90802
562.570.PMIT (7648)

Construction & Demolition Management Plan

☐ **1. Pay** deposit and administrative review fee.

☐ **2. Recycle** material that is generated during construction. Choose an authorized hauler and certified recycling facility.

☐ **3. Retain** copies of hauling and recycling tickets.

☐ **4. Submit** recycle tickets and C&D Plan **within 90 days** of final inspection to construct-demo@longbeach.gov

As part of the City's committment to sustainable development, your project is required to divert at least 65% of recyclable construction waste. To find the full details and requirements of the C&D Program, please scan the QR Code using your mobile camera or visit our website at www.longbeach.gov/lbcd/building/cd/

Project Address:

Project No: **Date:**

PROJECT DESCRIPTION:

Project Valuation:

Deposit (3% of Valuation $1,605 min., $53,425 max)

Administrative Fee

Proejct Type	RESIDENTIAL			NON-RESIDENTIAL		
	Remodel/ Additions	New Construction	Demolition/ Removal	Remodel/ Additions	New Construction	Demolition/ Removal
Project Size (SF)						
Lbs/sf per project type	3.31	4.38	115.00	2.85	3.89	155.00
Calculated Weight(s) in Tons	0.60	0.00	0.00	0.00	0.00	0.00

ESTIMATED PROJECT TOTAL:

Estimated Generated Amount (in tons) _____

65% Diversion Required to Meet:

At least 65% of all generated materials must be diverted. _____ tons _____ lbs

20% of Inert Debris (i.e., concrete, asphalt, dirt, etc.):

Maximum20% of inert materials _____ tons _____ lbs

Comments _____

I. I acknowledge that within thirty (90) days after final inspection for the above project, the completed Final Compliance Report (see back) shall be submitted. I further acknowledge that the amount of C&D Deposit returned will be prorated based on the rate of compliance and that the Return of Deposit should be made payable to:

Name:
Address:
City/ST/Zip:
Phone No: Email:

II. I further acknowledge that a copy of this C&D Management Plan will be sent to the property / business owner listed below:

☐ Same as above

Name:
Address:
City/ST/Zip:
Phone No: Email:

FINAL COMPLIANCE REPORT

Address: **Project No:** **Date:**

Within **thirty (90) days** after final inspection for this project, please provide the names of all certified recyclers, salvage companies, or recycling, mixed use or repurpose facilities, by material type, that were used for disposal of C&D debris and the total weights of each material. Illegal dumping on public and private property is punishable by a fine up to $10,000 or jail time for up to six months pursuant to the California Penal Code Section 374.3.

NAME OF PERMITTED HAULER_____

The program requires applicants to either self-haul material(s) or to use a waste hauler that is permitted to haul within the City of Long Beach.

	Disposal Facility Name http://www.longbeach.gov/lbcd/building/cd/	**Weights (Ton/lbs)**
MIXED DEBRIS		
Facility #1		
Facility #2		
Facility #3		
Total Tons Diverted - Mixed Debris		
ITEMIZED DEBRIS - INERT		
Concrete/Block/Brick		
Asphalt/Aggregates/Dirt		
Other		
Total Tons Diverted - Inert Max Allowed: 0 tons 0 lbs		
ITEMIZED DEBRIS - NON - INERT		
Drywall		
Metal/scrap iron		
Plastic		
Roofing		
Other		
Total Tons Diverted - Non-Inert		
TOTAL TONS GENERATED Target Wt: 0 tons 0 lbs		

To the best of my knowledge, the above information is an accurate representation of the disposition of the construction and demolition materials generated on-site at the construction job. I understand that the City of Long Beach may audit disposal and recycling documentation.

Name of Owner/Agent **Signature** **Date**

I am aware that I may file an appeal to a Hearing Officer regarding any compliance ruling made pursuant to Long Beach Municipal Code §18.67.070 within ten (10) days of the date that a ruling is made. The decision of the Hearing Officer conducting the appeal is final and is not appealable to the City Council or to any other City body or official in accordance with of Long Beach Municipal Code §18.67.090.

OFFICE USE ONLY

Diversion Requirement Met: ☐ Yes ☐ No

% of Diversion Met:

Amount of Deposit: $ Amount to be Returned: $

Final Report Approved By:

To request this information in an alternative format or to request a reasonable accommodation, please contact the Community Development Department at longbeach.gov/lbcd and 562.570.3807. A minimum of three business days is requested to ensure availability; attempts will be made to accommodate requests with shorter notice.

DIVISION F
PERMITS AND ATTACHMENTS

INFORMATION HANDOUT

RECORD DRAWINGS

F1 - Right of Way Maps No. F1246-1, F1246-2, F1246-3

F2 - As Built for 7th St Pedestrian Bridge (Years 1981 and 1995)

REFERENCE INFORMATION

F3 - Signature Gateway East Concept

LIGHTING INFORMATION

F4a - Lighting Fixture Specification Sheet

F4b - Lighting Fixture Wiring Specification Sheet

F5a - Pharos DMX Controller Specification Sheet

F5b - Pharos DMX Controller O&M

F6 - Cradle Point IBR900 Series Router Specification Sheet

PAINT INFORMATION

F7. Matthews Primer Product Information

F8. Matthews Paint Product Information

F9. Matthews Clear Product Information

ENCROACHMENT PERMIT

PERMIT

F10 - Caltrans Parent Encroachment Permit No. xxx-xxx-xxxx issued to City.

PERMIT REQUIREMENTS

F11- Caltrans Encroachment Permit Special Provisions

DIVISION F
PERMITS AND ATTACHMENTS

ENCROACHMENT PERMITS

Caltrans Encroachment Permit Special Provisions

ENCROACHMENT PERMIT SPECIAL PROVISIONS TO BE ISSUED AS AN ADDENDUM TO PROJECT BID DOCUMENTS ONCE ENCROACHMENT PERMIT IS OBTAINED

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. **REVOCATION:** 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

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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

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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

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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

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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

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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:
    a) 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
    b) 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
    c) In addition, for projects disturbing one acre or more of soil in the Lahontan Region with Order No. R6T-2016-0010, NPDES No CAG616002.
    d) 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.

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City of Long Beach
Working Together to Serve

Memorandum

Date: February 1, 2020

To: Department of Public Works

From: Carl Hickman, City Traffic Engineer C.H.

Subject: **STANDARD PRACTICE for TRAFFIC CONTROL PLAN:**

- Standard Traffic Control requirements shall be attached to all permit applications involving construction activities within the public right-of way, including sidewalks and bike lanes.

- No Construction activities that require lane closures are allowed during peak period hours (6:00-8:30 am and 3:30-6:30 pm) on any major roadway listed below. Note that this requirement does not preclude the contractor from arriving on-site during these periods of time to stage traffic control, or engage in construction related activities, as long as vehicular traffic is not impeded or impacted in any way.

- Traffic Control Plans with a stamp and signature by a professional Civil or Traffic Engineer must be submitted for review and approval on all streets listed below.

1. Alamitos Ave
2. Anaheim St.
3. Artesia Blvd.
4. Atherton St.
5. Atlantic Ave.
6. Bellflower Blvd.
7. Bloomfield Ave.
8. Broadway
9. Carson St.
10. Cherry Ave.
11. Clark Ave.
12. Del Amo Blvd.
13. Harbor Scenic Dr.
14. Lakewood Blvd.
15. Livingston Dr.
16. Long Beach Blvd.
17. Los Coyotes Diagonal
18. Magnolia Ave.
19. Norwalk Blvd.
20. Ocean Blvd.
21. Pacific Ave.
22. Pacific Pl.
23. Palo Verde Ave.
24. Paramount Blvd.
25. Pine Ave.
26. Redondo Ave.
27. Santa Fe Ave.
28. Shoreline Dr.
29. South St.
30. Spring St.
31. Studebaker Rd.
32. Wardlow Rd.
33. Willow St.
34. 2nd St. (Livingston Dr. to East City Limit)
35. 3rd St. (710 Off-Ramp to Alamitos Ave.)
36. 4th St. (Alamitos Ave. to Appian Way)
37. 6th St. (710 Off-Ramp to Alamitos Ave.)
38. 7th St.
39. 10th St. (Magnolia Ave. to Federation Dr.)

In addition, Traffic Control intended for work activities on streets within a school zone during typical school hours, on typical school days.

Note the following:

- If the work zone is within a State Highway or Freeway on/off ramp intersections, the applicant must obtain a permit from California Transportation.

- If the work zone is within a school zone, the applicant must notify Steve Bui of Long Beach Unified School District at (562) 426-6176, 48 hours prior to start of work.

- If the work zone is within a school crossing, the applicant must notify Cathy Medina, Long Beach Police Department, Field Support Division Crossing Guard Supervisor at (562) 570-7240, 48 hours prior to start of work.

If you have any questions regarding this matter, please call Transportation Mobility Bureau at (562) 570-6331.

CH
P:/TRAFFIC & TRANSPORTATION/CORRESPONDENCE/STANDARD PRACTICE FOR TRAFFIC CONTROL PLAN

BPR REG NO	STATE	FEDERAL PROJECT NO.	EFFECTIVE DATE	SHEET NO	TOTAL SHEETS
7	CALIF				

DISTRICT R/W AGENT BUREAU OF PUBLIC ROADS DATE

PARCEL NO	GRANTOR OR GRANTEE	AREA * ACQ	AREA * EXCESS	AREA * TOTAL	INST	RECORDING DATA DATE	RECORDING DATA O.R.
A4643	S.Ca.Edison	556070			Fee	4-4-62	D1567-556
7	E.A.Bryan&etal				Ease	4-23-33	D41551-344

FOR CONTINUATION SEE MAP NO. P2 5831

FOR CONTINUATION SEE MAP NO. F1246-2

CITY OF LONG BEACH

STUDEBAKER ROAD

SECTION LINE

SEC 35 SEC 36

80' SEVENTH STREET 35 2 36 1

N.89°50'15"E. 191.17'

80'

Existing Slope Ease.

N.84°31'51"E. 661.57'

7 Ease.

O.R. 4865-275

N390,000

RANCHO LOS ALAMITOS

N 1/4 Sec Corner Sec. 2

O.R. 19794-293

D 700-141

L.A.COUNTY FLOOD CONTROL

LOS CERRITOS CHANNEL

Flood Control Ease. O.R. 9527-356

S.62°16'06"E. 118.53'

N.15°29'27"W. 234.62'

TOE OF SLOPE

N.2°40'21"E. 644.68'

N.0°25'08"E.

07-FLA-22-9
MAP NO. 25110-C

N.02°40'21"E. 644.68'

N.0°25'08"E. 983.00'

N.0°10'03"E. 357.99'

N.5°37'53"E. 123.08'

N.78°13'19"E. 204.36'

N.44°56'50"E. 285.55'

390'

N.68°10'47"E. 104.56'

N.49°38'39"E. 407.83'

A4643

N.89°49'51"W. 106.99'

N.45°09'59"E. 35.35'

Southern California Edison Company

N.E. 1/4 SEC. 2

T.5S. R. 2W. S.B.M.

SAN GABRIEL RIVER

85' 140' 240' 15' 15' 6' 135' 120' 548.00' 198' 60'

R=69.00' Δ=188°00'00" L=311.85'

R=172' Δ=88°40'02" L=266.18'

210' 130' 30' 130' 322.72'

N.48°33'35"E. 106.99'

N.69°53'59"E.

S.89°49'51"E. 96.00'

N.0°25'08"E.

¼ Section Line

N389,000

E.437,000

E.438,000

FOR CONTINUATION SEE MAP NO. F1247

ISSUE DATE
JP

STATE OF CALIFORNIA
TRANSPORTATION AGENCY — DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

R/W MAP
NO. F-1246-1
07-LA-22-1.16

0 100

DATE 6-5-73

R.W.P.E. LEONARD SR. BERG

LEGEND: ACCESS DENIED ✦ EXCLUDES STREET AREA
* AREA IN SQUARE FEET UNLESS OTHERWISE NOTED
( ) PREVIOUS RECORD DATA

BPR REG NO	STATE	FEDERAL PROJECT NO.	EFFECTIVE DATE	SHEET NO	TOTAL SHEETS
7	CALIF			2	3

DISTRICT R/W AGENT | BUREAU OF PUBLIC ROADS | DATE

CITY OF LONG BEACH

RANCHO LOS ALAMITOS

D 700-141

TRACT NO. 21550

M.B. 636-43

SEC. 35 T.4S.-R.12W

SEC. 36 S.B.M.

LEES AVE.

LEES WAY

SALIDA AVE.

SEPTIMO ST.

(FRONTAGE RD.) COLLEGE PARK DR.

SEVENTH STREET

T4S / T5S

35 36 2 1

SAN GABRIEL RIVER

R/W San Gabriel River

ORANGE COUNTY LA COUNTY

LA FLOOD CONTROL DISTRICT LOS CERRITOS CHANNEL

STUDEBAKER ROAD

L.A.C.F.D. Access Rd.

07-FLA-22-10
MAP NO. 25111-C

A4644 A4645 A4646

Rel 211

Permit 60250-B STATE DIV. HWYS. Aug. 3-1960

FOR CONTINUATION SEE MAP NO. P2 5831

FOR CONTINUATION SEE MAP NO. F1247

FOR CONTINUATION SEE MAP NO. F1246-1

PARCEL NO.	GRANTOR OR GRANTEE	AREA * ACQ.	EXCESS	TOTAL	INST.	RECORDING DATA DATE	O.R.
A4644	L.A. Flood Cont. Dist.				Ease.	9-25-62	D1767-146
A4645	F.H. Bixby Ranch Co.	705,203			Fee	5-18-59	D470-238
A4646	L.A. Co. Flood Cont. Dis	26,972			Ease.	3-26-64	D2408-881
Rel 211	State to City L. Beach				Rel	3-14-63	R1487-324

PARCEL NO.	GRANTOR OR GRANTEE	AREA * ACQ.	EXCESS	TOTAL	INST.	RECORDING DATA DATE	O.R.

ISSUE DATE

STATE OF CALIFORNIA
TRANSPORTATION AGENCY — DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

R/W MAP
NO. F-1246-2
07-LA-22-1.16

100 0 100

R.W.P.E. LEONARD

DATE 6-12-73

SR. BERG

LEGEND: ACCESS DENIED ✦ EXCLUDES STREET AREA
* AREA IN SQUARE FEET UNLESS OTHERWISE NOTED
( ) PREVIOUS RECORD DATA

BPR REG NO	STATE	FEDERAL PROJECT NO.	EFFECTIVE DATE	SHEET NO.	TOTAL SHEETS
7	CALIF				

DISTRICT R/W AGENT | BUREAU OF PUBLIC ROADS | DATE

TRACT No. 21067

M. B. 737 - 76

TRACT No. 24883

M. B. 654 / 34-39

199

11.70 Ac.

Δ = 23° 02' 25"
R = 1330
L = 534.96'
T = 271.06'

R = 50.00
Δ = 91° 19' 39"
L = 79.70

NOTE: REFERENCE MAP

PARCEL NO.	GRANTOR OR GRANTEE	AREA * ACQ.	EXCESS	TOTAL	INST	RECORDING DATA DATE	O.R.
67699	M. N. HUGHES	6850		6850	Fee	5-25-72	D5472-143
C6805	Home Trust Inv. Co.	17505	4,074	17505	Fee by Cond.	2-17-69	D4281-600
C6796	Long Beach Unified School District et al, A Co.	38,922	-	11.70 Ac	Fee	1-10-67	D3527-250
C6476	Bixby Willis Investment Co.	75,061	72691	SUM	Fee by Cond.	2-14-69	D4281-600
C6476-A	" "	90,511	3,294	90,511	"	"	"
C6476-B	" "	6038	6038		"	"	"
C6476-C	" "	5496	5496		"	"	"
C6476-D	" "	1353	1350		"	"	"
B9660					Fee by Cond.	2-15-65	D2798-763
67827	A. DAMORE	7,037		7,037	Fee		
DD06799-01-01	KEENOY				DD	6-17-76	D7123-496

PARCEL NO.	GRANTOR OR GRANTEE	AREA * ACQ.	EXCESS	TOTAL	INST	RECORDING DATA DATE	O.R.

PARCEL NO.	GRANTOR OR GRANTEE	AREA * ACQ.	EXCESS	TOTAL	INST	RECORDING DATA DATE	O.R.

PARCEL NO.	GRANTOR OR GRANTEE	AREA * ACQ.	EXCESS	TOTAL	INST	RECORDING DATA DATE	O.R.

ISSUE DATE	
J.P.	5-16-72
J.P.	6-9-72

STATE OF CALIFORNIA
TRANSPORTATION AGENCY — DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

R/W MAP
NO. F1246-3
07-LA-22-1.0

SCALE 0 1"=100' | DATE 1-12-72
R.W.P.E. S. SOLOMON | SR. T. BERG

LEGEND: ACCESS DENIED ✦ EXCLUDES STREET AREA
* AREA IN SQUARE FEET UNLESS OTHERWISE NOTED
( ) PREVIOUS RECORD DATA

24809-6

PLANS FOR THE CONSTRUCTION

OF

SEVENTH STREET

BICYCLE/PEDESTRIAN BRIDGE

&

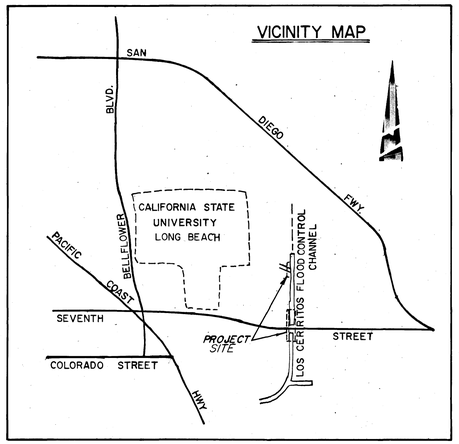
BOUTON CREEK BRIDGE

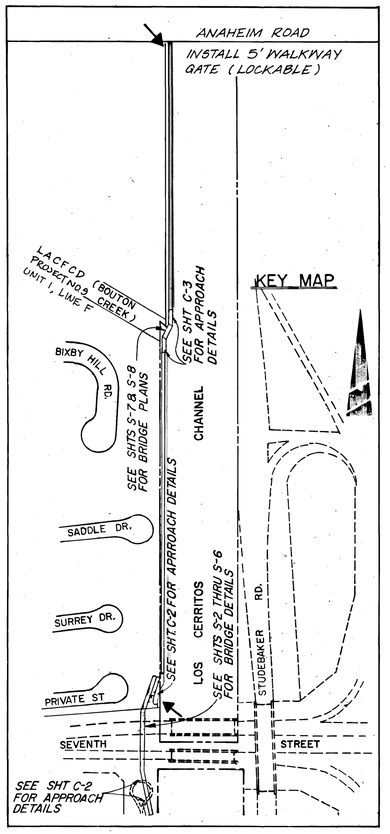
AT

LOS CERRITOS CHANNEL

IN THE

CITY OF LONG BEACH





DENOTES BICYCLE/PEDESTRAIN TRAIL

DENOTES TRAIL OPENING CONSTR. MOTORCYCLE BARRIER AT WALKWAY GATES (TYPICAL 2 LOCATIONS) See DETAIL INCLUDED IN SPECS.

30"

LOS CERRITOS CHANNEL TRAIL

THIS TRAIL HAS BEEN DEVELOPED BY THE CITY OF LONG BEACH FOR THE ENJOYMENT OF BICYCLISTS AND PEDESTRIANS WITH THE COOPERATION OF THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

24"

FOR YOUR PROTECTION AND SAFETY, PLEASE OBSERVE THE FOLLOWING RULES:

1. MINIBIKES, MOTORCYCLES AND OTHER UNAUTHORIZIED MOTORIZED VEHICLES ARE PROHIBITED ON TRAIL.
2. CONFLICTS BETWEEN TRAIL UGES MAY OCCUR. RESPECT THE RIGHTS OF OTHERS.
3. STAY ON TRAIL

PERSONS VIOLATING THESE RULES DO SO AT THEIR OWN RISK!

HAVE A NICE RIDE OR WALK!

BASIS OF BEARING

THE BEARING OF N 0°09'50"E ALONG THE EAST LINE OF TRACT NO 21067 AS PER MAP RECORDED IN BOOK 737 PAGES 76 TO 84, INCLUSIVE OF MAPS, RECORDS OF LOS ANGELES COUNTY, CALIF. WAS USED AS THE BASIS OF BEARINGS FOR THESE PLANS.

INFORMATION SIGN

SIGN SHALL BE INSTALLED AT EACH TRAIL OPENING (2 LOCATIONS) AND SHALL BE MOUNTED ON C.L.F. SIGN SHALL BE BLACK LETTERING ON WHITE BACKGROUND ON ALUMINUM BLANK.

BENCH MARK

BM# 1109 7th ST & LOS CERRITOS CHANNEL - N W CORNER L&T IN N. WALKWAY OF BRIDGE STRUCTURE, 4.0 E. OF W. END BRIDGE, 1.0 N. OF S. EDGE WALK. 1975 MSL DATUM ELEVATION 16.86

L.A.C.F.C.D. NOTES:

1. THE CONTRACTOR SHALL NOTIFY MR. JOHN PENTON AT 775-1625 AT LEAST 24 HOURS BEFORE STARTING ANY WORK ON THE OBSERVATION WELLS AND WATERLINE.
2. THE CONTRACTOR SHALL NOTIFY THE PERMIT LIAISON GROUP AT 226-4206 AT LEAST 24 HOURS BEFORE STARTING ANY WORK LOCATED ON THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT PROPERTY

CONSTRUCTION NOTES

BOUTON CREEK BRIDGE C-3

1. CONSTRUCT 3" AC PAVEMENT
2. INSTALL NEW FENCING ON WING WALLS AND RETAINING WALL
3. REMOVE EXIST. 2" STL WITNESS PIPE AND CONCRETE SLAB. REMOVE 2" WELL PIPE TO 6" BELOW FINISHED GRADE. SALVAGE EXIST. COUPLING AND PLUG. THREAD END OF REMAINING WELL PIPE AND INSTALL SALVAGED COUPLING & PLUG. INSTALL METER BOX WITH TRAFFIC COVER SIMILAR TO BOX IN DETAIL 4/C-3.
4. CONSTRUCT RETAINING WALL PER CALTRANS STD 83-11 TYPE 6 REINFORCED CONCRETE 3' HIGH-1' HIGH.
5. CONSTRUCT 6" AC DIKE
6. USE FIRST EXIST. POST FROM END OF WING WALL OR RETAINING WALL TO ATTACH NEW FENCE FABRIC. SUPPORT POST WITH CORNER BRACING PER STD PLAN PER 2 . ANGLE NEW FENCE IN A STRAIGHT LINE TO TOP OF RETAINING WALL OR WING WALL. TYPICAL 4 PLACES.

7th ST BIKE/PED BRIDGE C-2

1. CONSTRUCT 3" AC PAVEMENT
2. CONSTRUCT 6" AC DIKE
3. CONSTRUCT 4" PCC SIDEWALK
4. REMOVE EX. CHANNEL FENCING & RELOCATE NEW OR USED FENCE PER SECTION 1/C-2
5. CONSTRUCT A2-8 CURB & GUTTER PER CALTRANS STD N8-A.1
6. CONSTRUCT PCC DRIVEWAY PER CALTRANS STD N8-A.1, CASE B, W=16' X=3'
7. INSTALL CHAIN LINK FENCE AND 20' GATE PER CALTRANS STD A78-A.1, 6' HIGH
8. CONSTRUCT 10" AC ON 12" S.M.
9. CONSTRUCT AC DRAINAGE SWALE PER SECTION 4/C-2
10. CONSTRUCT DRAINAGE INLET PER CALTRANS D72-11 A5 MODIFIED PER SECTION 3/C-2
11. CONSTRUCT AC DRAINAGE APRON PER SECTION 2/C-2

BRIDGE PLANS S-1 THRU S-9

UNLESS OTHERWISE INDICATED:

1. REINFORCING STEEL SHALL HAVE 2" COVER
2. REINFORCING STEEL SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS
3. SPLICES IN REINFORCING SHALL HAVE THE APPROVAL OF THE ENGINEER
4. CONSTRUCTION JOINTS SHALL HAVE THE APPROVAL OF THE ENGINEER

ALL STRUCTURAL STEEL SHALL BE SANDBLASTED TO BARE METAL FOLLOWING FABRICATION. THE STEEL SHALL BE FREE OF ALL SCALES, BURRS, DISCOLORATIONS, RESIDUE AND WELD SLAG. ALL FIELD WELDS SHALL HAVE SLAG AND ALL RESIDUE REMOVED. FOLLOWING ERECTION, THE STEEL SHALL BE LEFT CLEAN AND OIL FREE.

INDEX OF SHEETS

1.....T-1.....TITLE SHEET
2.....C-1.....DISPOSITION
3.....C-2.....7th ST BIKE/PED BRIDGE - CONST. & GRADING
4.....C-3.....BOUTON CREEK - CONST. & GRADING
5.....S-1.....UTILITY SITE PLAN
6.....S-2.....7th ST BIKE/PED BRIDGE - BRIDGE PLAN
7.....S-3.....7th ST BIKE/PED BRIDGE - FOUNDATION PLAN
8.....S-4.....7th ST BIKE/PED BRIDGE - PIER PLAN
9.....S-5.....7th ST BIKE/PED BRIDGE - VIERENDEEL TRUSS FRAMING
10.....S-6.....7th ST BIKE/PED BRIDGE - DETAILS
11.....S-7.....BOUTON CREEK - BRIDGE PLAN
12.....S-8.....BOUTON CREEK - DETAILS
13.....S-9.....LOG OF TEST BORINGS

GENERAL NOTES

1. DESIGN SPECIFICATIONS: CALIF DEPT OF TRANSPORATION AND THE STATE OF CALIF HIGHWAY OFFICIALS AND/AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) (1)
2. DESIGN LIVE LOADING: PEDESTRIAN BRIDGE - 85 psf
   BOUTON CREEK - H 15 Loading
3. CONCRETE: REINFORCED CONCRETE SHALL BE CLASS A W/28 DAY STRENGTH =
   f'c = 3000 psi-Topping, Abutments, Wingwalls and pile caps
   f'c = 4000 psi-Piers, Prestressed Planks
   f'c = 5000 psi-Prestressed Girders
4. REINFORCEMENT: ALL MILD REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.
   ALL PRESTRESSING STEEL SHALL CONFORM TO THE STATE OF CALIFORNIA HIGHWAY OFFICIALS SPECIFICATIONS AND TO ASTM A416, BE UNCOATED SEVEN WIRE STRESS RELIEVED STRANDS WITH A MINIMUM ULTIMATE STRENGTH = 270,000 psi.
5. PILES: SHALL CONFORM TO CALIFORNIA STATE STANDARDS CLASS 45-I TYPE Y-Y.
6. PRESTRESSED METHOD: DESIGN OF ALL MEMBERS WERE BASED ON THE PRETENSIONING METHOD OF CONSTRUCTION.
7. WORKING FORCE: WORKING FORCE (FINAL) IS THE FORCE PER STRAND REMAINING AFTER ALL LOSSES, INCLUDING THOSE DUE TO CREEP AND SHRINKAGE OF CONCRETE AND STEEL. MAXIMUM WORKING FORCE = 0.6 F's (1)
8. PRESTRESSED CONCRETE: CONCRETE STRENGTH AT TRANSFER SHALL BE A MINIMUM OF 3500 psi.
9. STRUCTURAL & MISC. STEEL: STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO THE PROVISIONS OF SECTION 55 OF THE STATE STANDARDS. ALL SHAPES AND PLATES SHALL BE COR-TEN B MATERIAL CONFORMING TO ASTM A588 GRADE A.
10. PLEASE NOTIFY DON HOUSER AT THE LONG BEACH WATER DEPARTMENT 48 HOURS PRIOR TO CONSTRUCTION AT 426-5951 TO PERMIT INSPECTION AND MARKING OF OUR FACILITIES AND TO ARRANGE FOR THE EXISTING 16-INCH WATER MAIN TO BE SHUT DOWN IN THE VICINITY OF THE BRIDGE SUPPORT.

T-1

(1) NEW DETAIL OR NEW BEARING 12-31-81

(2) NEW DETAIL 12-31-81

ADDENDUM NO.2 AUGUST 24, 1981

B-2576

REVISIONS		
(1) CAL TRANS CORRECTIONS	SECTION HEAD	BK 5-5-81
10/9/81	INSPECTION	C-12-81
(2) CAL TRANS CORRECTIONS 11/30/81	SURVEY CONTROL	KR 5/8/81
TOP OF SLAB ELEVS. 6/1/82	PROPERTY LINES	
	GAS	
	WATER	
AS-BUILT:	SUBSTRUCTURES	

APPROVALS

DIVISION ENGINEER C.E.	6/23/81	DATE
DIVISION ENGINEER OF	6/23/81	DATE
DIVISION ENGINEE C.E.	6/9/81	DATE
MANAGER - ENGINEERING	6/23/81	DATE
DIRECTOR OF PUBLIC WORKS	6/23/81	DATE

CITY OF LONG BEACH

DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE CITY ENGINEER

333 W. OCEAN BLVD. LONG BEACH, CA. 90802

DESIGNED BY	C.I. KAJIKAWA		
DRAWN BY	M.J. Gallaher		
CHECKED BY			
JOB No.	42 1900	FIELD BOOK	L-1074
PAGE	140 - 167	GRAPHIC	SCALE

PREPARED UNDER THE SUPERVISION OF:
Evan Kendall RCE 7775 DATE 10-22-80

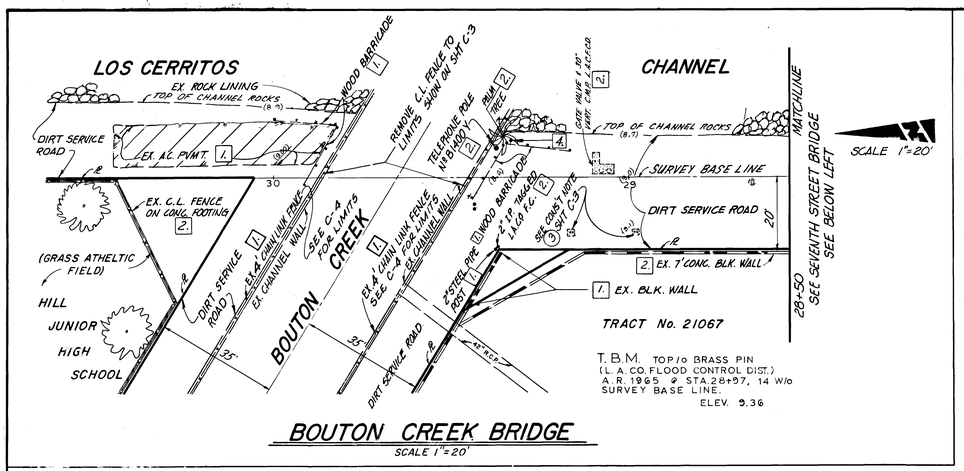
BERRYMAN & STEPHENSON, INC.
CONSULTANTS TO GOVERNMENTAL AGENCIES
1360 S. ANAHEIM BLVD., ANAHEIM, CA 92805
(714) 956-4770

No.	R-5163
SHEET	1
OF	13
DRAWING No.	B-3183A

R

1/16, B-3183A

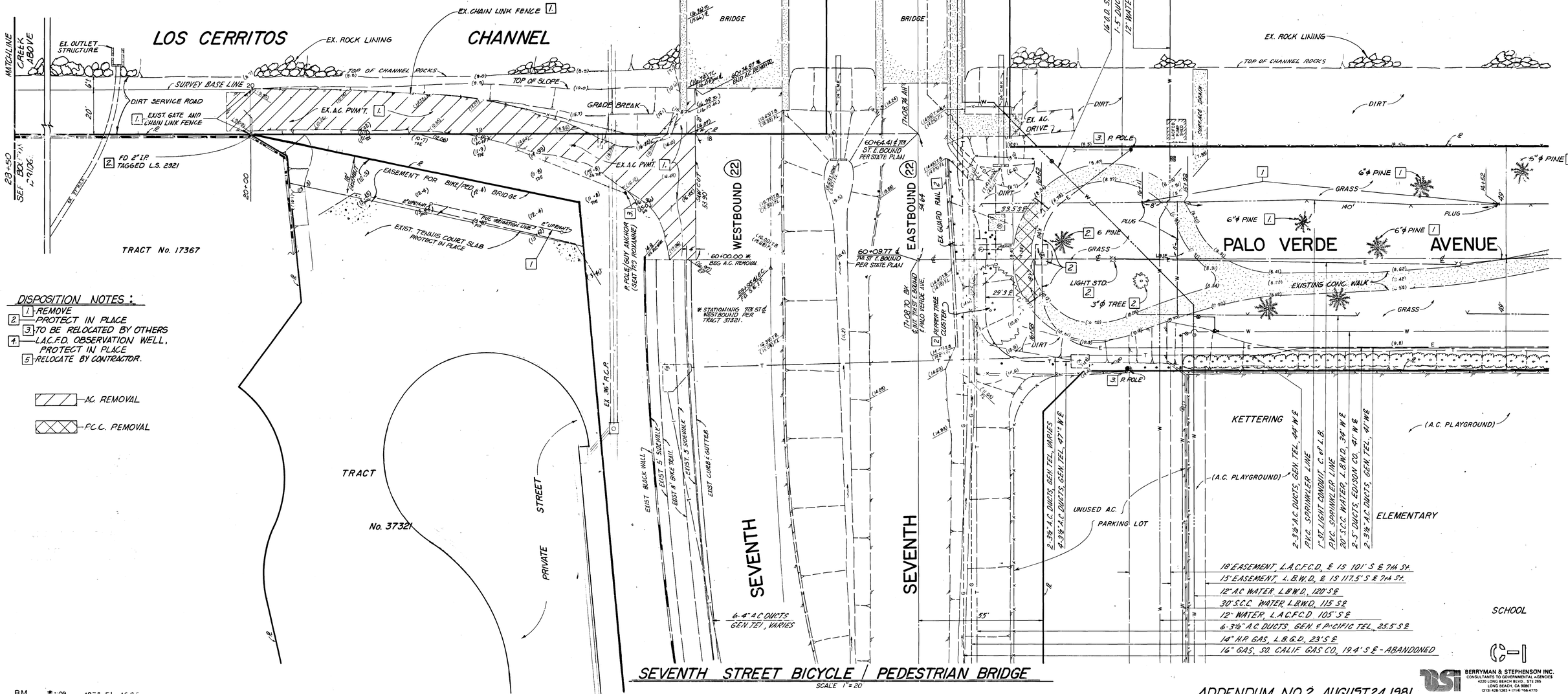
ACBLE-8



BOUTON CREEK BRIDGE

SCALE 1"=20'

SCALE: 1" = 20'



DISPOSITION NOTES :

1 — REMOVE
2 — PROTECT IN PLACE
3 — TO BE RELOCATED BY OTHERS
4 — L.A.C.F.D. OBSERVATION WELL, PROTECT IN PLACE
5 — RELOCATE BY CONTRACTOR.

A.C. REMOVAL

P.C.C. REMOVAL

B.M. *1.09 1975 EL. 16.95
7th St. & LOS CERRITOS CHANNEL N.W. COR L.& T. in N. WALKWAY OF BRIDGE STRUCTURE, 4.0'E. OF W. END OF BRIDGE, 1.0' N. OF S. EDGE OF WALK

DISPOSITION PLAN

ADDENDUM NO. 2 AUGUST 24, 1981

BERRYMAN & STEPHENSON INC.
CONSULTANTS TO GOVERNMENTAL AGENCIES
4205 LONG BEACH BLVD., STE 205
LONG BEACH, CA 90807
(213) 426-1263 • (714) 156-6770

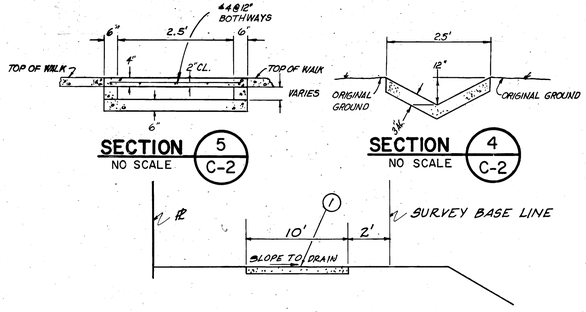
CITY OF LONG BEACH

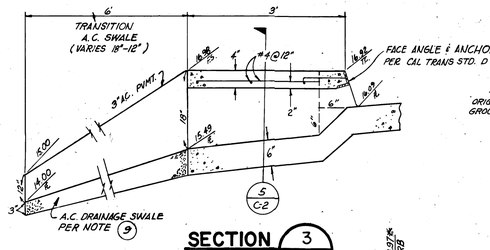
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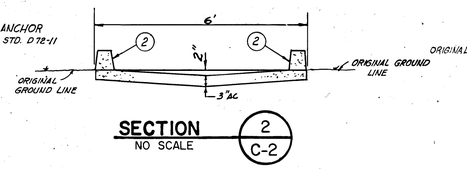
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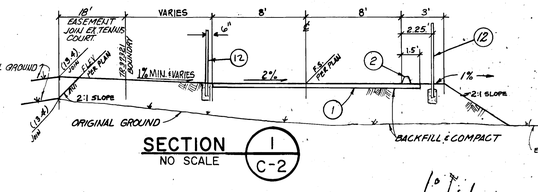
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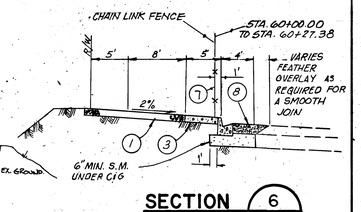
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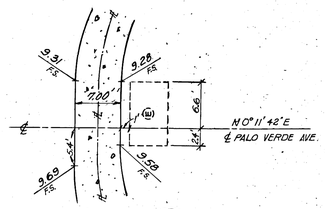




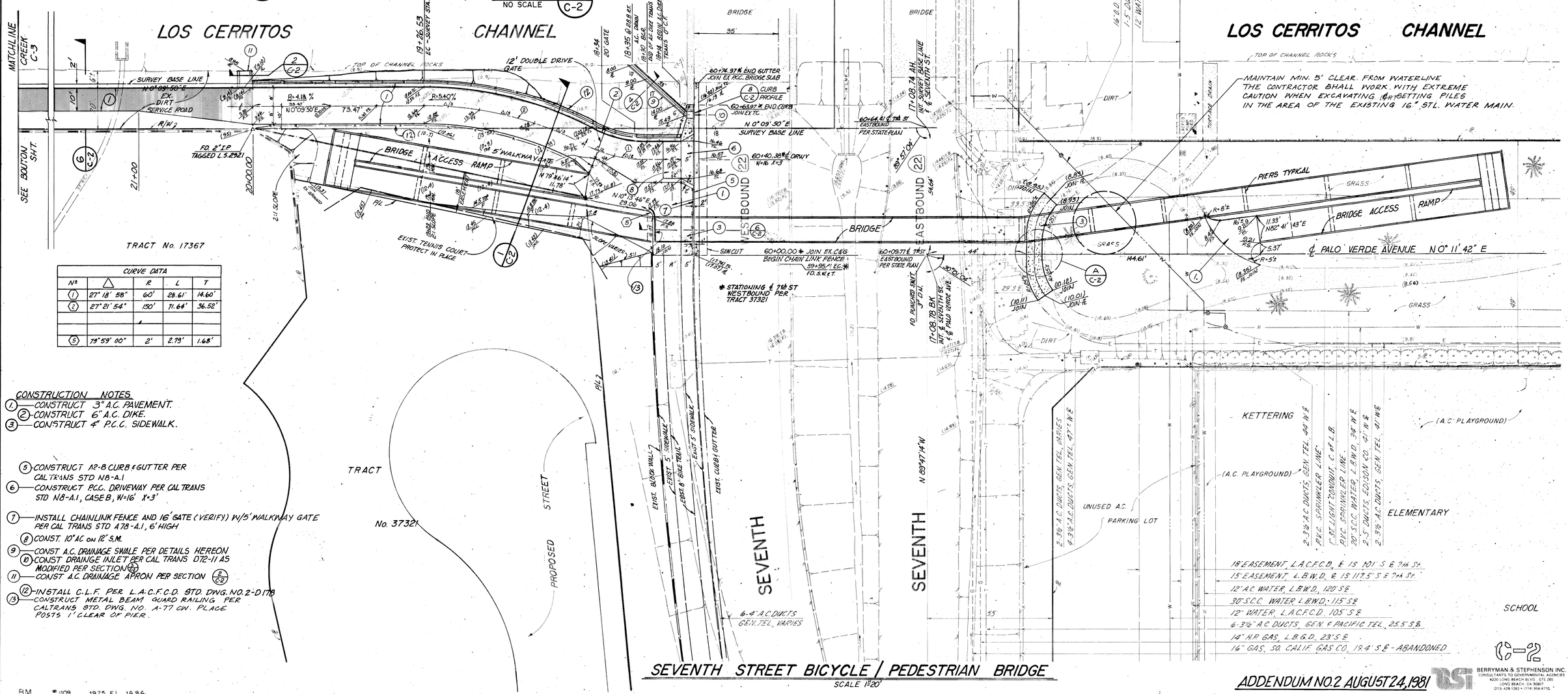








SCALE 1"=20'



CURVE DATA				
N°	△	R	L	T
1	27° 18' 58"	60'	28.61'	14.60'
2	27° 21' 54"	150'	71.64'	36.52'
5	79° 59' 00"	2'	2.79'	1.68'

CONSTRUCTION NOTES

1. CONSTRUCT 3" A.C. PAVEMENT.
2. CONSTRUCT 6" A.C. DIKE.
3. CONSTRUCT 4" P.C.C. SIDEWALK.
5. CONSTRUCT N2-8 CURB & GUTTER PER CAL TRANS STD N8-A.1
6. CONSTRUCT P.C.C. DRIVEWAY PER CAL TRANS STD N8-A.1, CASE B, W=16' X=3'
7. INSTALL CHAINLINK FENCE AND 16' GATE (VERIFY) W/5' WALKWAY GATE PER CAL TRANS STD A78-A.1, 6' HIGH
8. CONST. 10" AC on 12" S.M.
9. CONST. A.C. DRAINAGE SWALE PER DETAILS HEREON
10. CONST. DRAINGE INLET PER CAL TRANS D72-11 AS MODIFIED PER SECTION (2)
11. CONST. A.C. DRAINAGE APRON PER SECTION (2/C-2)
12. INSTALL C.L.F. PER L.A.C.F.C.D. STD. DWG. NO. 2-D178
13. CONSTRUCT METAL BEAM GUARD RAILING PER CALTRANS STD. DWG. NO. A-77 GW. PLACE POSTS 1' CLEAR OF PIER.

B.M. #1109 1975 E.L. 16.86
7th St. & LOS CERRITOS CHANNEL
N.W. COR. L.& T. in N. WALKWAY OF BRIDGE STRUCTURE, 4.0' E. OF W. END OF BRIDGE, 1.0' N. OF S. EDGE OF WALK

SEVENTH STREET BICYCLE / PEDESTRIAN BRIDGE

SCALE 1"=20'

ADDENDUM NO. 2 AUGUST 24, 1981

BERRYMAN & STEPHENSON INC.
CONSULTANTS TO GOVERNMENTAL AGENCIES
4220 LONG BEACH BLVD. STE. 205
LONG BEACH, CA 90807
(213) 426-1263 • (714) 956-8776

CONSTRUCTION & GRADING PLAN

CITY OF LONG BEACH

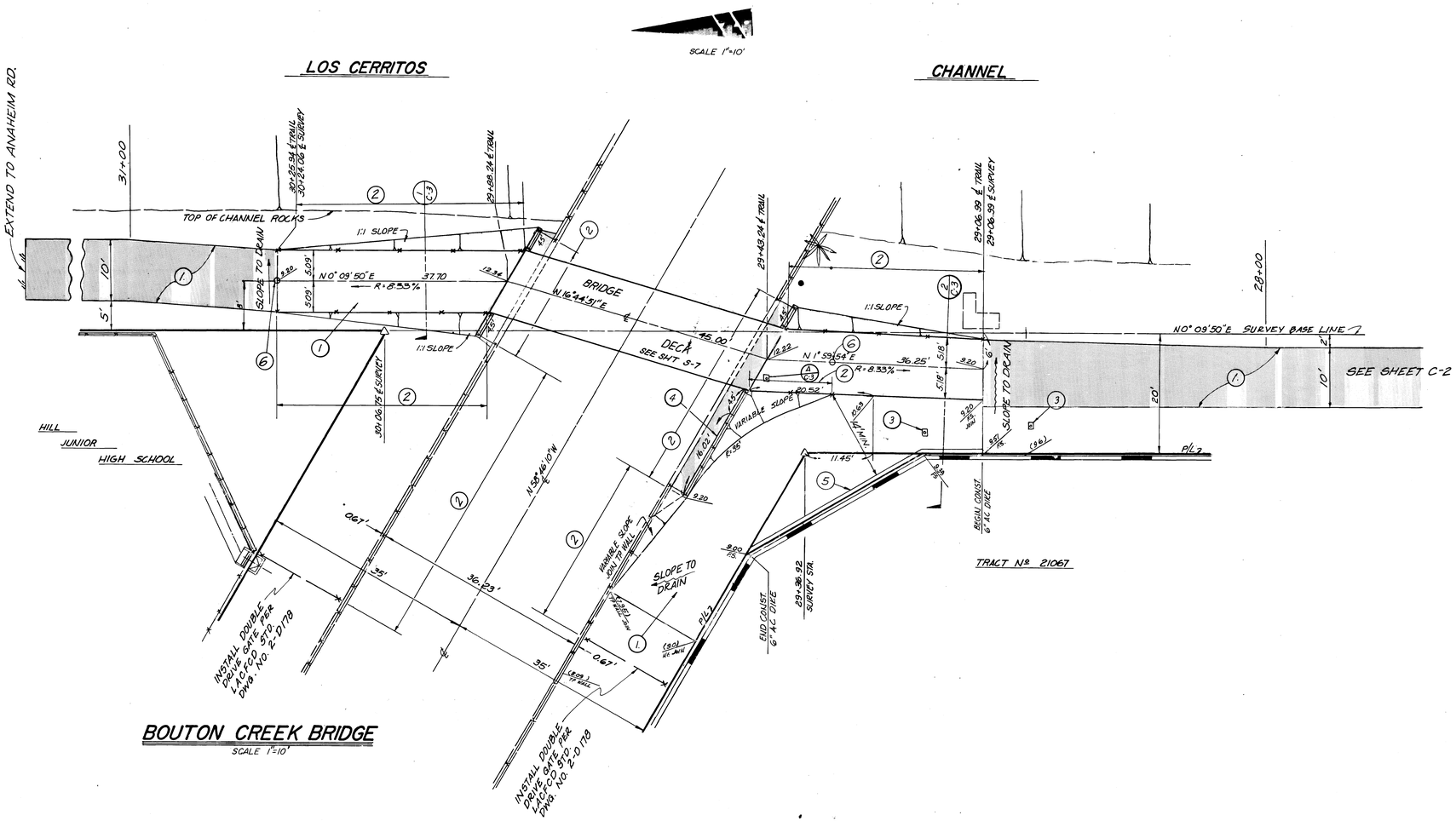
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QB 135.C02

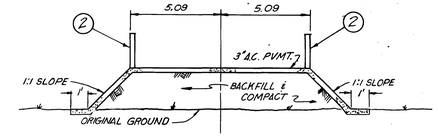
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3/16 B-3183A

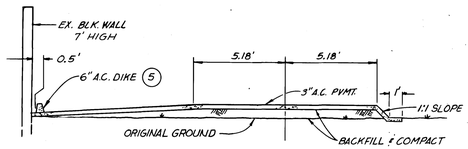
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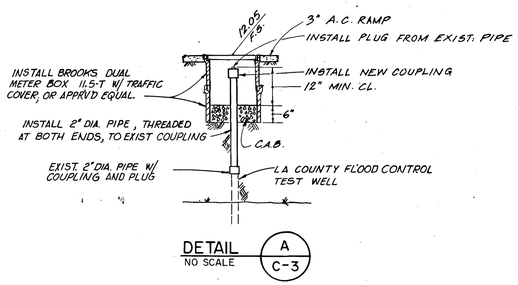
BOUTON CREEK BRIDGE
SCALE 1"=10'



SECTION 1 / C-3
NO SCALE



SECTION 2 / C-3
NO SCALE



DETAIL A / C-3
NO SCALE

NOTE: ALL OBSERVATION WELLS ALONG THE TRAIL AND WHERE SHOWN SHALL BE RESET PER DETAIL A / C-3 (TYPICAL 11 LOCATIONS)

CONSTRUCTION NOTES

1. CONST. 3" A.C. PVMT.
2. INSTALL NEW FENCING ON WING WALLS, RAMPS AND RETAINING WALL PER L.A.Co.F.C. STD 2-D178
3. REMOVE EXIST 2" STL. WITNESS PIPE AND CONC. SLAB. REMOVE 2" WELL PIPE TO 6" BELOW FINISHED GRADE. SALVAGE EXIST. COUPLING AND PLUG. THREAD END OF REMAINING WELL PIPE AND INSTALL SALVAGED COUPLING & PLUG. INSTALL METER BOX WITH TRAFFIC COVER SIMILAR TO BOX IN DETAIL A / C-3
4. CONST. RETAINING WALL PER CAL TRANS STD. B3-11 TYPE 6 REINFORCED CONCRETE. 3' HIGH - 1' HIGH.
5. CONST. 6" A.C. DIKE.
6. BARRIER POST - SEE DETAIL INCLUDED IN SPECIFICATIONS.

ADDENDUM NO.2, AUGUST 24, 1981

C-3

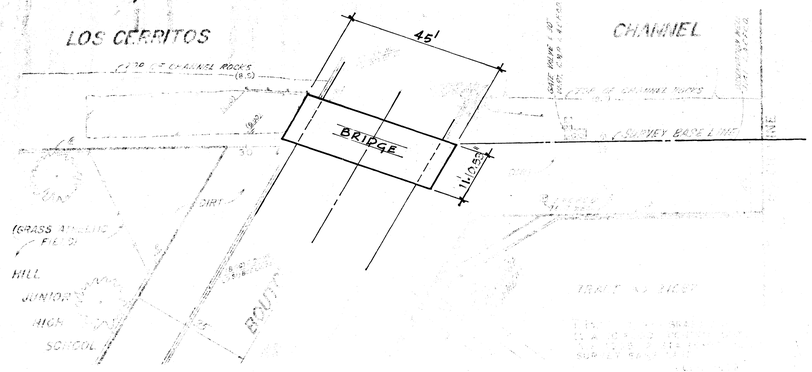
CONSTRUCTION & GRADING PLAN

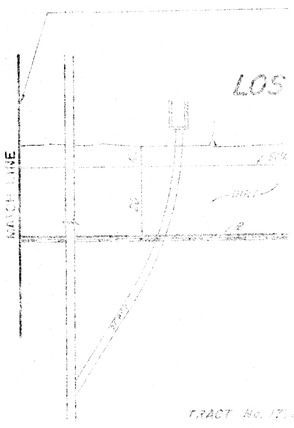
BERRYMAN & STEPHENSON INC.
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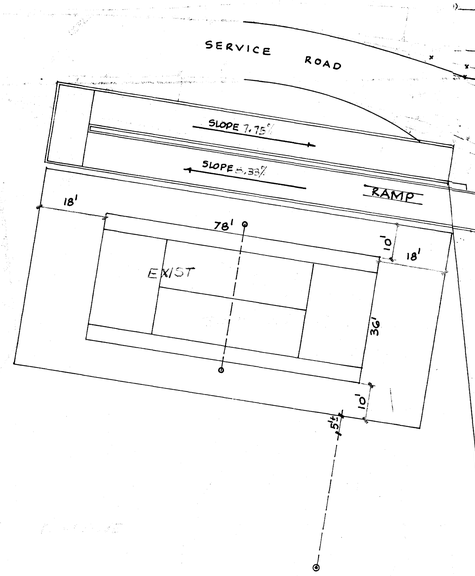
CITY OF LONG BEACH

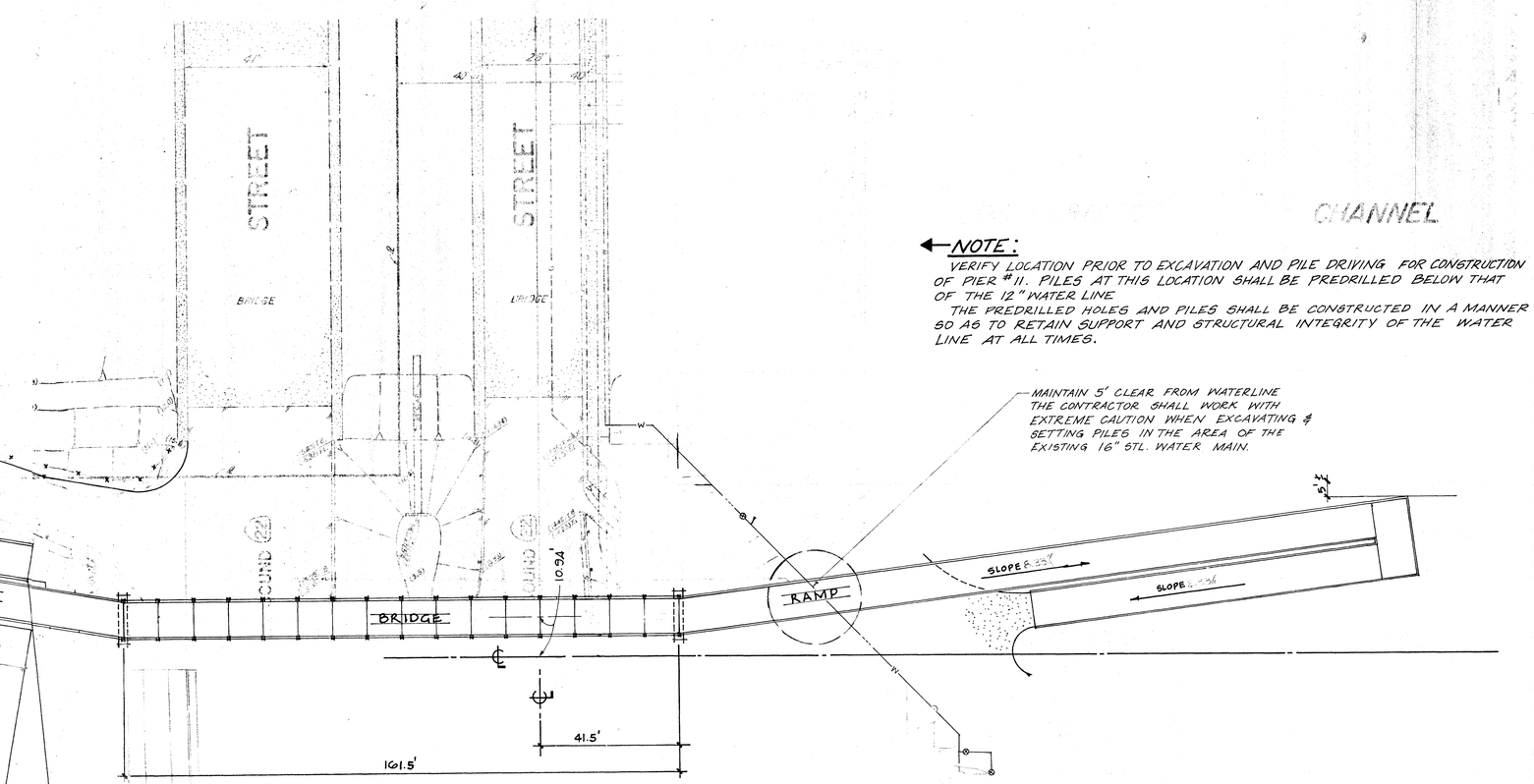
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SCALE 1"=10' (0' 10' 20' 30')					B-3183A

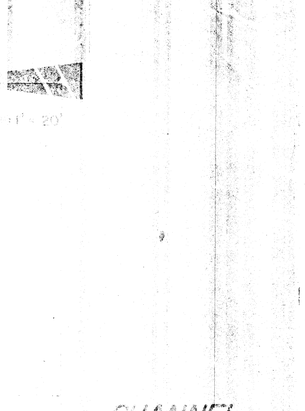
4/16 B-3183A











NOTE:

VERIFY LOCATION PRIOR TO EXCAVATION AND PILE DRIVING FOR CONSTRUCTION OF PIER #11. PILES AT THIS LOCATION SHALL BE PREDRILLED BELOW THAT OF THE 12" WATER LINE

THE PREDRILLED HOLES AND PILES SHALL BE CONSTRUCTED IN A MANNER SO AS TO RETAIN SUPPORT AND STRUCTURAL INTEGRITY OF THE WATER LINE AT ALL TIMES.

MAINTAIN 5' CLEAR FROM WATERLINE THE CONTRACTOR SHALL WORK WITH EXTREME CAUTION WHEN EXCAVATING & SETTING PILES IN THE AREA OF THE EXISTING 16" STL. WATER MAIN.

PRIVATE

EXIST 8' BIKE TRAIL

EXIST 12" CMP & MANHOLE

UTILITY - SITE PLAN

SIEVENTH STREET BICYCLE/PEDESTRIAN BRIDGE - BOULTON CREEK BRIDGE

ADDENDUM NO.2 AUGUST 24, 1981

NOTE: THE STRUCTURAL SHEETS ARE NOTED S1 OF S8 FOR CROSS REFERENCING PURPOSES

0' 20' 40' 60'

STRUCTURAL PLANS PREPARED UNDER SUPERVISION OF

JOHN R. ARIAS RCE 21948 10-22-80 DATE

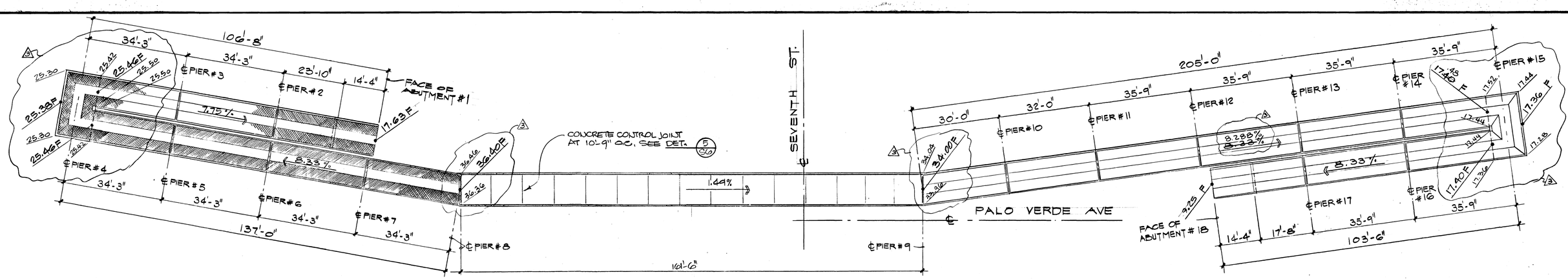
S-1

S1 OF S8

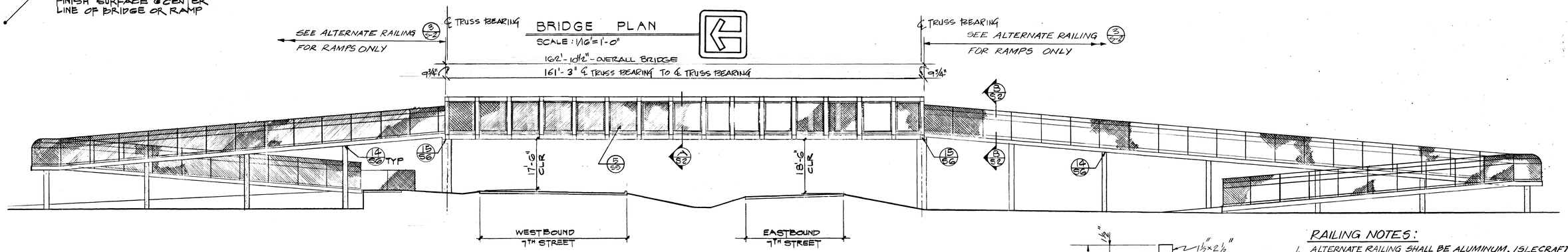
B.M. ... 1973 B.L. ROSE ... LOS CERRITOS CHANNEL ... A.T. & N. VALVE ... OF BRIDGE STRUCTURE, 42'E. OF M.END OF BRIDGE, 10' N OF S. EDGE OF WALK

5 13 B-3183A

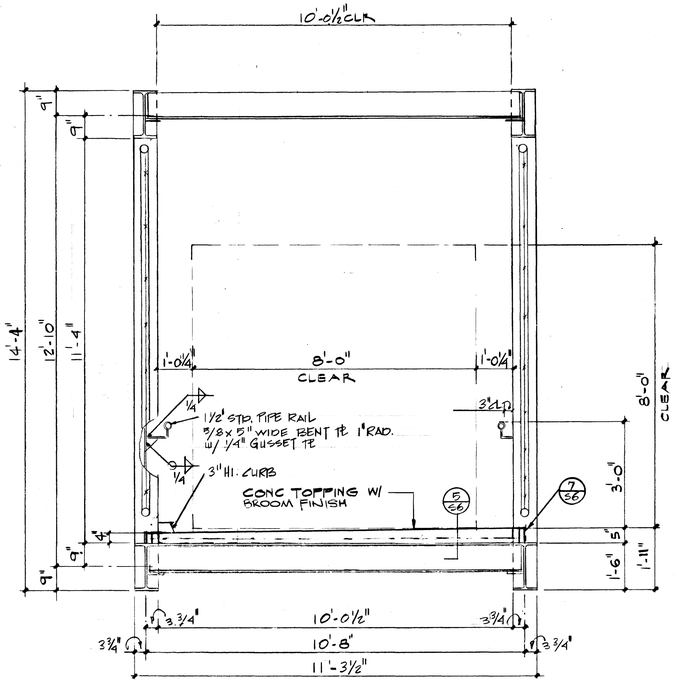
5/16 B-3183A



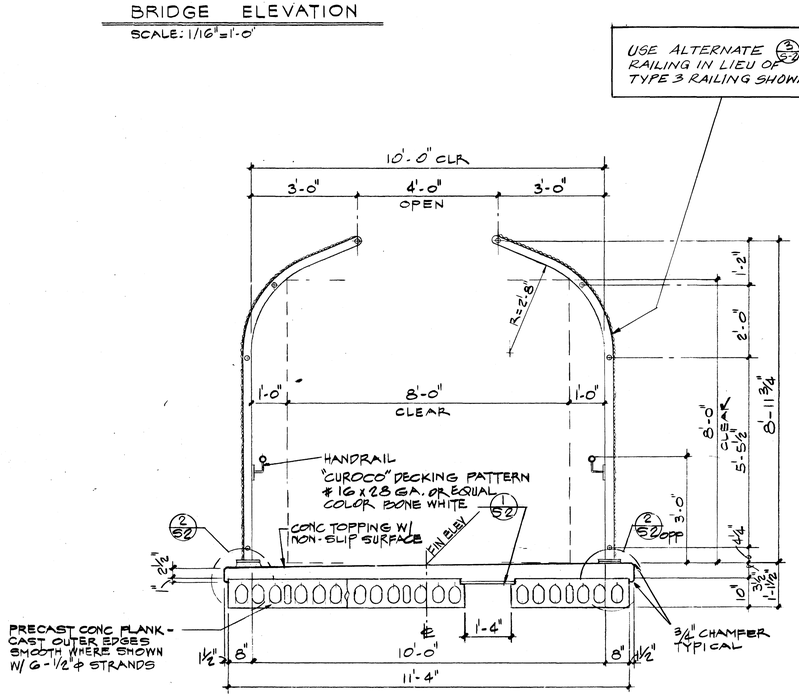
FINISH SURFACE ℄ CENTER LINE OF BRIDGE OR RAMP



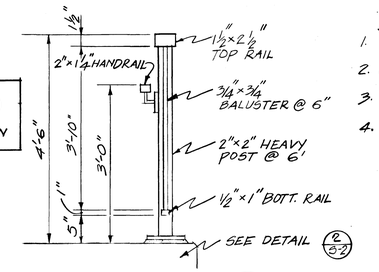
BRIDGE ELEVATION
SCALE: 1/16"=1'-0"



BRIDGE SECTION A S-2
SCALE: 1/2"=1'-0"



RAMP SECTION B S-2
SCALE: 1/2"=1'-0"

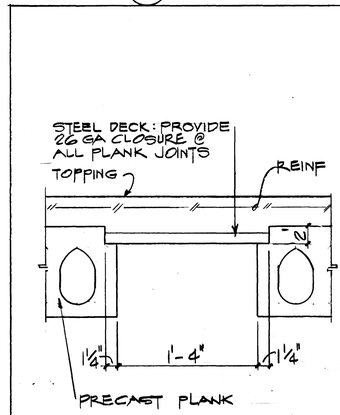


ALTERNATE RAILING 3/S-2
NO SCALE

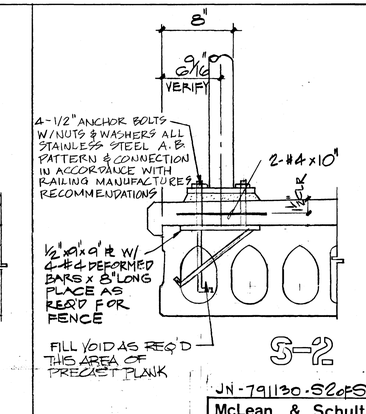
RAILING NOTES:

1. ALTERNATE RAILING SHALL BE ALUMINUM, ISLECRAFT, BY CRANE VEYOR CORP. OR APPROVED EQUAL.
2. COMPLETE RAILING SHALL BE ANODIZED, DURANODIC 100 HARDCOAT (MEDIUM BRONZE)
3. ALUMINUM IN CONTACT WITH CONCRETE SHALL RECEIVE ONE COAT ZINC CHROMATE PAINT.
4. ALL POSTS AND BALUSTERS SHALL BE VERTICAL

NOTE
THE STRUCTURAL SHEETS ARE NOTED S1 OF 58 FOR CROSS REFERENCING PURPOSES



DETAIL 1 S-2
SCALE 1½"=1'-0"



DETAIL 2 S-2
SCALE 1½"=1'-0"

ADDENDUM NO.2 AUGUST 24, 1981

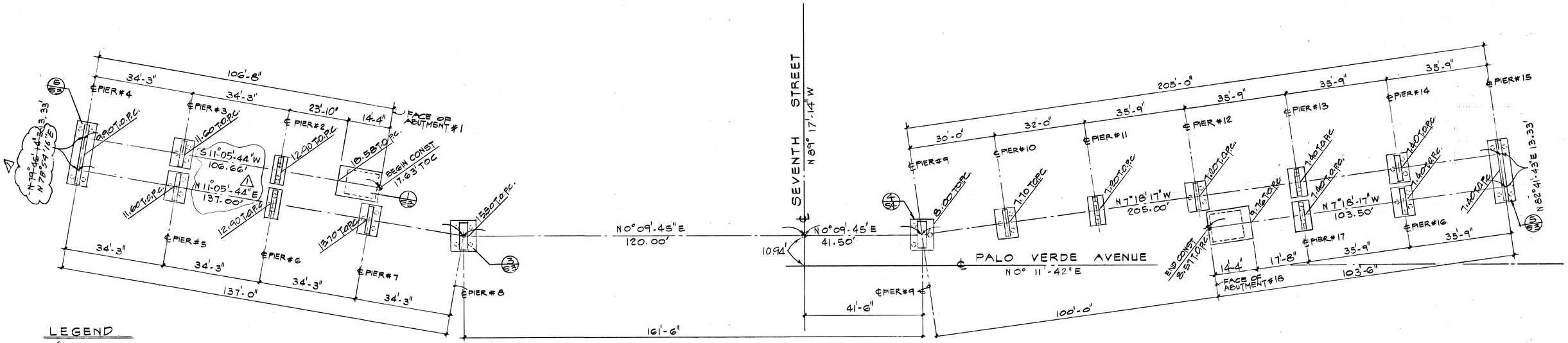
JN-791130-S2of58

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GRAPHIC SCALE	JOB No.	FIELD BOOK	PAGE	DRAWING No.
			SHEET 6 OF 13 SHEETS	B-3183A

△ 6/1/82

6/16 B-3183A

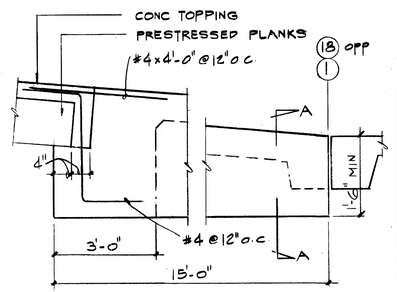


LEGEND

TOC / TOPC — TOP OF CONCRETE / TOP OF PILE CAP

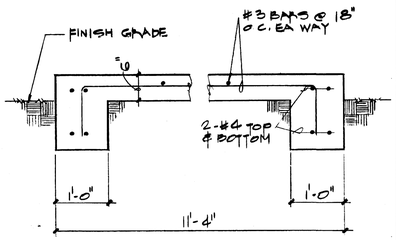
FOUNDATION PLAN

SCALE 1/16" = 1'-0"



SECTION

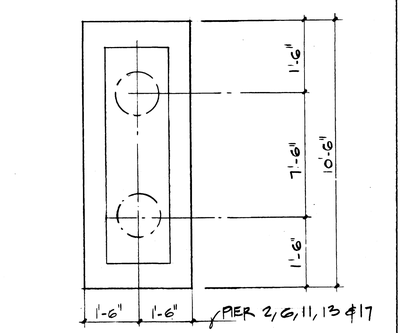
3/4" = 1'-0"



SECTION A-A

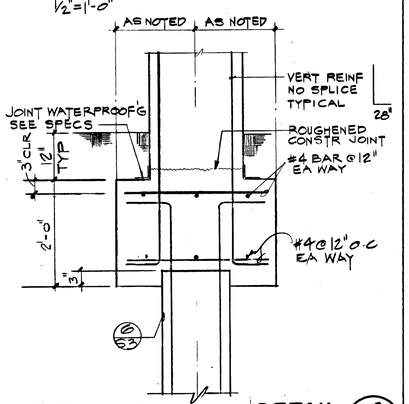
ABUTMENT # 1, 18

DETAIL 1 — SCALE 3/4" = 1'-0" — S-3



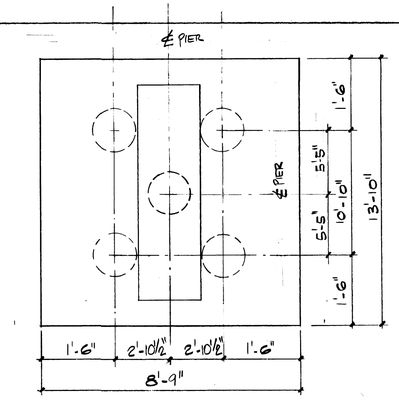
PLAN

1/2" = 1'-0"



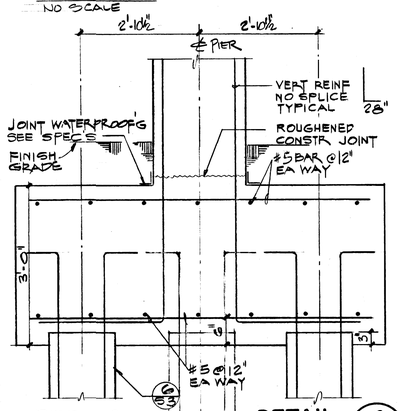
PIER # 2, 6, 11, 13, & 17

DETAIL 2 — SCALE 3/4" = 1'-0" — S-3



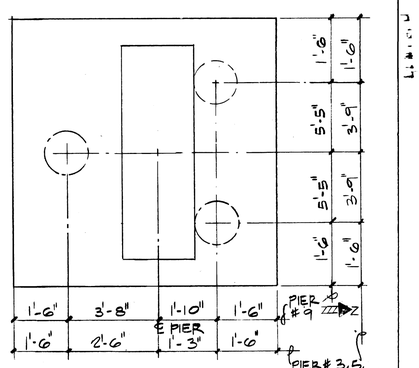
PLAN

NO SCALE



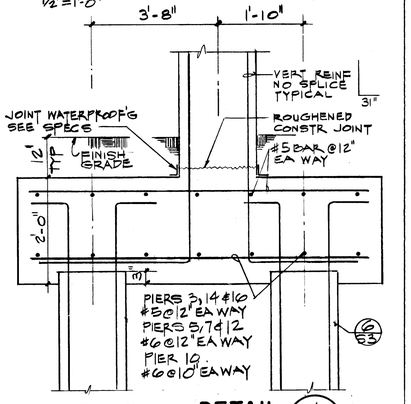
PIER #8

DETAIL 3 — SCALE NONE — S-3



PLAN

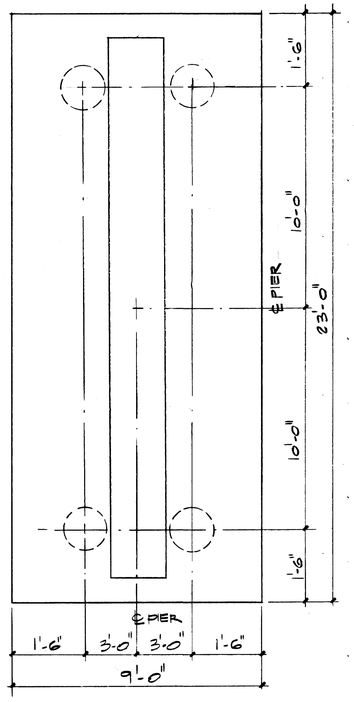
1/2" = 1'-0"



PIER # 3

5, 7, 10, 12, 14 & 16

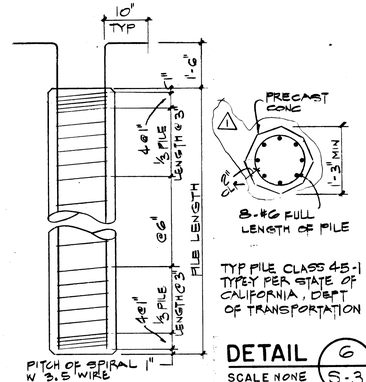
DETAIL 4 — SCALE 3/4" = 1'-0" — S-3



NOTE: SECTION SIM TO PIER # 8

PIER # 4 AND # 15

DETAIL 5 — SCALE 1/2" = 1'-0" — S-3



TYP PILE CLASS 4-5-1 TYPE Y PER STATE OF CALIFORNIA, DEPT OF TRANSPORTATION

DETAIL 6 — SCALE NONE — S-3

MINIMUM PILE TIP ELEVATION

LOCATION	CAPACITY	TIP ELEVATION
PIER # 2, 6, 11, 13, 17	30 TON	- 25'
PIER # 3, 14, 16	23 TON	- 20'
PIER # 4, 15	45 TON	- 30'
PIER # 5, 7, 12	33 TON	- 25
PIER # 8, 10	43 TON	- 30'
PIER # 9	40 TON	- 30'

NOTE: ALL TIP ELEV ARE FROM B.M. 1109 ELEV = + 16.86

ADDENDUM NO.2
AUGUST 24, 1981

⚠ NEW BEARING S-3

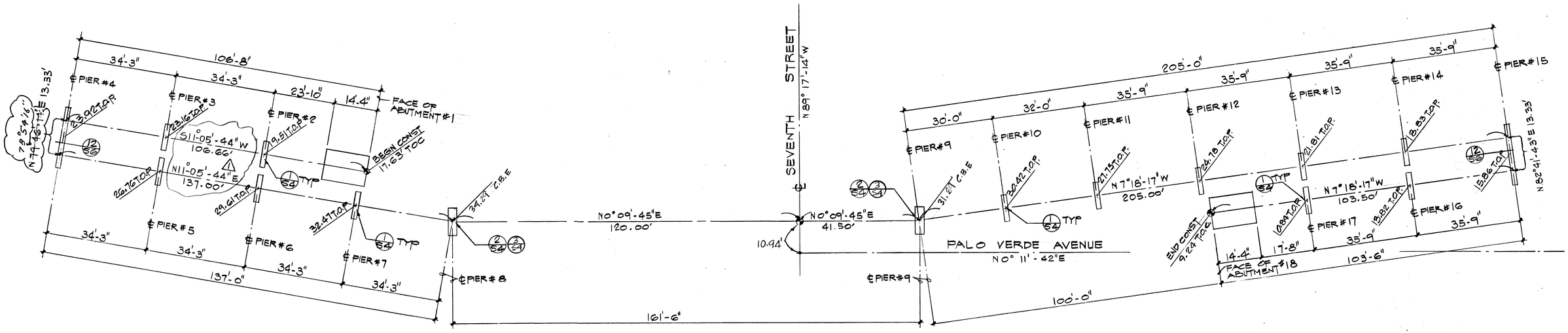
JN 79 1130 S-3 OF S.8

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GRAPHIC SCALE

JOB No.	FIELD BOOK	PAGE	SHEET 7 OF 13 SHEETS	DRAWING No. B-3183 A

7/16 B-3183A



NOTE
FOR PIERS # 2, 6, 11, 13 & 17 SEE (11/S2)
FOR PIERS # 3, 5, 7, 10, 12, 14 & 16 SEE (12/S6)

LEGEND

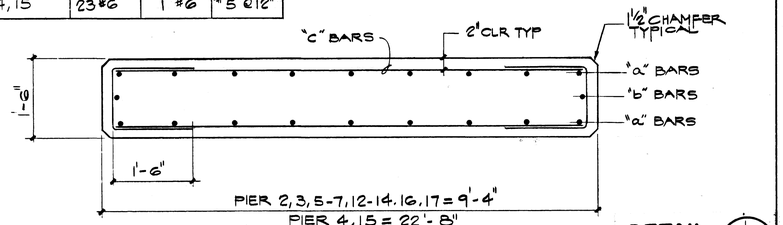
TOC / TOP — TOP OF CONCRETE / TOP OF PIER

C.B.E. — CONCRETE BEARING ELEV.

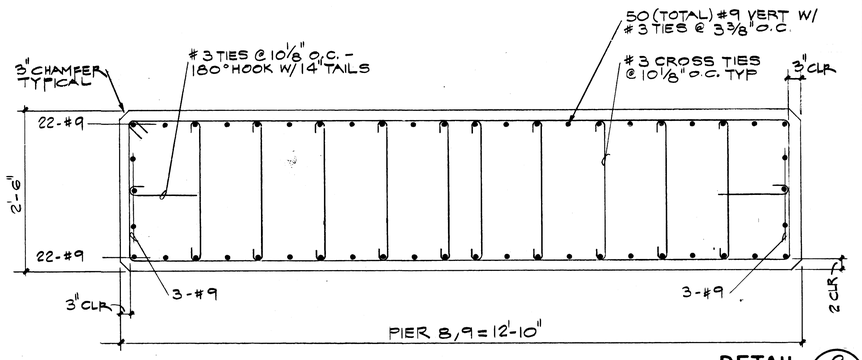
PIER PLAN
SC: 1/16" = 1'-0"

PIER TABLE			
PIER #	"a" BARS	"b" BARS	"c" BARS
10, 11	9-#8	1 #8	#5@12"
5.6.7.12.13	11-#6	1 #6	#5@12"
2.3.14.16.17	9-#5	1 #5	#5@12"
4, 15	23#6	1 #6	#5@12"

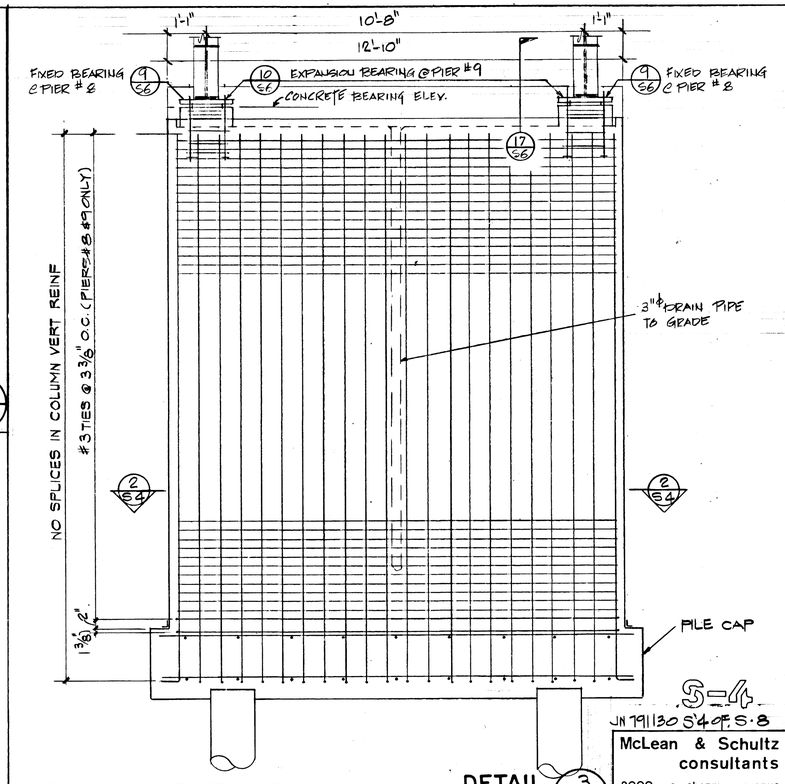
NOTE:
NO SPLICES ALLOWED IN VERT BARS



DETAIL 1 / S-4
SCALE 3/4" = 1'-0"

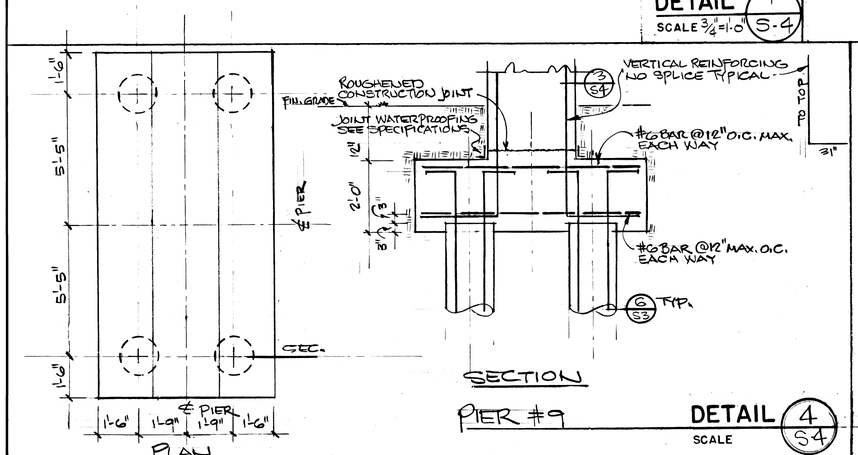


DETAIL 2
SCALE 3/4" = 1'-0"
S-4



TYPICAL PIER SECTION

DETAIL 3 / S-4
SCALE ½" = 1'-0"



DETAIL 4 / S4
SCALE

ADDENDUM NO.2 AUGUST 24, 1981

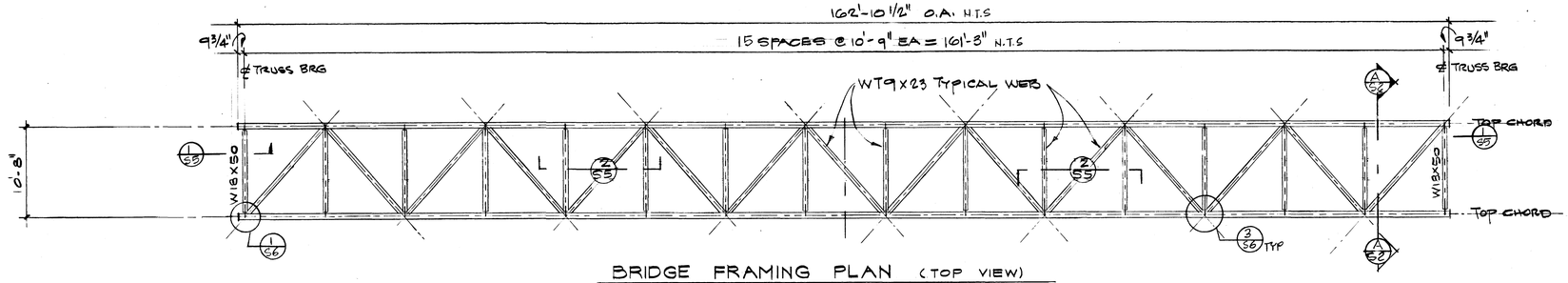
⚠ NEW BEARING

S-4
JN 791130 S4 OF S-8

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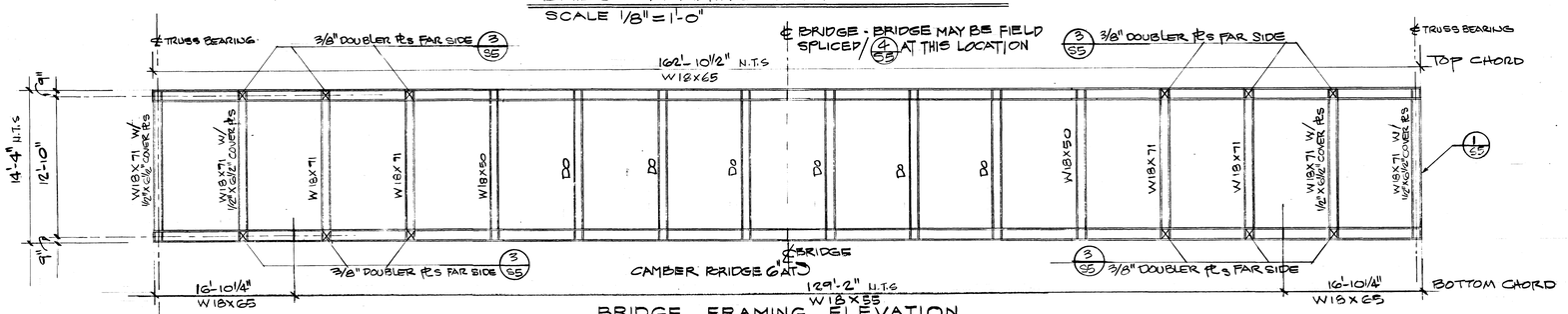
GRAPHIC SCALE	JOB No.	FIELD BOOK	PAGE	SHEET 8 OF 13 SHEETS	DRAWING No. B-3183 A

8/16 B-3183A



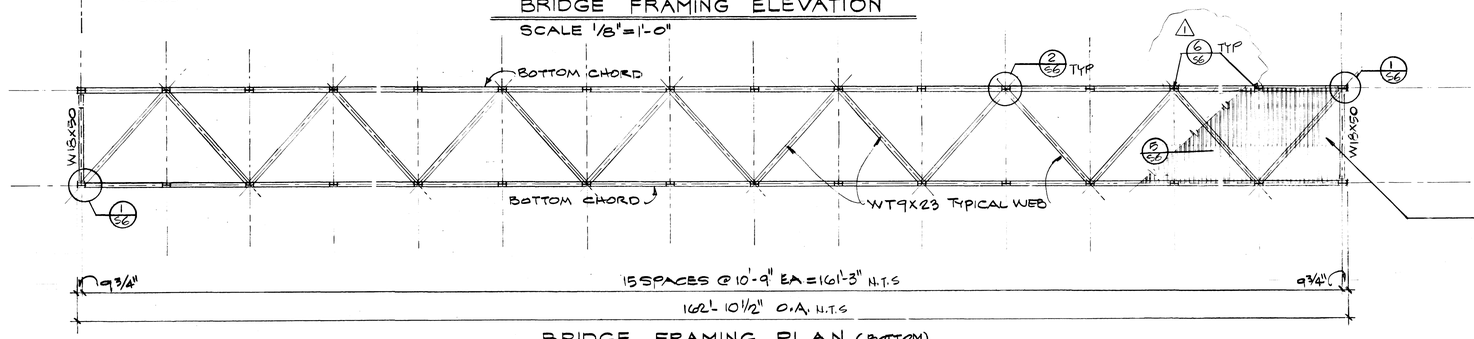
BRIDGE FRAMING PLAN (TOP VIEW)

SCALE 1/8" = 1'-0"



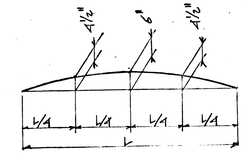
BRIDGE FRAMING ELEVATION

SCALE 1/8" = 1'-0"



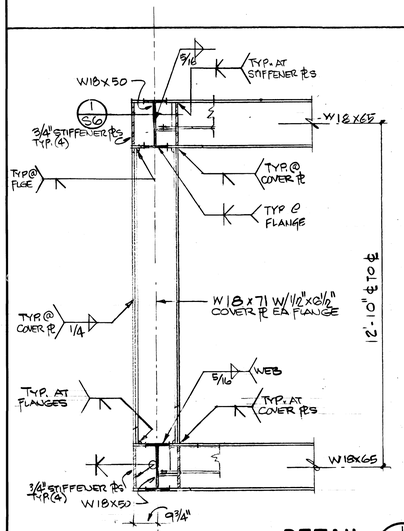
BRIDGE FRAMING PLAN (BOTTOM)

SCALE 1/8" = 1'-0"

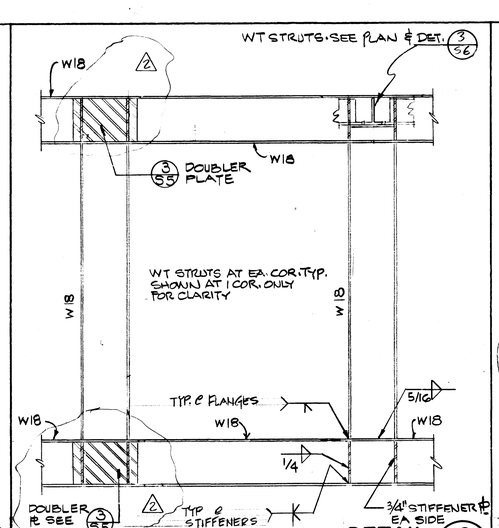


CAMBER DIAGRAM

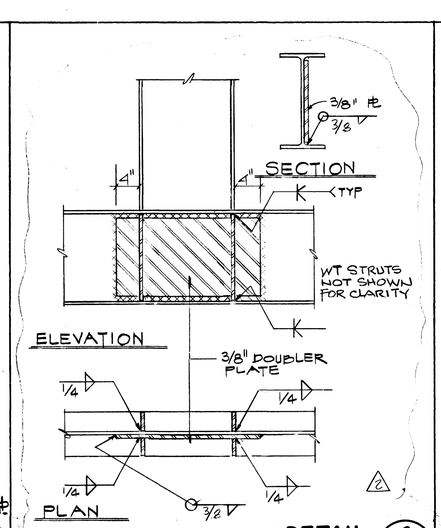
ADDENDUM NO.2 AUGUST 24, 1981



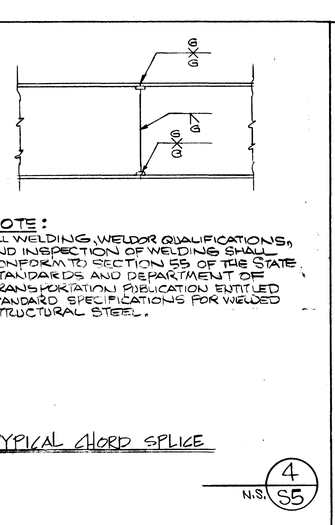
END BAY ELEVATION — DETAIL 1 — SCALE 1/2" = 1'-0" — S5



TYPICAL BAY ELEVATION — DETAIL 2 — SCALE 1/2" = 1'-0" — S5

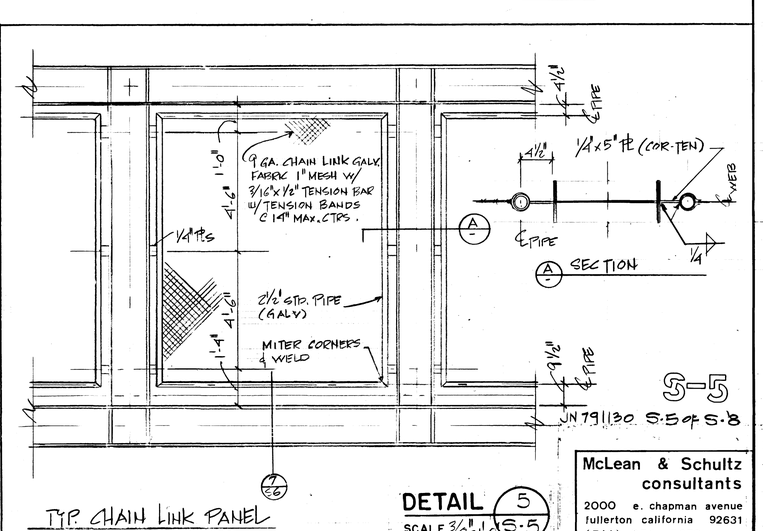


TYPICAL DOUBLER PL — DETAIL 3 — SCALE 1" = 1'-0" — S5



NOTE:
ALL WELDING, WELDOR QUALIFICATIONS, AND INSPECTION OF WELDING SHALL CONFORM TO SECTION 55 OF THE STATE STANDARDS AND DEPARTMENT OF TRANSPORTATION PUBLICATION ENTITLED STANDARD SPECIFICATIONS FOR WELDED STRUCTURAL STEEL.

TYPICAL CHORD SPLICE — N.S. — 4 — S5



TYP CHAIN LINK PANEL — DETAIL 5 — SCALE 3/3" = 1'-0" — S-5

5-5

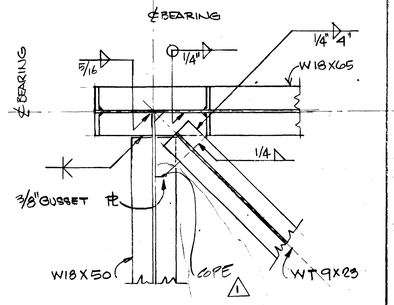
JN 79 1130 S-5 of S-8

△2 Change in Plate Size
△1 New Detail

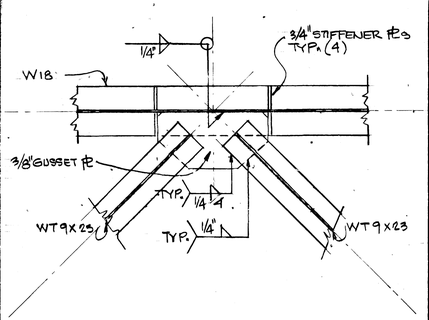
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fullerton california 92631
(714) 871-7370

GRAPHIC SCALE	JOB No.	FIELD BOOK	PAGE	SHEET 9 OF 13 SHEETS	DRAWING No. B-3183 A

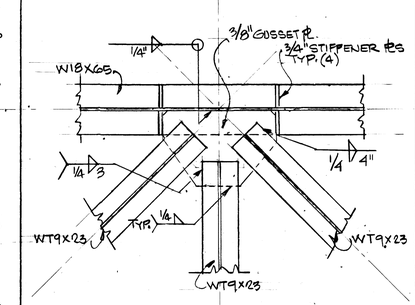
9/16 B-3183A



DETAIL 1 — SCALE 1"=1'-0" — S6

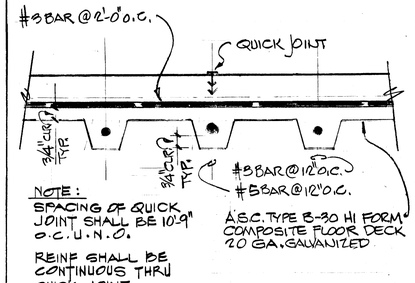


DETAIL 2 — SCALE 1"=1'-0" — S6

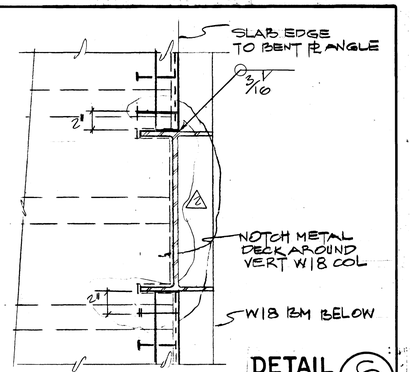


DETAIL 3 — SCALE 1"=1'-0" — S6

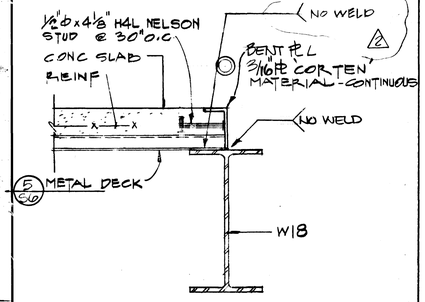
DETAIL 4 — SCALE — S6



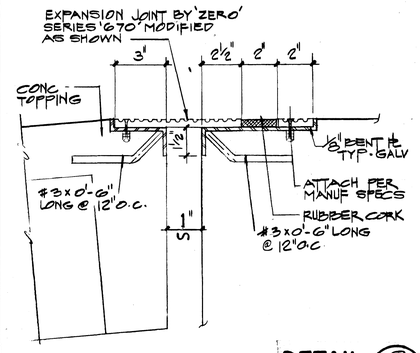
QUICK JOINT — DETAIL 5 — SCALE 3"=1'-0" — S6



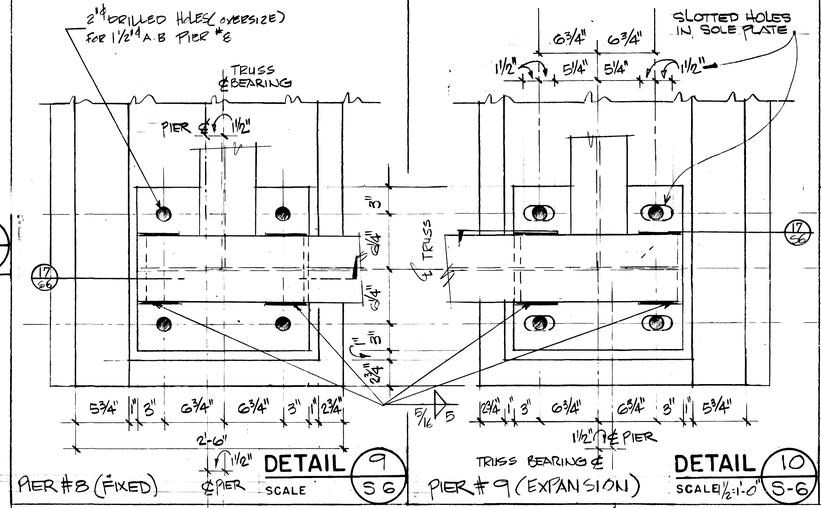
DETAIL 6 — SCALE 1½"=1'-0" — S6



SLAB EDGE — DETAIL 7 — SCALE 1½"=1'-0" — S6

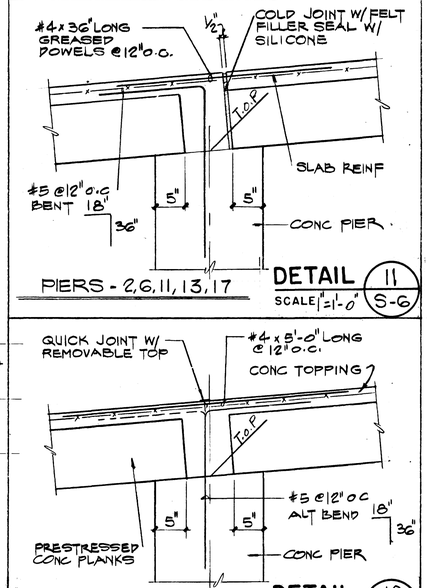


EXPANSION JOINT PIER # 8 AND 9 — DETAIL 8 — SCALE 3"=1'-0" — S6



DETAIL 9 — SCALE — S6

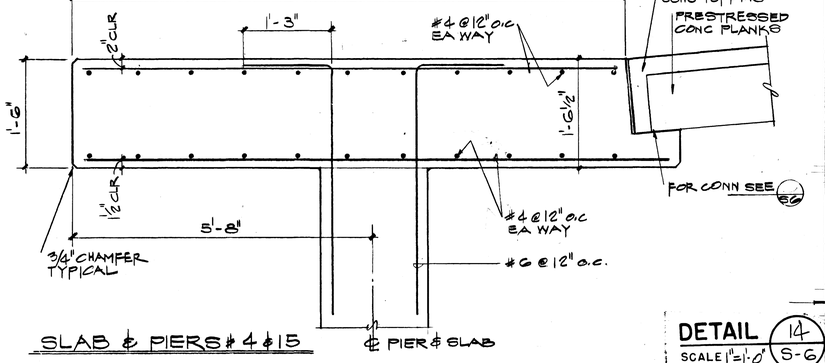
DETAIL 10 — SCALE 1½"=1'-0" — S-6



DETAIL 11 — SCALE 1"=1'-0" — S-6

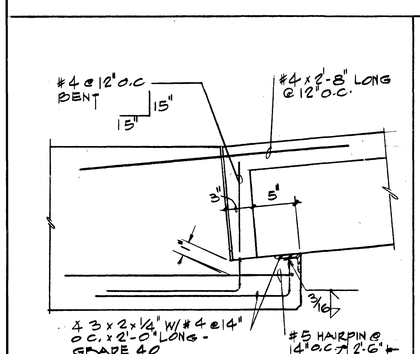
DETAIL 12 — SCALE 1"=1'-0" — S-6

DETAIL 13 — SCALE 1½"=1'-0" — S-6

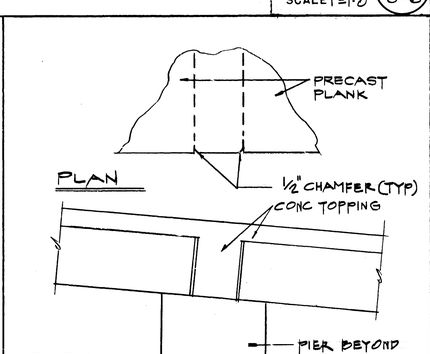


SLAB & PIERS # 4 & 15 — DETAIL 14 — SCALE 1"=1'-0" — S-6

DETAIL 17 — SCALE 1½"=1'-0" — S-6



RAMP LANDING @ PIER # 4, & 15 — DETAIL 15 — SCALE 1½"=1'-0" — S-6



DETAIL 16 — SCALE 1"=1'-0" — S-6

S-6

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ADDENDUM NO.2 AUGUST 24, 1981

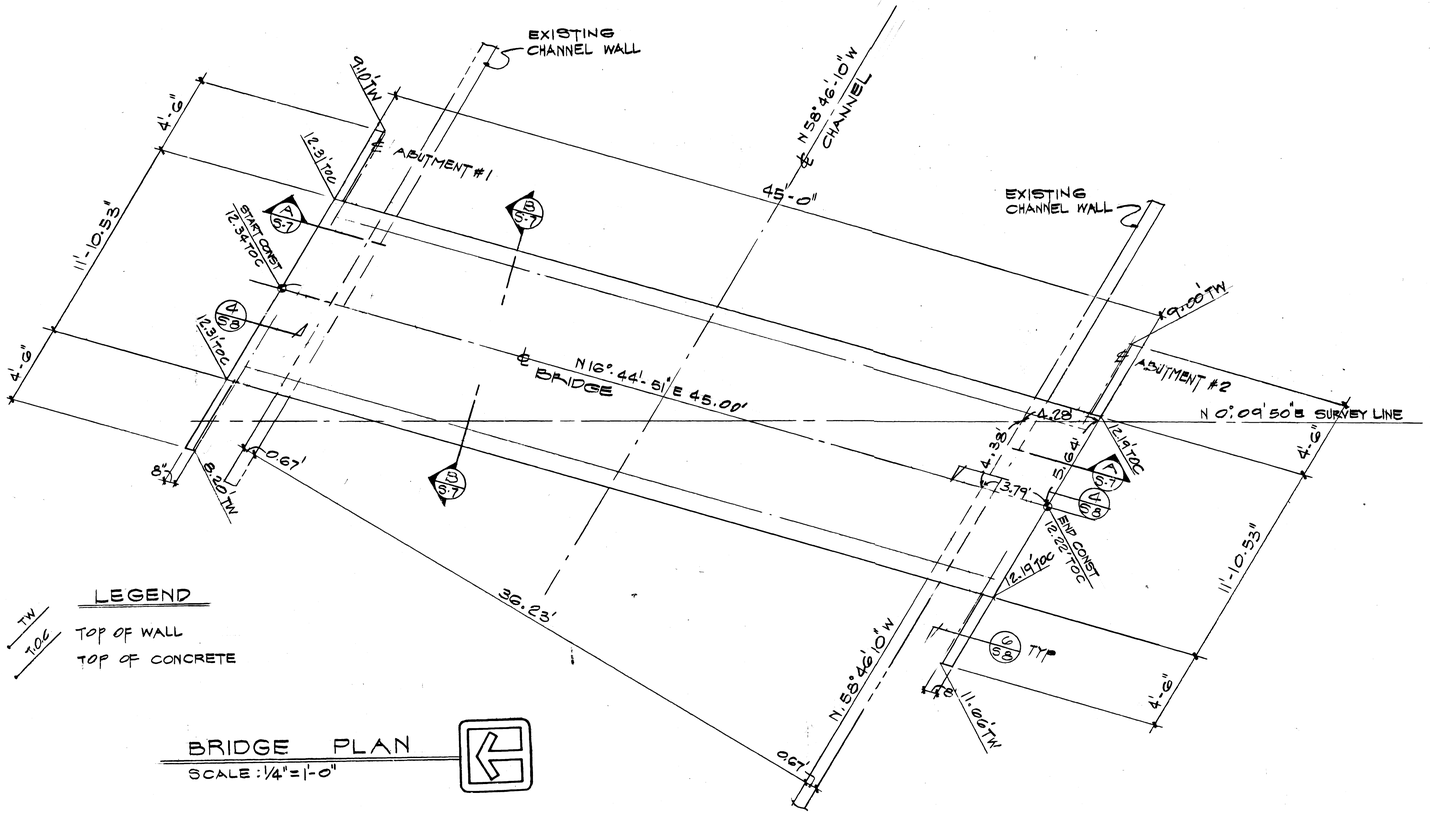
1 NEW DETAIL (3/S6) 2 Weld change

2 Gusset PL Change (1/S6)

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GRAPHIC SCALE	JOB No	FIELD BOOK	PAGE	SHEET 10 OF 13 SHEETS	DRAWING No. B-3183

10/16 B-3183

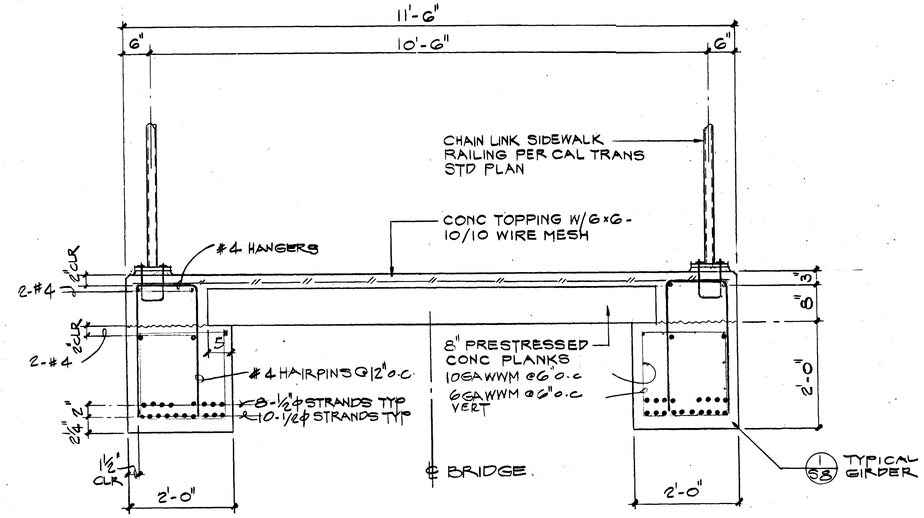


LEGEND

TW 7.06 — TOP OF WALL / TOP OF CONCRETE

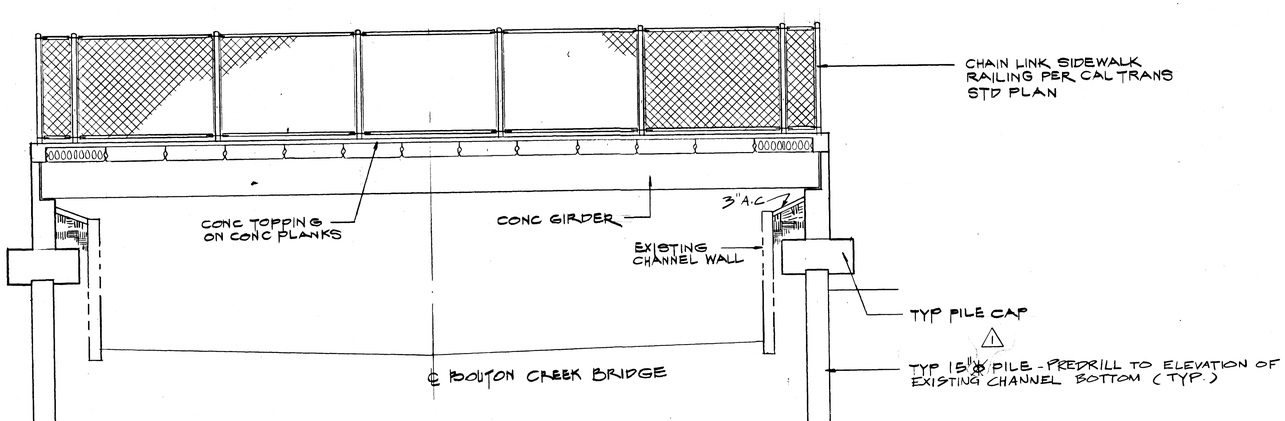
BRIDGE PLAN

SCALE: 1/4"=1'-0"



SECTION B / S-7

SCALE: 3/4"=1'-0"



SECTION A / S-7

SCALE: 1/4"=1'-0"

S-7

JN 791130 57 OF 58

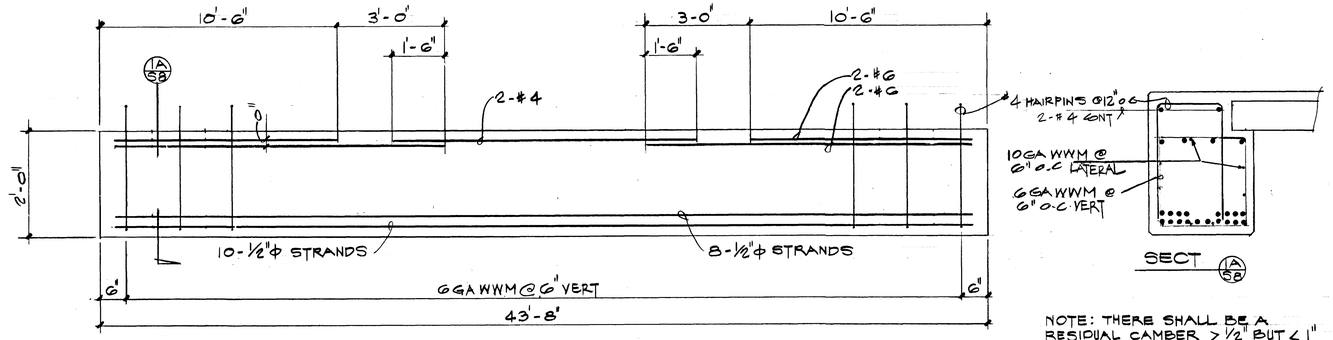
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ADDENDUM NO.2 AUGUST 24, 1981

⚠ Pile Change

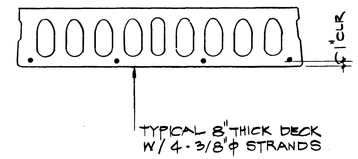
GRAPHIC SCALE	JOB No.	FIELD BOOK	PAGE	SHEET 11 OF 13 SHEETS	DRAWING No. B-3183A

11/16 B-3183A



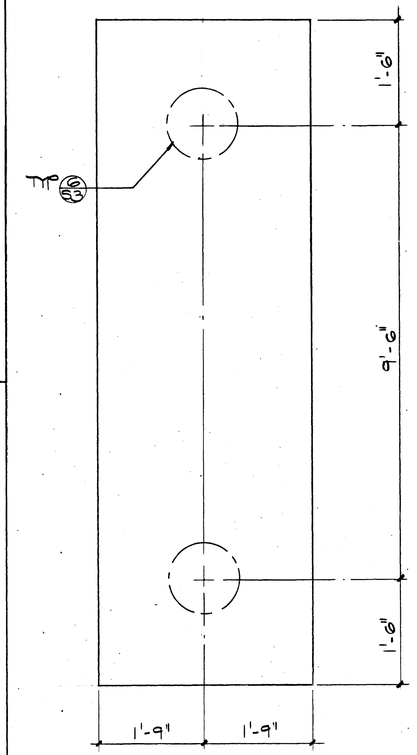
NOTE: THERE SHALL BE A RESIDUAL CAMBER > ½" BUT < 1" AFTER APPLYING ALL DEAD LOADS

GIRDER ELEVATION (1 / 5-8)

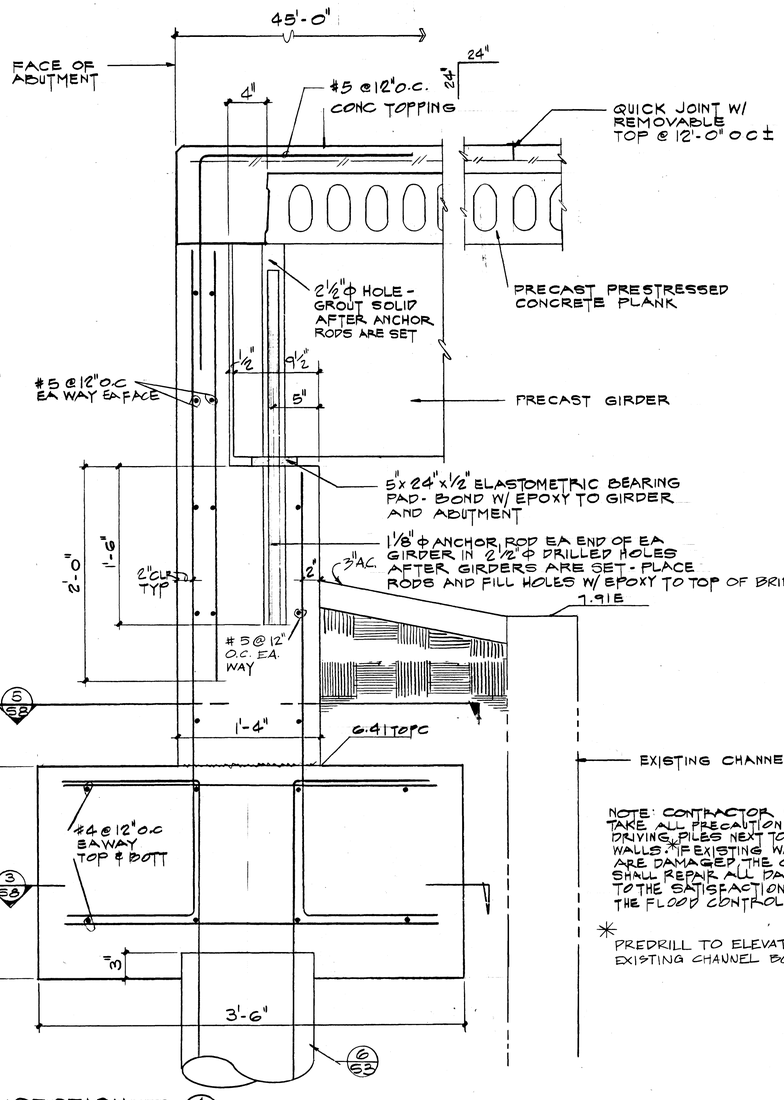


TYPICAL DECK (2 / 5-8)

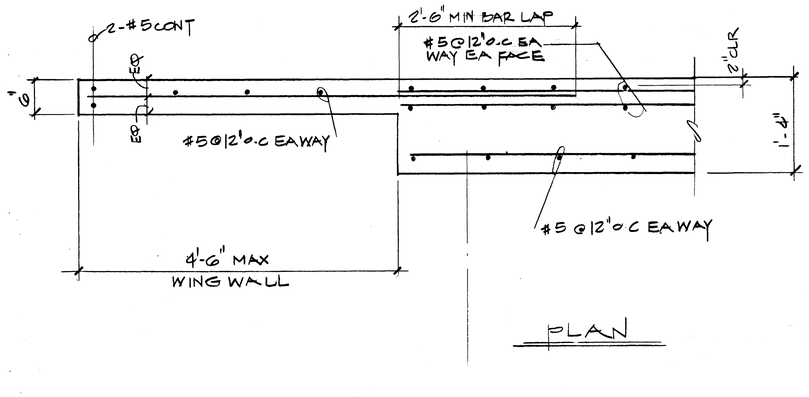
NOTE: PILE TIP ELEVATION = (-34'-0")
TOP OF PILE CAP ELEV = (+6.41')



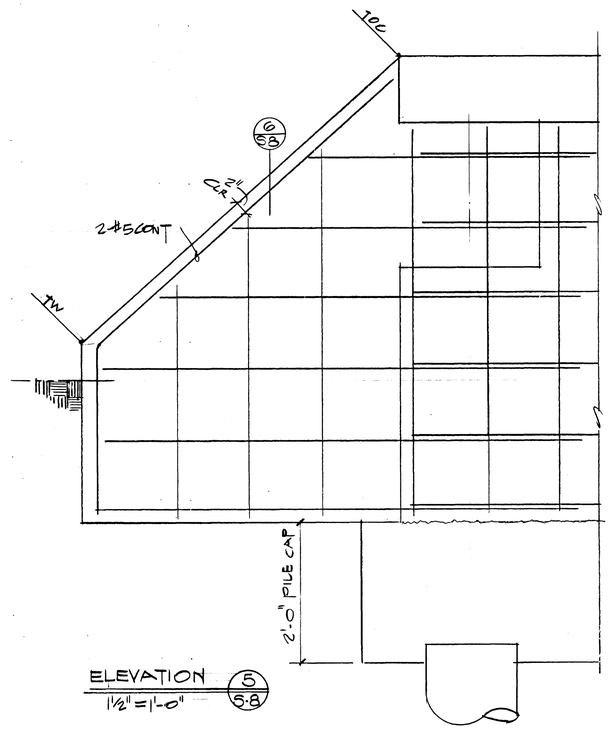
TYPICAL PILE LAYOUT (3 / 5-8)



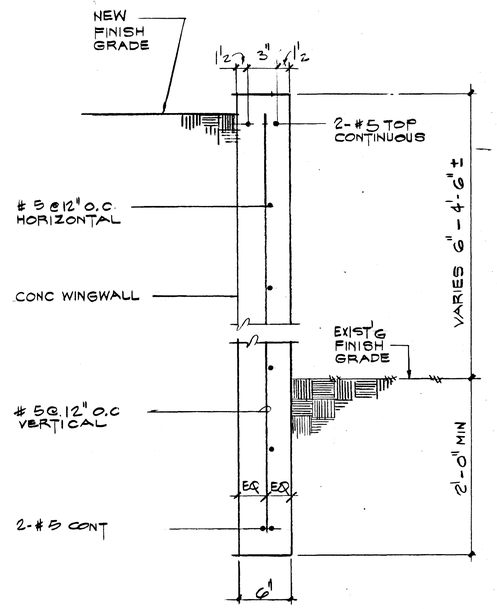
SECTION (4 / 5-8) 1½"=1'-0"



PLAN



ELEVATION (5 / 5-8) 1½"=1'-0"



SECTION (6 / 5-8) =1'-0"

ADDENDUM NO.2
AUGUST 24, 1981

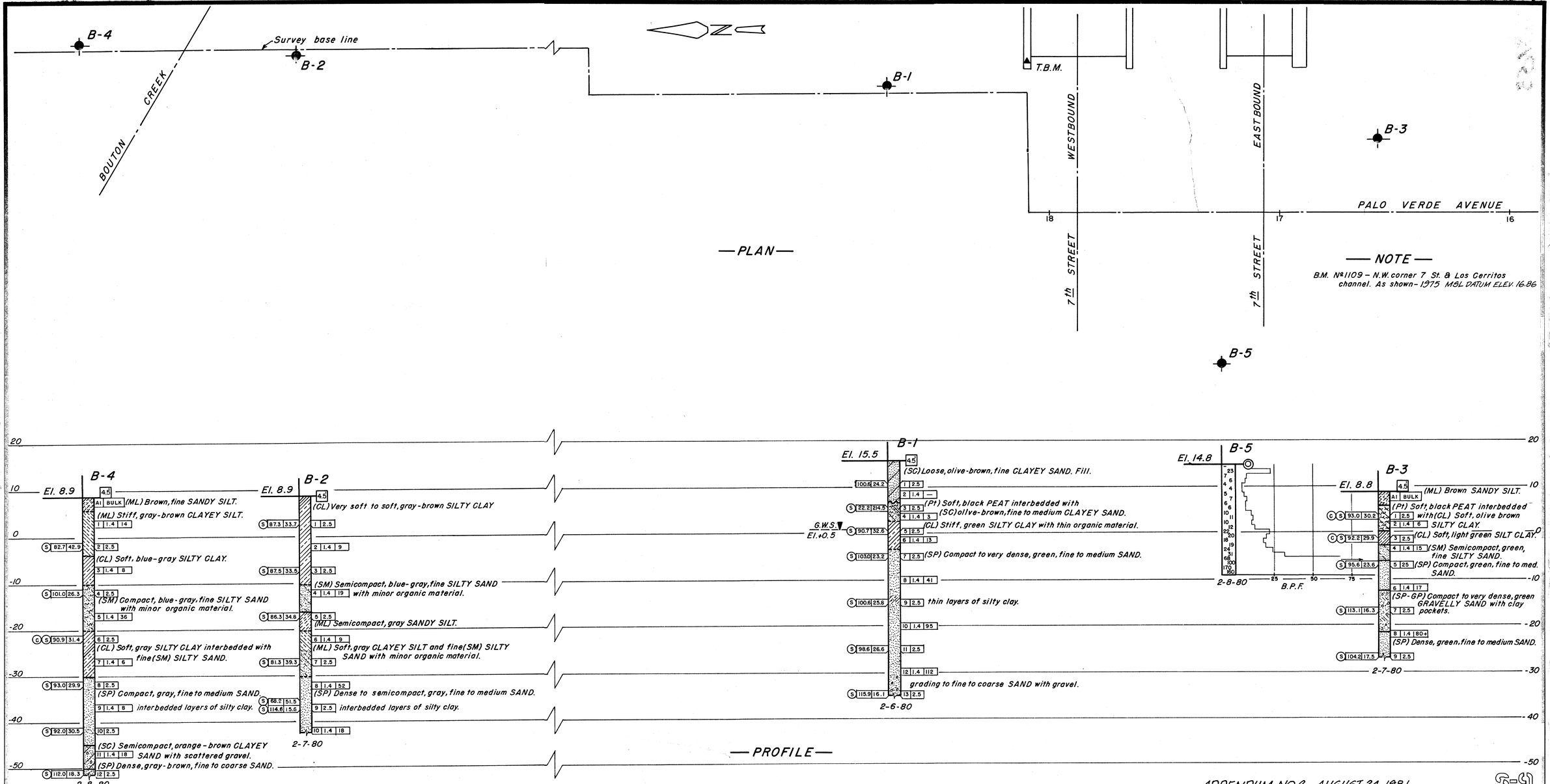
5-8

JN 791130 S8OF58

McLean & Schultz consultants
2000 e. chapman avenue
fullerton california 92631
(714) 871-7370

GRAPHIC SCALE	JOB No.	FIELD BOOK	PAGE	SHEET 12 OF 13 SHEETS	DRAWING No. B-3183A

12/16 B-3183A



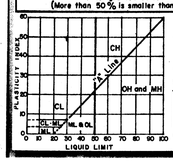
ADDENDUM NO.2 AUGUST 24, 1981

S-9

LEGEND OF EARTH MATERIALS

UNIFIED SOIL CLASSIFICATION

Pt	OH	CH	MH	OL	CL	ML	SC	SM	SP	SW	GC	GM	GP	GW
Highly organic soils	Silts and clays Liquid limit greater than 50			Silts and clays Liquid limit less than 50			Sands with fines >12% fines		Clean sands <5% fines		Gravels with fines >12% fines		Clean gravels <5% fines	
							Sands- more than 50% of coarse fraction is smaller than №4 sieve.				Gravels- more than 50% of coarse fraction is larger than №4 sieve.			
Fine grained soils (More than 50% is smaller than №200 sieve)							Coarse grained soils (More than 50% is larger than №200 sieve)							



LABORATORY CLASSIFICATION CRITERIA

GW and SW - $C_u = \frac{D_{60}}{D_{10}}$ greater than 4 for GW & 6 for SW; $C_c = \frac{(D_{30})^2}{D_{60} \times D_{10}}$ between 1 & 3.

GP and SP - Clean gravel or sand not meeting requirements for GW and SW.

GM and SM - Atterberg limits below "A" line or P.I. less than 4.

GC and SC - Atterberg limits above "A" line with P.I. greater than 7.

Fines (silt or clay)	Fine sand	Medium sand	Coarse sand	Fine gravel	Coarse gravel	Cobbles	Boulders
Sieve sizes	#200	#40	#10	#4	3/4"	3"	12"

Classification of earth materials shown on this sheet is based on field inspection and should not be construed to imply laboratory analysis unless so stated.

MATERIAL SYMBOLS

- Gravel
- Sand
- Silt
- Clay
- Sandy clay or clayey sand
- Sandy silt or silty sand
- Silty clay or clayey silt
- Peat or organic matter
- Fill material
- Shale
- Sandstone
- Limestone
- Metamorphic rock
- Igneous rock

CONSISTENCY CLASSIFICATION FOR SOILS

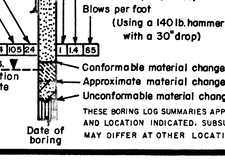
According to the Standard Penetration Test

№ of blows	Granular	Cohesive
0-5	Very loose	Very soft
6-10	Loose	Soft
11-20	Semicompact	Stiff
21-35	Compact	Very stiff
36-70	Dense	Hard
>70	Very dense	Very hard

LEGEND OF BORING OPERATIONS

- Plan of any boring
- Rotary boring
- Diamond core boring
- Auger boring
- Sample boring
- Jet boring
- Test pit
- 2¼" Cone penetrometer
- 2½" Cone penetrometer

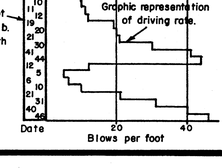
ROTARY BORING



Sample number
Size of sample (inches)
Blows per foot (Using a 140 lb. hammer with a 30" drop)
Conformable material change
Approximate material change
Unconformable material change

THESE BORING LOG SUMMARIES APPLY ONLY AT THE TIME AND LOCATION INDICATED. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND TIMES.

PENETRATION TEST



MOORE & TABER
CONSULTING ENGINEERS AND GEOLOGISTS
Approved Bernard D. Taber
REGISTERED CIVIL ENGINEER No. 25405
JOB No. 179-78

BERRYMAN & STEPHENSON INC.

PEDESTRIAN/BICYCLE BRIDGES

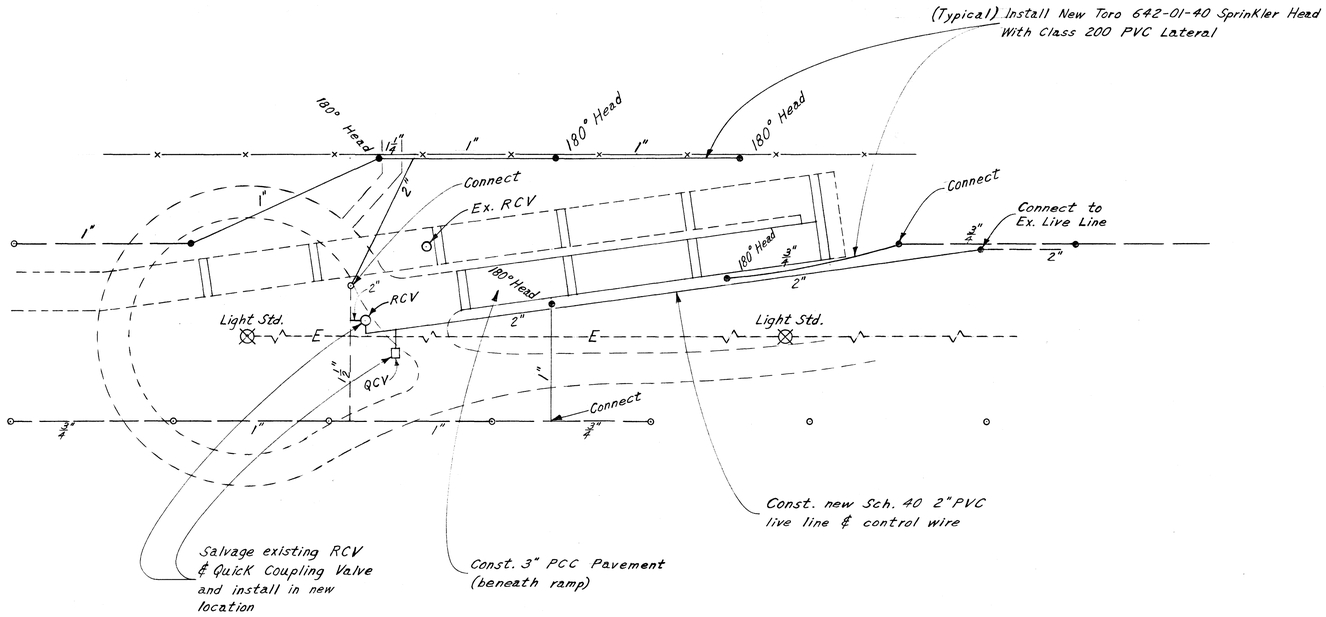
CITY OF LONG BEACH

LOG OF TEST BORINGS

Scale Horiz. 1"=20 Vert. 1"=10 | Date 3-11-80 | SHEET 13 OF 13 | By A.L.S. | Check by P.J.A. | Drawing B-3183 A

GB 135 002

13/16 B-3183A



N

SCALE 1"=20'

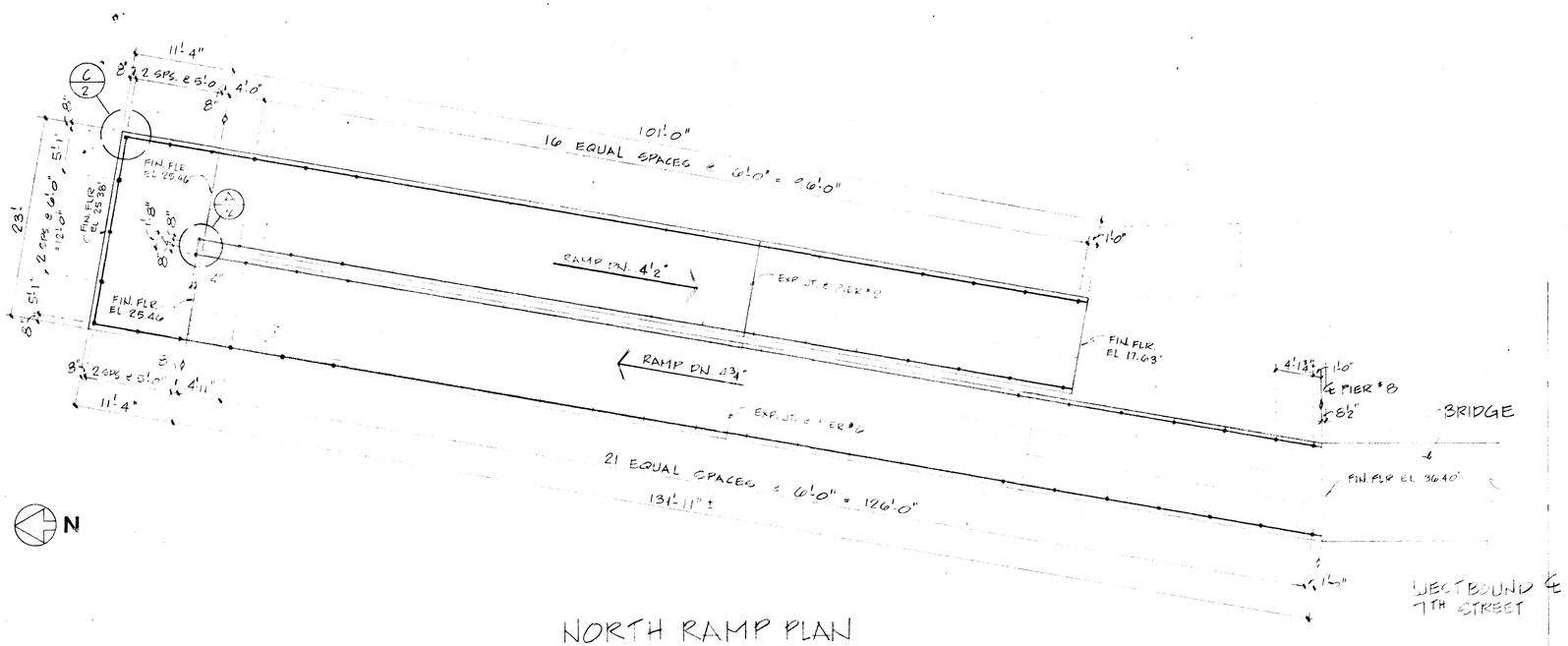
Notes:

1. Remove all Debris and Weeds, Level Area and Reseed Lawn.
2. All Work to be done in Accordance with Applicable Provisions of the Std. Specifications.

SPRINKLER SYSTEM
AND WALK CONSTRUCTION
FOR
SEVENTH STREET
BICYCLE/PEDESTRIAN BRIDGE
&
BOUTON CREEK BRIDGE
AT
LOS CERRITOS CHANNEL
IN THE
CITY OF LONG BEACH

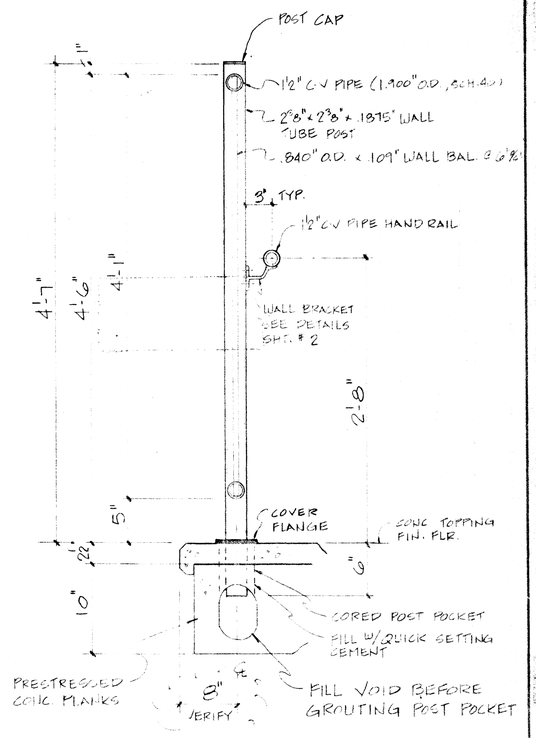
SHEET 14 OF 14	DWG. NO. B-3183A

14/16 B-3183A



NORTH RAMP PLAN

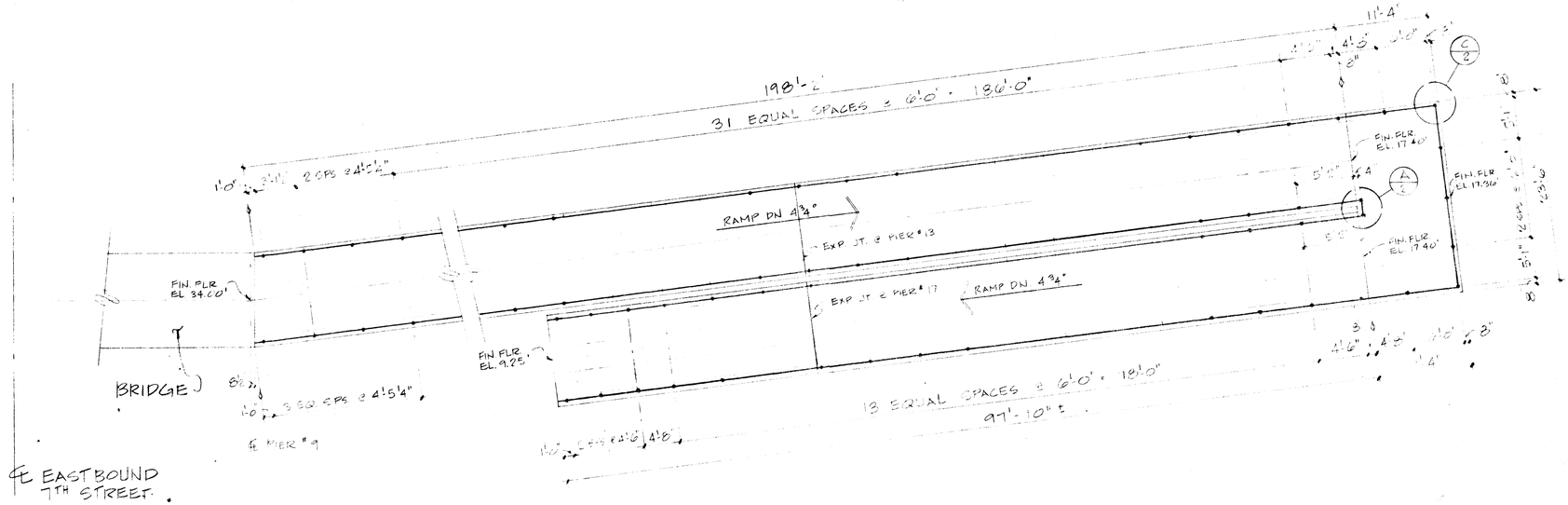
3/16"=1'-0"



TYP. RAIL SECTION

REF. SHT. #S-2 & S-6

1½"=1'-0"



SOUTH RAMP PLAN

3/16"=1'-0"

NOTES:

1. PIPE HANDRAILS SHOWN ARE ALUMINUM "C-V PIPE RAIL" AS MANUFACTURED BY CRANEVEYOR CORP. OF SOUTH EL MONTE, CALIFORNIA.
2. ALL COMPONENTS, POSTS AND HARDWARE ARE STANDARD "C-V PIPE RAIL" PARTS ACCORDING TO PART NUMBERS LISTED.
3. ALL RAILS, POSTS, END CAPS, BRACKETS, AND FITTINGS ARE EXTRUDED ALUMINUM ALLOY 6063-T6. SPLICE AND REINFORCING SLEEVES ARE DRAWN ALUMINUM TUBING, ALLOY 6063-T832. FASTENERS WHERE USED ARE TYPE 300 STAINLESS STEEL.
4. CONNECTING RAILS (HORIZONTAL & SLOPED) ARE CUT TO LENGTH IN FIELD BY INSTALLERS TO FIT THE EXACT CONDITIONS AND DIMENSIONS, AS REQUIRED.
5. MATERIAL ANODIZED ARCHITECTURAL CLASS I, ALUMINUM ASSOCIATION DESIGNATION AA-M12-C22-A41 (215-R1 CLEAR).
6. ALUMINUM IN CONTACT WITH CONCRETE SHALL RECEIVE ONE COAT ZINC CHROMATE PRIMER

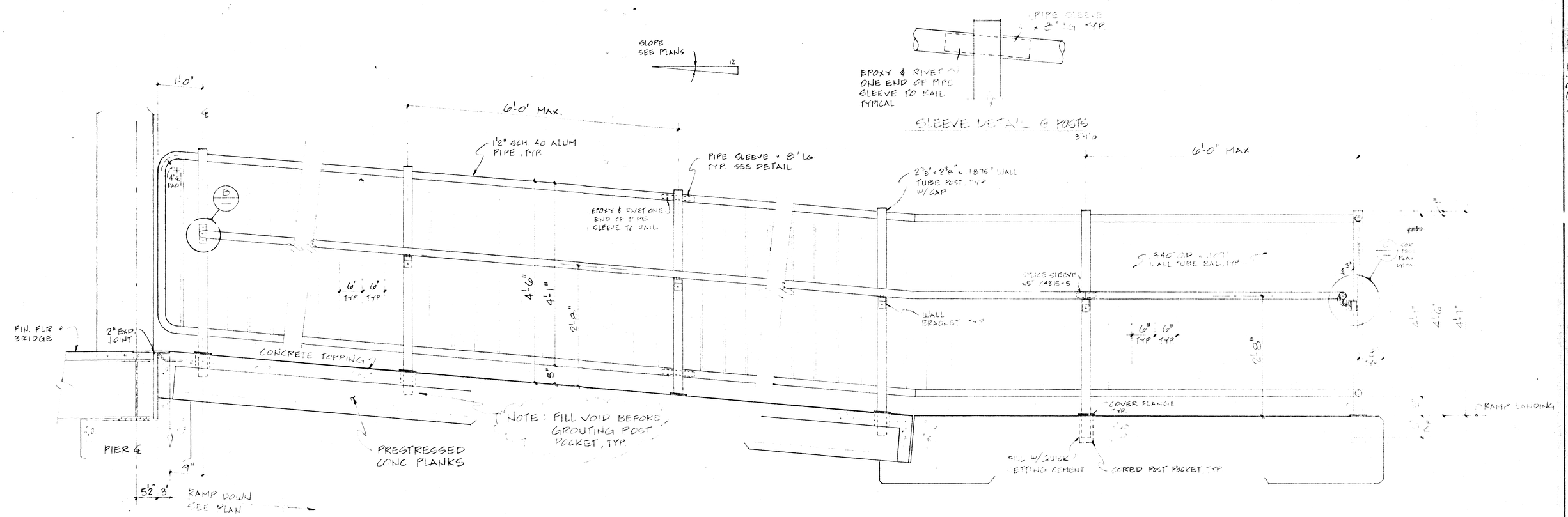
NOTICE
THIS DRAWING AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CRANEVEYOR CORP. THEY MAY NOT BE USED, COPIED, OR DISCLOSED TO ANY PERSON WITHOUT THE PRIOR WRITTEN CONSENT OF CRANEVEYOR CORP.

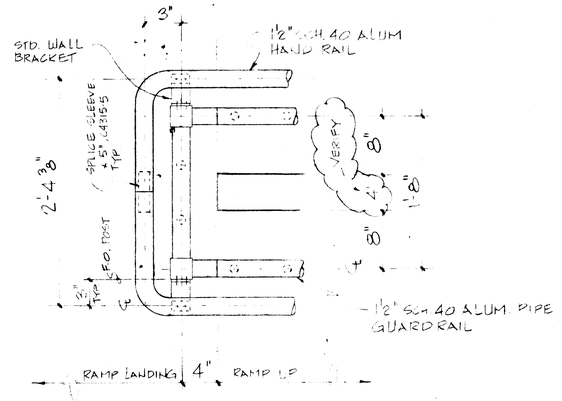
ADVANCO CONSTRUCTORS, INC.
7TH ST. BICYCLE & PEDESTRIAN BR.
C-V PIPE RAIL - RAMP SECTION

CRANEVEYOR CORP.
1524 NO. POTRERO AVE. • (213)442-1524 • SOUTH EL MONTE, CALIF. 91733

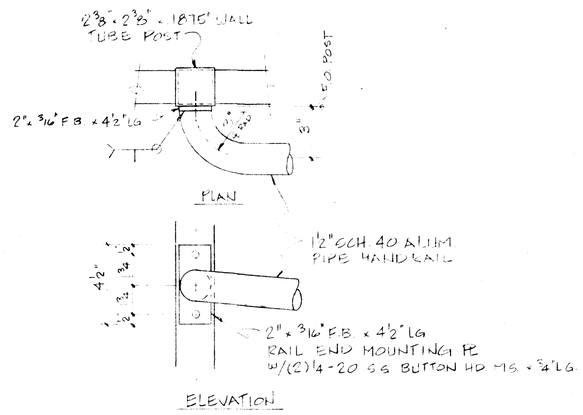
DR	DATE	APPROVED
SCALE		
JOB NO. 3624		SHT. NO

15/16 B-31833A

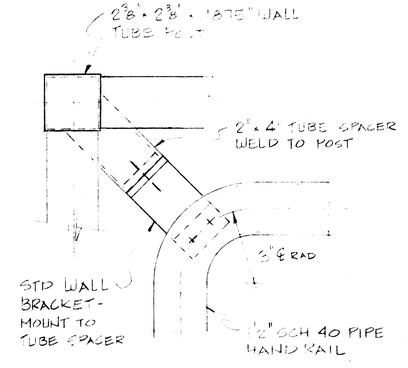




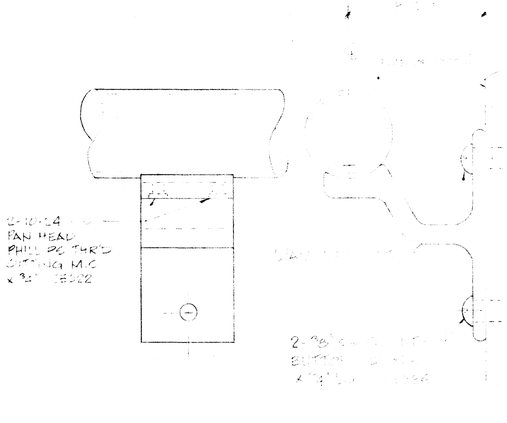
A/1 COR. DETAIL
1½"=1'-0"



B/— RAIL END MOUNTING PL
6 END POSTS
3"=1'-0"



C/1 COR. POST DETAIL
PLAN
3"=1'-0"



WALL BRACKET DETAIL

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CRANEVEYOR CORP.
1524 NO. POTRERO AVE. • (213)443-1534 • SOUTH EL MONTE, CALIF. 91733

DR | DATE | APPROVED
SCALE
JOB NO. | SHT. NO.

TOTAL SHTS: 29

16/16 B-3183A

CITY OF LONG BEACH

SIGNATURE GATEWAY EAST

09 JAN 2024

Selbert Perkins Design.

Selbert Perkins Design
432 Culver Blvd.
Playa del Rey, CA 90293
T 310.822.5223
selbertperkins.com

TYPOGRAPHY

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

GOTHAM BOLD

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

GOTHAM MEDIUM

COLOR PALETTE



P1
PAINT COLOR:
MP03547, OCHO RIOS BLUE
PANTONE MATCH:
PMS 2955C

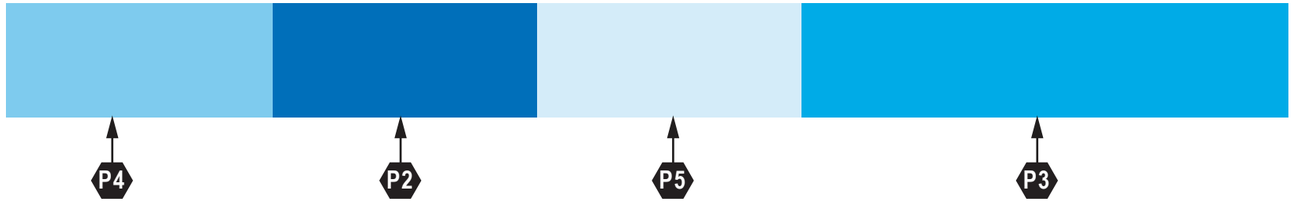
P2
PAINT COLOR:
MP01992, BLUE FLAG
PANTONE MATCH:
PMS 2935C

P3
PAINT COLOR:
MP09133, PROCESS CYAN U
PANTONE MATCH:
PMS Process Blue C

P4
PAINT COLOR:
MATCH TO PMS 298C
PANTONE MATCH:
PMS 298C

P5
PAINT COLOR:
MP07490, JET STREAM
PANTONE MATCH:
PMS 2707C

STRIPE DETAIL





Selbert Perkins Design.

PROJECT
CITY OF LONG BEACH
SIGNAGE & WAYFINDING

DATE
09 JAN 2024

TITLE
SIGNATURE GATEWAY EAST



Selbert Perkins Design.

PROJECT
CITY OF LONG BEACH
SIGNAGE & WAYFINDING

DATE
09 JAN 2024

TITLE
UNPAINTED BRIDGE OPTION

DETAIL DRAWINGS





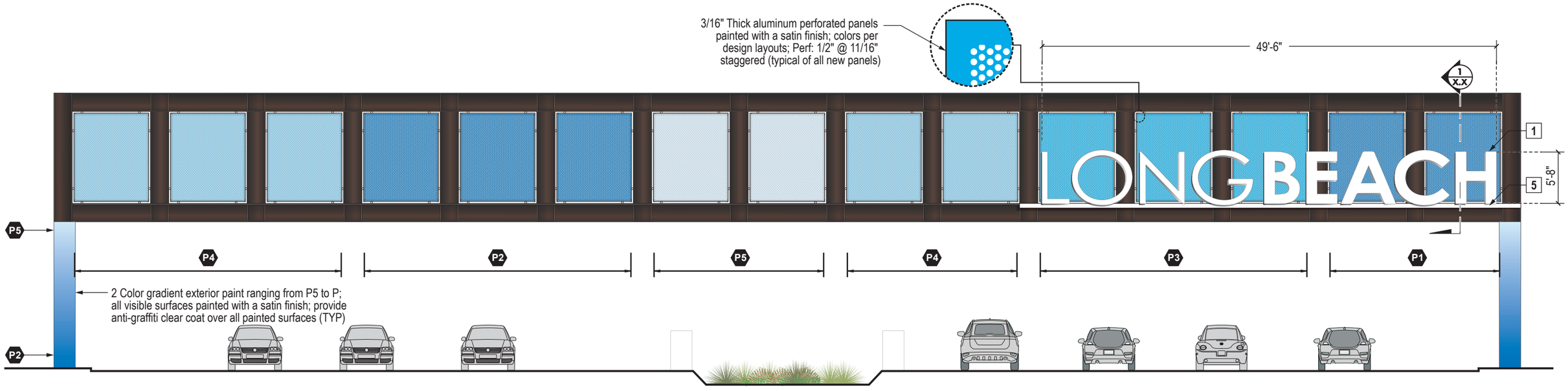



Selbert Perkins Design.

PROJECT
CITY OF LONG BEACH
SIGNAGE & WAYFINDING

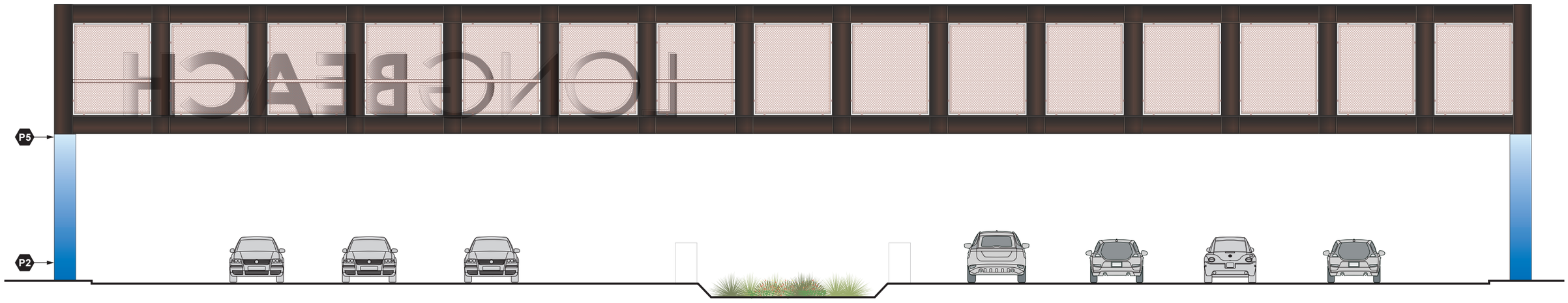
DATE
09 JAN 2024

TITLE
SIGNATURE GATEWAY EAST – EXISTING CONDITIONS



1 FRONT ELEVATION (EAST FACING)

Scale: 3/32" = 1'- 0"



2 BACK ELEVATION (WEST FACING)

Scale: 3/32" = 1'- 0"

Selbert Perkins Design.

PROJECT
CITY OF LONG BEACH
SIGNAGE & WAYFINDING

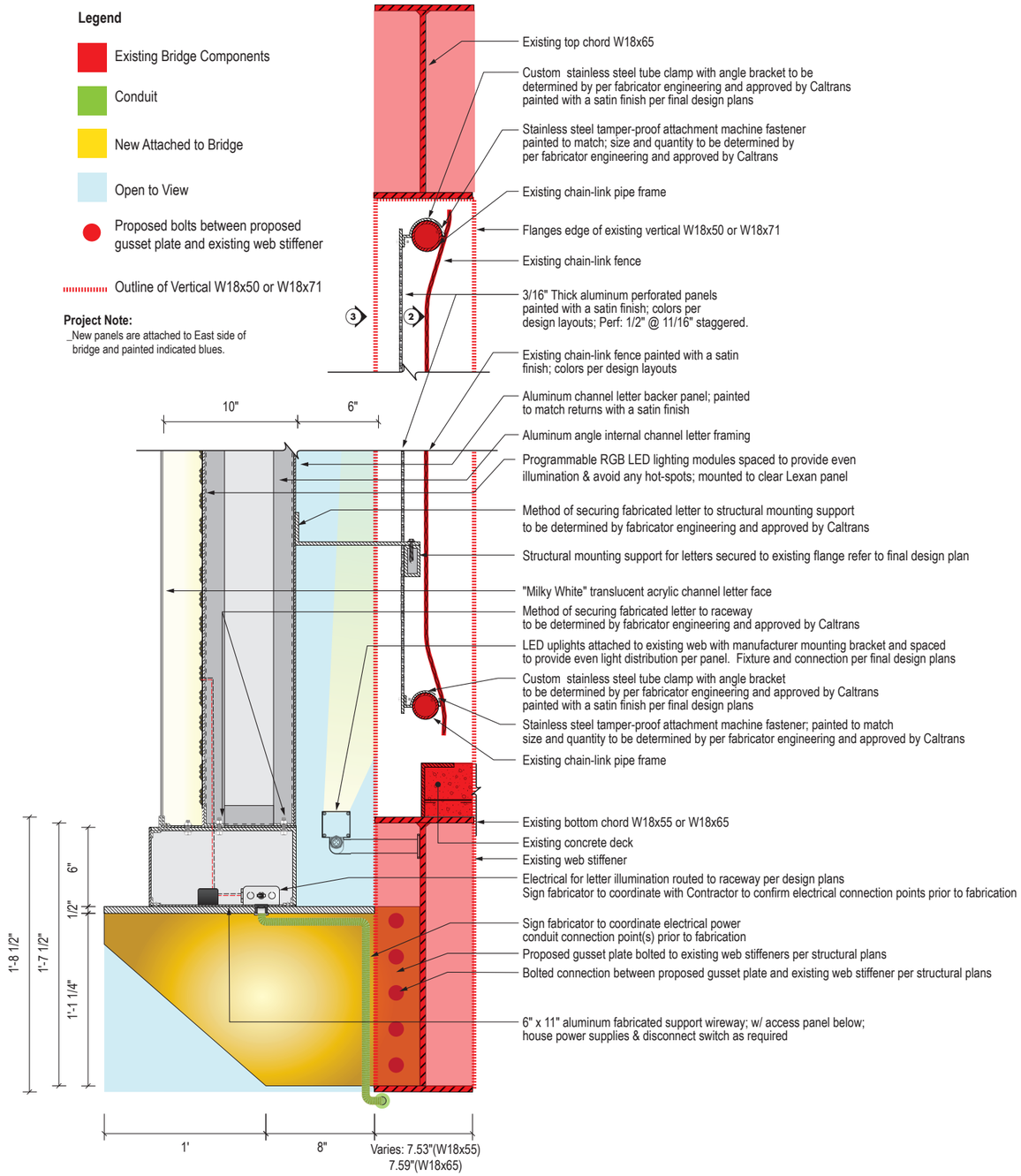
DATE
09 JAN 2024

TITLE
SIGNATURE GATEWAY EAST

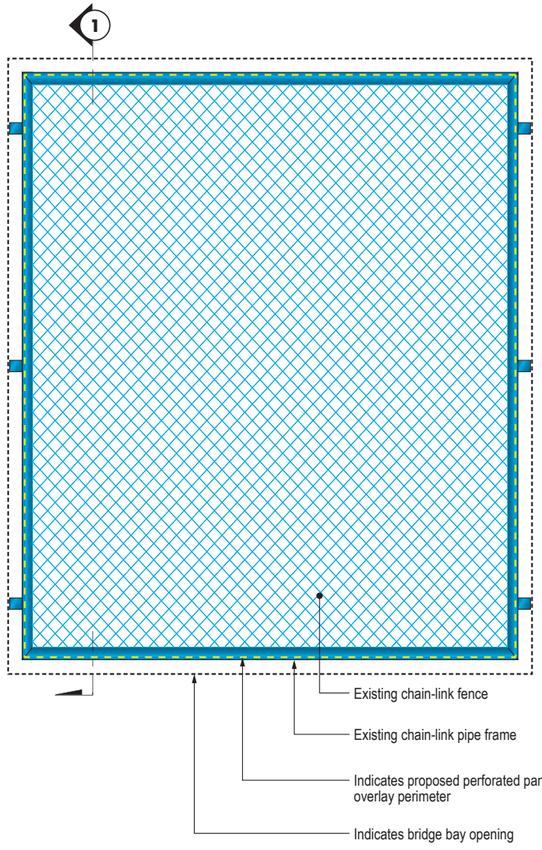
Legend

- Existing Bridge Components
- Conduit
- New Attached to Bridge
- Open to View
- Proposed bolts between proposed gusset plate and existing web stiffener
- Outline of Vertical W18x50 or W18x71

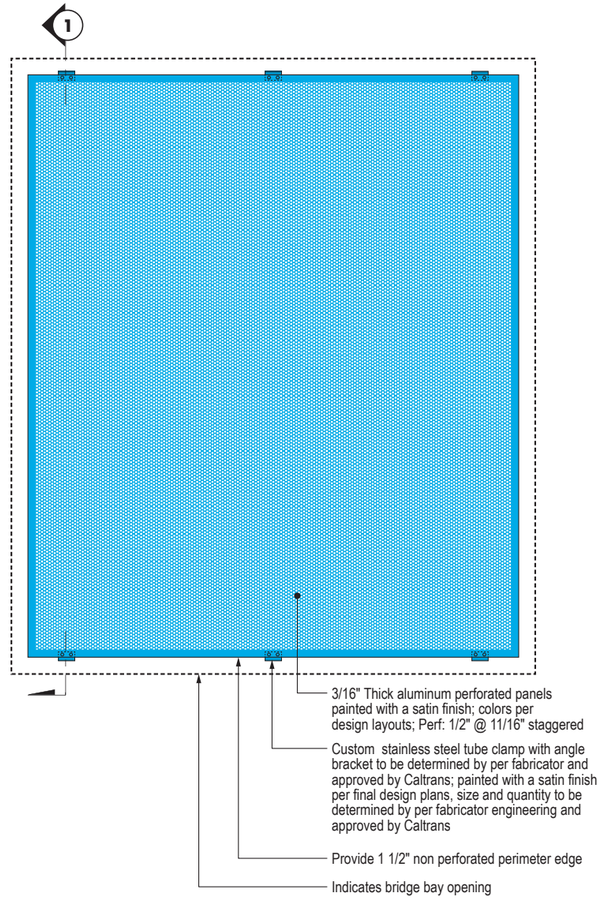
Project Note:
_New panels are attached to East side of bridge and painted indicated blues.



1 LETTER & PERFORATED PANEL SECTION DETAIL
Scale: 1-1/2" = 1'- 0"



2 EXISTING FENCE PANEL(S) ELEVATION
Scale: 1/2" = 1'- 0"



3 PERFORATED PANEL(S) ELEVATION
Scale: 1/2" = 1'- 0"

Selbert Perkins Design.

PROJECT
CITY OF LONG BEACH
SIGNAGE & WAYFINDING

DATE
09 JAN 2024

TITLE
SIGNATURE GATEWAY EAST - SECTION DETAILS

Selbert Perkins Design.

Selbert Perkins Design
432 Culver Blvd.
Playa del Rey, CA 90293
T 310.822.5223
selbertperkins.com

insight lighting

MEDLEY EXTERIOR REMOTE (MER)

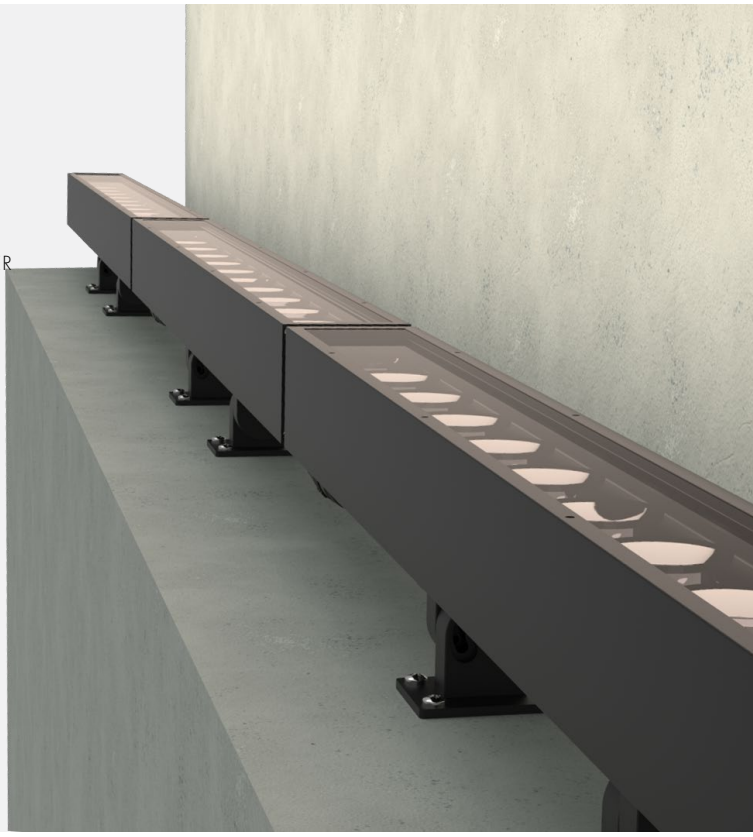
PERFORMANCE LINEAR | WHITE LIGHT & STATIC COLOR SPECIFICATION

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

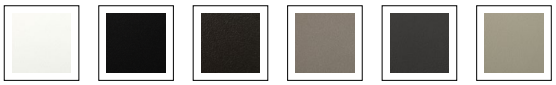
PROFILE

LIGHT SOURCE	3.5 W/FT, 9.0 W/FT, 15.0 W/FT
OPTICS	7° X 60°, 10° X 10°, 10° X 60°, 10° X 90°, 20° X 20°, 20° X 60°, 40° X 40°, 40° X 60°, 40° X 90°, 60° X 60°, 80° X 80°, 100°X 100°, ASYM GRAZE, DIRECT VIEW
CCT	22K, 27K, 30K, 35K, 40K, RED, GREEN, BLUE, AMBER
CRI	82 (OPTIONAL 90+)
PERFORMANCE	UP TO 117530 PEAK CANDELA
FIXTURE VOLTAGE	24V
POWER	REMOTE POWER SUPPLY (120V AND 277V)
CONTROL	0-10V (1%), DMX, LUTRON HI-LUME
FIXTURE LENGTHS	12", 24", 36", 48" (NOMINAL)
HOUSING	ALUMINUM
LENS	HIGH DENSITY TEMPERED GLASS
FINISH	HIGH DURABILITY POWDER COATING
OPERATING TEMP	-40° C TO 60° C
WARRANTY	5-YEAR LIMITED
LUMEN MAINTENANCE	75,000 HOURS
CERTIFICATION	ETL/cETL, IP67, IK07, 5G/3G (Ansi C136.31) OPTIONS

Intertek · RoHS · made in USA · IP67 · IK07 · 3G ANSI C136.3 · 5G ANSI C136.31



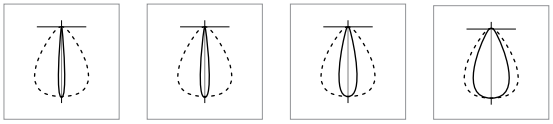
STANDARD FINISHES



TEXTURED WHITE · TEXTURED BLACK · TEXTURED BRONZE · TEXTURED LT. BRONZE · TEXTURED GRAY · TEXTURED SANDSTONE

OPTICS

Not all available optics shown



7°x 60° · 10°x 60° · 20°x 60° · 40°x 60°



60°x 60° · 10°x 10° · 20°x 20° · 40°x 40°

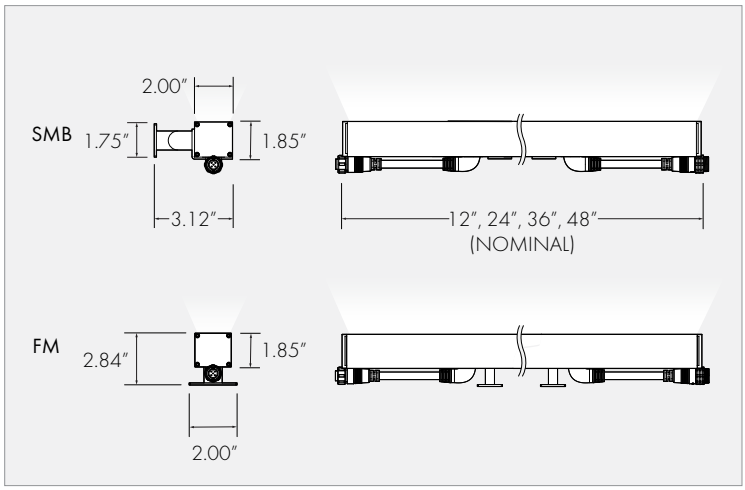
PERFORMANCE SAMPLE

Go to Performance Data >

40K, HO, 48.00"	10°X 10°	10°X 60°	20°X 20°	80°X 80°	100°
LUMENS	6316	5417	6475	6161	6459
CANDELA	117530	19943	52385	3960	2739
EFFICACY	91.2 LM/W	77.3 LM/W	93.3 LM/W	88.8 LM/W	94.4 LM/W

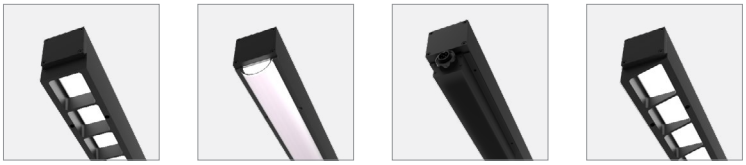
PROFILE

Go to Fixture Dimensions >



OPTIONS

*Shown with white diffusing lense



SNOOTER LOUVER · DIRECT VIEW DOME LENS · CONCEALED WIRING · LOUVERED VISOR

insight lighting
4341 Fulcrum Way NE, Rio Rancho New Mexico 87144
P.: 505.345.0888 | insightlighting.com

insight lighting

MEDLEY EXTERIOR REMOTE (MER)

PERFORMANCE LINEAR | WHITE LIGHT & STATIC COLOR SPECIFICATION

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

SPECIFICATION

Separate options with dashes

MER	LO	40K	1010	EAB-3	48	NO	TBR	-CW-JC-3
1	2	3	4	5	6	7	8	9

1 FIXTURE

MEDLEY EXTERIOR REMOTE	MER

2 WATTAGE

LOW OUTPUT 3.5 W/FT	LO
MEDIUM OUTPUT 9.0 W/FT	MO
HIGH OUTPUT 15.0 W/FT	HO

3 CCT

2200K	22K
2700K	27K
3000K	30K
3500K	35K
4000K	40K
RED	R
GREEN	G
BLUE	B
AMBER	A
LIFTED FULL SPECTRUM	LFS

For horticulture applications only.
LFS is available with Asymmetric Graze optics only.
LFS is only available with 0-10V dimming.

4 OPTICAL DISTRIBUTION

7° X 60°	760
10° X 10°	1010
10° X 60°	1060
10° X 90°	1090
20° X 20°	2020
20° X 60°	2060
20° X 90°	2090
40° X 40°	4040
40° X 60°	4060
40° X 90°	4090
60° X 60°	6060
60° X 90°	6090
80° X 80°	8080
100° X 100°	100
ASYM. GRAZE UPLIGHT, LEFT POWER FEED	ASUL
ASYM. GRAZE UPLIGHT, RIGHT POWER FEED	ASUR
ASYM. GRAZE DOWNLIGHT, LEFT POWER FEED	ASDL
ASYM. GRAZE DOWNLIGHT, RIGHT POWER FEED	ASDR

Asym Graze: See page 4 for details.

DIRECT VIEW DOME LENS — DVD
See page 9 for fixture height with dome lens.
DVD is available with Low and Medium Outputs only
DVD has a L.L.F. of 30%

DIRECT VIEW FLAT WHITE LENS — WL
WL is available with Medium Output only
WL has a L.L.F. of 30%
WL is not available with Lifted Full Spectrum CCT

5 MOUNTING

SURFACE MOUNT - 5G RATED	SM
SURFACE BACK MOUNT	SMB
EXTENDED ARM	EA-X

X = extended arm length specify 6", 12" or 18"
6.00" arm is 3G Ansi C136.3 rated

EXTENDED ARM, BACK	EAB-X

X = extended arm length specify 6", 12" or 18"

FIXED MOUNT	FM
GROUND MOUNT	GM
STAKE MOUNT	STM

Left-hand power feed is standard on all mountings.
A leader cable is required for all mounting options. Order separately. See below for details.

6 FIXTURE LENGTH

12"	12
24"	24
36"	36
48"	48

7 CONTROL OPTIONS

Remote power supplies must be ordered separately. See page 3 for details.

NO DIMMING	NO
0-10V DIMMING (1%)	DIM
DMX DIMMING	DMXDM

Default factory setting is DMX System Resolution
Fixtures are not pre-addressed/labeled at the factory. A **DMXCAT** tool is required. Order separately. See below.
Fixtures are shipped from the factory with default addressed channel 1.
A **CDS/RDM** Distribution Kit is required. Order separately. See below.
DMX controls are required. Order separately.

8 FINISH

TEXTURED WHITE	TW
TEXTURED BLACK	TB
TEXTURED BRONZE	TBR
TEXTURED LIGHT BRONZE	TLB
TEXTURED GRAY	TG
TEXTURED SANDSTONE	TS
ANODIZED ALUMINUM Includes CRF finish	AA
CUSTOM COLOR Contact factory for custom color. ddditional charges will apply	CC

9 OPTIONS See page 9 for details

HIGH CRI 90+ — HCRI
HCRI is available with 27K and 30K only

SNOOTED LOUVER — LV
Field installable snooted visor
LLF of 10% - 15% depending on louver finish

LOUVERED VISOR — VS
Field installable visored louver
LLF of 10% - 15% depending on visor finish

WHITE CABLES — WC
White cables/connectors are standard with white fixtures. All other fixture finishes are provided with black cabling unless **WC** option is specified.

CONCEALED WIRING — CW
Not available with 12" fixture
Only available with SMB & EAB mounting options

CORROSION RES. FINISH — CRF
Corrosion Resistance Finish Complies with ASTM B117 standard
CRF is recommended for coastal or extreme exterior environments

DMX TOOLS AND CABLE OPTIONS

DMX DISTRIBUTION KIT & ADDRESSING TOOL - REQUIRED FOR DMX DIMMING

DMX/RDM DISTRIBUTION KIT - IP67 — CDS-RDM
DMX/RDM Distribution Kit consists of four outputs
Each output is limited to (1) run per output - up to 32 fixtures max
Four terminators are included for end of line termination.

REMOTE DMX/RDM ADDRESSING AND MONITORING TOOL — DMXCAT
DMXCAT Remote Addressing and Monitoring Tool uses Bluetooth LE technology for communication with the smart-phone/applications (up to 50' range). **Allows for on-site fixture resolution and addressing.**
Contact factory for Wireless DMX/RDM

LEADER CABLES - REQUIRED See page 8 >

5.0 FT LEADER CABLE	LC-5
10.0 FT LEADER CABLE	LC-10

EXTERIOR JUMPER CABLES (FOR LINE VOLTAGE ONLY) - OPTIONAL

1.0 FT JUMPER CABLE	JC-1
2.0 FT JUMPER CABLE	JC-2
5.0 FT JUMPER CABLE	JC-5
10.0 FT JUMPER CABLE	JC-10
25.0 FT JUMPER CABLE	JC-25

White fixtures are provided with white cables. Black cables are provided for all other finishes unless **WC** option is specified.
Cables are not rated for direct burial. See local codes for installation. Cables are not available with 347V or 480V.

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PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

POWER SUPPLIES

CONTRA EXTERIOR REMOTE POWER SUPPLIES - REQUIRED	See page 9 for details
NO DIMMING - LOW OUTPUT, 96W	CEL
0-10V DIMMING - LOW OUTPUT, 96W	CELDIM
DMX DIMMING - LOW OUTPUT, 96W	CELDMX
LUTRON L3DOE - LOW OUTPUT, 96W	CELLU

EcoSystem 24V constant voltage with Soft-on, Fade to Black dimming. Dimming control system to be supplied by others.

NO DIMMING - STANDARD OUTPUT, 240W	CES
0-10V DIMMING - STANDARD OUTPUT, 240W	CESDIM
DMX DIMMING - STANDARD OUTPUT, 240W	CESDMX
NO DIMMING - HIGH OUTPUT, (2)-240W	CEH
0-10V DIMMING - HIGH OUTPUT, (2)-240W	CEHDIM
DMX DIMMING - HIGH OUTPUT, (2)-240W	CEHDMX

Above wattages are based on 75% of the Power Supply total wattage capacity. See page 4 for maximum fixtures per power supply.

WIRING

MAXIMUM FIXTURES PER POWER SUPPLY (CIRCUITS MAY NOT BE LOADED OVER 10 AMPS)

Data provided is based on 75% of the Power Supply's total wattage capacity

	LOW OUTPUT (3.5 W/FT)			MEDIUM OUTPUT (9.0 W/FT)			HIGH OUTPUT (15.0 W/FT)		
NOMINAL FIXTURE LENGTH	CONTRA EXTERIOR LOW POWER (96W)	CONTRA EXTERIOR STANDARD POWER (240W)	CONTRA EXTERIOR HIGH POWER (2-240W)	CONTRA EXTERIOR LOW POWER (96W)	CONTRA EXTERIOR STANDARD POWER (240W)	CONTRA EXTERIOR HIGH POWER (2-240W)	CONTRA EXTERIOR LOW POWER (96W)	CONTRA EXTERIOR STANDARD POWER (240W)	CONTRA EXTERIOR HIGH POWER (2-240W)
12"	27	68	136	10	26	52	5	14	28
24"	13	34	68	5	13	26	2	7	14
36"	9	23	46	3	8	16	2	4	8
48"	6	17	34	2	6	12	1	3	6

DMX Dimming: Standard 32 fixtures per DMX splitter output protocol applies

1000 feet maximum to end of last fixture per output

REMOTE DISTANCE LIMITS

Noncompliance with recommended remote wiring distances may void warranty

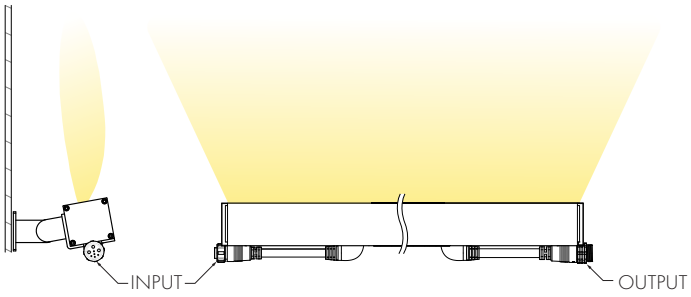
WIRE GAUGE	MAX DISTANCE
20 AWG	25.0 FT
18 AWG	30.0 FT
16 AWG	40.0 FT
14 AWG	60.0 FT
12 AWG	100.0 FT

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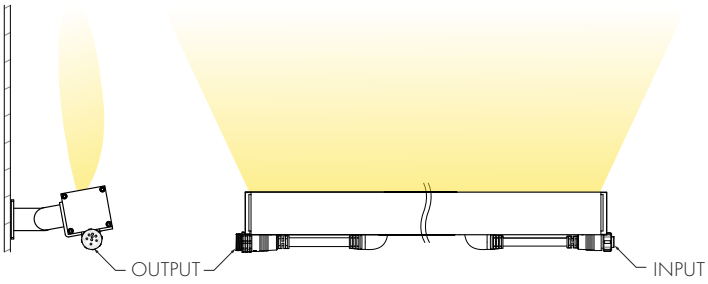
PROJECT: TYPE: CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

ASYMMETRIC DISTRIBUTIONS/LIGHT DIRECTION /FEED LOCATIONS

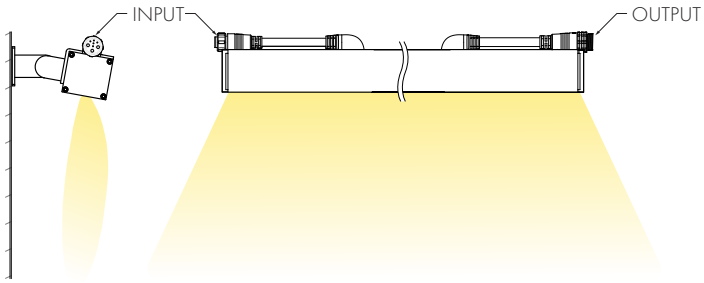
ASYMMETRIC GRAZE UPLIGHT | LEFT POWER FEED



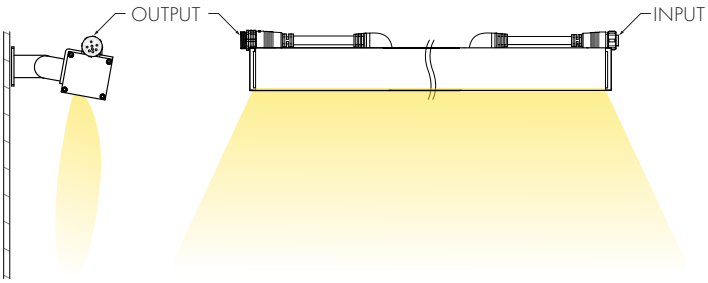
ASYMMETRIC GRAZE DOWNLIGHT | RIGHT POWER FEED



ASYMMETRIC GRAZE UPLIGHT | LEFT POWER FEED



ASYMMETRIC GRAZE DOWNLIGHT | RIGHT POWER FEED



PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

PERFORMANCE

Nominal lengths

		LOW OUTPUT (3.5 W/FT)			MEDIUM OUTPUT (9.0 W/FT)			HIGH OUTPUT (15.0 W/FT)		
CCT AND LENGTH	OPTIC	DELIVERED LUMENS	LUMINARE EFFICACY	PEAK CANDELA	DELIVERED LUMENS	LUMINARE EFFICACY	PEAK CANDELA	DELIVERED LUMENS	LUMINARE EFFICACY	PEAK CANDELA
4000K 24"	7° X 60°	998 LM	107.0 LM/W	3662	1685 LM	110.0 LM/W	6189	3366 LM	98.0 LM/W	12363
	10° X 10°	932 LM	100.5 LM/W	17011	1566 LM	103.0 LM/W	28686	3158 LM	91.2 LM/W	58765
	10° X 60°	804 LM	86.6 LM/W	2905	1348 LM	88.4 LM/W	4871	2709 LM	77.3 LM/W	9972
	20° X 20°	948 LM	102.1 LM/W	7658	1601 LM	102.4 LM/W	12983	3238 LM	93.3 LM/W	26193
	20° X 60°	862 LM	92.8 LM/W	1893	1451 LM	96.2 LM/W	3207	2914 LM	84.6 LM/W	6379
	40° X 40°	1001 LM	108.0 LM/W	1395	1688 LM	111.0 LM/W	2338	3392 LM	98.8 LM/W	4733
	40° X 60°	896 LM	96.7 LM/W	724	1497 LM	98.6 LM/W	1211	3039 LM	88.1 LM/W	2470
	60° X 60°	993 LM	107.1 LM/W	882	1666 LM	109.3 LM/W	1485	3354 LM	97.7 LM/W	2999
	80° X 80°	912 LM	98.2 LM/W	585	1525 LM	100.1 LM/W	976	3081LM	88.8 LM/W	1980
	100° X 100°	620 LM	86.8 LM/W	263	1964 LM	93.3 LM/W	829	3230 LM	94.4 LM/W	1370
	ASY	888 LM	96.3 LM/W	3134	1473 LM	97.8 LM/W	5199	2890 LM	88.2 LM/W	9369
4000K 36"	7° X 60°	1496 LM	107.0 LM/W	5492	2527 LM	110.0 LM/W	9283	5048 LM	98.0 LM/W	18544
	10° X 10°	1398 LM	100.5 LM/W	25516	2349 LM	103.0 LM/W	43029	4737 LM	91.2 LM/W	88148
	10° X 60°	1205 LM	86.6 LM/W	4357	2022 LM	88.4 LM/W	7306	4063 LM	77.3 LM/W	14957
	20° X 20°	1421 LM	102.1 LM/W	11486	2402 LM	102.4 LM/W	19474	4856 LM	93.3 LM/W	39289
	20° X 60°	1292 LM	92.8 LM/W	2840	2177 LM	96.2 LM/W	4810	4371 LM	84.6 LM/W	9569
	40° X 40°	1502 LM	108.0 LM/W	2093	2531 LM	111.0 LM/W	3506	5088 LM	98.8 LM/W	7100
	40° X 60°	1344 LM	96.7 LM/W	1086	2245 LM	98.6 LM/W	1817	4559 LM	88.1 LM/W	3704
	60° X 60°	1489 LM	107.1 LM/W	1322	2499 LM	109.3 LM/W	2228	5031LM	97.7 LM/W	4499
	80° X 80°	1368 LM	98.2 LM/W	877	2287 LM	100.1 LM/W	1464	4621 LM	88.8 LM/W	2970
	100° X 100°	929 LM	86.8 LM/W	394	2946 LM	93.3 LM/W	1244	4844 LM	94.4 LM/W	2054
	ASY	1332 LM	96.3 LM/W	4700	2209 LM	97.8 LM/W	7798	4335LM	88.2 LM/W	14053
4000K 48"	7° X 60°	1995 LM	107.0 LM/W	7323	3369 LM	110.0 LM/W	12377	6731 LM	98.0 LM/W	24725
	10° X 10°	1864 LM	100.5 LM/W	34021	3132 LM	103.0 LM/W	57372	6316 LM	91.2 LM/W	117530
	10° X 60°	1607 LM	86.6 LM/W	5809	2696 LM	88.4 LM/W	9741	5417 LM	77.3 LM/W	19943
	20° X 20°	1895 LM	102.1 LM/W	15315	3202 LM	102.4 LM/W	25965	6475 LM	93.3 LM/W	52385
	20° X 60°	1723 LM	92.8 LM/W	3786	2902 LM	96.2 LM/W	6413	5828 LM	84.6 LM/W	12758
	40° X 40°	2002 LM	108.0 LM/W	2790	3375 LM	110.7 LM/W	4675	6784 LM	98.8 LM/W	9466
	40° X 60°	1792LM	96.7 LM/W	1448	2993 LM	98.6 LM/W	2422	6078 LM	88.1 LM/W	4939
	60° X 60°	1985 LM	107.1 LM/W	1763	3332 LM	109.3 LM/W	2970	6708 LM	97.7 LM/W	5998
	80° X 80°	1824 LM	98.2 LM/W	1169	3049 LM	100.1 LM/W	1952	6161 LM	88.8 LM/W	3960
	100° X 100°	1239 LM	86.8 LM/W	525	3928 LM	93.3 LM/W	1658	6459 LM	94.4 LM/W	2739
	ASYM. GRAZE	1776 LM	96.3 LM/W	6267	2945 LM	97.8 LM/W	10397	5780 LM	88.2 LM/W	18787

All Insight White Light ies files are calculated with 4000K. For estimations of additional CCTs, please use the following multipliers:

	2700K MULTIPLIER	3000K MULTIPLIER	3500K MULTIPLIER
LUMEN MULTIPLIERS	0.87	0.90	0.95

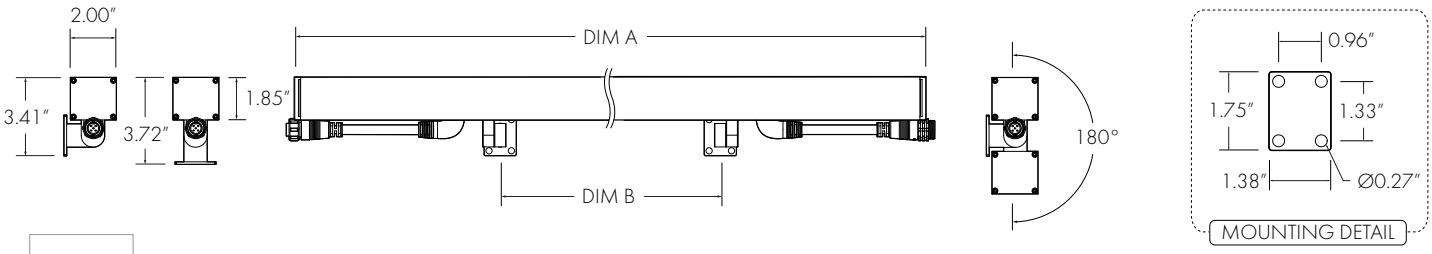
MULTIPLY THE 4000K LUMEN DATA BY THE ABOVE MULTIPLIERS

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

DIMENSIONS

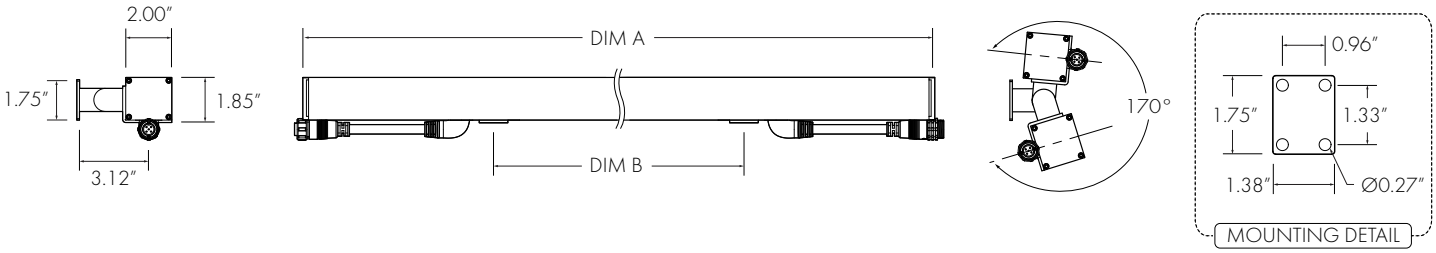
	12"	24"	36"	48"
DIM A	12.10"	23.85"	35.60"	47.35"
DIM B	9.28"	4.00" MIN | 6.00" MAX	12.00" MIN | 18.00" MAX	18.00" MIN | 30.00" MAX

SURFACE MOUNT (SM) - 5G ANSI C136.31 RATED



5G
ANSI C136.31

SURFACE, BACK MOUNT (SMB)



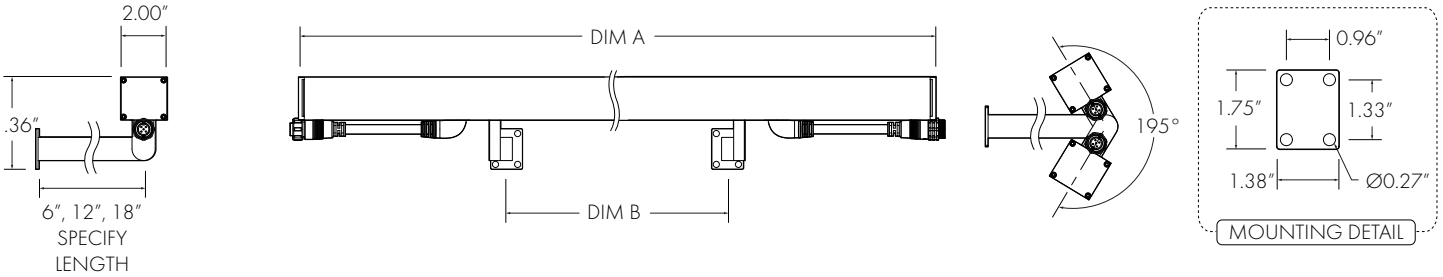
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PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

DIMENSIONS

	12"	24"	36"	48"
DIM A	12.10"	23.85"	35.60"	47.35"
DIM B	9.28"	4.00" MIN | 6.00" MAX	12.00" MIN | 18.00" MAX	18.00" MIN | 30.00" MAX

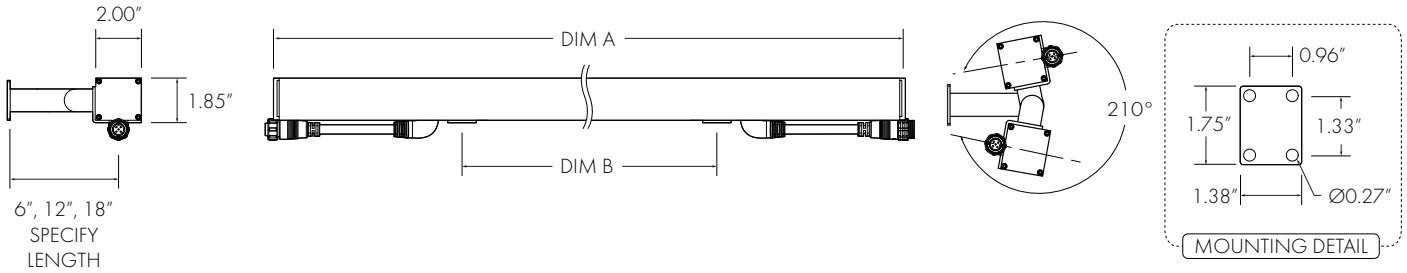
EXTENDED ARM (EA-X)



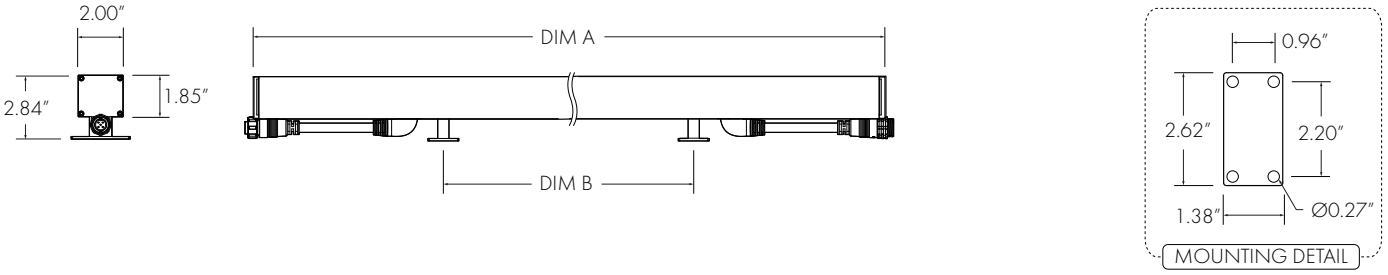
3G
ANSI C136.3

3G RATED WITH 6.00" ARM

EXTENDED ARM, BACK MOUNT (EAB-X)



FIXED MOUNT (FM)



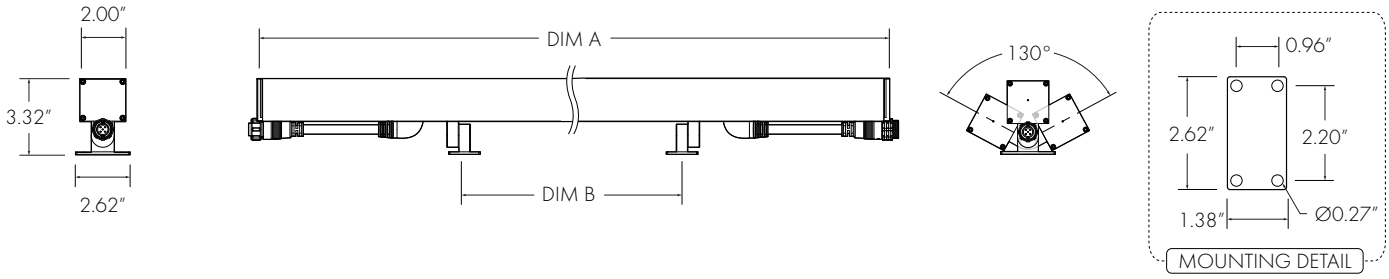
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PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

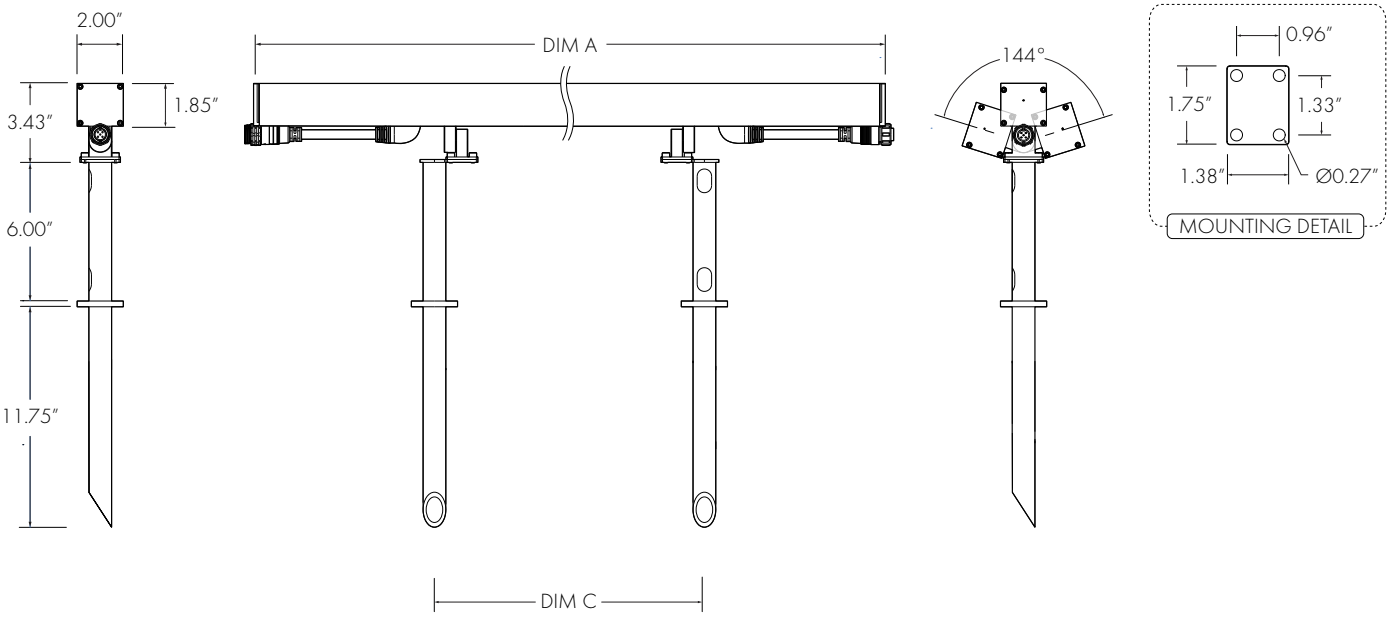
DIMENSIONS

	12.00"	24.00"	36.00"	48.00"
DIM A	12.10"	23.85"	35.60"	47.35"
DIM B	9.28"	4.00" MIN | 6.00" MAX	12.00" MIN | 18.00" MAX	18.00" MIN | 30.00" MAX
DIM C	10.56"	4.00" MIN | 6.00" MAX	12.00" MIN | 18.00" MAX	18.00" MIN | 30.00" MAX

GROUND MOUNT (GM)



STAKE MOUNT (STM)

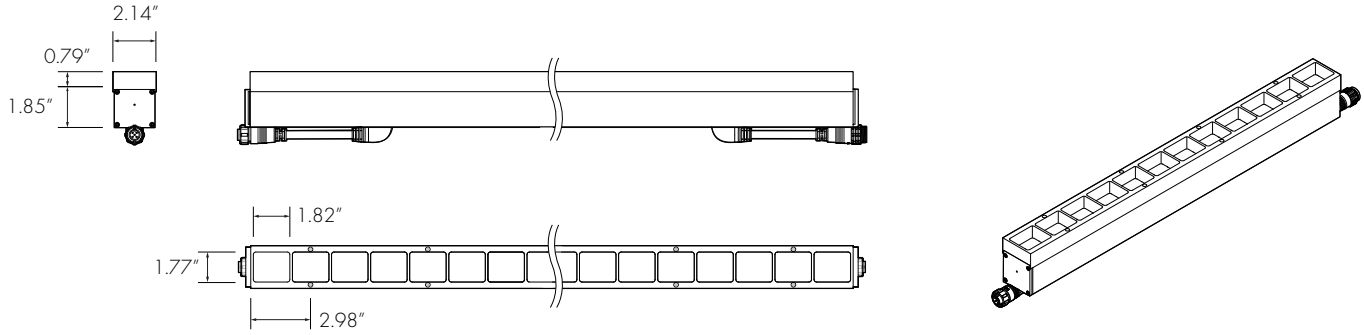


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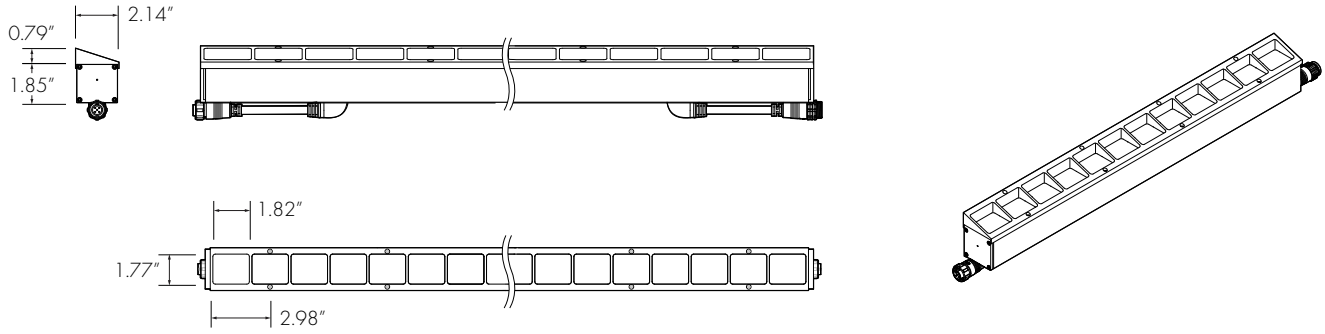
PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

ACCESSORIES

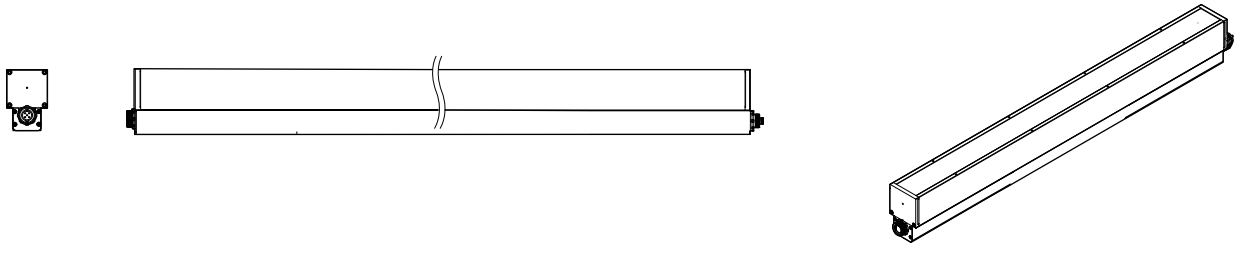
SNOOTED LOUVER (LV)



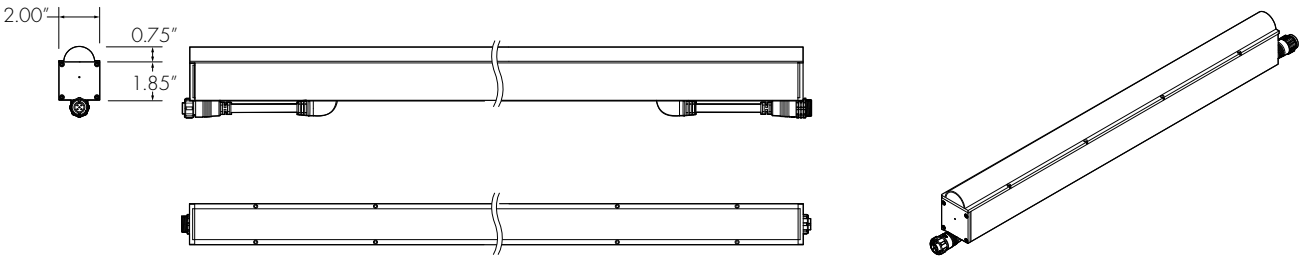
LOUVERED VISOR (VS)



CONCEALED WIRING (CW)



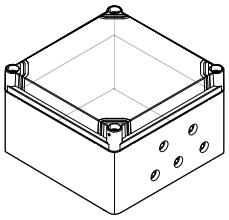
DIRECT VIEW DOME LENS (DVD)

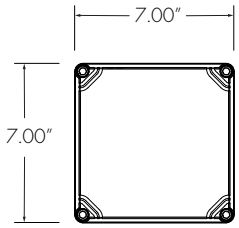


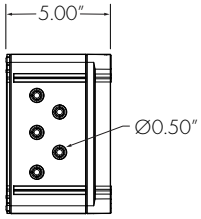
PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER- LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

REMOTE POWER ENCLOSURE DIMENSIONS

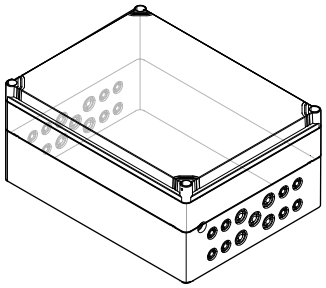
CONTRA EXTERIOR LOW POWER SUPPLY, NO DIMMING, 0-10V DIMMING, DMX DIMMING - CEL-X

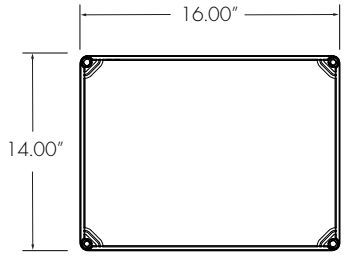


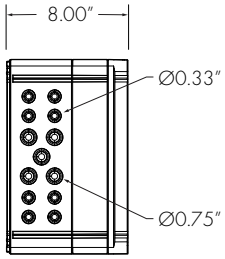




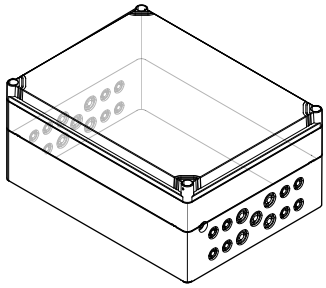
CONTRA EXTERIOR LOW POWER SUPPLY, LUTRON L3DOE- CELLU

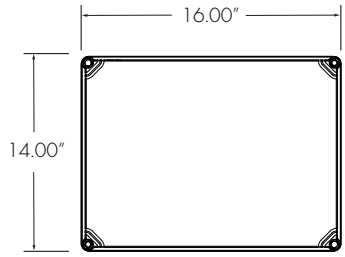


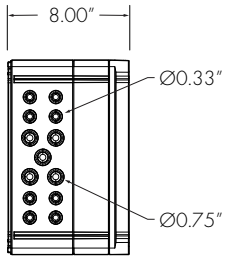




CONTRA EXTERIOR STANDARD AND HIGH POWER SUPPLY, NO DIMMING, 0-10V DIMMING, DMX DIMMING - CES-X / CEH-X







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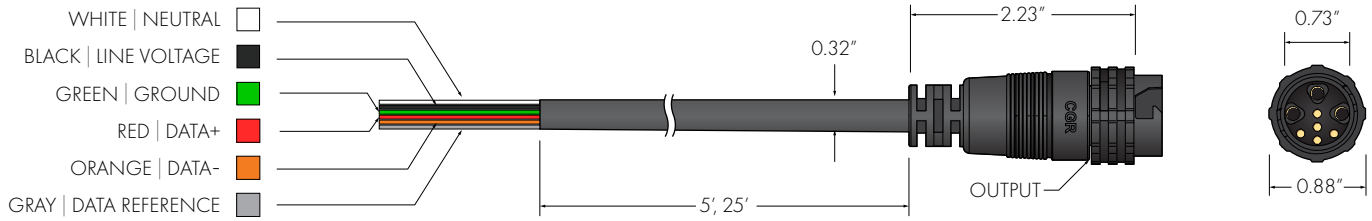
MEDLEY EXTERIOR REMOTE (MER)

PERFORMANCE LINEAR | WHITE LIGHT & STATIC COLOR SPECIFICATION

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

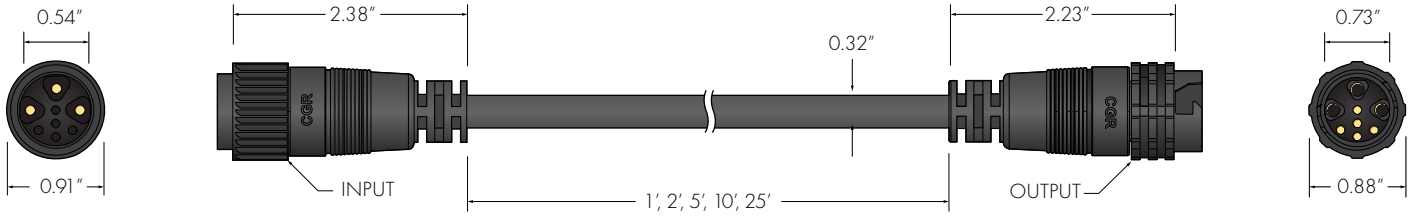
LEADER (LC-X)

BLACK | 3x16AWG | 3X20AWG | 105°C | 300V | IP67



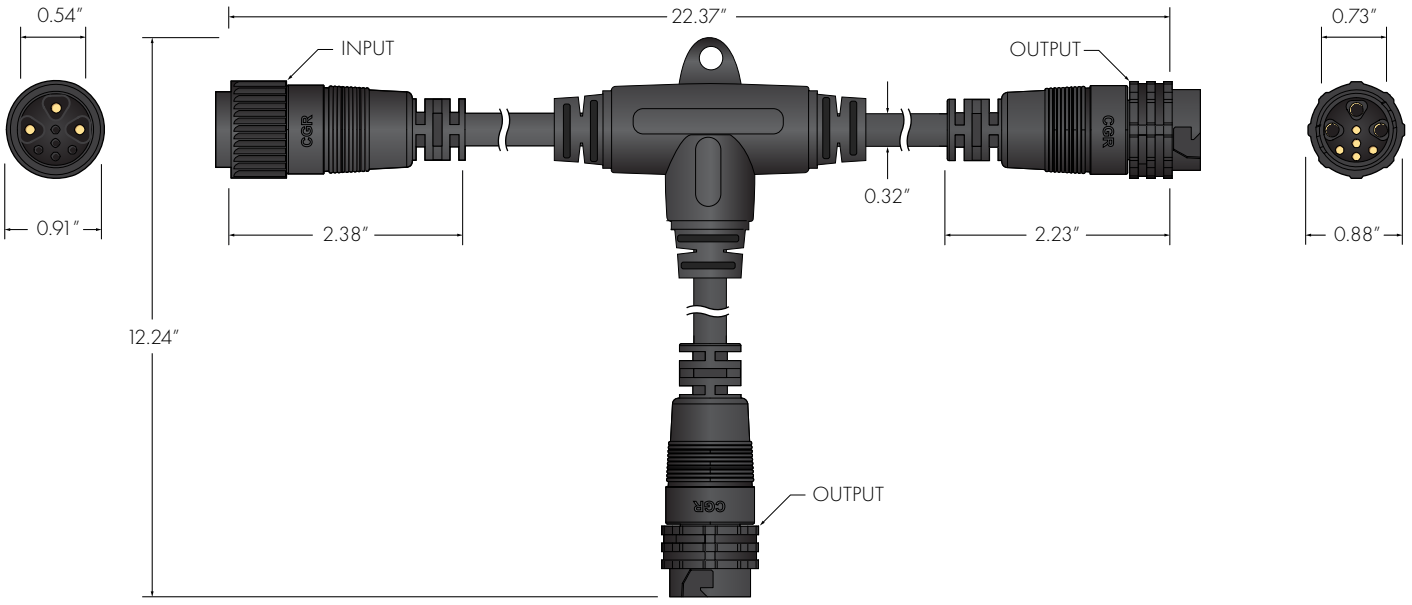
JUMPER (JC-X)

BLACK | 3x16AWG | 3x20AWG | 105°C | 300V | IP67



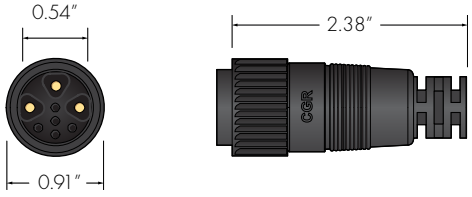
AC T-CONNECTOR (ACT)

BLACK | 3x16AWG | 3x20AWG | 105°C | 300V | IP67



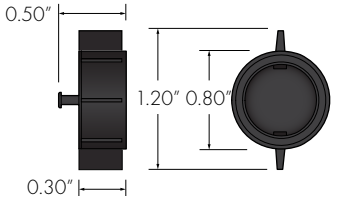
AC TERMINATOR (EL11586)

BLACK | 105°C | 300V



AC CAP (EL11447)

BLACK | 105°C | 300V | IP67



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MEDLEY EXTERIOR REMOTE

0-10V | PLUG + PLAY WIRING

⚠ WARNING:

Install product in accordance with local/NEC codes. **Disconnect power during installation and servicing.**

Failure to comply with the installation instructions may result in death or serious injury

Read all safety instructions included with product before installing

ⓘ CAUTION:

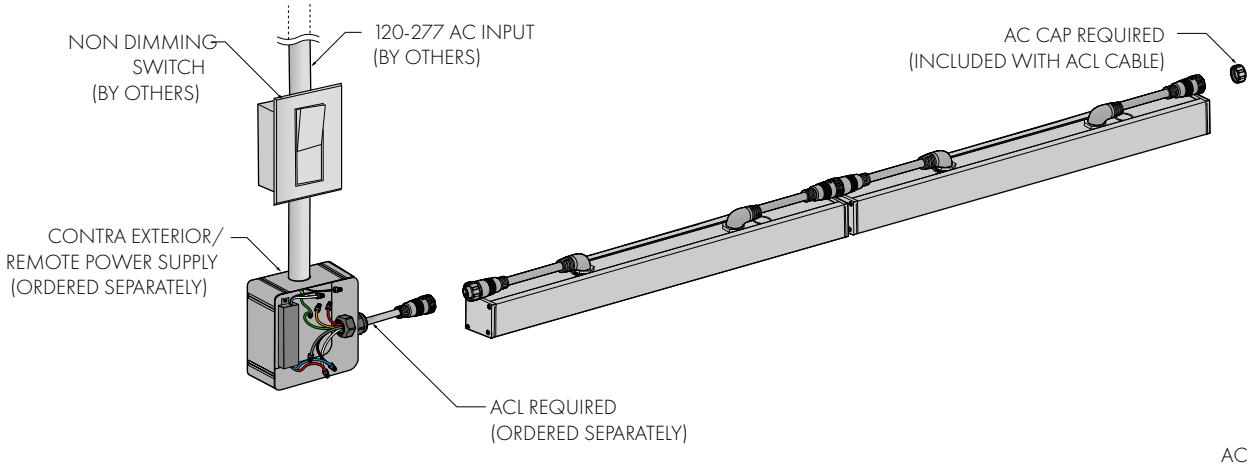
Insight Lighting is not responsible for the structural integrity of the building to the luminaire. Additional backing may be required.

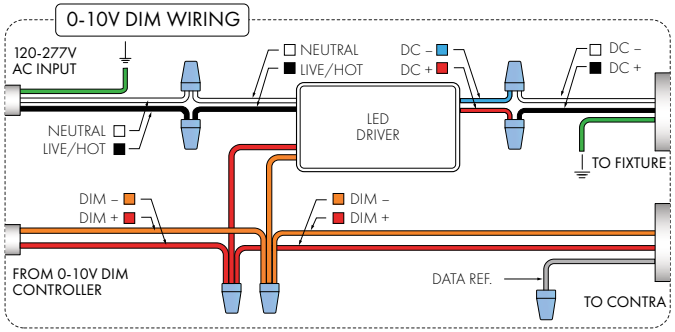
Care must be taken during storage and handling. Store in a clean, cool and dry location. Electrostatic discharge can harm this product. Avoid static discharge while handling this product.

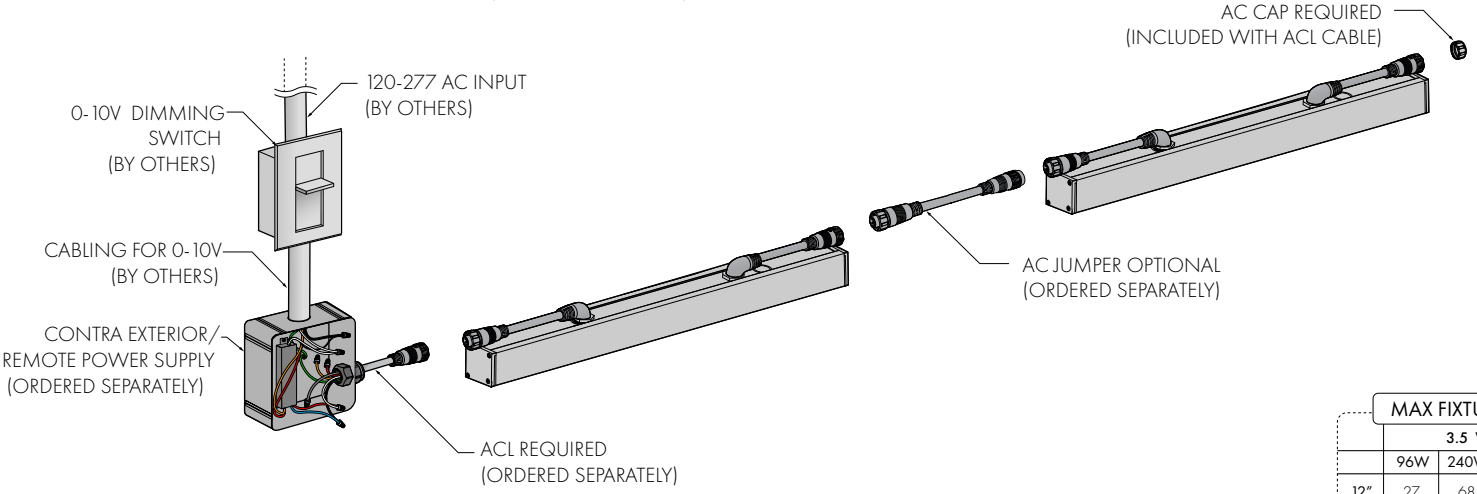
⊕ PRODUCT INFORMATION:

INSTALLATION SHEET
- WHITE LIGHT
- COLOR CHANGING

SPECIFICATION SHEET
- WHITE LIGHT
- COLOR CHANGING







ENSURE A CUMULATIVE LEAKAGE CURRENT OF LESS THAN 3.5 mA ON CONTROL UNIT DURING INSTALLATION.

DO NOT MAKE FIXTURE CONNECTIONS WHILE POWER IS ON.

MAX FIXTURES PER POWER SUPPLY

	3.5 W/FT			9.0 W/FT			15.0 W/FT		
	96W	240W	240W (x2)	96W	240W	240W (x2)	96W	240W	240W (x2)
12″	27	68	136	10	26	52	5	14	28
24″	13	34	68	5	13	26	2	7	14
36″	9	22	46	3	8	16	2	4	8
48″	6	17	34	2	6	12	1	3	6

Do not load circuits over 10AMPS

Revised: June 8, 2023
Specifications subject to change without notice

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⚠ WARNING:

Install product in accordance with local/NEC codes. **Disconnect power during installation and servicing.**

Failure to comply with the installation instructions may result in death or serious injury

Read all safety instructions included with product before installing

ⓘ CAUTION:

Insight Lighting is not responsible for the structural integrity of the building to the luminaire. Additional backing may be required.

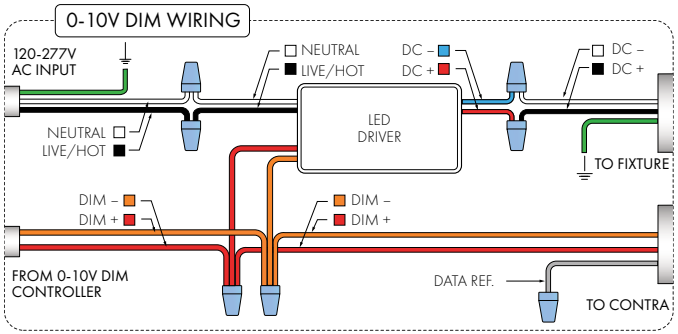
Care must be taken during storage and handling. Store in a clean, cool and dry location. Electrostatic discharge can harm this product. Avoid static discharge while handling this product.

⊕ PRODUCT INFORMATION:

- INSTALLATION SHEET
  - WHITE LIGHT
  - COLOR CHANGING
- SPECIFICATION SHEET
  - WHITE LIGHT
  - COLOR CHANGING

⚠ ENSURE A CUMULATIVE LEAKAGE CURRENT OF LESS THAN 3.5 mA ON CONTROL UNIT DURING INSTALLATION.

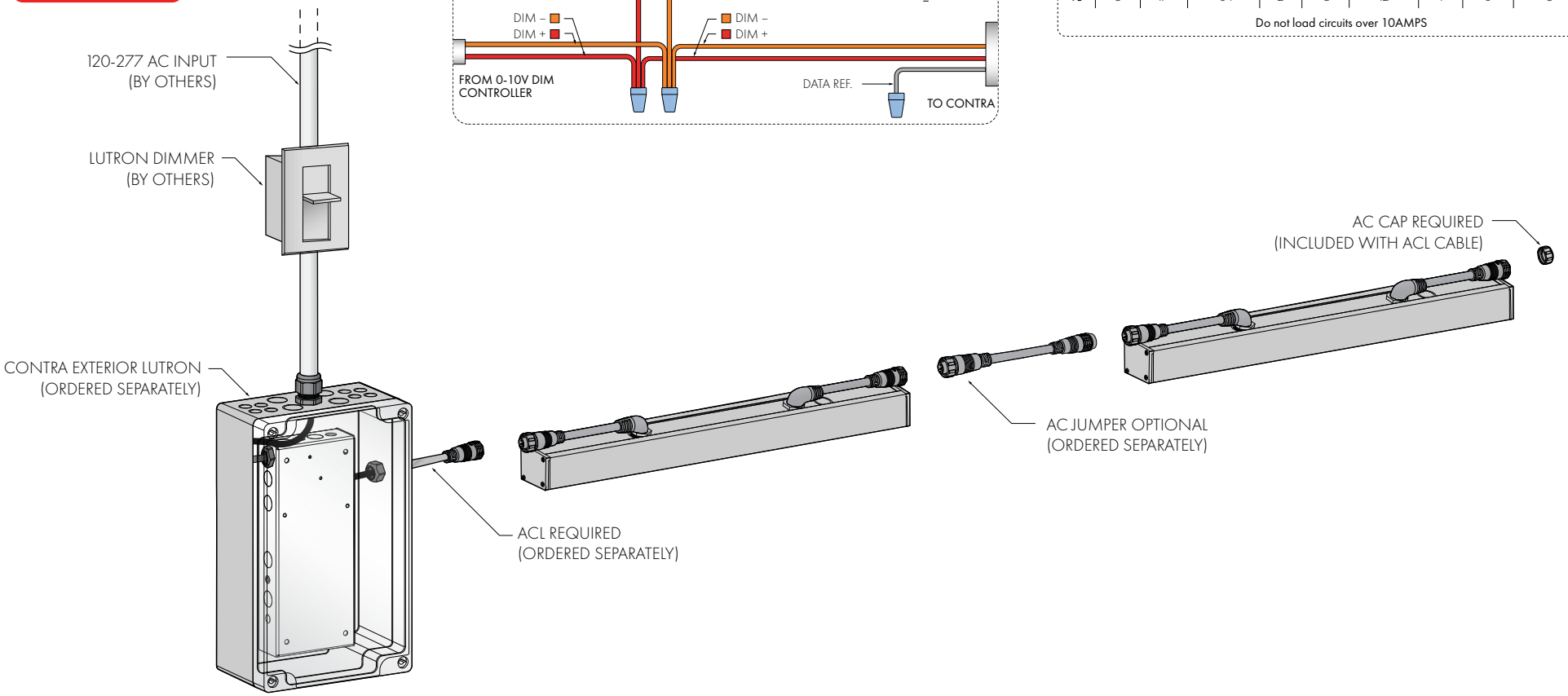
⚠ DO NOT MAKE FIXTURE CONNECTIONS WHILE POWER IS ON.



MAX FIXTURES PER POWER SUPPLY

	3.5 W/FT			9.0 W/FT			15.0 W/FT		
	96W	240W	240W (x2)	96W	240W	240W (x2)	96W	240W	240W (x2)
12″	27	68	136	10	26	52	5	14	28
24″	13	34	68	5	13	26	2	7	14
36″	9	22	46	3	8	16	2	4	8
48″	6	17	34	2	6	12	1	3	6

Do not load circuits over 10AMPS



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MEDLEY EXTERIOR REMOTE

DMX | PLUG + PLAY WIRING

⚠ WARNING:

Install product in accordance with local/NEC codes. **Disconnect power during installation and servicing.**

Failure to comply with the installation instructions may result in death or serious injury

Read all safety instructions included with product before installing

ⓘ CAUTION:

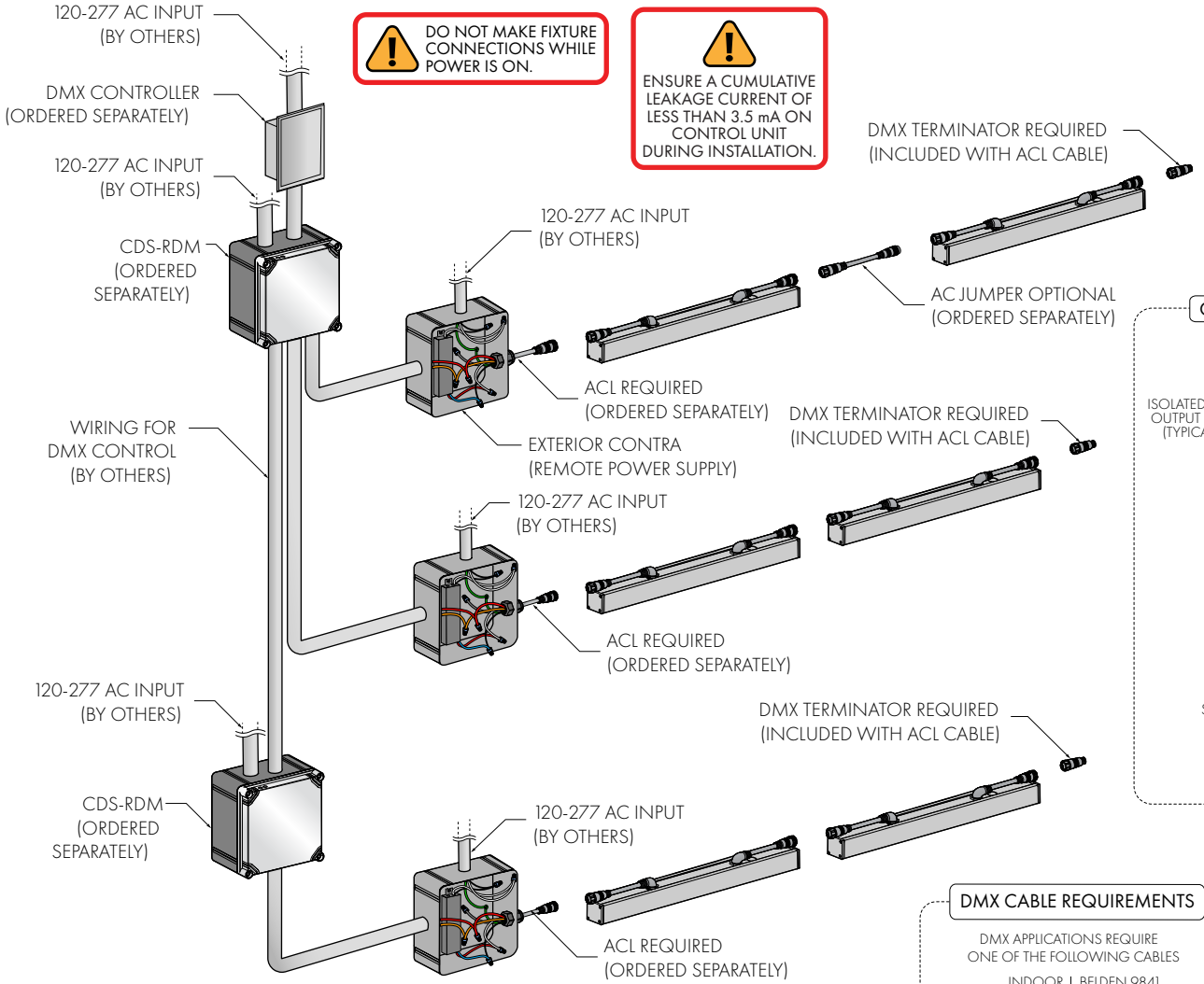
Insight Lighting is not responsible for the structural integrity of the building to the luminaire. Additional backing may be required.

Care must be taken during storage and handling. Store in a clean, cool and dry location. Electrostatic discharge can harm this product. Avoid static discharge while handling this product.

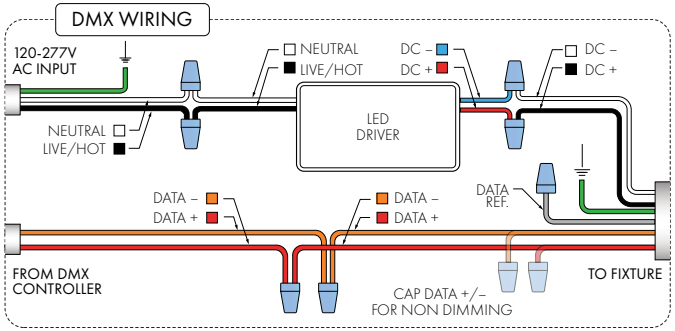
⊕ PRODUCT INFORMATION:

INSTALLATION SHEET
WHITE LIGHT
COLOR CHANGING

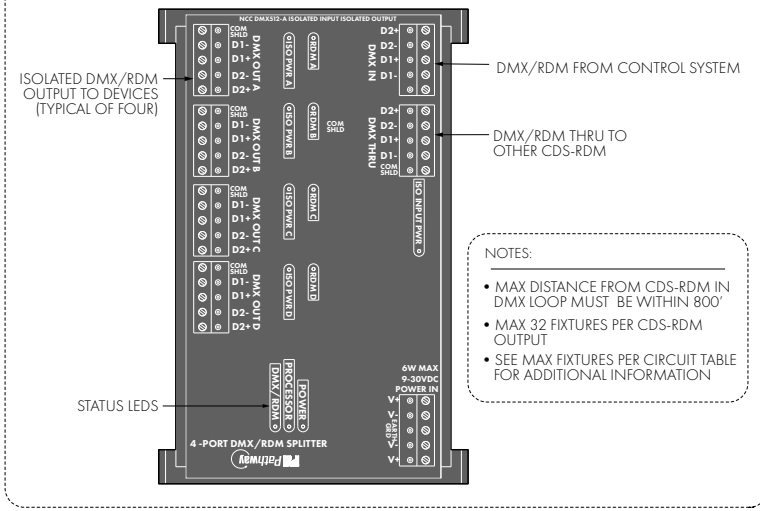
SPECIFICATION SHEET
WHITE LIGHT
COLOR CHANGING



DMX WIRING



CDS-RDM CONTROL WIRING



NOTES:

- MAX DISTANCE FROM CDS-RDM IN DMX LOOP MUST BE WITHIN 800'
- MAX 32 FIXTURES PER CDS-RDM OUTPUT
- SEE MAX FIXTURES PER CIRCUIT TABLE FOR ADDITIONAL INFORMATION

DMX CABLE REQUIREMENTS

DMX APPLICATIONS REQUIRE ONE OF THE FOLLOWING CABLES

INDOOR	BELDEN 9841
PLENUM RATED	BELDEN 8284A
OUTDOOR	BELDEN 3105DB

MAX FIXTURES PER POWER SUPPLY

	3.5 W/FT			9.0 W/FT			15.0 W/FT		
	96W	240W	240W (x2)	96W	240W	240W (x2)	96W	240W	240W (x2)
12″	27	68	136	10	26	52	5	14	28
24″	13	34	68	5	13	26	2	7	14
36″	9	23	46	3	8	16	2	4	8
48″	6	17	34	2	6	12	1	3	6

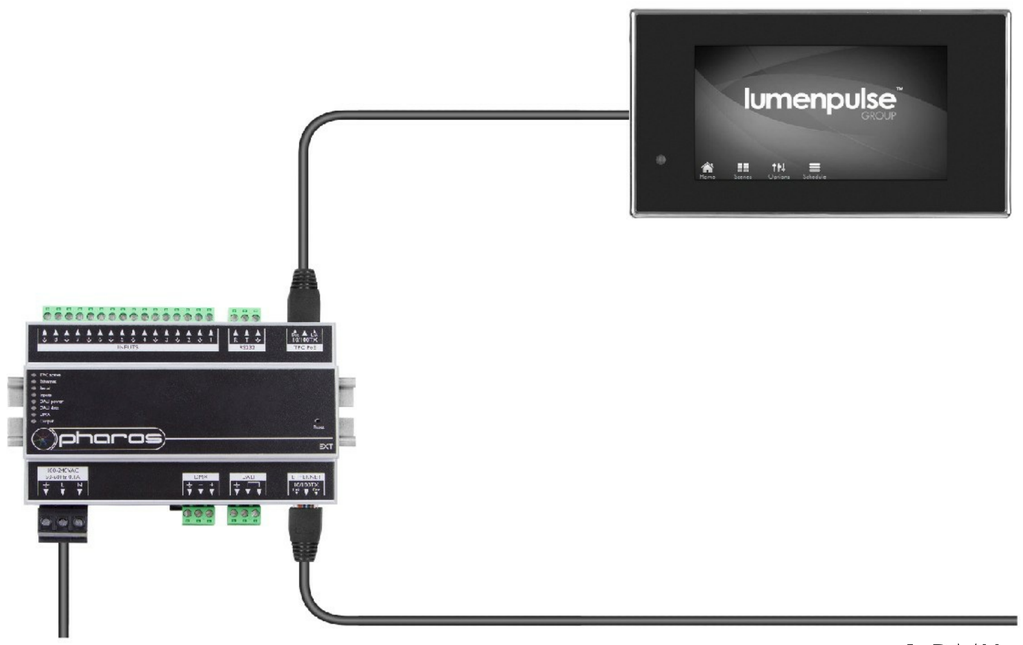
Do not load circuits over 10AMPS
DMX: Standard 32 fixtures per DMX splitter output protocol applies

Revised: June 8, 2023
Specifications subject to change without notice

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Project Name Long Beach Signature Gateway Signage **Qty** 1

Type Pharos **Catalog / Part Number** PHAROS-U1-BN-SBB



1 DMX universe kit shown

Description

Based on individually controllable and independently running timelines and scenes. The Pharos engine lets you build dynamic, precise, fully-customizable pre-programmed lighting displays, while also allowing real-time manual overrides.

Features

1 DMX Universe Kit	Pharos Touch Panel Controller (TPC), Pharos TPC Extension (EXT)
2 DMX Universes Kit	Pharos Touch Panel Controller (TPC), Pharos Lighting Playback Controller (LPC), TP-LINK 8-port switch
1 Ethernet DMX Universe Kit	Pharos Touch Panel Controller (TPC), TP-LINK 8-port switch
Mounting Accessories	TPC back box, TP-LINK 8-port switch bracket, DIN rail, Cat5e patch cable
TPC Overlay & Bezel Color	Black overlay and bezel, Black overlay on a nickel bezel, White overlay and bezel, White overlay on a nickel bezel, Cream overlay and bezel
TPC Back Box Mounting	Recessed/flush installation, Surface installation

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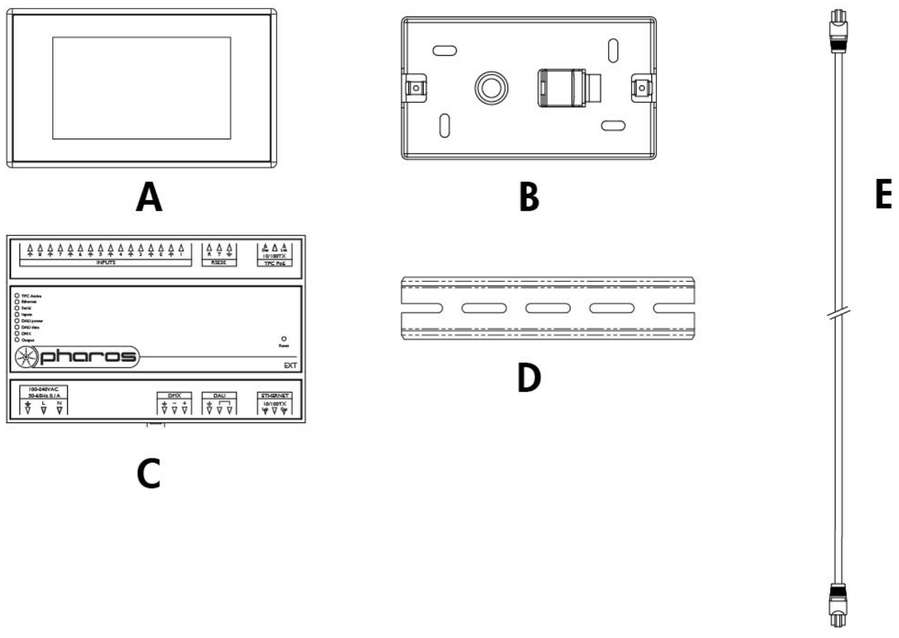
1220 Marie-Victorin Blvd., Longueuil, QC J4G 2H9 CA **T** United States 617.307.5700 | Canada 1.877.937.3003 | 514.937.3003 **F** 514.937.6289
info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/1423/pharosr-kit**

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Attachment C

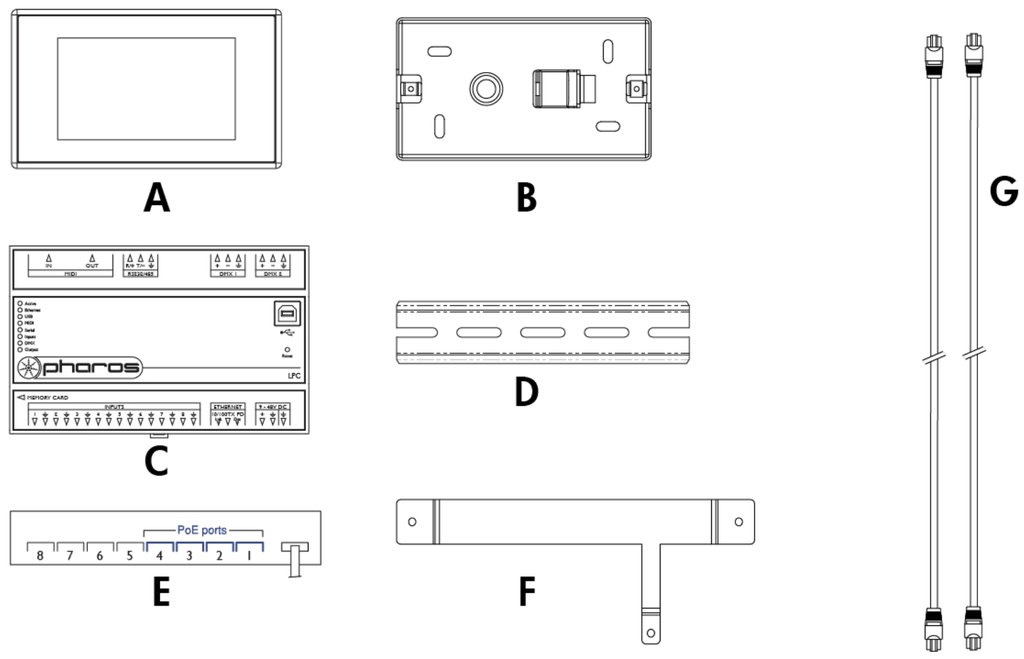
Kit contents

1 DMX universe kit



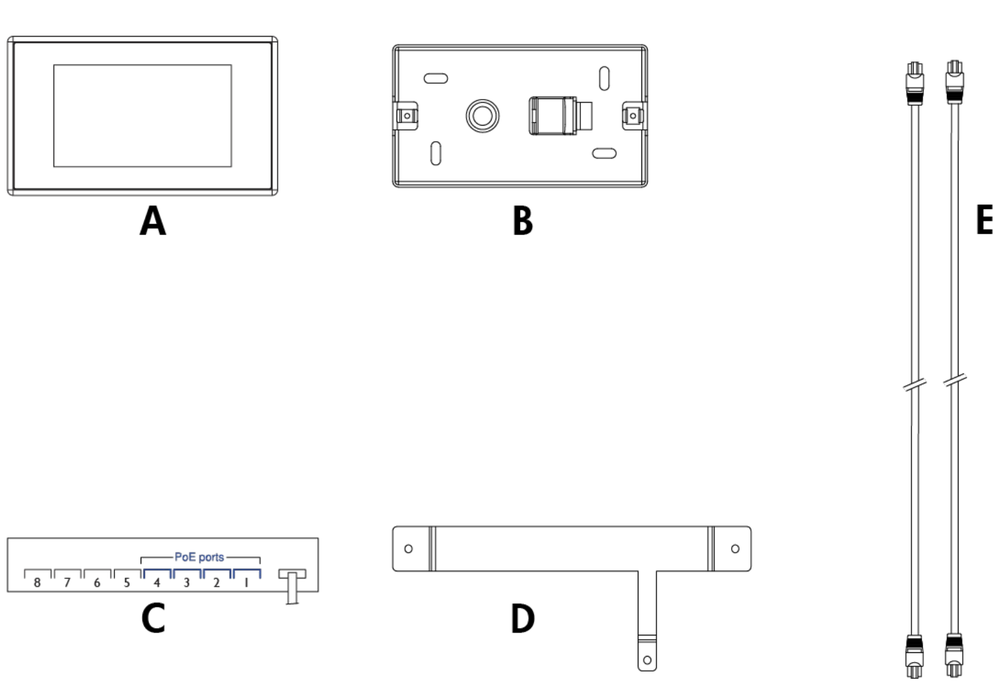
A - TPC
B - TPC Back Box
C - EXT
D - DIN rail for EXT
E - 50 ft Cat5e patch cable

2 DMX universes kit



A - TPC
B - TPC Back Box
C - LPC
D - DIN rail for LPC
E - TP-LINK 8-port switch with 4-port PoE (TL-SF1008P)
F - Bracket for TP-LINK
G - 50 ft Cat5e patch cable (2x)

1 Ethernet DMX universe kit



A - TPC
B - TPC Back Box
C - TP-LINK 8-port switch with 4-port PoE (TL-SF1008P)
D - Bracket for TP-LINK
E - 50 ft Cat5e patch cable (2x)

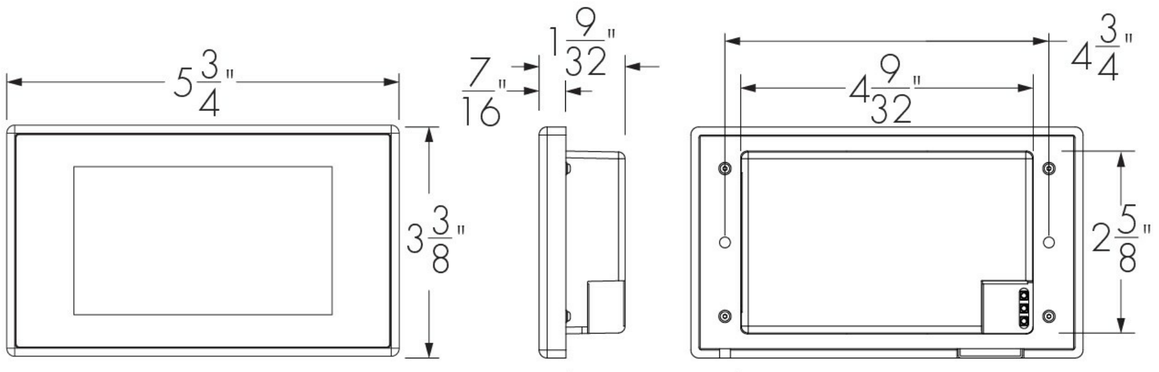
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info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/1423/pharosr-kit**

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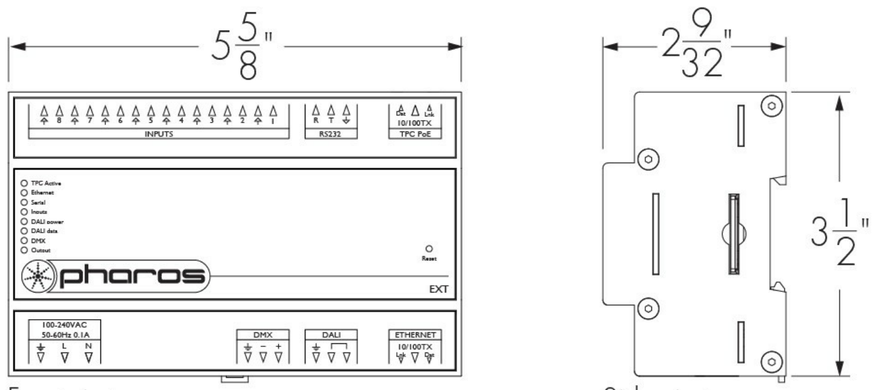
Control items dimensions

TPC



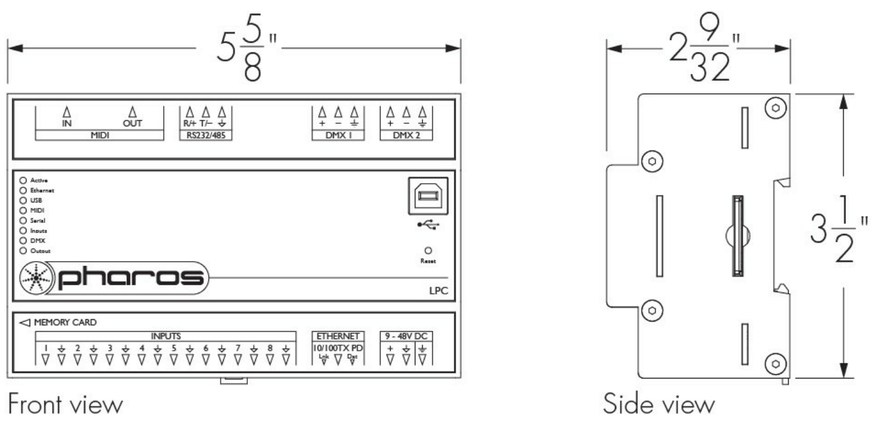
Front view | Side view | Back view

EXT



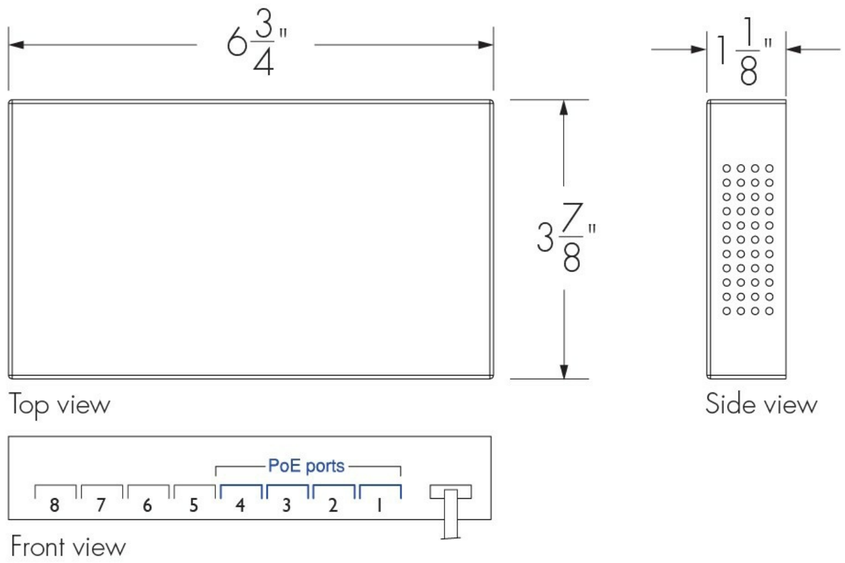
Front view | Side view

LPC



Front view | Side view

TP-LINK 8-port switch

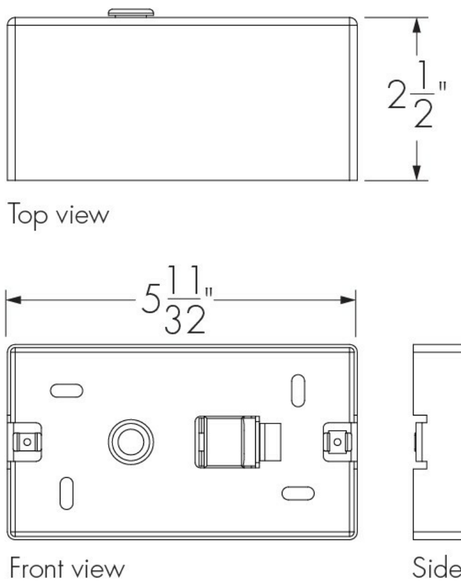


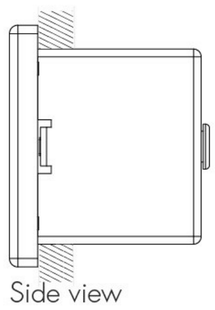
Top view | Side view | Front view

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Mounting accessory dimensions

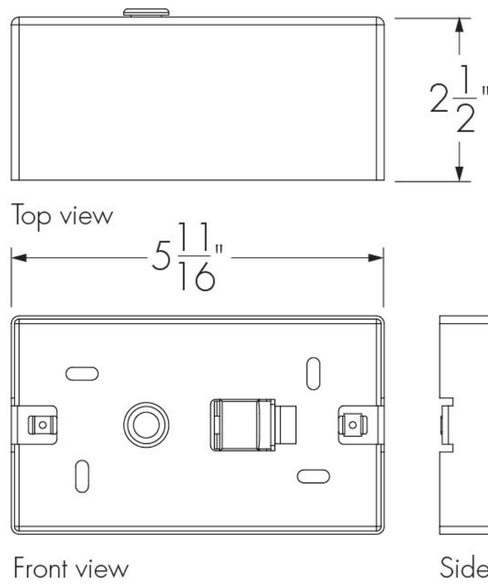
FBB - Back Box for Recessed/Flush Installation

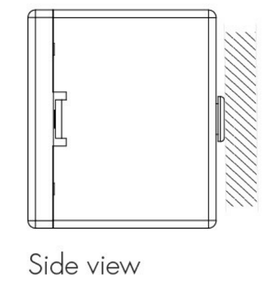




TPC with Back Box for Recessed/Flush Installation

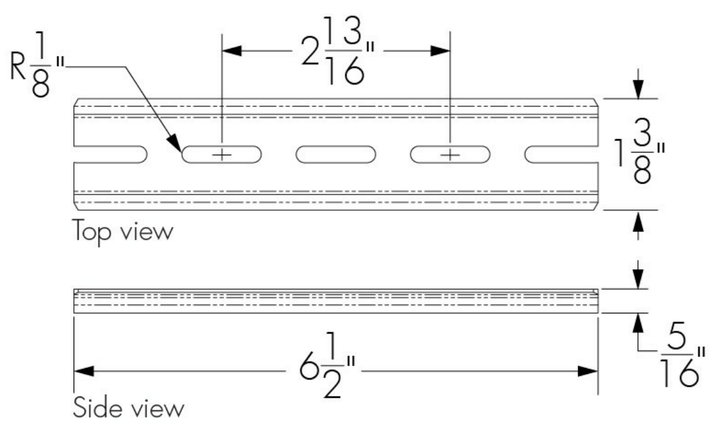
SBB - Back Box for Surface Installation



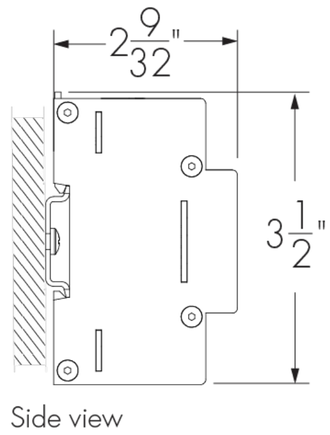


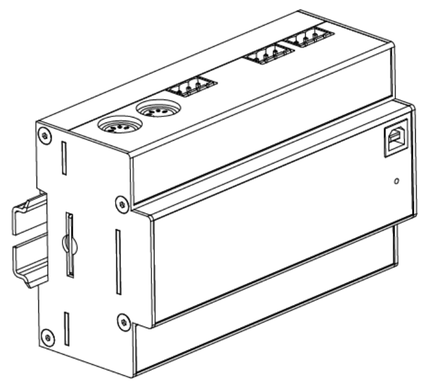
TPC with Back Box for Surface Installation

DIN rail (for EXT and LPC)

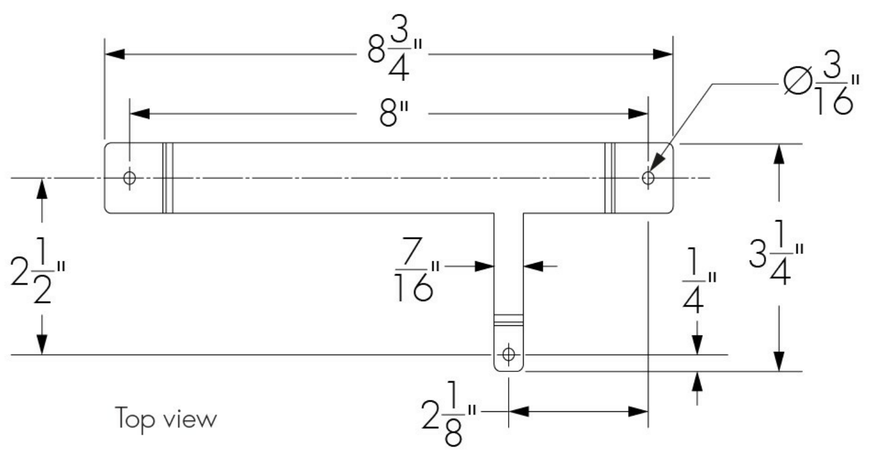


DIN rail as installed

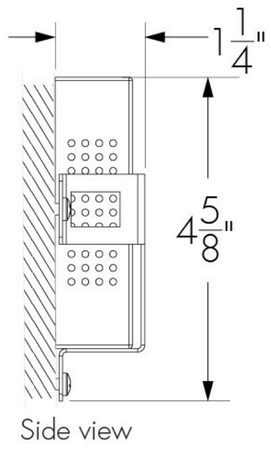


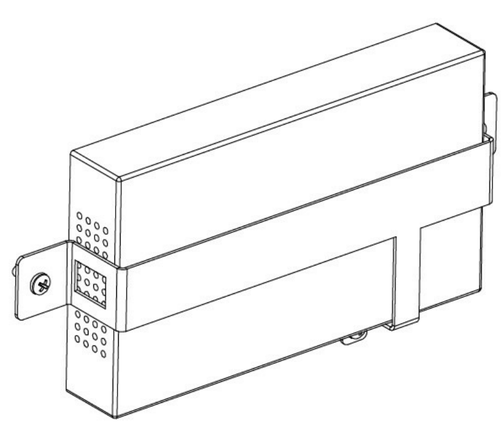


Bracket (for TP-LINK 8-port switch)



Bracket as installed

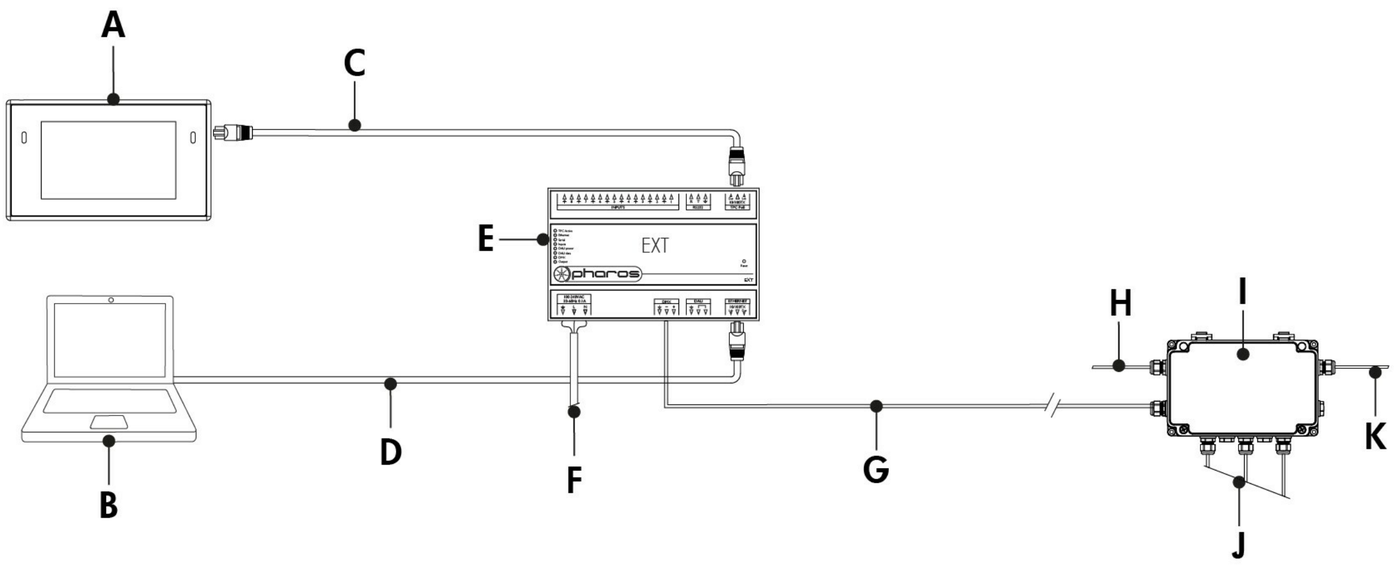




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Typical wiring diagrams

1 DMX universe kit

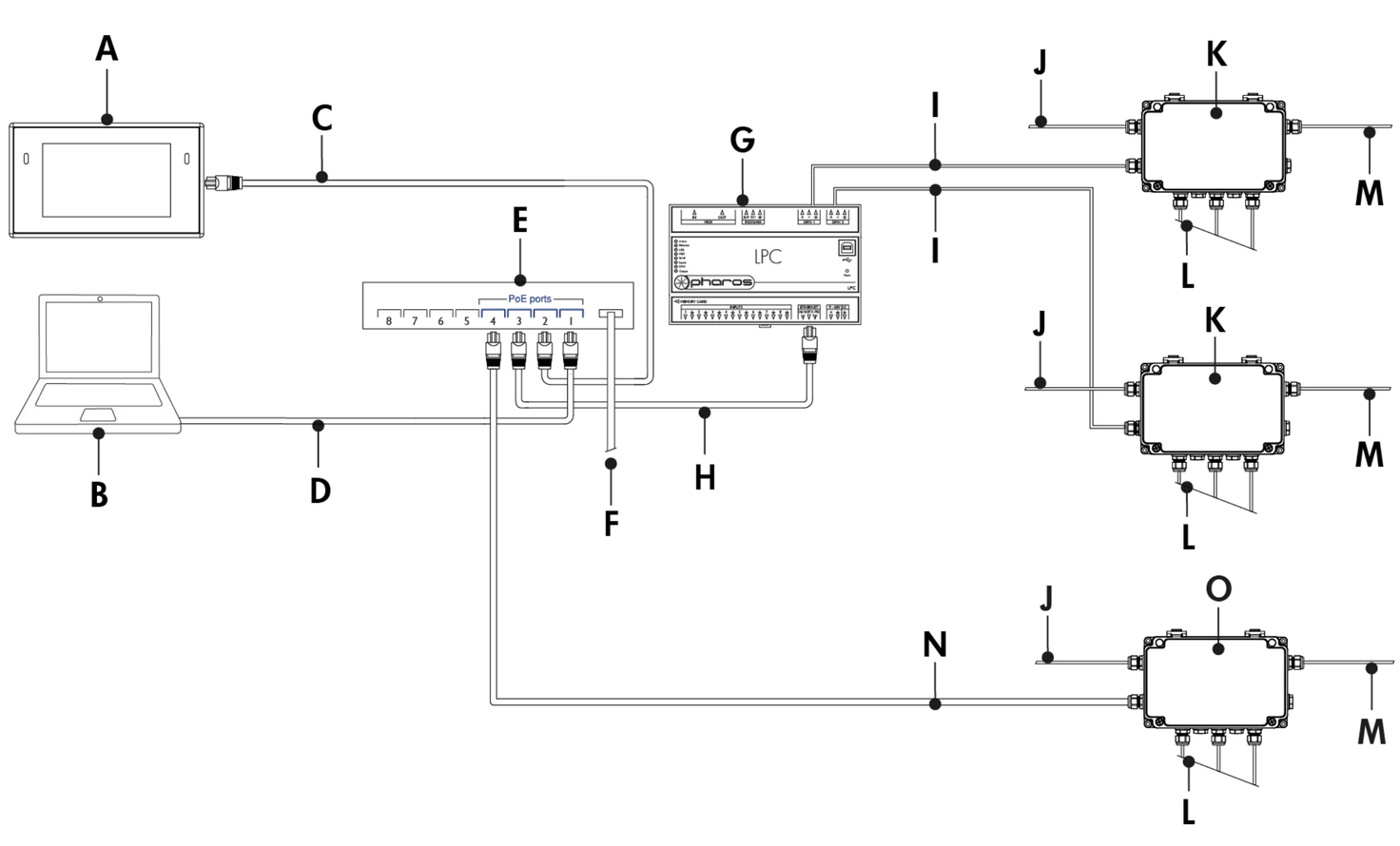


A - TPC
B - Computer
C - 50 ft Cat5e patch cable
D - Cat5e patch cable (by others)
E - EXT
F - Power input
G - Data input (Belden 9841 or equivalent, by others)
H - Data output to next CBX (optional, not isolated/not boosted)
I - CBX (order separately)
J - Power and data output to fixture (wiring by others)
K - Power input (100-277V)

TPC EDMX Port Assignments

DMX 1 Output	512
eDMX (Ethernet)	up to 512
Total channels	**512***

2 DMX universes kit



A - TPC
B - Computer
C - 50 ft Cat5e patch cable
D - Cat5e patch cable (by others)
E - TP-LINK 8-port switch
F - Power input
G - LPC
H - 50 ft Cat5e patch cable
I - Data input (Belden 9841 or equivalent, by others)
J - Data output to next CBX (optional, not isolated/not boosted)
K - CBX (order separately)
L - Power and data output to fixture (wiring by others)
M - Power input (100-277V)
N - Data Cable (Cat5 or better, by others)
O - Ethernet CBX (order separately)

LPC DMX Port Assignments

DMX 1 Output	512
DMX 2 Output	512*
eDMX (Ethernet)	up to 1024
Total channels	**1024**

* When used with an LPC, the TPC can utilize the second DMX output of the LPC (DMX 2) to output its DMX.

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info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/1423/pharosr-kit**

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How to order

1	2	3	4
PHAROS	U1	BN	SBB

1 . Housing

PHAROS	Pharos® kit

2 . DMX Universes

U1	1 DMX universe
U2	2 DMX universes
U1ENET	1 Ethernet DMX universe

3 . TPC Overlay & Bezel Color

BB	Black overlay and bezel
BN	Black overlay on a nickel bezel
WW	White overlay and bezel [1]
WN	White overlay on a nickel bezel [1]
CC	Cream overlay and bezel [1]

[1] Longer lead time of 6 to 8 weeks.

4 . TPC Back Box Mounting

FBB	Recessed/flush installation
SBB	Surface installation

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WELCOME

Thank you for purchasing a Pharos Architectural Controls Limited product, we hope that it fulfills your expectations and provides a lifetime of reliable service.

If you have any questions or require technical support please contact:

Email	support@pharoscontrols.com
Telephone	+44-(0)20-7471-9449

Technical specifications of this and other Pharos products can be found on our website at http://www.pharoscontrols.com.

OVERVIEW

The Pharos control solution has two complementary parts: the installed Controllers and Remote Devices, and the Designer software which runs on any personal computer and is only required when creating or modifying the presentation.

This guide is primarily intended as a reference for the Pharos hardware installation. For Designer software help please refer to the on-line documentation (once installed, see below) .

SOFTWARE INSTALLATION

- Microsoft Windows (see Designer Help for supported OS):

  Download the appropriate installer from pharoscontrols.com and run the Installer

- Apple Macintosh (see Designer Help for supported OS):

  Download the appropriate installer from pharoscontrols.com and run the Installer.

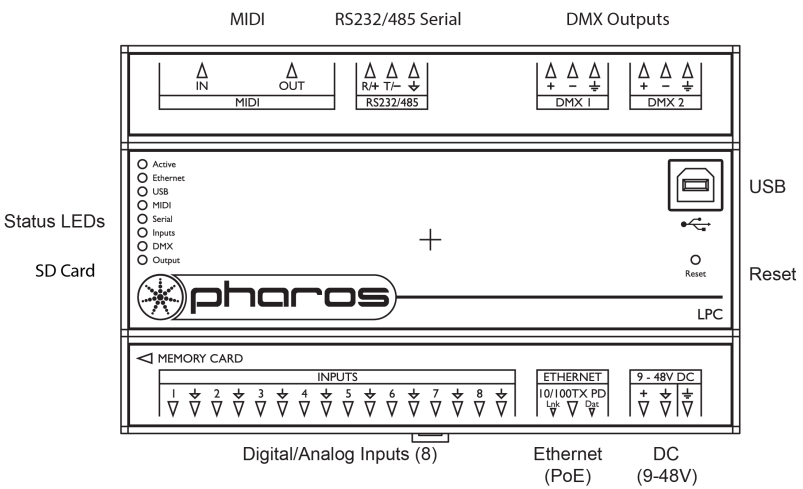
LPC INSTALLATION

The Lighting Playback Controller (LPC) is 100% solid state and have been qualified to operate in a dry environment within a temperature range of 0 C to 50 C (32 F to 122 F). Sealed IP65 rated consumer units are available for outdoor use, please consult your Pharos distributor or representative.

Since the units require no user intervention once installed they are suitable for remote installation with all configuration and management taking place over an Ethernet network. However it is recommended that access can be gained in the unlikely event of a hardware failure.

LPC LAYOUT

The following drawing illustrates the layout of the LPC, refer to the following sections for details:



LPC VERSIONS

There are three versions of the LPC available: LPC 1, LPC 2 and LPC 4. The LPC 1 supports 512 DMX channels, the LPC 2 supports 1024 channels and the LPC 4 supports 2048 channels (of which 1024 channels are eDMX only). All can be used as a stand-alone controller or co- operatively, via an Ethernet network, to form a scalable system.

POWER SUPPLY

The LPC can be powered in two different ways:

- DC power (9 to 48V)

  A limited power source approved to UL60950-1 2nd Edition, CAN/CSA C22.2

No. 60950- 1.07 2nd Edition MUST be used, with an output voltage of 9 to 48V DC.

Such a power supply can be connected directly to the LPC using the DC Input connector. The pins on this connector are marked:

+ Positive input (9 to 48V DC)

⏚ Signal ground (0V)

⏚ Chassis ground (earth)

The power supply should be connected to the Positive and Signal ground inputs, ensuring the polarity is correct. Where possible, use a 12V (minimum) supply in preference to a 9V supply to ensure some headroom.

The LPC will typically consume 4W.

- Power-over-Ethernet (PoE)

  A standard (802.3af) Power-over-Ethernet switch may be used to provide both power and a network connection to the LPC using a single cable.

  The LPC operates as a PoE Class 2 device (3.84>6.49W) and will typically consume 4W.

NOTE: Power should only be applied using one of the above methods. Redundant operation using both sources is not supported.

NOTE: Power must not be disconnected when uploading project data nor during bootloader/firmware updates to the LPC as corruption of the data or software may occur, perhaps even rendering the unit inoperable.

GROUNDING

The LPC is designed to be mounted on a grounded (earthed) DIN-rail and a dedicated Chassis ground (earth) terminal is also provided which should be connected to a suitable earth.

Additionally, the Signal ground can be tied to Chassis ground to provide a suitable reference but this is not generally recommended.

If in any doubt at all, or if you have unusual power supply or grounding/earthing requirements, then please consult Pharos Support.

REALTIME CLOCK BATTERY

The LPC's internal realtime clock is battery-backed to ensure operation when the unit is not powered. The battery should last for at least 10 years and is easily replaced when necessary, replacement battery: Renata CR2032 Lithium Button Cell.

CAUTION: Risk of explosion if battery replaced by incorrect type. Dispose of used batteries according to the manufacturer's instructions.

ATTENTION: Il y a un danger d'explosion s'il y a un remplacement incorrect de batterie. Mettre au rebut les batteries usages conformement aux instructions du fabricant.

MEMORY CARD

The LPC is shipped with a 2GB SD Memory Card which should be sufficient for most projects since the LPC's data storage is extremely efficient, even with a multitude of imported media files. However, a larger capacity card could of course be fitted if required.

As only the project's programming data resides on the card, the card is also a convenient way to backup data for archiving; the Designer project file for example.

Furthermore, in the event of LPC hardware failure, simply moving the card into a replacement unit with identical or more recent firmware is sufficient to get the project up and running again.

STATUS LEDS

The Pharos logo will illuminate when power is applied to the LPC. The red LEDs on the front of the LPC indicate the unit's current status.

The Active LED illuminates once the boot up procedure has completed and is indicative of a fully functional unit.

The Ethernet LED indicates Pharos-related network activity (not network link, see Ethernet port later) while the remaining LEDs indicate communication on the various ports of the LPC.

The Output LED indicates that a valid project file has been loaded from the memory card and that playback & data output has started.

The DMX LED indicates that valid DMX512 data is being output from the DMX ports.

ERROR CODES

Additionally the red status LEDs are used to indicate any boot failures of the LPC that prevent the unit from going active. These codes are outlined below and in all cases the Active LED will be off.

- Ethernet & USB double flashing - failed to boot firmware (follow the LPC recovery procedure detailed in Designer Help)
- Ethernet, MIDI & USB triple flashing - memory card missing (insert or replace card)

RESET SWITCH

The LPC may be reset by inserting a small blunt object into the reset hole on the front of the LPC to depress the reset switch. The switch should be held for at least one second.

NOTE: The reset must not be operated when uploading project data nor during bootloader/firmware updates to the LPC as corruption of the data or software may occur, perhaps even rendering the unit inoperable.

WATCHDOG

The internal "watchdog" is enabled by default to reset automatically the LPC in case of a software crash as a result of either a coding error ("bug") or a random electromagnetic event

such as a power brown-out or spike, nearby lightning strike or static discharge. Please refer to the Designer Help to learn how to disable this feature (not recommended).

PORTS

- RS232/RS485 Serial Port

  The serial port's protocol (RS232 or RS485), data rate and format settings (baud, parity, stop bits, etc.) are configured using Designer.

  In RS232 mode, the port operates in full duplex with the following pinout:

  R/+ Receive
  T/- Transmit
  ⏚ Signal ground

  In RS485 (and DMX In) mode, the port operates in half duplex with the following pinout:

  R/+ Data +
  T/- Data -
  ⏚ Signal Ground

  The serial port is not isolated from the LPC's power supply. If isolation is required, it must either be provided by the connected device or a separate isolator should be used.

- MIDI Input and Output

  The MIDI input and output connectors are standard 5 pin DIN connections. They may beconnected directly to any standard MIDI device.

- DMX Outputs

  Two DMX outputs are provided. An LPC 1 will output on both the same DMX universe data, an LPC 2 will output a separate universe on each. The pins on these connectors are marked:

  \+ Data + ('Hot' or 'True')
  \- Data - ('Cold' or 'Complement')
  ⏚ Chassis ground (shield)

  To make up a cable to a 5 pin XLR the following connections should be made:

	LPC:	5 pin XLR:
Data +	+	3
Data -	-	2
Shield	⏚	1

The DMX ports are by default not isolated from the LPC's ground connection which is the recommended configuration for driving isolated inputs - the majority of DMX receivers.

If required this may be changed by removing the top cover of the LPC and removing the jumper marked 'JP1', located to the right of the DMX ports. The two DMX ports will then be optically isolated from the LPC's internal circuitry although not from each other.

- Digital/Analog Inputs

The LPC features 8 digital/analog inputs on one 16 way connector. To connect an input signal to the LPC one connection should be made to the desired input pin, marked '1' to '8', and the other should be made to the adjacent signal ground pin.

The inputs can be individually configured via Designer to operate in one of three modes:

Contact closure: An external volt-free switch may be connected between the input pin and the signal ground pin.

In this mode, the input pin is internally pulled-up to 5V via a 2.2Kohm resistor, so the switch only needs to be rated at 5V, 2.5mA or greater.

Digital input: An external voltage source (such as a 12VDC trigger output) may be connected between the input pin and the signal ground pin.

In this mode, the input pin is internally pulled down to 0V via a 202.1Kohm resistor and the maximum input voltage supported is 24VDC.

The LPC may be configured to specify what the 'high' and 'low' threshold voltages are. This facility can be used to provide 'Schmitt trigger' action.

Analog input: An external voltage source (such as a 0-10V analog signal) may be connected between the input pin and the signal ground pin.

In this mode, the input pin is internally pulled down to 0V via a 202.1Kohm resistor and the maximum input voltage supported is 24VDC.

The LPC may be configured to specify what the input voltage range is. Voltages inside this range are reported as 0% to 100%.

In all modes, the maximum rated input voltage is 24VDC. The inputs should never be driven with a higher voltage nor negative voltage or damage may occur.

In all modes, all signal ground pins are connected together internally. The digital/analog inputs are not isolated from each other nor the LPC's power supply. If isolation is required, it must either be provided by the connected device or a separate isolator should be used.

- Ethernet

  A standard 10/100TX Ethernet connection may be made to the LPC. As the LPC supports Power-over-Ethernet (PoE), a PoE switch or midspan injector can be used. The LEDs on the RJ45 jack itself are useful for debugging the Ethernet installation:

  The Lnk LED will illuminate when an Ethernet link has been established.

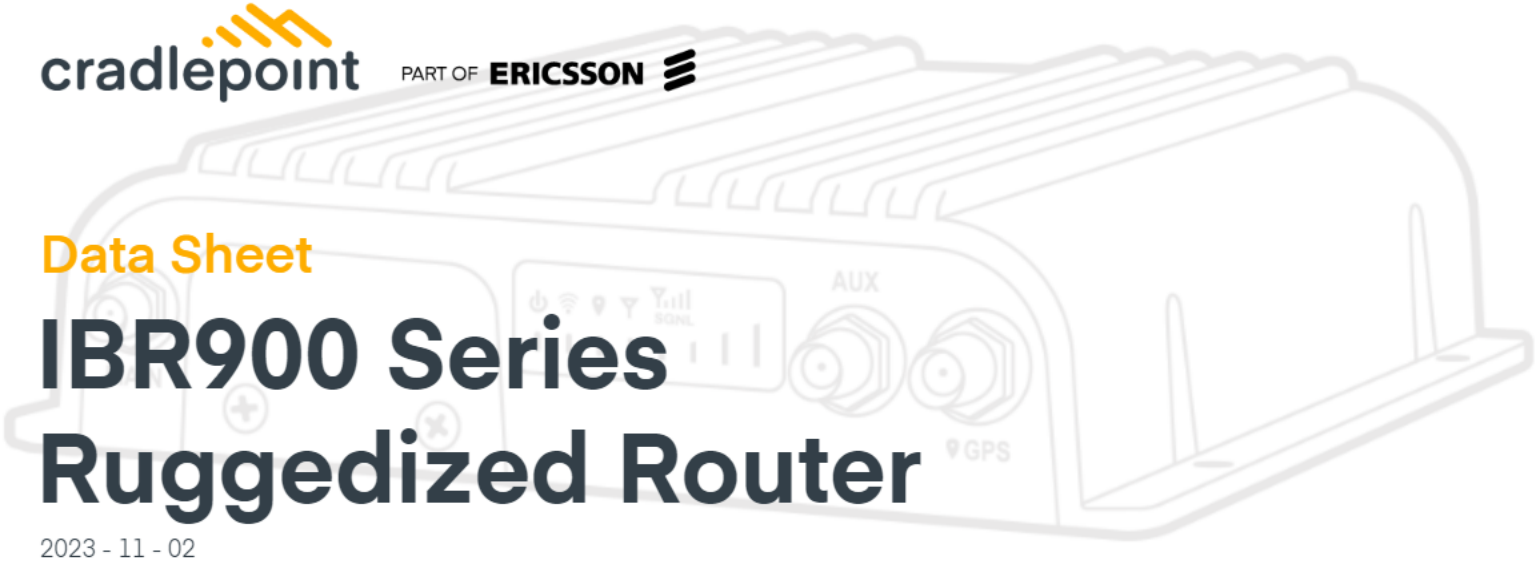
  The Dat LED will illuminate to indicate Ethernet traffic (not just Pharos-relevant).

- USB

  The USB port may be used to connect the LPC to a PC to upload project data and update the LPC's internal operating software.

NOTE: Ports and third party equipment can be damaged when plugging or unplugging an energised system (hot-plugging). It is therefore advisable to remove power before making or breaking port connections.

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Data Sheet

IBR900 Series Ruggedized Router

2023 - 11 - 02

The Cradlepoint IBR900 Series Router is a ruggedized, Gigabit-Class LTE networking platform. It is designed for persistent connectivity across a wide range of in-vehicle and mobile applications as well as portable or fixed IoT installations. The IBR900 Series is available with either Mobile or IoT NetCloud Service plans, which provide features optimized for the differing deployments.

High Performance Mobile Connectivity

For organizations that depend on field forces and mobile networks, the Cradlepoint IBR900 Series Router with the NetCloud Mobile service plan provides a ruggedized GPS-enabled, in-vehicle network solution. When coupled with the Advanced Mobile service plan, it provides threat management, web filtering, application visibility, analytics, and advanced GPS functionality including location tracking and cellular coverage maps. The IBR900 accommodates environmentally harsh environments while delivering enterprise-class standards of reliability, scalability, comprehensive management, and security.

Ruggedized IoT Solution

When coupled with the NetCloud Ruggedized IoT service plan, the IBR900 provides a compact, ruggedized, 4G LTE router solution for connecting and protecting IoT devices at scale. It is ideal for IoT deployments including oil and gas monitoring, Smart City infrastructure, and other IoT deployments operating under harsh conditions. With an extensive list of safety and hardening certifications, it can be confidently deployed in the field, in buildings, or in embedded systems to deliver complete visibility, security, and control of connected devices anywhere.

Notable Benefits

- Define policies through centralized cloud-based management for easy deployment at scale.
- Gain fast, reliable connectivity with an embedded Cat 11 or Cat 18 LTE modem.
- Add a second cellular modem for simultaneous dual-carrier LTE connectivity.
- Prioritize access on public safety networks for reliable, secure connectivity.
- Deploy Wave 2 dual-band, dual-concurrent, Gigabit Wi-Fi for the best possible connections.
- Integrate into Automatic Vehicle Location (AVL) systems with Active GPS.
- Provide a ruggedized solution to endure harsh environments.
- Configure GPIO ports for IoT and vehicle integrations.



Product Page



NetCloud Service



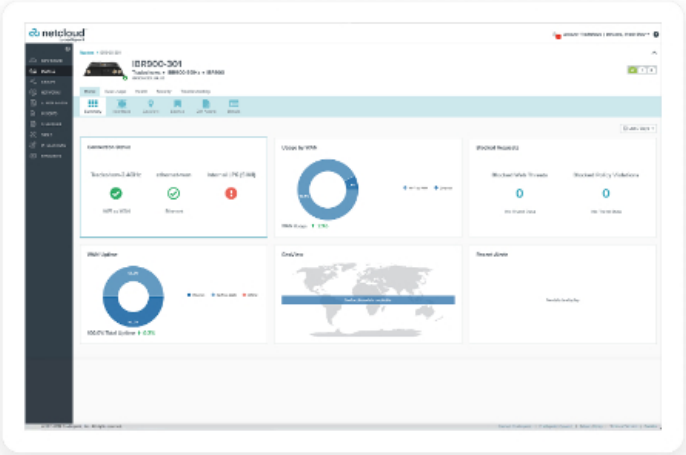
Quick Start Guide

Key Software Capabilities

Cradlepoint NetCloud Service for the IBR900 provides everything needed to unlock the power of LTE and connect vehicles, users, and IoT to critical applications and services. The available NetCloud IoT or Mobile service plans include the appropriate router software with powerful cloud management features for managing IoT at scale, or mobile-specific features like coverage maps, and application aware analytics. Everything within NetCloud works together, making it easy to deploy, connect, and secure edge applications at scale across the organization.

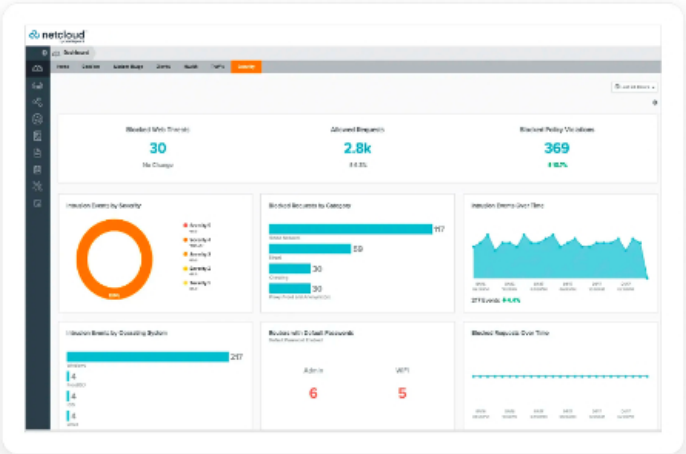
Router Services

Next generation hardware provides local processing power to handle demanding router-delivered services, such as support for VPN tunneling encryption including DMVPN, IPsec, GRE, and other tunneling technologies.



Security Services

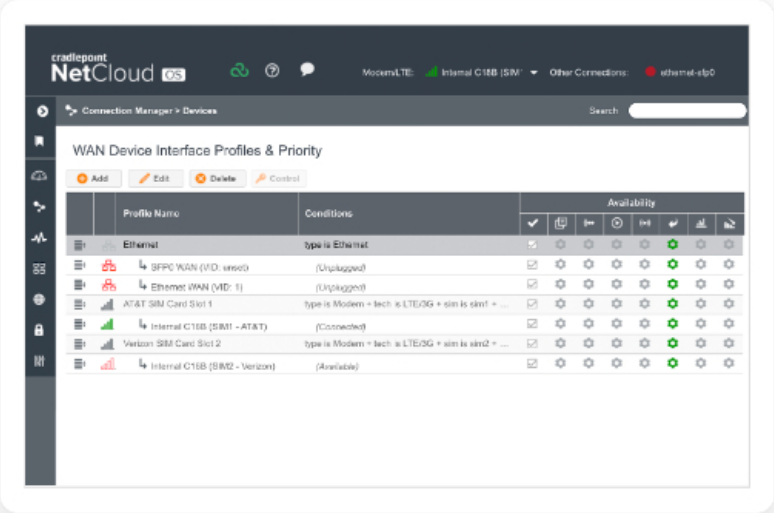
NetCloud Service includes security features and options to optimize the IBR900 to meet the evolving security needs of mobile and IoT environments. The service includes stateful zone-based firewall with the ability to add application aware security policies with the Advanced Mobile service plan.



Connection Manager

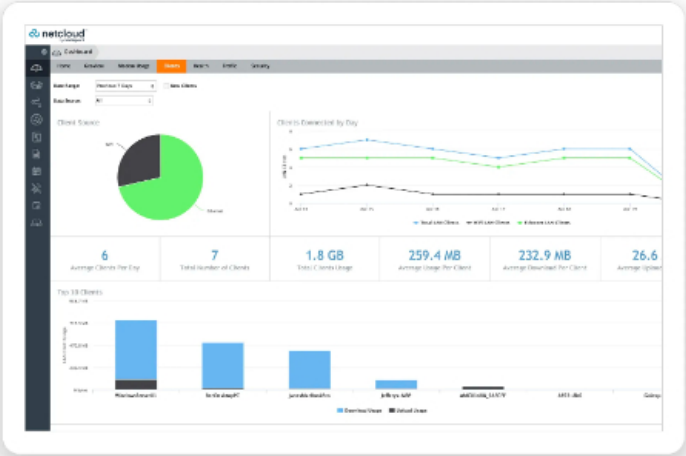
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Connection Manager provides the ability to manage all WAN connections types including wireless, Wi-Fi as WAN, and wired, from a single software-defined policy. Our custom-built modem software ensures users establish Wireless WAN connectivity faster while maintaining the highest level of resiliency.



Cloud Services

NetCloud Manager delivers true zero-touch deployment with the ability to define and deliver policy across entire groups of endpoints. Users can create a cloud-orchestrated hub and spoke VPN network and gain insights and analytics required for rapid troubleshooting and diagnostic workflows. Support operations with real time location services and vehicle information.



Hardware Specifications

The following features are delivered through the hardware.

INTERFACES

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Modem:	One of the following: — Embedded 1200M-B modem — 2 x SMA cellular antenna connectors — Embedded 600M modem — 2 x SMA cellular antenna connectors Optional dual modem (requires the the COR Extensibility Dock): — Modular MC400 Modem
Ethernet:	2 x GbE (LAN/WAN switchable)
Wi-Fi:	Dual-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz) — 2x2 MU-MIMO 802.11ac Wave 2 (Wi-Fi 5) and 256 QAM support — Modes: AP, Wireless Client, and Wi-Fi as WAN — 574 Mbps (2.4 GHz) and 1,200 Mbps (5 GHz) — 2 x RP-SMA Wi-Fi antenna connectors — WPA/WPA2/WPA3 Personal, WPA2/WPA3 Enterprise, WEP Auto, Open — 802.11k (AP mode only), 802.11v — Wi-Fi Alliance Certified
Expansion:	1 x USB 2.0 Type A (output: 5V, 500mA, 2.5W) 1 x Extensibility Port — Extensibility Dock — 9-Wire Power and GPIO Cable — Serial Port Adapter
GNSS/GPS:	1 x SMA GNSS antenna connector
GNSS / GPS	
Acquisition: **(Time to First Fix)**	32 seconds (cold start)
Protocols:	NMEA 0183
Constellations:	600M — GPS — Galileo — GLONASS — BeiDou — GNSS 1200M-B — GPS — Galileo — GLONASS — BeiDou

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Accuracy:	Horizontal: < 2 m (50%), < 5 m (95%)
Sensitivity:	600M — Acquisition: -145 dBm — Tracking: - 160 dBm 1200M-B — Tracking: - 159 dBm
Frequencies:	L5
Power:	600M — Voltage Supply: 3.15 V — Max Current: 3.25 V 1200M-B — Voltage Supply: 3.1 V — Max Current: 20 mA
ENVIRONMENTAL	
Temperature:	— Operating: -30 °C to 70 °C (-22 °F to 158 °F) — Storage: -40 °C to 85 °C (-40 °F to 185 °F)
Humidity:	— Operating: 5% to 95% — Storage: 5% to 95%
Ingress Protection:	IP54 (dust protected and splashing water)
POWER	
Required:	One of the following: — 9-33 VDC steady state input (vehicle installations with 9-24 VDC requires 3A inline fuse, >24 VDC requires 2.5A fuse) — External DC power supply, 100-240 VAC input, 12 VDC 2A output (included) — External DC power supply, 100-240 VAC input, 12 VDC 3A or 5.5A output (optional)
Features:	— Reverse polarity and transient voltage protection (ISO 7637-2) — Ignition sensing (automatic ON & time-delay OFF)
Consumption:	— Idle: 4 W — LTE Tx/Tx: 6.25 W — Wi-Fi Tx/Rx: 9 W
PHYSICAL	
Size:	118 x 114 x 30 mm (4.6 x 4.5 x 1.2 in)
Weight:	400 g (14 oz)
RELIABILITY	

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Calculated MTBF:	— IBR900-1200M-B: 905,136 hours (Telcordia SR332 at 25 °C) — IBR900-600M: 1,149,681 hours (Telcordia SR332 at 25 °C)
CERTIFICATIONS	
Safety:	— UL/cUL — CB Scheme — EN 60950-1 — EN 62368-1
Vehicle:	E-Mark
Materials:	— WEEE — RoHS, RoHS-2 — California Prop 65
Security:	FIPS 140-2 Inside (FIPS models only)
Shock/Vibration/Humidity:	— MIL STD 810G — SAE J1455
Hazardous Locations:	Class 1 Div 2 (IBR900-600M NA only)
WI-FI POWER	
FCC:	— 2.4 GHz: 28.1 dBm conducted — 5150–5250 MHz: 22.55 dBm conducted — 5250–5350 MHz: 23.63 dBm conducted — 5470–5725 MHz: 23.4 dBm conducted — 5725–5850 MHz: 25.45 dBm conducted
IC:	— 2.4 GHz: 28.1 dBm conducted — 5150–5250 MHz: 17.85 dBm conducted — 5250–5350 MHz: 18.45 dBm conducted — 5470–5725 MHz: 23.4 dBm conducted — 5725–5850 MHz: 25.45 dBm conducted
Europe:	— 2.4 GHz: 15.44 dBm conducted — 5150-5250 MHz: 18.86 dBm conducted — 5250–5350 MHz: N/A — 5470–5725 MHz: N/A — 5725–5850 MHz: N/A
Australia/New Zealand:	— 2.4 GHz: 15.44 dBm conducted — 5150-5250 MHz: 18.86 dBm conducted — 5250–5350 MHz: N/A — 5470–5725 MHz: N/A — 5725–5850 MHz: 27.3 dBm conducted

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PERFORMANCE	
Stateful Firewall Throughput:	940 Mbps
IPsec VPN Throughput:	20 Mbps
Concurrent VPN Tunnels:	10
Concurrent Sessions (TCP):	16,000
Typical Client Count:	10†
LEDs	
	Refer to the IBR900 Series Ruggedized Router Quick Start Guide

Performance testing conducted based on requirements as defined in RFC2544 using fixed-frame 1518-byte packets. Throughput results reflect uni-directional UDP traffic with less than 1% packet loss as tested with wired connections. Results do not reflect performance of the cellular wireless operator networks.
†When Cradlepoint Secure Threat Management or Applications Analytics are enabled in NetCloud Manager, the client count is reduced to 5.

Enterprise-Class Modem Specifications

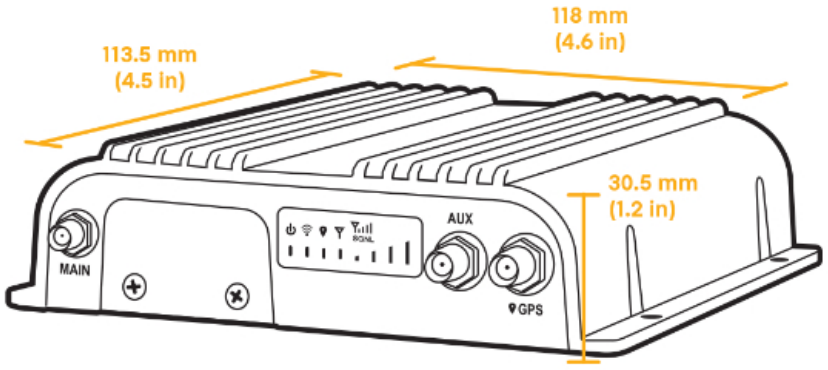
SPECIFICATION	1200M-B	600M
Technology:	Cat 18 LTE Advanced Pro (3GPP Rel. 12) — Dual SIM slots, mini 2FF form factor — SIM-based carrier auto-selection	Cat 11 LTE Advanced (3GPP Rel. 11) — Dual SIM slots, mini 2FF form factor — SIM-based auto-carrier selection
3G:	WCDMA/UMTS/HSPA+	WCDMA/UMTS/HSPA+
Carrier Aggregation:	Up to 5CA downlink, 2CA uplink Refer to the Modem Carrier Aggregations article.	Up to 3CA downlink, 2CA uplink Refer to the Modem Carrier Aggregations article.
Peak Downlink Rates:	— LTE: 1 Gbps — WCDMA: 42.2 Mbps	— LTE: 600 Mbps — WCDMA: 42.2 Mbps
Peak Uplink Rates:	— LTE 150 Mbps — WCDMA: 5.76 Mbps	— LTE: 75 Mbps — WCDMA: 5.76 Mbps
MIMO:	2x2 MIMO	2x2 MIMO
QAM:	Up to 256	Up to 256
4G/LTE Bands:	LTE FDD — B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B39, B41, B66, B71	LTE FDD — B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B20, B25, B26, B28, B29, B30, B66 LTE TDD — B38, B40, B41
3G Bands:	B1, B2, B4, B5, B8, B19	B1, B2, B4, B5, B8
Power:	LTE 23 dBm ± 1, DC-HSPA+ 23 dBm ± 1 (typical conducted)	LTE 23 dBm ± 1; HSPA+ 23 dBm ± 1 (typical conducted)

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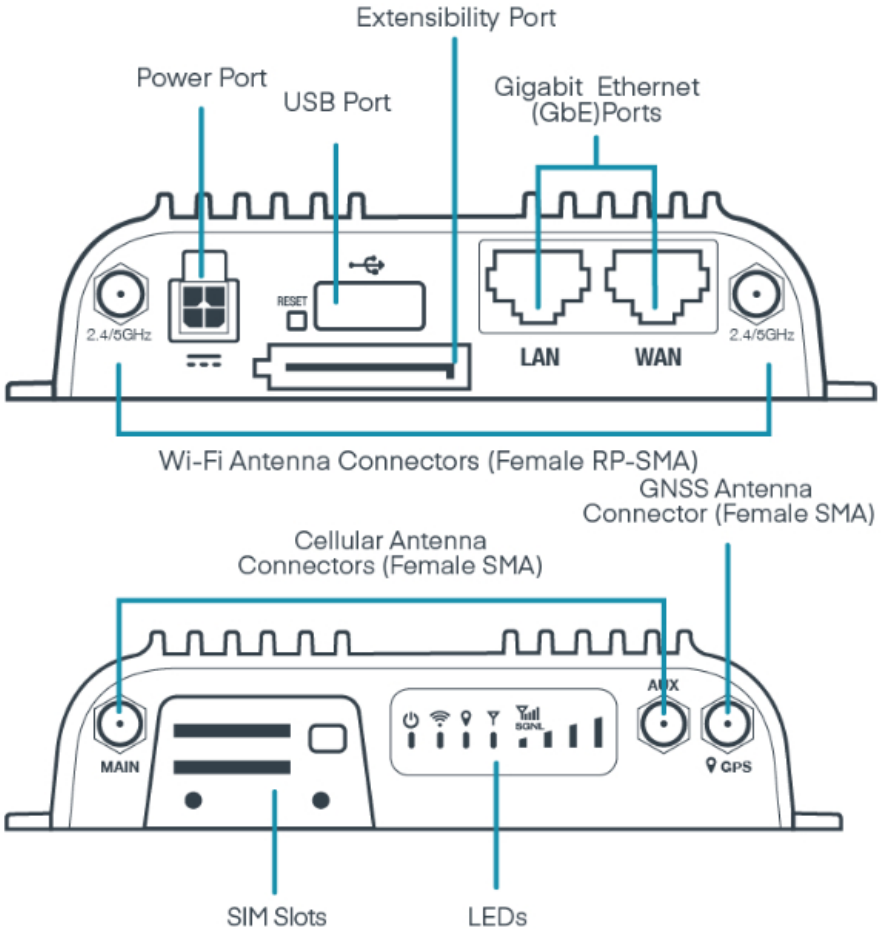
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 2, included)	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 2, included)
GNSS/GPS:	Active GNSS — GPS, GLONASS, BeiDou, Galileo — DC voltage bias supplied (typical 3.1v)	Active GNSS — GPS, GLONASS, BeiDou, Galileo — DC voltage bias supplied (typical 3.1v)
SMS:	Yes	Yes
Regulatory:	FCC (U.S.), IC (Canada)	FCC (U.S.), IC (Canada), CE (EU), RCM (AU/NZ), ICASA (ZA), iMDA (SG), SIRM QAS (MY), Ifitel NOM (MX), Subtel (CL/CR), CRC (CO)
Network Operator Standards:	PTCRB (U.S.)	PTCRB (U.S.), GCF (Worldwide)
Network Operator Certifications:	AT&T, Verizon†	AT&T, EE†, Optus, Sprint, Telstra, Verizon,
Public Safety Network Certifications:	FirstNet Trusted™, Verizon Frontline	ESN, Verizon Frontline, Verizon Response Verified
Private Cellular Network:	N/A	N/A

†Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications. A carrier listed in the approvals section means Cradlepoint completed additional testing and acquired technical approval for that given carrier. Any carrier not listed may not require additional testing or approval beyond telecom industry certifications to operate on their network.

Physical Measurements & Features



Features



SIM Card Info



Ordering Guide

NetCloud Mobile and NetCloud Ruggedized IoT Essentials packages and plans contain all the features and capabilities required for a broad range of mobile, in-vehicle, and IoT applications. Essentials packages include 24x7 support (phone support: 24 hour weekdays with emergency response on weekends, web: 24x7, chat: 24x5) and a limited lifetime warranty.
For additional capabilities, a **NetCloud Mobile Advanced Plan** or **NetCloud Ruggedized IoT Advanced Plan** can be added to the NetCloud Mobile or Ruggedized IoT Essentials Package at any time.
See additional details of what is included in the Essential and Advanced NetCloud software: cradlepoint.com/netcloud-service

NetCloud Packages for the IBR900 Series Router

REGION	MODEM	PACKAGE PLAN	PART NUMBER

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U.S. & Canada:	Cat 18 with Wi-Fi (1000 Mbps)	Mobile — Essentials	MAx-0900120B-NNA
		Mobile — Essentials + Advanced	MAAx-0900120B-NA
	Cat 11 with Wi-Fi (600 Mbps)	Mobile — Essentials	MAx-0900600M-NNA
		Mobile — Essentials + Advanced	MAAx-0900600M-NA
	No modem	Mobile — Essentials	MAx-0900NM-0NA
Mexico:	Cat 11 with Wi-Fi (600 Mbps)	Mobile — Essentials	MA0x-0900600M-MX
		Mobile — Essentials + Advanced	MAAx-0900600M-MX
U.S. & Canada:	Cat 11 with Wi-Fi (600 Mbps)	Mobile FIPS — Essentials + Advanced	MAx-900F600M-XFA
	Cat 18 with Wi-Fi (1000 Mbps)	Mobile FIPS — Essentials + Advanced	MAx-900F120B-XFA
	Cat 11 with Wi-Fi (600 Mbps)	Ruggedized IoT — Essentials	TC0y-0900600M-NN
		Ruggedized IoT — Essentials + Advanced	TCAy-0900600M-NN
	Cat 18 with Wi-Fi (1000 Mbps)	Ruggedized IoT — Essentials	TC0y-0900120B-NN
		Ruggedized IoT — Essentials + Advanced	TCAy-0900120B-NN
Mexico	Cat 11 with Wi-Fi (600 Mbps)	Ruggedized IoT — Essentials	TC0y-0900600M-MX
		Ruggedized IoT — Essentials + Advanced	TCAy-0900600M-MX
United States: Federal Government	Cat 11 with Wi-Fi (600 Mbps) — No AC power supply or antennas	Mobile TAA Compliant NC — Essentials	TAA-MAy-0900600M-NNA
		Mobile TAA Compliant NC — Essentials + Advanced	TAA-MAAy-0900600M-NA
	Cat 18 with Wi-Fi (1000 Mbps) — No AC power supply or antennas	Mobile TAA Compliant NC — Essentials	TAA-MAy-0900120B-NNA
		Mobile TAA Compliant NC — Essentials + Advanced	TAA-MAAy-0900120B-NA

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	Cat 11 with Wi-Fi (600 Mbps) — No AC power supply or antennas	FIPS TAA Compliant NC Mobile — Essentials + Advanced	TAA-MAy-900F600M-XFA
	Cat 18 with Wi-Fi (1000 Mbps) — No AC power supply or antennas	FIPS TAA Compliant NC Mobile — Essentials + Advanced	TAA-MAy-900F120B-XFA
	1200 Mbps — Includes high temp AC power supply & antennas — Verizon & AT&T SIMs inserted	FIPS TAA Compliant NC Mobile — Essentials + Advanced	TAA-MAX5-900F120B-F0
Europe: **European Union, Saudi Arabia, South Africa, United Arab Emirates & United Kingdom**	Cat 11 with Wi-Fi (600 Mbps)	Mobile — Essentials Mobile — Essentials + Advanced	MAx-0900600M-EWA MAAx-0900600M-EA
	No modem	Mobile — Essentials	MAx-0900NM-0WA
	Cat 11 with Wi-Fi (600 Mbps)	Ruggedized IoT — Essentials Ruggedized IoT — Essentials + Advanced	TC0y-0900600M-EM TCAy-0900600M-EM
Asia Pacific: **Australia, Malaysia, New Zealand & Singapore**	Cat 11 with Wi-Fi (600 Mbps)	Mobile — Essentials Mobile — Essentials + Advanced	MAx-0900600M-PWA MAAx-0900600M-PA
	No modem	Mobile — Essentials	MAx-0900NM-0WA
	Cat 11 with Wi-Fi (600 Mbps)	Ruggedized IoT — Essentials Ruggedized IoT — Essentials + Advanced	TC0y-0900600M-PM TCAy-0900600M-PM

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All Regions:	Mobile — Renewal Essentials	MAx-NCESS-R
	Mobile — Advanced (requires corresponding Essentials)	MAx-NCADV
		MAx-NCADV-R
	Mobile — Renewal Advanced (requires corresponding Essentials)	MAAx-NCEA-R
	Mobile — Renewal Essentials + Advanced	
	FIPS — Mobile Renewal Essentials + Advanced, FIPS Only	MAx-NCESSF-R
	Ruggedized IoT — Renewal Essentials	TC0x-NCESS-R
		TC0x-NCADV
	Ruggedized IoT — Advanced (requires corresponding Essentials)	TC0x-NCADV-R
	Ruggedized IoT — Renewal Advanced	TCAx-NCEA-R
	Ruggedized IoT — Renewal Essentials + Advanced	

x = 1, 3, or 5 years
y = 3 or 5 years

Accessories

INCLUDED	PART NUMBER
NetCloud Mobile Packages only: — GPIO Cable, Small 2x2, Black, 3 meters, 22 AWG	170585-001
NetCloud Ruggedized IoT Packages only: — Cellular Antenna, Black, 600 MHz - 6 GHz, SMA, 180 mm (Qty 2) — Wi-Fi Antenna, Black, Dual-Band 2.4/5 GHz, RPSMA, 194 mm (Qty 2)	170760-000 170628-000
NetCloud Ruggedized IoT Packages only, one of the following: — Power Supply, 12 V Small 2x2 1.5 meters (North America Type A) — Power Supply, 12 V Small 2x2 1.5 meters (NA-UK-EU-AU Types A-G-C-I)	170716-001 170717-000
OPTIONAL	**PART NUMBER**
Power Supply, vehicle, 12 V, 2x2, 2 meters	170635-000
Power Supply, 12 V, Small 2x2 (C7 line cord not include), -30 °C to 70 °C (-22 °F to 158 °F)	170869-000

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Power Supply C7 Line Cord Options: — Line Cord, 125 V, C7, 1.8 meters, North America — Line Cord, 250 V, C7, 1.8 meters, (Europe Type C) — Line Cord, 250 V, C7, 1.8 meters, (United Kingdom Type G) — Line Cord, 250 V, C7, 1.8 meters, (Australia Type I)	170623-001 170623-002 170623-003 170623-004
Small 2x2 Power to Barrel Adapter, 152 mm	170665-000
GPIO Cable, SATA with Lock, Black, 1.7 m	170680-000
Rail Safe GPIO Cable, Small 2x2, Black, 3 meters, 20AWG	170871-000
NetCloud Mobile Packages (bench testing only): — Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm (Qty. 2) — Wi-Fi Antenna, Charcoal, Dual-Band 2.4/5 GHz, RP-SMA, 194 mm (Qty. 2) — Optional power supply (see above)	170801-000 170836-000 Varies (see above)
Din Rail Mounting Bracket	170656-002
Mag Mount Kit	170718-000
COR Extensibility Dock	170700-000
COR Extensibility Cable, SATA-DB9, Black, 305 mm	170767-000
LTE Advanced Pro (1200 Mbps) modem upgrade for Mobile — Includes IBR1700 & COR Extensibility Dock doors, no antennas†	MA-MC400-1200M-B
UNITED STATES FEDERAL GOVERNMENT	**PART NUMBER**
GPIO Cable, Small 2x2 Black, 3 meters, 22 AWG	TAA-170585-001
Line Cord, 125 V (C7), 1.8 meters (North America Type A)	TAA-170623-001
Power Supply, vehicle, 12 V, 2x2, 2 meters	TAA-170635-000
Din Rail Mounting Bracket	TAA-170656-002
Small 2x2 Power to Barrel Adapter, 152 mm	TAA-170665-000
GPIO Cable, SATA with Lock, Black, 1.7 m	TAA-170680-001
COR Extensibility Dock	TAA-170700-000
Power Supply, 12 V, Small 2x2, 1.5 meters (North America Type A)	TAA-170716-000
Power Supply, 12 V, Small 2x2, 1.5 meters (North America-United Kingdom-Europe-Australia Types A-G-C-I)	TAA-170717-000
Mag Mount Kit	TAA-170718-000
COR Extensibility Cable, SATA-DB9, Black, 305 mm	TAA-170767-000
Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	TAA-170801-000
LTE Advanced Pro (1200 Mbps) modem upgrade for Mobile — Includes IBR1700 & COR Extensibility Dock doors, no antennas†	TAA-MA-MC400-1200M-B

†*Refer to the Cradlepoint MC400 Modular Modem webpage for more information about modular modems.*

Support & Warranty

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The IBR900 Router is only sold as a component of NetCloud Mobile/NetCloud Ruggedized IoT Essentials or Essentials and Advanced Packages.

- NetCloud Packages include support for the full subscription term.
- All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they have a subscription license to an active NetCloud Service Plan.

More Information

Find the most up-to-date information at cradlepoint.com/ibr900

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2.1 VOC Epoxy Primers

274528SP/01 Gray
274530SP/01 White
274531SP/01 Black

Matthews 2.1 VOC Epoxy Primers are corrosion resistant primers that provide excellent adhesion to many types of substrates, including stainless steel, and can also be used in areas where a maximum 2.1 VOC is required.

Packaged in Gray, White, and Black, primers can be mixed together to achieve shades from light gray to dark gray.



Features:	Benefits:
Low VOC technology	Environmentally friendly, meets 2.1 VOC regulations
Chromate-free	Meets EPA regulations for chromate restrictions
Available in Black, White, and Gray	Combine together for any shade of gray
Topcoat with any Matthews Acrylic Polyurethane finishes	Versatile, multi-purpose
Compatible over various substrates, including stainless steel	For multiple applications, fewer products to stock
Brush and roll capability	For use in areas where air spraying is prohibited
Epoxy technology	Excellent corrosion resistance, superior adhesion to substrate
Excellent filling properties	Capable of hiding minor metal substrate defects
Easy mix ratio	Less time mixing
Four day topcoat window	No sanding required prior to topcoating within window

Compatible Surfaces:

2.1 VOC Epoxy Primers may be applied over properly prepared:

Steel	Galvanized steel	Body filler
Stainless steel	Aluminum	Masonry
Blasted steel	Fiberglass	Wood
Carbon steel	Previously painted surfaces	

Associated Products:

Catalyst
274529SP/04 2.1 VOC Epoxy Hardener

Directions for Use

Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

Mix Ratio:



Mix Ratio for Spraying (by volume)

274528SP/01 / Gray 274530SP/01 / White 274531SP/01 / Black	274529SP/04
4 parts	1 part

- All components should be mixed thoroughly before using
- Strain material after mixing



Pot Life: 4 hours
Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.
Note: mix no more product than can be used within pot life.

Additives:



None

Spray Set Up:



Air Pressure:
Conventional: 40 - 50 psi at the gun*
HVLP: 10 psi at the cap*
* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up:

Siphon Feed:	1.3 - 1.5 mm 0.051 - 0.059 fluid tip
HVLP:	1.3 - 1.5 mm 0.051 - 0.059 fluid tip
Pressure Pot:	1.0 - 1.2 mm 0.039 - 0.047 fluid tip

Directions for Use

Application:



Apply: Apply one to two full wet coats, allowing proper flash time* between coats.
Apply additional coats as necessary to achieve total dry film thickness.
*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	One Coat Application	Two Coat Application
Wet Film Thickness (WFT)	2 - 3 mils	4 - 6 mils
Dry Film Thickness (DFT)	1 - 1.5 mils (minimum)	2 - 3 mils

Caution: All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C
Dust Free 15 - 20 minutes
Dry to Touch 20 - 30 minutes
Dry to Handle 30 - 45 minutes
Dry to Topcoat 30 minutes - 4 days (max)*

*After 4 days, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.
Note: Do not leave mixed material in equipment.

Technical Data:

VOC Information

VOC Actual RTS	1.28 - 1.29 lbs/gal
VOC Actual RTS	153 - 154 g/L
VOC Regulatory (less water less exempt) RTS	2.09 - 2.1 lbs/gal
VOC Regulatory (less water less exempt) RTS	250 g/L

For complete VOC information, visit MatthewsPaint.com > Quick Links > VOC Data

Performance Characteristics

Volume solids (RTS)	43.7%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	702 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

Important: The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

See Safety Data Sheet and Labels for additional safety information and handling instructions.

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION - US (412) 434-4515; CANADA (514) 645-1320; Mexico 01-800-00-21-400
Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to Matthews Paint. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does Matthews Paint warrant freedom from patent infringement in the use of any formula or process set forth herein.
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Acrylic Polyurethane Ultra Low VOC

MAP-LVS

MAP-LV (Matthews Acrylic Polyurethane Ultra Low VOC) is designed to exceed the most stringent VOC regulations while retaining our full color range. In addition, this flexible high-solids, chemically cross-linked coating offers exceptional outdoor durability, UV and chemical resistance, and great impact, mar and abrasion resistance. This product can be applied over many properly prepared and primed substrates such as aluminum, steel, wood, or other existing coatings. MAP-LV is formulated to deliver less than 50g/L VOC in standard solid color applications. The use of metallics and/or special reducers will increase the VOC level slightly.



Features: Benefits:

Durable yet flexible film	Impact and mar resistant
Satin-in-the-can	No additional flattening agent needed, Consistent gloss and finish, Less time to mix
Air-dry or force-dry capable	Fits most shop conditions
Excellent UV resistance	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane	Resistance to weathering; Resistance to chalking, Long-term durability
Ultra low VOC technology	Environmentally friendly; Complies with most stringent VOC requirements; High solids
Brush and roll capability	For use in areas where air spraying is prohibited

Compatible Surfaces:

MAP-LVS Acrylic Polyurethane Ultra Low VOC may be applied over properly prepared:

6001SP/01 Polyester Primer Surfacer
6007SP/01 3.5 Gray Epoxy Primer
274685SP/01 U Prime
274808SP/01 Black Epoxy Primer
274908SP/01 White Epoxy Primer
274528SP/01 2.1 VOC Gray Epoxy Primer
274530SP/01 2.1 VOC White Epoxy Primer
274531SP/01 2.1 VOC Black Epoxy Primer
74350SP/01 3.5 Non-Chromate Primer
74734SP/01 Metal Pretreatment
74760SP/01 PT Filler
74770SP/01 HBPT
74780SP/01 HBEF
74777SP/01 Tie Bond
274777SP/01 Low VOC Tie Bond
274793SP/01 Low VOC Spray Bond
LVU100/01 Ultra Low VOC Epoxy Primer
SMPFV205A/01 Chromate Free 3.5 VOC Wash Primer
SMHB404A/01 Urethane Filler
SMP001A/01 Epoxy Gray Primer
SMP002A/01 Epoxy White Primer
SH5106/01* White Primer
Z6248/01 1K WB White Primer
*Also available in /PL or /DR

Associated Products:

Catalyst
MAP-LVX270/01* Catalyst
*Also available in /04

Reducer
MAP-LVRS01/01* Cool Temp. Spray Reducer
MAP-LVRS02/01 Warm Temp. Spray Reducer w/ Extender
MAP-LVRS03/01 Hot Temperature Spray Reducer w/ Extender 80° & Above
MAP-LVRB51/01* Brush and Roll Reducer

Accelerator
287437SP/08 HS Accelerator
MAP-LVA117/08 Ultra Low VOC Accelerator
47117SP/04 MAP Accelerator
287484SP/08 HS Turbo Enhancer
SM166A/04 Tape-It Accelerator

MAP-LVS

Directions for Use

Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

Mix Ratio:



Mix Ratio for Spraying (by volume)

MAP-LVS	LVX270/01 or /04	LVRS0x*	with Accelerator**
3 parts	1 part	1 part	Up to 1oz/RTS quart

*Choose MAP reducer

- MAP-LVRS01 Cool Temp. Spray Reducer
- MAP-LVRS02 Warm Temp. Spray Reducer with Extender
- MAP-LVRS03 Hot Temperature Spray Reducer with Extender 80° & Above
- NOTE: Larger jobs may require a hotter temperature reducer.

**Caution: use of accelerator with LVRS01 is Not Recommended as it will drastically shorten pot life.

- For Brushing and Rolling, refer to Technical Data Sheet MPC193.
- All components should be mixed thoroughly before using
- Strain material after mixing



Pot Life: Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.
Note: mix no more product than can be used within time limits listed below:

Application Method	Reducer	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	MAP-LVRS01/01**	Accelerator is Not Recommended when using MAP-LVRS01/01** reducer		4 hours
	MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	1.5 oz	1.5 hours
		MAP-LVA117/08	1 oz	1 hour
		47117SP/04	1 oz	1 hour
		287484SP/08	½ oz – 1 oz	1 hour
		SM166A/04	¼ oz – 1 oz	30 minutes
Brush and Roll	LVRB51/01**	Accelerator is Not Recommended when brushing or rolling		2 hours

*Times listed in the chart above are for a full load of accelerator.
**Also available in /04

Additives:



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Coarse Suede Additive

Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun*
HVLP: 10 psi at the cap*
* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up:

Siphon Feed:	1.2 - 1.4 mm 0.047 - 0.055 fluid tip
HVLP:	1.2 - 1.4 mm 0.047 - 0.055 fluid tip
Pressure Pot:	1.0 - 1.2 mm 0.039 - 0.047 fluid tip

MAP-LVS

Directions for Use

Application:



Apply: Apply two full wet coats, allowing proper flash time* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:		Per Coat	Total
	Wet Film Thickness (WFT)	2 - 3 mils	4 - 6 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

Caution: All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C
LVS (Mixed 3:1:1 with LVX270 and Reducer)

Reducer	Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
MAP-LVRS01/01**	Not recommended	10-15 minutes	25-35 minutes	45-60 minutes	1-2 hours	8-11 hours	16-22 hours
MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	MAP-LVA117/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	47117SP/04	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	287484SP/08	10-15 minutes	15-20 minutes	25-40 minutes	45-60 minutes	5-7 hours	9-14 hours
	SM166A/04	10-15 minutes	15-20 minutes	25-35 minutes	45-60 minutes	4-7 hours	8-14 hours

*Times listed in the chart above are for a full load of accelerator.
**Also available in /04

Recoating: Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

Force Dry: Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas.
Note: Do not leave mixed material in equipment.

MAP-LVS

Acrylic Polyurethane Ultra Low VOC

Technical Data:

VOC Information

VOC Actual RTS	0.18 – 1.91 lbs/gal
VOC Actual RTS	22 – 229 g/L
VOC Regulatory (less water less exempt) RTS	0.38 – 2.34 lbs/gal
VOC Regulatory (less water less exempt) RTS	46 – 280 g/L

For complete VOC information, visit MatthewsPaint.com > Quick Links > VOC Data

Performance Characteristics

Volume solids (RTS)	45.28% - 54.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	727 - 761 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

For specifications and other technical data refer to MPC211 MAP-LV specifications document

Important: The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

See Safety Data Sheet and Labels for additional safety information and handling instructions.

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION - US (412) 434-4515; CANADA (514) 645-1320; Mexico 01-800-00-21-400
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Acrylic Polyurethane Ultra Low VOC Satin Clear

MAP-LVC228/01

Matthews Acrylic Polyurethane Ultra Low VOC (MAP-LV®) MAP-LVC228/01 Satin Clear is produced from the technology that makes our colors unparalleled in their resistance to the elements.

MAP-LVC228/01 Ultra Low VOC Satin Clear is formulated with a UV screening package that ensures protection of the color and substrate underneath.

MAP-LVC228/01 Ultra Low VOC Satin Clear is designed for topcoat applications to protect color coated signage components, vinyl graphics and to highlight architectural metals.



Features:	Benefits:
Durable yet flexible film	Impact and mar resistant
Satin-in-the-can	No additional flattening agent needed, Consistent gloss and finish, Less time to mix
Air-dry or force-dry capable	Fits most shop conditions
Excellent UV resistance	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane	Resistance to weathering; Resistance to chalking, Long-term durability
Ultra low VOC technology	Environmentally friendly; Complies with most stringent VOC requirements; High solids
Brush and roll capability	For use in areas where air spraying is prohibited

Compatible Surfaces:

MAP-LVC228/01 Acrylic Polyurethane Ultra Low VOC Satin Clear may be applied over properly prepared:

MAP®
Satin MAP®
Satin VOC MAP®
MAP-LVG Acrylic Polyurethane
MAP-LVS Acrylic Polyurethane
74777SP/01 Tie Bond Adhesive
274777SP/01 Tie Bond Adhesive
274793SP/01 Spray Bond Adhesive

Associated Products:

Catalyst	Reducer	Accelerator
MAP-LVX270/01* Catalyst	MAP-LVRS01/01* Cool Temp. Spray Reducer	287437SP/08 HS Accelerator
*Also available in /04	MAP-LVRS02/01 Warm Temp. Spray Reducer w/ Extender	MAP-LVA117/08 Ultra Low VOC Accelerator
	MAP-LVRS03/01 Hot Temperature Spray Reducer w/ Extender 80° & Above	47117SP/04 MAP Accelerator
	MAP-LVRB51/01* Brush and Roll Reducer	287484SP/08 HS Turbo Enhancer
		SM166A/04 Tape-It Accelerator

MAP-LVC228/01

Directions for Use

Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

Mix Ratio:



Mix Ratio for Spraying (by volume)

MAP-LVC228/01	LVX270/01*	LVRS0x**	with Accelerator***
3 parts	1 part	1 part	Up to 1oz/RTS quart

- MAP-LVRS01/01* Cool Temp. Spray Reducer
- MAP-LVRS02/01 Warm Temp. Spray Reducer with Extender
- MAP-LVRS03/01 Hot Temperature Spray Reducer with Extender 80° & Above
- NOTE: Larger jobs may require a hotter temperature reducer.
- For Brushing and Rolling, refer to Technical Data Sheet MPC193.
- All components should be mixed thoroughly before using
- Strain material after mixing

*Also available in /04
**Choose MAP reducer
***Caution: use of accelerator with LVRS01/01* is Not Recommended as it will drastically shorten pot life.



Pot Life: Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.
Note: mix no more product than can be used within time limits listed below:

Application Method	Reducer	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	MAP-LVRS01/01*	Accelerator is Not Recommended when using MAP-LVRS01/01* reducer		4 hours
	MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	1.5 oz	1.5 hours
		MAP-LVA117/08	1 oz	1 hour
		47117SP/04	1 oz	1 hour
		287484SP/08	½ oz – 1 oz	1 hour
		SM166A/04	¼ oz – 1 oz	30 minutes
Brush and Roll	LVRB51/01*	Accelerator is Not Recommended when brushing or rolling		2 hours

Times listed in the chart above are for a full load of accelerator.
*Also available in /04

Additives:



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Coarse Suede Additive

MAP-LVC228/01

Directions for Use

Spray Set Up:



Air Pressure:	Conventional:	40 - 50 psi at the gun*
	HVLP:	10 psi at the cap*

* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up:	Siphon Feed:	1.2 - 1.4 mm 0.047 - 0.055 fluid tip
	HVLP:	1.2 - 1.4 mm 0.047 - 0.055 fluid tip
	Pressure Pot:	1.0 - 1.2 mm 0.039 - 0.047 fluid tip

Application:



Apply: Apply two full wet coats, allowing proper flash time* between coats. Apply additional coats as necessary to achieve total dry film thickness.
*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:		Per Coat	Total
	Wet Film Thickness (WFT)	2 - 3 mils	4 - 6 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

Caution: All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C
LVC228/01 (Mixed 3:1:1 with LVX270/01* and Reducer)

Reducer	Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
MAP-LVRS01/01*	Not recommended	10-15 minutes	25-35 minutes	45-60 minutes	1-2 hours	8-11 hours	16-22 hours
MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	MAP-LVA117/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	47117SP/04	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	287484SP/08	10-15 minutes	15-20 minutes	25-40 minutes	45-60 minutes	5-7 hours	9-14 hours
	SM166A/04	10-15 minutes	15-20 minutes	25-35 minutes	45-60 minutes	4-7 hours	8-14 hours

Times listed in the chart above are for a full load of accelerator.
*Also available in /04

Recoating: Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

Force Dry: Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas.
Note: Do not leave mixed material in equipment.

MAP-LVC228/01

Acrylic Polyurethane Ultra Low VOC Satin Clear

Technical Data:

VOC Information

VOC Actual RTS	0.18 – 1.91 lbs/gal
VOC Actual RTS	22 – 229 g/L
VOC Regulatory (less water less exempt) RTS	0.38 – 2.34 lbs/gal
VOC Regulatory (less water less exempt) RTS	46 – 280 g/L

For complete VOC information, visit MatthewsPaint.com > Quick Links > VOC Data

Performance Characteristics

Volume solids (RTS)	45.28% - 54.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	727 - 761 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

Important: The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

See Safety Data Sheet and Labels for additional safety information and handling instructions.

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION - US (412) 434-4515; CANADA (514) 645-1320; Mexico 01-800-00-21-400
Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to Matthews Paint. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does Matthews Paint warrant freedom from patent infringement in the use of any formula or process set forth herein.
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Attachment 9:
Community Identification Memo

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MEMORANDUM

To:	George Olguin, Caltrans Community ID Coordinator
From:	Georgia Medina, Moffatt & Nicol India Howlett, Selbert Perkins
Date:	December 15, 2021
Subject:	City of Long Beach Community ID Proposal Signature Gateway Sign on Palo Verde POC Bridge # 53-271

1.0 PURPOSE

This memo is provided to address the following:
1) Caltrans request for a narrative related to specific comments received after preliminary review
2) Explanation required for the Transportation Art / Community Identification Proposal Form

The items discussed include:

- Design intent and value to the city
- Importance of sizing to the goals for the sign
- How lettering size was determined
- How design implements community values

2.0 BACKGROUND

Excerpts from the City of Long Beach General Plan 2019 Land Use Element (LUE) are included below to describe the character and values of the City and local community.

2.1 CITY OF LONG BEACH

- *"Long Beach has long been a destination for people and businesses looking to make bold moves. From the indigenous Tongva who moved from inland areas to take advantage of the ocean's bounty to the immigrants of the twenty-first century seeking education and employment; and from the early ranchos to today's bustling port-based and healthcare industries, the City's wonderful location and welcoming environment have always attracted people looking to succeed."*

- *"Long Beach is a beautiful City with a rich heritage and culture. Its setting on the Pacific Ocean, between the mouths of two major rivers, provides a natural environment that wonderfully balances the urbanscapes we have created over the past 150 years. Given our location between the cities of Los Angeles and Irvine and the access afforded by the freeways, port and airport, Long Beach has been able to evolve into a modern, technologically savvy city. We have an active and lively downtown, dynamic waterfront and port facilities, diverse recreational spaces, robust employment campuses, innovative industrial areas, energetic educational facilities, long-established neighborhoods and contributing commercial corridors. All of this adds up to some of the most sought after real estate in Southern California."*

2.2 LOCAL COMMUNITY

This City of Long Beach Signature Gateway Sign is proposed within the Southeast Area Specific Plan (SEASP) district. The City's General Plan 2019 LUE (pg. 98) describes the area.

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- *"The district includes residential neighborhoods, parks, coastal wetlands and a diversity of commercial and hospitality uses. The SEASP provides guidance in establishing this area as an important gateway and regional destination in Long Beach, as well as ensuring that the future built environment is pedestrian friendly, includes lively public spaces and complements the natural areas."*

The following excerpt from the Vision: Southeast Long Beach Specific Plan 2060 describes the community goals.

- *"The following is a vision of Southeast Long Beach as described 50 years from now: Southeast Long Beach is a livable, thriving, ecologically diverse and sustainable coastal gateway and destination in the City and Southern California region. Southeast Long Beach is an attractive, active, and important gateway and destination in the City of Long Beach and Southern California region. People enjoy living, working and visiting here because of the diversity of uses in close proximity to one another. Our established residential neighborhoods continue to anchor the area and are complimented by businesses, restaurants, hospitality uses and recreational amenities that are frequent destinations for locals and visitors. We have developed connections to our local medical facilities and educational institutions; both provide significant resources to our area that positively contribute to our sense of community. The energy providers operating in the area have upgraded their facilities and seek to use the most current technologies available. "*

2.3 URBAN DESIGN POLICY

Excerpts from the General Plan 2019 Urban Design Element (UDE) are included to demonstrate how the proposed Community ID relates to the City's long-term vision.

"This Urban Design Element seeks to aid and shape the continued evolution of the urban environment within Long Beach, while at the same time leveraging the unique relationship of the City to its natural environment. It is concerned with both the preservation of existing neighborhoods that define its unique character and building upon them to allow for continued adaptation and improvement of the built environment."

Page 32 of the UDE addresses the plan for Signs and Wayfinding as Strategy No. 12. This strategy is supported by six policies developed to accomplish the vision related to Wayfinding. The strategy and policies most directly related to the proposed Community ID are excerpted below.

*"Expand the unified sign program, within the Areas of Change identified in the Land Use Element, to help orient visitors throughout the community**. Include freeway identification, gateways,** directional signs, and informational signs."*

- "Policy UD 12-1: Focus investment on improving the appearance of entrances to the City on major boulevards so that wayfinding, landscape, and lighting are integrated into a ***cohesive design. "***
- "Policy UD 12-2: Develop a ***comprehensive approach to wayfinding*** for visitors and tourists who will ***enter the City at these gateways***, including neighborhood entry signs and murals."
- "Policy UD 12-4: ***Emphasize gateways into Long Beach at freeway***s and important transportation hubs, such as the Long Beach Airport, Blue Line stations, and the Long Beach

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Cruise Terminal, and at arrival points of distinct neighborhoods and districts, through landscaping, architecture, street furniture, and appropriate signage."

3.0 CITYWIDE WAYFINDING SIGNAGE PROGRAM

3.1 OVERVIEW

The City of Long Beach is enjoying a new era of growth and development. In order to support its renaissance, the Mayor and City Council unanimously approved a new branded Gateway and sign system to enhance Citywide and neighborhood identity, and to create a welcoming, intuitive, and positive experience for all residents, workers, and visitors.

The City's website for the Wayfinding Signage Program states, *"The City of Long Beach has worked to develop a comprehensive Wayfinding Signage Program for major gateway entries, parking, and coastal access in Long Beach."*

3.2 COMMUNITY ENGAGEMENT

The website also states, *"An extensive outreach effort was made to include a Wayfinding Signage Program Survey, and a series of community workshops for the public to provide input on the factors to consider in designing new signs to be installed in the public realm throughout the City. The outreach was intended to ensure that the design template for these new signs reflects the community's values and identity, and results in cohesive and functional signage for gateway entries to the City and coastal access, as well as public parking in Downtown."*

3.3 PROGRAM GOALS

The approved goals of the new citywide Gateways, signage, and wayfinding system include:

- Enhance City and neighborhood identity with new Gateways at key city entrances.
- Facilitate access to key city destinations, attractions, and parking.
- Enhance wayfinding for all modes of transport
- Provide a unified and branded “kit of parts” that will facilitate construction, maintenance, and reduce sign clutter.

4.0 PROPOSED COMMUNITY ID

4.1 DESIGN INTENT AND VALUE TO THE CITY (CITY OF LONG BEACH BRAND)

The new branded Gateway, signage, and wayfinding system is the new face of Long Beach, and represents the identity, culture, and vision of the city. The success of the system depends on the consistent use and integration of the Long Beach brand elements, including the logo, colors, fonts, lighting, and large scale gateways at key entrances. A page from the City of Long Beach Sign standards is attached to demonstrate how the proposed Community ID incorporates the City brand.

4.2 COMMUNITY ID SIZING

This is not an ID for a community but a Gateway into a major Southern California Beach City and tourist destination. The Gateway does not overpower the whole bridge, the letters are less than half the span of one side, we have reduced it a little, but the white letters get lost on the lighter blue color panels. The lettering feels comfortable within the structure across both Northbound and Southbound lanes as the panels on the bridge also span all lanes. The bridge needs to be looked at as a whole and not just where the letters are over the Southbound lanes. The gateway is intended to be viewed from other surrounding roads, the pedestrian park and bikeway around

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the sign and not just from vehicles on SR 22. The size is also relative to the Gateway at the east entry into the city off the 710 freeway that bookend the city, both at major entrances into the city that celebrate and announce the city and show civic pride.

4.2.1. Letter Sizing (In Response To Caltrans Review Comments 7, 10, 12 And 17)

The first large scale gateways have been installed and have received widespread public support. Our goal is to reinforce this positive momentum, and the scale of the letters is critical to the unified identity at City Entrances.

The WB on-ramp from Studebaker joins WB SR-22 with a dedicated lane rather than merging into the mainline. The next access point after the WB on-ramp a is "T" intersection located 1,600 feet of the on-ramp at Pepper Tree Lane and the WB speed limit is reduced to 45 mph prior to intersection. Pepper Tee Lane is located on the north side of SR-22/ 7th Street, so the intersection includes a right-turn movement for WB traffic, but no left-turn for WB traffic. The new lane form Studebaker WB on-ramp begins 300 feet east of the proposed Community ID and continues west an additional 1,300 feet beyond the Community ID before reaching Pepper Tree Lane. Since there is sufficient weaving distance between the Community ID and Pepper Tree lane and no need for motorists to merge when the WB on-ramp joins the mainline, the on-ramp does not introduce a conflict point.

The dimensions for the "Long Beach" logotext in the revised concept are slight smaller than the original concept. The dimensions for the lettering was developed to provide the most aesthetically pleasing result in proportion to the bridge.

Parameter	Existing Bridge	Proposed "Long Beach" Logotext	
		Original Concept	Revised Concept
Length	161'-6"	59'-6"	49'-6"
Logotext as % of Bridge Length	-	37%	31%
Height	11'-4"	6'-10"	5'-8"
Logotext as % of BridgeHeight	-	60%	50%

4.2.2. Sign Visibility (Addresses Caltrans Review comments # 1, 3 and 13)

The text portion of the Community ID was designed to be visible from multiple locations hence the large lettering. While motorists approaching on WB SR-22 won't have a clear line of sight at great distances, motorists at other locations will have a clear view from far away.

- **Point A - WB SR-22:** As shown in the attached exhibit, as motorists approach the proposed Community ID will be fully visible at 460 feet east of pedestrian bridge.
- **Point B - Studebaker Rd EB Off-ramp:** (Click link for street view) The Community ID will be visible from the EB off-ramp terminus since the terrain allows for a clear view of the bridge from 1038 feet away.
- **Point C - Studebaker Rd WB Off-ramp:** (Click link for street view) The Community ID will be visible from the WB off-ramp terminus since the terrain allows for a clear view of the bridge from 938 feet away.
- **Point D - Bike Path:** The Community ID will also be visible for bicyclists approaching from the north.

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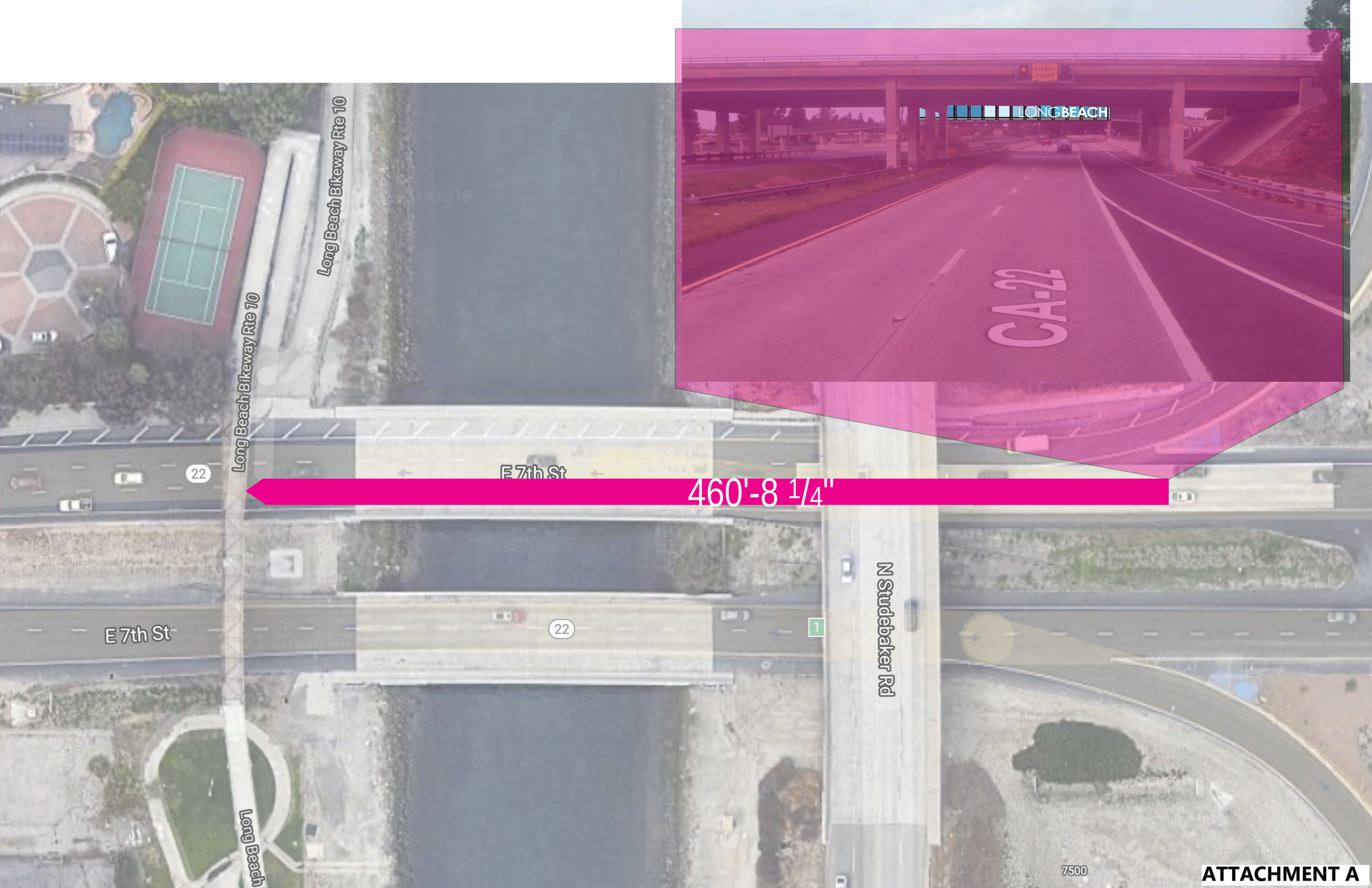
5.0 IMPLEMENTATION OF COMMUNITY VALUES

This section is included to address question C in the Transportation Art / Community Identification Proposal Form which states, "Describe the extent to which this transportation art or community ID implements the values of the local community." The table below describes how the proposed Community ID integrates existing community goals and values with principles of community involvement and context-sensitive design.

	Principle	Implementation
1	Community involvement	The proposed Community ID was first identified in the Citywide Wayfinding Signage Program which developed a design template to ensure new signs reflect the community's values and identity and result in cohesive and functional signage for gateway entries to the City. As discussed in section 3.2 the outreach effort included a survey and multiple community workshops.
2	Harmonizing the roadway with existing topography and land uses.	The proposed design integrates Community ID with an existing bridge structure on one the City's main entry routes, leveraging the adjacent flat terrain to maximize visibility from the surrounding areas.
3	Preserving and enhancing community character.	The proposed design enhances community character and furthers City's vison of establishing a true sense of place in Long Beach by implementing the gateway identified in the Citywide Wayfinding Signage Program. The Community ID utilizes the City of Long Beach brand minimalist design that is intended to be iconic, noticeable and consistent with City gateways at other key locations.
4	Meeting the needs of nonmotorized travelers.	The Community ID will serve as a gateway, welcoming visitors to the city.
5	Preserving historic resources such as historic landscapes.	The proposed design gives a nod to history by using the bridge structure constructed in 1982 as the canvas for the Community ID. The proposed design includes beautifying the existing structures through the application of paint
6	Supporting the incorporation of transportation art, gateway monuments, and community identification.	The City's branding standards include a patriotic color scheme with varying hues of blue and white with a red accent. The original concept incorporated all branding colors, but the revised concept eliminated the darker blue and red accent to address Caltrans concerns. The Community ID still features the other branding colors and logotext to reinforce the City's identity.

6.0 ATTACHMENTS

- Attachment A: Rendering showing Sign from 486' distance
- Attachment B: Line of Sight Exhibit
- Attachment C: WB On-ramp Exhibit
- Attachment D: Page from City's Wayfinding Sign Guidelines



ATTACHMENT A

COMMUNITY ID LINE OF SIGHT

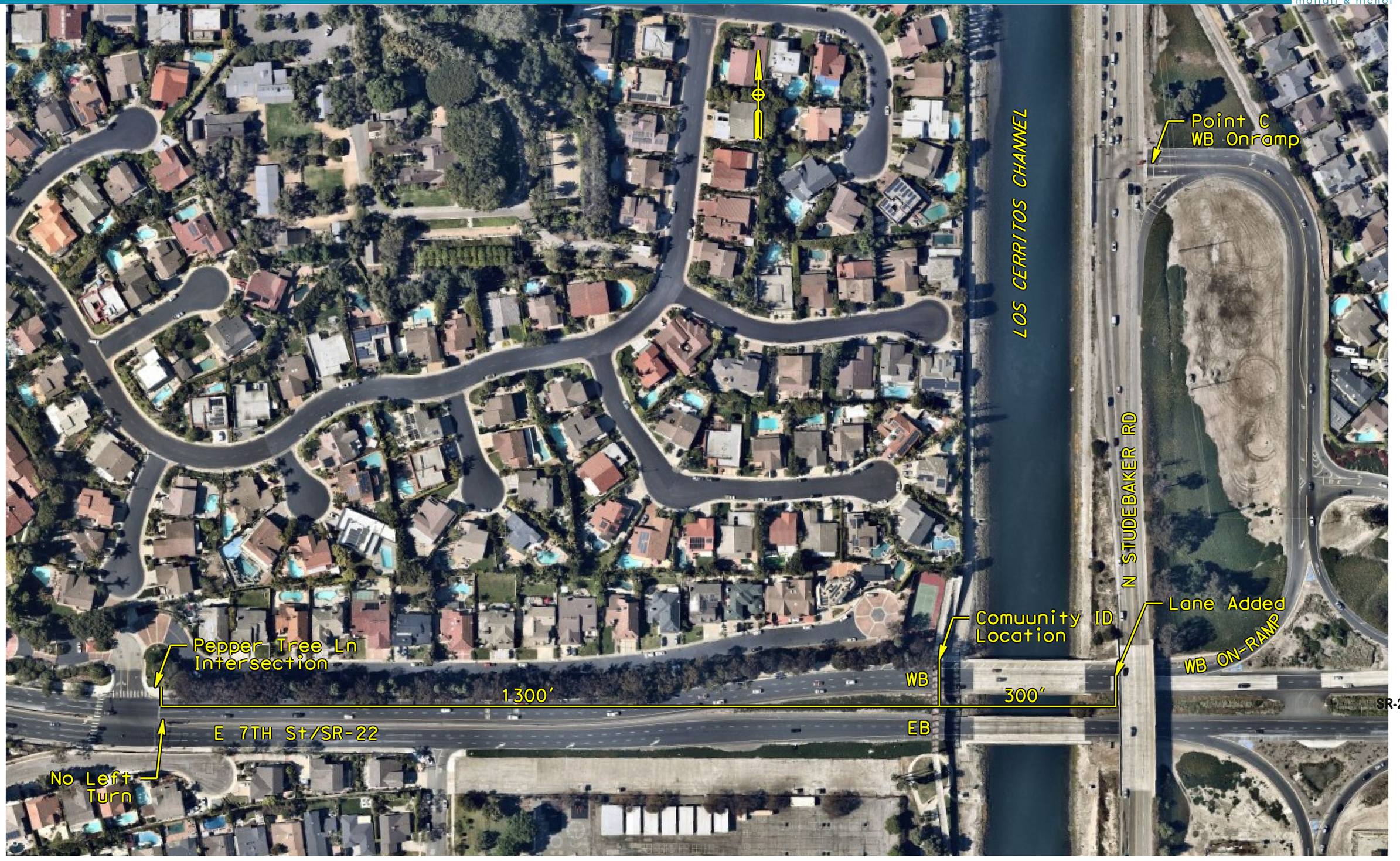


ATTACHMENT B

PALO VERDE POC BRIDGE SIGN

LANED ADDED BY WB ON-RAMP FROM STUDEBAKER

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ATTACHMENT C

TYPOGRAPHY

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

GOTHAM MEDIUM

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

GOTHAM BOLD

***NOTE: Gotham Font is only used for Neighborhood signs.**

SYMBOLS



The Community ID proposes painting existing chain-link and installing painted aluminum perforated panels. The paint color scheme is based on the City's branded stripe detail shown here.

COLOR PALETTE

STAINLESS STEEL
OR APPROVED EQUAL
M1

CLEAR ACRYLIC
(TRANSPARENT)
M2

FROSTED ACRYLIC
(TRANSLUCENT)
M3

WHITE ACRYLIC
(OPAQUE)
M4

WHITE ACRYLIC
(TRANSLUCENT)
M5

WHITE REFLECTIVE VINYL
(OPAQUE)
V1

MP03547
OCHO RIOS BLUE
PMS 2955C
P1

MP01992
BLUE FLAG
PMS 2935C
P2

MP09133
PROCESS CYAN U
PMS Process Blue C
P3

MATCH TO
PMS 298C
P4

MP07490
JET STREAM
PMS 2707C
P5

MP3071
WHITE WONDER
P6

MP06893
CHINESE PAGODA
PMS 199C
P7

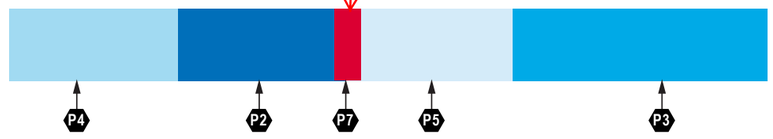
SILVER PAINT
P8

MEDIUM GREY PAINT
P9

MP07102
DEEP RIVER
P10

STRIPE DETAIL

Red color eliminated for Community ID to address Caltrans concerns.



Attachment 10:
Public Outreach Memo

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MEMORANDUM

To:	Julee Park, Caltrans Community ID Coordinator
From:	Georgia Medina, Moffatt & Nichol
Date:	June 28, 2022
Subject:	Public Outreach Memo for City of Long Beach Community ID Signature Gateway Sign on Palo Verde POC Bridge # 53-271

1.0 PURPOSE

This memo provides an overview of the public outreach effort and community engagement related to the proposed Community ID. The items addressed include the following:

- **Review Process:** Process used for review and approval of the Community ID by local agencies and adjacent communities most affected by the proposal.
- **Activity Summary:** Overview of public meetings, resolutions, legislative actions, etc. affecting development of this project.
- **Materials Presented:** Information about past meetings including meeting dates, agendas and materials provided.
- **Project Endorsements:** Government agencies, public or private organizations, and individuals who have endorsed this project.
- **Supporting Documentation:** Written proof of support from the parties most affected by the Community ID.

2.0 BACKGROUND

During a City Council Special meeting in August 2014, there was discussion about enhancing major entrances into Long Beach to serve as the first impression for visitors. During an April 2015 Council meeting, there was additional discussion identifying the need for clear signage to mark the boundary of the City and project an accurate and positive image of Long Beach to visitors. During that meeting, the Council initiated a study for improving and enhancing signage at major entrances and the SR-22 / 7th Street entry where the Community ID is proposed was specifically mentioned as a gateway location. In August 2015, the Mayor's FY 2016 budget recommendations included allocating $400,000 for study and implementation of a city-wide wayfinding program. The Council ultimately approved this recommendation in October 2015. In December 2015, the city released an RFP seeking a consultant to develop a comprehensive wayfinding program. The Consultant would establish guidelines for signs to be installed at City gateways, in downtown and in beach areas. While the program includes three components, the gateway signage was identified as the top priority. City staff selected Selbert Perkins Design in March 2016 and their first order of work was to assess specific needs of the community and formulate priorities. This was done by reviewing existing data and gathering new data through community outreach. The outreach effort included an online and a series of community workshops soliciting input on the factors to consider in designing new signs to be installed. One of the findings from this effort was how people had a difficult time distinguishing when they were in Long Beach and when they were not. This reinforced the need for unique City Gateways to clearly indicate entry into the City while also communicating the identity and values of Long Beach. Citywide Wayfinding & Signage Program Guidelines were developed

based on the input received and adopted by the Council in April 2017. The guidelines are now being implemented at locations throughout the City as individual projects. The Community ID is proposed as the next step to implement the Gateway identified in the City's Wayfinding Program.

3.0 ACTIVITY SUMMARY

Development of the Wayfinding Program required extensive public outreach. The outreach effort included 300 interviews to obtain input from Community Groups, Business Associations, Business Groups, Neighborhood Groups as well as individuals. The outreach also included meetings with 35 stakeholder groups. A list of meetings related to the wayfinding program are listed below. Additional information related to these meetings in included in Attachments A and B.

Date	Meeting	Description
8/16/14	City Council Retreat, Time 3:53:10	Need for City Gateways Identified
4/21/15	City Council Meeting, Item 19	Wayfinding Program Initiated, Staff Report
8/4/15	FY 2016 Budget Hearing	$400k for Gateway Signs, Presentation Slide 13
2/16/16	City Council Meeting, Item 10	Status Update and Next Steps, Staff Report
7/21/16	Stakeholder Meeting	Downtown Long Beach Alliance (DLBA)
8/3/16	Stakeholder Meeting	Business/Business Associations
8/3/16	Stakeholder Meeting	Interest/Advocacy Groups
8/9/16	Stakeholder Meeting	Council of Business Associations (COBA)
8/23/16	City Council Meeting, Item 13:	Initial Findings & Next Steps, Staff Report
9/2016	Online Survey	Surveys and Interviews Conducted, Staff Report
4/18/17	City Council Meeting, Item 17:	Wayfinding Template Adopted, Staff Report

4.0 MATERIALS PRESENTED

PowerPoint Presentations developed as part of the Wayfinding and Signage Program development are listed below.

Date	Meeting	Materials Presented
8/23/16	Stakeholder Meeting	PowerPoint Presentation Inventory & Analysis
4/18/17	City Council Meeting	PowerPoint Presentation Proposed Template

5.0 COMMUNITY WAYFINDING SIGNAGE SURVEY

A Community Wayfinding Signage Survey designed to identify perceptions of the City, primary destinations in the City, and modes of travel was distributed to neighborhood organizations and the public in September 2016. The intent was to obtain feedback to inform the design of gateway entry signs, parking directional signs, and coastal access signs. A total of 774 survey responses were collected and these responses were used as the foundation in development of the new wayfinding guidelines and design template. The guidelines and design template will help to incorporate the community's values and identity and ensure cohesive signage throughout the city. The survey included the following questions specifically related to Gateway entry signs. The top responses are included after each question.

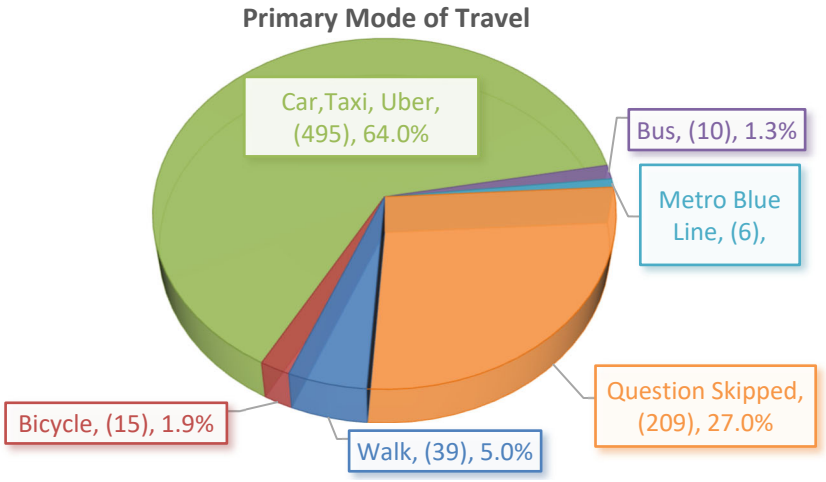
Survey Question 1: Describe the character of Long Beach in one word.

- *Diverse*
- *Inclusive*
- *Vibrant*
- *Progressive*
- *Creative*
- *Active*
- *Friendly*
- *Relaxed, laid back, casual*

Survey Question 2: What makes the City of Long Beach unique?

- *Unique, diverse neighborhoods*
- *Small town feel*
- *Urban coastal downtown*
- *Waterfront and waveless beach Survey*
- *Diverse activities & attractions*
- *Small town feel*
- *Diversity*
- *Bike friendly*

Survey Question 3: What is your primary mode of travel?



6.0 REVIEW PROCESS

Since the proposed Community ID is an element in the City-wide Wayfinding Program, the initial reviews and approval occurred at the program level. Steps 1 thru 4 shown below have been completed and the Community ID is currently in the early stages of Step 5. All project specific approvals will occur during step 5.



The approved Citywide Wayfinding and Signage Guidance includes design templates for new signs to promote cohesive signage throughout the City. While detailed, the guidelines allow for customization if needed to preserve community character and fit site conditions.

At the start of step 5 an engineering team was brought onboard to prepare design plans for the proposed Community ID. The project commenced with original gateway sign concept identified in the Wayfinding and Signage Program. After the concept was shared with Caltrans and reviewed by structure engineers, it became clear that modifications were needed. Selbert Perkins was able to modify the concept with the original goals in mind and address Caltrans concerns as well as loading constraints. The revised concept included with this submittal has been reviewed by City staff and formal approval will be documented once Caltrans concurrence is confirmed.

7.0 PROJECT ENDORSEMENT

There is strong support for the Community ID within the City. The efforts to develop the Citywide Wayfinding Program and to establish City gateways at the City entrances have consistently received unanimous support from the Long Beach City Councilmembers as documented in meeting minutes. (Meeting Minutes links provided in Attachment B)

As documented in meeting minutes, the Mayor, City Council and Assistant City Manager have been engaged in development of the Wayfinding Program since 2014. Staff from multiple City department have also been involved including Development Services, the City Manager's Office, Public Works Department, and Tidelands Capital Improvement.

8.0 SUPPORTING DOCUMENTATION

Due to the volume of information associated with the Wayfinding Program, supporting documentation is provided via links within this memo and in Attachment B.

9.0 ATTACHMENTS

- Attachment A: Stakeholder Meeting Agenda for City of Long Beach Wayfinding
- Attachment B: Outreach Meetings for City of Long Beach Wayfinding Program

Attachment 13A
City of Long Beach Signage & Wayfinding Program

Stakeholder Meeting Agenda

1. Introduction:	(***5 minutes***)
2. Project Overview: *Our goal is to improve the existing Long Beach "wayfinding" system to provide a welcoming, intuitive, and practical sign program to clarify for the city's residents the various destinations and corresponding parking.*	(***5 minutes***)
3. Analysis/Findings Presentation: *The purpose is to determine the direction for Long Beach's new Signage and Wayfinding program through past and current findings to develop a master plan/template for the city of Long Beach going forward.*	(***20 minutes***)
4. Questionnaire & Outreach Workshop: *To determine your preferences and discuss your reactions for the new Signage and Wayfinding program.*	(***30-60 minutes***)
5. Conclusion: Next Steps	(***5 minutes***)
6. Average Total Time per Meeting	***(60-90 minutes)***

Attachment 13B
City of Long Beach Signage & Wayfinding Program

Outreach Meeting Details

1. City Council Meeting

Date:	4/21/2015	Meeting Minutes
Time:	6:00 pm	Video
Location:	Civic Center, Council Chamber 333 W. Ocean Boulevard Long Beach, CA 90802	

Councilmembers Present:

1	Gonzalez	5	Andrews
2	Lowenthal	6	Uranga
3	Price	7	Austin
4	Mungo		

Relevant Highlights:

- Agenda Item 19: Mayor - Improving signage at major entrances
- Action: The Council unanimously approved "Recommendation to direct City Manager to study, and report back to Council within 90 days with recommendations for improving and enhancing, the signage at major entrances to the City."
- Staff Report: The project location (7th Street / SR-22) was specifically mentioned as a gateway location.

2. Stakeholder Meeting: Downtown Long Beach Alliance (DBLA)

"The Downtown Long Beach Alliance (DLBA) is a 501 (c) (6) non-profit organization operating on behalf of the tenants and commercial and residential property owners in Long Beach's Downtown and surrounding areas. It is dedicated to the management, marketing, security, maintenance, advocacy, economic and community development of its two assessment districts in cooperation with the City of Long Beach and the private sector." Source https://downtownlongbeach.org/about-dlba/

Date:	7/21/2016	Agenda in Attachment B
Time:	3:00 pm - 5:00 pm	
Location:	Small Business Development Center 309 Pine Ave, Long Beach, CA 90802	
Attendees:	1 Kim Phan PRC, East Village 2 Katie Buckley Kuisle PRC, Willmore 3 Xavier Canale PRC, Waterfront 4 Sean Warner DLBA 5 Joen Garnica East Village 6 Derek Burnham PRC Chair 7 Debra Fixen Shoreline Village 8 John Rouse Aquarium 9 Brent Gonzalez DDR (Pike) 10 Jarrod Coleman Planning 11 Carrie Tai Planning 12 Jonny Peterson SPD 13 Cliff Selbert SPD 14 Brian Addison DLBA 15 Gina Dartt DLBA 16 Broc Coward DLBA 17 Melissa Wilson DLBA 18 Baktaash Sorkhabi City Fabrick	
Relevant Highlights: Stakeholder Meeting, See Attachment B for items discussed		

3. Business/Business Associations

Date:	8/3/2016	Agenda in Attachment B
Time:	12:00 pm - 2:00 pm	
Location:	Long Beach Convention Center Seaside Ballroom B 300 East Ocean Boulevard Long Beach, CA 90802	
Attendees:	1 Kevin Riley Public works 2 Jarrod Coleman Planning 3 Linda Tatum Planning 4 Sean Warner DBLA 5 Cliff Selbert SPD 6 Jonny Peterson SPD 7 Jeff Forney CVB 8 Jeremy Harris Chamber of Comm. 9 Pam Ryan Renaissance 10 Greg Keebler Hilton 11 Ed Apodaca Hotel Maya/Residence 12 Ruby Macias Residence Inn 13 Elivra Hallinan Marine Bureau 14 Kurt Borsting Marine Bureau 15 Karissa Selvester LBT 16 Kevin Lee LBT 17 Charlie Beirne Convention Ctr 18 John Brown Convention Ctr	
Relevant Highlights: Stakeholder Meeting, See Attachment B for items discussed		

4. Council of Business Associations (COBA)

"The City of Long Beach Council of Business Associations is a unified voice for advocacy, acts as an effective communication conduit between business communities, and is a simplified business resource center." Source https://www.cobalb.com/

Date:	8/9/2016	Agenda in Attachment B
Time:	8:00 am - 10:00 am	
Location:		
Attendees:	1 Linda Tatum Planning 2 Jarrod Coleman Planning 3 Jim Fisk City of Long Beach 4 Sean Warner DBLA 5 Bob Lane Naples Island 6 Lisa West Council Prices 3rd Dist. 7 Jack C. Smith 8 Dan Halvenson LB Ocean 9 Stephanie Howard 4th St. BIA 10 Kerstin Vansteiner 4th St. BIA 11 Chris Giaco 4th St. BIA 12 Kathleen Schaaf 4th St. BIA 13 Cait Yoshioka Bixby Knolls BIA 14 Blair Cohn Bixby Knolls BIA 15 Michael O'Toole NIA-Gondda 16 Bart De Lio Naples Island Bus. Assoc. 17 Tasha Hunter Uptown LB BID	
Relevant Highlights: Stakeholder Meeting, See Attachment B for items discussed		

5. Interest/Advocacy Groups

Date:	8/3/2016	Agenda in Attachment B
Time:	3:00 pm - 5:00 pm	
Location:	LB Main Library Conference Room 200 W. Broadway Long Beach, CA 90802	
Attendees:	1 Kevin Riley Public Works 2 Jarrod Coleman Planning 3 Linda Tatum Planning 4 Sean Warner DBLA 5 Cliff Selbert SPD 6 Jonny Peterson SPD 7 Seamus Ian Innes Surfrider 8 Tony Cruz Bicycle Ambass 9 Lara Turnbull Healthy Active 10 Jessica Prye McCormick Divers 11 Steve Gerhandt Walk Long Beach 12 Tyrone Lowe Long Beach Advo for Change 13 Julissa Madrid Bike Uptown 14 Brayan Martinez Bike Uptown 15 Clarissa Madrid Bike Uptown 16 Yesenia Sanchez Bike Uptown 17 Bryan Rendon Bike Uptown 18 CJ Phang Bike Uptown 19 Marcel Anderson Bike Uptown 20 Shirene Mckninney 21 Danny Gamboa Walk Bike LB 22 Terez Sanogo	
Relevant Highlights: Stakeholder Meeting, See Attachment B for items discussed		

6. Meeting with the Mayor

Date:	8/11/2016	Agenda in Attachment B
Time:	1:00 pm	
Location:	Mayor's Office (City Hall 14)	
Attendees:	1 Mayor Robert Garcia 2 Mayor's Assistant 3 Tom Modica City Manager 4 Linda Tatum Planning 5 Jarrod Coleman Planning 6 Cliff Selbert SPD 7 Jonny Peterson SPD	
Relevant Highlights: Stakeholder Meeting, See Attachment B for items discussed		

7. City Council Meeting

Date: 8/23/2016 — Meeting Minutes
Time: 5:00 pm — Video
Location: Civic Center, Council Chamber
333 W. Ocean Boulevard
Long Beach, CA 90802

Councilmembers Present:

1	Gonzalez	5	Andrews
2	Pearce	6	Uranga
3	Supernaw	7	Austin
4	Mungo	8	Richardson

Relevant Highlights:

- Agenda Item 13: DS - Wayfinding Signage Presentation
- Action: The Council unanimously approved "Recommendation to receive and file a report on the development of a comprehensive sign program, including City gateway signage, wayfinding signage, and directional signage for public parking and coastal access. (Citywide)"
- PowerPoint Presentation: Slide 9 identified the project location as a City Gateway entry point.
- Staff Report: History and status update

8. City Council Meeting

Date: 4/18/2017 — Meeting Minutes
Time: 5:00 pm — Video
Location: Civic Center, Council Chamber
333 W. Ocean Boulevard
Long Beach, CA 90802

Councilmembers Present:

1	Gonzalez	5	Mungo
2	Pearce	6	Andrews
3	Price	7	Uranga
4	Supernaw	8	Austin

Relevant Highlights:

- Agenda Item 17: DS - Wayfinding Signage Presentation
- Action: The Council unanimously approved "Recommendation to receive and file a report on the development of a comprehensive sign program, including City gateway signage, wayfinding signage, and directional signage for public parking and coastal access. (Citywide)"
- PowerPoint Presentation: Slide 14 shows initial concept for Community ID to be installed over SR-22/ 7th Street on the Palo Verde Pedestrian Overcrossing Bridge.
- Survey Results Memo: Summary of Wayfinding Signage Community Survey Results
- Staff Report: Overview of work completed to date.

Attachment 11:
Sign Lighting Addendum

City of Long Beach Signage & Wayfinding Program

COMMUNITY ID PROPOSAL ADDENDUM

To:	Julee Park, Caltrans Community ID Coordinator
From:	Georgia Medina, Moffatt & Nichol
Date:	February 7th, 2025
Subject:	Lighting Information for City of Long Beach Community ID Signature Gateway Sign on Palo Verde POC Bridge # 53-271 Revision 2

1.0 PURPOSE

This addendum provides supplemental information related to lighting proposed for the Community ID. Two types of lighting are proposed: panel lighting and letter lighting.

2.0 PANEL LIGHTING

The perforated panels will be illuminated with Insight Lighting Medley Exterior Remote Luminaires which are LED uplights. The intent is for the fixtures to be spaced to provide even light distribution per panel. Each of the 15 panels will be illuminated with two light fixtures. The specs for the panel lighting are included in Attachment C.

3.0 LETTER LIGHTING

The letters of "LONG BEACH" will be internally illuminated with LED lighting modules mounted to clear Lexan panels. The lighting modules will be spaced to provide even illumination and avoid hotspots. The concept previously submitted identified white LEDs for the letters, however the City is requesting to amend that concept to show programmable RGB LEDs for the letters instead. The programmable RGB LEDs are preferred to maintain consistency with the City's "LONG BEACH" sign in downtown Long Beach. That sign is located along the 710 freeway and up lit with color changing LEDs. The sign concept replacement sheet is included in Attachment B.

4.0 LIGHTING CONTROLLER

The lighting for the "LONG BEACH" sign located along the 710 freeway utilizes a Pharos controller. The City proposes the same controller for the Community ID. The Pharos controller provides dynamic lighting control and allows for lighting programs to be adjusted remotely. The specs for the lighting controller are included in Attachment D.

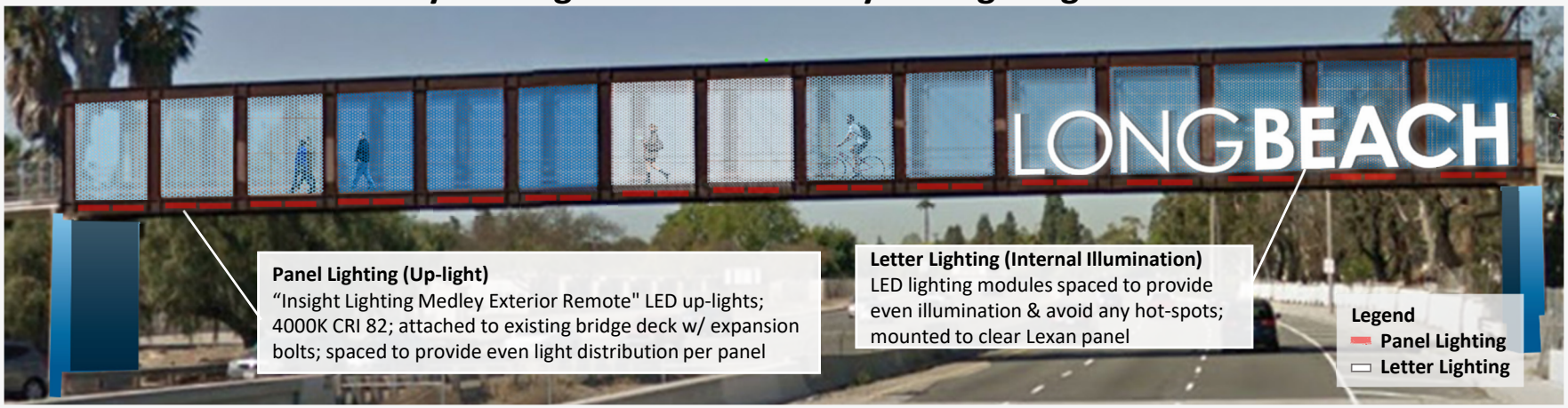
5.0 RECOMMENDATION

The City would like to obtain Caltrans concurrence to incorporate programmable RGB LEDs for internal illumination of letters included in the proposed Community ID. This change applies for the letters only. The lighting for the panels is still proposed to be white LEDs.

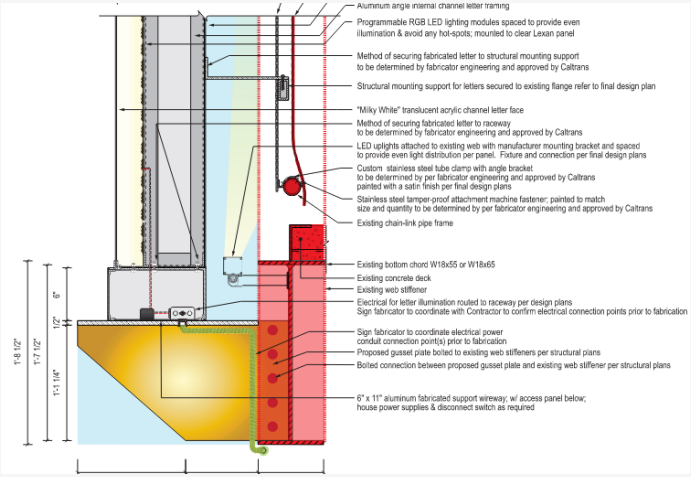
6.0 ATTACHMENTS

- Attachment A: Lighting Addendum Exhibit
- Attachment B: Sign Concept Replacement Page (updated to reflect color changing LED lights)
- Attachment C: Specs for Panel Lighting (Insight Lighting Medley Exterior Remote Luminaires)
- Attachment D: Specs for Lighting Controller (PHAROS-U1-BN-SBB)
- Attachment E: O&M for Lighting Controller (PHAROS-U1-BN-SBB)

City of Long Beach Community ID - Lighting Locations



Cross Section View



Color Changing Lights

Consistent with downtown gateway sign



Note: Photos show sign with up-lit fixtures

Proposed Equipment

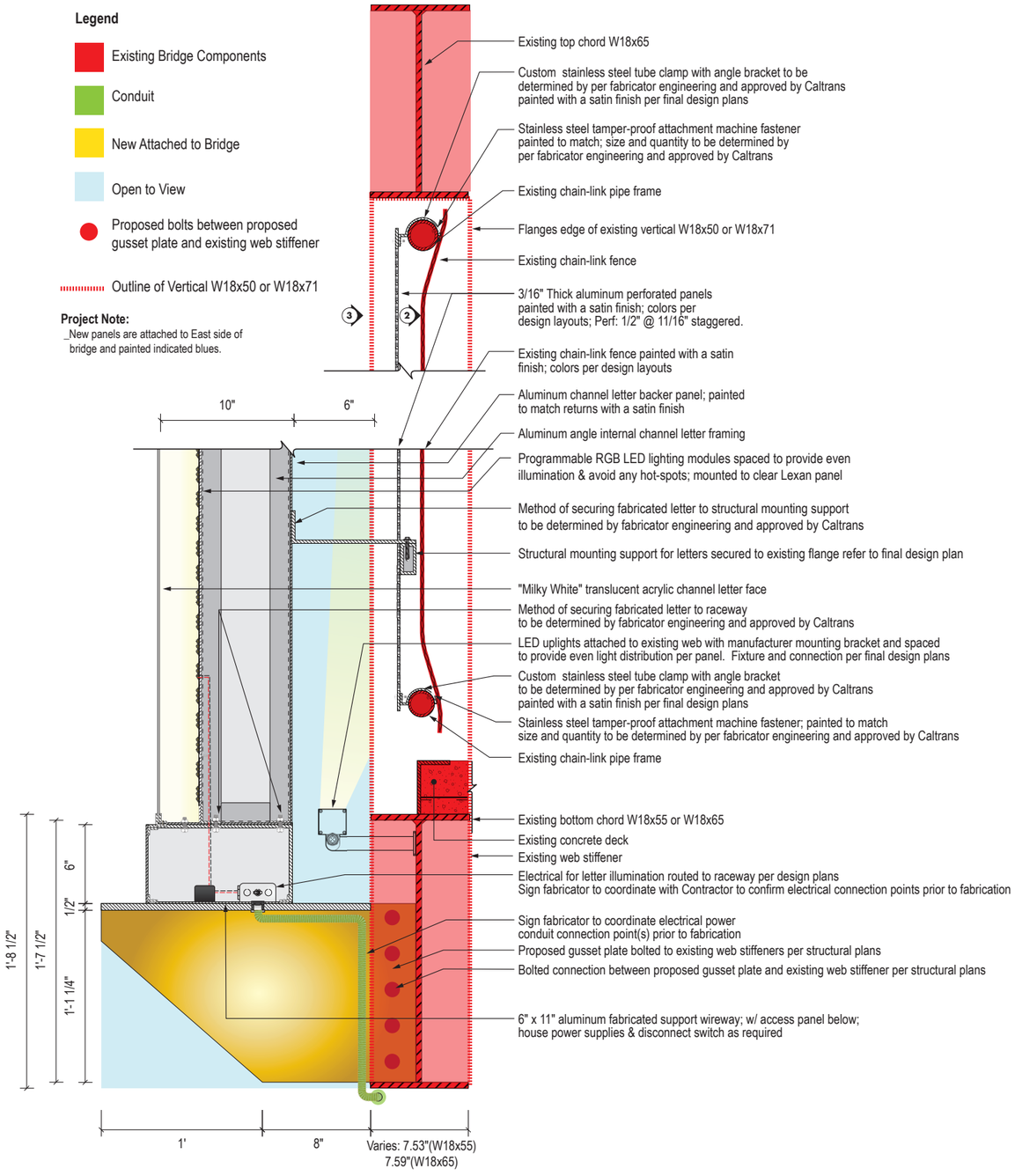
1. **Pharos Controller**: allows lighting programs to be adjusted remotely *(Spec Sheet attached)*
2. **Lumenfacade Fixture:** programmable color-changing LED for internal illumination of letters
3. **Insight Medley Exterior Remote Luminaires:** two fixtures per panel anticipated *(Information attached)*

Attachment A

Legend

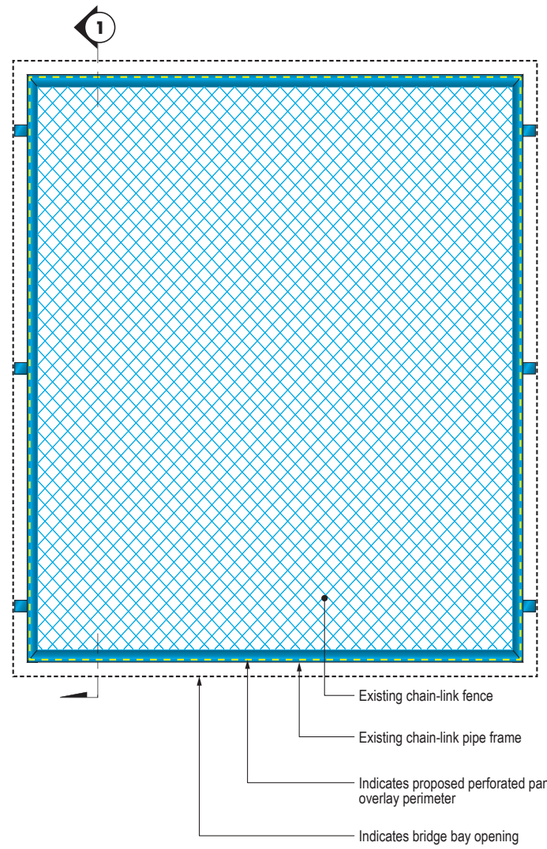
- Existing Bridge Components
- Conduit
- New Attached to Bridge
- Open to View
- Proposed bolts between proposed gusset plate and existing web stiffener
- Outline of Vertical W18x50 or W18x71

Project Note:
_New panels are attached to East side of bridge and painted indicated blues.



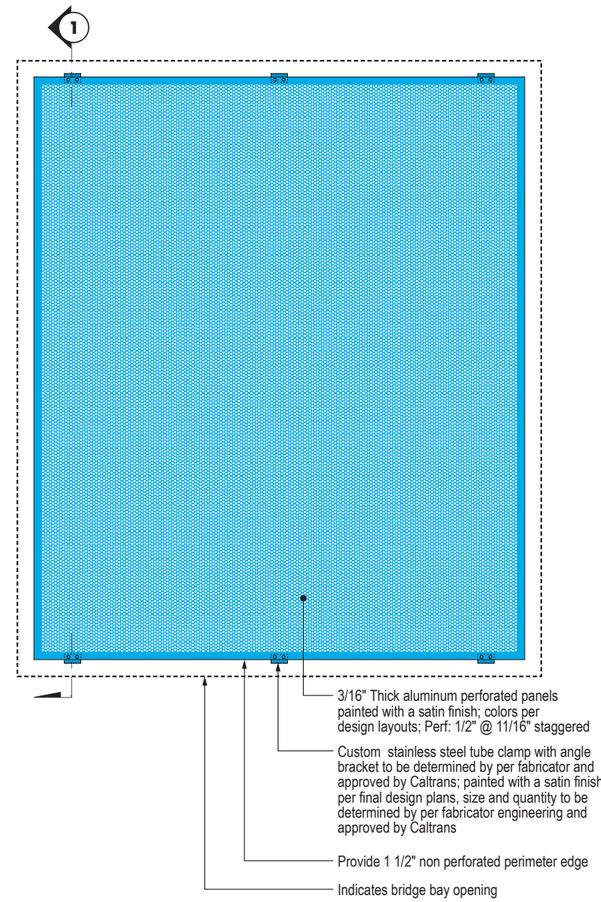
1 LETTER & PERFORATED PANEL SECTION DETAIL

Scale: 1-1/2" = 1'- 0"



2 EXISTING FENCE PANEL(S) ELEVATION

Scale: 1/2" = 1'- 0"



3 PERFORATED PANEL(S) ELEVATION

Scale: 1/2" = 1'- 0"

insight lighting

MEDLEY EXTERIOR REMOTE (MER)

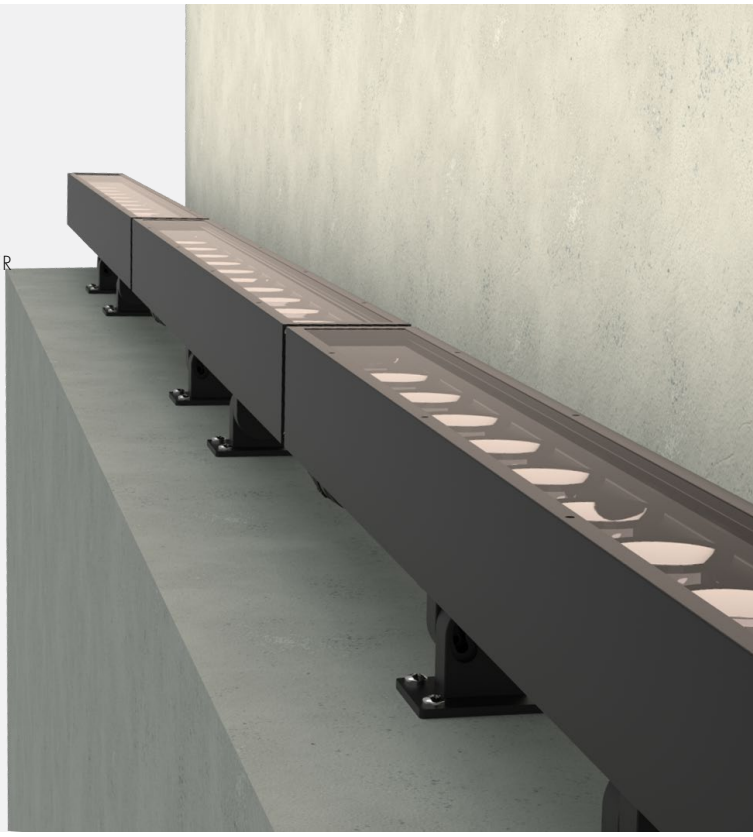
PERFORMANCE LINEAR | WHITE LIGHT & STATIC COLOR SPECIFICATION

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

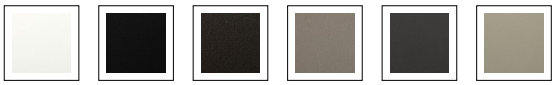
PROFILE

LIGHT SOURCE	3.5 W/FT, 9.0 W/FT, 15.0 W/FT
OPTICS	7° X 60°, 10° X 10°, 10° X 60°, 10° X 90°, 20° X 20°, 20° X 60°, 40° X 40°, 40° X 60°, 40° X 90°, 60° X 60°, 80° X 80°, 100°X 100°, ASYM GRAZE, DIRECT VIEW
CCT	22K, 27K, 30K, 35K, 40K, RED, GREEN, BLUE, AMBER
CRI	82 (OPTIONAL 90+)
PERFORMANCE	UP TO 117530 PEAK CANDELA
FIXTURE VOLTAGE	24V
POWER	REMOTE POWER SUPPLY (120V AND 277V)
CONTROL	0-10V (1%), DMX, LUTRON HI-LUME
FIXTURE LENGTHS	12", 24", 36", 48" (NOMINAL)
HOUSING	ALUMINUM
LENS	HIGH DENSITY TEMPERED GLASS
FINISH	HIGH DURABILITY POWDER COATING
OPERATING TEMP	-40° C TO 60° C
WARRANTY	5-YEAR LIMITED
LUMEN MAINTENANCE	75,000 HOURS
CERTIFICATION	ETL/cETL, IP67, IK07, 5G/3G (Ansi C136.31) OPTIONS

Intertek · RoHS · made in USA · IP67 · IK07 · 3G ANSI C136.3 · 5G ANSI C136.31



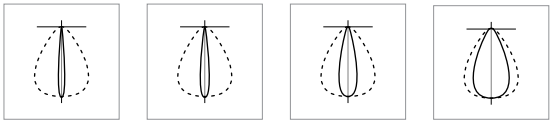
STANDARD FINISHES



TEXTURED WHITE · TEXTURED BLACK · TEXTURED BRONZE · TEXTURED LT. BRONZE · TEXTURED GRAY · TEXTURED SANDSTONE

OPTICS

Not all available optics shown



7°x 60° · 10°x 60° · 20°x 60° · 40°x 60°



60°x 60° · 10°x 10° · 20°x 20° · 40°x 40°

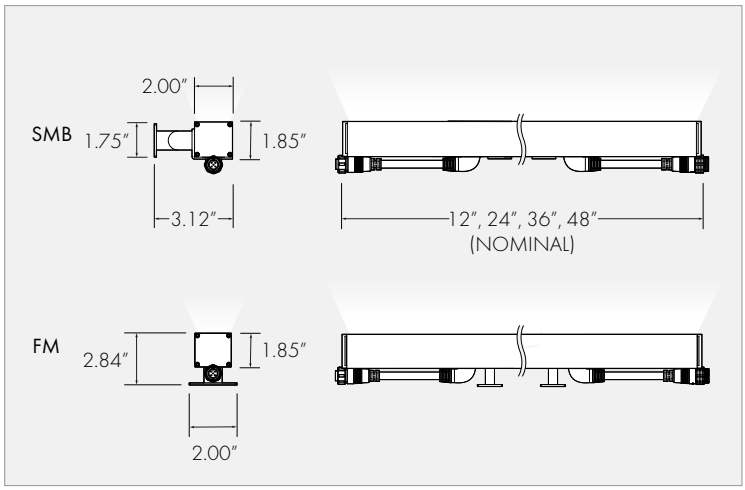
PERFORMANCE SAMPLE

Go to Performance Data >

40K, HO, 48.00"	10°X 10°	10°X 60°	20°X 20°	80°X 80°	100°
LUMENS	6316	5417	6475	6161	6459
CANDELA	117530	19943	52385	3960	2739
EFFICACY	91.2 LM/W	77.3 LM/W	93.3 LM/W	88.8 LM/W	94.4 LM/W

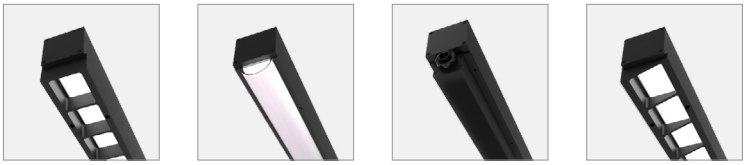
PROFILE

Go to Fixture Dimensions >



OPTIONS

*Shown with white diffusing lense



SNOOTER LOUVER · DIRECT VIEW DOME LENS · CONCEALED WIRING · LOUVERED VISOR

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insight lighting

MEDLEY EXTERIOR REMOTE (MER)

PERFORMANCE LINEAR | WHITE LIGHT & STATIC COLOR SPECIFICATION

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

SPECIFICATION

Separate options with dashes

MER	LO	40K	1010	EAB-3	48	NO	TBR	-CW-JC-3
1	2	3	4	5	6	7	8	9

1 FIXTURE

MEDLEY EXTERIOR REMOTE	MER

2 WATTAGE

LOW OUTPUT 3.5 W/FT	LO
MEDIUM OUTPUT 9.0 W/FT	MO
HIGH OUTPUT 15.0 W/FT	HO

3 CCT

2200K	22K
2700K	27K
3000K	30K
3500K	35K
4000K	40K
RED	R
GREEN	G
BLUE	B
AMBER	A
LIFTED FULL SPECTRUM	LFS

For horticulture applications only.
LFS is available with Asymmetric Graze optics only.
LFS is only available with 0-10V dimming.

4 OPTICAL DISTRIBUTION

7° X 60°	760
10° X 10°	1010
10° X 60°	1060
10° X 90°	1090
20° X 20°	2020
20° X 60°	2060
20° X 90°	2090
40° X 40°	4040
40° X 60°	4060
40° X 90°	4090
60° X 60°	6060
60° X 90°	6090
80° X 80°	8080
100° X 100°	100
ASYM. GRAZE UPLIGHT, LEFT POWER FEED	ASUL
ASYM. GRAZE UPLIGHT, RIGHT POWER FEED	ASUR
ASYM. GRAZE DOWNLIGHT, LEFT POWER FEED	ASDL
ASYM. GRAZE DOWNLIGHT, RIGHT POWER FEED	ASDR

Asym Graze: See page 4 for details.

DIRECT VIEW DOME LENS — DVD
See page 9 for fixture height with dome lens.
DVD is available with Low and Medium Outputs only
DVD has a L.L.F. of 30%

DIRECT VIEW FLAT WHITE LENS — WL
WL is available with Medium Output only
WL has a L.L.F. of 30%
WL is not available with Lifted Full Spectrum CCT

5 MOUNTING

SURFACE MOUNT - 5G RATED	SM
SURFACE BACK MOUNT	SMB
EXTENDED ARM	EA-X

X = extended arm length specify 6", 12" or 18"
6.00" arm is 3G Ansi C136.3 rated

EXTENDED ARM, BACK	EAB-X

X = extended arm length specify 6", 12" or 18"

FIXED MOUNT	FM
GROUND MOUNT	GM
STAKE MOUNT	STM

Left-hand power feed is standard on all mountings.
A leader cable is required for all mounting options. Order separately. See below for details.

6 FIXTURE LENGTH

12"	12
24"	24
36"	36
48"	48

7 CONTROL OPTIONS

Remote power supplies must be ordered separately. See page 3 for details.

NO DIMMING	NO
0-10V DIMMING (1%)	DIM
DMX DIMMING	DMXDM

Default factory setting is DMX System Resolution
Fixtures are not pre-addressed/labeled at the factory. A **DMXCAT** tool is required. Order separately. See below.
Fixtures are shipped from the factory with default addressed channel 1.
A **CDS/RDM** Distribution Kit is required. Order separately. See below.
DMX controls are required. Order separately.

8 FINISH

TEXTURED WHITE	TW
TEXTURED BLACK	TB
TEXTURED BRONZE	TBR
TEXTURED LIGHT BRONZE	TLB
TEXTURED GRAY	TG
TEXTURED SANDSTONE	TS
ANODIZED ALUMINUM Includes CRF finish	AA
CUSTOM COLOR Contact factory for custom color. ddditional charges will apply	CC

9 OPTIONS See page 9 for details

HIGH CRI 90+ — HCRI
HCRI is available with 27K and 30K only

SNOOTED LOUVER — LV
Field installable snooted visor
LLF of 10% - 15% depending on louver finish

LOUVERED VISOR — VS
Field installable visored louver
LLF of 10% - 15% depending on visor finish

WHITE CABLES — WC
White cables/connectors are standard with white fixtures. All other fixture finishes are provided with black cabling unless **WC** option is specified.

CONCEALED WIRING — CW
Not available with 12" fixture
Only available with SMB & EAB mounting options

CORROSION RES. FINISH — CRF
Corrosion Resistance Finish Complies with ASTM B117 standard
CRF is recommended for coastal or extreme exterior environments

DMX TOOLS AND CABLE OPTIONS

DMX DISTRIBUTION KIT & ADDRESSING TOOL - REQUIRED FOR DMX DIMMING

DMX/RDM DISTRIBUTION KIT - IP67 — CDS-RDM
DMX/RDM Distribution Kit consists of four outputs
Each output is limited to (1) run per output - up to 32 fixtures max
Four terminators are included for end of line termination.

REMOTE DMX/RDM ADDRESSING AND MONITORING TOOL — DMXCAT
DMXCAT Remote Addressing and Monitoring Tool uses Bluetooth LE technology for communication with the smart-phone/applications (up to 50' range). **Allows for on-site fixture resolution and addressing.**
Contact factory for Wireless DMX/RDM

LEADER CABLES - REQUIRED See page 8 >

5.0 FT LEADER CABLE	LC-5
10.0 FT LEADER CABLE	LC-10

EXTERIOR JUMPER CABLES (FOR LINE VOLTAGE ONLY) - OPTIONAL

1.0 FT JUMPER CABLE	JC-1
2.0 FT JUMPER CABLE	JC-2
5.0 FT JUMPER CABLE	JC-5
10.0 FT JUMPER CABLE	JC-10
25.0 FT JUMPER CABLE	JC-25

White fixtures are provided with white cables. Black cables are provided for all other finishes unless **WC** option is specified.
Cables are not rated for direct burial. See local codes for installation. Cables are not available with 347V or 480V.

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PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

POWER SUPPLIES

CONTRA EXTERIOR REMOTE POWER SUPPLIES - REQUIRED	See page 9 for details
NO DIMMING - LOW OUTPUT, 96W	CEL
0-10V DIMMING - LOW OUTPUT, 96W	CELDIM
DMX DIMMING - LOW OUTPUT, 96W	CELDMX
LUTRON L3DOE - LOW OUTPUT, 96W	CELLU

EcoSystem 24V constant voltage with Soft-on, Fade to Black dimming. Dimming control system to be supplied by others.

NO DIMMING - STANDARD OUTPUT, 240W	CES
0-10V DIMMING - STANDARD OUTPUT, 240W	CESDIM
DMX DIMMING - STANDARD OUTPUT, 240W	CESDMX
NO DIMMING - HIGH OUTPUT, (2)-240W	CEH
0-10V DIMMING - HIGH OUTPUT, (2)-240W	CEHDIM
DMX DIMMING - HIGH OUTPUT, (2)-240W	CEHDMX

Above wattages are based on 75% of the Power Supply total wattage capacity. See page 4 for maximum fixtures per power supply.

WIRING

MAXIMUM FIXTURES PER POWER SUPPLY (CIRCUITS MAY NOT BE LOADED OVER 10 AMPS)

Data provided is based on 75% of the Power Supply's total wattage capacity

	LOW OUTPUT (3.5 W/FT)			MEDIUM OUTPUT (9.0 W/FT)			HIGH OUTPUT (15.0 W/FT)		
NOMINAL FIXTURE LENGTH	CONTRA EXTERIOR LOW POWER (96W)	CONTRA EXTERIOR STANDARD POWER (240W)	CONTRA EXTERIOR HIGH POWER (2-240W)	CONTRA EXTERIOR LOW POWER (96W)	CONTRA EXTERIOR STANDARD POWER (240W)	CONTRA EXTERIOR HIGH POWER (2-240W)	CONTRA EXTERIOR LOW POWER (96W)	CONTRA EXTERIOR STANDARD POWER (240W)	CONTRA EXTERIOR HIGH POWER (2-240W)
12"	27	68	136	10	26	52	5	14	28
24"	13	34	68	5	13	26	2	7	14
36"	9	23	46	3	8	16	2	4	8
48"	6	17	34	2	6	12	1	3	6

DMX Dimming: Standard 32 fixtures per DMX splitter output protocol applies

1000 feet maximum to end of last fixture per output

REMOTE DISTANCE LIMITS

Noncompliance with recommended remote wiring distances may void warranty

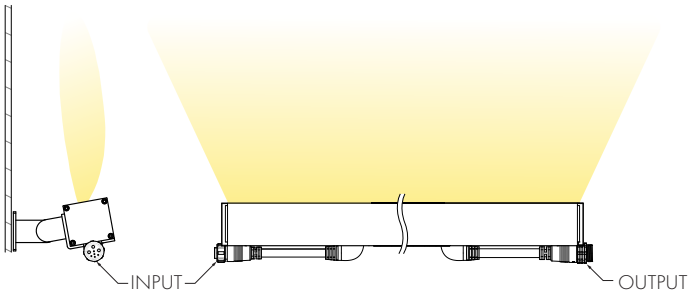
WIRE GAUGE	MAX DISTANCE
20 AWG	25.0 FT
18 AWG	30.0 FT
16 AWG	40.0 FT
14 AWG	60.0 FT
12 AWG	100.0 FT

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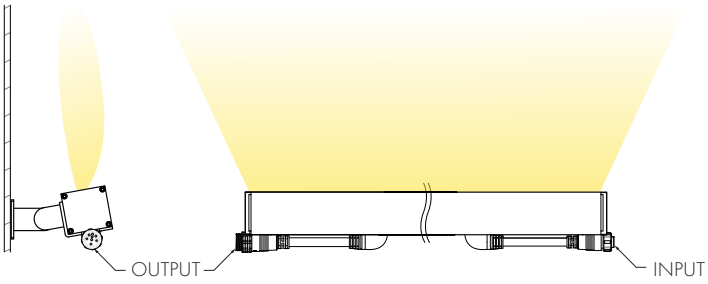
PROJECT: TYPE: CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

ASYMMETRIC DISTRIBUTIONS/LIGHT DIRECTION /FEED LOCATIONS

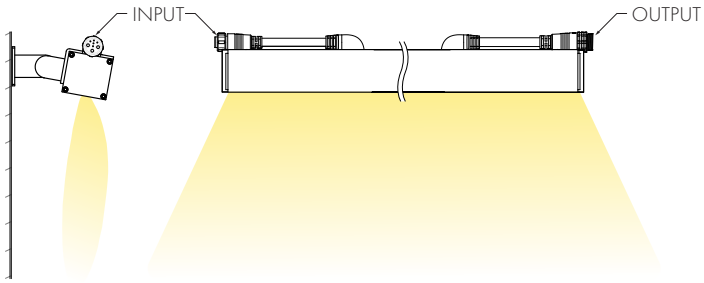
ASYMMETRIC GRAZE UPLIGHT | LEFT POWER FEED



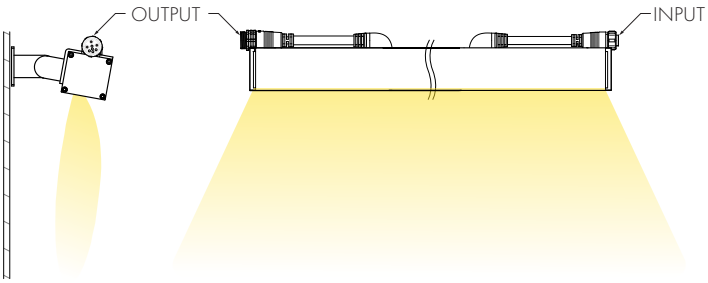
ASYMMETRIC GRAZE DOWNLIGHT | RIGHT POWER FEED



ASYMMETRIC GRAZE UPLIGHT | LEFT POWER FEED



ASYMMETRIC GRAZE DOWNLIGHT | RIGHT POWER FEED



PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

PERFORMANCE

Nominal lengths

		LOW OUTPUT (3.5 W/FT)			MEDIUM OUTPUT (9.0 W/FT)			HIGH OUTPUT (15.0 W/FT)		
CCT AND LENGTH	OPTIC	DELIVERED LUMENS	LUMINARE EFFICACY	PEAK CANDELA	DELIVERED LUMENS	LUMINARE EFFICACY	PEAK CANDELA	DELIVERED LUMENS	LUMINARE EFFICACY	PEAK CANDELA
4000K 24"	7° X 60°	998 LM	107.0 LM/W	3662	1685 LM	110.0 LM/W	6189	3366 LM	98.0 LM/W	12363
	10° X 10°	932 LM	100.5 LM/W	17011	1566 LM	103.0 LM/W	28686	3158 LM	91.2 LM/W	58765
	10° X 60°	804 LM	86.6 LM/W	2905	1348 LM	88.4 LM/W	4871	2709 LM	77.3 LM/W	9972
	20° X 20°	948 LM	102.1 LM/W	7658	1601 LM	102.4 LM/W	12983	3238 LM	93.3 LM/W	26193
	20° X 60°	862 LM	92.8 LM/W	1893	1451 LM	96.2 LM/W	3207	2914 LM	84.6 LM/W	6379
	40° X 40°	1001 LM	108.0 LM/W	1395	1688 LM	111.0 LM/W	2338	3392 LM	98.8 LM/W	4733
	40° X 60°	896 LM	96.7 LM/W	724	1497 LM	98.6 LM/W	1211	3039 LM	88.1 LM/W	2470
	60° X 60°	993 LM	107.1 LM/W	882	1666 LM	109.3 LM/W	1485	3354 LM	97.7 LM/W	2999
	80° X 80°	912 LM	98.2 LM/W	585	1525 LM	100.1 LM/W	976	3081LM	88.8 LM/W	1980
	100° X 100°	620 LM	86.8 LM/W	263	1964 LM	93.3 LM/W	829	3230 LM	94.4 LM/W	1370
	ASY	888 LM	96.3 LM/W	3134	1473 LM	97.8 LM/W	5199	2890 LM	88.2 LM/W	9369
4000K 36"	7° X 60°	1496 LM	107.0 LM/W	5492	2527 LM	110.0 LM/W	9283	5048 LM	98.0 LM/W	18544
	10° X 10°	1398 LM	100.5 LM/W	25516	2349 LM	103.0 LM/W	43029	4737 LM	91.2 LM/W	88148
	10° X 60°	1205 LM	86.6 LM/W	4357	2022 LM	88.4 LM/W	7306	4063 LM	77.3 LM/W	14957
	20° X 20°	1421 LM	102.1 LM/W	11486	2402 LM	102.4 LM/W	19474	4856 LM	93.3 LM/W	39289
	20° X 60°	1292 LM	92.8 LM/W	2840	2177 LM	96.2 LM/W	4810	4371 LM	84.6 LM/W	9569
	40° X 40°	1502 LM	108.0 LM/W	2093	2531 LM	111.0 LM/W	3506	5088 LM	98.8 LM/W	7100
	40° X 60°	1344 LM	96.7 LM/W	1086	2245 LM	98.6 LM/W	1817	4559 LM	88.1 LM/W	3704
	60° X 60°	1489 LM	107.1 LM/W	1322	2499 LM	109.3 LM/W	2228	5031LM	97.7 LM/W	4499
	80° X 80°	1368 LM	98.2 LM/W	877	2287 LM	100.1 LM/W	1464	4621 LM	88.8 LM/W	2970
	100° X 100°	929 LM	86.8 LM/W	394	2946 LM	93.3 LM/W	1244	4844 LM	94.4 LM/W	2054
	ASY	1332 LM	96.3 LM/W	4700	2209 LM	97.8 LM/W	7798	4335LM	88.2 LM/W	14053
4000K 48"	7° X 60°	1995 LM	107.0 LM/W	7323	3369 LM	110.0 LM/W	12377	6731 LM	98.0 LM/W	24725
	10° X 10°	1864 LM	100.5 LM/W	34021	3132 LM	103.0 LM/W	57372	6316 LM	91.2 LM/W	117530
	10° X 60°	1607 LM	86.6 LM/W	5809	2696 LM	88.4 LM/W	9741	5417 LM	77.3 LM/W	19943
	20° X 20°	1895 LM	102.1 LM/W	15315	3202 LM	102.4 LM/W	25965	6475 LM	93.3 LM/W	52385
	20° X 60°	1723 LM	92.8 LM/W	3786	2902 LM	96.2 LM/W	6413	5828 LM	84.6 LM/W	12758
	40° X 40°	2002 LM	108.0 LM/W	2790	3375 LM	110.7 LM/W	4675	6784 LM	98.8 LM/W	9466
	40° X 60°	1792LM	96.7 LM/W	1448	2993 LM	98.6 LM/W	2422	6078 LM	88.1 LM/W	4939
	60° X 60°	1985 LM	107.1 LM/W	1763	3332 LM	109.3 LM/W	2970	6708 LM	97.7 LM/W	5998
	80° X 80°	1824 LM	98.2 LM/W	1169	3049 LM	100.1 LM/W	1952	6161 LM	88.8 LM/W	3960
	100° X 100°	1239 LM	86.8 LM/W	525	3928 LM	93.3 LM/W	1658	6459 LM	94.4 LM/W	2739
	ASYM. GRAZE	1776 LM	96.3 LM/W	6267	2945 LM	97.8 LM/W	10397	5780 LM	88.2 LM/W	18787

All Insight White Light ies files are calculated with 4000K. For estimations of additional CCTs, please use the following multipliers:

	2700K MULTIPLIER	3000K MULTIPLIER	3500K MULTIPLIER
LUMEN MULTIPLIERS	0.87	0.90	0.95

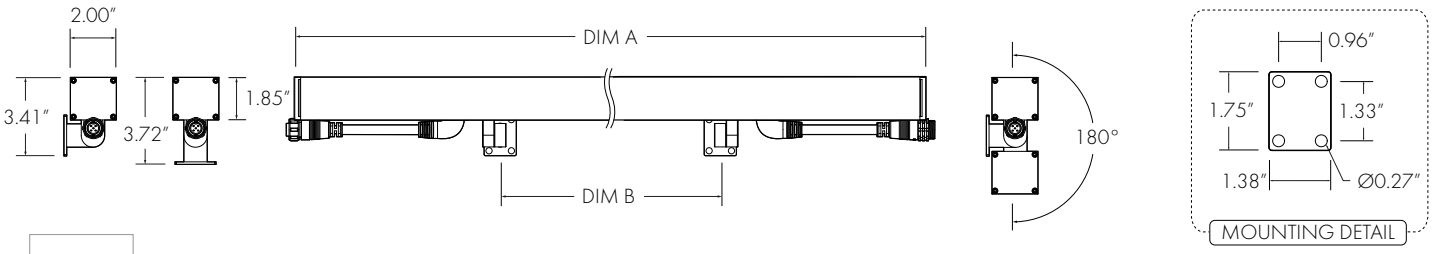
MULTIPLY THE 4000K LUMEN DATA BY THE ABOVE MULTIPLIERS

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

DIMENSIONS

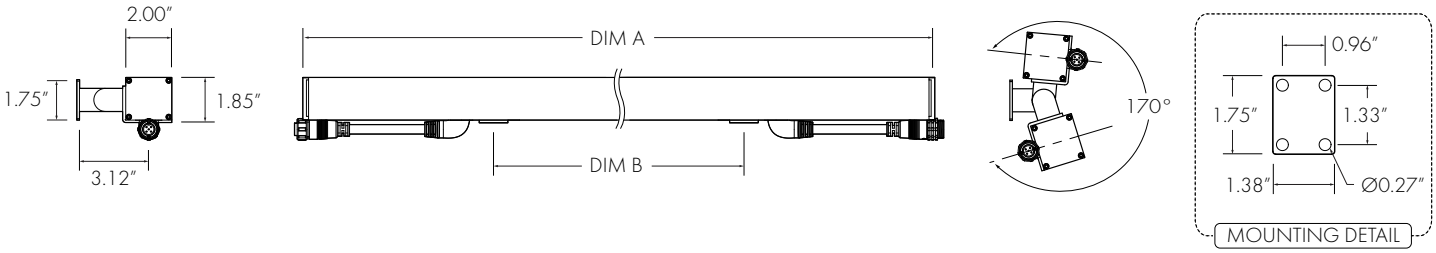
	12"	24"	36"	48"
DIM A	12.10"	23.85"	35.60"	47.35"
DIM B	9.28"	4.00" MIN | 6.00" MAX	12.00" MIN | 18.00" MAX	18.00" MIN | 30.00" MAX

SURFACE MOUNT (SM) - 5G ANSI C136.31 RATED



5G
ANSI C136.31

SURFACE, BACK MOUNT (SMB)



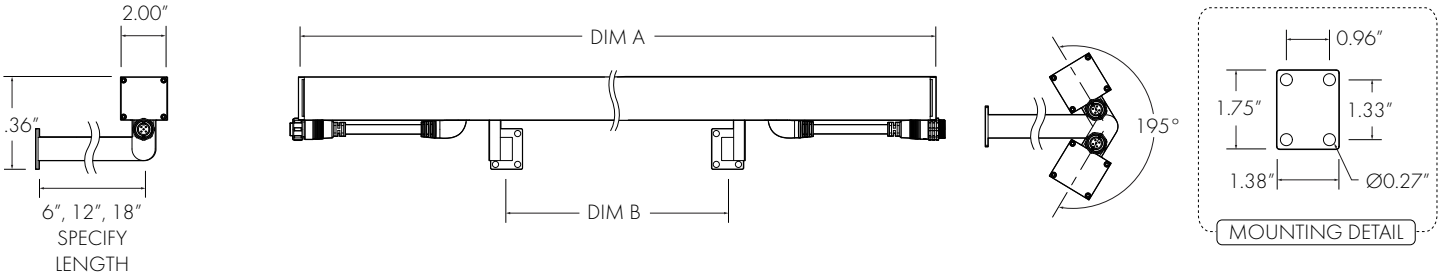
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P.: 505.345.0888 | insightlighting.com

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

DIMENSIONS

	12"	24"	36"	48"
DIM A	12.10"	23.85"	35.60"	47.35"
DIM B	9.28"	4.00" MIN | 6.00" MAX	12.00" MIN | 18.00" MAX	18.00" MIN | 30.00" MAX

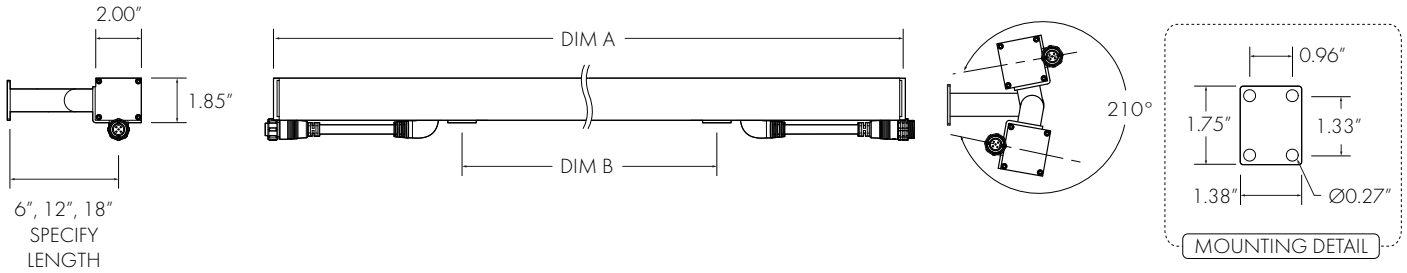
EXTENDED ARM (EA-X)



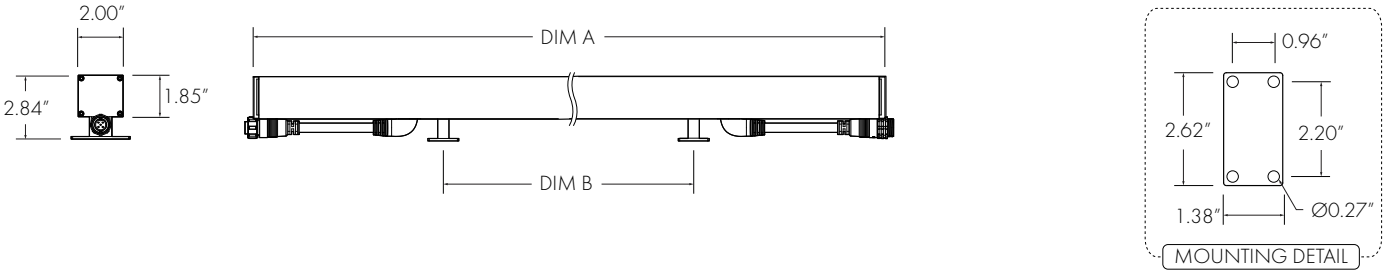
3G
ANSI C136.3

3G RATED WITH 6.00" ARM

EXTENDED ARM, BACK MOUNT (EAB-X)



FIXED MOUNT (FM)



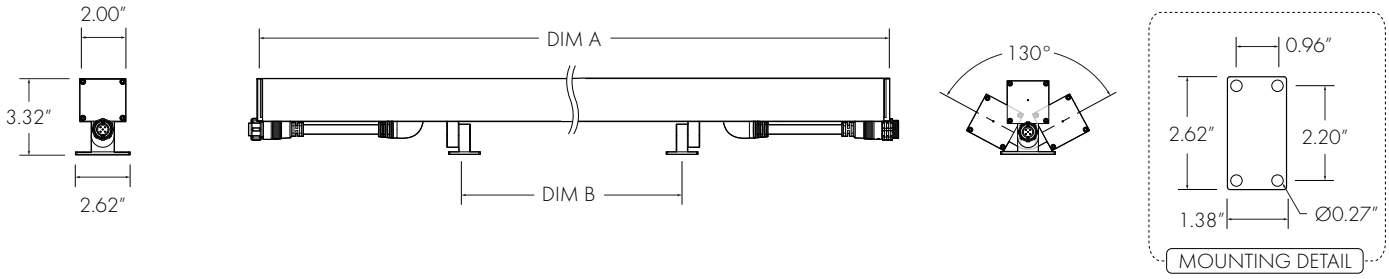
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PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

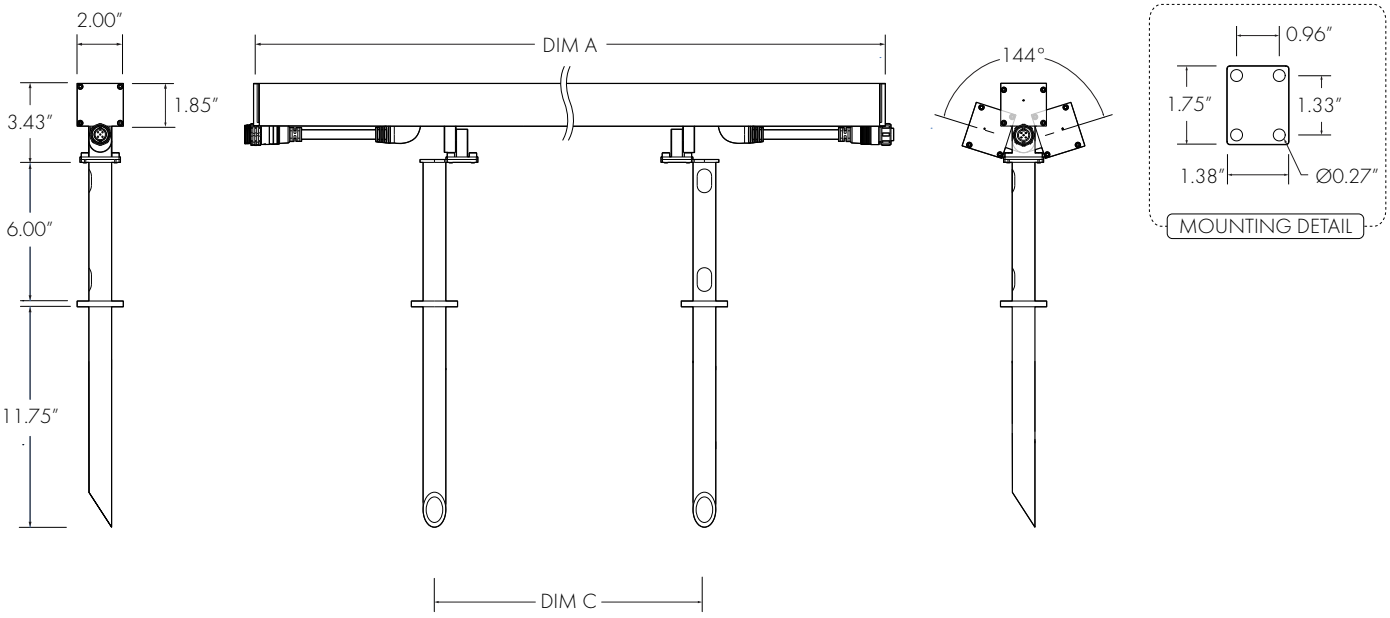
DIMENSIONS

	12.00"	24.00"	36.00"	48.00"
DIM A	12.10"	23.85"	35.60"	47.35"
DIM B	9.28"	4.00" MIN | 6.00" MAX	12.00" MIN | 18.00" MAX	18.00" MIN | 30.00" MAX
DIM C	10.56"	4.00" MIN | 6.00" MAX	12.00" MIN | 18.00" MAX	18.00" MIN | 30.00" MAX

GROUND MOUNT (GM)



STAKE MOUNT (STM)

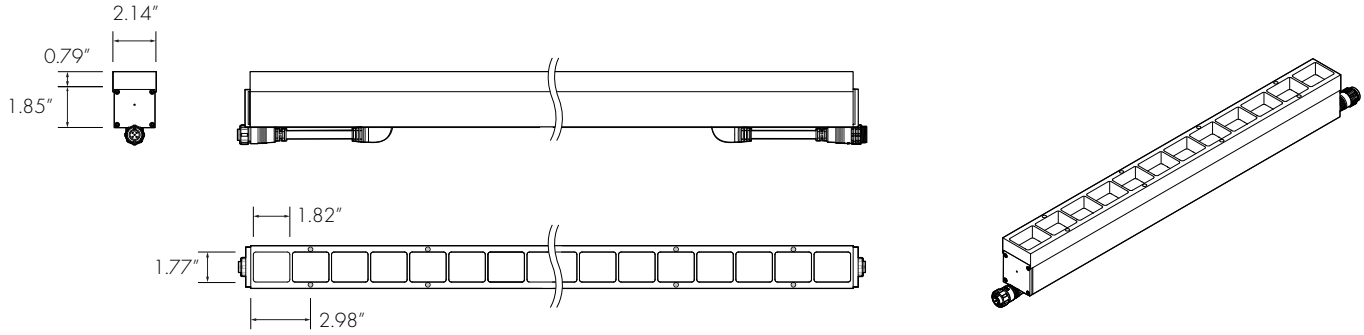


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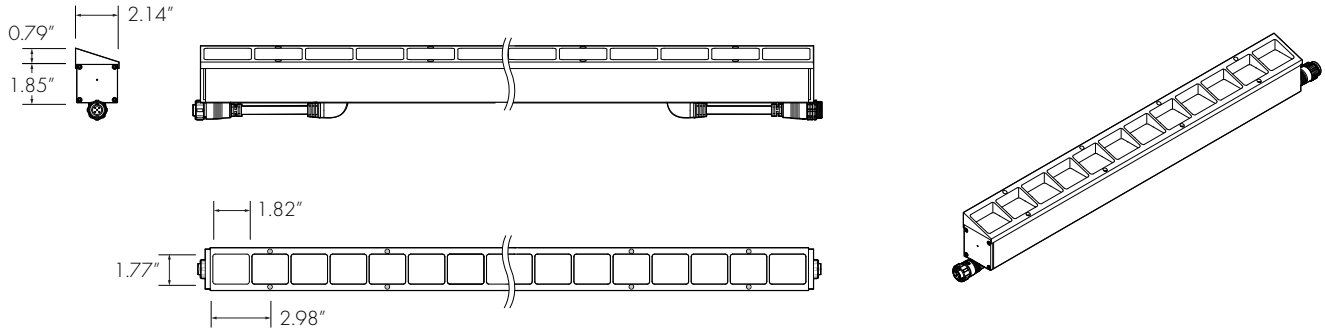
PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

ACCESSORIES

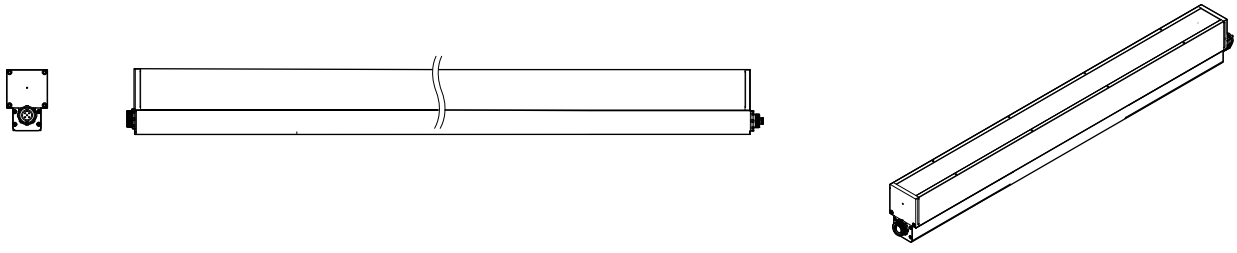
SNOOTED LOUVER (LV)



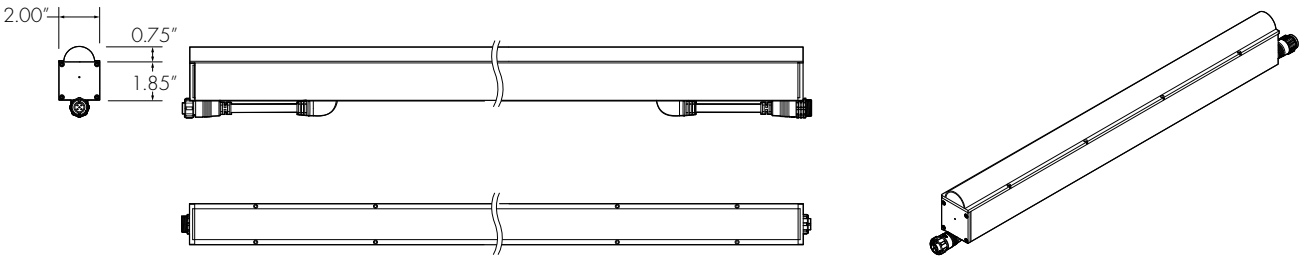
LOUVERED VISOR (VS)



CONCEALED WIRING (CW)



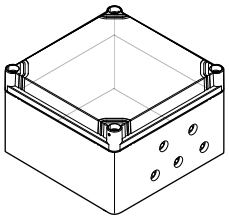
DIRECT VIEW DOME LENS (DVD)

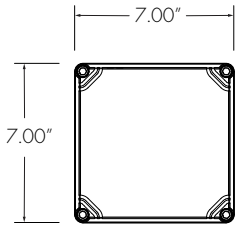


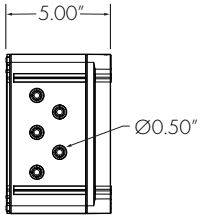
PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER- LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

REMOTE POWER ENCLOSURE DIMENSIONS

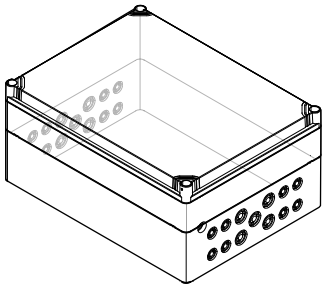
CONTRA EXTERIOR LOW POWER SUPPLY, NO DIMMING, 0-10V DIMMING, DMX DIMMING - CEL-X

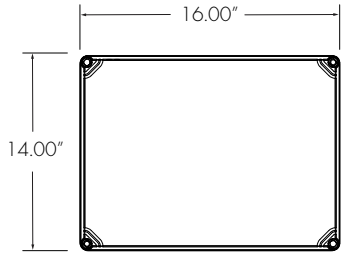


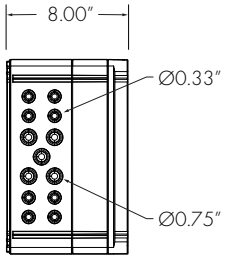




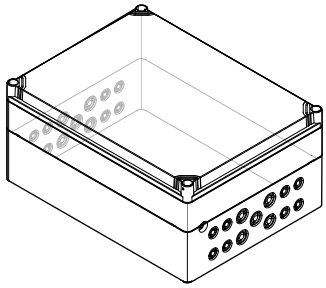
CONTRA EXTERIOR LOW POWER SUPPLY, LUTRON L3DOE- CELLU

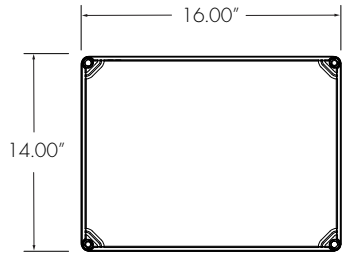


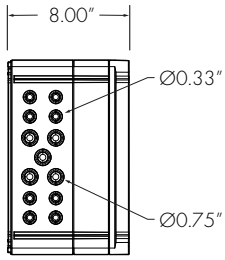




CONTRA EXTERIOR STANDARD AND HIGH POWER SUPPLY, NO DIMMING, 0-10V DIMMING, DMX DIMMING - CES-X / CEH-X







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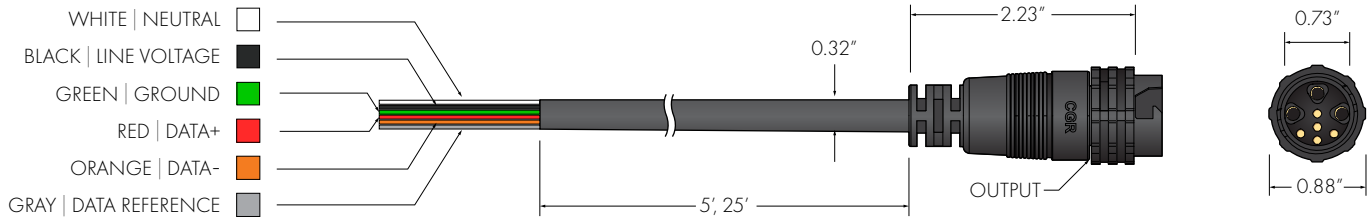
MEDLEY EXTERIOR REMOTE (MER)

PERFORMANCE LINEAR | WHITE LIGHT & STATIC COLOR SPECIFICATION

PROJECT: Palo Verde Bridge TYPE: Uplight CATALOG #: MER - LO - 40K - 1010 - EAB-3 - 48 - NO - TBR - -CW-JC-3

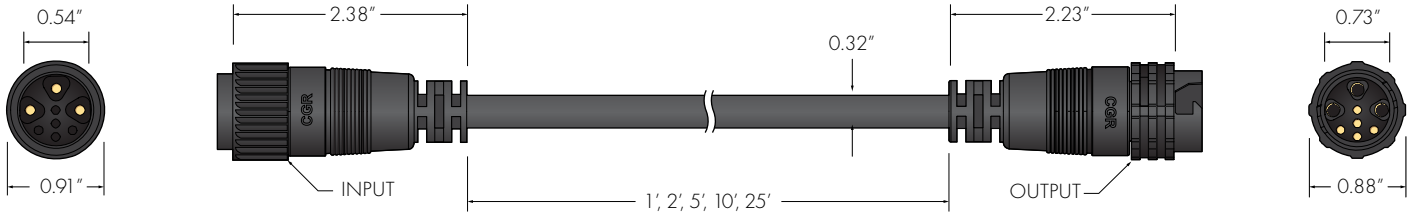
LEADER (LC-X)

BLACK | 3x16AWG | 3X20AWG | 105°C | 300V | IP67



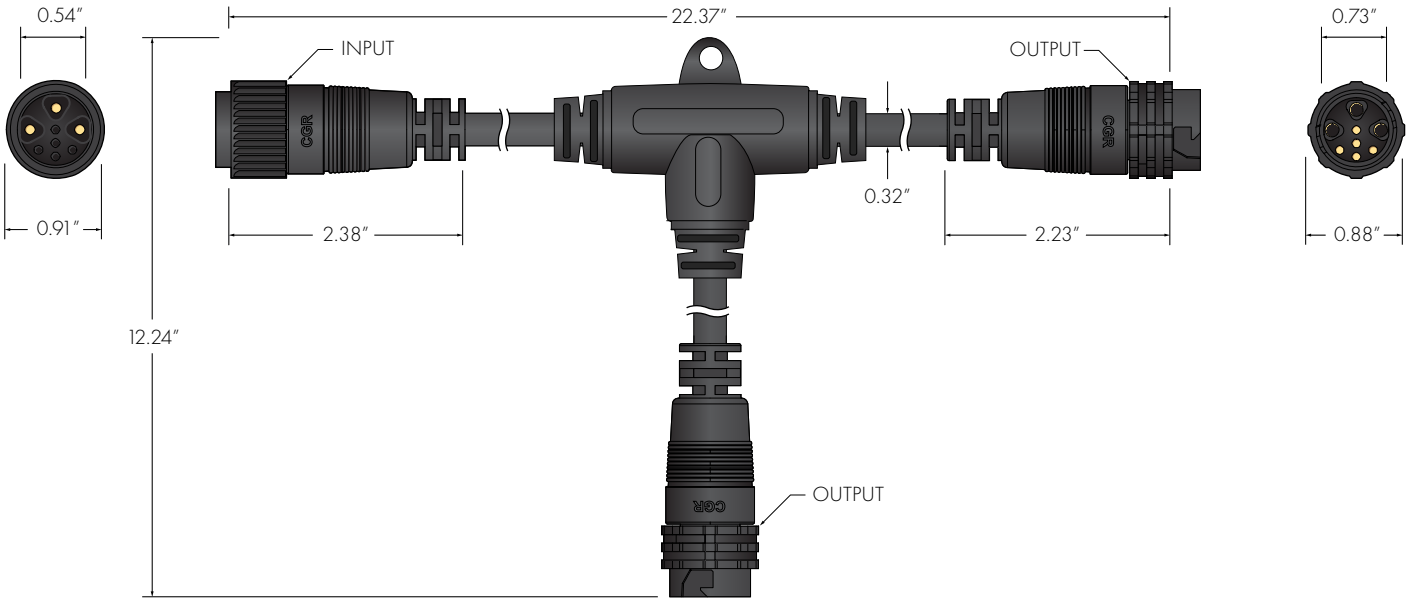
JUMPER (JC-X)

BLACK | 3x16AWG | 3x20AWG | 105°C | 300V | IP67



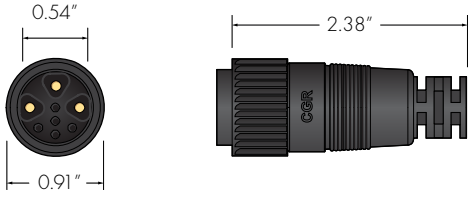
AC T-CONNECTOR (ACT)

BLACK | 3x16AWG | 3x20AWG | 105°C | 300V | IP67



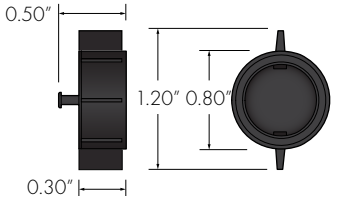
AC TERMINATOR (EL11586)

BLACK | 105°C | 300V



AC CAP (EL11447)

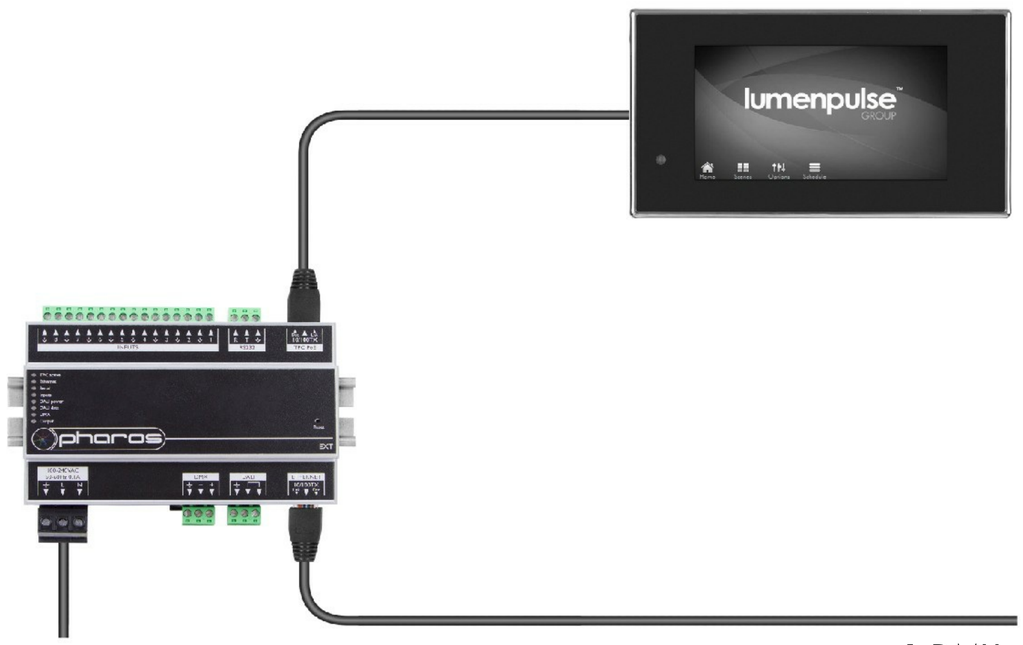
BLACK | 105°C | 300V | IP67



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Project Name Long Beach Signature Gateway Signage **Qty** 1

Type Pharos **Catalog / Part Number** PHAROS-U1-BN-SBB



1 DMX universe kit shown

Description

Based on individually controllable and independently running timelines and scenes. The Pharos engine lets you build dynamic, precise, fully-customizable pre-programmed lighting displays, while also allowing real-time manual overrides.

Features

1 DMX Universe Kit	Pharos Touch Panel Controller (TPC), Pharos TPC Extension (EXT)
2 DMX Universes Kit	Pharos Touch Panel Controller (TPC), Pharos Lighting Playback Controller (LPC), TP-LINK 8-port switch
1 Ethernet DMX Universe Kit	Pharos Touch Panel Controller (TPC), TP-LINK 8-port switch
Mounting Accessories	TPC back box, TP-LINK 8-port switch bracket, DIN rail, Cat5e patch cable
TPC Overlay & Bezel Color	Black overlay and bezel, Black overlay on a nickel bezel, White overlay and bezel, White overlay on a nickel bezel, Cream overlay and bezel
TPC Back Box Mounting	Recessed/flush installation, Surface installation

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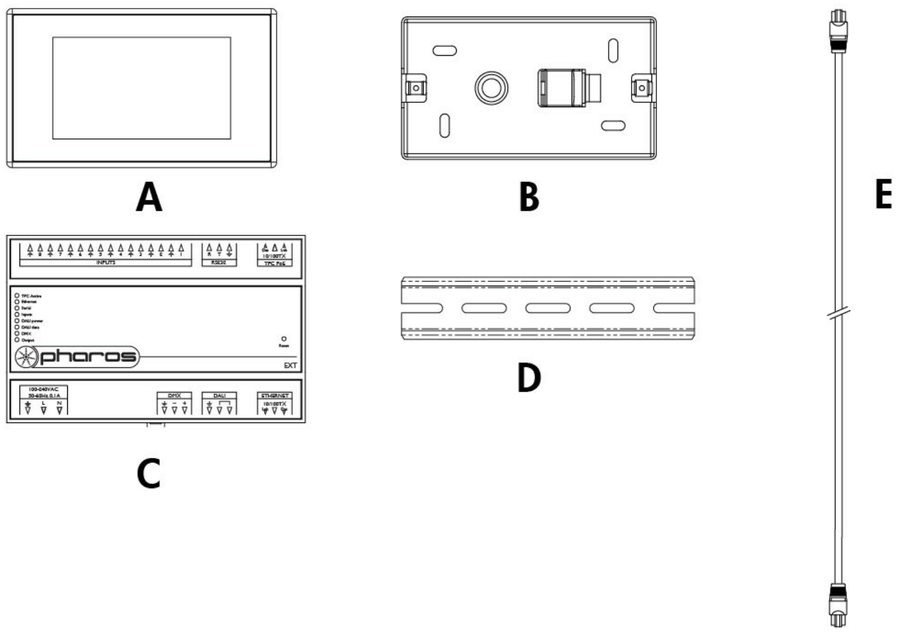
1220 Marie-Victorin Blvd., Longueuil, QC J4G 2H9 CA **T** United States 617.307.5700 | Canada 1.877.937.3003 | 514.937.3003 **F** 514.937.6289
info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/1423/pharosr-kit**

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MG - R3

Attachment C

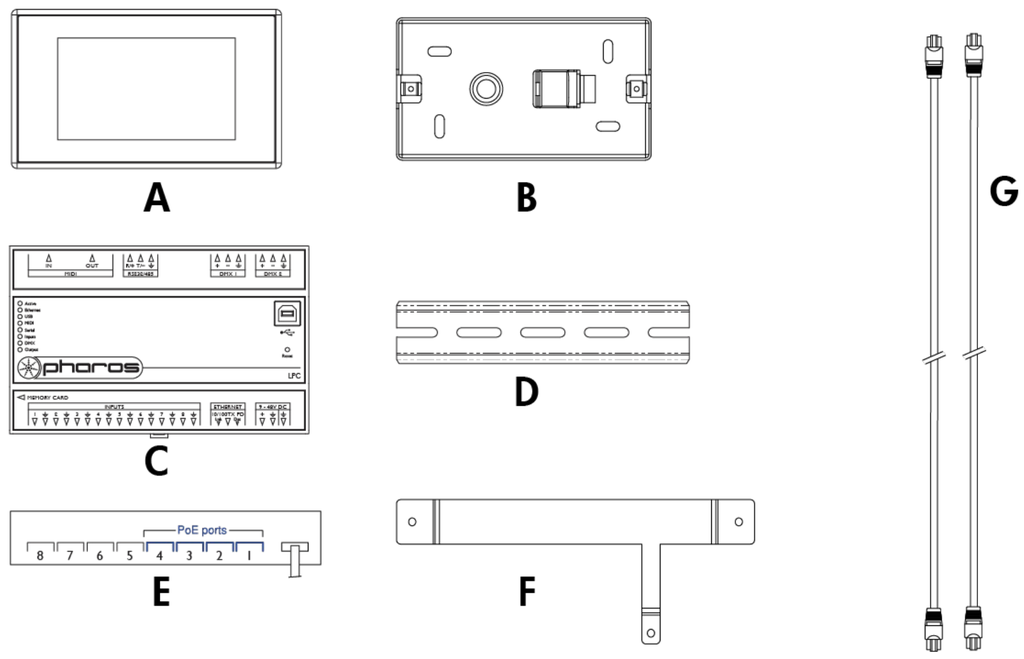
Kit contents

1 DMX universe kit



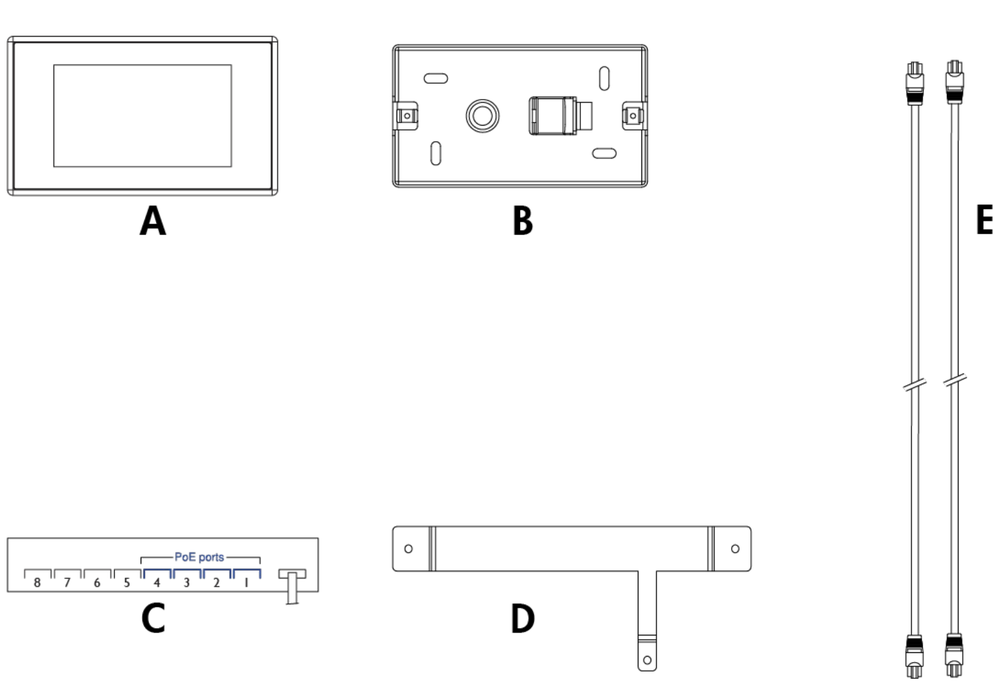
A - TPC
B - TPC Back Box
C - EXT
D - DIN rail for EXT
E - 50 ft Cat5e patch cable

2 DMX universes kit



A - TPC
B - TPC Back Box
C - LPC
D - DIN rail for LPC
E - TP-LINK 8-port switch with 4-port PoE (TL-SF1008P)
F - Bracket for TP-LINK
G - 50 ft Cat5e patch cable (2x)

1 Ethernet DMX universe kit



A - TPC
B - TPC Back Box
C - TP-LINK 8-port switch with 4-port PoE (TL-SF1008P)
D - Bracket for TP-LINK
E - 50 ft Cat5e patch cable (2x)

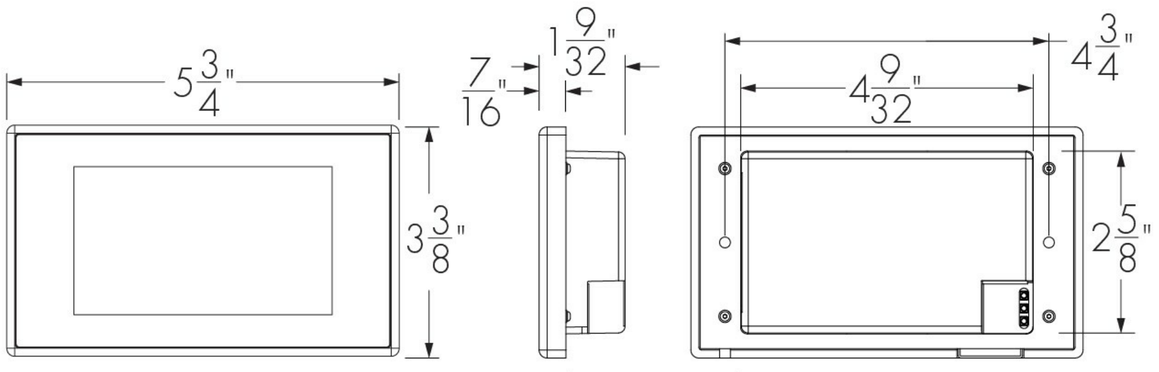
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info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/1423/pharosr-kit**

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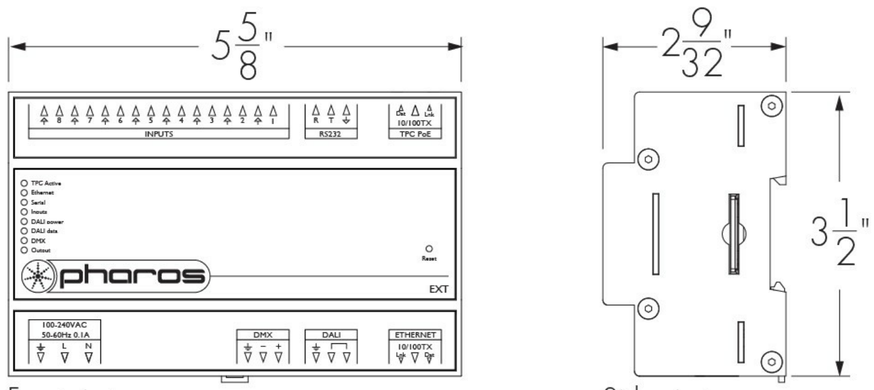
Control items dimensions

TPC



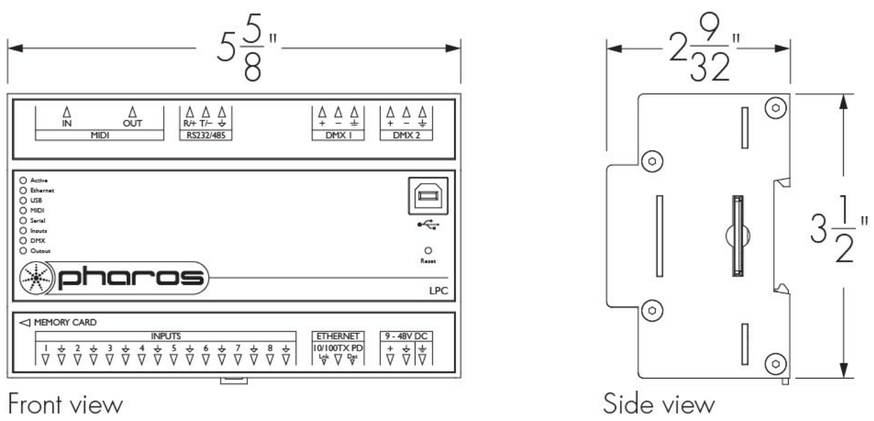
Front view | Side view | Back view

EXT



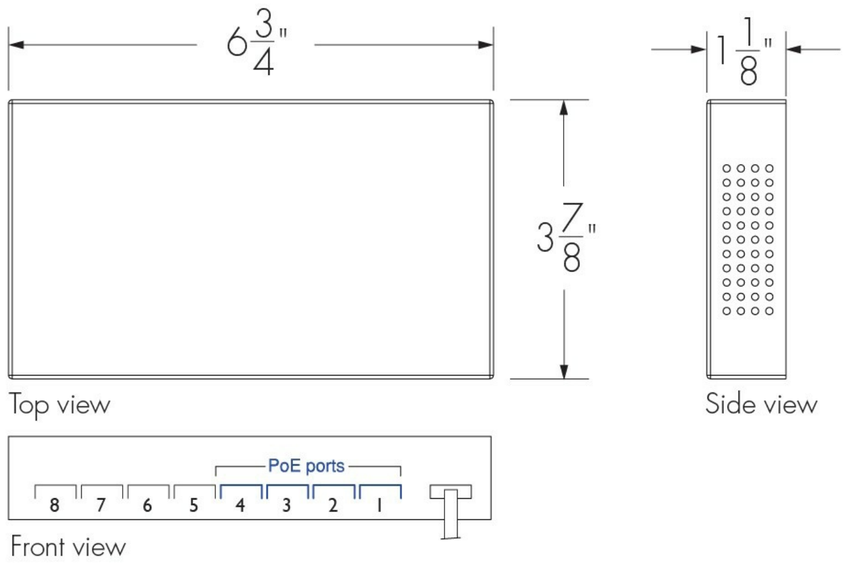
Front view | Side view

LPC



Front view | Side view

TP-LINK 8-port switch

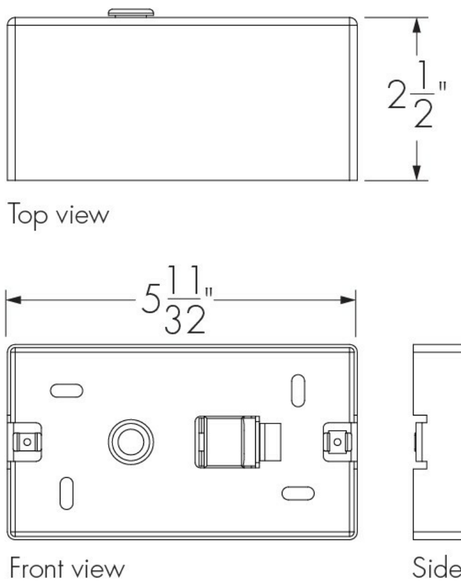


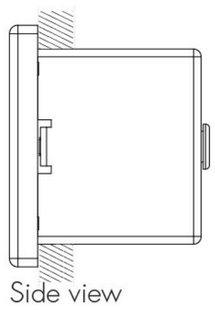
Top view | Side view | Front view

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Mounting accessory dimensions

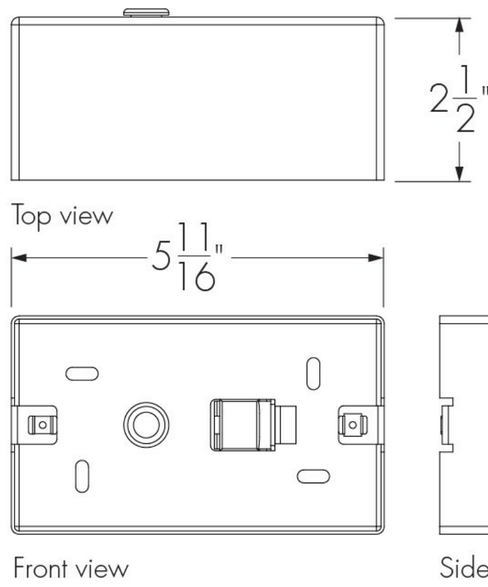
FBB - Back Box for Recessed/Flush Installation

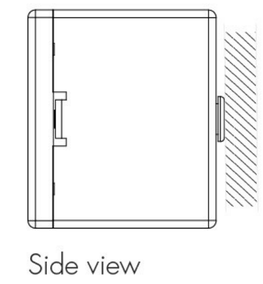




TPC with Back Box for Recessed/Flush Installation

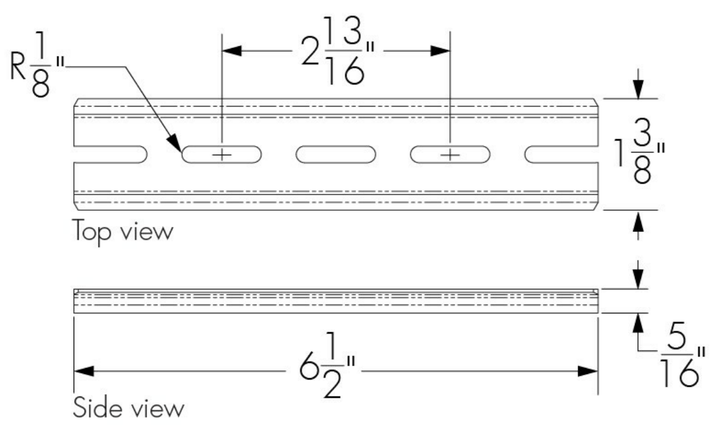
SBB - Back Box for Surface Installation



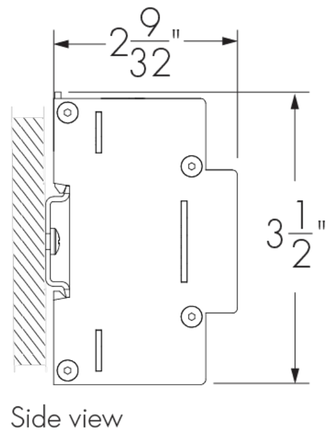


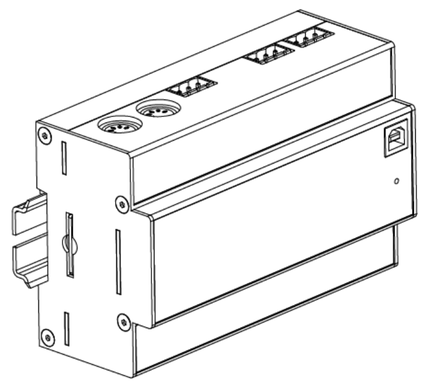
TPC with Back Box for Surface Installation

DIN rail (for EXT and LPC)

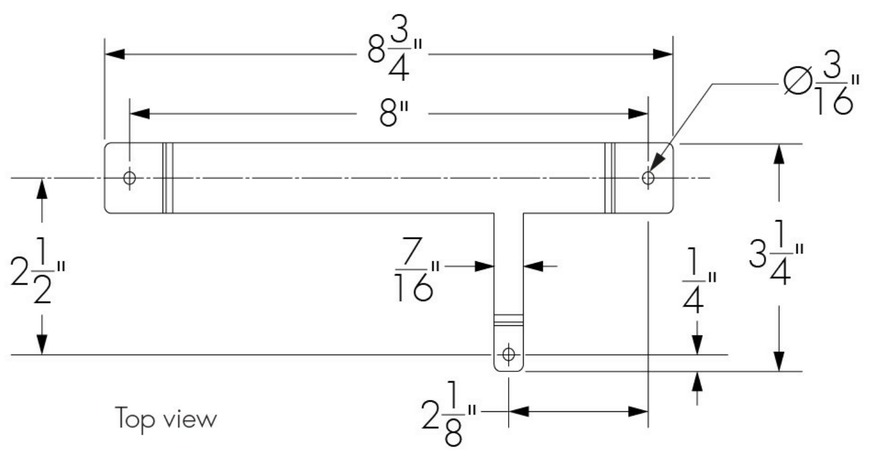


DIN rail as installed

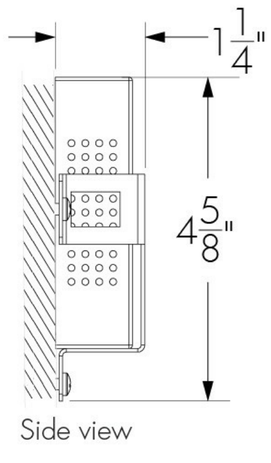


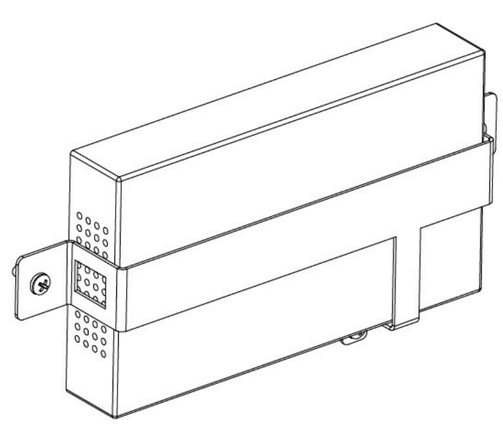


Bracket (for TP-LINK 8-port switch)



Bracket as installed

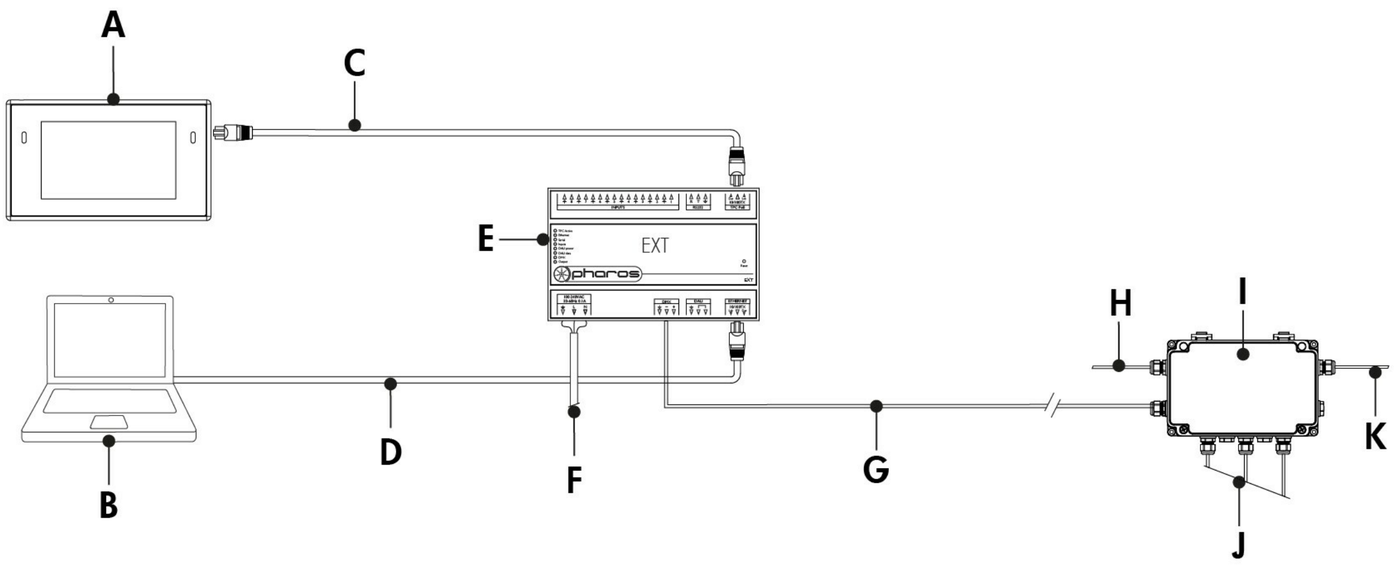




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Typical wiring diagrams

1 DMX universe kit

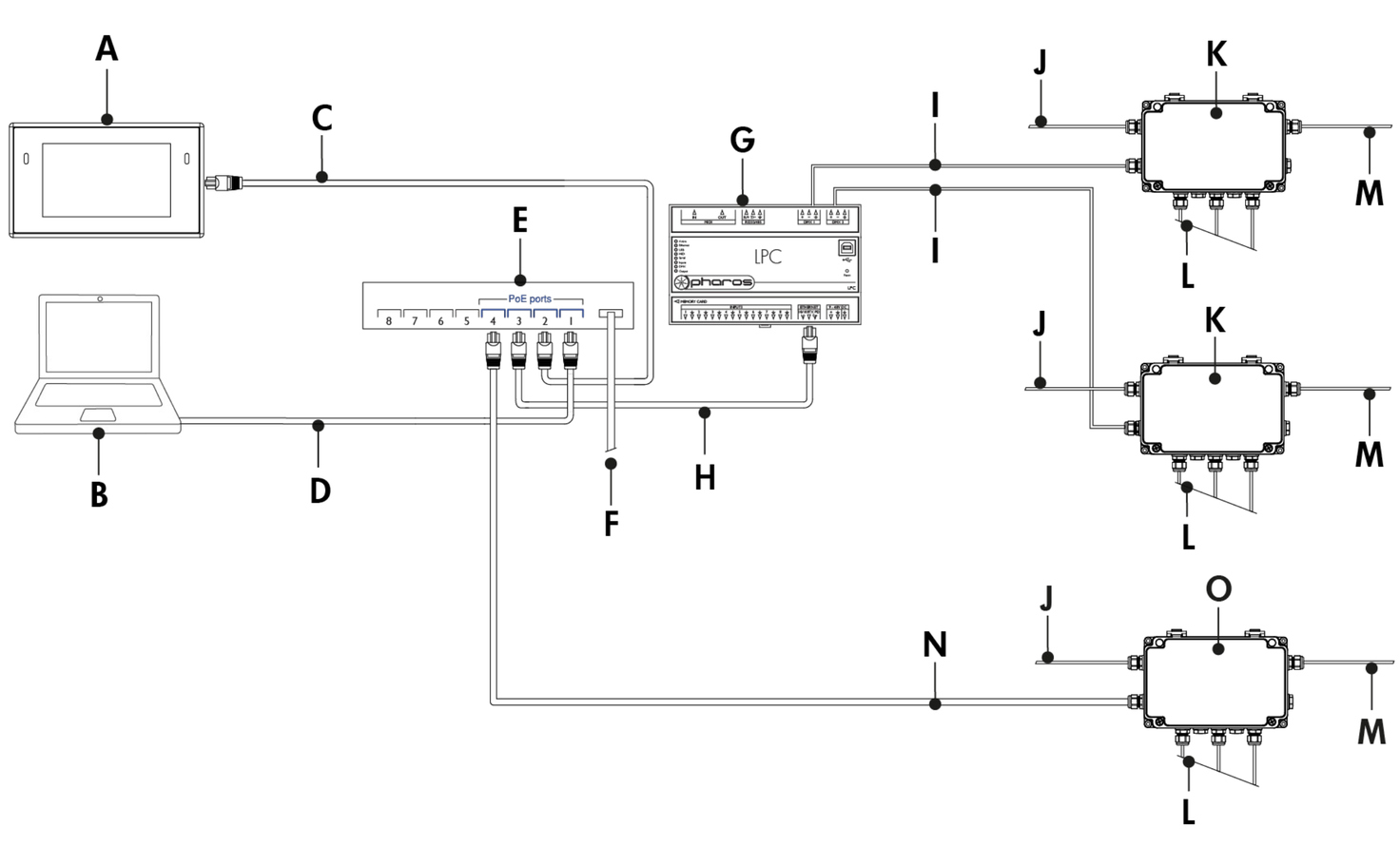


A - TPC
B - Computer
C - 50 ft Cat5e patch cable
D - Cat5e patch cable (by others)
E - EXT
F - Power input
G - Data input (Belden 9841 or equivalent, by others)
H - Data output to next CBX (optional, not isolated/not boosted)
I - CBX (order separately)
J - Power and data output to fixture (wiring by others)
K - Power input (100-277V)

TPC EDMX Port Assignments

DMX 1 Output	512
eDMX (Ethernet)	up to 512
Total channels	**512***

2 DMX universes kit



A - TPC
B - Computer
C - 50 ft Cat5e patch cable
D - Cat5e patch cable (by others)
E - TP-LINK 8-port switch
F - Power input
G - LPC
H - 50 ft Cat5e patch cable
I - Data input (Belden 9841 or equivalent, by others)
J - Data output to next CBX (optional, not isolated/not boosted)
K - CBX (order separately)
L - Power and data output to fixture (wiring by others)
M - Power input (100-277V)
N - Data Cable (Cat5 or better, by others)
O - Ethernet CBX (order separately)

LPC DMX Port Assignments

DMX 1 Output	512
DMX 2 Output	512*
eDMX (Ethernet)	up to 1024
Total channels	**1024**

* When used with an LPC, the TPC can utilize the second DMX output of the LPC (DMX 2) to output its DMX.

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info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/1423/pharosr-kit**

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How to order

1	2	3	4
PHAROS	U1	BN	SBB

1 . Housing

PHAROS	Pharos® kit

2 . DMX Universes

U1	1 DMX universe
U2	2 DMX universes
U1ENET	1 Ethernet DMX universe

3 . TPC Overlay & Bezel Color

BB	Black overlay and bezel
BN	Black overlay on a nickel bezel
WW	White overlay and bezel [1]
WN	White overlay on a nickel bezel [1]
CC	Cream overlay and bezel [1]

[1] Longer lead time of 6 to 8 weeks.

4 . TPC Back Box Mounting

FBB	Recessed/flush installation
SBB	Surface installation

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WELCOME

Thank you for purchasing a Pharos Architectural Controls Limited product, we hope that it fulfills your expectations and provides a lifetime of reliable service.

If you have any questions or require technical support please contact:

Email	support@pharoscontrols.com
Telephone	+44-(0)20-7471-9449

Technical specifications of this and other Pharos products can be found on our website at http://www.pharoscontrols.com.

OVERVIEW

The Pharos control solution has two complementary parts: the installed Controllers and Remote Devices, and the Designer software which runs on any personal computer and is only required when creating or modifying the presentation.

This guide is primarily intended as a reference for the Pharos hardware installation. For Designer software help please refer to the on-line documentation (once installed, see below) .

SOFTWARE INSTALLATION

- Microsoft Windows (see Designer Help for supported OS):

  Download the appropriate installer from pharoscontrols.com and run the Installer

- Apple Macintosh (see Designer Help for supported OS):

  Download the appropriate installer from pharoscontrols.com and run the Installer.

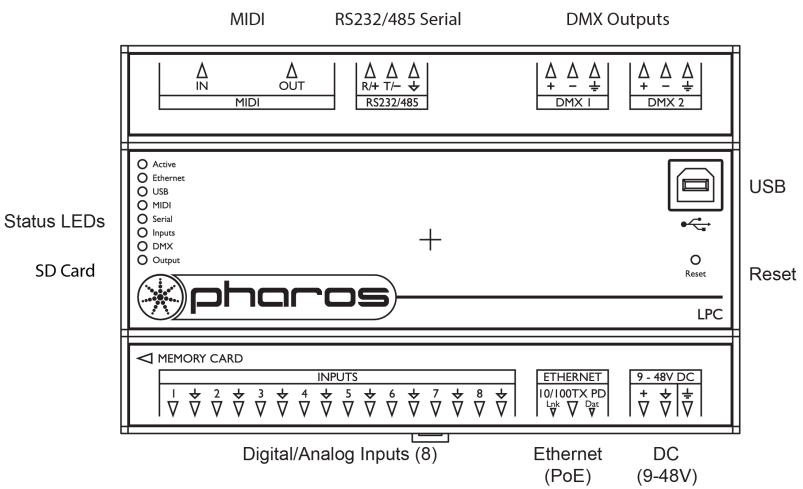
LPC INSTALLATION

The Lighting Playback Controller (LPC) is 100% solid state and have been qualified to operate in a dry environment within a temperature range of 0 C to 50 C (32 F to 122 F). Sealed IP65 rated consumer units are available for outdoor use, please consult your Pharos distributor or representative.

Since the units require no user intervention once installed they are suitable for remote installation with all configuration and management taking place over an Ethernet network. However it is recommended that access can be gained in the unlikely event of a hardware failure.

LPC LAYOUT

The following drawing illustrates the layout of the LPC, refer to the following sections for details:



LPC VERSIONS

There are three versions of the LPC available: LPC 1, LPC 2 and LPC 4. The LPC 1 supports 512 DMX channels, the LPC 2 supports 1024 channels and the LPC 4 supports 2048 channels (of which 1024 channels are eDMX only). All can be used as a stand-alone controller or co- operatively, via an Ethernet network, to form a scalable system.

POWER SUPPLY

The LPC can be powered in two different ways:

- DC power (9 to 48V)

  A limited power source approved to UL60950-1 2nd Edition, CAN/CSA C22.2

No. 60950- 1.07 2nd Edition MUST be used, with an output voltage of 9 to 48V DC.

Such a power supply can be connected directly to the LPC using the DC Input connector. The pins on this connector are marked:

+ Positive input (9 to 48V DC)

⏚ Signal ground (0V)

⏚ Chassis ground (earth)

The power supply should be connected to the Positive and Signal ground inputs, ensuring the polarity is correct. Where possible, use a 12V (minimum) supply in preference to a 9V supply to ensure some headroom.

The LPC will typically consume 4W.

- Power-over-Ethernet (PoE)

  A standard (802.3af) Power-over-Ethernet switch may be used to provide both power and a network connection to the LPC using a single cable.

  The LPC operates as a PoE Class 2 device (3.84>6.49W) and will typically consume 4W.

NOTE: Power should only be applied using one of the above methods. Redundant operation using both sources is not supported.

NOTE: Power must not be disconnected when uploading project data nor during bootloader/firmware updates to the LPC as corruption of the data or software may occur, perhaps even rendering the unit inoperable.

GROUNDING

The LPC is designed to be mounted on a grounded (earthed) DIN-rail and a dedicated Chassis ground (earth) terminal is also provided which should be connected to a suitable earth.

Additionally, the Signal ground can be tied to Chassis ground to provide a suitable reference but this is not generally recommended.

If in any doubt at all, or if you have unusual power supply or grounding/earthing requirements, then please consult Pharos Support.

REALTIME CLOCK BATTERY

The LPC's internal realtime clock is battery-backed to ensure operation when the unit is not powered. The battery should last for at least 10 years and is easily replaced when necessary, replacement battery: Renata CR2032 Lithium Button Cell.

CAUTION: Risk of explosion if battery replaced by incorrect type. Dispose of used batteries according to the manufacturer's instructions.

ATTENTION: Il y a un danger d'explosion s'il y a un remplacement incorrect de batterie. Mettre au rebut les batteries usages conformement aux instructions du fabricant.

MEMORY CARD

The LPC is shipped with a 2GB SD Memory Card which should be sufficient for most projects since the LPC's data storage is extremely efficient, even with a multitude of imported media files. However, a larger capacity card could of course be fitted if required.

As only the project's programming data resides on the card, the card is also a convenient way to backup data for archiving; the Designer project file for example.

Furthermore, in the event of LPC hardware failure, simply moving the card into a replacement unit with identical or more recent firmware is sufficient to get the project up and running again.

STATUS LEDS

The Pharos logo will illuminate when power is applied to the LPC. The red LEDs on the front of the LPC indicate the unit's current status.

The Active LED illuminates once the boot up procedure has completed and is indicative of a fully functional unit.

The Ethernet LED indicates Pharos-related network activity (not network link, see Ethernet port later) while the remaining LEDs indicate communication on the various ports of the LPC.

The Output LED indicates that a valid project file has been loaded from the memory card and that playback & data output has started.

The DMX LED indicates that valid DMX512 data is being output from the DMX ports.

ERROR CODES

Additionally the red status LEDs are used to indicate any boot failures of the LPC that prevent the unit from going active. These codes are outlined below and in all cases the Active LED will be off.

- Ethernet & USB double flashing - failed to boot firmware (follow the LPC recovery procedure detailed in Designer Help)
- Ethernet, MIDI & USB triple flashing - memory card missing (insert or replace card)

RESET SWITCH

The LPC may be reset by inserting a small blunt object into the reset hole on the front of the LPC to depress the reset switch. The switch should be held for at least one second.

NOTE: The reset must not be operated when uploading project data nor during bootloader/firmware updates to the LPC as corruption of the data or software may occur, perhaps even rendering the unit inoperable.

WATCHDOG

The internal "watchdog" is enabled by default to reset automatically the LPC in case of a software crash as a result of either a coding error ("bug") or a random electromagnetic event

such as a power brown-out or spike, nearby lightning strike or static discharge. Please refer to the Designer Help to learn how to disable this feature (not recommended).

PORTS

- RS232/RS485 Serial Port

  The serial port's protocol (RS232 or RS485), data rate and format settings (baud, parity, stop bits, etc.) are configured using Designer.

  In RS232 mode, the port operates in full duplex with the following pinout:

  R/+ Receive
  T/- Transmit
  ⏚ Signal ground

  In RS485 (and DMX In) mode, the port operates in half duplex with the following pinout:

  R/+ Data +
  T/- Data -
  ⏚ Signal Ground

  The serial port is not isolated from the LPC's power supply. If isolation is required, it must either be provided by the connected device or a separate isolator should be used.

- MIDI Input and Output

  The MIDI input and output connectors are standard 5 pin DIN connections. They may beconnected directly to any standard MIDI device.

- DMX Outputs

  Two DMX outputs are provided. An LPC 1 will output on both the same DMX universe data, an LPC 2 will output a separate universe on each. The pins on these connectors are marked:

  \+ Data + ('Hot' or 'True')
  \- Data - ('Cold' or 'Complement')
  ⏚ Chassis ground (shield)

  To make up a cable to a 5 pin XLR the following connections should be made:

	LPC:	5 pin XLR:
Data +	+	3
Data -	-	2
Shield	⏚	1

The DMX ports are by default not isolated from the LPC's ground connection which is the recommended configuration for driving isolated inputs - the majority of DMX receivers.

If required this may be changed by removing the top cover of the LPC and removing the jumper marked 'JP1', located to the right of the DMX ports. The two DMX ports will then be optically isolated from the LPC's internal circuitry although not from each other.

- Digital/Analog Inputs

The LPC features 8 digital/analog inputs on one 16 way connector. To connect an input signal to the LPC one connection should be made to the desired input pin, marked '1' to '8', and the other should be made to the adjacent signal ground pin.

The inputs can be individually configured via Designer to operate in one of three modes:

Contact closure: An external volt-free switch may be connected between the input pin and the signal ground pin.

In this mode, the input pin is internally pulled-up to 5V via a 2.2Kohm resistor, so the switch only needs to be rated at 5V, 2.5mA or greater.

Digital input: An external voltage source (such as a 12VDC trigger output) may be connected between the input pin and the signal ground pin.

In this mode, the input pin is internally pulled down to 0V via a 202.1Kohm resistor and the maximum input voltage supported is 24VDC.

The LPC may be configured to specify what the 'high' and 'low' threshold voltages are. This facility can be used to provide 'Schmitt trigger' action.

Analog input: An external voltage source (such as a 0-10V analog signal) may be connected between the input pin and the signal ground pin.

In this mode, the input pin is internally pulled down to 0V via a 202.1Kohm resistor and the maximum input voltage supported is 24VDC.

The LPC may be configured to specify what the input voltage range is. Voltages inside this range are reported as 0% to 100%.

In all modes, the maximum rated input voltage is 24VDC. The inputs should never be driven with a higher voltage nor negative voltage or damage may occur.

In all modes, all signal ground pins are connected together internally. The digital/analog inputs are not isolated from each other nor the LPC's power supply. If isolation is required, it must either be provided by the connected device or a separate isolator should be used.

- Ethernet

  A standard 10/100TX Ethernet connection may be made to the LPC. As the LPC supports Power-over-Ethernet (PoE), a PoE switch or midspan injector can be used. The LEDs on the RJ45 jack itself are useful for debugging the Ethernet installation:

  The Lnk LED will illuminate when an Ethernet link has been established.

  The Dat LED will illuminate to indicate Ethernet traffic (not just Pharos-relevant).

- USB

  The USB port may be used to connect the LPC to a PC to upload project data and update the LPC's internal operating software.

NOTE: Ports and third party equipment can be damaged when plugging or unplugging an energised system (hot-plugging). It is therefore advisable to remove power before making or breaking port connections.

TEMPORARY TRAFFIC CONTROL BIKEWAY ROUTE 10 BIXBY HILL BICYCLE DETOUR PLAN



LEGEND

- DIRECTION OF DETOUR
- TRAFFIC SIGNAL
- TYPE III BARRICADE W/SIGN
- WORK ZONE (ACTIVITY AREA) LIMITS
- SIGN

1. BIKE LANE CLOSED — SC11 (CA)(BIKE)
2. BIKE LANE CLOSED AHEAD — W20-5b
3. DETOUR — M4-9c(R)(L)
4. DETOUR — SC3 (CA)
5. DETOUR — M4-9(R)(L)
6. IN ROAD — W11-1/W16-1P
7. END DETOUR — M4-8a
8. ROUTE 10 BIKEWAY AT 7TH ST CLOSED XX THRU XX

TEMPORARY TRAFFIC CONTROL BIKEWAY ROUTE 10 BIXBY HILL BICYCLE DETOUR PLAN



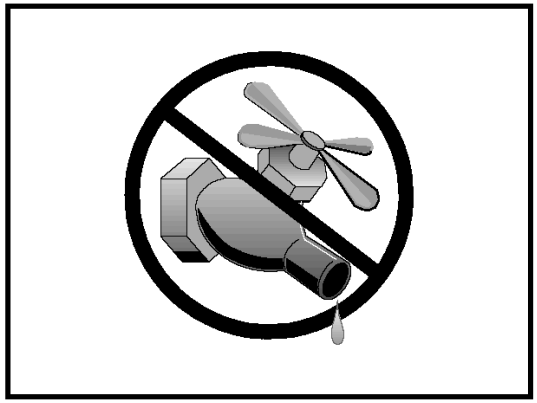
LEGEND

- DIRECTION OF DETOUR
- (S) – TRAFFIC SIGNAL
- TYPE III BARRICADE W/SIGN
- WORK ZONE (ACTIVITY AREA) LIMITS
- SIGN

DIVISION G

BEST MANAGEMENT PRACTICES (BMP)

Water Conservation Practices NS-1



Objectives		
EC	Erosion Control	✓
SE	Sediment Control	✓
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	✓
WM	Waste Management and Materials Pollution Control	

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	✓
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives
None

Description and Purpose
Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and the transport of pollutants offsite. These practices can reduce or eliminate non-stormwater discharges.

Suitable Applications
Water conservation practices are suitable for all construction sites where water is used, including piped water, metered water, trucked water, and water from a reservoir.

Limitations
- None identified.

Implementation
- Keep water equipment in good working condition.
- Stabilize water truck filling area.
- Repair water leaks promptly.
- Washing of vehicles and equipment on the construction site is discouraged.
- Avoid using water to clean construction areas. If water must be used for cleaning or surface preparation, surface should be swept and vacuumed first to remove dirt. This will minimize amount of water required.

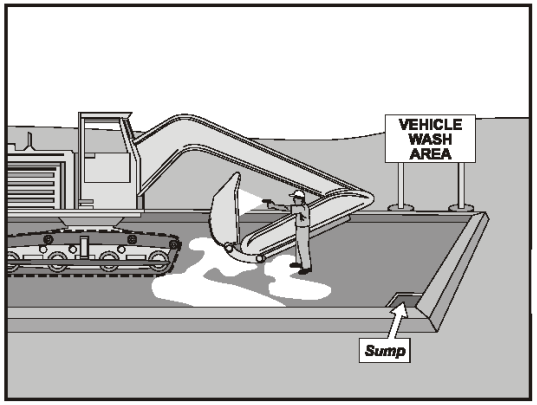
- Direct construction water runoff to areas where it can soak into the ground or be collected and reused.
- Authorized non-stormwater discharges to the storm drain system, channels, or receiving waters are acceptable with the implementation of appropriate BMPs.
- Lock water tank valves to prevent unauthorized use.

Costs
The cost is small to none compared to the benefits of conserving water.

Inspection and Maintenance
- Inspect and verify that activity based BMPs are in place prior to the commencement of authorized non-stormwater discharges.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges are occuring.
- Repair water equipment as needed to prevent unintended discharges.
  - Water trucks
  - Water reservoirs (water buffalos)
  - Irrigation systems
  - Hydrant connections

References
Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Vehicle and Equipment Cleaning NS-8



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	✓
WM	Waste Management and Materials Pollution Control	

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	✓
Nutrients	✓
Trash	
Metals	
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Description and Purpose

Vehicle and equipment cleaning procedures and practices prevent or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning by using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment cleaning is performed.

Limitations

Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/ Exit.

Implementation

Use an offsite commercial washing business as much as possible. These businesses are better equipped to handle and dispose of the wash waters properly. Performing this work offsite can also be economical by eliminating the need for a separate washing operation onsite.

- Use phosphate-free, biodegradable soaps.
- Educate employees and subcontractors on pollution prevention measures.

- Do not permit steam cleaning onsite. Steam cleaning can generate significant pollutant concentrates.
- Cleaning of vehicles and equipment with soap, solvents or steam should not occur on the project site unless resulting wastes are fully contained and disposed of. Resulting wastes should not be discharged or buried, and must be captured and recycled or disposed according to the requirements of WM-10, Liquid Waste Management or WM-6, Hazardous Waste Management, depending on the waste characteristics. Minimize use of solvents. Use of diesel for vehicle and equipment cleaning is prohibited.
- All vehicles and equipment that regularly enter and leave the construction site must be cleaned offsite.
- When vehicle and equipment washing and cleaning must occur onsite, and the operation cannot be located within a structure or building equipped with appropriate disposal facilities, the outside cleaning area should have the following characteristics:
  - Located away from storm drain inlets, drainage facilities, or watercourses
  - Paved with concrete or asphalt and bermed to contain wash waters and to prevent runon and runoff
  - Configured with a sump to allow collection and disposal of wash water
  - No discharge of wash waters to storm drains or watercourses
  - Used only when necessary
- When cleaning vehicles and equipment with water:
  - Use as little water as possible. High-pressure sprayers may use less water than a hose and should be considered
  - Use positive shutoff valve to minimize water usage
  - Facility wash racks should discharge to a sanitary sewer, recycle system or other approved discharge system and should not discharge to the storm drainage system, watercourses, or to groundwater

Costs

Cleaning vehicles and equipment at an offsite facility may reduce overall costs for vehicle and equipment cleaning by eliminating the need to provide similar services onsite. When onsite cleaning is needed, the cost to establish appropriate facilities is relatively low on larger, long-duration projects, and moderate to high on small, short-duration projects.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.

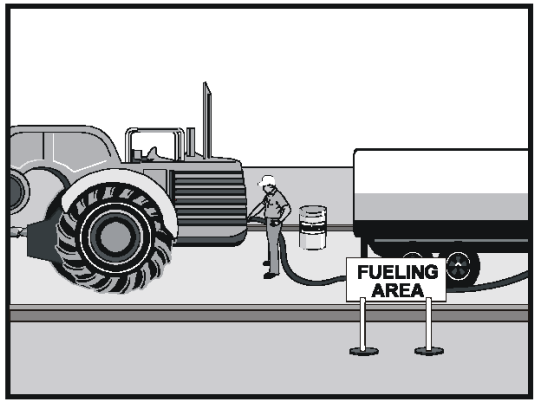
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Inspection and maintenance is minimal, although some berm repair may be necessary.
- Monitor employees and subcontractors throughout the duration of the construction project to ensure appropriate practices are being implemented.
- Inspect sump regularly and remove liquids and sediment as needed.
- Prohibit employees and subcontractors from washing personal vehicles and equipment on the construction site.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Swisher, R.D. Surfactant Biodegradation, Marcel Decker Corporation, 1987.

Vehicle and Equipment Fueling NS-9



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	✓
WM	Waste Management and Materials Pollution Control	

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	✓
Organics	

Potential Alternatives

None

Description and Purpose

Vehicle equipment fueling procedures and practices are designed to prevent fuel spills and leaks, and reduce or eliminate contamination of stormwater. This can be accomplished by using offsite facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors in proper fueling procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment fueling takes place.

Limitations

Onsite vehicle and equipment fueling should only be used where it is impractical to send vehicles and equipment offsite for fueling. Sending vehicles and equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Implementation

- Use offsite fueling stations as much as possible. These businesses are better equipped to handle fuel and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate fueling area at a site.
- Discourage "topping-off" of fuel tanks.

- Absorbent spill cleanup materials and spill kits should be available in fueling areas and on fueling trucks, and should be disposed of properly after use.
- Drip pans or absorbent pads should be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area.
- Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the adsorbent materials promptly and dispose of properly.
- Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and large excavators, most vehicles should be able to travel to a designated area with little lost time.
- Train employees and subcontractors in proper fueling and cleanup procedures.
- When fueling must take place onsite, designate an area away from drainage courses to be used. Fueling areas should be identified in the SWPPP.
- Dedicated fueling areas should be protected from stormwater runon and runoff, and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
- Protect fueling areas with berms and dikes to prevent runon, runoff, and to contain spills.
- Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.
- Use vapor recovery nozzles to help control drips as well as air pollution where required by Air Quality Management Districts (AQMD).
- Federal, state, and local requirements should be observed for any stationary above ground storage tanks.

Costs

- All of the above measures are low cost except for the capital costs of above ground tanks that meet all local environmental, zoning, and fire codes.

Inspection and Maintenance

- Vehicles and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately or problem vehicles or equipment should be removed from the project site.
- Keep ample supplies of spill cleanup materials onsite.
- Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.

References

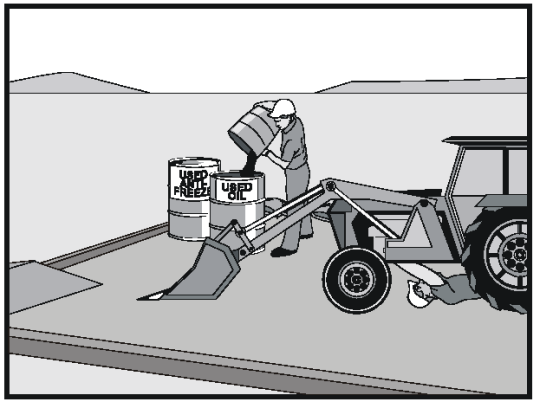
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Vehicle & Equipment Maintenance NS-10



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	✓
WM	Waste Management and Materials Pollution Control	

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	
Nutrients	✓
Trash	✓
Metals	
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Description and Purpose

Prevent or reduce the contamination of stormwater resulting from vehicle and equipment maintenance by running a "dry and clean site". The best option would be to perform maintenance activities at an offsite facility. If this option is not available then work should be performed in designated areas only, while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills immediately. Employees and subcontractors must be trained in proper procedures.

Suitable Applications

These procedures are suitable on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles.

Limitations

Onsite vehicle and equipment maintenance should only be used where it is impractical to send vehicles and equipment offsite for maintenance and repair. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Outdoor vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate stormwater include engine repair and service, changing or replacement of fluids, and outdoor equipment storage and parking (engine fluid leaks). For further information on vehicle or equipment servicing, see NS-8, Vehicle and Equipment Cleaning, and NS-9, Vehicle and Equipment Fueling.

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NS-10 Vehicle & Equipment Maintenance

Implementation

- Use offsite repair shops as much as possible. These businesses are better equipped to handle vehicle fluids and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate maintenance area.
- If maintenance must occur onsite, use designated areas, located away from drainage courses. Dedicated maintenance areas should be protected from stormwater runon and runoff, and should be located at least 50 ft from downstream drainage facilities and watercourses.
- Drip pans or absorbent pads should be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- All fueling trucks and fueling areas are required to have spill kits and/or use other spill protection devices.
- Use adsorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly.
- Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately.
- Keep vehicles and equipment clean; do not allow excessive build-up of oil and grease.
- Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and transmission fluids. Provide secondary containment and covers for these materials if stored onsite.
- Train employees and subcontractors in proper maintenance and spill cleanup procedures.
- Drip pans or plastic sheeting should be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than 1 hour.
- For long-term projects, consider using portable tents or covers over maintenance areas if maintenance cannot be performed offsite.
- Consider use of new, alternative greases and lubricants, such as adhesive greases, for chassis lubrication and fifth-wheel lubrication.
- Properly dispose of used oils, fluids, lubricants, and spill cleanup materials.
- Do not place used oil in a dumpster or pour into a storm drain or watercourse.
- Properly dispose of or recycle used batteries.
- Do not bury used tires.
- Repair leaks of fluids and oil immediately.

Vehicle & Equipment Maintenance NS-10

Listed below is further information if you must perform vehicle or equipment maintenance onsite.

Safer Alternative Products

- Consider products that are less toxic or hazardous than regular products. These products are often sold under an "environmentally friendly" label.
- Consider use of grease substitutes for lubrication of truck fifth-wheels. Follow manufacturers label for details on specific uses.
- Consider use of plastic friction plates on truck fifth-wheels in lieu of grease. Follow manufacturers label for details on specific uses.

Waste Reduction

Parts are often cleaned using solvents such as trichloroethylene, trichloroethane, or methylene chloride. Many of these cleaners are listed in California Toxic Rule as priority pollutants. These materials are harmful and must not contaminate stormwater. They must be disposed of as a hazardous waste. Reducing the number of solvents makes recycling easier and reduces hazardous waste management costs. Often, one solvent can perform a job as well as two different solvents. Also, if possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. For example, replace chlorinated organic solvents with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less expensive to dispose of properly. Check the list of active ingredients to see whether it contains chlorinated solvents. The "chlor" term indicates that the solvent is chlorinated. Also, try substituting a wire brush for solvents to clean parts.

Recycling and Disposal

Separating wastes allows for easier recycling and may reduce disposal costs. Keep hazardous wastes separate, do not mix used oil solvents, and keep chlorinated solvents (like,-trichloroethane) separate from non-chlorinated solvents (like kerosene and mineral spirits). Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around. Provide cover and secondary containment until these materials can be removed from the site.

Oil filters can be recycled. Ask your oil supplier or recycler about recycling oil filters.

Do not dispose of extra paints and coatings by dumping liquid onto the ground or throwing it into dumpsters. Allow coatings to dry or harden before disposal into covered dumpsters.

Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries, even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Costs

All of the above are low cost measures. Higher costs are incurred to setup and maintain onsite maintenance areas.

NS-10 Vehicle & Equipment Maintenance

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Keep ample supplies of spill cleanup materials onsite.
- Maintain waste fluid containers in leak proof condition.
- Vehicles and equipment should be inspected on each day of use. Leaks should be repaired immediately or the problem vehicle(s) or equipment should be removed from the project site.
- Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

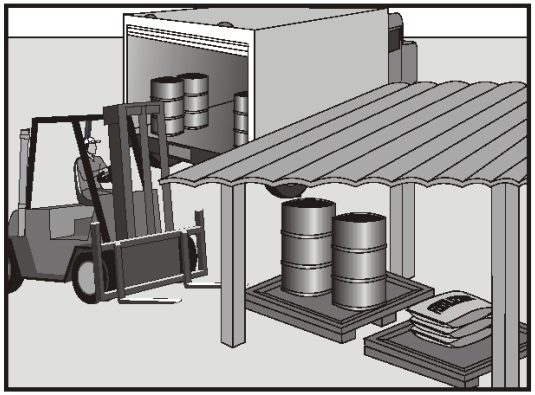
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Material Delivery and Storage WM-1



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	✓
Nutrients	✓
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Description and Purpose

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease
- Asphalt and concrete components

- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Concrete compounds
- Other materials that may be detrimental if released to the environment

Limitations

- Space limitation may preclude indoor storage.
- Storage sheds often must meet building and fire code requirements.

Implementation

The following steps should be taken to minimize risk:

- Temporary storage area should be located away from vehicular traffic.
- Material Safety Data Sheets (MSDS) should be supplied for all materials stored.
- Construction site areas should be designated for material delivery and storage.
- Material delivery and storage areas should be located near the construction entrances, away from waterways, if possible.
  - Avoid transport near drainage paths or waterways.
  - Surround with earth berms. See EC-9, Earth Dikes and Drainage Swales.
  - Place in an area which will be paved.
- Storage of reactive, ignitable, or flammable liquids must comply with the fire codes of your area. Contact the local Fire Marshal to review site materials, quantities, and proposed storage area to determine specific requirements. See the Flammable and Combustible Liquid Code, NFPA30.
- An up to date inventory of materials delivered and stored onsite should be kept.
- Hazardous materials storage onsite should be minimized.
- Hazardous materials should be handled as infrequently as possible.
- During the rainy season, consider storing materials in a covered area. Store materials in secondary containments such as earthen dike, horse trough, or even a children's wading pool for non-reactive materials such as detergents, oil, grease, and paints. Small amounts of material may be secondarily contained in "bus boy" trays or concrete mixing trays.
- Do not store chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet and, when possible, in secondary containment.

- If drums must be kept uncovered, store them at a slight angle to reduce ponding of rainwater on the lids to reduce corrosion. Domed plastic covers are inexpensive and snap to the top of drums, preventing water from collecting.
- Chemicals should be kept in their original labeled containers.
- Employees and subcontractors should be trained on the proper material delivery and storage practices.
- Employees trained in emergency spill cleanup procedures must be present when dangerous materials or liquid chemicals are unloaded.
- If significant residual materials remain on the ground after construction is complete, properly remove materials and any contaminated soil. See WM-7, Contaminated Soil Management. If the area is to be paved, pave as soon as materials are removed to stabilize the soil.

Material Storage Areas and Practices

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 should be stored in approved containers and drums and should not be overfilled. Containers and drums should be placed in temporary containment facilities for storage.
- A temporary containment facility should provide for a spill containment volume able to contain precipitation from a 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest container within its boundary, whichever is greater.
- A temporary containment facility should be impervious to the materials stored therein for a minimum contact time of 72 hours.
- A temporary containment facility should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be collected and placed into drums. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. All collected liquids or non-hazardous liquids should be sent to an approved disposal site.
- Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.
- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Throughout the rainy season, each temporary containment facility should be covered during non-working days, prior to, and during rain events.
- Materials should be stored in their original containers and the original product labels should be maintained in place in a legible condition. Damaged or otherwise illegible labels should be replaced immediately.

- Bagged and boxed materials should be stored on pallets and should not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials should be covered during non-working days and prior to and during rain events.
- Stockpiles should be protected in accordance with WM-3, Stockpile Management.
- Materials should be stored indoors within existing structures or sheds when available.
- Proper storage instructions should be posted at all times in an open and conspicuous location.
- An ample supply of appropriate spill clean up material should be kept near storage areas.
- Also see WM-6, Hazardous Waste Management, for storing of hazardous materials.

Material Delivery Practices

- Keep an accurate, up-to-date inventory of material delivered and stored onsite.
- Arrange for employees trained in emergency spill cleanup procedures to be present when dangerous materials or liquid chemicals are unloaded.

Spill Cleanup

- Contain and clean up any spill immediately.
- Properly remove and dispose of any hazardous materials or contaminated soil if significant residual materials remain on the ground after construction is complete. See WM-7, Contaminated Soil Management.
- See WM-4, Spill Prevention and Control, for spills of chemicals and/or hazardous materials.

Cost

- The largest cost of implementation may be in the construction of a materials storage area that is covered and provides secondary containment.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Keep an ample supply of spill cleanup materials near the storage area.
- Keep storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored.
- Repair or replace perimeter controls, containment structures, covers, and liners as needed to maintain proper function.

References

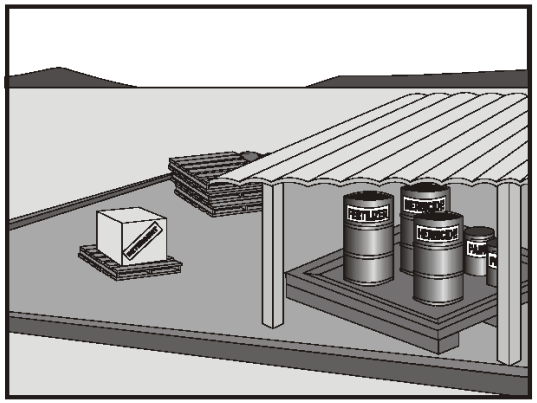
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Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Material Use WM-2



Description and Purpose

Prevent or reduce the discharge of pollutants to the storm drain system or watercourses from material use by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for use at all construction projects. These procedures apply when the following materials are used or prepared onsite:

- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease
- Asphalt and other concrete components
- Other hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Concrete compounds
- Other materials that may be detrimental if released to the environment

Objectives

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Limitations

Safer alternative building and construction products may not be available or suitable in every instance.

Implementation

The following steps should be taken to minimize risk:

- Minimize use of hazardous materials onsite.
- Follow manufacturer instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
- Train personnel who use pesticides. The California Department of Pesticide Regulation and county agricultural commissioners license pesticide dealers, certify pesticide applicators, and conduct onsite inspections.
- Do not over-apply fertilizers, herbicides, and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over-application is expensive and environmentally harmful. Unless on steep slopes, till fertilizers into the soil rather than hydro seeding. Apply surface dressings in several smaller applications, as opposed to one large application, to allow time for infiltration and to avoid excess material being carried offsite by runoff. Do not apply these chemicals just before it rains.
- Train employees and subcontractors in proper material use.
- Supply Material Safety Data Sheets (MSDS) for all materials.
- Dispose of latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths, when thoroughly dry and are no longer hazardous, with other construction debris.
- Do not remove the original product label; it contains important safety and disposal information. Use the entire product before disposing of the container.
- Mix paint indoors or in a containment area. Never clean paintbrushes or rinse paint containers into a street, gutter, storm drain, or watercourse. Dispose of any paint thinners, residue, and sludge(s) that cannot be recycled, as hazardous waste.
- For water-based paint, clean brushes to the extent practicable, and rinse to a drain leading to a sanitary sewer where permitted, or into a concrete washout pit or temporary sediment trap. For oil-based paints, clean brushes to the extent practicable, and filter and reuse thinners and solvents.
- Use recycled and less hazardous products when practical. Recycle residual paints, solvents, non-treated lumber, and other materials.
- Use materials only where and when needed to complete the construction activity. Use safer alternative materials as much as possible. Reduce or eliminate use of hazardous materials onsite when practical.

- Require contractors to complete the "Report of Chemical Spray Forms" when spraying herbicides and pesticides.
- Keep an ample supply of spill clean up material near use areas. Train employees in spill clean up procedures.
- Avoid exposing applied materials to rainfall and runoff unless sufficient time has been allowed for them to dry.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two–week intervals in the non-rainy season to verify continued BMP implementation.
- Maintenance of this best management practice is minimal.
- Spot check employees and subcontractors throughout the job to ensure appropriate practices are being employed.

References

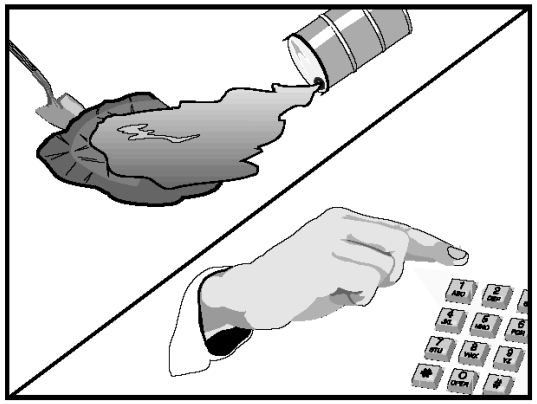
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Spill Prevention and Control WM-4



Description and Purpose

Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, WM-1, Materials Delivery and Storage, and WM-2, Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

This BMP is suitable for all construction projects. Spill control procedures are implemented anytime chemicals or hazardous substances are stored on the construction site, including the following materials:

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals

Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	✓
Nutrients	✓
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

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- Fuels
- Lubricants
- Other petroleum distillates

Limitations

- In some cases it may be necessary to use a private spill cleanup company.
- This BMP applies to spills caused by the contractor and subcontractors.
- Procedures and practices presented in this BMP are general. Contractor should identify appropriate practices for the specific materials used or stored onsite

Implementation

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

- Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.
- Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- Store hazardous materials and wastes in covered containers and protect from vandalism.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Train employees in spill prevention and cleanup.
- Designate responsible individuals to oversee and enforce control measures.
- Spills should be covered and protected from stormwater runon during rainfall to the extent that it doesn't compromise clean up activities.
- Do not bury or wash spills with water.

- Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with WM-10, Liquid Waste Management.
- Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- Place proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- Clean up leaks and spills immediately.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified laundry (rags) or disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
  - Contain the spread of the spill.
  - Recover spilled materials.
  - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

- Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spill Prevention and Control WM-4

- Spills should be cleaned up immediately:
  - Contain spread of the spill.
  - Notify the project foreman immediately.
  - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
  - If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
  - If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

- For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps should be taken:
  - Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the proper county officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
  - Notify the Governor's Office of Emergency Services Warning Center, (916) 845-8911.
  - For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
  - Notification should first be made by telephone and followed up with a written report.
  - The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
  - Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, California Division of Oil and Gas, Cal/OSHA, etc.

Reporting

- Report significant spills to local agencies, such as the Fire Department; they can assist in cleanup.
- Federal regulations require that any significant oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hours).

Use the following measures related to specific activities:

Vehicle and Equipment Maintenance

- If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Regularly inspect onsite vehicles and equipment for leaks and repair immediately
- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- Place drip pans or absorbent materials under paving equipment when not in use.
- Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around
- Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- If fueling must occur onsite, use designate areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Discourage "topping off" of fuel tanks.
- Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

Costs

Prevention of leaks and spills is inexpensive. Treatment and/ or disposal of contaminated soil or water can be quite expensive.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.

Spill Prevention and Control WM-4

- Keep ample supplies of spill control and cleanup materials onsite, near storage, unloading, and maintenance areas.
- Update your spill prevention and control plan and stock cleanup materials as changes occur in the types of chemicals onsite.

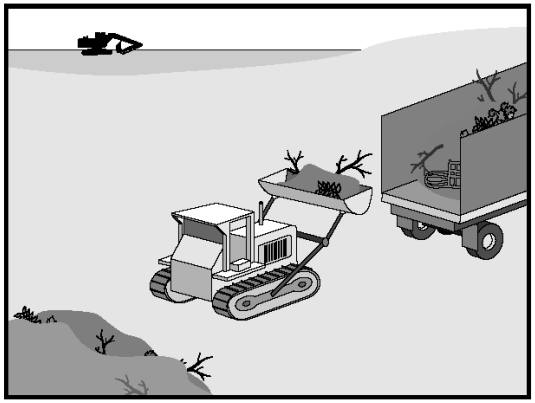
References

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Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Solid Waste Management WM-5



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	✓
Nutrients	✓
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Description and Purpose

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for construction sites where the following wastes are generated or stored:

- Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction
- Packaging materials including wood, paper, and plastic
- Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces and masonry products
- Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes
- Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, styrofoam and other materials used to transport and package construction materials

- Highway planting wastes, including vegetative material, plant containers, and packaging materials

Limitations

Temporary stockpiling of certain construction wastes may not necessitate stringent drainage related controls during the non-rainy season or in desert areas with low rainfall.

Implementation

The following steps will help keep a clean site and reduce stormwater pollution:

- Select designated waste collection areas onsite.
- Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Inspect dumpsters for leaks and repair any dumpster that is not watertight.
- Locate containers in a covered area or in a secondary containment.
- Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out or to prevent loss of wastes when it is windy.
- Plan for additional containers and more frequent pickup during the demolition phase of construction.
- Collect site trash daily, especially during rainy and windy conditions.
- Remove this solid waste promptly since erosion and sediment control devices tend to collect litter.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Do not hose out dumpsters on the construction site. Leave dumpster cleaning to the trash hauling contractor.
- Arrange for regular waste collection before containers overflow.
- Clean up immediately if a container does spill.
- Make sure that construction waste is collected, removed, and disposed of only at authorized disposal areas.

Education

- Have the contractor's superintendent or representative oversee and enforce proper solid waste management procedures and practices.
- Instruct employees and subcontractors on identification of solid waste and hazardous waste.
- Educate employees and subcontractors on solid waste storage and disposal procedures.

- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Require that employees and subcontractors follow solid waste handling and storage procedures.
- Prohibit littering by employees, subcontractors, and visitors.
- Minimize production of solid waste materials wherever possible.

Collection, Storage, and Disposal

- Littering on the project site should be prohibited.
- To prevent clogging of the storm drainage system, litter and debris removal from drainage grates, trash racks, and ditch lines should be a priority.
- Trash receptacles should be provided in the contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods.
- Litter from work areas within the construction limits of the project site should be collected and placed in watertight dumpsters at least weekly, regardless of whether the litter was generated by the contractor, the public, or others. Collected litter and debris should not be placed in or next to drain inlets, stormwater drainage systems, or watercourses.
- Dumpsters of sufficient size and number should be provided to contain the solid waste generated by the project.
- Full dumpsters should be removed from the project site and the contents should be disposed of by the trash hauling contractor.
- Construction debris and waste should be removed from the site biweekly or more frequently as needed.
- Construction material visible to the public should be stored or stacked in an orderly manner.
- Stormwater runon should be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures or through the use of measures to elevate waste from site surfaces.
- Solid waste storage areas should be located at least 50 ft from drainage facilities and watercourses and should not be located in areas prone to flooding or ponding.
- Except during fair weather, construction and highway planting waste not stored in watertight dumpsters should be securely covered from wind and rain by covering the waste with tarps or plastic.
- Segregate potentially hazardous waste from non-hazardous construction site waste.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.

- For disposal of hazardous waste, see WM-6, Hazardous Waste Management. Have hazardous waste hauled to an appropriate disposal and/or recycling facility.
- Salvage or recycle useful vegetation debris, packaging and surplus building materials when practical. For example, trees and shrubs from land clearing can be used as a brush barrier, or converted into wood chips, then used as mulch on graded areas. Wood pallets, cardboard boxes, and construction scraps can also be recycled.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Inspect construction waste area regularly.
- Arrange for regular waste collection.

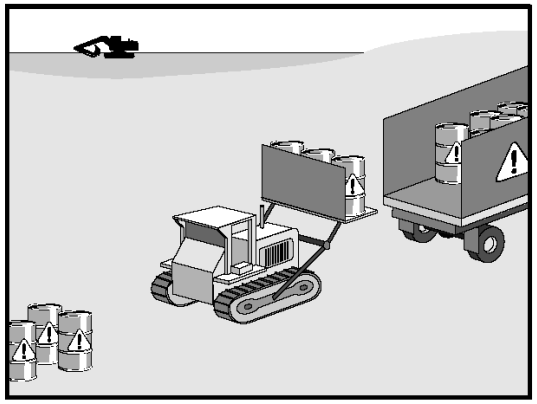
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Hazardous Waste Management WM-6



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	
Nutrients	✓
Trash	✓
Metals	✓
Bacteria	✓
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.

Suitable Applications

This best management practice (BMP) applies to all construction projects. Hazardous waste management practices are implemented on construction projects that generate waste from the use of:

- Petroleum Products
- Concrete Curing Compounds
- Palliatives
- Septic Wastes
- Stains
- Wood Preservatives
- Asphalt Products
- Pesticides
- Acids
- Paints
- Solvents
- Roofing Tar
- Any materials deemed a hazardous waste in California, Title 22 Division 4.5, or listed in 40 CFR Parts 110, 117, 261, or 302

Hazardous Waste Management WM-6

In addition, sites with existing structures may contain wastes, which must be disposed of in accordance with federal, state, and local regulations. These wastes include:

- Sandblasting grit mixed with lead-, cadmium-, or chromium-based paints
- Asbestos
- PCBs (particularly in older transformers)

Limitations

- Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.
- Nothing in this BMP relieves the contractor from responsibility for compliance with federal, state, and local laws regarding storage, handling, transportation, and disposal of hazardous wastes.
- This BMP does not cover aerially deposited lead (ADL) soils. For ADL soils refer to WM-7, Contaminated Soil Management.

Implementation

The following steps will help reduce stormwater pollution from hazardous wastes:

Material Use

- Wastes should be stored in sealed containers constructed of a suitable material and should be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179.
- All hazardous waste should be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263.
- Waste containers should be stored in temporary containment facilities that should comply with the following requirements:
  - Temporary containment facility should provide for a spill containment volume equal to 1.5 times the volume of all containers able to contain precipitation from a 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest tank within its boundary, whichever is greater.
  - Temporary containment facility should be impervious to the materials stored there for a minimum contact time of 72 hours.
  - Temporary containment facilities should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be placed into drums after each rainfall. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. Non-hazardous liquids should be sent to an approved disposal site.
  - Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.

- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Throughout the rainy season, temporary containment facilities should be covered during non-working days, and prior to rain events. Covered facilities may include use of plastic tarps for small facilities or constructed roofs with overhangs.

- Drums should not be overfilled and wastes should not be mixed.
- Unless watertight, containers of dry waste should be stored on pallets.
- Do not over-apply herbicides and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over application is expensive and environmentally harmful. Apply surface dressings in several smaller applications, as opposed to one large application. Allow time for infiltration and avoid excess material being carried offsite by runoff. Do not apply these chemicals just before it rains. People applying pesticides must be certified in accordance with federal and state regulations.
- Paint brushes and equipment for water and oil based paints should be cleaned within a contained area and should not be allowed to contaminate site soils, watercourses, or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused should be disposed of as hazardous waste. When thoroughly dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths should be disposed of as solid waste.
- Do not clean out brushes or rinse paint containers into the dirt, street, gutter, storm drain, or stream. "Paint out" brushes as much as possible. Rinse water-based paints to the sanitary sewer. Filter and reuse thinners and solvents. Dispose of excess oil-based paints and sludge as hazardous waste.
- The following actions should be taken with respect to temporary contaminant:
  - Ensure that adequate hazardous waste storage volume is available.
  - Ensure that hazardous waste collection containers are conveniently located.
  - Designate hazardous waste storage areas onsite away from storm drains or watercourses and away from moving vehicles and equipment to prevent accidental spills.
  - Minimize production or generation of hazardous materials and hazardous waste on the job site.
  - Use containment berms in fueling and maintenance areas and where the potential for spills is high.
  - Segregate potentially hazardous waste from non-hazardous construction site debris.
  - Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or similar) and under cover.

Hazardous Waste Management WM-6

- Clearly label all hazardous waste containers with the waste being stored and the date of accumulation.
- Place hazardous waste containers in secondary containment.
- Do not allow potentially hazardous waste materials to accumulate on the ground.
- Do not mix wastes.
- Use all of the product before disposing of the container.
- Do not remove the original product label; it contains important safety and disposal information.

Waste Recycling Disposal

- Select designated hazardous waste collection areas onsite.
- Hazardous materials and wastes should be stored in covered containers and protected from vandalism.
- Place hazardous waste containers in secondary containment.
- Do not mix wastes, this can cause chemical reactions, making recycling impossible and complicating disposal.
- Recycle any useful materials such as used oil or water-based paint.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Arrange for regular waste collection before containers overflow.
- Make sure that hazardous waste (e.g., excess oil-based paint and sludge) is collected, removed, and disposed of only at authorized disposal areas.

Disposal Procedures

- Waste should be disposed of by a licensed hazardous waste transporter at an authorized and licensed disposal facility or recycling facility utilizing properly completed Uniform Hazardous Waste Manifest forms.
- A Department of Health Services certified laboratory should sample waste to determine the appropriate disposal facility.
- Properly dispose of rainwater in secondary containment that may have mixed with hazardous waste.
- Attention is directed to "Hazardous Material", "Contaminated Material", and "Aerially Deposited Lead" of the contract documents regarding the handling and disposal of hazardous materials.

Education

- Educate employees and subcontractors on hazardous waste storage and disposal procedures.
- Educate employees and subcontractors on potential dangers to humans and the environment from hazardous wastes.
- Instruct employees and subcontractors on safety procedures for common construction site hazardous wastes.
- Instruct employees and subcontractors in identification of hazardous and solid waste.
- Hold regular meetings to discuss and reinforce hazardous waste management procedures (incorporate into regular safety meetings).
- The contractor's superintendent or representative should oversee and enforce proper hazardous waste management procedures and practices.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.
- Warning signs should be placed in areas recently treated with chemicals.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- If a container does spill, clean up immediately.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Hazardous waste should be regularly collected.
- A foreman or construction supervisor should monitor onsite hazardous waste storage and disposal procedures.
- Waste storage areas should be kept clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored.
- Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.
- Hazardous spills should be cleaned up and reported in conformance with the applicable Material Safety Data Sheet (MSDS) and the instructions posted at the project site.

Hazardous Waste Management WM-6

- The National Response Center, at (800) 424-8802, should be notified of spills of federal reportable quantities in conformance with the requirements in 40 CFR parts 110, 117, and 302. Also notify the Governors Office of Emergency Services Warning Center at (916) 845-8911.
- A copy of the hazardous waste manifests should be provided.

References

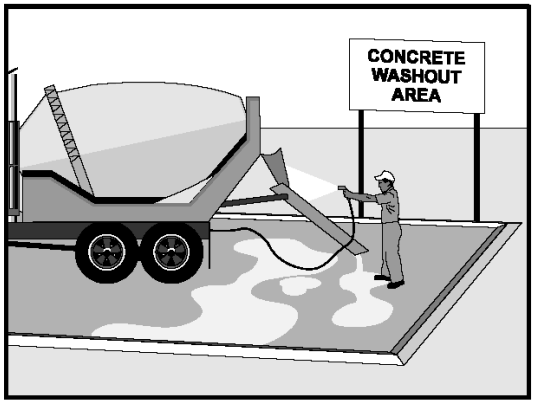
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Concrete Waste Management WM-8



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	✓
Nutrients	
Trash	
Metals	✓
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employee and subcontractors.

Suitable Applications

Concrete waste management procedures and practices are implemented on construction projects where:

- Concrete is used as a construction material or where concrete dust and debris result form demolition activities
- Slurries containing portland cement concrete (PCC) or asphalt concrete (AC) are generated, such as from saw cutting, coring, grinding, grooving, and hydro-concrete demolition
- Concrete trucks and other concrete-coated equipment are washed onsite
- Mortar-mixing stations exist
- See also NS-8, Vehicle and Equipment Cleaning

Limitations

- Offsite washout of concrete wastes may not always be possible.

Implementation

The following steps will help reduce stormwater pollution from concrete wastes:

- Discuss the concrete management techniques described in this BMP (such as handling of concrete waste and washout) with the ready-mix concrete supplier before any deliveries are made.
- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Store dry and wet materials under cover, away from drainage areas.
- Avoid mixing excess amounts of fresh concrete.
- Perform washout of concrete trucks offsite or in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped onsite, except in designated areas.
- For onsite washout:
  - Locate washout area at least 50 feet from storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
  - Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
- Avoid creating runoff by draining water to a bermed or level area when washing concrete to remove fine particles and expose the aggregate.
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose in the trash.

Education

- Educate employees, subcontractors, and suppliers on the concrete waste management techniques described herein.
- Arrange for contractor's superintendent or representative to oversee and enforce concrete waste management procedures.

Concrete Slurry Wastes

- PCC and AC waste should not be allowed to enter storm drains or watercourses.
- PCC and AC waste should be collected and disposed of or placed in a temporary concrete washout facility.
- A sign should be installed adjacent to each temporary concrete washout facility to inform concrete equipment operators to utilize the proper facilities.

- Below grade concrete washout facilities are typical. Above grade facilities are used if excavation is not practical.
- A foreman or construction supervisor should monitor onsite concrete working tasks, such as saw cutting, coring, grinding and grooving to ensure proper methods are implemented.
- Saw-cut PCC slurry should not be allowed to enter storm drains or watercourses. Residue from grinding operations should be picked up by means of a vacuum attachment to the grinding machine. Saw cutting residue should not be allowed to flow across the pavement and should not be left on the surface of the pavement. See also NS-3, Paving and Grinding Operations; and WM-10, Liquid Waste Management.
- Slurry residue should be vacuumed and disposed in a temporary pit (as described in OnSite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below) and allowed to dry. Dispose of dry slurry residue in accordance with WM-5, Solid Waste Management.

Onsite Temporary Concrete Washout Facility, Transit Truck Washout Procedures

- Temporary concrete washout facilities should be located a minimum of 50 ft from storm drain inlets, open drainage facilities, and watercourses. Each facility should be located away from construction traffic or access areas to prevent disturbance or tracking.
- A sign should be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Temporary concrete washout facilities should be constructed above grade or below grade at the option of the contractor. Temporary concrete washout facilities should be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.
- Temporary washout facilities should have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures.
- Washout of concrete trucks should be performed in designated areas only.
- Only concrete from mixer truck chutes should be washed into concrete wash out.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed of offsite.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete should be broken up, removed, and disposed of per WM-5, Solid Waste Management. Dispose of hardened concrete on a regular basis.
- Temporary Concrete Washout Facility (Type Above Grade)
  - Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
  - Straw bales, wood stakes, and sandbag materials should conform to the provisions in SE-9, Straw Bale Barrier.
  - Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
- Temporary Concrete Washout Facility (Type Below Grade)
  - Temporary concrete washout facilities (type below grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft. The quantity and volume should be sufficient to contain all liquid and concrete waste generated by washout operations.
  - Lath and flagging should be commercial type.
  - Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

Removal of Temporary Concrete Washout Facilities

- When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Costs

All of the above are low cost measures.

Inspection and Maintenance

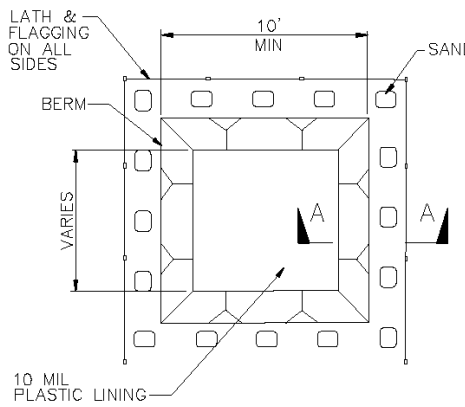
- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Temporary concrete washout facilities should be maintained to provide adequate holding capacity with a minimum freeboard of 4 in. for above grade facilities and 12 in. for below grade facilities. Maintaining temporary concrete washout facilities should include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials should be removed and disposed of.
- Washout facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.

References

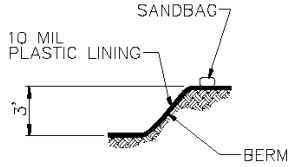
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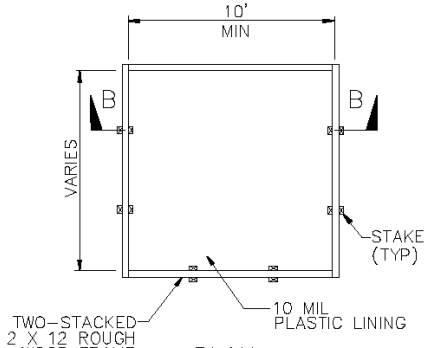
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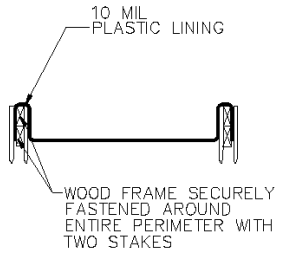
PLAN
NOT TO SCALE
TYPE "BELOW GRADE"



SECTION A–A
NOT TO SCALE



PLAN
NOT TO SCALE
TYPE "ABOVE GRADE"

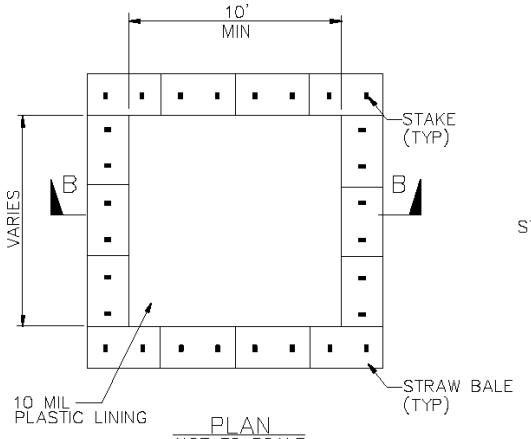


SECTION B–B
NOT TO SCALE

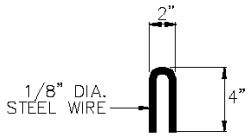
NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

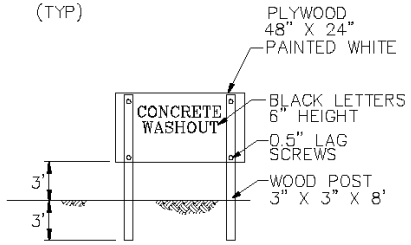
Concrete Waste Management WM-8



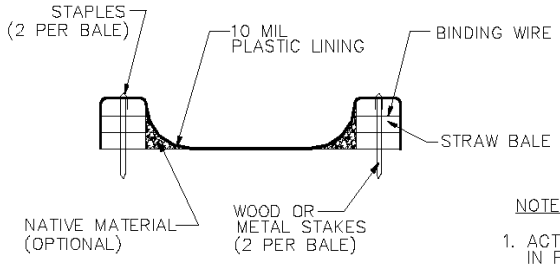
PLAN
NOT TO SCALE
TYPE "ABOVE GRADE"
WITH STRAW BALES



STAPLE DETAIL



CONCRETE WASHOUT
SIGN DETAIL
(OR EQUIVALENT)

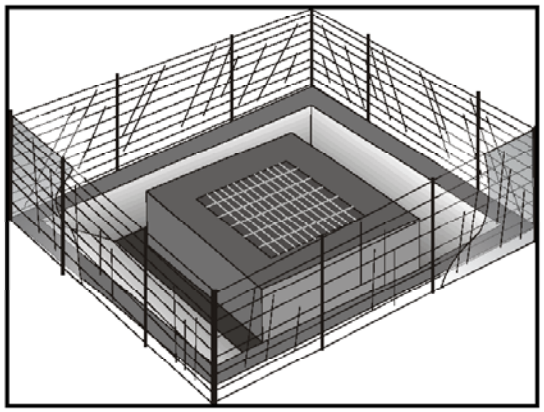


SECTION B–B
NOT TO SCALE

NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

Storm Drain Inlet Protection SE-10



Objectives		
EC	Erosion Control	
SE	Sediment Control	✓
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
✓ Primary Objective
✓ Secondary Objective

Targeted Constituents	
Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence
SE-5 Fiber Rolls
SE-6 Gravel Bag Berm
SE-8 Sandbag Barrier
SE-9 Straw Bale Barrier

Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction.

Suitable Applications

Every storm drain inlet receiving sediment-laden runoff should be protected.

Limitations

- Drainage area should not exceed 1 acre.
- Straw bales, while potentially effective, have not produced in practice satisfactory results, primarily due to improper installation.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.
- Inlet protection usually requires other methods of temporary protection to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.
- Sediment removal may be difficult in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are

expected, use other onsite sediment trapping techniques in conjunction with inlet protection.

- Frequent maintenance is required.
- For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps.
- Excavated drop inlet sediment traps are appropriate where relatively heavy flows are expected, and overflow capability is needed.

Implementation

General

Large amounts of sediment may enter the storm drain system when storm drains are installed before the upslope drainage area is stabilized, or where construction is adjacent to an existing storm drain. In cases of extreme sediment loading, the storm drain itself may clog and lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Inlet protection methods not presented in this handbook should be approved by the local stormwater management agency.

Design and Layout

Identify existing and planned storm drain inlets that have the potential to receive sediment-laden surface runoff. Determine if storm drain inlet protection is needed and which method to use.

- Limit upstream drainage area to 1 acre maximum. For larger drainage areas, use SE-2, Sediment Basin, or SE-3, Sediment Trap, upstream of the inlet protection device.
- The key to successful and safe use of storm drain inlet protection devices is to know where runoff will pond or be diverted.
  - Determine the acceptable location and extent of ponding in the vicinity of the drain inlet. The acceptable location and extent of ponding will influence the type and design of the storm drain inlet protection device.
  - Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.
- The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the

inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.

- Four types of inlet protection are presented below. However, it is recognized that other effective methods and proprietary devices exist and may be selected.
  - Filter Fabric Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.
  - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3).
  - Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding.
  - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
- Provide area around the inlet for water to pond without flooding structures and property.
- Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

Installation

- ***DI Protection Type 1 - Filter Fabric Fence*** - The filter fabric fence (Type 1) protection is shown in the attached figure. Similar to constructing a silt fence; see BMP SE-1, Silt Fence. Do not place filter fabric underneath the inlet grate since the collected sediment may fall into the drain inlet when the fabric is removed or replaced.
  1. Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.
  2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes must be at least 48 in.
  3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in.
  4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden stakes. Use heavy-duty wire staples at least 1 in. in length.
  5. Backfill the trench with gravel or compacted earth all the way around.
- ***DI Protection Type 2 - Excavated Drop Inlet Sediment Trap*** - The excavated drop inlet sediment trap (Type 2) is shown in the attached figures. Install filter fabric fence in

accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd^3/acre of drainage area.

- ***DI Protection Type 3 - Gravel bag*** - The gravel bag barrier (Type 3) is shown in the figures. Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be used due to their high permeability.
  1. Use sand bag made of geotextile fabric (not burlap) and fill with 0.75 in. rock or 0.25 in. pea gravel.
  2. Construct on gently sloping street.
  3. Leave room upstream of barrier for water to pond and sediment to settle.
  4. Place several layers of sand bags – overlapping the bags and packing them tightly together.
  5. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10 year storm) should not overtop the curb.
- ***DI Protection Type 4 – Block and Gravel Filter*** - The block and gravel filter (Type 4) is shown in the figures. Block and gravel filters are suitable for curb inlets commonly used in residential, commercial, and industrial construction.
  1. Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place filter fabric over the wire mesh.
  2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high.
  3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with 0.5 in. opening.
  4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in.

Costs

- Average annual cost for installation and maintenance (one year useful life) is $200 per inlet.

Inspection and Maintenance

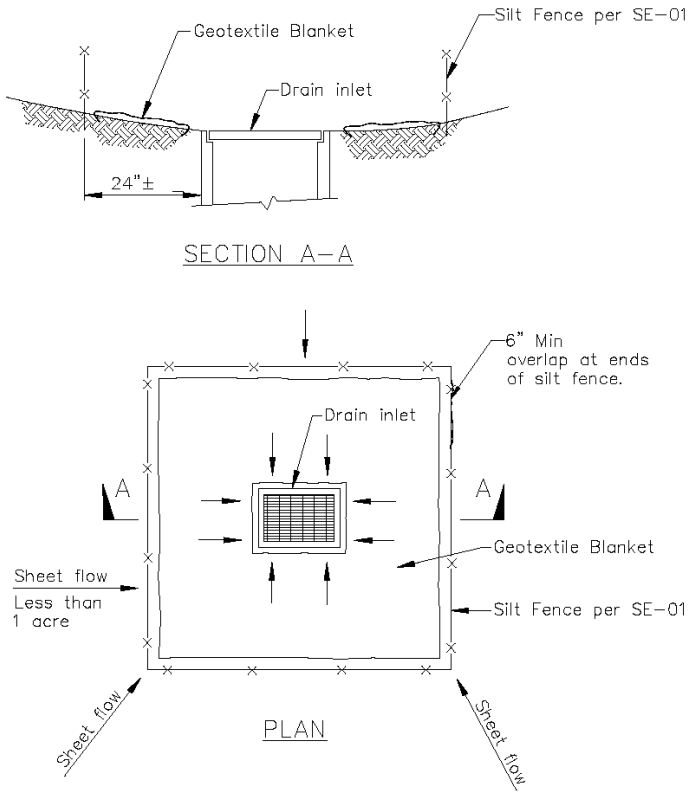
- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.

- Filter Fabric Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes.
- Gravel Filters. If the gravel becomes clogged with sediment, it must be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
- Sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site ore disposed at an appropriate location.
- Remove storm drain inlet protection once the drainage area is stabilized.
  - Clean and regrade area around the inlet and clean the inside of the storm drain inlet as it must be free of sediment and debris at the time of final inspection.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

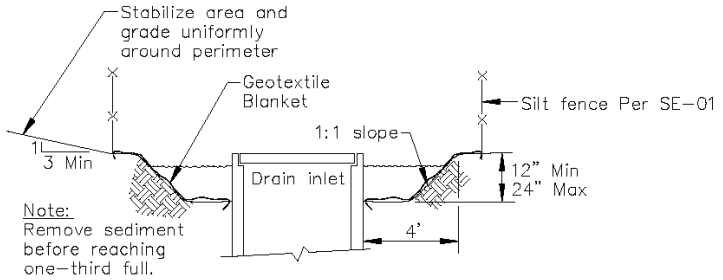
Stormwater Management Manual for The Puget Sound Basin, Washington State Department of Ecology, Public Review Draft, 1991.



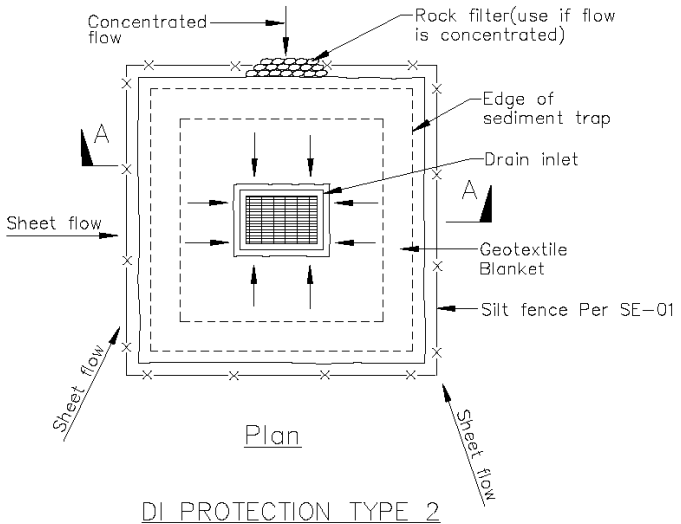
DI PROTECTION TYPE 1
NOT TO SCALE

NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.

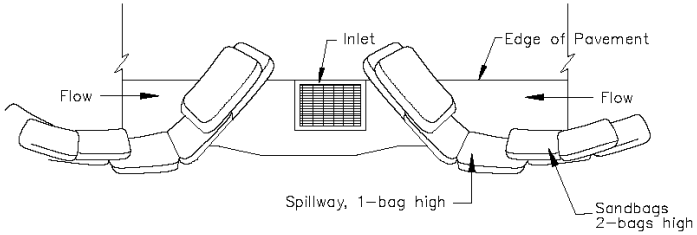


Section A–A

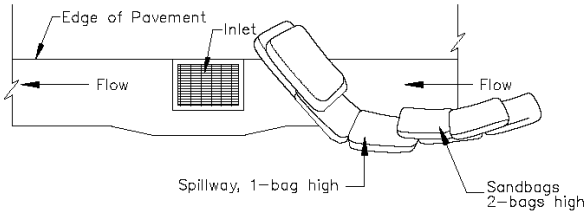


DI PROTECTION TYPE 2
NOT TO SCALE

Notes
1. For use in cleared and grubbed and in graded areas.
2. Shape basin so that longest inflow area faces longest length of trap.
3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.



TYPICAL PROTECTION FOR INLET ON SUMP

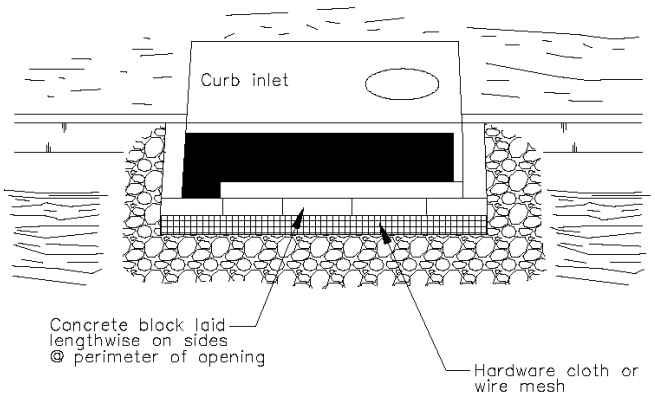


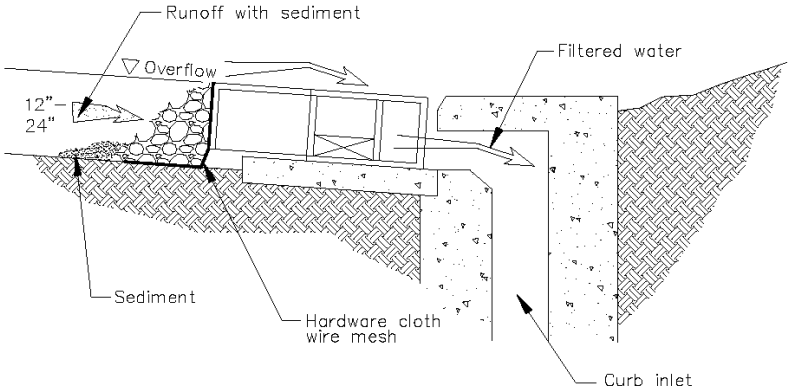
TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:
1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.

DI PROTECTION TYPE 3
NOT TO SCALE

Storm Drain Inlet Protection SE-10





DI PROTECTION – TYPE 4
NOT TO SCALE

DIVISION G
BEST MANAGEMENT PRACTICES (BMP)

Caltrans Construction Site Best Management Practices (BMP) Manual, March 2024

https://dot.ca.gov/-/media/dot-media/programs/construction/documents/environmental-compliance/construction-site-bmps_final-march-2024_a11y.pdf

DIVISION H
GENERAL REQUIREMENTS

STANDARD SPECIFICATIONS
(PART 1 - GENERAL)

These provisions are modifications of the Standard Specifications for Public Works Construction, 2015 Edition, called the Standard Specifications. The Standard Specifications are a part of the Work's Specifications.

The Standard Specifications are written and promulgated by Public Works Standards, Incorporated. Copies of the Standard Specifications are available from the publisher, Building News, Incorporated, 1612 South Clementine Street, Anaheim, California 92802, telephone (714) 517-0970.

GENERAL PROVISIONS

SECTION 1 – TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

1-1 GENERAL *Add the following:*

The following items from the Departments are in writing:

1. Approvals
2. Authorizations
3. Decisions
4. Notifications
5. Orders
6. Responses

The following items from the Contractor must be in writing:

1. Notifications
2. Proposals
3. Reports
4. Requests, including RFIs, sequentially numbered
5. Subcontracts
6. Test results

Where a location is not specified with the words *shown*, *specified*, or *described*, interpret:

1. *Shown* as *shown on the plans*.
2. *Specified* as *specified in the specifications*.
3. *Described* as *described in the Contract*. *Described* means *shown, specified, or both*.

1-2 TERMS AND DEFINITIONS.

Replace and add the following definitions:

Activity - Task, event, or other project element on a schedule that contributes to completing the project. An activity has a description, start date, finish date, duration, and one or more logic ties.

Acts of God - *Acts of God* as defined in Pub Cont Code § 7105.

Addendum - Written or graphic instrument issued prior to the opening of Bids which clarifies, corrects, or changes the Contract Documents. The term "Addendum" shall include bulletins and all other types of written notices issued to potential bidders prior to opening of the Bids.

Agency – See "City."

Agreed Price - The cost for new or unforeseen work, or for adjustments in the Contract Unit Price for changes in the character of the work as specified in 3-2.4, established by mutual agreement between the Contractor and the Agency.

Agreement - See Contract.

Assessment Act Contract - A Contract financed by special assessments authorized under a State Act or procedural ordinance of a City or County.

Authorized laboratory - Independent testing laboratory (1) not employed or compensated by any subcontractor or subcontractor's affiliate providing other services for the Contract and (2) authorized by the Department.

Bid - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work.

Bid Item - Work unit for which the Bidder provides a price.

Bid Item List - List of bid items, units of measure, and the associated quantities. The verified Bid Item List is the Bid Item List with verified prices. The Contract Proposal of Low Bidder at the Department's website is the verified Bid Item List. After contract award, interpret a reference to the Bid Item List as a reference to the verified Bid Item List.

Bidder - Any individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.

Borrow - Fill acquired from an excavation source outside the described cut area.

1. **local borrow** - Material obtained by widening cuts or excavating from sources outside the planned or authorized cross section on the job site. The location of the local borrow is described or designated by the Engineer.
2. **imported borrow** - Borrow that is not local borrow.

Board – The City Council of the City of Long Beach, California, or its designated agencies and boards.

Bond - Bid, performance, or payment bond or other instrument of security.

Caltrans-The State of California Department of Transportation.

California Test - Department-developed test for determining work quality. For California Tests, go to the Caltrans Materials Engineering and Testing Services (METS) website.

Cash Contract - A Contract financed by means other than special assessments.

Certificate of compliance - Certificate stating the material complies with the Contract.
Change Order - A written order to the Contractor signed by the Agency directing an addition, deletion, or revision in the Work, or an adjustment in the Contract Price or the Contract time issued after the effective date of the Contract. A Change Order may or may not also be signed by the Contractor.

Change order work - Work described in a Change Order, including extra work and work described in the Contract as change order work.

City – The City of Long Beach, California, its Boards and Commissions, and their officials, employees, and agents.

Closure - Closure of a traffic lane or lanes, including shoulder, ramp, or connector lanes, within a single traffic control system.

Code- The terms *Government Code, Labor Code,* etc., refer to codes of the State of California.

Commercial quality - Quality meeting the best general practices.

Commercial source - Established business operating as a material source for the general public.

Contract- The written agreement between the Agency and the Contractor covering the Work.

Contract acceptance - City's written acceptance of a completed Contract.

Contract Documents - The Contract, Addenda, notice inviting bids, instructions to bidders, Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Contract, the Bonds, permits from jurisdictional regulatory agencies, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Change Orders, and Supplemental Agreements.
Contract Price - The total amount of money for which the Contract is awarded.

Contract time - Number of original working days as adjusted by any time adjustment.

Contract Unit Price-The amount stated in the Bid for a single unit of an item of work.

Contractor - The individual, partnership, corporation, joint venture, or other legal entity having a Contract with the Agency to perform the Work. In the case of work being

done under a permit issued by the Agency, the permittee shall be construed to be the Contractor. The term "prime contractor" shall mean the Contractor.

Controlling activity - Construction activity that will extend the scheduled completion date if delayed.

County Sealer- The Sealer of Weights and Measures of the county in which the Contract is awarded.

Critical path - Longest continuous chain of activities for the project that has the least amount of total float of all chains. In general, a delay on the critical path extends the scheduled completion date.

Critical path method - Network-based planning technique using activity durations and relationships between activities to calculate a schedule for the entire project.

Data date - Day after the date through which a schedule is current. Everything occurring earlier than the data date is as-built and everything on or after the data date is planned.

Day - 24 consecutive hours running from midnight to midnight; calendar day.

1. **business day** - Day on the calendar except a Saturday and a holiday.
2. **working day** - Time measure unit for work progress. Any day within the period between the date of the start of the Contract time as specified in 6-1 and the date of field acceptance of the Work by the Engineer, other than:
    a) Saturday
    b) Sunday
    c) Any day designated as a holiday by the City. See definition for "holiday".
    d) Any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a contractor's association,
    e) Any day the Contractor is prevented from working at the beginning of the workday for cause as specified in 6-6.1, or
    f) Any day the Contractor is prevented from working during the first 5 hours with at least 60 percent of the normal work force for cause as specified in 6-6.1.
    g) Day during a concurrent delay.

Where working days is specified without the modifier *original* in the context of the number of working days to complete the work, interpret the number as the number of original working days as adjusted by any time adjustment.

Days - Days shall mean consecutive calendar days unless otherwise specified in the Special Provisions.

Deduction - Money permanently taken from a progress payment or the final payment. Deductions are cumulative and are not retentions under Pub Cont Code § 7107.

Delay - Event that extends the completion of an activity.

1. **excusable delay** - Delay caused by the Department and not reasonably foreseeable when the work began, such as:
    1.1. Change in the work
    1.2. Department action that is not part of the Contract
    1.3. Presence of an underground utility main not described in the Contract

or in a location substantially different from that specified

1.4. Described facility rearrangement not rearranged as described, by the utility owner by the date specified, unless the rearrangement is solely for the Contractor's convenience

1.5. Department's failure to obtain timely access to the right-of-way

1.6. Department's failure to review a submittal or provide notification in the time specified

2. **critical delay** - Excusable delay that extends the scheduled completion date

3. **concurrent delay** - Occurrence of at least 2 of the following events in the same period of time, either partially or entirely:

3.1. Critical delay

3.2. Delay to a controlling activity caused by you

3.3. Non–working day

Department - Department of Transportation as defined in St & Hwy Code § 20 and authorized in St & Hwy Code § 90; its authorized representatives.

Dispose of - Remove from the job site.

Disputed Work- Work in which the City and the Contractor are in disagreement.

Divided highway - Highway with separated traveled ways for traffic, generally in opposite directions.

Engineer - Resident Engineer responsible for the Contract's administration; Resident Engineer's authorized representatives.

Early completion time - Difference in time between an early scheduled completion date and the work completion date.

Encroachment permit - A permit issued by Caltrans granting permissive authority to enter the state right-of-way and construct approved facilities. It authorizes only the permittee or permittee’s agent to perform the scope of work specified within the encroachment permit or cooperative agreement. The permittee may not transfer or assign an approved permit to another party. When a permittee hires a contractor to perform the approved work, an additional permit is required for the contractor.

Extra Work - New or unforeseen work not covered by a Contract Unit Price or Stipulated Unit Price.

Highway - Whole right-of-way or area reserved for use in constructing the roadway and its appurtenances.

Holiday - Holiday shown in the following table:

Holiday	Date observed
Every Sunday	Every Sunday
New Year's Day	January 1st
Birthday of Martin Luther King, Jr.	3rd Monday in January
Lincoln’s Birthday	February 12th
Washington’s Birthday	3rd Monday in February
Cesar Chavez Day	March 31st

Memorial Day	Last Monday in May
Juneteenth	3rd Monday in June
President's Day	3rd Monday in February
Election Day	First Tuesday of November
Independence Day	July 4th
Labor Day	1st Monday in September
Columbus Day	2nd Monday in October
Veterans Day	November 11
Thanksgiving Day	4th Thursday in November
Day after Thanksgiving Day	Day after Thanksgiving Day
Christmas Day	December 25th

If January 1st, February 12th, March 31st, July 4th, November 11th, or December 25th falls on a Sunday, the Monday following is a holiday. If November 11th falls on a Saturday, the preceding Friday is a holiday.

Hours of darkness - Hours of darkness as defined in Veh Code § 280.

Idle equipment - Equipment:

1. On the job site at the start of a delay
2. Idled because of the delay
3. Not operated during the delay

Job site - Area within the defined boundaries of a project.

Landscaping - Practice of a landscaping contractor under 16 CA Code of Regs §832.27.

Major Bid Item – A single Contract item constituting 10% or more of the original Contract Price.

Material - Any product or substance specified for use in the construction of a project.

Material shortage -

1. Shortage of raw or produced material that is area-wide and caused by an unusual market condition except if any of the following occurs:
   1.1. Shortage relates to a produced, nonstandard material
   1.2. Supplier's and the Contractor's priority for filling an order differs
   1.3. Event outside the United States for a material produced outside the United States
2. Unavailability of water that delays a controlling activity

Median - Portion of a divided highway separating the traveled ways including inside shoulders.

Milestone - Event activity that has zero duration and is typically used to represent the start or end of a certain stage of the project.

Mobilization - Preparatory work that must be performed or costs incurred before starting work on the various items on the job site (Pub Cont Code § 10104).

Modification - Includes Change Orders and Supplemental Agreements. A Modification may only be issued after the effective date of the Contract.

Modify - Add to or subtract from an appurtenant part.

Narrative report - Document submitted with each schedule that discusses topics related to project progress and scheduling.

Notice of Award - The written notice by the Agency to the successful Bidder stating that upon its compliance with the required conditions, the Agency will execute the Contract.

Notice to Proceed - A written notice given by the Agency to the Contractor fixing the date on which the Contract time will start.

Operation, Maintenance, and Warranty Instructions - Documents published by manufacturers of pre-manufactured products describing operation, maintenance and any other actions that must be performed by the Agency as a condition for the manufacturer to honor the specified warranty.

Person - Any individual, firm, association, partnership, corporation, trust, joint venture, or other legal entity.

Plans – The Plans for this Work consist of Long Beach Drawing #B-4849 on file with the Department of Public Works. A copy is included in the Specifications.

Private Contract - Work subject to Agency inspection, control, and approval, involving private funds, not administered by the Agency.

Proposal - See Bid.

Quality characteristic - Characteristic of a material that is measured to determine conformance with a given requirement.

Quality control - Quality control includes sampling, testing, and inspections performed under your QC program to (1) control material quality and (2) ensure the specified quality characteristics for the project are met.

Quality control plan - Contractor's plan to ensure QC.

Reference Specifications - The latest edition, including amendments, in effect as of the date of advertisement of the Contract or issuing the permit, unless otherwise specified, of:

a) bulletins,
b) standards,
c) rules,
d) methods of analysis or testing,
e) codes,
f) installation instructions, and
g) specifications of other agencies, engineering societies, manufacturers, or industrial associations referred to in the Contract Documents.

Roadway - The portion of a street reserved for vehicular use.

Shop Drawings - Drawings showing details of manufactured or assembled products proposed to be incorporated into the Work.
Special Provisions - Additions and revisions to the Standard Specifications setting forth conditions and requirements peculiar to the Work.

Specifications - Standard specifications, and special provisions, and specifications in Change Orders or Supplemental Agreements between the Contractor and the Board.

1. **Standard specifications** - For Division H, the *Standard Specifications for Public Works Construction (SSPWC)*, the "Greenbook."For Division I, *the California Department of Transportation (Caltrans) 2025 Standard Specifications*.
2. **Special provisions** - Specifications specific to the project. These specifications are in a section titles *special provisions* of a book titled *Notice to Bidders and Special Provisions*.

Standard Plans – See "Plans"

State - State of California, including its agencies, departments or divisions whose conduct or action is related to the work.

Stipulated unit price - unit prices established by the agency in the contract documents.
Street- any road, highway, parkway, freeway, alley, walk, or way.
Subcontractor - An individual, firm, or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work.

Submittal -

1. **action submittal** - Written and graphic information and samples that require the Department's response.
2. **informational submittal** - Written information that does not require the Department's response.

Substantial defects - Defects plainly seen as damaged, displaced, or missing parts or improper functioning of materials, parts, equipment, or systems.

Supervision - Supervision, where used to indicate supervision by the Engineer, shall mean the performance of obligations, and the exercise of rights, specifically imposed upon and granted to the Agency in becoming a party to the Contract. Except as specifically stated herein, supervision by the Agency shall not mean active and direct superintendence of details of the Work.
Supplemental Agreement - A written amendment of the Contract Documents signed by the Agency and the Contractor.
Supplemental project information - Information relevant to the project, specified as supplemental project information, and made available to bidders.

Surety - Any individual, firm, or corporation, bound with and for the Contractor for the acceptable performance, execution, and completion of the Work, and for the satisfaction of all obligations incurred.

Unauthorized work - Work performed beyond the lines and grades described in the Contract or established by the Engineer or extra work performed without Department authorization.
Work - That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.
Work - Resources and activities required for Contract acceptance, including labor, materials, equipment, and the created product.
Work plan - Detailed formulation of a program of action.
Working Day – See "Day"

Working Drawings - Drawings showing details not shown on the Plans which are required to be designed by the Contractor.

1-3 ABBREVIATIONS.

Replace section with the following:

1-3.2 Common Usage. Abbreviations pertaining to construction are included in in Division I.

1-4 UNITS OF MEASURE.

1-4.1 General. The specifications are expressed in US customary units except where a referenced document uses the International System of Units as the standard.

1-4.2 Units of Measure and Their Abbreviations.

Units used in the project plan quantity tables and in the Bid Item List:

Unit	Definition
ACRE	Acre
CF	Cubic Foot
CY	Cubic Yard
EA	Each
GAL	Gallon
LB	Pound
LF	Linear Foot
LNMI	Lane Mile
LS	Lump Sum
SQFT	Square Foot
SQYD	Square Yard
STA	100 Feet
TON	2,000 Pounds

Units used in the plans other than in the project plan quantity tables:

Unit	Definition

ksi	Kips Per Square Inch
ksf	Kips Per Square Foot
psi	Pounds per Square Inch
psf	Pounds per Square Foot
lb / ft ^{3}, pcf	Pounds per Cubic Foot
tsf	Tons per Square Foot
mph, MPH*	Miles per Hour
oz	Ounce
lb	Pound
kip	1,000 Pounds
cal	Calorie
ft	Foot or Feet
gal	Gallon

Units of measure for Electrical Plans are listed in Caltrans Standard Plan A3C available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications

1-5 SYMBOLS. *Add the following:*

Additional symbols used in the project plans are provided in Caltrans Standard Plans dated 2025 available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications

SECTION 2– SCOPE AND CONTROL OF THE WORK

2-1 AWARD AND EXECUTION OF THE CONTRACT.

Add the following:

2.-1.1 Control of Work

This section includes specifications related to the Contract parties' relations and Contract acceptance.

Furnish the resources except Department-furnished materials required to complete the work as described in the Contract.

Provide QC.

Work is subject to the City and Department's inspection, sampling, and testing. The City and Department's inspection, sampling, and testing do not relieve you of your responsibility to provide QC.

Ensure the Department's safe and unrestricted access to the work. Furnish facilities necessary for the Department's inspection.

Where the means and methods to complete the work are not described in the Contract, choose the means and methods to complete the work.

Where the Contract describes more than 1 construction method or more than 1 type of material or equipment, the Department does not assure that each construction method or type of material or equipment can be used successfully throughout all or any part of the project. You are responsible to use the alternative or alternatives that will accomplish the work under the conditions encountered.

Failure to comply with any Contract part is a waiver of your right to an adjustment of time and payment related to that part.

Use contract administration forms available at the Department's website.

2-2 ASSIGNMENT. *No Changes*

2-3 SUBCONTRACTS.

2-3.1 General. *Add the following:*

To the extent that Subsection 2-3.1 is inconsistent with Long Beach Municipal Code Sections 2.87.010 through 2.87.080, the Long Beach Municipal Code supersedes Subsection 2-3.1.

2-3.2 Self Performance. *Replace this subsection with the following:*

Standard requirements apply unless changed herein.

The Contractor shall perform, with its own organization, Contract work amounting to at least 20 percent of the Contract price except that any designated “Specialty Items” may be performed by subcontract and the amount of any such “Specialty Items” so performed will be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. “Specialty Items” will be identified by the Agency in the Bid or the Special Provisions. Where an entire item is subcontracted, the value of the work subcontracted will be based on the Contract Unit Price. When a portion of an item is subcontracted, the value of the work subcontracted will be based on the estimated percentage of the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

2-4 CONTRACT BONDS. *Add the following:*

Sureties that are not listed in the latest revision of the United States Department of the Treasury Circular 570 shall nevertheless be admitted to issue bonds in the State of California.

2-5 PLANS AND SPECIFICATIONS.

2-5.1 General

2-5.2 Precedence of the Contract Documents

Replace with the following:

A component in one Contract part applies as if appearing in each. The parts are complementary and describe and provide for a complete work.

If a discrepancy exists:

1. Governing ranking of Contract parts in descending order is:
    a) Permits issued by jurisdictional regulatory agencies.
    b) Change Orders and Supplemental Agreements; whichever occurs last
    c) Contract/ Agreement.
    d) Addenda.
    e) Bid/Proposal
    f) Special provisions
    g) Project plans
    h) Standard specifications
    i) Revised standard plans
    j) Standard plans
    k) Supplemental project information
2. Written numbers and notes on an approved drawing govern over graphics
3. Detail drawing governs over a general drawing
4. Specific specification governs over a general specification
5. Specification in a section governs over a specification referenced by that section

If a discrepancy is found or confusion arises, Contractor shall submit an RFI.

2-5.3 Submittals.

Supplement Table 2-5.3.2(A), untitled, and the listing shown in Subsection 2-5.3.4, "Supporting Information," with the following combined table:

TABLE 2-5.3(A), Submittals

Item	Section Number	Title	Subject
18	2-5.4	Record Drawings	Record Drawings
19	2-9	Surveying	Survey Records
20	4-1.4	Test of Materials	List of Materials
21	4-1.5	Certification	Certifications
22	6-1	Construction Schedule and Commencement of Work	Construction Schedule
23	6-8 and various technical sections	Completion, Acceptance, and Warranty	Special Warranties
24	7-2.2	Labor	Labor Compliance documentation
25	7-3 and 7-4	Liability and Workers' Compensation Insurance	Insurance documentation
26	7-5	Permits	Permits
27	7-9	Protection and Restoration of Existing Improvements	
28	9-2	Lump Sum Work	Lump Sum Details
29	Various technical sections	Concrete Mix Designs	Per Caltrans Std Spec
30	Various technical sections	Asphalt Concrete Mix Designs	Per Caltrans Std Spec
31	12 (Caltrans)	Public Convenience and Safety	Temporary Traffic Control
32	Various technical sections	Catalog Details / Manufacturer's Specifications	Per Caltrans Std Spec
33	Various technical sections	Shop Drawings	Per Caltrans Std Spec
34	Various technical sections	Mock-ups	Per Caltrans Std Spec
35	Various technical sections	Extra Supplies	Per Caltrans Std Spec
36	Various technical sections	Instruction Manuals / Control Charts	Per Caltrans Std Spec

This table is not comprehensive: additional submittal items may be listed in other

sections of the Specifications.

2-5.3B Sign Letter Submittal:

Contractor shall prepare and submit to the Engineer one letter of the proposed sign for review and approval. The sign letter submittal shall be at a 1:1 scale made with final production materials. Match exact color, texture, finish and structural makeup as shown on the drawings. Fix any functional parts as shown on the drawings.

Contractor shall deliver the Sign Letter submittal to a location as directed by the Engineer for review and approval.

Contractor shall not order final Sign Letters materials or begin manufacturing of Sign Letters until Engineer as approved the Sign Letter submittal.

Add the following subsection:

2-5.3.1 General *Add the following*: Deliver submittals to the City's Project Management Software. (Information provided in Division E). Division H Section 2-5.3.2 and 2-5.3.4 include specifications for action and informational submittals.

Any submittal not specified as an informational submittal is an action submittal.

Submit action and informational submittals to the Engineer.

Each sheet of a submittal must include:

1. Contract number
2. District–County–Route–Post Mile
3. Structure name and number, if any

The Department rejects a submittal if it has any error or omission.

If the last day for submitting a document falls on a Saturday or holiday, it may be submitted on the next business day with the same effect as if it had been submitted on the day specified.

Convert foreign language documents to English and US customary units.

Deliver submittals to:

City of Long Beach, Department of Public Works
Project Management Bureau
5th Floor, City Hall
411 W. Ocean Boulevard
Long Beach, CA 90802
Attention: Kimvy Nguyen
E-mail: kimvy.nguyen@psomas.com

The Contractor shall not begin Work until the Engineer has approved relevant submittals in writing. The City will not make final payment before the Contractor delivers all required

Work submittals.

2-5.3.2 Action Submittals

Maintain a sequential list of action submittals except for samples, test samples, and material sources. With each individual submittal, submit a copy of the updated list.

Submit an action submittal before the start of the affected work to allow for review and corrections without work delays.

Except for test samples, obtain the Department's authorization for action submittals before you perform work based on them.

Except for shop drawings and test samples, allow 15 days for review.

For a revised action submittal, allow the same number of days for review as for the original submittal.

The time allowed for the review of an action submittal starts when the Department receives the submittal.

Do not change the scope of work on revised submittals.

The Department's authorization of an action submittal does not void any Contract part(s) and / or requirement(s).

2-5.3.3 Shop Drawings

Submit shop drawings as specified and as otherwise required to control the work. Each drawing and calculation sheet must be in black ink and sequentially numbered.

Each drawing sheet, if not submitted electronically, must:

1. Be 11 by 17 inches
2. Be on a minimum of 20 lb paper
3. Have text of a minimum nominal height of 5/32 inch

Each calculation sheet, if not submitted electronically, must:

1. Be 8-1/2 by 11 inches
2. Have text of a minimum 12-point font

Paper submittals text and graphics must be legible for photocopying and reduction.

Calculations must demonstrate the design adequacy. Calculations specified as independently checked must be sealed and signed by an engineer who is registered as a civil engineer in the State and who did not seal and sign the drawings.

Allow 20 days for the review.

If multiple sets are submitted simultaneously or an additional set is submitted before the review of a previously submitted set is complete, designate the sequence that the sets

are to be reviewed. Allow the review time specified plus 15 days for each additional set. A set consists of 40 or fewer sheets.

If drawings require corrections, the Department:

1. Describes the deficiencies
2. Stamps the drawings with the date that the review stopped
3. Returns the drawings

Show the set revision number. Uniquely number each revised detail. Show the number in an inverted triangle near the revised portion of the detail. In a legend, describe and date the revision.

Upon review completion, the Department returns 1 copy that shows the authorized date.

To make a change to an authorized drawing, submit it as specified for a new submittal. Note the changes.

Upon the completion of work shown on the drawings, submit electronic copies of as-built drawings. Include an index of the sheet numbers and titles on the 1st sheet for each structure. Arrange the drawings in the drawing-number order shown in the index.

2-5.3.4 Informational Submittals

Informational submittals include:

1. Certificates of compliance
2. Manufacturer's instructions not associated with drawing submittals
3. Notifications
4. PLACs
5. Subcontracts
6. QC test data, QC test results, and QC evaluation reports

2-5.4 Record Drawings.

The Contractor shall keep one complete set of the Plans, reserved for use as record drawings, at the Work site at all times. The Contractor shall maintain on these drawings a currently updated record of all construction changes and variations from the Plans, including all underground and surface improvements installed in locations other than those indicated on the Plans. The Contractor shall enter the record information in red. Where a Plan does not exist, the Contractor shall submit an accurate and detailed sketch. The Contractor shall properly dimension and locate all changes and variations to the Plans.

The Contractor shall submit the record drawings to the Engineer prior to final acceptance of the Work.

2-5.5 Supplemental Project Information

The City makes the following supplemental project information is available as noted:

Logs of test borings are supplemental project information.

Supplemental Project Information

Means	Description
Included in the *Information Handout*	1. Right of Way Maps 2a. 1981 As-built Drawings (7th St Pedestrian Bridge) 2b. 1995 As-built Drawings (Earthquake Retrofit) 3. Signature Gateway East Concept 4a. Lighting Fixture Specification Sheet 4b. Lighting Fixture Wiring Specification Sheet 5a. Pharos DMX Controller Specification Sheet 5b. Pharos DMX Controller O&M 6. Cradlepoint IBR900 Series Router Specification Sheet 7. Matthews Primer Product Information 8. Matthews Paint Product Information 9. Matthews Clear Product Information 10. Caltrans Encroachment Permit Issued to City 11. Caltrans Encroachment Permit Special Provisions
Available for inspection at: 411 W. Ocean Blvd. Long Beach, CA 90802 Telephone no.: (562)570-5000	Referee Paint Samples

2-9 SURVEYING.

2-9.1 Permanent Survey Markers.

Replace this subsection with the following:

The Contractor shall be responsible for the preservation and perpetuation of all existing monuments which control subdivisions, tracts, boundaries, or rights-of-way, or which provide survey control, including benchmarks, which will be disturbed by the Contractor's activities.

After receiving the Notice to Proceed, the Contractor, using the services of a surveyor licensed in California, shall submit to the City preliminary Corner Records for those monuments that were found in the construction area. The Contractor will not be given authorization for any removals until the City's Surveyor has accepted and approved the preliminary Corner Records.

Prior to removals, the Contractor shall request the City of Long Beach Surveyor to transfer to temporary bench marks the elevation for any benchmarks to be reset, and provide a brass disc for the City Surveyor to stamp. When the discs are stamped and returned to the Contractor, the Contractor shall construct the benchmarks at locations marked out by the City Surveyor.

The Contractor's surveyor shall set new ties for any monuments whose ties are disturbed, and prepare preliminary Corner Records for the new ties.

After construction and before final payment, the Contractor's surveyor shall submit to the City for its review the preliminary Corner Records for any monuments replaced or constructed, or whose ties are reset. The City will not approve preliminary Corner Records showing "No Reference" unless the Contractor can demonstrate that a diligent effort was made to find a reference. After the City's approval, the Contractor's surveyor shall file

Corner Records for those monuments in the Office of the County Surveyor and shall provide the City with a copy of all Corner Records filed.

Payment for monument preservation and perpetuation by the Contractor shall be considered as included in the prices bid for the various items of Work, and the City will make no additional payment therefor.

2-9.2 Survey Service.

Replace this subsection with the following:

The Contractor shall set and maintain all stakes and marks necessary for the construction of the Work and perform any additional design surveys that may be required. Except for the survey control data provided on the plans, all calculations, surveying and measures required for setting and maintaining the necessary lines and grades shall be performed by the Contractor.

Surveys performed by the Contractor shall conform to the California Land Surveyor's Act. In accordance with the Act, "responsible charge" for surveying shall reside with a licensed land surveyor or a civil engineer qualified to practice land surveying in California.

The minimum standard of survey quality shall be that of similar surveys performed by the City of Long Beach and as outlined in Department's *Surveys Manual*.

The Contractor shall provide to the Engineer copies of all calculations, survey notes, and staking data when requested by the Engineer. The Engineer shall decide all questions which may arise as to the quality or acceptability of deliverables furnished and surveying performed for this Work, and the Engineer's decision shall be final.

The Contractor shall verify layout information shown on the Plans before proceeding with layout of construction features.

The Contractor shall record deviations from the required lines and levels and shall advise the Engineer promptly upon detecting deviations exceeding indicated or recognized tolerances. Record deviations which are accepted (not corrected) shall be shown on the as-built record drawings. Before final acceptance of the Work, the Contractor shall provide to the Engineer all computations, survey notes, and other survey data used to accomplish the Work, which shall become the property of the City. Construction stakes shall be removed from the Work when no longer needed.

Payment for surveying by the Contractor shall be considered as included in the prices bid for the various items of Work, and the City will make no additional payment therefor.

2-10 AUTHORITY OF BOARD AND ENGINEER.

Replace 2nd paragraph with the following:

If there appears to be any error or discrepancy in or between the Plans and Specifications, the Contractor shall refer the matter to the Engineer for adjustment before proceeding with the Work. If the Contractor proceeds with the Work without referring the matter, the Contractor does so at its own risk and must bear any additional cost incurred as a result of failure to refer.

2-13 CONTRACTOR REQUIREMENTS.

2-13.1 Character Of Workers

If a worker appears to the Engineer to be incompetent or acts disorderly or improperly, discharge the worker immediately upon request. Do not employ that worker again on the work.

2-13.2 Coordination With Other Entities

Other entities may perform work at or near the job site and material sources at any time. Coordinate activities to avoid delays.

Each contractor or other entity performing work at or near the job or material site is responsible to the other for damage to work, persons, or property and for costs due to unnecessary delays.

2-13.2.1 Coincident or Adjacent Contracts

During the progress of the work under this Contract, work under the following contracts may be in progress at or near the job site of this Contract:

Coincident or Adjacent Contracts

Contract no.	County–Route–Post Mile	Location	Type of work
XXXX	LA-22--0/10.2	Long Beach	Roadway Improvements

Coordinate lane closures and traffic handling with the Engineer and with contractors of coincident or adjacent projects. Potential conflicts may not be limited to the contracts listed above.

2-13.6 Records

2-13.6.1 Record Retention

Retain project records from bid preparation through:

1. Final payment
2. Resolution of claims, if any

For at least 3 years after the later of these, retain cost records, including records of:

1. Bid preparation
2. Overhead
3. Payrolls
4. Payments to subcontractors and suppliers
5. Cost accounting

Maintain the records in an organized way in the original format, electronic and hard copy, conducive to professional review and audit.

2-13.6.2 Record Inspection, Copying, and Auditing

Make your records available for inspection, copying, and auditing by State representatives for the same time frame specified under section 5-1.27B. The records of subcontractors and suppliers must be made available for inspection, copying, and auditing by State representatives for the same period. Before Contract acceptance, the

State representative notifies the Contractor, subcontractor, or supplier 5 business days before inspection, copying, or auditing.

If an audit is to start more than 30 days after Contract acceptance, the State representative notifies the Contractor, subcontractor, or supplier of the date when the audit is to start.

2-13.7 Project Safety Reviews

Your assigned project safety representative must perform and document project safety reviews with the Engineer:

1. At least 3 business days before the start of job site activities
2. Every other week after the start of job site activities and after any incident that results in serious injury, illness, or fatality to your personnel, subcontractor's and supplier's personnel, and any other persons present at the job site at the request of you or your subcontractors
3. Submit project safety review documentation to the Engineer and correct deficiencies within 3 business days from the day the project safety review is completed or sooner as directed by the Engineer

Upon Contract acceptance, your project safety representative must participate in a safety meeting with the Engineer.

2-13.8 Job Hazard Analyses

Prepare a job hazard analysis for each work activity to be performed on the job site as required by CA Code of Regs § 3203(a)(4) and 1511(b).
Submit each job hazard analysis as an informational submittal.
Each job hazard analysis must identify the following:

1. Work activity description
2. Existing and predictable hazards associated with the work activity
3. Hazard control measures, preventative, or corrective actions to be taken for the work activity

Submit each job hazard analysis at least 5 working days before the start of a work activity. During the project safety reviews required under Section 5-1.28, discuss job hazard analyses for active work activities and work activities planned to start within 5 business days.

Submit a revised job hazard analysis when equipment or methods change results in a change to the hazards previously identified. Submit a revised job hazard analysis within one working day of the identified change.

2-13.9 Noncompliant And Unauthorized Work

Correct or remove and replace work that (1) does not comply with the Contract, (2) is unauthorized, or (3) both. The Department does not pay for any of the following:

1. Corrective, removal, or replacement work
2. Unauthorized work

If ordered, submit a work plan for the corrective, removal, or replacement work.

If you fail to comply promptly with an order under this Section 5-1.30, the Department may correct, remove, or replace noncompliant or unauthorized work. The Department deducts the cost of this work.

2-13.10 Job Site Appearance

Keep the job site neat. In areas visible to the public:

1. If practicable, dispose of debris removed during clearing and grubbing concurrently with its removal. If stockpiling is necessary, dispose of debris weekly.
2. Furnish trash bins for construction debris. Place the debris in trash bins daily.
3. For falsework to be reused, stack the forms neatly and concurrently with their removal.

2-13.11 Areas For Use

Occupy the highway only for purposes necessary to perform the work.
If no State-owned area is designated for Contractor's use, you may arrange for temporary storage with the Department.

Defend, indemnify, and hold the City and State harmless to the same extent as under section 7-1.05.

Department does not allow temporary residences within the highway.

SECTION 3 – CHANGES IN WORK

3-2 CHANGES INITIATED BY THE AGENCY.

3-2.2 Contract Unit Prices.

3-2.2.1 General. *Replace this subsection with the following:*

If the Engineer orders a change in quantity of an item of Work, and the change does not involve a substantial change in character of the Work from that shown in the Plans or Specifications, the City will adjust the total payment to be made for the item of Work by multiplying the amount authorized and installed by the Contract Unit Price. This amount may be greater or less than the amount shown in the Bid.

If the total quantity of a Major Bid Item is changed, only changes within 25% of the quantity shown in the Bid, either more or less, will be adjusted at the Contract Unit Price. If the total quantity of a Major Bid Item is changed in excess of 25%, the adjustment in payment will be made per 3-2.4. The adjustment in payment will be made only for the quantity of the Major Bid Item that exceeds 25%, either increase or decrease.

3-2.2.2 Increases of More Than 25%.

Replace this subsection with the following:

If the total quantity of a Major Bid Item is increased in excess of 25% more than the quantity shown in the Bid, and if the City and the Contractor cannot agree upon an adjustment in Contract Unit Price, the Work shall proceed according to 3-3, and as

follows:

The costs determined for the item of Work shall not include fixed costs. Fixed costs shall be deemed to have been recovered by the Contractor through payment for 125% of the Bid quantity at the Contract Unit Price.

3-2.2.3 Decreases of More Than 25%. *Replace this subsection with the following:*

If the total quantity of a Major Bid Item is decreased in excess of 25% less than the quantity shown in the Bid, no adjustment in the Contract Unit Price will be made unless so requested in writing by the Contractor. If the Contractor so requests, the adjustment in payment will be made per 3-2.4. If no adjustment in Contract Unit Price can be agreed upon by the City and the Contractor, the Work shall proceed according to 3-3, and as follows:

In no case will payment be less than would be made for the actual quantity at the Contract Unit Price, nor more than would be made for 75% of the Bid quantity at the Contract Unit Price.

3-3 EXTRA WORK.

3-3.2 Payment.

3-3.2.3 Markup.

3-3.2.3.1 Work by Contractor.

Replace this subsection with the following:

The following percentages shall be added to the Contractor's costs and shall constitute the markup for all overhead and profit:

Labor	20%
Materials	15%
Equipment Rentals	15%
Other Contractor's costs	15%

One percent (1%) may also be added to the sum of costs and markups as compensation for the Contractor's bond premium.

3-3.2.3.2 Work by Subcontractor. *Replace this subsection with the following:*
When a subcontractor performs all or any part of the extra work, the markups in 3-3.2.3.1 shall be added to the subcontractor's actual cost of such work. The Contractor may add an additional markup of 10% of the first $5,000 of the subcontracted portion of the extra work and 5% on work added in excess of $5,000 of the subcontracted portion of work.

Add the following:

3-4 CHANGED CONDITIONS

Promptly notify the Engineer if you find either of the following conditions:

1. Physical conditions differing materially from either of the following:
   1.1. Contract documents
   1.2. Job site examination
2. Physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract

Include details explaining the information you relied on and the material differences you discovered.

If you fail to promptly notify the Engineer, you waive your claim of a differing site condition for the period between your discovery of the differing site condition and your notification to the Engineer.

If you disturb the site after discovery and before the Engineer's investigation, you waive the differing-site-condition claim.

3-4.1 Engineer's Investigation and Decision

Upon your notification, the Engineer investigates job site conditions and:

1. Notifies you whether to resume affected work
2. Decides whether the condition differs materially and is cause for an adjustment of time, payment, or both

SECTION 4 – CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.1 General. *Add the following:*
Store materials and samples in a way that preserves the quality and facilitates prompt inspection.

Material incorporated into the work must be new.

Before the preconstruction conference, submit material source information on a Notice of Materials to be Used form.

4-1.2 Protection of Work and Materials. *Add the following:*
The Contractor shall remove and replace materials damaged by the Contractor's operations at the Contractor's sole expense before the final inspection and acceptance.

4-1.3.2 Inspection by the Agency *Add the following:*

If a material is to be inspected or tested at the job site, the material must be authorized for use before it is incorporated into the work.

4-1.4 Test of Materials. *Add the following:*

The Contractor shall submit samples of materials, at the Contractor's sole expense, as the Engineer may require, 15 days in advance of being incorporated in the

Work to a testing laboratory designated by the City.

Samples of materials to be tested shall be properly identified and shall establish exact nature and character of materials. The City may reject any material or part thereof that proves defective as a result of testing and requires satisfactory replacement.

Add the following subsection:

4-1.4.1 Test Samples

This subsection applies where a test sample is specified or if a test sample is requested.

Notify the Engineer 10 days before taking a sample.

Submit material to be tested with a Sample Identification Card. For the card, go to the METS website.

Restore work immediately after sampling.

If requested, obtain the Department's authorization for the material before incorporating the material represented by the test sample into the work.

4-1.5 Certificates of Compliance *Add the following:*

The following applies (1) where a certificate of compliance is specified and (2) if any material is produced outside the United States.

Submit a certificate of compliance:

1. Before the material is incorporated into the work
2. For each lot of the material. Identify the lot on the certificate.
3. Signed by the producer of the material and stating that the material complies with the Contract.

4-1.6 Trade Names or Equals. *Add the following:*

Where a specific manufacturer is noted on the Plans or listed in the Specifications, unless otherwise noted, an "approved equal" item may be substituted.

If a Bidder desires to bid an "approved equal" item, the Bidder shall submit a request to do so to the Engineer in writing by the time and as shown in the Instructions to Bidders.

Add the following subsection:

4.1.9 Equipment

Legibly stencil or stamp at a clearly visible location on each piece of equipment except hand tools an identifying number and:

1. On compacting equipment, its make, model number, and empty gross weight that is either the manufacturer's rated weight or the scale weight
2. On meters and on the load-receiving element and indicators of each scale, the make, model, serial number, and manufacturer's rated capacity

Submit a list describing each piece of equipment and its identifying number.

Upon request, submit the manufacturer's information that designates portable vehicle scale capacities.

For proportioning materials, use measuring devices, material plant controllers, and undersupports complying with section 9-1.02B,

The indicator over-travel must be at least 1/3 of the loading travel. The indicators must be enclosed against moisture and dust.

Group the measuring system dials such that the smallest increment for each indicator can be read from the location at which proportioning is controlled.

Add the following section:

4-2 QUALITY ASSURANCE

4-2.1 General

This section includes provisions related to quality.

Quality assurance includes all activities used to

(1) provide an overall level of quality for the project and
(2) determine compliance with the Contract documents.

Quality control includes sampling, testing, and inspections performed under your QC program to (1) control material quality and (2) ensure the specified quality characteristics for the project are met.

Department acceptance includes sampling, testing, and inspections performed by the Department to verify compliance with the Contract.

The Department's independent assurance program is described in the Department's *Independent Assurance Manual: Procedures for Accreditation of Laboratories and Qualification of Testers*. For the manual, go to the Caltrans METS website.

For a material specified to comply with a State Specification number, the material may comply with a later version of the specification. Obtain State Specifications from Caltrans METS**.**

For a material specified to comply with a requirement for a quality characteristic shown in the following table, the quality characteristic is tested under the corresponding California Test:

California Tests

Quality characteristic	California Test
Relative compaction	216 or 231
Sand equivalent	217
Resistance (R-value)	301
Gradation (sieve analysis)	202
Durability index	229

4-2.2 Authorized Facility Audit Lists

This subsection applies where a facility is specified to be on an Authorized Facility Audit List.

An audit authorized by the Department not more than 3 years before completion of the fabrication process is acceptable if the Department determines the audit was for the same type of work to be performed.

For procedures to be included on an Authorized Facility Audit List, go to the Authorized Facility Audit List website.

4-2.3 Authorized Material Lists.

This subsection applies where a material is specified to be on an Authorized Material List.

The material must be on an Authorized Material List before it is incorporated into the work.

For procedures to be included on an Authorized Material List, go to the Authorized Material List website.

4-3 QUALITY CONTROL

4-3.1 General

Material production and testing equipment must measure accurately and precisely.

4-3.2 Quality Control Program

Develop, implement, and maintain a QC program. Prepare and maintain QC records, including:

1. Names and qualifications of:
   - 1.1. Samplers
   - 1.2. Testers
   - 1.3. Inspectors
2. Testing laboratories' identification and certifications
3. Testing equipment calibrations and certifications
4. Inspection reports
5. Sampling and testing records organized by date and type of material
6. Test results with comparison of quality characteristic requirements
7. Test results in relation to action and any suspension limits
8. Records of corrective actions and suspensions

Within 24 hours, notify the Engineer of any noncompliance identified by your QC

program. Allow the Department access to all QC records.

Submit QC test data and QC test results within 2 business days of test completion.

4-3.3 Quality Control Manager

This subsection applies to work requiring a QC manager.

The QC manager must be responsible directly to you for the quality of the work, including materials and workmanship performed by you and your subcontractors.

Assign the QC manager before the start of the affected work. The QC manager must be the sole individual responsible for:

1. Receiving, reviewing, and approving all correspondence, submittals, and reports before they are submitted to the Department
2. Signing the QC plan
3. Implementing the QC plan
4. Maintaining the QC records

The QC manager must be your employee or must be hired by a subcontractor providing only QC services. The QC manager must not be employed or compensated by a subcontractor or by other persons or entities hired by subcontractors who will provide other services or materials for the project.

Notify the Engineer of the name and contact information of the QC manager.

4-3.4 Quality Control Plans

Submit 7 copies of each authorized QC plan.

Make 1 copy available at each location where work is performed.

4-4 CITY ACCEPTANCE

4-4.1 General

The Department may use multiple acceptance methods for a material.

Specifications in sections titled "Department Acceptance" do not include all requirements on which the Department makes its acceptance.

The Department may inspect, sample, and test materials for compliance with the Contract at any time.

Allow the Department to record, including photograph and video, to ensure a material is produced to comply with the Contract.

You may examine the records and reports of tests the Department performs.

Schedule work to allow time for the Department's inspection, sampling, and testing.

The Department deducts testing costs for work that does not comply with the Contract.

The Department may retest material previously tested and authorized for use. If the Department notifies you of a retest, furnish resources for retesting.

SECTION 5 – UTILITIES

5-1 LOCATION. *Replace with the following:*

5-1.1 General

The City has determined the locations of all known existing subsurface facilities from records and field investigations and these facilities are shown on substructure drawings, which are included in the Plans. However, the City does not guarantee the accuracy of the indicated locations or that all facilities are shown.

The Contractor shall conduct potholing at least two weeks prior to any other excavation. Any discrepancies between field conditions and the Plans and Specifications shall be submitted to the Engineer in writing for review.

The City may arrange for and conduct a preconstruction meeting between the Contractor, the Engineer, and the utility owners to discuss scheduling, coordination of any required utility relocations, and the protections of existing utilities. The Contractor shall attend any preconstruction meeting scheduled by the Agency and shall cooperate with all utility owners performing utility markings, relocation or installation work of the Project site.

5-1.2 Nonhighway Facilities

Before starting work that could damage or interfere with underground infrastructure, locate the infrastructure described in the Contract, including laterals and other appurtenances, and determine the presence of other underground infrastructure inferred from visible facilities, such as buildings, meters, and junction boxes.

Underground infrastructure described in the Contract may be in different locations from those described, and additional infrastructure may exist.

Upon discovering an underground main or trunk line not described in the Contract, immediately notify the Engineer and the infrastructure owner. The Engineer orders the locating and protecting of the infrastructure.

The locating and protecting is change order work. If ordered, repair infrastructure damage. If the damage is not due to your negligence, the repair is change order work.

Immediately notify the Engineer of a delay due to the presence of main-line underground infrastructure not described in the Contract or in a substantially different location.

Notify the Engineer if the infrastructure described in the Contract cannot be found. If after giving the notice, you find the infrastructure in a substantially different location from that described, finding the infrastructure is change order work.

5-1.3 Nonhighway Facility Rearrangement

The Department may rearrange a nonhighway facility during the Contract. Rearrangement of a nonhighway facility includes installation, relocation, alteration, or removal of the facility.

The Department may authorize facility owners and their agents to enter the highway to perform rearrangement work for their facilities or to make connections or repairs to their property. Coordinate activities to avoid delays.

If necessary rearrangement of underground infrastructure is not described in the Contract, the Engineer may order you to perform the work. The rearrangement is change order work.

Immediately notify the Engineer of a delay due to a rearrangement different from that described in the Contract.

If you want infrastructure rearrangement different from that described in the Contract:

1. Notify the Engineer
2. Make an arrangement with the infrastructure owner
3. Obtain authorization for the rearrangement
4. Pay the infrastructure owner any additional cost

The Department does not adjust time or payment for a rearrangement different from that described the Contract.

5-3 REMOVALS.

Add the following:

The Contractor shall remove interferences shown on the Plans, other than utilities, to clear construction by at least 12 inches.

5-4 RELOCATION.

Add the following:

The Contractor shall perform work on utilities only when authorized by the utility's owner and only using the services of firms pre-qualified by the owner.

Add the following subsection:

5-4.1 Resetting Vaults and Other Appurtenances.

Certain manholes, vaults, valve boxes or other appurtenances belonging to utility companies or others may need resetting to grade. The City does not guarantee that all such items are shown on the Plans. The Contractor is not required to do the work of resetting such to grade, except sewer and storm drain manholes, Long Beach Gas & Oil Department and Long Beach Water Department valve boxes and meter boxes, and City-owned communications vaults; however, the Contractor shall notify the owners at least one week in advance of construction to give them opportunity to perform the necessary work in conjunction with Work performed by the Contractor.

Add the following section:

5-7 UNKNOWN FACILITIES.

If the Contractor encounters any unknown facility, or if any known facility's actual location is greatly different than the Plans indicate, the Contractor shall immediately notify the Engineer and not disturb the facility except in the presence of the Engineer.

Add the following section:

5-8 FACILITIES REQUIRING SPECIAL PRECAUTIONS.

The Contractor's attention is directed to the existence of certain underground facilities that may require that Contractor take special precautions to protect the health, safety and welfare of workers and the public. Facilities requiring special precautions include but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines; underground electric supply system conductors or cables either directly buried or in duct or conduit which do not have concentric neutral conductors or other effectively grounded metal shields or sheaths; and underground electrical conductors with a potential-to-ground of more than 300 volts. The Contractor shall notify the Engineer at least 48 hours before performing any Work in the vicinity of such facilities.

If such facilities are not located on the Plans in both alignment and elevation, the Contractor shall perform no Work in the vicinity of these facilities until the owner, or its representative, has located the facility by potholing, probing, as-built plans or other means that will locate and identify the facility.

5-9 GENERAL REQUIREMENTS WHEN WORKING AROUND LONG BEACH ENERGY RESOURCES (LBER) FACILITIES.

All excavations, whether in the public right of way, or on private property require a valid Dig Alert Ticket from Underground Service Alert of Southern California (USASC). Excavators MUST contact USASC by dialing 811 at least 48 hours prior to any excavation work. LBER, and all other underground facility operators will locate and mark existing substructures at no charge in delineated areas.

The excavator shall immediately contact LBER Inspection upon damaging or exposing any LBER main or service. All active LBER facilities, including gas distribution mains & services, shall be protected in place by the excavator. Wrap damage of LBER mains or services will be repaired by LBER free of charge. Any other damage to LBER's facilities will be repaired by LBER at the excavator's expense. Any repair or relocation work required on LBER's facilities can solely be performed by LBER and will be subject to LBER's availability of resources.

Any exposed, active LBER main or service shall be supported at the excavator's expense with an approved LBER method. Any active LBER main or service exposed for a duration longer than 5 days shall be protected from exposure to sunlight. The support design shall be submitted to LBER Engineering for approval prior to implementation.

A minimum 12" clearance around LBER's facilities shall be maintained by the excavator when installing new pipelines or other structures near LBER facilities. The excavator shall notify LBER Inspection prior to backfilling around any active LBER main or service. The backfill material & method used by the excavator is subject to LBER Inspection's review & approval.

LBER contacts: LBER Engineering/Inspection – (562) 570-2085

LBER 24-Hour Emergency Line – (562) 570-2140

SECTION 6 – PROSECUTION, PROGRESS, AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.

Replace the entire subsection with the following:

6-1.1 Construction Schedule.

6-1.1.1 Terms and Definitions. The following terms and their respective definitions are in addition to those specified in 1-2.

As-Built Schedule – The final updated Construction Schedule that reflects actual construction progress throughout the entire duration of the Project.

Baseline Schedule – The original Construction Schedule used as the basis for measuring construction progress and Contract performance.

Constraint – A requirement that restricts or dictates the Construction Schedule.

Construction Schedule – The schedule of construction activities that reflects the means and methods, planned sequencing, duration, and Milestone dates for the completion and acceptance of the Work. Types include the Baseline Schedule, Weekly Schedule Update, Monthly Schedule Update, and the As-Built Schedule.

Critical Path – The sequence of activities shown on the Construction Schedule which adds up to the longest overall duration.

Data Date – The latest date through which the activities shown on the Construction Schedule have been updated.

Milestone – A schedule activity that has zero duration and which graphically represents the start or finish of a portion of the Work.

Monthly Schedule Update – An updated Construction Schedule submitted every month that compares actual construction progress versus the progress planned on the Baseline Schedule.

Total Float - the maximum amount of time an activity can be delayed from its early start without delaying the completion of the Work. Float shall be an expiring resource available to both the Contractor and the Agency. Float shall not be for the exclusive use or benefit of either the Agency or the Contractor.

Weekly Schedule Update – An updated Construction Schedule submitted every week that reflects the status of construction activities from the past week and also includes construction activities scheduled in detail for the following 2 weeks.

6-1.1.2 General. Construction schedules shall conform to the following requirements:

a) The Construction Schedule shall be prepared using the latest version of Primavera "Suretrak", Microsoft "Project Professional", Primavera "Project Planner (P6)", or Agency-approved equal.

b) The Construction Schedule shall be prepared using the Critical Path Method (CPM) illustrating the chronological relationship and sequence of work activities. Activities on the Critical Path shall be clearly delineated.

c) Work activities shall be based on the Bid items listed in the Schedule of Prices in the Bid Proposal and the following:

   i) Bid Items shall be subdivided into those portions to be constructed during each stage or phase of construction, or portions which do not exceed 20 Working Days, whichever is less.

   ii) Each activity shall be identified with its corresponding Bid item number(s) or Change Order item number(s) listed in the Engineer's Monthly Estimate.

   iii) Each submittal, and the corresponding Agency review period, shall be shown as an individual activity.

   iv) Submittals which must be accepted prior to issuance of the NTP shall be identified.

   v) The procurement of construction materials and equipment shall be identified and shown as individual activities.

   vi) Work to be performed by subcontractors shall be identified and shown as individual activities.

   vii) NTP requirements shall be shown as individual activities.

   vii) Each submittal of the Equal Employment Opportunity Form per 7-2.6 shall be shown as a separate activity

d) Start and completion dates of each work activity shall be illustrated.

e) The Construction Schedule shall commence on the date of issuance of the NTP and end on the date of fulfillment of all of the requirements in the Contract Documents.

f) Change Orders, including number, description, approval date, and duration shall be shown as individual activities.

g) The schedule shall reflect the following Constraints:

   i) Utility relocations per 5-4.

   ii) Schedule impacts due to the protection, removal, or relocation of utilities per 5-1. Sequencing and phasing of work shall be clearly outlined to provide for reasonable time to respond to utility marking requests.

   iii) The Sequence of Work per 6-2.3

   iv) Temporary traffic control requirements per Section TTC of the Special Provisions.

   v) The Time of Completion per 6-7. A Baseline Schedule submitted showing completion earlier or later than the time of completion specified will not be accepted.

h) The schedule activities shall include the following information:

   i) Activity ID

   ii) Bid Item No(s).

   iii) Activity Name

   iv) Original Duration

   v) Actual Duration

   vi) Start Date

   vii) Finish Date

   viii) Actual Start Date

   ix) Actual Finish Date

   x) Total Float

6-1.1.3 Submittals.

a) Baseline Schedule.

Within 10 Days of issuance of the NTP, the Contractor shall submit a Baseline Schedule for review and acceptance by the Engineer in accordance with 2-5.3 and 6-1.1.3.

The Baseline Schedule submittal shall include a portable document file (pdf) and a program file, accessible using the latest version of Primavera "Suretrak", Microsoft "Project Professional", Primavera “Project Planner (P6)”, or Agency-approved equal. The schedule may be emailed to the Engineer or submitted on a compact disc (CD) along with 2 printed color copies on 11-inch x 17-inch sheets.

b) Bi-weekly Schedule Updates. During the bi-weekly on-site management meetings, the Contractor shall submit Weekly Schedule Updates using the same software used to prepare the Baseline Schedule. The schedule updates will be used to manage, coordinate, and schedule all upcoming Contract activities. These detailed schedules may be submitted in bar chart format and shall reflect the logic and sequence used for the accepted Baseline Schedule. The Weekly Schedule Update shall include the following:

i) Status of the construction activities of the past week, scheduled vs. actual.

ii) An explanation for deviations from planned activities, together with actions taken or planned to recover lost time, if applicable.

iii) Two-week "look-ahead" Schedule detailing all work activities planned for the next 2 weeks, including all work to be performed by others. Activities included in the Baseline Schedule shall be further broken down into detailed activities, by specific task, by specific area, at the crew level or lower.

c) As-Built Schedule. Within 7 Days after completion of the Work per 6-8.1, the Contractor shall prepare and submit an As-Built Construction Schedule using the same software used to prepare the Baseline Schedule. The Engineer will not submit the final progress payment for processing until the schedule has been submitted. The schedule may be emailed to the Engineer or submitted on a CD with 2 printed color copies on 11-inch x 17-inch sheets.

The As-Built Schedule shall reflect the actual progress of the Work from the date of issuance of the NTP through the date of completion. Should the As-Built Schedule not reflect the actual start and finish dates of all work activities, the schedule will be returned to the Contractor for revision and re-submittal.

The schedule shall be submitted with a written certificate signed by the Contractor’s Authorized Representative stating:

> “To my knowledge and belief, the enclosed As-Built Schedule reflects the actual start and finish dates of the actual work activities for the Contract contained herein.”

6-1.1.4 Payment. Payment for preparation of Schedule shall be considered as included in the prices for the various items of Work, and the City will make no additional payment therefor.

No separate or additional payment will be made for preparation of each Bi-weekly Schedule Update.

Contractor's failure to update and obtain approved of said updates of the baseline schedule will constitute withholding of any future progress payments until such time as the schedule is updated and accepted by the City.

6-1.2 Commencement Of Work.

Add the following:

The Contractor shall commence work on the date to be specified in a written "Notice to Proceed" from the City and complete all Work within the time stated in Division B. The Contractor shall begin the procurement of materials within 5 working days after approval by the Engineer of shop drawings and submittals relating to equipment and materials.

Notice to Procure – After award of contract, the Contractor shall prioritize preparation and submission of shop drawings for the wayfinding signage, which is considered a critical long-lead item for the Project. Signage shop drawings shall be submitted as soon as practicable following Contract award to allow for sufficient time for review, approval, procurement, and fabrication. After approval of shop drawings, the City will issue to the Contractor a written "Notice to Procure" for all long lead items necessary to construct the Work. Within five working days after receipt of this Notice, the Contractor shall place orders for long lead items. Within the same five days, the Contractor shall submit copies of the orders to the City, along with the manufacturer's estimated delivery dates.

As soon as the Contractor receives notification of delivery of the equipment and materials, the Contractor shall notify the City and submit a construction schedule.

For a project that does not require a SWPPP, start job site activities with 15 working days after receiving notice that the Contract has been approved by the Attorney General or the appointed and authorized to represent the Department.

For a project the requires a SWPPP, start job site activities within 55 days after receiving notice that the Contract has been approved by the Attorney General or the attorney appointed and authorized to represent the Department.

Submit a notice 72 hours before starting job site activities. If the project has more than 1 work location, submit a separate notice for each location.

You may start job site activities before receiving notice of Contract approval if you:

1. Deliver the signed Contract, bonds, and evidence of insurance to the Department
2. Submit a 72-hour notice
3. Obtain an encroachment permit from the Department
4. Receive the Department's authorization to start
5. Perform work at your own risk

6. Perform work under the Contract

If the Contract is approved, work already performed that complies with the Contract is authorized.

If the Contract is not approved, leave the job site in a neat condition. If a facility has been changed, restore it to its former condition or an equivalent condition. The Department does not pay for the restoration.

The Department does not adjust time for work performed before Contract approval.

The Contractor shall submit a written proposed construction schedule to the Engineer at the preconstruction conference required in Subsection 6-1.3. The Contractor shall submit updated construction schedules biweekly.

Add the following subsection:

6-1.3 Preconstruction Conference.

Attend a preconstruction conference with key personnel, including your assigned representative, at a time and location determined by the Engineer. Submit documents as required before the preconstruction conference. You may start work before the preconstruction conference.

Be prepared to discuss the topics and documents shown in the following table:

Topic	Document
Potential claim and dispute resolution	Potential claim forms
Contractor's representation	Assignment of Contractor's representative
DBE and DVBE	Final utilization reports
Equipment	Equipment list
Labor compliance and equal employment opportunity	Job site posters and benefit and payroll reports
Material inspection	Notice of Materials to be Used form
Materials on hand	Request for Payment for Materials on Hand form
Measurements	--
Partnering	--
Quality control	QC plans
Safety	Injury and Illness Prevention Program, Code of Safe Practices, and job site posters
Schedule	Baseline schedule and Weekly Statement of Working Days form
Subcontracting	Subcontracting Request form
Surveying	Survey Request form
Traffic control	Traffic contingency plan and traffic control plans
Utility work	--

Weight limitations	--
Water pollution control	SWPPP or WPCP
Work restrictions	PLACs
Action submittals	--

Add the following subsection:

6-1.4 Notices.

The Contractor shall give advance notice, shown below, to the proper office prior to the time each of the following operations is to be commenced.

Operation	**Office**	**Phone**	**Advance Notice**
Start of Work	City Inspection Section	(562) 570-5160	2 working days
Shutdown of work or resumption of work after shutdown	City Inspection Section	(562) 570-5160	2 working days
Ramp Closure	State Inspector and State Traffic Management Center	Refer to State Permit	7 working days
Traffic Striping and Signs	City Inspection Section	(562) 570-5160	3 working days
Caltrans Lighting or Electrical Facilities	State Electrical Inspector	Refer to State Permit	7 working days

*Notify the Inspection Section before notifying these offices.

The Contractor shall notify the owners of all utilities at least 48 hours before any excavation or work adjacent to utility structures. The utility companies listed below can be contacted as indicated.

1. LACSD
   Esther Kang
   Engineering Counter Coordinator, Sewer Design
   562-908-4288 ext. 1204
   engineeringcounter@lacsd.org

2. City of Long Beach Water Department or USA/SC
   (Water, Sewer and Storm Drain Facilities)
   Operations Service Center
   Telephone: (562) 570-2389 or (562) 570-2390

3. Southern California Edison Company or USA/SC
   Telephone: 1-800-655-4555

4. Long Beach Utilities
   (Gas, Water, Sewer and Storm Drain Facilities)
   Telephone: (562) 570-5700

6-1.5 Weekly Update Meetings.

The Agency will schedule and conduct weekly meetings for the purposes of construction management as well as assessing the status of the informal partnership. The weekly meetings will have a set agenda, including, but not limited to, a report and discussion of the status of the following:

a) Weekly Detailed Schedule per 6-1.1(d).
b) Quality assurance/quality control
c) BMPs/SWPPP Compliance
d) Site operations, including coordination of work by others
e) Community/public relations
f) Change Orders
g) Submittals
h) RFI's

6-2 PROSECUTION OF THE WORK.

Add the following subsection:

6-2.3 Sequence of Work. *Add the following:*

The Contractor's construction schedule and sequence of work shall conform to the following:

a) The first order of construction work shall be any construction work specified as such in 6-1.2 or on the Plans.
b) The surface course of pavement shall be scheduled to follow completion of parkway improvements throughout the length of the Project unless otherwise approved in writing by the Engineer.
c) Unless otherwise directed by the Engineer, all parkway improvements behind the curb and gutter shall be completed immediately following completion of a continuous pour of curb and gutter. This requirement shall not be interpreted to prohibit the Contractor from performing concurrent work.

6-6 DELAYS AND EXTENSION OF TIME

Replace the following subsection:

6-6.1 General.

If delays are caused by unforeseen events beyond the control of the Contractor, such delays will entitle the Contractor to an extension of the Contract time as provided herein,

but the Contractor will not be entitled to damages or additional payment due to such delays, except as otherwise specified in 6-6.3.

Such unforeseen events may include:

1. Adverse weather or elements necessitating cessation of work,
2. Traffic maintenance under the Contract.
3. Suspension of a controlling activity that you and the Engineer agree benefits both parties.
4. Unanticipated event not caused by either party, such as:
    - War
    - Government Regulations
    - Fires
    - Floods
    - Act of God
    - Act of a public enemy.
    - Epidemic.
    - Fire.
    - Governor-declared state of emergency.
    - Landslide.
    - Quarantine restriction.
5. Issue involving a third party, including:
    - Strikes
    - inability to obtain materials, labor or equipment,
    - Freight embargo.
    - Jurisdictional requirement of a law enforcement agency.
    - labor disputes
    - Workforce labor dispute of a utility or nonhighway facility owner resulting in a nonhighway facility rearrangement not described and not solely for the Contractor's convenience. Rearrangement of a nonhighway facility includes installation, relocation, alteration, or removal of the facility.
6. Required Extra Work
7. Other specific events as may be further described in the Special Provisions.

No extension of time will be granted for a delay caused by the Contractor's inability to obtain materials unless the Contractor furnishes to the Engineer documentary proof. The proof must be provided in a timely manner in accordance with the sequence of the Contractor's operations and the approved construction schedule.

If delays beyond the Contractor's control are caused by events other than those mentioned above, the Engineer may deem an extension of time to be in the best interests of the Agency. The Contractor will not be entitled to damages or additional payment due to such delays, except as otherwise specified in 6-6.3.

If delays beyond the Contractor's control are caused solely by action or inaction by the Agency, such delays will entitle the Contractor to an extension of time per 6-6.2.

6-7 TIME OF COMPLETION.

Add the following subsections:

6-7.4 Additional Requirements. *Add the following:*

The Contractor shall perform no Work on days other than Working Days or outside of normal working hours (defined as the hours between 7:00 a.m. to 4:00 p.m.) without the consent of the Engineer, unless otherwise specified. In any event, all Work shall be subject to approval of the Engineer. Before starting such work, the Contractor shall make arrangements with the Engineer for the continuous or periodic inspection of the work and tests of materials, when necessary. If the Contractor requests permission to work outside of the above time periods and if the City grants such request, the Contractor shall pay all extra expense to the City for inspection and other incidental expenses caused by such overtime work. If the City requests the Contractor to work overtime or if overtime work is specifically required by these Specifications, the City will pay all extra expense of inspection.

Due to the proximity of educational facilities, bicycle facilities, and pedestrian routes within the Project vicinity, construction activities requiring pedestrian detours (See Division F for additional information), bridge access restrictions, traffic control, lane closures, or Caltrans right-of-way closures shall be performed during Summer 2027 construction window. Contractor shall coordinate all procurement, fabrication, submittals permits, Caltrans approvals, and construction activities to allow commencement of field construction no later than June 2027, and Final Completion no later than August 2027. Contractor's Baseline Schedule shall demonstrate compliance with this requirement.

If the Contractor finds it necessary, in order to complete the work according to schedule, to perform certain of its operations outside of Working Days or normal working hours, these operations shall be performed as part of the Work included in the Contract Price and shall not constitute a basis for additional payments.

6-8 COMPLETION, ACCEPTANCE, AND WARRANTY.

Add the following subsection:

Upon acceptance by the Engineer, the Engineer will file a Notice of Completion with Los Angeles County Recorder. The date the Notice of Completion is filed will be the date of acceptance of the Work and the date the Contractor is relieved from responsibility to protect the Work.

The acceptance of the Work or the payment of any money by the City shall not operate as a waiver of any provision of the Contract, or of any power reserved to the City, or of any right to damages or indemnity provided in the Contract. The waiver of any breach of the Contract, or any default hereunder, shall not be held to be a waiver of any other or subsequent breach or default.

The Contractor shall guarantee all Work against failure due to defective materials and faulty workmanship for a period of 1 year after the date of acceptance of the Work by the City, unless some longer period is expressly set forth in any manufacturer's warranty or within the Specifications.

When the City discovers defective material or workmanship that requires repair or replacement under guarantee, the Contractor shall furnish all necessary labor, materials, and equipment to correct and make good, at no expense to the City, all such defects. The Contractor shall commence repair or replacement within 24 hours after receiving written notice from the Engineer, and diligently and continuously perform the Work until the repair or replacement is completed and the City has accepted it.

6-8.2 Final Inspection and contract Acceptance. *Add the following:*
When you complete the work, request the Engineer's final inspection.

If the Engineer determines that the work is complete, the Engineer recommends Contract acceptance. Immediately after Contract acceptance, you are relieved from:

1. Maintenance and protection duties

2. Responsibility for injury to persons or property or damage to the work occurring after Contract acceptance except as specified in Division H Section 6-8.3.

6-8.3 Guarantee. *Replace the following:*
Guarantee that work remains free from substantial defects for 1 year after Contract acceptance except for work parts for which you were relieved of maintenance and protection. Guarantee each of these relieved work parts for 1 year after the relief date.

The guarantee excludes damage or displacement caused by an event outside your control, including:

1. Normal wear and tear
2. Improper operation
3. Insufficient maintenance
4. Abuse
5. Unauthorized change
6. Act of God

During the guarantee period, repair or replace each work part having a substantial defect.

The Department does not pay for corrective work.

During corrective work activities, provide the same insurance specified before Contract acceptance.

The Contract bonds must be in force until the later of (1) the expiration of the guarantee period or (2) the completion of the corrective work.

If a warranty specification conflicts with this subsection, comply with the warranty specification.

During the guarantee period, the Engineer monitors the completed work. If the Engineer finds work having a substantial defect, the Engineer lists the defective work parts and furnishes you the list.

Within 10 days of receipt of the list, submit for authorization a detailed plan for correcting the work. Include a schedule that includes:

1. Start and completion dates
2. List of labor, equipment, materials, and any special services you plan to use
3. Work related to the corrective work, including traffic control and temporary and permanent pavement markings

The Engineer notifies you when the plan is authorized. Start the corrective work and related work within 15 days of notice.

If the Engineer determines corrective work is urgently required to prevent injury or property damage:

1. The Engineer furnishes you an order to start emergency repair work and a list of parts requiring corrective work
2. Mobilize within 24 hours and start work
3. Submit a corrective work plan within 5 business days of starting the emergency repair work

If you fail to perform the work as specified, the Department may perform the work and bill you.

6-9 LIQUIDATED DAMAGES. *Add the following:*

The City will assess liquidated damages at the rate of $4,800 per calendar day that the Contractor exceeds the specified time of completion.

6-11 CLAIMS RESOLUTION. *Add the following subsection:*

6-11.1 Compliance with Mandatory Procedures. Contractor's use of the claims resolution process available in Public Contract Code Section 9204 (as set forth below in Section 6-11.2) shall not satisfy or otherwise excuse Contractor's compliance with the mandatory notice and claim presentation procedures pursuant to Chapter 5 (commencing with Section 930) of Part 3 of Division 3.6 of Title 1 of the California Government Code.

6-11.2 Public Contract Code Section 9204.
Section 9204 is added to the Public Contract Code, to read:

The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a Contractor in connection with a public works project.

For purposes of this section:

1. "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(a) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(b) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(c) Payment of an amount that is disputed by the public entity.

2. "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

3. "Public entity" means, without limitation, except as provided in subparagraph **4.** below, a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

4. "Public entity" shall not include the following:

(a) The Department of Water Resources as to any project under the jurisdiction of that department.

(b) The Department of Transportation as to any project under the jurisdiction of that department.

(c) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(d) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(e) The Military Department as to any project under the jurisdiction of that department.

(f) The Department of General Services as to all other projects.

(g) The High-Speed Rail Authority.

5. "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

6. "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

The claimant shall furnish reasonable documentation to support the claim.

If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph **3**, below, shall apply.

1. If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

2. Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree

upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

3. Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

4. Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

5. If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

This section applies to contracts entered into on or after January 1, 2017.

Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2027, deletes or extends that date.

Add following sections:

6-12 DAMAGE REPAIR AND RESTORATION

6-12.1 General

Before Contract acceptance, restore damaged work to the same state of completion as before the damage. Restoration of damaged work includes restoration of erected falsework and formwork.

The Department does not adjust payment for repair or restoration that the Engineer determines was caused by your failure to construct the work under the Contract or protect the work.

6-12.2 Landscape Damage

Repair slopes or other existing facilities that were damaged after starting job site activities and before starting plant establishment or permanent erosion control establishment.

As ordered, replace plants that have been damaged from either or both of the following conditions:

1. Ambient air temperature falling below 32 degrees F during the plant establishment period
2. Department or its supplier restricting or stopping water delivery during the plant establishment period

This plant replacement work is change order work.

SECTION 7 – RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

7-1.1 General. *Add the following:*

The Contractor shall provide and maintain enclosed toilets for the use of its employees engaged in the Work. These accommodations shall be maintained in a neat and sanitary condition. They shall also comply with all applicable laws, ordinances, and regulations pertaining to public health and sanitation of dwellings and camps.

7-1.2 Temporary Utility Services. *Add the following:*

The Contractor shall make arrangements and pay for telephone and gas during construction, including necessary service lines to the nearest point of takeoff.

The Contractor shall use potable water for the Work. Water may be obtained from the Long Beach Water Department by applying for temporary water service at the Water Department offices at 1800 Wardlow Road, Long Beach. The Long Beach Water Department will provide a construction meter at the nearest fire hydrant available. The City will charge for water service at the standard established rates of the Long Beach Water Department.

Replace section 5-1.36C(2) with:

5-1.36C(2) Nonhighway Facility Protection

The utilities shown in the following table may interfere with the work and must be exposed or protected in place. Make arrangements with the utility owner (1) to conduct or witness all exposures or (2) to request temporary deactivation of the utility.

Utilities to Be Exposed and/or Protected in Place During Construction

Utility	Location
6-1.03 Water Line, Long Beach Water District	Between Pier # 10 and Pier #11
1" Lighting Conduit, City Light and Power	Channel View Park Along Sidewalk

Utility location activities must be concurrent with construction activities. Contractor is responsible to identify and locate any existing utilities that may be in conflict prior to construction and if conflicts exist coordinate with the utility owner to mitigate conflicts.

7-1.3 Scaffolding

General

Section 7-1.02K(6)(e) applies to scaffolding constructed:

1. Over traffic
2. On or suspended from a bridge
3. Within a distance equal to the scaffolding height plus 6 feet from the edge of a traveled way open to traffic

Section 7-1.02K(6)(e) does not apply to scaffolding at sound walls, retaining walls, and buildings.
Submit 6 copies of scaffolding shop drawings and 1 copy of scaffolding calculations.
The shop drawings and calculations must be sealed and signed by:

1. Engineer who is registered as a civil engineer
2. Independent checker who is:
   2.1. Registered as a civil engineer in the State
   2.2. Not employed by the same entity that prepared the drawings or calculations

The shop drawings must include:

1. Descriptions, calculations, and values for loads anticipated during scaffolding erection, use, and removal.
2. Methods and equipment for erecting, moving, and removing scaffolding.
3. Design details, including bolt layouts, welding details, and connections to existing structures.
4. Stress sheets showing summary of computed stresses in the scaffolding and in the connections between the scaffolding and existing structures. The computed stresses must include the effects of erection, movement, and removal of the scaffolding.
5. If manufactured scaffolding is used, include the manufacturer's:
   5.1. Name, address, and telephone number
   5.2. Written design load capacities for the scaffolding

Welding must comply with AWS D1.1 for steel and AWS D1.2 for aluminum.

7-1.4 All Projects

Delete the 24th paragraph of section 7-1.04.

7-2 LABOR.

7-2.2 Prevailing Wages. *Add the following:*

PROJECT LABOR AGREEMENT: This Contract may be covered by a Citywide Project Labor Agreement ("PLA") entered into by the City of Long Beach with the Los Angeles/Orange Counties Building and Construction Trades Council and the signatory Craft Unions. The PLA contains a local hiring goal of 40%, calculated based on total hours worked. The local hire provision requires best efforts to utilize qualified workers residing in first tier zip codes (which include all of the City of Long Beach), then in second tier zip codes (which reflect the Gateway Cities), and finally in Los Angeles and Orange Counties. However, if Project work is funded in full or in part by State of California Tideland funds, then the local hire provision requires best efforts to utilize qualified workers residing within the Counties of Los Angeles or Orange. In addition, there is a provision with a goal of 10% to hire Transitional Workers and Veterans.

Contractor shall complete and deliver to City the form ("Letter of Assent") to comply with the PLA. Contractor agrees to work with the City and its selected Independent Jobs Coordinator, if applicable, to promote the local hiring goals and objectives of the PLA.

CALIFORNIA WAGE RATE REQUIREMENTS: Contractor agrees that all public work (as defined in California Labor Code section 1720) performed pursuant to this Agreement (the "Public Work"), if any, shall comply with the requirements of California Labor Code sections 1770 et seq. If there is a difference between the general prevailing wage rates determined by the director of the Department of Industrial Relations and the applicable minimum wage rates determined by the Secretary of Labor (for federally assisted projects) for similar classifications of work, the Contractor and its subcontractors of every tier shall pay their workers not less than the higher wage rate.

In all bid specifications, contracts and subcontracts for any such Public Work, Developer shall obtain the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of worker needed to perform the Public Work, and shall include such rates in the bid specifications, contract or subcontract. Such bid specifications, contract or subcontract must contain the following provision: "It shall be mandatory for the contractor to pay not less than the said prevailing rate of wages to all workers employed by the contractor in the execution of this contract. The awarded contractor expressly agrees to comply with the penalty provisions of California Labor Code section 1776.

This project is a public work under Labor Code § 1720 et seq. Pursuant to Division 2, Part 7, Chapter 1 of the Labor Code of the State of California, the Director of Public Works of the City by and on behalf of the City Council has obtained from the Director of the Department of Industrial Relations of the State of California the general prevailing rate of per diem wages, and the general prevailing rate of holiday and overtime work in the locality in which the public work is to be performed for each craft, classification or type of workers needed to perform the Work. Copies of prevailing rate of per diem wages are on file in the office of the City Engineer, 5th floor, City Hall, 411 West Ocean Boulevard, Long Beach, California 90802, and shall be made available upon request. Copies may also be obtained on the California Department of Industrial Relations website http://www.dir.ca.gov/dlsr. This project will be subject the 2026-1 prevailing wage rate, as determined by the Director of the Department of Industrial Relations for the State of California. The Contractor to whom the Contract is awarded, and its subcontractors is directed to pay not less than the general rate of per diem wages for each craft, classification, or type of worker needed to execute the contract. Contractor is required to post a copy of the determination of the director of the prevailing rate of per diem wages at each job site. Contractors are required to pay at least the California minimum wage for the basic hourly rate in all cases where the published prevailing wage rate is below the California minimum wage. Any and all employer payments required by the prevailing wage determinations must also be paid. If the California minimum wage is increased in the future to an amount above that shown in the prevailing wage determination, the basic hourly rate in that determination automatically increases to the new minimum wage.

DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) COMPLIANCE: This project is subject to the following: No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractors are further cautioned that certified payrolls shall be submitted electronically directly to the Department of Industrial Relations.

CERTIFIED PAYROLL SUBMISSION TO THE CITY OF LONG BEACH: Pursuant to the provisions of Labor Code Section 1776, Contractor shall keep and shall cause each subcontractor performing any portion of the work under this Contract to keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor or subcontractor in connection with the work. Such payroll records for Contractor and all subcontractors shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor pursuant to the provisions of Section 1776 of the Labor Code. Contractor's failure to furnish such records to City or City's authorized Labor Compliance representative in the manner provided herein for notices shall entitle City to withhold the penalty prescribed by law from progress payments due to Contractor.

Each contractor and every subcontractor and supplier shall be required to submit certified payrolls and labor compliance documentation electronically at the discretion of and the manner specified by the City of Long Beach. Electronic submittal will be a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor will be given a Log On identification and password to access the City of Long Beach reporting system. The foregoing is in addition to, and not in lieu of, any other requirements or obligations established and imposed by any department of the City with regard to submission and retention of certified payroll records for Contractor and subcontractors.

APPRENTICESHIP EMPLOYMENT (CONTRACTS OVER $30,000 ONLY): The Contractor shall comply with Section 1777.5 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under the Contractor and, by submitting a Bid and executing the Contract, the Contractor stipulates that it shall so comply. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. For federally assisted contracts,

prospective bidders should refer to the Federal Davis Bacon Contract Provisions and Related Matters (29 CFR § 5.5) in Appendix E.

PENALTIES: Contractor and subcontractors are subject to penalties, including, but not limited to, under Labor Code §§ 1775, 1776, 1777.7 and 1813, for failure to comply with Labor Code § 1720 et seq. The Awarded Consultant expressly agrees to comply with the penalty provisions of California Labor Code section 1776.

SMALL BUSINESS ENTERPRISE (SBE) PROGRAM: Bidders are advised that this project is subject to the City's SBE Program. An **10 percent combined** SBE/VSBE/LSBE goal has been assigned to this project. See Divisions C and E of the Specifications.

Replace Section 7-3, "Liability Insurance," and 7-4,"Workers' Compensation Insurance," with the following combined section.

7-3 LIABILITY AND WORKERS' COMPENSATION INSURANCE.

The Contractor shall comply with the following requirements and the City of Long Beach Certificate of Insurance and Endorsements.

The Contractor shall, at its sole cost and expense, procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, Contractor's agents, representatives, officers, employees, or subcontractors. Payment for insurance shall be considered as included in the various items of Work as bid or in the lump sum price bid (as the case may be), and no additional payment will be made.

7-3.1 Minimum Insurance Requirements.

7-3.1.1 Commercial general liability insurance equivalent in scope to Insurance Services Office (ISO) form number CG 00 01 11 85 or CG 00 01 11 93 in an amount not less than $5,000,000 per occurrence and $5,000,000 general aggregate. Such coverage shall include but shall not be limited to broad form contractual liability, XCU (explosion, underground, and collapse) perils, products and completed operations liability, independent contractors liability, and cross liability protection. The City, its Boards and Commissions, and their officials, employees, and agents shall be named as additional insureds by endorsement equivalent in scope to ISO form CG 20 10 11 85 or to both CG 20 10 10 01 and CG 20 37 10 01. There shall be no limitations on the coverage afforded to the City, its Boards and Commissions, and their officials, employees, and agents.

7-3.1.2 Commercial automobile liability insurance equivalent in scope to ISO form CA 00 01 06 92 covering symbol 1, "Any Auto" in an amount not less than $1,000,000 combined single limit. The City, its Boards and Commissions, and their officials, employees, and agents shall be named as additional insureds by endorsement. There shall be no limitation of coverage afforded to the City, its Boards and Commissions, and their officials, employees, and agents.

7-3.1.3 Workers' compensation insurance as required by the California Labor Code and employer's liability insurance in an amount of not less than $1,000,000 per accident or occupational illness.

7-3.2 Acceptability of Insurers The insurance required herein must be placed with carriers as follows:

7-3.2.1 Non-admitted in California and subject to Section 1763 of the Insurance Code (a current list of eligible surplus lines insurers is maintained by the California Department of Insurance at http://www.slacal.org/resources/insurer-member-lookup with a current financial responsibility rating of A (Excellent) or better and a current financial size category (FSC) of VIII (capital surplus and conditional surplus funds of greater than $100 million) or greater as reported by A.M. Best company or equivalent, or

7-3.2.2 Admitted (licensed) in the State of California with a current financial responsibility rating of A (Excellent) or better and a current financial size category (FSC) of V (capital surplus and conditional surplus funds of greater than $10 million) or greater as reported by A.M. Best Company or equivalent, or

7-3.2.3 For Worker's Compensation only, admitted (licensed) in the State of California.

7-3.3 Verification of Coverage.

The Contractor shall furnish to the City the documentation set forth in paragraph D below prior to the effective date of the Contract and, at least 30 days prior to expiration of the insurance required herein, furnish to the City renewal documentation. Each required document shall be signed by the insurer or a person authorized by the insurer to bind coverage on its behalf.

The City reserves the right to require complete, certified copies of all insurance required herein at any time.

The Contractor shall notify the City in writing within five business days if any insurance required herein is voided by the insurer or cancelled by the insured. This notice shall be sent by certified mail, return receipt requested, and shall include a certificate of insurance and the required endorsements for the replacement coverage.

7-3.4 Documentation Required.

The certificates and endorsements shall be on forms provided by the City and shall be received and approved by the City before Work commences. As an alternative, the Contractor may submit certified copies of any policy that includes the required endorsement language set forth in 7-3.4.2, 7-3.4.3, and 7-3.4.4.

7-3.4.1 Certificates of insurance evidencing the required general liability insurance,

automobile liability insurance, and workers' compensation insurance required hereunder.

7-3.4.2 General liability insurance endorsements.

(a) ADDITIONAL INSURED endorsement equivalent in scope to ISO form CG 20 10 11 85 or to both CG 20 10 10 01 and CG 20 37 10 01 naming the City, its Boards and Commissions, and their officials, employees, and agents as additional insureds.

(b) CANCELLATION endorsement which provides that the City is entitled to 30 days prior written notice of cancellation or nonrenewal of the policy, or reduction in coverage, by certified mail, return receipt requested.

(c) CONTRIBUTION NOT REQUIRED endorsement which provides that the insurance afforded by the general liability policy is primary to any insurance or self-insurance of the City, its Boards or Commissions, or their officials, employees, or agents as respects operations of the Named Insured. Any insurance maintained by the City, its Boards or Commissions, or their officials, employees, or agents shall be in excess of Contractor's insurance and shall not contribute to it.

(d) SEVERABILITY OF INTEREST endorsement which provides that Contractor's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(e) ADDITIONAL INSURED COVERAGE NOT AFFECTED BY INSURED'S DUTIES AFTER ACCIDENT OR LOSS endorsement. The policy must be endorsed to provide that any failure to comply with the reporting provisions of the policy shall not affect coverage to the City, its Boards or Commissions, or their officials, employees, or agents.

7-3.4.3 Automobile liability insurance endorsements.

(a) ADDITIONAL INSURED endorsement naming the City, its Boards and Commissions, and their officials, employees, and agents as additional insureds with respect to any auto owned, leased, hired, borrowed or used by the Named Insured, in connection with this Contract.

(b) CANCELLATION endorsement which provides that the City is entitled to 30 days prior written notice of cancellation or nonrenewal of the policy, or reduction in coverage, by certified mail, return receipt requested.

(c) CONTRIBUTION NOT REQUIRED endorsement which provides that the insurance afforded by the general liability policy is primary to any insurance or self-insurance of the City, its Boards or Commissions, or their officials, employees, or agents as respects operations of the Named Insured. Any insurance maintained by the City, its Boards or Commissions, or their officials, employees, or agents shall be in excess of the Contractor's insurance and shall not contribute to it.

(d) SEVERABILITY OF INTEREST endorsement, which provides that the Contractor's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(e) ADDITIONAL INSURED COVERAGE NOT AFFECTED BY INSURED'S DUTIES AFTER ACCIDENT OR LOSS endorsement. The policy must be endorsed to provide that any failure to comply with the reporting provisions of the policy shall not affect

coverage to the City, its Boards or Commissions, or their officials, employees, or agents.

7-3.4.4 Workers' compensation and employer's liability insurance endorsements.

(a) CANCELLATION endorsement which provides that the City is entitled to 30 days prior written notice of cancellation or nonrenewal of the policy, or reduction in coverage, by certified mail, return receipt requested.

(b) WAIVER OF SUBROGATION endorsement which provides that the insurer will waive its right of subrogation against the City, its Boards and Commissions, and their officials, employees and agents with respect to any losses paid under the terms of the workers' compensation and employer's liability insurance policy which arise from work performed by the Named Insured for the City.

7-3.5 Self-insured programs, self-insured retentions, deductibles.

7-3.5.1 Approval. Any self-insurance program, self-insured retention, or deductible must be approved separately in writing by the City's Risk Manager or designee and shall protect the City, its Boards and Commissions, and their officials, employees, and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained such self-insurance, self-insured retention, or deductible provisions.

7-3.5.2 Legal Defense. The Contractor is expressly obligated to provide for the legal defense and investigation of any claim against the City as an additional insured and for all costs and expense incidental to such defense or investigation.

7-3.5.3 Certification. The Contractor shall, upon request, complete the City's self-insurance questionnaire and required certification by the Contractor's financial officer.

7-3.6 Subcontractors.

The Contractor shall require that all subcontractors meet the requirements of this Section unless otherwise agreed in writing by the City's Risk Manager or designee.

7-5 PERMITS. *Replace this section with the following:*

The Contractor shall procure all necessary licenses and permits pay the fees and costs associated with obtaining them and give all notices necessary and incidental to the performance of the Work. Comply with PLACs. Maintain a copy of each PLAC at the job site. Submit copies of Contractor-obtained after-award PLACs.

The Contractor shall not start any phase of the Work requiring a permit until that permit has been obtained.

Add the following section:

7-5.2 Caltrans Encroachment Permit.

A Caltrans Encroachment Permit is required for the work which is within State right-of-way along State Route 22. The Contractor shall assist the City in obtaining and complying with the permit.

The City has submitted the initial permit application, a copy of which is included herein. The Contractor shall anticipate the possibility of required ramp closures and implementation of traffic detour routes, as well as restricted work hours, scheduling and access. If the Contractor wishes to submit different traffic control plans from those submitted by the City, the Contractor shall have those plans prepared by a licensed Civil Engineer at its cost.

The City will reimburse the Contractor for direct permit fees upon the Contractor's submittal of a receipt for those fees. Payment for all other costs for compliance with encroachment permit requirements shall be included in the various items of Work, and no additional payment will be made for those costs.

7-6 THE CONTRACTOR'S REPRESENTATIVE

Add the following:

Before starting work, assign a representative to:

1. Receive the Engineer's orders
2. Prosecute the Engineer's orders
3. Supervise the workers
4. Coordinate the subcontractors' work
5. Coordinate and manage project safety work

The representative must be present at the job site while work is in progress. Submit the representative's name and telephone number so the representative can be easily contacted to perform emergency work while work is not in progress.

7-8 WORK SITE MAINTENANCE.

Add the following:

7-8.1 General

Maintain and protect work until the Department has granted relief from maintenance or accepted the Contract.

Do not remove any padlock used to secure a portion of the work until the Engineer is present to replace it. Notify the Engineer at least 3 business days before removing the lock.

Prevent construction equipment that exceeds the maximum weight limits in Veh Code Div 15 from operating on completed or existing treated base, pavement, or structures.

Comply with Caltrans 2024 Standard Specifications Section 13-4," Job Site Management" of for spill prevention and control, material management, waste management, nonstormwater management, and dewatering activities.

Comply with Caltrans 2024 Standard Specifications Section 10-5, “Dust Control".

The Contractor shall include all cleanup costs in its Bid. The City will make no additional payment for this work.

7-8.2 Air Pollution Control. *Add the following:*

Comply with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract, including those provided in Govt Code § 11017 (Pub Cont Code § 10231).

Do not dispose of material by burning.

7-8.3 Noise Control. *Replace this subsection with the following:*

Control and monitor noise resulting from work activities.

Do not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. Noise control is subject to the provisions of Long Beach Municipal Code section 8.80, “Noise.”

7-8.4 Storage of Equipment and Materials. *Add this subsection:*

Comply with with Caltrans 2024 Standard Specifications Sections 13-4.03C Material Management and 13-4.03E Nonstormwater Management.

7-8.6 Water Pollution Control.

Replace this subsection with the following:

Comply with Encroachment Permit Special Provisions "*Stormwater Special Provisions for Minimal or no Impact (SWSP)”* included in Division F.

Explanation of BMPs described in the Encroachment Permit Special Provisions are included in Division G of these Specifications. The Contractor shall have at least two readily accessible copies of these descriptions at the Work site at all times

7-8.6.3 SWPPP. *Add the following subsection:*

A Storm Water Pollution Prevention Plan (SWPPP) is not required for projects where land disturbance is less than one acre.

Add the following subsection:

7-8.8 Vermin Control.

At the time of acceptance, structures entirely constructed under the Contract shall be free of rodents, insects, vermin and pests. The Contractor shall arrange and pay for necessary extermination work as part of the Work within the Contract time. The Contractor shall use the services of a licensed exterminator in accordance with the requirements of the governing authorities. The Contractor shall be liable for injury to persons or property and responsible for the elimination of offensive odors resulting from extermination operations.

Payment for vermin control shall be considered as included in the prices for the various items of Work, and the City will make no additional payment therefor.

Add the following subsection:

7-8.9 Graffiti Removal.

Throughout all phases of construction, including suspension of Work, and until final acceptance of the Work, the Contractor shall keep the Work site free from graffiti, at the Contractor's sole cost. If graffiti appears on the Work site, the Contractor shall cover, repaint, or otherwise remove the graffiti within 24 hours of discovery. If the Contractor fails to do so, the City may take steps to remove the graffiti and the City's cost in doing so shall be deducted from the Contract Price.

Payment for graffiti removal shall be considered as included in the prices for the various items of Work, and the City will make no additional payment therefor.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.

Replace with the following subsections:

7-9.1 Property And Facility Preservation

Preserve and protect:

1. Highway improvements and facilities
2. Adjacent property
3. Waterways
4. ESAs
5. Lands administered by other agencies
6. Railroads and railroad equipment
7. Nonhighway facilities, including utilities
8. Survey monuments
9. Department's instrumentation
10. Temporary work
11. Roadside vegetation not to be removed

Comply with Govt Code § 4216 et seq. Notify the Engineer at least 3 business days before you contact the regional notification center. Failure to contact the notification center prohibits excavation.

Immediately report damage to the Engineer.

If you cause damage, you are responsible.

The Department may make a temporary repair to restore service to a damaged facility.

Install suitable safeguards to preserve and protect facilities from damage.

Install temporary facilities, such as sheet piling, cribbing, bulkheads, shores, or other supports, necessary to support existing facilities or to support material carrying the facilities.

7-9.2 Landscape

If you damage plants not to be removed:

1. Dispose of them unless the Engineer authorizes you to reduce them to chips and spread the chips within the highway at locations designated by the Engineer
2. Replace them

Replace plants with plants of the same species. Replace trees with 24-inch-box trees.

Replace shrubs with no. 15-container shrubs.

Replace ground cover plants with plants from flats. Replace *Carpobrotus* ground cover plants with plants from cuttings. Plant ground cover plants 1 foot on center.

If a plant establishment or permanent erosion control establishment period is specified, replace plants before the start of the plant establishment or permanent erosion control establishment period; otherwise, replace plants at least 30 days before Contract acceptance.

Water each plant immediately after planting. Saturate the backfill soil around and below the roots or the ball of earth around the roots of each plant. Water as necessary to maintain plants in a healthy condition until Contract acceptance.

7-9.3 Irrigation Facilities

Keep existing irrigation facilities in place that are described to be removed, relocated, or modified until the Engineer determines they are no longer needed.

Maintain the existing water supply. If the existing water supply is interrupted for more than 3 consecutive days, provide an alternative water supply. Water the existing plants in the area irrigated from that water supply, including those maintained by the Department, as necessary to maintain healthy plant growth.

If you and the Department irrigate existing plants from the same water supply, furnish enough water to the Department for watering plantings on and off the highway as necessary to maintain a healthy condition through Contract acceptance.

If you damage irrigation facilities not to be removed:

1. Remove and dispose of them.
2. Repair and replace damaged facilities within 10 days.
3. Use similar commercial-quality components from the same manufacturer or components that are compatible with the existing irrigation system if authorized.
4. After completing the repair or replacement of the facilities, perform an operational test in the presence of the Engineer. If you repair or replace the remote control valves, conduct the test with the irrigation controller in the automatic mode.

Notify the Engineer:

1. At least 4 business days before shutting off the water supply to any portion of the existing irrigation system

2. Immediately after restoring the water supply to any portion of the existing irrigation system

7-10 SAFETY.

7-10.3 Haul Routes. *Replace this with the following:*

Haul routes shall be determined by the Contractor and approved by the Engineer.

7-10.4 Safety. *Add the following:*

At Contractor's sole expense, the Contractor shall take such precautions as are necessary to protect workers engaged in the performance of the Work and prevent accidents or injury to workers and others. The Contractor shall comply with all safety orders of the Division of Industrial Safety of the State of California as well as applicable Federal regulations insofar as they pertain to the Contractor's operations. If any unusual or hazardous condition exists by reason of the Work or if any unusual or hazardous condition arises out of the performance of the Work, or if a condition involving a peculiar risk of bodily harm to workers or others arises, then the Contractor shall take all precautions necessary to protect workers and others.

7-10.6 Construction Area Information Sign and Community Outreach.

The Contractor shall furnish and install construction area information signs per the Standard Plans. The type of work, estimated date of completion, and contact telephone number shall be attached to each sign by aluminum overlay plates as shown on the Standard Plans. The Contractor shall post the signs along each street under construction, one at each end of construction and one at each side street entering each street under construction. The Contractor shall also post the signs along streets where traffic controls will impose traffic disruptions or delays or as shown on the Plans. The Contractor shall post the signs whenever traffic controls will be in place for two weeks or longer.

When traffic controls have been removed, The Contractor shall deliver the signs to a site specified by the Engineer.

The Contractor shall give one-week advance notice prior to the start of construction to all residences and businesses facing or siding on the construction area. The notice shall be in writing on the Contractor's letterhead and shall explain in concise terms the extent and nature of the Work, the anticipated schedule, and office and emergency telephone numbers where the Contractor's representative can be reached. The notice must be reviewed and approved by the City representative before it's released.

The Contractor shall be responsible for installing one project construction sign. The graphic will be provided by the City which shows an image of the project and other detail information. The project image sign size shall be 4 feet in height and 8 feet wide imaged on white aluminum metal or similar, weather- and graffiti-resistant material. The sign shall have graffiti resistant coating. The project sign shall be attached to posts where the bottom of the sign is 7 feet from the ground. The Contractor is responsible to ensure the project sign does not interfere with operations and must seek City approval for location.

7-10.6.1 Temporary Security/Construction Fence. *Add the following to this subsection:*

The Contractor shall install temporary Project site security/construction fence(s) indicated on Drawings or as required for safety and as specified herein. New or used material may be furnished. Security of Project site and contents is a continuous obligation of Contractor.

Unless otherwise indicated or specified, security fence shall be constructed of 6-foot high chain link fencing with a 6-foot high windscreen that is stable through inclement weather conditions. Space posts not to exceed 10 feet on centers. Posts shall be of following nominal pipe dimensions: terminal, corner, and gatepost 2 ½-inch, line posts 2-inch. Chain link fence shall be not less than #13 gauge, 2-inch mesh, and in one width. Posts, fence, and accessories shall be galvanized and as follows:

a) Shall be set in the earth a depth of 24-inch with soil firmly compacted around post, unless required otherwise in writing by Construction Manager.
b) Fence fabric shall be attached to posts with #14 gauge tie wire at 16 inches on center. A #6 gauge steel tension wire with turnbuckles shall be installed at top and bottom of barricade fencing. Wire tie fabric to tension wires at 18" centers.
c) Windscreen/Graphic Fence Wrap shall be attached to fence fabric and steel tension wires at 18-inch centers with a minimum of #14 gauge tie wire. Windscreen shall be maintained and all rips, tears, missing sections shall be corrected upon notification by the Construction Manager. Refer to section 7-10.6.2 for the “Graphic Fence Wrap” guidelines.
d) Chain link fencing shall be free from barbs, icicles or other projections resulting from galvanizing process. Fence having such defects will be replaced even if it has been installed.
e) Gates shall be fabricated of steel pipe with welded corners, and bracing as required. Fence and fabric to be attached to frame at 12-inch centers. Provide all gate hardware of a strength and quality to perform satisfactorily until barricade is removed upon Substantial Completion of the Work. Each gate shall have a chain and padlock. Provide two gate keys to the Owner’s Authorized Representative (OAR). At Substantial Completion of the Work, remove barricade from Project site, backfill and compact fence footing holes. Existing surface paving that is cut into or removed shall be patched and sealed to match surrounding areas.
f) At Contractor’s expense and without limitation remove or relocate fencing, fabric and barricades or other security and protection facilities as rapidly as required in order to provide for progress of the Work.

7-10.6.2 Graphic Fence Wrap for Temporary Security/Construction Fence

a) **Purpose**, This guideline outlines requirements for temporary fencing on public construction projects. To minimize the visual impacts of construction activity, the standards contained herein are being implemented to ensure that fencing is aesthetically pleasing and enhances the surrounding environment as well as provide a level of consistency across the City.
b) **Scope**, This fencing guideline is applicable to this Project. Prior to the start of any on-site/offsite construction, the Contractor shall submit a construction plan for

pedestrian protection, construction area perimeter fencing with custom-printed screen(s), street lane closures, construction staging, shoring excavations, and the routing of construction vehicles (excavation hauling, concrete, and other deliveries, etc.). General Contractor shall install FenceScreen.com Custom Printed Flex Mesh screen(s), Series 411 – 100% blockage, or equivalent, fence screening along the perimeter of the development site during construction of the on-site improvements until final inspection by the City. The graphics shall depict positive images of the City or other artistic concepts. Prior to submitting the graphic design for printing, the Contractor shall consult with PW to review and approve.

The Contractor shall maintain a temporary chain link fence around the project site and all construction related staging and other areas at all times throughout the duration of the construction. The fence shall be a minimum of 6-feet high with a new, high quality windscreen fabric covered with graphics to screen construction activities from the public. Contractor to assume 50% of one side of the windscreen will be printed with color graphics. Graphics to be supplied by the City but the layout and panel graphic size is entirely the contractor responsibility for coordination of layout. Gates for the temporary fencing shall be maintained closed and locked at all times during non-working hours to prevent unauthorized access to the construction area and to open excavations. The Contractor shall submit details of the temporary fencing and fabric mesh (assume at least 100% blockage) for review and approval, including footing or support details demonstrating that the fence has adequate lateral support for all anticipated loads. At the conclusion of the construction activities, the windscreen shall be delivered to the City or disposed of at contractors cost.

c) Requirements:

- 50% of fenced area must contain City images. The remaining 50% must be a new blue windscreen with no rips, tears, etc.
- Thumbnails of the city images will be given to the contractor. The contractor is responsible for working with a vendor to layout the graphics. The graphics must cover the fence from top to bottom. The graphic images shall not be cut in half, but the graphic images should be continuous to each panel of fence. The order and sequence of relevant images will be reviewed by the City for application at this site.
- The total square footage of fenced area shall be calculated by multiplying the height of the fence by the length of perimeter fencing.

d) Submittals: The following items shall be submitted to PW for review and approval:

- Plan drawing highlighting the perimeter fencing to be installed.
- Color elevation depicting the images to be installed.
- Breakdown of the total image areas per the categories outlined above within the “Requirements” section.
- No deviations will be allowed.

All submittal items shall be packaged together and submitted for approval prior to fabrication and installations.

e) Maintenance and Replacement, All fencing and color graphic screening must

be maintained in good condition. Damaged fencing must be replaced within 48 hours and faded or torn graphics must be replaced in one week at the Contractor's cost.

Payment for the construction area information signs and fencing shall be considered as included in *the bid* and no additional payment will be made.

7-11 AERIALLY DEPOSITED LEAD

Add the following subsections:

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Replace Section 7-1.02K(6)(j)(iii) with:

7-1.02K(6)(j)(iii) public safety Material Containing Lead

Section 7-1.02K(6)(j)(iii) includes specifications for handling, removing, and disposing of unregulated earth material containing lead. Management of this material exposes workers to health hazards that must be addressed in your lead compliance plan. This material contains average lead concentrations below 80 mg/kg total lead and below 5 mg/L soluble lead and is not regulated by DTSC as a hazardous substance or a hazardous waste. This material does not require disposal at a permitted landfill or solid waste disposal facility. The RWQCB has jurisdiction over reuse of this material at locations outside the job site limits.

Manage regulated earth material containing lead under sections 14-11.09.

Unregulated earth material containing lead may be present on the job site at the following locations:

Location	Element of work	
Sht U-1 Excavation Location	trenching for electrical conduit installation	

Unregulated earth material containing lead has been detected within 600 feet of the job site. East of the Los Cerritos Channel levels of lead found range from 4.32 to 236 mg/kg total lead as analyzed by EPA test method 6010 or EPA test method 7000 series and based upon a 95 percent upper confidence limit. The excavation location is on property owned City of Long Beach and is more than 50 feet away from the EB SR-22 edge of shoulder. Levels of lead at the excavation location are expected to be within the threshold for unregulated earth material containing lead.

Handle the material under all applicable laws, rules, and regulations, including those of the following agencies:

1. Cal/OSHA

2. CA RWQCB, Region 4 Los Angeles

If unregulated material is disposed of:
1. Submit at least 15 days before disposal, the form titled "Agreement between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-related Material Suitable for Use on Residential Zoned Property" which discloses the lead concentration of the material to the receiving property owner and obtains authorization for disposal on the property. Give a copy of the signed form to the property owner.
2. You are responsible for any additional sampling and analysis required by the receiving property owner.

If you choose to dispose of unregulated material at a commercial landfill:
1. Transport it to a Class III or Class II landfill appropriately permitted to receive the material
2. You are responsible for identifying the appropriately permitted landfill to receive the material and for all associated trucking and disposal costs, including any additional sampling and analysis required by the receiving landfill

7-13 LAWS TO BE OBSERVED.

Add the following subsections:

7-13.1 General

Comply with laws, regulations, orders, and decrees applicable to the project. Indemnify and defend the State against any claim or liability arising from the violation of a law, regulation, order, or decree by you or your employees. Immediately report to the Engineer a discrepancy or inconsistency between the Contract and a law, regulation, order, or decree.

If the Department incurs any fines or penalties because of your failure to comply with a law, regulation, order, or decree, the Department deducts the amount of the fine or penalty.

Immediately notify the Engineer if a regulatory agency requests access to the job site or to records. Submit a list of documents provided to the agency and issued enforcement actions.

7-13.2 US Fair Labor Standards Act

Comply with 29 USC § 201 et seq.

7-13.3 Emissions Reduction

Submit to the Department the following certification before performing the work:

I am aware of the emissions reduction regulations being mandated by the California Air Resources Board. I will comply with such regulations before commencing the

performance of the work and maintain compliance throughout the duration of this Contract.

Contract signing constitutes submittal of this certification.

7-13.4 Nondiscrimination

Under 2 CA Code of Regs § 11105:

1. During the performance of this contract, the recipient, contractor, and its subcontractors shall not deny the contract's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination.
2. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12900 et seq.), the regulations promulgated thereunder (Cal. Code Regs., tit. 2, § 11000 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Gov. Code, §§ 11135-11139.5), and the regulations or standards adopted by the awarding state agency to implement such article.

3. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the awarding state agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, and

all other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause.

4. Recipient, contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
5. The contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

Under 2 CA Code of Regs § 11122:

STANDARD CALIFORNIA NONDISCRIMINATION CONSTRUCTION CONTRACT SPECIFICATIONS (GOV. CODE SECTION 12990)

These specifications are applicable to all state contractors and subcontractors having a construction contract or subcontract of $5,000 or more.

1. As used in the specifications:
   a. "Act" means the Fair Employment and Housing Act.
   b. "Administrator" means Administrator, Office of Compliance Programs, California Department of Fair Employment and Housing, or any person to whom the

Administrator delegates authority;

2. Whenever the contractor or any subcontractor subcontracts a portion of the work, it shall include in each subcontract of $5,000 or more the nondiscrimination clause in this contract directly or through incorporation by reference. Any subcontract for work involving a construction trade shall also include the Standard California Construction Contract Specifications, either directly or through incorporation by reference.
3. The contractor shall implement the specific nondiscrimination standards provided in paragraphs 6(a) through (e) of these specifications.
4. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer members of any group protected by the Act shall excuse the contractor's obligations under these specifications, Government Code section 12990, or the regulations promulgated pursuant thereto.5. In order for the nonworking training hours of apprentices and trainees to be counted, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor or the California Department of Industrial Relations.
5. In order for the nonworking training hours of apprentices and trainees to be counted, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor or the California Department of Industrial Relations.
6. The contractor shall take specific actions to implement its nondiscrimination program. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor must be able to demonstrate fully its efforts under steps a. through e. below:
    a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and at all facilities at which the contractor's employees are assigned to work. The contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the contractor's obligations to maintain such a working environment.
    b. Provide written notification within seven days to the director of the DFEH when the referral process of the union or unions with which the contractor has a collective bargaining agreement has impeded the contractor's efforts to meet its obligations.
    c. Disseminate the contractor's equal employment opportunity policy by providing notice of the policy to unions and training, recruitment and outreach programs and requesting their cooperation in assisting the contractor to meet its obligations; and by posting the company policy on bulletin boards accessible to all employees at each location where construction work is performed.
    d. Ensure all personnel making management and employment decisions regarding hiring, assignment, layoff, termination, conditions of work, training, rates of pay

or other employment decisions, including all supervisory personnel, superintendents, general foremen, on-site foremen, etc., are aware of the contractor's equal employment opportunity policy and obligations, and discharge their responsibilities accordingly.

e. Ensure that seniority practices, job classifications, work assignments, and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the equal employment opportunity policy and the contractor's obligations under these specifications are being carried out.

7. Contractors are encouraged to participate in voluntary associations that assist in fulfilling their equal employment opportunity obligations. The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on equal employment opportunity in the industry, ensures that the concrete benefits of the program are reflected in the contractor's workforce participation, and can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's.
8. The contractor is required to provide equal employment opportunity for all persons. Consequently, the contractor may be in violation of the Fair Employment and Housing Act (Government Code section 12990 et seq.) if a particular group is employed in a substantially disparate manner.
9. The contractor shall not use the nondiscrimination standards to discriminate against any person because race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status.
10. The contractor shall not enter into any subcontract with any person or firm decertified from state contracts pursuant to Government Code section 12990.
11. The contractor shall carry out such sanctions and penalties for violation of these specifications and the nondiscrimination clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Government Code section 12990 and its implementing regulations by the awarding agency. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Government Code section 12990.
12. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company equal employment opportunity policy is being carried out, to submit reports relating to the provisions hereof as may be required by OCP and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, status, (e.g., mechanic, apprentice trainee, helper,

or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in any easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

7-13.5 Occupational Safety and Health Standards

7-13.5.1 General

Submit copies of your Injury and Illness Prevention Program, Code of Safe Practices, and permits required by Cal/OSHA as informational submittals.

You must contact the local public health service department for information concerning public health conditions within the area of the project.

You are the controlling employer and must ensure hazardous conditions are corrected (Labor Code § 6400).

The Engineer may notify Cal/OSHA if you fail to establish or maintain a safe and healthful workplace.

Submit copies of your Injury and Illness Prevention Program, Code of Safe Practices, and permits required by Cal/OSHA as informational submittals. The program must address the use of personal and company-issued electronic devices during work. Do not allow the use of entertainment and personal communication devices in the work zone. Workers may use a communication device for business purposes in the work area, at a location where their safety and the safety of other workers and the traveling public is not compromised.

The Department is not responsible for the health and safety of:

1. Contractor's personnel
2. Subcontractor's personnel
3. Supplier's personnel
4. Any other persons present at the job site at the request of you or your subcontractors.

7-13.5.2 Excavation Safety

Comply with Labor Code § 6705 while excavating. For an excavation 5 feet or more in depth, submit shop drawings for a protective system.

The drawings must show the design and details for providing worker protection from caving ground during excavation.

Shop drawings of protective systems for which the Construction Safety Orders require design by a registered professional engineer must be sealed and signed by an engineer who is registered as a civil engineer in the State.

The submittal must allow review time and include the contents shown in the following table except the review time is 65 days for an excavation on or affecting railroad property:

Drawing Review Time and Contents

Topic	Plan not requiring a signature	Plan requiring a signature
Review time	5 business days before excavating	20 days before excavating
Contents	Drawings Calculations Material information Proprietary system information	Drawings Calculations Material information Proprietary system information Soil classification Soil properties Soil design calculations

7-13.5.3 Lead Safety

7-13.5.3.1 Lead Compliance Plan

This subsection applies if a bid item for a lead compliance plan is shown on the Bid Item List.

Regulations containing specific Cal/OSHA requirements when working with lead include 8 CA Code of Regs § 1532.1.

Submit a plan:

1. That documents your compliance program to prevent or minimize worker exposure to lead
2. Including the items listed in 8 CA Code of Regs § 1532.1(e)(2)(B)
3. Sealed and signed by a CIH with knowledge of and experience complying with 8 CA Code of Regs

Allow 7 days for review. Obtain authorization for the plan before starting any activity that presents the potential for lead exposure.

Before starting any activity that presents the potential for lead exposure to employees who have no prior training, including State employees, provide a safety training program to these employees that complies with 8 CA Code of Regs § 1532.1 and your lead compliance plan.

Submit copies of air monitoring or job site inspection reports made by or under the direction of the CIH under 8 CA Code of Regs § 1532.1 within 10 days after the date of monitoring or inspection.

Supply personal protective equipment, training, and washing facilities required by your lead compliance plan for 5 State employees.

7-13.6 Fire Protection

Submit the names and emergency telephone numbers of the nearest fire suppression agencies before the start of job site activities as an informational submittal. Post the names and phone numbers at a prominent place at the job site.

Submit a copy of your fire prevention plan required by Cal/OSHA as an informational submittal before the start of job site activities.

Cooperate with fire prevention authorities in performance of the work.

Immediately report fires occurring within and near the project limits by dialing 911 and to the nearest fire suppression agency by using the emergency phone numbers retained at the job site.

Prevent project personnel from setting open fires that are not part of the work.

Prevent the escape of and extinguish fires caused directly or indirectly by job site activities.

7-13.8 Vehicle Code

Under Veh Code § 591, the Department determines areas within the project limits are open to public traffic. For those areas, comply with the requirements set forth in Divisions 11, 12, 13, 14 and 15 of the Veh Code.

Veh Code § 591 does not relieve you or any other person from the duty of exercising due care.

Add the following section:

7-15 TAXES.

Bidders shall make no mention in the Bid of sales tax, use tax, or any other tax, as all amounts bid will be deemed to include all taxes.

The Contractor shall pay all sales, consumer, use, and other taxes required to be paid in accordance with the laws and regulations of the place of the Work that are applicable during the performance of the Work. The City is not exempt from sales tax.

The Contractor shall cooperate with the City to the full extent possible to maximize the local allocation of California sales and use tax to the City. Such cooperation shall include but not be limited to:

(a) Use Tax Direct Payment Permits. The Contractor shall apply for, obtain and utilize, to the maximum extent reasonable, a California Use Tax Direct Payment Permit. The application for such permit is available from (and a copy of each quarterly tax return shall be sent to):

City Controller
City of Long Beach
411 W. Ocean Boulevard, 6th Floor

Long Beach, CA 90802

(b) Purchases of $500,000 or More. The Contractor shall require vendors and suppliers located outside California from whom the Contractor makes purchase of $500,000 or more to allocate the use tax to the City.

Additional information regarding use tax and the Permit can be found in the State of California Board of Equalization, Sales and Use Tax Regulations, Regulation 1699.6, Use Tax Direct Payment Permits, or on the web site for the Board of Equalization at http://www.boe.ca.gov/sutax/sutprograms.htm.

Add the following section:

7-16 INDEMNIFICATION.

7-16.1 General.

The Contractor shall indemnify, hold harmless, and protect City, its Boards, Commissions, and their officials, employees and agents ("Indemnified Parties") from and against any and all demands, liability, loss, suit, claim, action, cause of action, damage, cost, judgment, settlement, decree, arbitration award, stop notice, penalty, loss of revenue, and expense (including, but not limited to, any fees of accountants, attorneys, experts or other professionals, and costs of investigation, mediation, arbitration, litigation and appeal), in law or in equity, of every kind and nature whatsoever, arising out of or in connection with, resulting from or related to, or claimed to be arising from the Contract or the Work performed by Contractor, or any of its officers, agents, employees, subcontractors of any tier, material suppliers, or any person for whose acts any of them may be liable, regardless of whether such claim, suit or demand is caused, or alleged to be caused, in part, by an Indemnified Party including, but not limited to, liability arising from:

a) Bodily or personal injury, emotional injury, sickness or disease, or death to any persons;

b) Damage to property, including property under the care and custody of City;

c) Civil fines or penalties;

d) Any dangerous, hazardous, unsafe or defective condition of, in or on the Work site, of any nature whatsoever, which may exist by reason of any act, omission, neglect, or any use or occupation of the Work site by Contractor, its officers, agents, employees or subcontractors;

e) Any operation conducted upon or any use or occupation of the Work site by Contractor, its officers, agents, employees, or subcontractors under or pursuant to the provisions of the Contract or otherwise;

f) Any act, omission or negligence of Contractor, its officers, agents, employees, or subcontractors;

g) Infringement of any patent rights, licenses, copyrights or intellectual property which may be brought against the Contractor or City arising out of Contractor's Work, for which the Contractor is responsible;

h) Any and all claims against City seeking compensation for labor performed or materials used or furnished to be used in the Work or alleged to have been furnished, including all incidental or consequential damages resulting to City from such claims;

i) Failure to comply with any applicable law, statute, code, ordinance, regulation, permit, or orders, including, without limitation, all applicable federal and state labor standards, including the prevailing wage provisions of sections 1770 *et seq.* of the California Labor Code;

j) Any misrepresentation, misstatement or omission with respect to any statement made in or any document furnished by the Contractor in connection therewith;

k) Any breach of any duty, obligation, or requirement under the Contract Documents.

All of the above are collectively hereafter referred to as "Claims" and individually as a "Claim".

7-16.2 Defense of Claims, Enforcement and Restrictions.

a) In addition to Contractor's duty to indemnify, Contractor shall have a separate and wholly independent duty to defend Indemnified Parties against all Claims. If any Claim is alleged or brought against Indemnified Parties, Contractor shall defend Indemnified Parties at Contractor's expense by legal counsel approved by City and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Contractor shall be required for the duty to defend to arise. City shall notify Contractor of any Claim, shall tender the defense of the Claim to Contractor, and shall assist Contractor, as may be reasonably requested, in the defense.

b) Contractor's obligations under this Section 7-16 shall apply regardless of whether or not such Claim was caused in part or contributed to by any actual or alleged negligent act or omissions of an Indemnified Party.

c) If a court of competent jurisdiction determines that a Claim was caused by the active negligence, sole negligence or willful misconduct of Indemnified Parties, Contractor's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of active negligence and/or willful misconduct attributed by the court to the Indemnified Parties.

d) If this Contract includes work or services performed by a design professional, such as an architect, landscape architect, professional engineer or professional land surveyor, subject to California Civil Code Section 2782.8, Contractor shall defend and indemnify Indemnified Parties against design-related Claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Contractor or a subcontractor.

e) Contractor agrees to obtain executed indemnity agreements with provisions identical to those set forth in this section from each and every subcontractor in performance of the Contract.

f) Failure of City to monitor compliance with these requirements imposes no

additional obligations on City and will in no way act as a waiver of any rights hereunder. In the event of any claim, suit or demand made against any Indemnified Parties, the City may in its sole discretion reserve, retain, or apply any monies due to the Contractor under the Contract for the purpose of resolving such claims; provided, however, that the City may release such funds if the Contractor provides the City with reasonable assurance of protection of the City's interests. The City shall in its sole discretion determine whether such assurances are reasonable. Contractor's obligations under this Section 7-16 extend to claims occurring after termination of the Contractor's performance of the Contract or final payment to the Contractor.

7-16.3 No Limitations.

Contractor's obligations under this Section 7-16 are in addition to any other rights or remedies which the Indemnified Parties may have under the law or under the Contract Documents. Contractor's indemnification and defense obligations set forth in this Section 7-16: (i) are separate and independent from the insurance provisions set forth above; and (ii) do not limit, in any way, the applicability, scope, or obligations set forth in the insurance provisions. In claims, suits, or demands against any Indemnified Party by an employee of the Contractor, a subcontractor, anyone directly or indirectly, employed by them, or anyone for whose acts they may be liable, the Contractor's indemnification and defense obligations shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

Add the following section:

7-17 PUBLIC CONVENIENCE.

Compliance with section 7-1.03 does not relieve you of your responsibility for public safety.

Construction activities must not inconvenience the public or abutting property owners. Schedule and conduct work to avoid unnecessary inconvenience to the public and abutting property owners. Avoid undue delay in construction activities to reduce the public's exposure to construction.

Where possible, route traffic on new or existing paved surfaces.

Install signs, lights, flares, temporary barrier system, barricades and other facilities to direct traffic. Provide flaggers whenever necessary to direct the movement of the public through or around the work. Flagging must comply with section Caltrans 2023 Standard Specifications Section12-1. When not described and if ordered, providing flaggers is change order work.

You are required to pay for the cost of replacing or repairing all facilities installed under change order work for the convenience, direction, or warning of the public that are lost while in your custody or are damaged by your operations to such an extent as to require replacement or repair.

Add the following section:

7-18 PUBLIC SAFETY

You are responsible to provide for public safety.

Do not construct a temporary facility that interferes with the safe passage of traffic. Control dust resulting from the work, inside and outside the right-of-way.
Move workers, equipment, and materials without endangering traffic.

Whenever your activities create a condition hazardous to the public, furnish, erect and maintain those fences, temporary barrier system, barricades, lights, signs, and other devices and take any other necessary protective measures to prevent damage or injury to the public.

Any fences, temporary railing, barricades, lights, signs, or other devices furnished, erected and maintained by you are in addition to those for which payment is provided elsewhere in the specifications.

Provide flaggers whenever necessary to ensure that the public is given safe guidance through the work zone. Flagging must comply with Caltrans 2024 Standard Specifications Section 12-1. Providing flaggers is included in the bid items of work involved.

At locations where traffic is being routed through construction under one-way controls, move your equipment in compliance with the one-way controls unless otherwise ordered.

Use of signs, lights, flags, or other protective devices must comply with the *California MUTCD* and any directions of the Engineer. Signs, lights, flags or other protective devices must not obscure the visibility of, nor conflict in intent, meaning, and function of either existing signs, lights and traffic control devices, or any construction area signs.

Keep existing traffic signals and highway lighting in operation. Other forces within the Department will perform routine maintenance of these facilities during the work.

Cover signs that direct traffic to a closed area. Except for work specified in Caltrans 2024 Standard Specifications Section 12, maintaining, and removing the covers on construction area signs is included in the bid items of work involved.

Install temporary illumination such that the illumination and the illumination equipment do not interfere with public safety. The installation of general roadway illumination does not relieve you from furnishing and maintaining any protective devices.

Equipment must enter and leave the highway via existing ramps and crossovers and must move in the direction of traffic. All movements of workers and construction equipment on or across lanes open to traffic must be performed in a manner that do not endanger the public. Your vehicles or other mobile equipment leaving an open traffic lane to enter the construction area must slow down gradually in advance of the location of the turnoff to give the traffic following an opportunity to slow down. When leaving a work area and entering a roadway carrying traffic, your vehicles and equipment must yield to traffic. Compensation for flaggers, used for all movement of workers and

construction vehicles and equipment on or across lanes open to traffic, is included in the bid items of work involved.

Immediately remove hauling spillage from a roadway lane or shoulder open to traffic. When hauling on roadways, trim loads and remove material from shelf areas to minimize spillage.

Notify the Engineer not less than 25 days and not more than 125 days before the anticipated start of an activity that will change the vertical or horizontal clearance available to traffic, including shoulders.

If vertical clearance is temporarily reduced to 15.5 feet or less, place low clearance warning signs in compliance with the *California MUTCD* and any directions of the Engineer. Signs must comply with the dimensions, color, and legend requirements of the *California MUTCD* and Caltrans 2023 Standard Specifications Section 12-3.11 except that the signs must have black letters and numbers on an orange retroreflective background. W12-2P signs must be illuminated so that the signs are clearly visible.

Pave or provide full width continuous and cleared wood walks for pedestrian openings through falsework. Protect pedestrians from falling objects and concrete-curing water. Extend overhead protection for pedestrians at least 4 feet beyond the edge of the bridge deck. Illuminate all pedestrian openings through falsework. Provide railings, barricades and barriers between temporary pedestrian walkways and construction activities. Temporary pedestrian facilities must comply with the *California MUTCD*, Part 6, Chapter 6D, "Pedestrian and Worker Safety", as well as the current California ADA codes

Do not store vehicles, material, or equipment in a way that:

1. Creates a hazard to the public
2. Obstructs traffic control devices

Do not install or place temporary facilities used to perform the work which interfere with the free and safe passage of traffic.

Temporary facilities that could be a hazard to public safety if improperly designed must comply with design requirements described in the Contract for those facilities or, if none are described, with standard design criteria or codes appropriate for the facility involved. Submit shop drawings and design calculations for the temporary facilities and show the standard design criteria or codes used. Shop drawings and supplemental calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

Contractor shall provide a temporary overhead covering system above the pedestrian path to protect against falling objects. Protection system should account for a continuous overhead protective surface supported by an appropriate framing system consisting of a rigid covering layer capable of shielding pedestrians from falling objects, such as decking or similar protective surfaces. In addition, contractor to provide supplemental netting or screening along exposed edges or work zones to contain smaller debris.

Where construction activities occur above active traffic lanes, the Contractor shall ensure that no falling objects can reach traffic below.

Lane closures, freeway closures may be used to eliminate exposure to overhead hazards. This is acceptable provided all overhead work with risk of falling objects is performed while traffic is not present below. No work involving suspended loads or falling object risk shall occur over open lanes without adequate protection

Where the Contractor proposes to perform work over active traffic lanes and cannot fully rely on closures, the Contractor shall provide a designed containment/protection system that prevents falling objects from reaching the roadway. The Contractor shall submit:

- Engineered shop drawings
- Structural design calculations
- Details demonstrating how the system protects traffic below

The protection system should account for a structural support system located beneath the bridge or work area. This should also include a continuous protective surface or deck capable of intercepting falling objects, including larger components associated with installation activities. Protection system to include framing and protective elements sufficient to protect motorists from both small debris and larger falling items associated with the work. Contractor to coordinate protection approach with traffic control staging and clearly identify in submittals when traffic closures will be used and protective systems are required

If you appear to be neglectful or negligent in furnishing warning devices and taking protective measures, the Engineer may direct your attention to the existence of a hazard. You must furnish and install the necessary warning devices. If the Engineer points out the inadequacy of warning devices and protective measures, that action on the part of the Engineer does not relieve you from your responsibility for public safety or abrogate your obligation to furnish and pay for these devices and measures.

Install temporary barrier system or other authorized protective systems under any of the following conditions:

1. Excavations: Where the near edge of the excavation is within 15 feet from the edge of an open traffic lane
2. Temporarily unprotected permanent obstacles: When the work includes the installation of a fixed obstacle together with a protective system, such as a sign structure together with protective railing, and you elect to install the obstacle before installing the protective system; or you, for your convenience and as authorized, remove a portion of an existing protective railing at an obstacle and do not replace such railing completely the same day
3. Storage areas: When material or equipment is stored within 15 feet of the edge of an open traffic lane and the storage is not otherwise prohibited by the Contract
4. Height differentials: When construction operations create a height differential greater than 0.15 feet within 15 feet of the edge of traffic lane

Installation of temporary barrier system is not required if an excavation within 15 feet from the edge of an open traffic lane is protected by any of the following:

1. Steel plate or concrete covers of adequate thickness to prevent accidental entry by traffic or the public
2. Side slope where the downhill slope is 4:1 (horizontal:vertical) or less unless a naturally occurring condition
3. Barrier or railing

Offset the approach end of temporary barrier system a minimum of 15 feet from the edge of an open traffic lane. Install the temporary barrier system on a skew toward the edge of the traffic lane of not more than 1 foot transversely to 10 feet longitudinally with respect to the edge of the traffic lane. If the 15-foot minimum offset cannot be achieved, the temporary barrier system must be installed on the 10 to 1 skew to obtain the maximum available offset between the approach end of the railing and the edge of the traffic lane, and an array of temporary crash cushion modules must be installed at the approach end of the temporary barrier system.

Secure temporary barrier system in place before starting work for which the temporary barrier system is required.

If a traffic lane is closed with channelizers for excavation work, move the devices to the adjacent edge of the traveled way when not excavating. Space the devices as specified for the closure.

Do not move or temporarily suspend anything over a traffic lane open to the public unless the public is protected.

The City has prepared a bike detour plan exhibit as a guide for Contractor reference. See Appendix A – TTC BIKE LANE DETOUR 7th St. attached to this document.

Contractor shall prepare a full traffic control plan for pedestrian/bike route closure including timelines for implementation during the project and for removal and restoration upon completion of the project. Traffic control plan shall be submitted to the Engineer for approval prior to start of any project work.

Add the following section:

7-19 RESPONSIBILITY TO OTHER ENTITIES

You are responsible for any liability imposed by law and for injuries to or death of any person, including workers and the public, or damage to property. Indemnify and save harmless any county, city or district and its officers and employees connected with the work, within the limits of which county, city, or district the work is being performed, all in the same manner and to the same extent specified for the protection of the State.

Add the following section:
7-20 OTHER

You are responsible to the fullest extent allowed by law, to defend and indemnify the State for any and all injury, illness, disease, or death arising out of or caused by an organism, including but not limited to animals, microscopic bacteria, fungi, plants and the like, to which persons, including but not limited to the public, any employees or agents of yours, the State, or any other contractors that are exposed in connection with the work on the project.

Add the following section:
7-21 UNSHELTERED INDIVIDUALS ENCAMPMENTS

Notify the Engineer at least 10 days prior to needing access to areas in the right of way with encampments that affect performance of the work. The Department will remove encampments including encampment debris.

SECTION 8 – FACILITIES FOR AGENCY PERSONNEL

No Facilities For City Personnel Are Required For This Work.

SECTION 9 – MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK.

9-2.1 Methods of Measurement. *Add the following:*
The Department determines bid item quantities under US customary units.

9-3 PAYMENT.

9-3.1 General. *Add the following:*

The quantities stated herein are only estimates. The Contractor shall furnish whatever quantities are actually needed to complete the Work, whether the quantities are more or less than the estimates, at the unit prices bid. There is no guarantee that the total amount bid will be reached, and it may be exceeded.

The City will make payment in the due course of its payments.

All subsequent sections' costs and costs not specifically listed in itemized bid will be considered incidental and part of all other work listed here within. Said cost will be at the sole cost of the contractor and at no additional cost to the City.

9-3.1.1 Payment Scope *Add the following:*
The Department pays you for furnishing the resources and activities required to complete the work. The Department's payment is full compensation for furnishing the resources and activities, including:

1. Risk, loss, damage repair, or cost of whatever character arising from or relating to the work and performance of the work
2. PLACs and taxes
3. Any royalties and costs arising from patents, trademarks, and copyrights involved in the work

The Department does not pay for your loss, damage, repair, or extra costs of whatever character arising from or relating to the work that is a direct or indirect result of your choice of construction methods, materials, equipment, or labor, unless specifically mandated by the Contract.

Payment is:

1. Full compensation for all work involved in each bid item shown on the Bid Item List by the unit of measure shown for that bid item
2. For the price bid for each bid item shown on the Bid Item List or as changed by change order with a specified price adjustment

Full compensation for work specified in Caltrans Standard Specifications divisions I, II, and XI is included in the payment for the bid items involved unless:

1. Bid item for the work is shown on the Bid Item List
2. Work is specified as change order work

Work paid for under one bid item is not paid for under any other bid item.

Payment for a bid item includes payment for work in sections referenced by the section set forth by that bid item.

If an alternative is described in the Contract, the Department pays based on the bid items for the details and specifications not described as an alternative unless the bid item is described as an alternative, in which case, the Department pays based on the details and specifications for that alternative.

Unless an object or activity is specified to be less than the total, the quantity or amount is all of the object or activity.

All items in a list apply unless the items are specified as choices.

Bid Items and Caltrans 2024 Standard Specifications Applicable Sections

Item code	Item description	Applicable section
510501A	MINOR CONCRETE (NONSHRINK GROUT)	51
600002A	GRAFFITI REMOVAL	60
770300A	LIGHTING SYSTEM (CITY)	77
770200A	MODIFYING ELECTRICAL SYSTEMS (CITY)	77
780401A	COMMUNITY IDENTIFICATION (PANELS)	78
780402A	COMMUNITY IDENTIFICATION (LETTERS)	78
780436A	PREPARE AND PAINT CONCRETE BRIDGE PIER	78

9-3.2 Partial and Final Payment. *Replace the third paragraph with the following:*

From each progress payment, 5 percent will be deducted and retained by the City. The City will withhold up to 5 percent of the total Contract amount until acceptance of the Work.

Add the following:

The City reserves the right to delay partial and final payments until the Contractor submits documentation required in these Specifications, including Labor Compliance documentation (see Subsection 7-2.2) and construction schedule updates (see Section 6-1).

9-3.4 Mobilization. *Replace the entire subsection with the following:*

Mobilization shall consist of preparatory work and operations for the street improvement, including, but not limited to, those necessary for the movement of personnel, equipment, materials, and incidentals to the project site necessary for work on the project, coordination with utility companies, and for all other work and operations which must be performed or costs incurred including bonds, riders, insurance and financing prior to beginning work on the various contract items, and for obtaining all business licenses and permits as required for entire project, from all related agencies including, but not limited to, Caltrans, utility companies, and the City. Mobilization shall also include the time, materials, and labor to move the necessary construction equipment to and from the job site, supervisory time on the job by the Contractor's personnel to keep the construction site in a safe condition, installing construction water supply per agency requirements, posting all OSHA and labor compliance notices and posters at the job site and all other related work as required at all times and for all non-working days during construction period. The Contractor is responsible for securing an adequate storage site for equipment and materials.

Demobilization, including removal of all contractor equipment, field offices, laboratories, restoration of the area used for the Contractor’s yard and access, removal of temporary roads, striping, markings, and signage and submittal of record drawings shall be included in this item.

Add the following:

9-3.4.1 Payment

Payment for **Mobilization (Not to Exceed 5% of Total Bid Price)** shall include all related administration for the entire contract period and will be made based on a split such that 75 percent of the lump sum price bid is considered mobilization and 25 percent is considered demobilization. The lump sum price bid for Mobilization shall not exceed five(5) percent of the total bid price. Exceedance of the five-percent limitation may render the bid non-responsive. When Contract Items are altered as provided in the General Provisions, no additional mobilization or demobilization costs will be allowed.

DIVISION I

TECHNICAL REQUIREMENTS

SPECIAL PROVISIONS

FOR CONSTRUCTION ON STATE HIGHWAY
IN LOS ANGELES COUNTY
IN LONG BEACH
AT PALO VERDE AVENUE PEDESTRIAN OVERCROSSING
In District 07 On Route 22

Under

Standard Specifications **dated 2025**

Standard Plans **dated 2025**

Identified by

City of Long Beach Community ID Gateway Signature Sign
07-LA-22
PM 1.08 / PM 1.08

City of Long Beach Community ID
Palo Verde Ave POC Gateway Sign

The special provisions contained herein have been prepared by or under the direction of the following Registered Persons.

GENERAL AND INCIDENTAL CONSTRUCTION



Georgia Medina — 3/10/2026
REGISTERED CIVIL ENGINEER — DATE

TEMPORARY TRAFFIC CONTROL



3/10/2026
REGISTERED CIVIL ENGINEER — DATE

STRUCTURES



3/10/2026
REGISTERED CIVIL ENGINEER — DATE

ELECTRICAL



3/10/2026
REGISTERED ELECTRICAL ENGINEER — DATE

DIVISION I
TECHNICAL REQUIREMENTS

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STANDARD PLANS LIST

The standard plan sheets applicable to this Contract include those listed below. When applicable, revised standard plans (RSPs) listed below are included in the project plans.

	ABBREVIATIONS, LINES, SYMBOLS, AND LEGEND
A3A	**Abbreviations (Sheet 1 of 3)**
A3B	**Abbreviations (Sheet 2 of 3)**
A3C	**Abbreviations (Sheet 3 of 3)**
A10A	**Legend - Lines and Symbols (Sheet 1 of 5)**
A10B	**Legend - Lines and Symbols (Sheet 2 of 5)**
A10C	**Legend - Lines and Symbols (Sheet 3 of 5)**
A10D	**Legend - Lines and Symbols (Sheet 4 of 5)**
A10E	**Legend - Lines and Symbols (Sheet 5 of 5)**
	TEMPORARY CRASH CUSHIONS, RAILING AND TRAFFIC SCREEN
T1A	**Temporary Crash Cushion - Sand Filled (Unidirectional)**
T1A1	**Temporary Crash Cushion - Sand Filled (Unidirectional)**
T1B	**Temporary Crash Cushion - Sand Filled (Bidirectional)**
T2	**Temporary Crash Cushion - Sand Filled (Shoulder Installations)**
T3A	**Temporary Railing (Type K)**
T3B	**Temporary Railing (Type K)**
T3C	**Temporary Barrier System (Cross Bolt)**
T3D	**Temporary Barrier System (Cross Bolt)**
T3E	**Temporary Barrier System (Cross Bolt)**
T3F	**Temporary Barrier System (Cal F-23)**
T3F2	**Temporary Barrier System (Cal F-23)**
T3G	**Temporary Barrier System (Staking or Anchoring)**
T3G2	**Temporary Barrier System (Staking or Anchoring)**
	TEMPORARY TRAFFIC CONTROL SYSTEMS
T9	**Traffic Control System Tables for Lane and Ramp Closures**
T10	**Traffic Control System for Lane Closure on Freeways and Expressways**
T11	**Traffic Control System for Lane Closure on Multilane Conventional Highways**
T11A	**Traffic Control System for Changeable Lane Closure on Multilane Conventional Highways and Expressways**
T14	**Traffic Control System for Ramp Closure**
T19	**Traffic Control System - Construction Work Zone Speed Limit Reduction on Conventional Highways**
	ROADSIDE SIGNS
RS1	**Roadside Signs - Typical Installation Details No. 1**
RS2	**Roadside Signs - Wood Post - Typical Installation Details No. 2**
RS4	**Roadside Signs - Typical Installation Details No. 4**
	ELECTRICAL SYSTEMS - LEGEND AND ABBREVIATIONS
ES-1A	**Electrical Systems (Legend)**
ES-1B	**Electrical Systems (Legend)**
ES-1C	**Electrical Systems (Legend)**
	ELECTRICAL SYSTEMS - PULL BOX
ES-8A	**Electrical Systems (Non-Traffic Pull Box)**

CANCELED STANDARD PLANS LIST

The standard plan sheets listed below are canceled and not applicable to this contract.

Plan No.	Date Canceled	Plan No.	Date Canceled	Plan No.	Date Canceled

No Canceled Standard Plans

BID ITEM LIST

See Bid Form in Division C of Contract Documents

ORGANIZATION

Special provisions are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*.

Each special provision begins with a revision clause that describes or introduces a revision to the *Standard Specifications*.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

^^

DIVISION I GENERAL PROVISIONS

1 GENERAL

The Caltrans Standard Special Provision (SSP) below is incorporated in the Contract Section noted.

Caltrans SSP	Description	Contract Section
1-1.01	Bid Items and Applicable Sections	Division H, Section 1-1

Add to section 1-1.01:

Bid Items and Applicable Sections

Item code	Item description	Applicable section
510501A	MINOR CONCRETE (NONSHRINK GROUT)	51
600002A	GRAFFITI REMOVAL	60
770300A	LIGHTING SYSTEM (CITY)	77
770200A	MODIFYING ELECTRICAL SYSTEMS (CITY)	77
780401A	COMMUNITY IDENTIFICATION (PANELS)	78
780402A	COMMUNITY IDENTIFICATION (LETTERS)	78
780436A	PREPARE AND PAINT CONCRETE BRIDGE PIER	78

^^

2 BIDDING

The Caltrans Standard Special Provision (SSP) below is incorporated in the Contract Section noted.

Caltrans SSP	Description	Contract Section
2-1.06B	Supplemental Project Information	Division F

Add between the 1st and 2nd paragraphs of section 2-1.06B:

The City makes the following supplemental project information available:

Supplemental Project Information

Means	Description
Included in the *Information Handout*	1. Right of Way Maps 2a. 1981 As-built Drawings (7th St Pedestrian Bridge) 2b. 1995 As-built Drawings (Earthquake Retrofit) 3. Signature Gateway East Concept 4a. Lighting Fixture Specification Sheet 4b. Lighting Fixture Wiring Specification Sheet 5a. Pharos DMX Controller Specification Sheet 5b. Pharos DMX Controller O&M 6. Cradlepoint IBR900 Series Router Specification Sheet 7. Matthews Primer Product Information 8. Matthews Paint Product Information 9. Matthews Clear Product Information 10. Caltrans Encroachment Permit Issued to City 11. Caltrans Encroachment Permit Special Provisions
Available for inspection at: 411 W. Ocean Blvd. Long Beach, CA 90802 Telephone no.: (562)570-5000	Referee Paint Samples

^^

5 CONTROL OF WORK

The Caltrans Standard Special Provision (SSP) below is incorporated in the Contract Section noted.

Caltrans SSP	Description	Contract Section
5-1.326C(2)	Nonhighway Facility Protection	Division H, Section 1-1

Replace section 5-1.36C(2) with:

5-1.36C(2) Nonhighway Facility Protection

The utilities shown in the following table may interfere with the work and must be exposed or protected in place. Make arrangements with the utility owner (1) to conduct or witness all exposures or (2) to request temporary deactivation of the utility.

Utilities to Be Exposed and/or Protected in Place During Construction

Utility	Location
30" Water Line, Long Beach Water District	Between Pier # 10 and Pier #11
1" Lighting Conduit, City Light and Power	Channel View Park Along Sidewalk

Utility information is incomplete. A utility investigation was completed within a 50-foot radius of proposed electrical trench. Locations of electrical trench may be adjusted to mitigate any conflicts with existing utility facilities. Make arrangements with the utility owners to coordinate activities. Do not use power-operated or power-driven excavation or boring equipment within 24 inches horizontally of the exterior surface of any subsurface facilities.

^^

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

The Caltrans Standard Special Provisions (SSPs) below are incorporated in the Contract Section noted.

Caltrans SSP	Description	Contract Section
7-1.02K(6)(e)	Scaffolding	Division H, Section 1-1
7-1.02K(6)(j)(iii)	Unregulated Earth Material Containing Lead	Division H, Section 1-1

Replace section 7-1.02K(6)(e) with:

7-1.02K(6)(e) Scaffolding

7-1.02K(6)(e)(i) General

Section 7-1.02K(6)(e) applies to scaffolding constructed:

1. Over traffic
2. On or suspended from a bridge
3. Within a distance equal to the scaffolding height plus 6 feet from the edge of a traveled way open to traffic

Section 7-1.02K(6)(e) does not apply to scaffolding at sound walls, retaining walls, and buildings.

Submit 6 copies of scaffolding shop drawings and 1 copy of scaffolding calculations.

The shop drawings and calculations must be sealed and signed by:

1. Engineer who is registered as a civil engineer
2. Independent checker who is:
   2.1. Registered as a civil engineer in the State
   2.2. Not employed by the same entity that prepared the drawings or calculations

The shop drawings must include:

1. Descriptions, calculations, and values for loads anticipated during scaffolding erection, use, and removal.
2. Methods and equipment for erecting, moving, and removing scaffolding.
3. Design details, including bolt layouts, welding details, and connections to existing structures.
4. Stress sheets showing summary of computed stresses in the scaffolding and in the connections between the scaffolding and existing structures. The computed stresses must include the effects of erection, movement, and removal of the scaffolding.
5. If manufactured scaffolding is used, include the manufacturer's:
   5.1. Name, address, and telephone number
   5.2. Written design load capacities for the scaffolding

Welding must comply with AWS D1.1 for steel and AWS D1.2 for aluminum.

Replace Section 7-1.02K(6)(j)(iii) with:

7-1.02K(6)(j)(iii) Unregulated Earth Material Containing Lead

Section 7-1.02K(6)(j)(iii) includes specifications for handling, removing, and disposing of unregulated earth material containing lead. Management of this material exposes workers to health hazards that must be addressed in your lead compliance plan. This material contains average lead concentrations below 80 mg/kg total lead and below 5 mg/L soluble lead and is not regulated by DTSC as a hazardous substance or a hazardous waste. This material does not require disposal at a permitted landfill or solid waste disposal facility. The RWQCB has jurisdiction over reuse of this material at locations outside the job site limits.

Manage regulated earth material containing lead under sections 14-11.09.

Unregulated earth material containing lead may be present on the job site at the following locations:

Location	Element of work	
Sheet U-1 Excavation Location	trenching for electrical conduit installation	

Unregulated earth material containing lead has been detectedwithin 600 feet of the job site. East of the Los Cerritos Channel levels of lead found range from 4.32 to 236 mg/kg total lead as analyzed by EPA test method 6010 or EPA test method 7000 series and based upon a 95 percent upper confidence limit. The excavation location is on property owned City of Long Beach and is more than 50 feet away from the EB SR-22 edge of shoulder. Levels of lead at the excavation location are expected to be within the threshold for unregulated earth material containing lead.

Handle the material under all applicable laws, rules, and regulations, including those of the following agencies:

1. Cal/OSHA
2. CA RWQCB, Region 4 Los Angeles

If unregulated material is disposed of:

1. Submit at least 15 days before disposal, the form titled "Agreement between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-related Material Suitable for Use on Residential Zoned Property" which discloses the lead concentration of the material to the receiving property owner and obtains authorization for disposal on the property. Give a copy of the signed form to the property owner.
2. You are responsible for any additional sampling and analysis required by the receiving property owner.

If you choose to dispose of unregulated material at a commercial landfill:

1. Transport it to a Class III or Class II landfill appropriately permitted to receive the material
2. You are responsible for identifying the appropriately permitted landfill to receive the material and for all associated trucking and disposal costs, including any additional sampling and analysis required by the receiving landfill

^^

DIVISION II GENERAL CONSTRUCTION

12 TEMPORARY TRAFFIC CONTROL

Add to the beginning of section 12-3.32C:

Place PCMSs at the locations shown and in advance of the 1st warning sign for each:

1. Stationary lane closure.

   When WB Route 22 is reduced to a single lane:

   Place PCMS on NB Route 405 on the right shoulder, 0.75 mile south of Seal Beach off-ramp with the message: "1 LANE / ONLY ON / WB 22 - EXPECT / DELAYS".

   Place a 2nd PCMS on SB Route 605 on the right shoulder south of Willow St on-ramp with the message: "1 LANE / ONLY ON / WB 22 - EXPECT / DELAYS".

   Place a 3rd PCMS on SB Route 405 on the right shoulder south of Los Coyotes Diagonal UC with the message: "1 LANE / ONLY ON / WB 22 - EXPECT / DELAYS".

When EB Route 22 is reduced to a single lane:

Place 2 PCMS on EB 7th St on the striped median island at 850 feet west of Ximeno Ave and 500 feet west of Santiago Ave with the message: "SINGLE / LANE / ONLY - AT / STUD- / BAKER - EXPECT / DELAYS".

Place a 3rd PCMS on SB Route 1 (PCH) on the striped median island at 500 feet north of Santiago Ave with the message: "SINGLE / LANE / ONLY - ON / EB 7TH / STREET - EXPECT / DELAYS".

Place a 4th PCMS on SB Bellflower Blvd on the striped median island at 450 feet north of E State University Dr with the message: "SINGLE / LANE / ONLY - ON / EB 7TH / STREET - EXPECT / DELAYS".

Place a 5th PCMS on NB Route 1 (PCH) on the striped median island at 1,000 feet south of Channel Dr with the message: "SINGLE / LANE / ONLY - ON / EB 7TH / STREET - EXPECT / DELAYS".

2. WB Route 22 On-ramp from Studebaker. Detour traffic and place PCMS as shown on Motorist Information Sheet MI-1.

3. EB Route 22 full closure.
   Detour traffic and place PCMS as shown on Motorist Information Sheet MI-2.

Add between the 9th and 10th paragraphs of section 12-3.32C:

Start displaying the message on the sign 5 minutes before closing the lane or shoulder or when directed by the Engineer.

Add to section 12-4.02A(2):

special days: Martin Luther King Jr Day and Columbus Day

Add between the 1st and 2nd paragraphs of section 12-4.02A(3)(c):

Submit a contingency plan for each of the following activities:

1. Activity requiring a full roadway closure

Add to the end of the 1st paragraph of section 12-4.02C(1):

except for work shown on the stage construction and traffic handling plans

Add between the 3rd and 4th paragraphs of section 12-4.02C(1):

Except as otherwise shown on chart no. J1, you may close a ramp if the adjacent lane is allowed to be closed as shown on chart no. K1 and K2. If a ramp is closed and a ramp lane requirement chart is not included, detour traffic to the next available ramp downstream of the closed ramp in the direction of travel.

Add to the end of section 12-4.02C(1):

Keep the full width of the ramp traveled way open for use by traffic on designated holidays and special day.

For each 10-minute interval or fraction thereof past the time specified to open the closure, the amount for liquidated damages per interval shown in the table below is deducted. Liquidated damages are limited to 5 percent of the total bid per occurrence. Liquidated damages are not assessed if the Engineer orders the closure to remain in place beyond the scheduled pickup time.

Type of facility	Route	Direction or segment	Period	Liquidated damages/interval
Mainline	22	WESTBOUND	1st half hour 2nd half hour 2nd hour and beyond	$1,000/10 minutes $1,000/10 minutes $1,000/10 minutes
Mainline	22	EASTBOUND	1st half hour 2nd half hour 2nd hour and beyond	$1,000/10 minutes $1,000/10 minutes $1,000/10 minutes

Add to the end of section 12-4.02C(3)(a):

If work vehicles or equipment is parked on the shoulder within 6 feet of a traffic lane of a freeway or expressway, close the shoulder area as shown.

Personal vehicles of your employees must not be parked within the highway.

Replace section 12-4.02C(3)(b) with:

12-4.02C(3)(b) Complete Freeway or Expressway Closure Requirements

You may close Route EB Route 22 between Pepper Tree Lane and Studebaker Rd On-Ramp as shown on chart no L1.

A complete freeway or expressway closure is allowed for the following activities:

1. Cleaning of existing structure over EB Route 22
2. Spot blast cleaning locations over EB Route 22
3. Erection of Community ID Panels over EB Route 22
4. Installation of Panel Lighting over EB Route 22

Replace section 12-4.02C(3)(d) with:

12-4.02C(3)(d) City Street Closure Requirements

Place 1 PCMS at least before the date of the first planned lane closure in the maintenance vehicle pullout area on EB Route 22 (7th Street) east of Silvera Ave and a 2nd PCMS in the right shoulder of WB Route 22 just east of San Gabriel River Bridge. PCMS must remain until completion of work at each location of construction.

Display the following message:

"ROAD / WORK – MM-DD / TO / MM-DD – EXPECT / DELAYS"

Note:

"/" separates each line of text on the PCMS display.

"–" denotes where the PCMS display flashes the next line of text.

Replace section 12-4.02C(3)(e) with:

12-4.02C(3)(e) Closure Restrictions for Special Events and Venues

Do not work from 1800 on Halloween to 0600 the following day.

No work or highway closures are allowed along the Games Route Network from June 1, 2028 to September 1, 2028. Plan all work shown on the stage construction and traffic handling plans to comply with this requirement. The Games Route Network is shown in the following table:

Olympic and Paralympic Games Route Network

Affected routes	Route limits
2	Route 101 to Route 134
10	Route 405 to Route 110
10	Route 101 to Fairplex Dr
47	Route 110 to Harbor Blvd
57	Routes 10/57/71 interchange to Via Verde
91	Vermont Ave to Orange County Line
101	Route 10 to Alvarado St
101	Route 134 to Hayvenhurst Ave
105	Route 405 to Route 110
110	Route 47 to Stadium Way
134	Route 101 to Route 210
164	Route 60 to Route 10
210	Mountain St to Baldwin Ave
405	Orange County Line to Victory Blvd

No work or highway closures within the traveled way are allowed along non-Games Route Network routes from July 11, 2028 to July 31, 2028 and from August 14, 2028 to August 28, 2028. Plan all work shown on the stage construction and traffic handling plans to comply with this requirement. Work outside of the traveled way may be allowed if authorized by the Engineer.

From 3 hours before to 2 hours after special events or events at the venues shown in the table titled "Special Events and Venues," do not perform work that encroaches onto the conventional highway traveled way.

At the LA28 venues shown in the table titled "Special Events and Venues," do not perform work from June 1, 2028 to September 1, 2028 that encroaches onto the conventional highway traveled way.

The special events and venues that could impact closures are shown in the following table:

Special Events and Venues

Special event or venue	Affected routes	Route limits
Academy Awards ceremony	101	Route 110 to Routes 101/134/170 interchange
Antelope Valley Fair	14	Avenue S to Avenue D
Auto Club/California Speedway	EB 10	Route 605 to San Bernardino County line
	NB 57	Orange County line to Routes 10/57/71 interchange
	EB 60	Route 605 to San Bernardino County line
	210	Route 605 to San Bernardino County Line
California State University, Long Beach, graduation ceremonies	22	Routes 22/405/605 interchange to Route 1
California State University, Los Angeles, graduation ceremonies	10	Route 5 to Rosemead Blvd
	710	Route 60 to Valley Blvd
California State University, Pomona, graduation ceremonies	10	Route 605 to San Bernardino County line
	57	Route 60 to Route 210

Special event or venue	Affected routes	Route limits
Cinco De Mayo at Whittier Narrows Recreation Area	60	Paramount Blvd to Route 605
Cinco De Mayo parades or festivals in downtown Los Angeles	5	Routes 5/10/60/101 interchange to Broadway
	NB 101	Routes 5/10/60/101 interchange to Route 110
	SB 101	Vermont Ave to Broadway
	110	Route 10 to Route 101
Crypto.com Arena/Los Angeles Convention Center	10	Routes 5/10/60/101 interchange to Crenshaw Blvd
	110	Route 105 to Route 101
Crypto.com Arena/Los Angeles Convention Center/Peacock Theater/LA28	10	Routes 5/10/60/101 interchange to Crenshaw Blvd
	110	Route 105 to Route 5
Dignity Health Sports Park	91	Route 110 to Central Ave
Dignity Health Sports Park/LA28	91	Route 110 to Route 710
	110	Route 1 to Route 105
	405	Route 710 to Route 105
	710	Route 1 to Route 105
Dodger Stadium	2	Glendale Blvd to Route 5
	5	Route 10 to Route 134
	101	Routes 5/10/60/101 interchange to Vermont Ave
	110	Route 10 to Route 5
Dodger Stadium/LA28	2	Glendale Blvd to Route 5
	5	Route 10 to Route 134
	101	Routes 5/10/60/101 interchange to Vermont Ave
	110	Route 10 to Route 5
Grand Park & LA City Hall/LA28	5	Routes 5/10/60/101 interchange to Broadway
	NB 101	Routes 5/10/60/101 interchange to Route 110
	SB 101	Vermont Ave to Broadway
	110	Route 10 to Route 101
Fairplex/LA28	10	Route 605 to San Bernardino County line
	57	Route 60 to Route 210
	71	Route 60 to Routes 10/57/71 interchange
	210	Grand Ave to San Bernardino County line
Frank G. Bonelli Park/LA28	10	Azusa Ave to Central Ave
	57	Route 60 to Route 210
	71	Route 60 to Routes 10/57/71 interchange
Griffith Park Light Show	5	Route 2 to Route 134
	134	Forest Lawn Dr to San Fernando Rd

Special event or venue	Affected routes	Route limits
Hollywood Bowl	101	Vermont Ave to Route 170
Hollywood Christmas Parade	101	Route 10 to Route 170
Kaleidoscope Festival	22	Routes 22/405/605 interchange to Route 1
LA Clays Shooting Sports Park/Whittier Narrows Recreation Area/LA28	60	Paramount Blvd to Route 605
	164	Route 60 to Route 10
Long Beach Grand Prix	47	Route 110 to Route 710
	405	Route 605 to Route 110
	710	Route 47 to Route 91
Long Beach Arena/Long Beach Convention Center/Long Beach Waterfront/Belmont Shore/Alamitos Beach/Marine Stadium/Port of Los Angeles/LA28	1	Orange County Line to Route 110
	47	Route 110 to Route 710
	110	Route 47 to Route 91
	405	Route 605 to Route 110
	710	Route 47 to Route 91
Los Angeles Coliseum/BMO Stadium	10	Crenshaw Blvd to Routes 5/10/60/101 interchange
	110	Route 105 to Route 101
Los Angeles Coliseum/BMO Stadium/University of Southern California/LA28	10	Crenshaw Blvd to Routes 5/10/60/101 interchange
	110	Route 105 to Route 5
Los Angeles County Fair	10	Route 605 to San Bernardino County line
	57	Route 60 to Route 210
	71	Mission Blvd to Routes 57/60/71 interchange
	210	Grand Ave to San Bernardino County line
Los Angeles Marathon	5	Route 10 to Route 134
	NB 101	Route 10 to Highland Ave
	SB 101	Routes 101/134/170 interchange to Route 10
	NB 110	Route 10 to Route 5
	NB 405	Route 90 to Santa Monica Blvd
	SB 405	Sunset Blvd to Santa Monica Blvd
Los Angeles Music Center	101	Route 10 to Glendale Blvd
	110	Route 10 to Route 5
Mexican independence celebration at Whittier Narrows Recreation Area	60	Paramount Blvd to Route 605
Olvera Street festivals	101	Route 10 to Vermont Ave
Rose Bowl Stadium events	2	Colorado Blvd to Route 210
	110	Route 101 to Glenarm St
	134	Route 5 to Route 210
	210	Route 2 to Route 605
	710	Del Mar Blvd to Route 210
Rose Bowl Stadium/LA28	2	Colorado Blvd to Route 210
	110	Route 101 to Glenarm St
	134	Route 5 to Route 210
	210	Route 2 to Route 605
	710	Del Mar Blvd to Route 210
Rose Parade float viewing	EB 210	Route 134 to Rosemead Blvd
	WB 210	Route 605 to Allen Ave
Santa Anita Race Track	EB 210	Lake Ave to Huntington Dr
	WB 210	Route 605 to Baldwin Ave

Special event or venue	Affected routes	Route limits
Santa Anita Park/LA28	EB 210	Lake Ave to Huntington Dr
	WB 210	Route 605 to Baldwin Ave
Sepulveda Basin Recreation Area/LA28	101	Route 27 to Route 134
	405	Route 10 to Route 118
SoFi Stadium/Kia Forum/Intuit Dome	105	Route 1 to Route 110
	110	Route 105 to Slauson Ave
	405	El Segundo Blvd to Route 90
SoFi Stadium/Kia Forum/Intuit Dome/LA28	105	Route 1 to Route 110
	110	Route 91 to Route 10
	405	Route 110 to Route 10
South Gate Holiday Christmas Parade	710	Imperial Hwy to Route 5
Point Mugu Air Show	1	Las Posas Rd to Rose Ave
	101	Route 23 to Route 126
Universal Studios/International Broadcast Center (IBC)/LA28	101	Route 2 to Route 405
	134	Routes 101/134/170 interchange to Route 5
	170	Routes 101/134/170 interchange to Victory Blvd
University of California, Los Angeles/Riviera Country Club/Venice Beach/LA28	1	Route 90 to Route 27
	10	Route 1 to Venice Blvd
	90	Route 1 to Route 405
	405	Route 90 to Route 101
Ventura County Fair	33	Ventura Ave to Route 101
	101	Route 1 to Route 33
Ventura Strawberry Festival	1	Las Posas Rd to Rose Ave
	101	Route 23 to Route 126

Replace section 12-4.02C(3)(f) with:

12-4.02C(3)(f) Closure Restrictions for Designated Holidays and Special Days

Closure restrictions for designated holidays and special days are shown in the following table:

Lane Closure Restrictions for Designated Holidays and Special Days											
Thu	Fri	Sat	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Mon
x	**H** xx	xx	xx								
x	xx	**H** xx	xx								
	x	xx	xx	**H** xx							
	x			**SD** xx							
	x	xx	xx	xx	**H** xx						
					x	**H** xx					
						x	**H** xx	xx	xx	xx	
	x	xx	xx	xx	xx	xx	**TH** xx	xx	xx	xx	

Legend:

	Refer to chart nos. K1 & K2.
x	The full width of the traveled way must be open for use by traffic by 0600.
xx	The full width of the traveled way must be open for use by traffic.
H	Designated holiday
TH	Thanksgiving Day
SD	Special day

Replace section 12-4.02C(3)(j) with:

12-4.02C(3)(j) Complete Ramp Closure Hour Chart

Comply with the requirements for the complete ramp closure shown in the following chart:

Chart No. J1
Complete Ramp Closure Hours

County: LA | Route/Direction: 22/WB

Closure limits: On-ramp from Studebaker Rd

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	2
Mon–Thu	C	C	C	C	C	C	S	S	S	C	C	C	C	C	C	C	C	S	S	S	S	C	C	C	C
Fri	C	C	C	C	C	C	S	S	S	C	C	C	C	C	C	C	C	S	S	S	S	C	C	C	C
Sat	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Sun	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Legend:

C — Ramp may be closed completely.

S — Shoulder closure is allowed (right/left).

REMARKS:
The full width of the traveled way must be open for use by traffic when construction activities are not actively in progress.

Replace section 12-4.02C(3)(k) with:

12-4.02C(3)(k) Conventional Highway Lane Requirement Charts

Comply with the requirements for the conventional highway lane closures shown in the following charts:

Chart No. K1
Conventional Highway Lane Requirements

County: LA | Route/Direction: 22/EB

Closure limits: At Los Cerritos Channel

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	1	1	1	1	1	1	N	N	N	1	1	1	1	1	1	1	N	N	N	N	1	1	1	1	1
Fri	1	1	1	1	1	1	N	N	N	1	1	1	1	1	1	1	N	N	N	N	N	1	1	1	1
Sat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	S	S	S	S	S	1
Sun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	S	S	S	S	1	1

Legend:

1 — Provide at least 1 through traffic lane open in the direction of travel.

S — Shoulder closure is allowed. (right/left)

N — No work is allowed.

REMARKS: The number of through traffic lanes in each direction of travel is 2.

Chart No. K2
Conventional Highway Lane Requirements and Hours of Work

County: LA	Route/Direction: 22/WB	

Closure limits: At Los Cerritos Channel

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	1	1	1	1	1	1	N	N	N	1	1	1	1	1	1	1	1	N	N	N	N	2	2	2	1	1
Fri	1	1	1	1	1	1	N	N	N	1	1	1	1	1	1	1	1	N	N	N	N	2	2	2	2	1
Sat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	S	S	S	S	S	1	1
Sun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	S	S	S	S	1	1

Legend:

1	Provide at least 1 through traffic lane open in the direction of travel.
2	Provide at least 2 adjacent through traffic lanes open in the direction of travel.
S	Shoulder closure is allowed. (right/left)
N	No work is allowed.

REMARKS: The number of through traffic lanes in each direction of travel is 3.

Replace section 12-4.02C(3)(l) with:

12-4.02C(3)(l) Complete Conventional Highway Closure Hour Chart

Comply with the requirements for the complete closure on a conventional highway shown in the following chart:

Chart No. L1
Complete Conventional Highway Closure Hours

County: LA	Route/Direction: 22/EB	

Closure limits: Pepper Tree Lane to Studebaker Rd On-Ramp

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	C	C	C	C	C	C	C																C	C	C
Fri	C	C	C	C	C	C	C																	C	C
Sat	C	C	C	C	C	C	C	C																	C
Sun	C	C	C	C	C	C	C	C	C															C	C

Legend:

C	Conventional highway may be closed completely.
	No complete conventional highway closure is allowed.

REMARKS:

Replace item 2 in the list in the 2nd paragraph of section 12-4.02C(4) with:

2. Installation, maintenance, or removal of Category 1 and Category 2 traffic control devices and when using impact attenuator vehicles

DTM(07)**

-Work utilizing man-lift or similar equipment to access bridge

Replace 3rd paragraph of section 12-4.02C(4) with:

For time periods at the beginning or end of work when the lane requirement charts do not allow the closure of the adjacent traffic lane, the following construction activities are allowed without a buffer lane:

1. Parking, positioning, loading, unloading vehicles, or storing equipment or materials necessary for the work being performed.
2. Placing, removing or maintaining paving marking or pavement markers.
3. Operations not performed by workers on foot such as planing, sweeping, applying a tack coat, or operating a crane.
4. Operations where workers on foot are protected, at each work location, within the same closure by an impact attenuator vehicle in the lane adjacent to live traffic.

For multilane freeway or expressway lane closures, do not place the 2L tangent section shown along lane lines between the lane closure tapers.

If traffic control is performed for a stationary closure where median shoulders are less than 8 feet, the closure must comply with the plan sheet titled "Traffic Control System for Median Shoulders Less Than 8 Feet" or "Traffic Control System for High Occupancy Vehicle Lanes with Median Shoulders Less Than 8 Feet."

Before using a shoulder as a traffic lane for the duration of a work shift closure, sweep and clear the shoulder of debris before traffic use.

Replace the paragraphs of section 12-4.02C(8)(b) with:

If a ramp closure is allowed, post a special advance notice publicity sign, SP-1, at an authorized location at least 7 days before the ramp closure.

If an off-ramp is allowed to be closed, install an SP-5 sign for the exit ramp closure. Place the sign on the right shoulder of the freeway upstream of the preceding off-ramp.

Replace section 12-4.02C(12) with:

12-4.02C(12) Construction Work Zone Speed Limit Reduction

12-4.02C(12)(a) General

Section 12-4.02C(12) includes specifications for providing, installing, maintaining, and removing traffic control devices for reducing the speed limit for the construction work zones.

Speed limit reduction is limited to 10 mph from the posted speed limit in construction work zones unless a greater speed limit reduction is specified. Construction work zone speed limit reduction is required when construction activities are active in a closure as a temporary condition.

Temporary construction work zone speed limit reduction is required for lane closures when construction activities require workers to be present within the lane closures. Construction work zone speed limit reduction is not required for short duration closures of 1 hour or less or when the length of lane closure is 1/2 mile or less.

12-4.02C(12)(b) Materials

For temporary construction work zone speed limit reduction, signs must comply with the requirements for portable signs in section 12-3.11.

The PCMS must comply with section 12-3.32.

Radar feedback sign LED displays must have LED:

1. Character of at least 18 inches in height for freeways and expressways
2. Character of at least 14 inches in height for conventional highways
3. Character's width-to-height ratio from 0.7 to 1.0
4. Character's stroke width-to-height ratio of 0.2

Portable radar speed feedback sign must comply with section 12-3.37.

Portable radar speed feedback sign trailers must have a minimum of 9 cones placed on a taper in advance of the device and along the edge of shoulder or edge of the traveled way at 25-foot intervals to a point not less than 25 feet past the device.

Temporary radar speed feedback sign system must comply with the specifications for:

1. Temporary electrical system in section 87-20
2. Radar speed feedback sign system in section 87-14 except the LED character display must remain blank when no vehicles are detected or when the detected vehicle speed is 10 miles or less than the pre-set speed

12-4.02C(12)(c) Construction

Advise motorists of construction work zone speed limit reductions starting 14 days in advance of implementing the speed limit reduction using a PCMS displaying the alternating messages *Reduced Speed* and *Starting XX/XX/XX (Date)*.

When construction work zone speed limit reduction is in effect, the PCMS message must be *XX ZONE AHEAD* and *WILL BE ENFORCED*. Mount a 48-by-48-inch W3-5 XX "SPEED LIMIT" ahead symbol sign on the PCMS trailer.

Cover all existing speed limit signs while the construction work zone speed limit reduction is in effect. Remove covers when construction work zone speed limit reduction is no longer in effect.

For temporary construction work zone speed limit reduction for lane closures, install portable radar speed feedback system as shown. In addition to the portable radar speed feedback system shown, place a portable radar speed feedback system 400 feet upstream of active work areas. The portable radar speed feedback system must include a R2-1 sign with G20-5aP "WORK ZONE" plaque.

For on-ramps within the limits of a construction work zone speed limit reduction, place R2-1 signs with G20-5aP "WORK ZONE" plaque within 500 feet of entrance ramps. You may use the strap and saddle method for mounting these sign panels on the entrance ramp lighting standard at the merge point.

For expressways, place a R2-1 sign with G20-5aP "WORK ZONE" plaque approximately 500 feet downstream from intersections within the limits of a construction work zone speed limit reduction.

For conventional highways, place a R2-1 sign with G20-5aP "WORK ZONE" plaque approximately 500 feet downstream from major intersections within the limits of a construction work zone speed limit reduction.

Within the limits of a construction work zone speed limit reduction, place intermediate R2-1 signs with G20-5aP "WORK ZONE" plaque at intervals not exceeding three miles.

You may use variable speed limit signs where R2-1 signs are described.

For chip seal projects, place construction work zone speed limit reduction signs and devices as shown except place additional intermediate signs, W8-7 "LOOSE GRAVEL" sign, and a W13-1 (35) plaque every 2000 feet.

12-4.02C(12)(d) Payment

For construction work zone speed limit reduction only during lane closures, signs are included in the bid item for traffic control system, PCMS is paid for as traffic control system, and portable radar speed feedback sign is paid for as portable radar speed feedback sign systems. Covering and uncovering existing speed limit signs for each lane closure are included in the price paid for traffic control system.

Replace section 12-4.02C(13) with:

12-4.02C(13) Traffic Control Supervisors

12-4.02C(13)(a) General

12-4.02C(13)(a)(i) Summary

Section 12-4.02C(13) includes specifications for training, certification, and responsibilities for traffic control supervisors.

The traffic control supervisor:

1. Must be knowledgeable about:
   1.1. Section 7-1.03 “Public Convenience"
   1.2. Section 7-1.04 “Public Safety”
   1.3. Section 12 “Temporary Traffic Control”
   1.4. Traffic control system Standard Plans
   1.5. Traffic handling plans and detour plans
2. Must coordinate the implementation and operation of temporary traffic control, including those of subcontractors, suppliers and any adjacent construction or maintenance operations

The traffic control supervisor must:

1. Be exclusively dedicated to the responsibilities and duties required for traffic control
2. Be on site when active coordination of temporary traffic control, including those of subcontractors, suppliers, and any adjacent construction or maintenance operations is required
3. Be available after work hours, on site within 2 hours of being contacted
4. Perform weekly reviews of the project when no active coordination of temporary traffic control is required.

12-4.02C(13)(a)(ii) Definitions

Not Used

12-4.02C(13)(a)(iii) Submittals

12-4.02C(13)(a)(iii)(A) General

Every Monday by noon, submit traffic control weekly report for the previous week as an informational submittal.

12-4.02C(13)(a)(iii)(B) Quality Assurance Submittals

Submit as informational submittals:

1. Traffic control supervisor certification, traffic control technician and flagger certification, and each alternate traffic control supervisor. The certification must include:
   1.1. Name of the individual receiving certification.
   1.2. Name of entity providing certification.
   1.3. Date of certification.
   1.4. Certification expiration date.
2. Contact information for each traffic control supervisor and each alternate traffic control supervisor. The submittal must include the name, phone number and email address.
3. Traffic control weekly reports. The traffic control weekly report must include:
   3.1. Date.
   3.2. Name of traffic control supervisor.

3.3. Location of traffic control. Provide description, County, Route, Postmile or Station and Direction.
3.4. Reference to traffic control standard plan or project plan sheet.
3.5. Documentation of:
  3.5.1. Verification that closure is in compliance with the Contract requirements.
  3.5.2. Modifications to the traffic control including, a description of the change, the reason for the change, time when the change is implemented.
  3.5.3. Traffic control system monitoring, including time of inspection and observations.
  3.5.4. Incidents that occur while the traffic control system is in place.
  3.5.5. Weekly reviews including any deficiencies found and when corrections were implemented.
3.6. Record of workdays used by the traffic control supervisor to coordinate traffic control systems and traffic handling plans before construction, monitor active work zone traffic activities and operations, perform weekly nighttime inspections, and perform weekly reviews when there are no active traffic activities. Include:
  3.6.1. Date.
  3.6.2. Start and end time.
  3.6.3. Location of traffic control.
  3.6.4. Description of work performed.

12-4.02C(13)(a)(iv) Quality Assurance

12-4.02C(13)(a)(iv)(A) General

The traffic control supervisor must coordinate with the Engineer the implementation of traffic control systems and traffic handling plans before construction and before major changes in traffic control.

12-4.02C(13)(a)(iv)(B) Training and Certifications

A traffic control supervisor must be certified as a flagger, traffic control technician and as a traffic control supervisor. Department authorized training providers list is available at:

https://dot.ca.gov/programs/construction/safety-traffic/safety-training-courses

12-4.02C(13)(a)(iv)(C) Quality Control

The traffic control supervisor must:

1. Ensure safe, convenient, and effective passage of motorists, bicyclists, pedestrians, workers, and first responders, through or around the construction work zone.
2. Inspect the condition of traffic control devices on a regular basis for compliance with the quality requirements in the American Traffic Safety Services Association Publication *Quality Guidelines for Temporary Traffic Control Devices and Features*.
3. Ensure the labor, equipment, and materials are available to immediately correct deficiencies in the traffic control system.
4. Ensure that employees have flagger certificate and traffic control technician certification when performing those activities.
5. Ensure the status of closures is reported using the LCS Mobile web page.
6. Verify that all closures comply with the Contract requirements and that traffic control devices, including PCMS, arrow boards and radar speed feedback signs, are functioning after traffic control installation.
7. Review and verify that temporary traffic control daily report form is completed for every closure.
8. Review project temporary traffic control weekly to ensure that all traffic control devices and pavement delineation are effective and comply with the construction area sign plans, traffic handling plans, and detour plans. At least weekly, perform a nighttime review of the temporary traffic control devices and temporary pavement delineation to ensure compliance.

12-4.02C(13)(b) Materials

Not Used

12-4.02C(13)(c) Construction

The traffic control supervisor is responsible and has full authority to act on behalf of the Contractor for administering temporary traffic control.

Notify the Engineer before an alternate traffic control supervisor assumes the duties of the assigned traffic control supervisor.

Traffic control supervisor must have:

1. Cellular telephone
2. Two-way radio
3. Mobile internet access

The traffic control supervisor must monitor work zone traffic activities and operations, including detours, to ensure the traffic control is functioning properly.

Monitor work zone traffic control, if an imminent danger is identified, take immediate corrective action and notify the Engineer. Notify the Engineer of modifications needed to the traffic control system plans if the traffic control is not functioning as required due to changes in traffic site conditions. Do not implement any changes to the traffic control system plans or traffic handling plans until the proposed revisions are authorized.

12-4.02C(13)(d) Payment

The traffic control supervisor is paid for each workday:

1. Coordinating the implementation of traffic control systems and traffic handling plans before construction
2. Monitoring active work zone traffic activities and operations during construction
3. Performing weekly nighttime inspections
4. Conducting weekly reviews when there are no active work zone traffic activities and operations

Workdays are days the traffic control supervisor is at the job site performing traffic control supervisor's duties based on the traffic control weekly reports, with each workday counting as 1 measurement unit.

Replace section 12-4.03C(1) with:

12-4.03C(1) General

At each location where falsework is constructed over a street or route provide openings through the bridge falsework. The Engineer determines the exact location of the openings. The type, minimum width, height, and number of openings at each location, and the location and maximum spacing of the falsework lighting if required for each opening, must comply with the requirements shown in the following table:

Palo Verde Ave POC Bridge No.53-2713

Route 22, Westbound	Number	Width (feet)	Height (feet)
Vehicle openings[b]	1	52	15
Pedestrian openings	1	4	7

Route 22, Eastbound	Number	Width (feet)	Height (feet)
Vehicle openings[b]	1	40	15

NOTE:
R = Right side of traffic
L = Left side of traffic
C = Centered overhead
[a]Spacing is the maximum distance from center to center between fixtures.

[b]Width of vehicular openings is the clear width between temporary barrier system or other protective work.

2. Use only for special roadways (e.g., fire utility access, quasi-public roads) with very light traffic. Falsework lighting is required, and no temporary barrier system is provided in falsework openings. Add the location and spacing of falsework pavement lighting from the table below.

Add between the 1st and 2nd paragraphs of section 12-4.04C:

A pedestrian facility closure on the same side of the highway is limited to no more than 1 block. When working on one side of the highway, the pedestrian facility on opposite side of the highway within the same block must be open.

Schedule operations such that all pedestrian facility closures do not exceed 1 work shift. At the end of each work shift, you must provide the walkway surface complying with the requirements of a temporary pedestrian access route specified in section 12-4.04. For all activities requiring construction of a pedestrian facility, you must complete the work within 10 working days.

Add to the end of section 12-4.05C:

You may occupy one 5-foot width of the bridge pedestrian path adjacentto the curb during cleaning and painting activities. Occupy only 1 side of the bridge at a time.

^^

14 ENVIRONMENTAL STEWARDSHIP

Replace section 14-11.09 with:

14-11.09 MINIMAL DISTURBANCE OF REGULATED MATERIAL CONTAINING AERIALLY DEPOSITED LEAD

14-11.09A General

Section 14-11.09 includes specifications for handling and managing regulated material containing ADL when there is a minimal disturbance. Regulated material containing ADL has average ADL concentrations over 80 mg/kg total lead or equal to or greater than 5 mg/L soluble lead tested using the California Waste Extraction Test or equal to or greater than 5 mg/L soluble lead tested using the toxicity characteristic leaching procedure.

Compliance with 22 CA Code of Regs is not required where there is minimal disturbance of regulated material containing ADL.

Management of regulated material containing ADL exposes workers to health hazards that must be addressed in your lead compliance plan under section 7-1.02K(6)(j)(ii).

Handle regulated material containing ADL under the rules and regulations of the following agencies:

1. Cal/OSHA
2. RWQCB, Region 4 — Los Angeles
3. South Coast Air Quality Management District

Regulated material containing ADL is typically found within the top 2 feet of material in ADL-impacted areas of the job site.Minimal disturbance of regulated material containing ADL occurs where the following work activities are conducted:

1. temporary construction signs

14-11.09B Material Management

Handling of regulated material containing ADL must result in no visible dust migration. Use dust control measures. A means of controlling dust must be available at all times.

Separate material from vegetation. The resulting soil must remain on the job site.

Surplus material from the areas with regulated material containing ADL must remain in the area of disturbance. Do not dispose of surplus material outside the highway.

Add to the 1st paragraph in section 14-11.13A:

The existing paint system and patina on bridge no. 53-2713 will be disturbed as part of the work activities. The paint system and/or patina may contain heavy metals such as lead, zinc, or chromium.

Replace section 14-11.13B(3) with:

14-11.13B(3) Air Monitoring Reports

Air monitoring reports, including test results for samples taken after corrective action, must be prepared by the CIH and submitted:

1. Orally within 48 hours after sampling
2. As an informational submittal within business 5 days after sampling

Air monitoring reports must include:

1. Date and location of sample collection, sample number, Contract number, bridge number, name of the structure, and District-County-Route-Post Mile
2. Name and address of the certified laboratory that performed the analyses
3. Chain of custody documentation
4. List of emission control measures in place when air samples were taken
5. Air sample results compared to the appropriate permissible exposure limit (PEL)
6. Corrective action recommended by the CIH to ensure exposure to airborne metals outside containment systems and work areas is within specified limits
7. Signature of the CIH who reviewed the data and made recommendations

Replace section 14-11.13B(4) with:

14-11.13B(4) Soil Sampling Results for Debris Containment Verification

Submit test results of soil analyses verifying debris containment, including results for soil samples taken after corrective action:

1. Orally within 48 hours after sampling
2. Within 5 days after sampling

Soil sampling results must include:

1. Date and location of sample collection, sample number, Contract number, bridge number, name of the structure, and District-County-Route-Post Mile
2. Concentrations of heavy metals expressed in mg/kg and mg/L
3. Name and address of the certified laboratory that performed the analyses
4. Chain-of-custody documentation

Replace section 14-11.13D with:

14-11.13D Work Area Monitoring

14-11.13D(1) General

Monitor the ambient air and soil in and around the work area to verify the effectiveness of the containment system. Work area monitoring includes:

1. Collecting, analyzing, and reporting air and soil test results
2. Recommending corrective action whenever specified air or soil concentrations are exceeded

Collect air and soil samples at locations designated by the Engineer.

14-11.13D(2) Air Monitoring

Air monitoring must be performed under the direction of a CIH.

Collect and analyze air samples to detect lead under the NIOSH Method 7082 using a detection limit of at least 0.05 µg/m^3. Collect and analyze air samples to detect other metals under NIOSH Method 7300 using a detection limit of at least 1 percent of the appropriate PEL specified by Cal/OSHA. You may use alternative methods of sampling and analysis with equivalent detection limits.

Concentrations of airborne metals outside containment systems and work areas must not exceed any of the following:

1. Average of 1.5 µg/m^3 of air per day and 0.15 µg/m^3 per day on a rolling 90-day basis. Calculate the average daily concentrations based on accumulated monitoring data and projections based on monitoring trends for the next 90 days or to the end of the work subject to the lead compliance plan if less than the specified averaging period.
2. 10 percent of the action level specified for lead by 8 CA Code of Regs §1532.1.
3. 10 percent of the appropriate PELs specified for other metals by Cal/OSHA.

Collect air samples daily during work activities that disturb the existing paint system. Air samples must be analyzed within 48 hours by a facility accredited by the Environmental Lead Laboratory Accreditation Program of the American Industrial Hygiene Association. If concentrations of airborne metals exceed allowable levels, modify the containment system or work activities to prevent further release of metals. If the CIH recommends corrective action, collect and analyze additional samples after implementing the corrective action unless ordered otherwise.

14-11.13D(3) Soil Sampling for Debris Containment

Collect 4 soil samples before starting work and collect 4 soil samples within 36 hours after cleaning existing steel. A soil sample consists of 5 plugs, each 3/4 inch in diameter and 1/2 inch deep, taken at each corner and center of a 1 sq yd area. Analyze soil samples for:

1. Total lead, zinc, and chromium by US EPA Method 6010B or US EPA Method 7000 series
2. Soluble lead, zinc, and chromium by California Waste Extraction Test (CA WET)

The laboratory that analyzes the samples must be certified by the SWRCB's ELAP for all analyses to be performed.

Concentrations of heavy metals in the work area's soil must not increase when the existing paint system is disturbed. If soil sampling shows an increase in the concentrations of heavy metals after completing the work:

1. Clean the affected area
2. Resample until soil sampling and testing shows concentrations of heavy metals less than or equal to the concentrations collected before the start of work

Add to the end of the 1st paragraph of section 14-11.13F:

This waste characterization testing must include:

1. Total lead, zinc, and chromium by US EPA Method 6010B
2. Soluble lead, zinc, and chromium by California Waste Extraction Test (CA WET)
3. Soluble lead, zinc, and chromium by Toxicity Characteristic Leaching Procedure (TCLP)

Add to the beginning of section 14-11.13G(2):

After the Engineer accepts the waste characterization test results, dispose of the debris:

1. Within 30 days after accumulating 220 lb of debris
2. At a DTSC-permitted Class I facility located in California

Make all arrangements with the operator of the disposal facility.

If less than 220 lb of hazardous waste is generated in total, dispose of it within 30 days after the start of the accumulation of the debris.

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DIVISION III EARTHWORK AND LANDSCAPE

19 EARTHWORK

Add to the end of section 19-3.02E:

Slurry cement backfill may contain returned plastic concrete.

Slurry cement backfill containing returned plastic concrete must comply with the specifications for concrete containing returned plastic concrete.

^^

20 LANDSCAPE

Add between the 7th and 8th paragraphs of section 20-2.01C(2):

Apply 1 application of a preemergent pesticide to trenched areas in existing ground cover areas and to trenched areas adjacent to fences, curbs, dikes, and shoulders. The Engineer determines when the preemergent pesticide must be applied.

Replace item 2.1 in the list in the 9th paragraph of section 20-2.01C(2) with:

2.1. Do not remove a width of more than 12 inches. Keep removed turf cool and moist.

Replace item 2.2 in the list in the 9th paragraph of section 20-2.01C(2) with:

2.2. Replace with the removed turf under section 20-3.02C(3)(e).

^^

DIVISION VI STRUCTURES

55 STEEL STRUCTURES

Add to section 55-1.01A:

Structural steel consists of:

1. Pier cap brackets and seat extenders
2. High strength rods, nuts, and washers

Add to section 55-1.01D(1):

High strength rods must conform to the requirements of ASTM Designations: A722 for uncoated, including all supplementary requirements. Nuts for high strength rods must be from the same manufacturer and be capable of developing the full capacity of the rod.

Add to section 55-1.02E(6):

55-1.02E(6)(d) Thread Locking Compound for High Strength Rods

Provide an approved thread locking system for high strength rods, consisting of a cleaner, primer and anaerobic thread-locking adhesive. Thread locking system used must be on the Authorized Material List.

Lubricants and foreign materials must be removed from the threaded areas of the rod and nut using an approved cleaner and small wire brush. Apply primer to the threaded areas of both parts. Apply anaerobic adhesive to fill the threads on the rod in the area of the final position of the nut.

Install the nut. If shown, install the nut to the torque shown on the plans.

Apply an additional fillet of anaerobic adhesive completely around the exposed junctions of the nut and exposed threads.

^^

60 EXISTING STRUCTURES

60-6 GRAFFITI REMOVAL

60-6.01 GENERAL

60-6.01A Summary

Section 60-6 includes specifications for the graffiti removal through cleaning and treatment procedures on weathering steel surfaces where shown.

60-6.01B Definitions

patina: Protective corrosion-resistant layer that forms over time on weathering steel through an oxidation process.

weathering steel: Weather resistant high-strength low-alloy steel that develops a protective layer of patina over time.

60-6.01C Submittals

Submit a work plan on the methods, procedures, and materials used for graffiti removal. Include the containment system, and procedures to protect adjacent surfaces from staining during the work.

Submit a certificate of compliance and SDS for cleaning materials.

60-6.01D Quality Assurance

60-6.01D(1) General

Not Used

60-6.01D(2) Demonstration Panel

Prepare demonstration panel on existing weathering steel surface prior to starting graffiti removal work.

Demonstration panel must be:

1. At an authorized location on the bridge representing the variety of the graffiti removal work to be performed.
2. Prepared using the personnel, materials, equipment, and methods to be used in the work.

The Engineer may request that additional demonstration panels until the desired results are attained.

Obtain authorization of the demonstration panels before starting graffiti removal work.

The Engineer uses the authorized demonstration panels to determine the acceptability of the graffiti removal work.

If authorized, demonstration panels, or portions thereof, may be incorporated into the graffiti removal work.

60-6.02 MATERIALS

Do not use acids for cleaning.

Use dry-ice pellets as the abrasive media for blast cleaning weathering steel. Abrasive media comprised of metal particles is not allowed.

60-6.03 CONSTRUCTION

60-6.03A General

Protect adjacent surfaces from staining during the cleaning and treating processes.

60-6.03B Containment System

Construct containment system. The containment system must contain all water, resulting debris, and visible dust produced during graffiti removal.

Properly maintain the containment system while work is in progress and do not change the containment system unless authorized.

The containment system must provide a vertical clearance of 6.67 feet and a horizontal clearance of 4 feet for the passage of pedestrian traffic. The containment system must provide a vertical clearance of 15 feet to vehicle traffic on Route 22.

60-6.03C Cleaning and Treating

Remove graffiti on weathering steel using one of the following cleaning methods:

1. SSPC-SP 1: Solvent Cleaning
2. SSPC-SP 2: Hand Tool Cleaning
3. SSPC-SP 3: Power Tool Cleaning
4. SSPC-SP 7: Brush-Off Blast Cleaning

Removal methods must avoid excessive removal of the oxide layer that forms on weathering steel.

Feather out graffiti removal areas into surrounding surfaces and avoid streaking of the patina.

Treat the cleaned surfaces to a series of wetting and drying cycles. Periodically wet the surfaces to help initiate the patina formation and to aid in achieving a more uniform finish. Provide between 5 and 10 wet/dry cycles until the desired results are achieved.

60-6.04 PAYMENT

Not Used

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DIVISION VIII MISCELLANEOUS CONSTRUCTION

75 MISCELLANEOUS METAL

Add to the list in the 2nd paragraph of section 75-3.01A:

6. Vertical Support Brackets, drilling holes in existing steel, and HS steel fastener assemblies
7. Horizontal Support Bracket, drilling holes in existing steel, and HS steel fastener assemblies

Add to section 75-3.01C(1):

Submit shop drawings and calculations for the Horizontal Support Brackets. The shop drawings and calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

Design support brackets to resist all vertical and horizontal loads. Comply with the current *AASHTO LRFD Structural Supports for Highway Signs, Luminaires, and Traffic Signals*.

The shop drawings and calculations must include:

1. Complete details for the construction of the work, including methods of attachment, construction methods, sequence of shop and field assembly, installation procedures, and methods for adjustment to line and grade.
2. Welding sequences and procedures
3. Material specifications and grades
4. Material preparation and painting procedures
5. Design calculations that include stresses and deflections in all load carrying components.

Allow 30 days for the Department's review.

^^

77 LOCAL INFRASTRUCTURE

Replace section 77-1 with:

77-1 GENERAL

77-1.01 GENERAL

77-1.01A Summary

Section 77-1 includes general specifications for constructing local infrastructure.

The work includes:

1. Modifying the City’s existing electrical system
2. Installing Lighting System for Community Identification (Letters)
3. Installing Lighting System for Community Identification (Panels)

77-1.01B Definitions

Not Used

77-1.01C Submittals

Comply with section 86-1.01C(1) General.

Comply with section 87-1.01C Submittals.

77-1.01D Quality Assurance

Comply with section 86-1.01D(1).

77-1.01D(1) General

Not Used

77-1.01D(2) Preconstruction Meeting

Schedule a meeting with the Engineer and the City of Long Beach Inspection at (562) 570-5160, 5 business days before work begins.

77-1.01D(3) Warranty

LED luminaires must be warrantied against functional failure and physical or mechanical deterioration for 30 days from the date of purchase. The warranty must cover all expenses for parts, labor, and shipping. Provide replacement units within 5 business days of failure notification. The warrantee period must start on the project acceptance date.

77-1.02 MATERIALS

77-1.02A General

Electrical material and equipment must comply with section 86.

Materials must comply with:

1. FCC rules
2. ITE standards
3. NEC
4. California Electrical Code
5. Title 24, Part 3, CCR

77-1.02D Conduit

See the project plans for conduit requirements.

77-1.02F Pull Boxes

A lighting pull box must have the cover marking *CITY LIGHTING*.

See the project plans for pull box requirements.

77-1.03 CONSTRUCTION

77-1.03A General

Install electrical material and equipment under section 87.

77-1.03B Conductors and Wiring

Identify cables in controller cabinets with ½-by-2 inch plastic tag, stamped with the cable run identification characters in 1/4-inch letters, and secured to the cable with 2 nylon tie-wraps.

Label all conductors inside pull boxes.

Use the no. 8 AWG bare copper wire as the ground reference for testing when existing conduit is non-metallic.

77-1.03D Conduit

Verify horizontal and vertical alignments of existing utilities before installation of conduit. Install conduit of the same size and material throughout the run.

Install a separate no. 8 AWG ground wire and a pull tape in conduits at the time of installation. Splice ground wires together and connect them to the grounding electrode in service equipment enclosure.

Backfill trench with:

1. A minimum of 3 inches of sand bedding before installing the conduit
2. 18 inches of slurry concrete over the conduit
3. 6 inches of native material over the slurry cement

Use slurry concrete under section 19-3.02E except, the size of the aggregate must be 3/8 inch or smaller.

Place warning tape in the trench 6 inches below finished grade.

Grade the trench surface to match the existing grade.

77-1.03D City of Long Beach Electrical System

Obtain an underground service alert inquiry ID number by calling (800) 422-4133. Allow 2 business days after the ID number is obtained to notify utility owners before excavation or drilling work is started. The ID numbers will not be given more than 10 days before starting excavation work.

Notify the Engineer first and subsequently the Public Works Department of the City of Long 5 business days before starting construction in areas where excavation operations are to be performed.

77-1.04 PAYMENT

Not Used

77-2 MODIFYING EXISTING ELECTRICAL SYSTEM (CITY)

77-2.01 GENERAL

Section 77-2 includes specifications for modifying existing electrical systems (city) for the City of Long Beach.

Modifying existing electrical system (city) includes:

1. Conduit
2. Conductors and cables
3. Pull boxes
4. Circuit breakers

The components of modifying existing electrical system (city) are shown on the project plans.

77-2.02 MATERIALS

77-2.02A General

Refer to Supplemental Project Information for manufacturer specifications.77-2.02B Circuit breakers

See the project plans for circuit breaker requirements.

77-2.03 CONSTRUCTION

77-2.03A General

Refer to Supplemental Project Information for manufacturer installation requirements.

77-1.03B Installation of Pull Boxes

8See the project plans for installation of pull box requirements.

77-2.04 PAYMENT

Not Used

77-3 LIGHTING SYSTEMS (CITY)

77-3.01 GENERAL

77-3.01A Summary

Section 77-3 includes specifications for constructing lighting systems (city).

Lighting system includes:

1. Junction boxes
2. Conduit
3. Conductors and cables

4. LED for letters
5. Wall mounted luminaires
6. Panel Board
7. Pharos DMX Controller
8. Fuse splice connectors
9. Surface Mounted Enclosure
10. Cradlepoint IBR900 Router

77-3.01B Definitions

Not Used

77-3.01C Submittals

77-3.01C(1) General

The components of each lighting system below are shown on the project plans.

- Internal Illumination for Community Identification (Letters)
- Wall mounted lighting for Community Identification (Panels)

77-3.01C(2) Wall Mounted Luminaires

Submit for a luminaire:

1. Maximum power in watts
2. Maximum designed junction temperature
3. L70 in hours when extrapolated for the average nighttime operating temperature
4. Life expectancy based on the junction temperature
5. Manufacturer's data sheet for the power supply, including the rated life

77-3.01D Quality Assurance

Lighting systems must exceed Title 24 efficiency requirements by 10 percent.

77-3.02 MATERIALS

77-3.02A General

Not used

77-3.02B Junction boxes

Junction boxes shall be weatherproof, corrosion resistant, and rated at least NEMA 4X. Boxes shall be galvanized or stainless steel, equipped with gaskets and watertight fittings. The exterior color shall closely match the wall or surface on which the box is mounted. Junction box dimensions shall be determined in accordance with NEC 314.28 and based on the required space for conductor bending radius, splices, and conduit entries after all internal components and terminations have been specified.

77-3.02C LED for Letters

See the project plans for LED letter requirements.

77-3.02D Wall Mounted Luminaires

Wall mounted luminaires must:

1. Be Insight Lighting Medley Exterior Route (MER) color-changing LED linear luminaires.
2. Have a length of 48 inches.
3. Be lighting fixture catalog number is MER-LO-40K-U-1010-EAB-3-48-NO-TB-R-CW-JC-3.
4. Be weatherproof and corrosion resistant.

77-3.02E Panel Board

Provide a tamper-proof, NEMA 4X rated, 240V, 1-phase panelboard with a minimum 60A main, minimum 12 spaces, and a minimum 10 kAIC short-circuit rating. Panelboard shall include a main overcurrent

protective device, branch circuit breakers, copper bus, grounding bar, and all required accessories for a complete installation. Enclosure shall be outdoor-rated, corrosion-resistant, and constructed to prevent unauthorized access. Provide equipment fully assembled, factory-tested, and compliant with applicable industry standards.

77-3.02F Pharos DMX Controller

See the project plans and manufacturer specifications for requirements.

77-3.02G Surface Mount Enclosure

Enclosures shall be weatherproof, corrosion resistant, and rated at least NEMA 4X. shall be galvanized or stainless steel, equipped with gaskets and watertight fittings. The exterior color shall closely match the wall or surface on which the enclosure is mounted. Enclosure dimensions shall be determined in accordance with NEC 314.28 and based on the required space for internal equipment, conductor bending radius, and conduit entries after all internal components have been specified.

See the project plans and manufacturer specifications for requirements.

Each enclosure shall include a hasp with a 7/16-inch diameter hole suitable for padlocking.

77-3.02G Cradlepoint Router

Provide a Cradlepoint IBR900 Series ruggedized cellular router or approved equal. The unit shall support LTE connectivity, dual SIMs, Wi-Fi access, and Ethernet ports for local network communication. Install the router in a NEMA 4X enclosure with proper power, grounding, and antenna connections. Configure for remote access through NetCloud Manager. See the project plans and manufacturer specifications for all installation and performance requirements.

77-3.03 CONSTRUCTION

77-3.03A General

Not Used

77-3.03D Wall Mounted Luminaires

Install two wall mounted luminaires below each panel per manufacturer's instructions and as shown.

Label the month and year of the installation inside the luminaire housing's door.

Perform the conductor and operational tests for the system.

For a wall-mounted luminaire, provide 4 external mounting taps on an existing structure.

Place the wall-mounted luminaires in operation as soon as practicable after the falsework has been removed from the structure.

If the Engineer orders wall-mounted luminaires to be activated before permanent power service is available, installing and removing the temporary power service is change order work.

77-3.04 PAYMENT

Not Used

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78 INCIDENTAL CONSTRUCTION

Replace 78-4.03A(4) with:

78-4.03A(4) Quality Assurance

78-4.03A(4)(a) Demonstration Panel

Use bridge pier 9 as the demonstration panel for Prepare and Paint Concrete Bridge Pier

The demonstration panel must be:
1. Painted using the same personnel, materials, equipment, and methods to be used in the work
2. The entirety of pier 9 must be painted to the limits shown.

If ordered, prepare and paint additional demonstration panels on pier 9 until a satisfactory color gradient is attained.

The Engineer uses the authorized demonstration panel to determine the acceptability of the painted surface.
The demonstration panel must closely resemble the referee sample described in section 78-4.03B.

Replace the 2nd paragraph of section 78-4.03B with:

The paint must consist of the two colors. Both colors must be from the same manufacturer. The first color must match Matthews Paint color Blue Flag (MP01992). The second color must match Matthews Paint color Jet Stream (MP07490)

Comply with Section 91-5.

The painted concrete must match the color of the referee sample located at:

City of Long Beach
411 W. Ocean Blvd
Long Beach, CA 90802

Replace section 78-4.03C(1) with:

78-4.03C(1) General

Paint bridge identification under section 51-1.03E(1).

Add to section 78-4.03C(3):

Paint the surfaces such that they gradually transition between the two paint colors specified and closely resemble the two-color gradient of the referee sample.

Replace section 78-6 with:

78-6 COMMUNITY IDENTIFICATION (PANELS)

78-6.01 GENERAL

78-6.01A Summary

Section 78-6 includes specifications for furnishing and installing the Community Identification (Panels) as shown, and as described in the *Information Handout* in the document titled *Signature Gateway East Concept*. Panels consist of perforated aluminum and attachments to bridge members.

78-6.01B Definitions

Not used

78-6.01C Submittals

Submit a certificate of compliance for aluminum and all other components used in the panels.

Submit shop drawings and calculations for the panels. The shop drawings and calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

The shop drawings and calculations must include:

1. Panel layout
2. Panel dimensions
3. Complete details for the construction of the work, including methods of attachment, construction methods, sequence of shop and field assembly, installation procedures, and methods for adjustment to line and grade.
4. Welding sequences and procedures
5. Material specifications and grades
6. Material preparation and painting procedures
7. Design calculations that include stresses and deflections in all load carrying components of the panels.

Allow 30 days for the Department's review.

78-6.01D Quality Assurance

78-6.01D(1) General

Welding must comply with AWS D1.2 for aluminum.

78-6.01D(2) Mock-ups

Mock-up must be:

1. Full size representing one panel selected by the Engineer.
2. Available for viewing by the Engineer for a period of 5 days at the fabrication site prior to delivery to project site.
3. Furnished to the project site and installed at an authorized location on the bridge.
4. Furnished and installed using the personnel, materials, equipment, and methods to be used in the work.
5. Authorized before starting fabrication of final panels.

Notify the Engineer 10 days prior to the start of the viewing period at the fabrication site.

The Engineer may request that additional mock-ups be constructed until the desired results are attained.

The Engineer uses the authorized mock-up to determine the acceptability of the work.

The authorized mock-up may be incorporated into the final work.

78-6.02 MATERIALS

78-6.02A General

Panels and attachments must be fabricated from commercial quality aluminum.

Coatings must be provided from the same manufacturer, and comply with Section 91. Finish coats must have a satin finish and match the colors described in the *Information Handout*.

78-6.02B Design Criteria

Design panels to resist all vertical and horizontal loads. Comply with the current *AASHTO LRFD Structural Supports for Highway Signs, Luminaires, and Traffic Signals*.

78-6.03 CONSTRUCTION

Perform aluminum welding by the inert-gas-shielded arc welding process. Finish exposed aluminum welds to a neat surface.

Before painting, remove burrs and sharp edges, and chamfer all corners.

Blast clean surfaces to be painted under SSPC-SP 10.

Carefully handle the materials such that no parts are bent, broken, abraded, or otherwise damaged. Do not use manufacturing, handling, or installation methods that damage or distort the members or damage the painted surfaces.

Attaching panels by welding to bridge members is not permitted.

Panels must present a uniform appearance in their final position, conforming closely to the horizontal and vertical lines shown or ordered.

78-6.04 PAYMENT

Not Used

Replace section 78-7 with:

78-7 COMMUNITY IDENTIFICATION (LETTERS)

78-7.01 GENERAL

78-7.01A Summary

Section 78-7 includes specifications for furnishing and installing the Community Identification (Letters) as shown, and as described in the *Information Handout* in the document titled *Signature Gateway East Concept*. Letters are comprised of aluminum letter boxes, attachments to bridge members, internal polycarbonate panels, exterior acrylic faces, and wire raceways.

78-7.01B Definitions

Not used

78-7.01C Submittals

Submit a certificate of compliance for aluminum, polycarbonate sheets, acrylic sheets, sealants, and all other components used in the letters.

Submit shop drawings and calculations for the letters. The shop drawings and calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

The shop drawings and calculations must include:

1. Letter layout
2. Letter dimensions
3. Complete details for the construction of the work, including methods of attachment, construction methods, sequence of shop and field assembly, installation procedures, and methods for adjustment to line and grade.
4. Welding sequences and procedures
5. Material specifications and grades
6. Material preparation and painting procedures
7. Methods for accessing internal letter components for service
8. Design calculations that include stresses and deflections in all load carrying components of the letters.

Allow 30 days for the Department's review.

78-7.01D Quality Assurance

78-7.01D(1) General

Welding must comply with AWS D1.2 for aluminum.

78-7.01D(2) Mock-ups

Mock-up must be:

1. Full size representing the letters "G" and "B".
2. Include internal lighting components.
3. Available for viewing by the Engineer for a period of 5 days at the fabrication site prior to delivery to project site.
4. Furnished to the project site and installed at an authorized location on the bridge.
5. Furnished and installed using the personnel, materials, equipment, and methods to be used in the work.

6. Authorized before starting fabrication of final letters.

Notify the Engineer 10 days prior to the start of the viewing period at the fabrication site.

The Engineer may request that additional mock-ups be constructed until the desired results are attained.

Mock-up letters must be temporarily powered for viewing both at the fabrication site and at the project site.

The Engineer uses the authorized mock-up to determine the acceptability of the work.

The authorized mock-ups may be incorporated into the final work.

78-7.02 MATERIALS

78-7.02A General

Channel letter frames, back panels, wire raceways, and attachments must be fabricated from commercial quality aluminum.

Internal clear lenses must be fabricated from commercial quality polycarbonate sheets with low hazing and UV resistant characteristics.

Letter faces must be fabricated from commercial quality acrylic sheets with low hazing, UV resistant, and abrasion resistant surface coating.

Sealants must be clear and of commercial quality, compatible with the materials sealed, and suitable for outdoor exposure.

Coatings must be provided from the same manufacturer, and comply with Section 91. Finish coats must have a satin finish and match the colors described in the *Information Handout*.

78-7.02B Design Criteria

Design letters to resist all vertical and horizontal loads. Comply with the current *AASHTO LRFD Structural Supports for Highway Signs, Luminaires, and Traffic Signals*.

78-7.03 CONSTRUCTION

Perform aluminum welding by the inert-gas-shielded arc welding process. Finish exposed aluminum welds to a neat surface.

Before painting, remove burrs and sharp edges, and chamfer all corners.

Blast clean surfaces to be painted under SSPC-SP 10.

Carefully handle the materials such that no parts are bent, broken, abraded, or otherwise damaged. Do not use manufacturing, handling, or installation methods that damage or distort the members or damage the painted surfaces or letter faces.

Attaching letters by welding to bridge members is not permitted.

Letters must present a uniform appearance in their final position, conforming closely to the horizontal and vertical lines shown or ordered.

78-7.04 PAYMENT

Not Used

^^

DIVISION XI MATERIALS

91 PAINT

Replace section 91-5 with:

91-5 PAINT FOR COMMUNITY IDENTIFICTION ELEMENTS

91-4.01 GENERAL

Section 91-5 includes specifications for furnishing paint for Community Identification elements including bridge piers and perforated aluminum panels.

91-5.02 MATERIALS

91-5.02A General

All paint and clear coat to have a satin finish.

91-5.02B Primer

Primer must consist of Matthews epoxy primer and associated product listed below.

Product No.	Product Name
274530SP	2.1 VOC White Epoxy Primer
274529SP	2.1 VOC Epoxy Hardener

91-5.02C Paint

Paint must consist of Matthews acrylic polyurethane paint and associated products listed below.

Product No.	Product Name
MAP-LVS	Acrylic Polyurethane Ultra Low VOC Paint
MAP-LVX270	Low VOC Hardener
MAP-LVRS02	Spray Reducer with Pot-life Extender

91-5.02D Clear Coat

The clear coat must consist of Matthews products listed below.

Product No.	Product Name
MAP-LVC228	Ultra Low VOC Clear
MAP-LVX270	Low VOC Hardener
MAP-LVRS02	Spray Reducer with Pot-life Extender

Obtain Matthews products from a Matthews Paint Distributer:

MATTHEWS PAINT
760 PITTSBURGH DR
DELAWARE OH 43015
(800) 323-6593
https://www.ppg.com/en-US/refinish/products/matthews-paint

91-5.03 CONSTRUCTION

Prepare and apply primer, paint and clear coat per manufacturer guidance provided in the *Information Handout*.

91-5.04 PAYMENT

Not Used

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	1	63

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTION
3	PROJECT CONTROL
4	LAYOUT
5	CONSTRUCTION DETAIL
6	UTILITY PLAN
7	CONSTRUCTION AREA SIGNS
8-9	MOTORIST INFORMATION PLANS
10-15	TRAFFIC HANDLING DETAILS
16-40	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLANS
41-50	ARCHITECTURAL TREATMENT PLANS
51-57	ELECTRICAL PLANS

STRUCTURE PLANS

58-63 PALO VERDE Ave POC, BRIDGE No. 53-2713

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

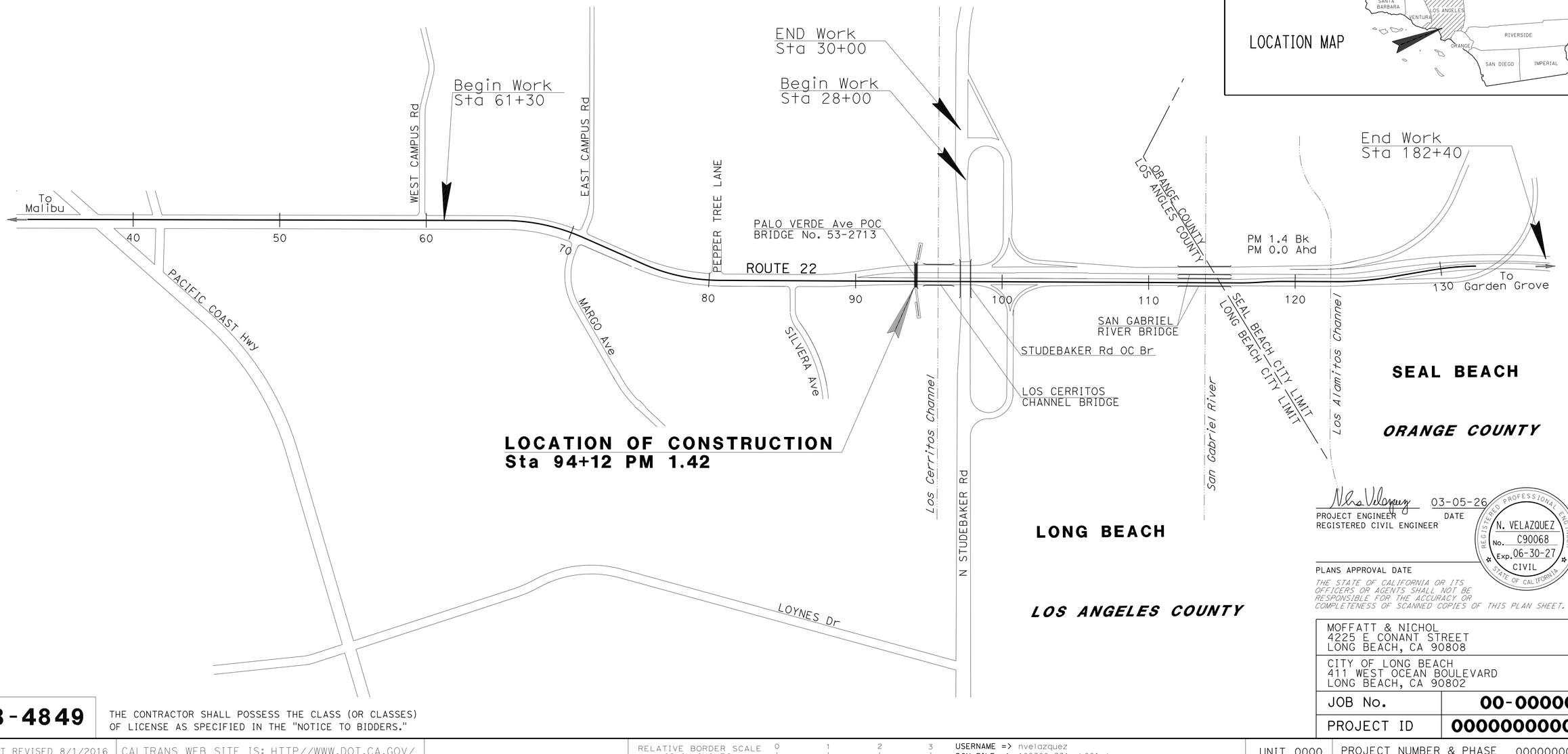
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN LOS ANGELES COUNTY
IN LONG BEACH
AT PALO VERDE AVENUE PEDESTRIAN OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2025



LOCATION MAP



LOCATION OF CONSTRUCTION
Sta 94+12 PM 1.42

Nicolas Velazquez 03-05-26
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
N. VELAZQUEZ
No. C90068
Exp. 06-30-27
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL 4225 E CONANT STREET LONG BEACH, CA 90808	
CITY OF LONG BEACH 411 WEST OCEAN BOULEVARD LONG BEACH, CA 90802	
JOB No.	00-000004
PROJECT ID	0000000000

APPROVED AS TO IMPACT ON STATE FACILITIES AND CONFORMANCE WITH APPLICABLE STATE STANDARDS AND PRACTICES AND THAT TECHNICAL OVERSIGHT WAS PERFORMED.

CONSULTANT DESIGN MANAGER	CALTRANS DESIGN OVERSIGHT APPROVAL	REGISTRATION No.	LICENSE Exp DATE	DATE SIGNED
NICOLAS VELAZQUEZ	N/A - COMMUNITY IDENTIFICATION PROJECT	C90068	06/30/27	03/04/26

B-4849

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:13:26 PM
LAST REVISION 00-00-00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	2	63

N. Velazquez 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

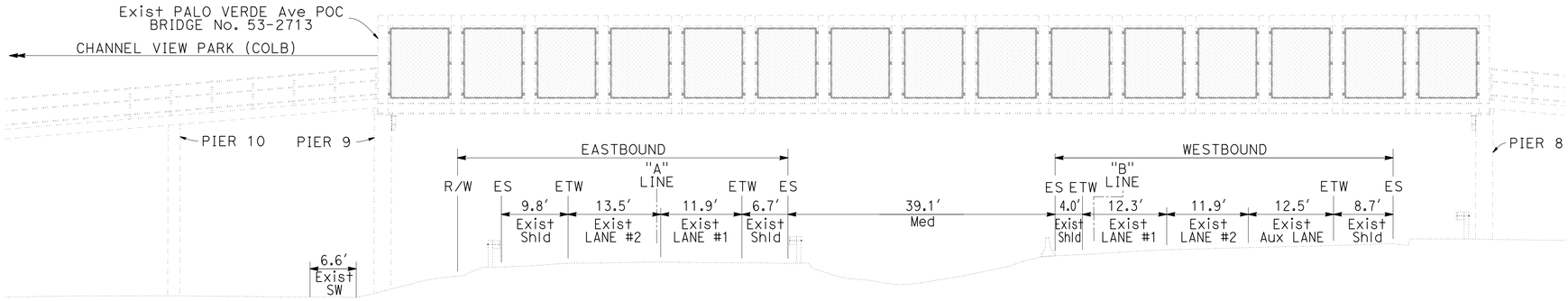
MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

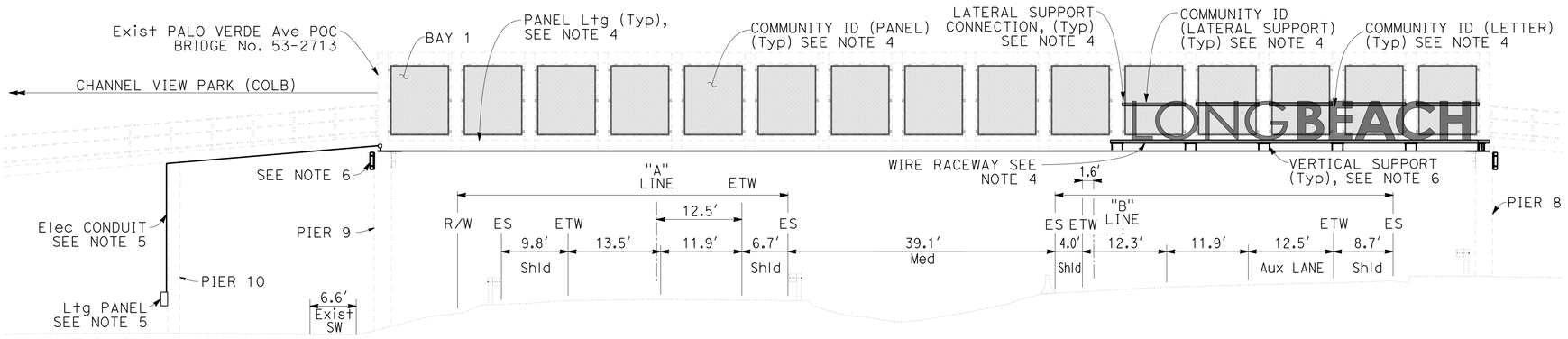
NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FIELD VERIFY LANE AND SHOULDER WIDTHS. DIMENSIONS SHOWN OBTAINED FROM AERIAL SURVEY. ALL DIMENSIONS ARE EXISTING.
3. WORK WITHIN ROADBED LIMITED TO TRAFFIC CONTROL.
4. SEE ARCHITECTURAL TREATMENT SHEETS FOR COMMUNITY IDENTICATION WORK.
5. SEE ELECTRICAL SHEETS FOR ELECTRICAL WORK.
6. SEE STRUCTURAL PLANS FOR STRUCTURAL WORK.
7. COMMUNITY ID TO BE INSTALLED ON EAST FACE ONLY. VIEW IN THE DIRECTION OF DECREASING STATION.

ABBREVIATIONS
COLB - CITY OF LONG BEACH
COMMUNITY ID - COMMUNITY IDENTIFICATION FEATURES TO BE INSTALLED ON BRIDGE



ROUTE 22 (EXISTING CONDITION)



ROUTE 22 (PROPOSED CONDITION)

EASTBOUND — **ROUTE 22** — WESTBOUND

"B" Sta 94+24.76
(LOOKING WEST, DOWN STATION)

TYPICAL CROSS SECTIONS

NO SCALE

X-1

B-4849

REVISED BY | DATE REVISED
N. VELAZQUEZ | T.POYER
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 3/11/2026
00-00-00 | TIME PLOTTED => 12:13:32 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => nvelazquez | DGN FILE => 109300-33A_ca001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	3	63

PROFESSIONAL LAND SURVEYOR — 01-31-25 DATE

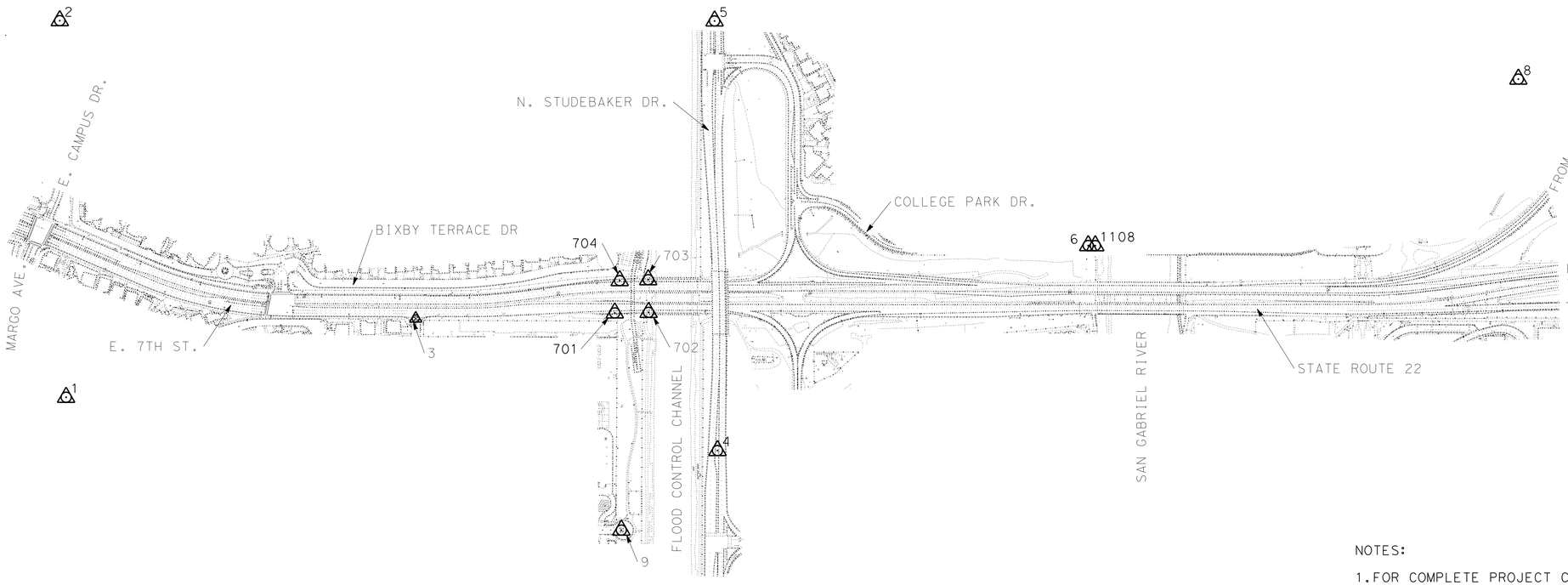
PLANS APPROVAL DATE

R. WALKER No. 7317 Exp. 12/31/26 — PROFESSIONAL LAND SURVEYOR — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

DAVID EVANS & ASSOCIATES, INC.
25152 SPRINGFIELD COURT
SUITE 350
SANTA CLARITA, CA 91355

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802



NOTES:

1. FOR COMPLETE PROJECT CONTROL DATA, SEE THE SURVEY RECORDS ON FILE IN THE SURVEYS DEPARTMENT AT THE DISTRICT OFFICE

2. BASIS OF BEARINGS AND COORDINATES:
THE COORDINATES AND BEQARINS SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CC83, ZONE V (1991.35) IN ACCORDANCE WITHG THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819; SAID COORDINATES AND BEARINGS ARE BASED LOCALLY ON UPON FIELD-OBSERVED TIES TO THE FOLLOWING CALIFORNIA SPATIAL REFERENCE SYSTEM, OR EQUIVALENT STATIONS: CNPP, CSHD, HOLP, P799, PVRS, SBCC, TORP, TRAK, AND WRHS.

MAPPING ANGLE AND GRID FACTOR:
MAPPING ANGLE: -00°03'21.68567"
COMBINATION FACTOR: 0.9999297350

CALCULATED AT:
LATITUDE: N33°46'29.42063"
LONGITUDE: W118°05'53.82713"
HEIGHT: -88.15793
NORTHING: 1,740,455.25341
EASTING: 6,531,796.14047
ELEVATION: 28.82557 (GEOID 18 DERIVED)

ALL COORDINATE VALUES AND DISTANCES SHOWN, UNLESS OTHERWISE NOTED, ARE IN TERMS OF THE U.S. SURVEY FOOT. AS USED HEREON, ELEVATION REFERS TO THE CALIFORNIA ORTHOMETRIC HEIGHT ("COH88") OR EQUIVALENT OF THE POINT AT WHICH THE MAPPING ANGLE AND COMBINATION FACTOR WERE CALCULATED IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 ("NAVD88"), AND HEIGHT REFERS TO THE ELLIPSOID HEIGHT AT THE CALIFORNIA GEODETIC COORDINATE USED TO CALCULATE THE COMBINATION FACTOR.

DISTANCES SHOWN HEREON ARE GRID DISTANCES. TO APPROXIMATE GROUND DISTANCES MULTIPLY SAID DISTANCE BY THE COMBINTAION FACTOR PROVIDED HEREON.

3. BASIS OF ELEVATIONS:
THIS PROJECT IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CITY OF LONG BEACH BECHMARK #1108B AND #1125 WERE USED FOR THIS SURVEY, WITH NAVD88 ELEVATIONS BEING DERIVED BY ADDING 2.42' TO PUBLISHED NGVD29 VALUES PER "VERTICAL DATUM PLANES FOR CITY OF LONG BEACH AND HARBOR" AS PUBLISHED BY THE CITY OF LONG BEACH DEPARTMENT OF PUBLIC WORKS.

PROJECT CONTROL

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1,739,867.011	6,527,799.837	20.68	SET MAG NAIL WITH PAINTED TARGET
2	1,741,328.423	6,527,775.106	71.09	SET MAG NAIL WITH PAINTED TARGET
3	1,740,172.563	6,529,157.347	24.25	SET MAG NAIL WITH PAINTED TARGET
4	1,739,660.181	6,530,329.156	15.50	SET MAG NAIL WITH PAINTED TARGET
5	1,741,327.404	6,530,317.843	10.61	SET MAG NAIL WITH PAINTED TARGET
6	1,740,455.665	6,531,768.668	27.22	SET MAG NAIL WITH PAINTED TARGET
7	1,739,491.527	6,533,873.288	8.51	SET MAG NAIL WITH PAINTED TARGET
8	1,741,101.661	6,533,439.036	7.96	SET MAG NAIL WITH PAINTED TARGET
9	1,739,351.395	6,529,955.849	13.37	SET MAG NAIL WITH PAINTED TARGET
701	1,740,194.348	6,529,930.195	16.09	SET MAG NAIL
702	1,740,196.498	6,530,061.462	16.46	SET MAG NAIL
703	1,740,323.137	6,529,949.324	19.38	SET MAG NAIL
704	1,740,319.733	6,530,060.111	18.38	SET MAG NAIL
1108	1,740,455.253	6,531,796.140	29.26	3.75" BRASS DISK "LACFCD 073-00100 BM"
1125	1,738,381.926	6,528,218.524	11.49	LEAD & TACK IN CATCH BASIN
CNPP	1,770,799.196	6,680,410.578	1098.511	CORS ARP CNPP_SCGN_CS1999
CSDH	1,772,067.092	6,483,732.375	89.993	CORS ARP CSU DOMINGUEZ HILLS
HOLP	1,794,960.092	6,510,653.540	97.736	CORS ARP HOLLYDALE
P799	1,796,189.886	6,468,737.680	201.509	CORS ARP LASWCOLLEGCA2011
PVRS	1,740,237.638	6,464,239.377	316.384	CORS ARP PVRS_SCGN_CS1998
SBCC	1,659,876.533	6,664,823.956	406.256	CORS ARP SBCC_SCGN_CS1999
TORP	1,748,958.184	6,461,224.213	103.412	CORS ARP TORRENCE AIRPORT
TRAK	1,683,393.772	6,621,523.319	497.050	CORS ARP BOMMER CANYON
WRHS	1,807,425.369	6,431,999.821	145.931	CORS ARP WESTCHESTER HIGH

NOTE: CALTRANS SURVEY REQUEST #18117 VALUES WERE USED FOR THE CORS NOTED ABOVE- SPECIFICALLY VALUES COPIED FROM "LA 001 PM 0-19 SR 18117.CSV" RECIEVED FROM CALTRANS IN OCTOBER, 2023.

TRANSFORMATION PARAMETERS CALCULATED WHEN PROCESSING & ADJUSTING PROJECT CONTROL RELATIVE TO THE STATIONS NOTED ABOVE:
DEFLECTION IN LATITUDE: 00°00'00.215"
DEFLECTION IN LONGITUDE: -00°00'00.001"
AZIMUTH ROTATION: 00°00'00.160"
SCALE FACTOR: 0.99999896

1125

LEGEND:

PROJECT CONTROL (HORIZONTAL + VERTICAL)

ABBREVIATIONS:

BM	BENCHMARK
LAFCD	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

N

GRID

APPROVED FOR PROJECT CONTROL INFORMATION ONLY

PROJECT CONTROL

NO SCALE

PC-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: S. STEINHOFF
CHECKED BY: R. WALKER
CONSULTANT FUNCTIONAL SUPERVISOR: ROB WALKER, L.S.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

B-4849

LAST REVISION 00-00-00 | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:13:59 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => nvelazquez | DGN FILE => 109300-33A_dc001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	4	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE



THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

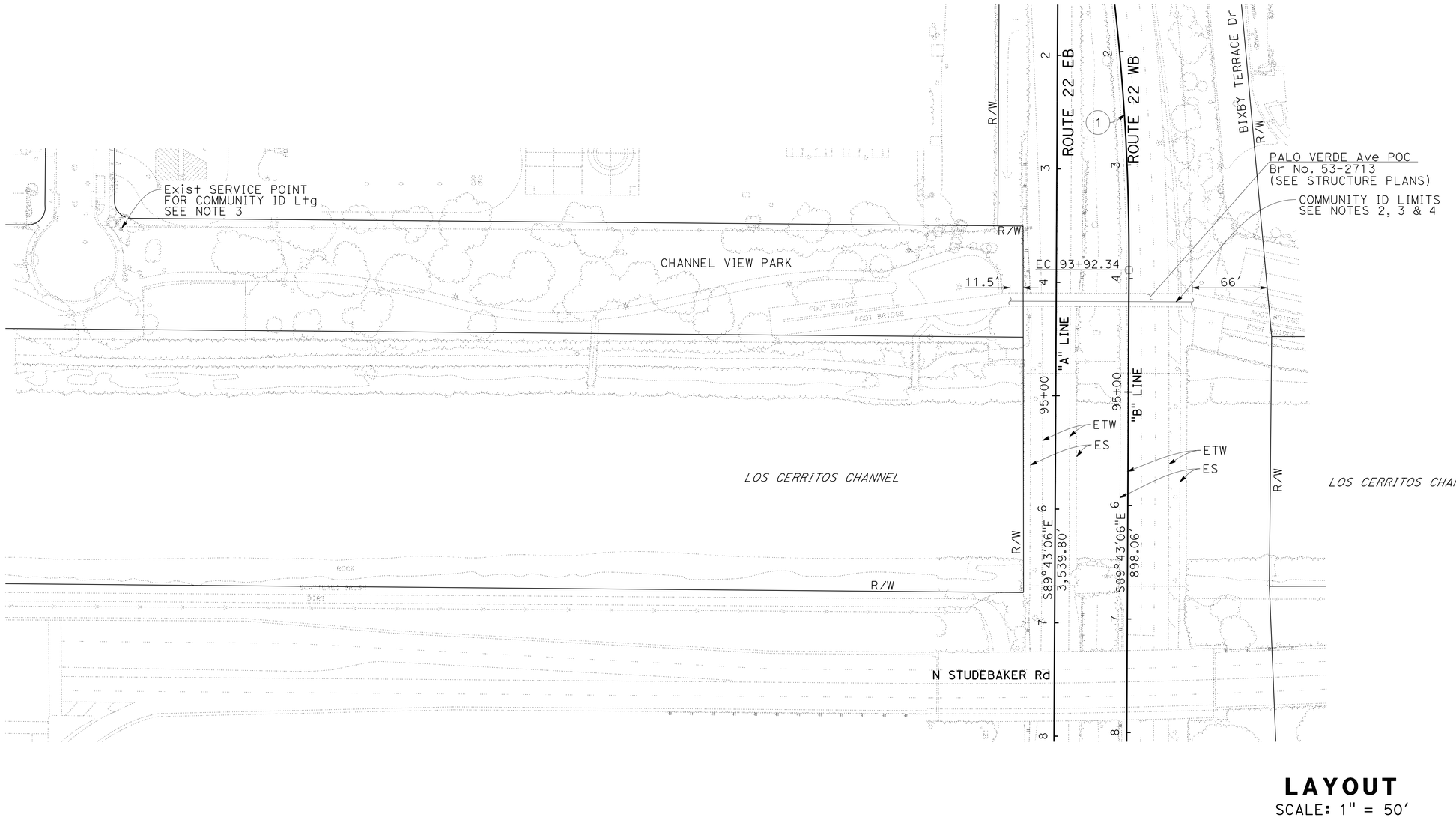
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FOR COMMUNITY ID SEE ARCHITECTURAL TREATMENT SHEETS.
3. FOR COMMUNITY ID LIGHTING SEE ELECTRICAL SHEETS.
4. FOR STRUCTURE MODFICATIONS SEE STRUCTURE PLANS.

ABBREVIATIONS:

COLB	CITY OF LONG BEACH
COMMUNITY ID	COMMUNITY IDENTIFCATION (COLB GATEWAY SIGN ON EAST FACE OF Exist POC)

CURVE DATA

No. (#)	R	Δ	T	L
1	2,000	7°50′12"	136.99	273.56



LAYOUT
SCALE: 1" = 50′

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T.POYER
REVISED BY
DATE REVISED

B-4849

LAST REVISION: DATE PLOTTED => 3/11/2026
00-00-00 TIME PLOTTED => 12:14:05 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ea001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS OR COMMENCING WORK.
3. WORK WITHIN ROADBED LIMITED TO TRAFFIC CONTROL.
4. SEE ARCHITECTURAL TREATMENT SHEETS FOR COMMUNITY IDENTICATION WORK.
5. SEE ELECTRICAL SHEETS FOR ELECTRICAL WORK.
6. SEE STRUCTURAL PLANS FOR STRUCTURAL WORK.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	5	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

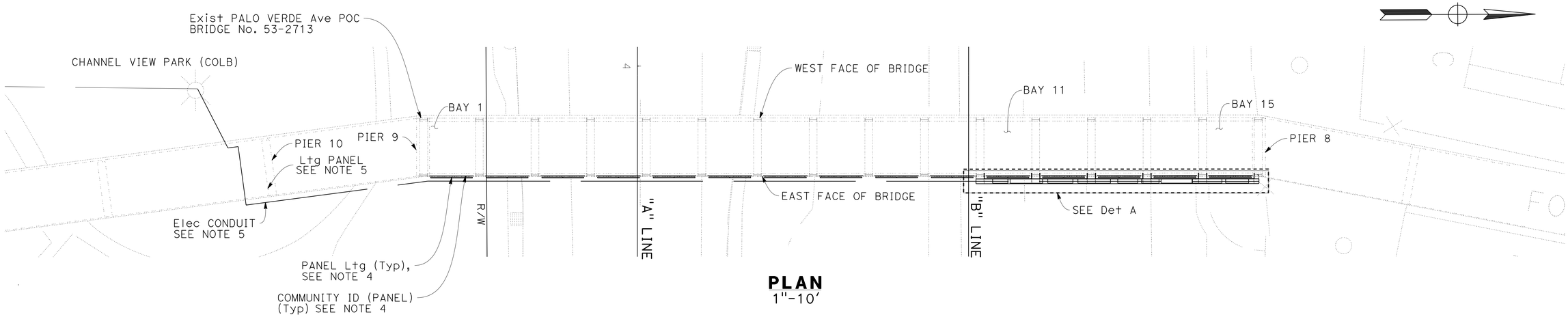
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

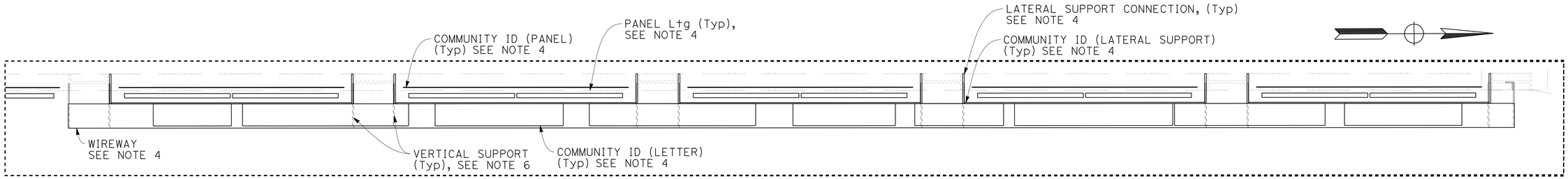
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802



PLAN
1"-10'



PLAN: DETAIL A
1"-2'

CONSTRUCTION DETAIL

SCALE: AS SHOWN

C-1

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA

LAST REVISION 00-00-00
DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:14:13 PM

BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_ga001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	6	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. EXCAVATION LIMITED TO LOCATION SHOWN IN Det A. SEE ELECTRICAL SHEETS FOR TRENCH DETAIL.
3. UTILITY INFORMATION IS INCOMPLETE. A UTILITY INVESTIGATION WAS COMPLETED ONLY WITHIN A 50 FOOT RADIUS OF PROPOSED EXCAVATION LOCATION.
4. UTILITY OWNERSHIP

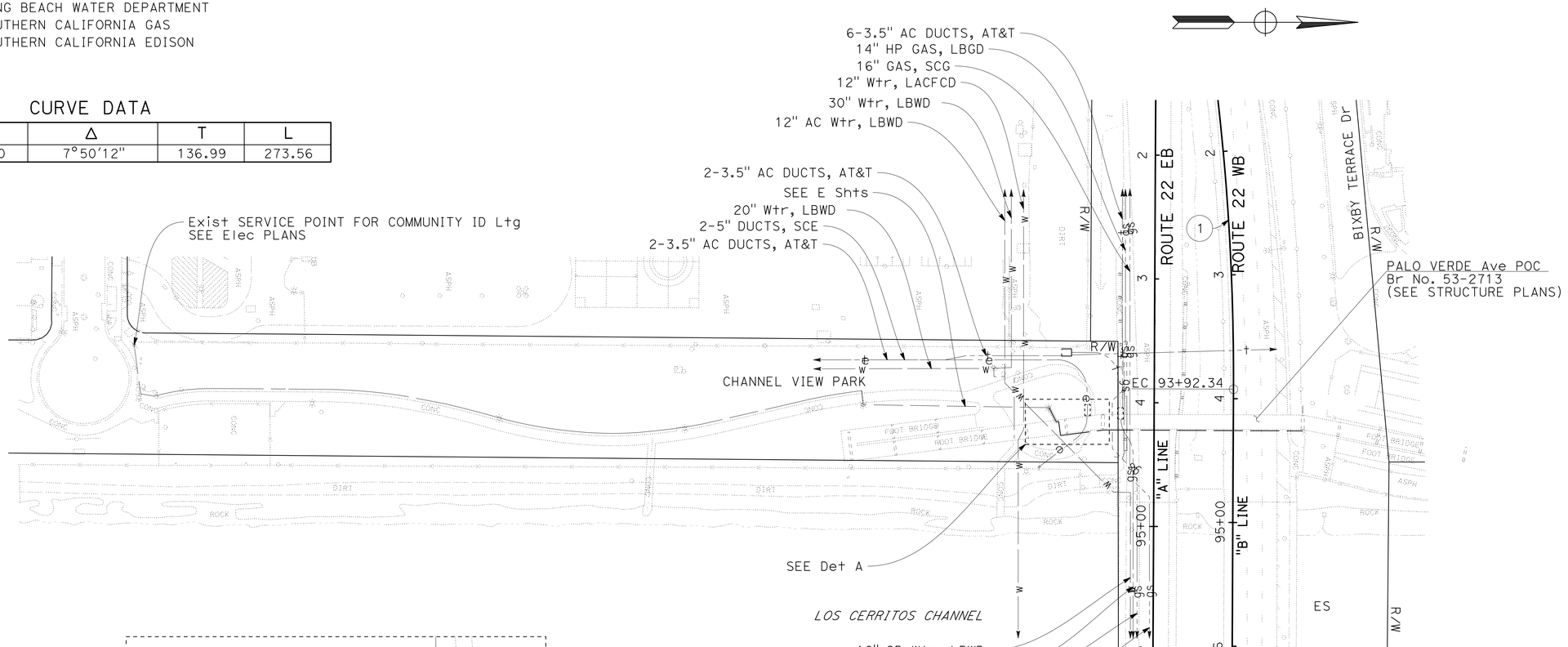
AT&T	-	AMERICAN TELEPHONE & TELEGRAPH
LACFD	-	LOS ANGELES COUNTY FIRE DISTRICT
LBGD	-	LONG BEACH GAS DEPARTMENT
LBWD	-	LONG BEACH WATER DEPARTMENT
SCG	-	SOUTHERN CALIFORNIA GAS
SCE	-	SOUTHERN CALIFORNIA EDISON

ABBREVIATIONS:

COLB	CITY OF LONG BEACH
COMMUNITY ID	COMMUNITY IDENTIFCATION (COLB GATEWAY SIGN ON EAST FACE OF Exist POC)
HP	HIGH PRESSURE

CURVE DATA

No. ⑪	R	Δ	T	L
1	2,000	7°50′12"	136.99	273.56



DETAIL A

UTILITY PLAN

SCALE: 1" = 50′

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

U-1

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY | DATE REVISED

LAST REVISION: DATE PLOTTED => 3/11/2026 TIME PLOTTED => 12:14:21 PM
00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ka001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	7	63

REGISTERED CIVIL ENGINEER — DATE: 02-26-26

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

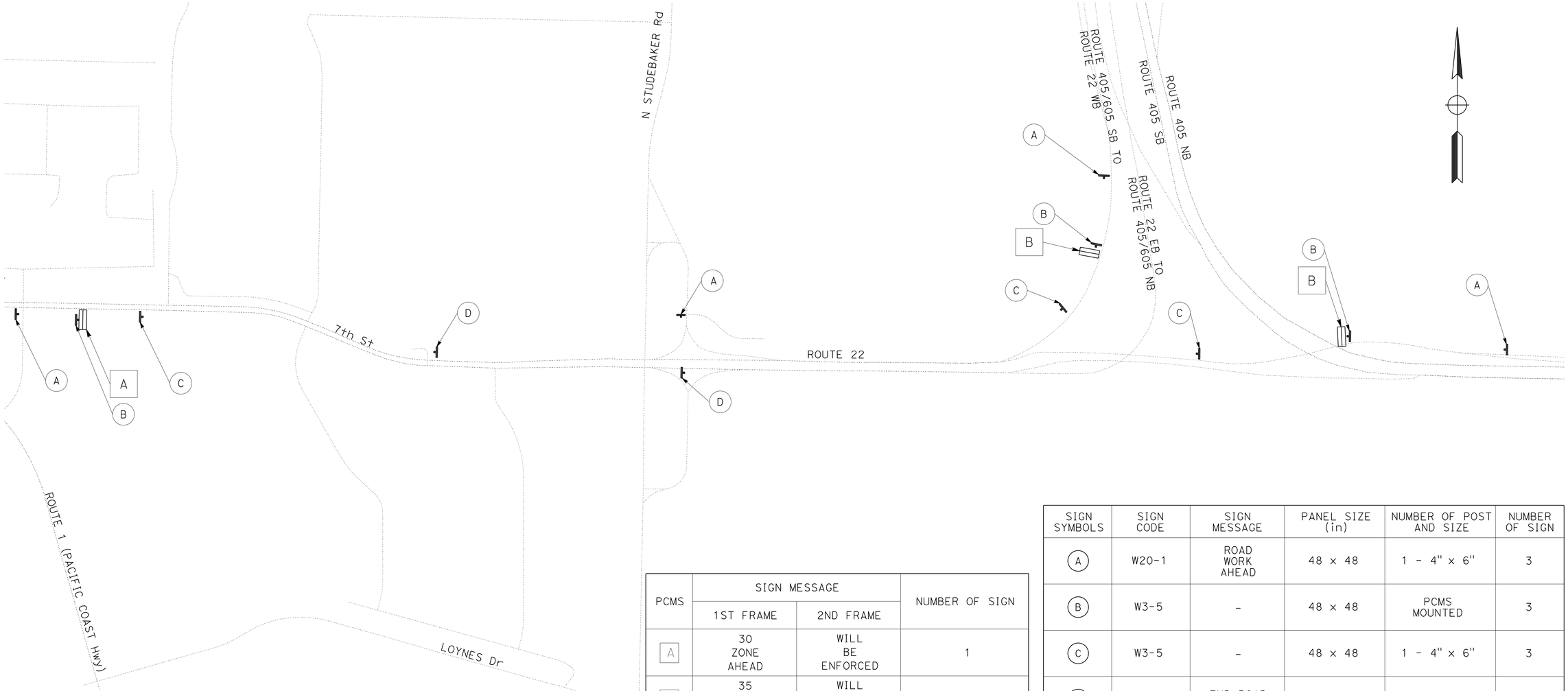
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MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.



PCMS	SIGN MESSAGE		NUMBER OF SIGN
	1ST FRAME	2ND FRAME	
A	30 ZONE AHEAD	WILL BE ENFORCED	1
B	35 ZONE AHEAD	WILL BE ENFORCED	2

SIGN SYMBOLS	SIGN CODE	SIGN MESSAGE	PANEL SIZE (in)	NUMBER OF POST AND SIZE	NUMBER OF SIGN
A	W20-1	ROAD WORK AHEAD	48 x 48	1 - 4" x 6"	3
B	W3-5	-	48 x 48	PCMS MOUNTED	3
C	W3-5	-	48 x 48	1 - 4" x 6"	3
D	G20-2	END ROAD WORK	36 x 18	1 - 4" x 4"	2

CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
REVISED BY
DATE REVISED

LAST REVISION
DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:14:26 PM
00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ta001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	8	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

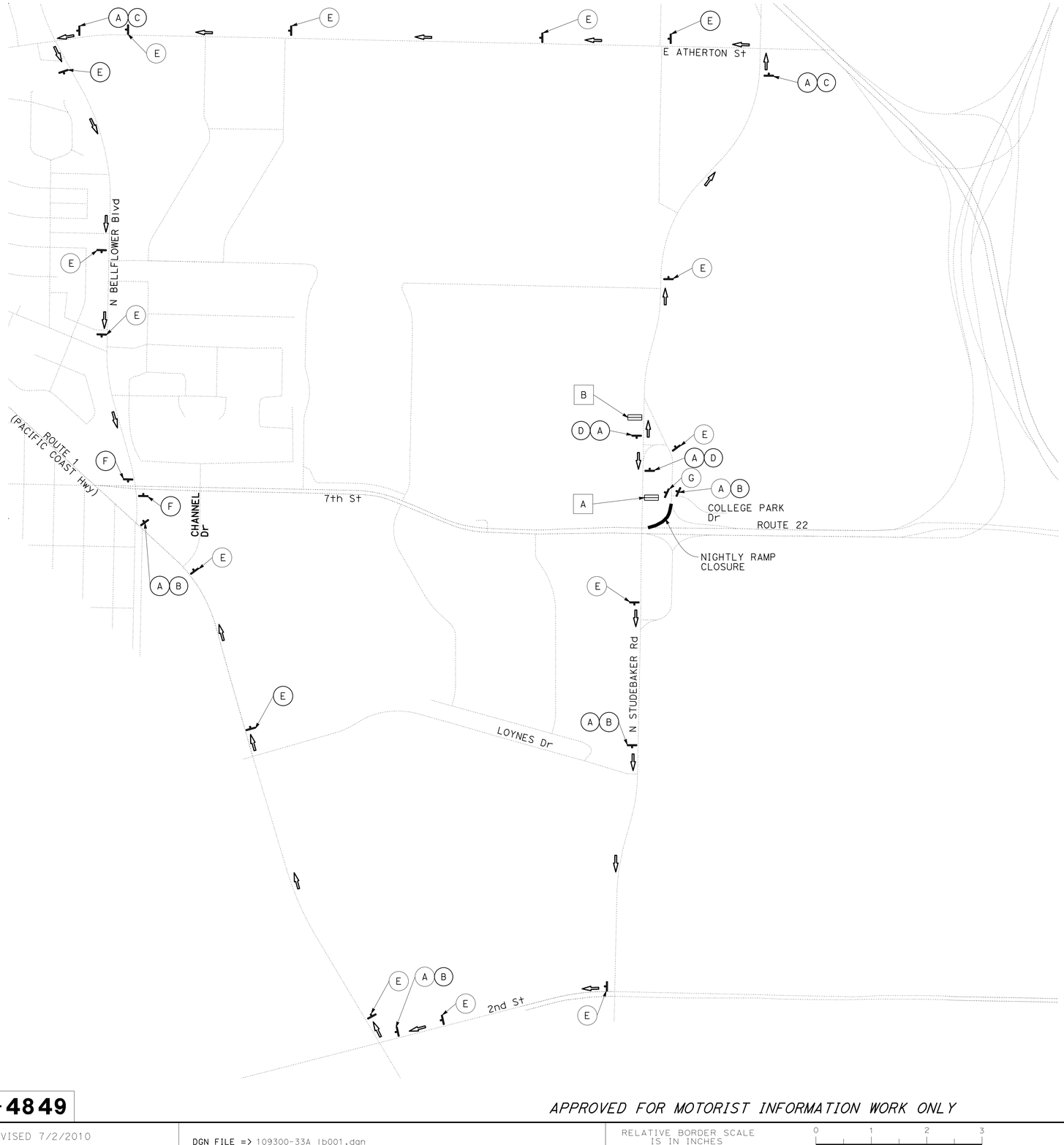
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

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MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802



GENERAL NOTES (ALL STAGES):

1. LOCATIONS FOR DETOUR SIGNS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER. CALIFORNIA CODES ARE DESIGNATED BY (CA). OTHERWISE, FEDERAL (MUTCD) CODES ARE SHOWN.
2. EXACT MESSAGES ON PCMS WILL BE DETERMINED BY THE ENGINEER.
3. SINGLE POST DETOUR SIGNAGE SHOULD BE COVERED WHEN NOT IN USE.
4. REMOVE OR COVER EXISTING CONFLICTING SIGNS DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.
5. MOUNT SIGN BOTTOM A MINIMUM OF 7 FEET ABOVE GROUND.
6. FOR ADDITIONAL PCMS LOCATIONS AND MESSAGES, SEE SPECIAL PROVISIONS.

LEGEND

- ROAD CLOSURE (NIGHTLY)
- DIRECTION OF DETOUR TRAFFIC
- CONSTRUCTION AREA SINGLE POST SIGN
- (X) DETOUR ROUTE SIGN
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

SIGN SYMBOLS	SIGN CODE	SIGN MESSAGE	PANEL SIZE (in)	NUMBER OF POST AND SIZE	NUMBER OF SIGN
A	M4-8	DETOUR	30 x 15	9 - 6 x 6	8
	M3-4	WEST	30 x 15		
	G7-1(CA)	SEVENTH ST	48 x 24		
B	M6-1(R)	DIRECTIONAL	21 x 15		4
C	M6-1(L)	DIRECTIONAL	21 x 15		2
D	M6-3	DIRECTIONAL	21 x 15		8
E	SC3(CA)	DETOUR	48 x 18	7 - 6 x 6	11
F	M4-8a	END DETOUR	24 x 18	2 - 6 x 6	2
G	SP-1	RAMP CLOSED	48 x 60	1 - 6 x 6	1

PCMS	SIGN MESSAGE		NUMBER OF SIGN
	1ST FRAME	2ND FRAME	
A	ON-RAMP TO W22 CLOSED	USE DETOUR AHEAD	1
B	ON-RAMP TO W22 CLOSED	USE DETOUR AHEAD	1

MOTORIST INFORMATION PLAN

NO SCALE

MI-1

APPROVED FOR MOTORIST INFORMATION WORK ONLY

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ — CHECKED BY: T. POYER

REVISED BY — DATE REVISED

LAST REVISION: 00-00-00 — DATE PLOTTED => 3/11/2026 — TIME PLOTTED => 12:14:31 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_1b001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	9	63

REGISTERED CIVIL ENGINEER — DATE 02-26-26

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — STATE OF CALIFORNIA

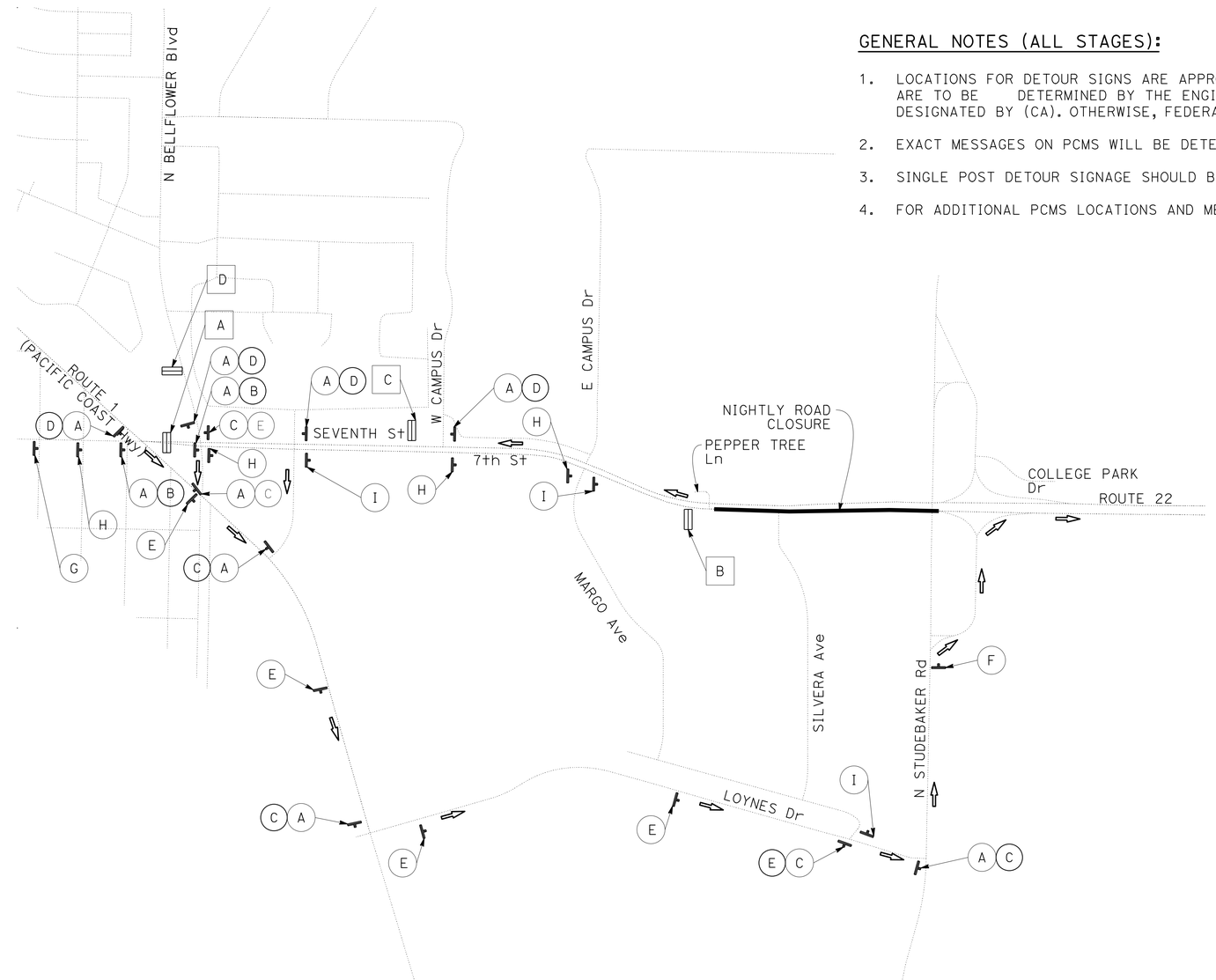
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MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

GENERAL NOTES (ALL STAGES):

1. LOCATIONS FOR DETOUR SIGNS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER. CALIFORNIA CODES ARE DESIGNATED BY (CA). OTHERWISE, FEDERAL (MUTCD) CODES ARE SHOWN.
2. EXACT MESSAGES ON PCMS WILL BE DETERMINED BY THE ENGINEER.
3. SINGLE POST DETOUR SIGNAGE SHOULD BE COVERED WHEN NOT IN USE.
4. FOR ADDITIONAL PCMS LOCATIONS AND MESSAGES, SEE SPECIAL PROVISIONS.



LEGEND

- ROAD CLOSURE (NIGHTLY)
- DIRECTION OF DETOUR TRAFFIC
- CONSTRUCTION AREA SINGLE POST SIGN
- (X) DETOUR ROUTE SIGN
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

SIGN SYMBOLS	SIGN CODE	SIGN MESSAGE	PANEL SIZE (in)	NUMBER OF POST AND SIZE	NUMBER OF SIGN
(A)	M4-8	DETOUR	30 x 15	9 - 6 x 6	8
	M3-2	EAST	30 x 15		
	G28-2(CA)	22	48 x 24		
(B)	M6-1(R)	DIRECTIONAL	21 x 15		4
(C)	M6-1(L)	DIRECTIONAL	21 x 15		5
(D)	M6-3	DIRECTIONAL	21 x 15		2
(E)	SC3(CA)	DETOUR	48 x 18	7 - 6 x 6	4
(F)	M4-8a	END DETOUR	24 x 18	2 - 6 x 6	1
(G)	W20-1	ROAD WORK AHEAD	48 X 48	1 - 6 x 6	1
(H)	W20-3	FREEWAY CLOSED AHEAD	48 X 48	1 - 6 x 6	4
(I)	R11-4	ROAD CLOSED TO THRU TRAFFIC	60 X 30		3

PCMS	SIGN MESSAGE		NUMBER OF SIGN
	1ST FRAME	2ND FRAME	
[A]	FREEWAY CLOSED AHEAD	USE DETOUR AHEAD	1
[B]	ROAD CLOSED	USE DETOUR AHEAD	1
[C]	DETOUR TRAFFIC	TURN LEFT AT CHANNEL	1
[D]	EAST 22 (7TH ST) CLOSED	USE DETOUR AHEAD	1

MOTORIST INFORMATION PLAN

NO SCALE

MI-2

APPROVED FOR MOTORIST INFORMATION WORK ONLY

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:14:37 PM
00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_tb002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

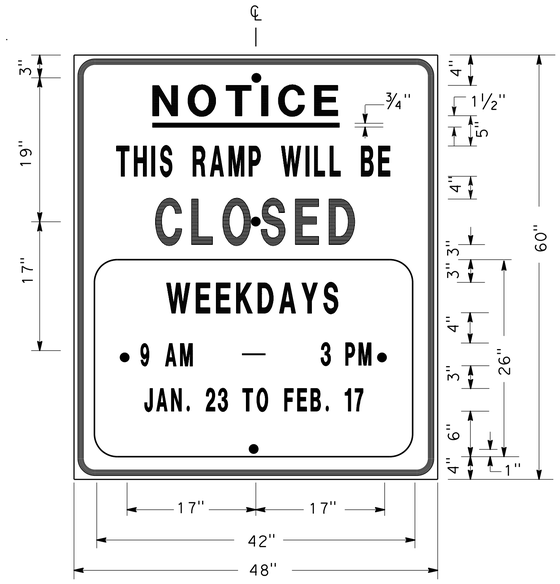
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	10	63

N. Velazquez 02-26-26
REGISTERED CIVIL ENGINEER DATE

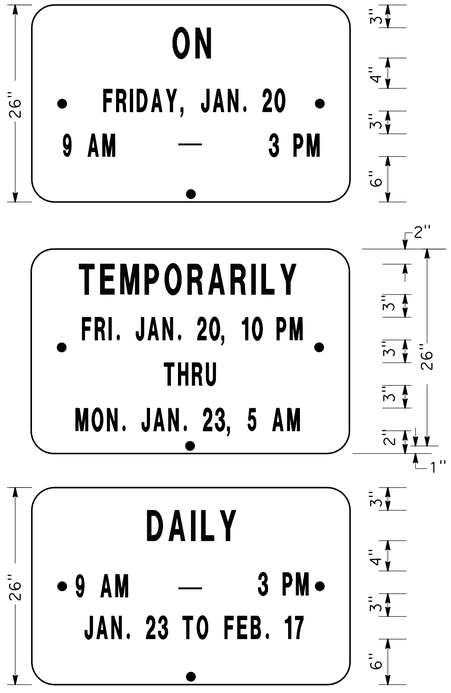
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp 06-30-27 — CIVIL — STATE OF CALIFORNIA

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SIGN SP-1



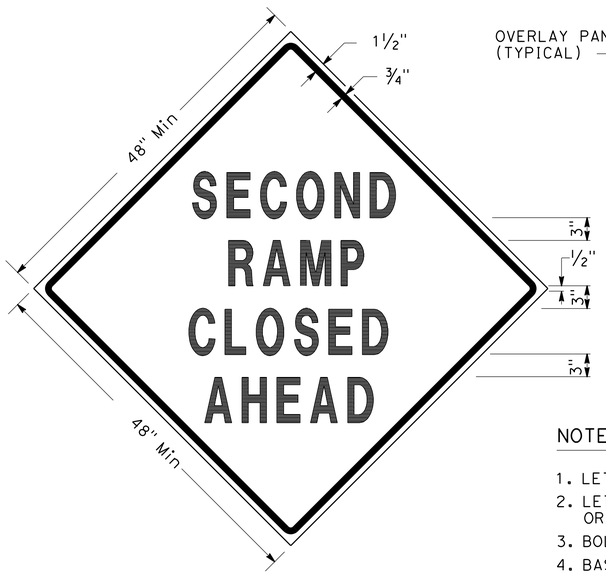
ALTERNATE OVERLAY PANELS (TYPICAL)

NOTES: SIGN SP-1

1. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
2. BOLT HOLES MUST BE ⅜" DIAMETER.
3. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
4. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7′ ABOVE GROUND.

SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5, 6, & 7*	
48"x60"	1¼"	¾"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1½"
* CONDENSED SPACING IF NECESSARY								

SPECIAL ADVANCE NOTICE PUBLICITY SIGN



SIGN SP-3



SIGN SP-5

NOTES: SIGNS SP-3 & SP-5

1. LETTERS - 6" SERIES D.
2. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
3. BOLT HOLES MUST BE ⅜" DIAMETER.
4. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
5. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7′ ABOVE GROUND.
6. SIGN SP-5 MUST BE USED IF THE OFF-RAMP TO BE CLOSED FOLLOWS A FREEWAY OFF-CONNECTOR.

SPECIAL SIGNS FOR EXIT RAMP CLOSURES

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY



SIGN SP-4

NOTES: SIGN SP-4

1. LETTERS - 6" SERIES C.
2. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
3. BOLT HOLES MUST BE ⅜" DIAMETER.
4. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
5. SIGNS MUST BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH STANDARD PLAN T14.

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS
SHEET 1 OF 2

NO SCALE

THD-1

REVISED BY	KL
DATE REVISED	11/21
CALCULATED-DESIGNED BY	N. VELAZQUEZ
CHECKED BY	T. POYER
FUNCTIONAL SUPERVISOR	GEORGIA A. MEDINA, P.E.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®

B-4849

LAST REVISION DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

BORDER LAST REVISED 8/5/2020 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT XXXX | PROJECT NUMBER & PHASE XXXXXXXXXX1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	11	63

N. Velazquez 02-26-26
REGISTERED CIVIL ENGINEER DATE

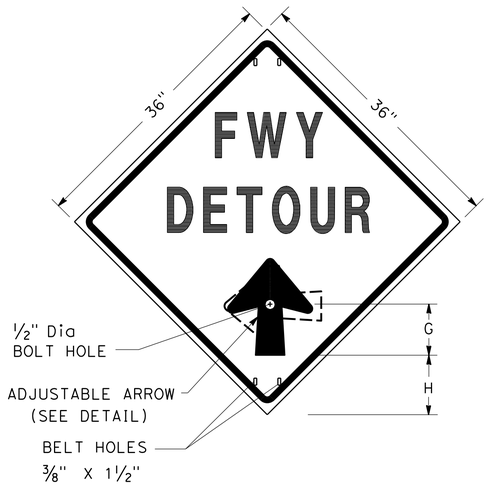
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
N. VELAZQUEZ
No. C90068
Exp 06-30-27
CIVIL
STATE OF CALIFORNIA

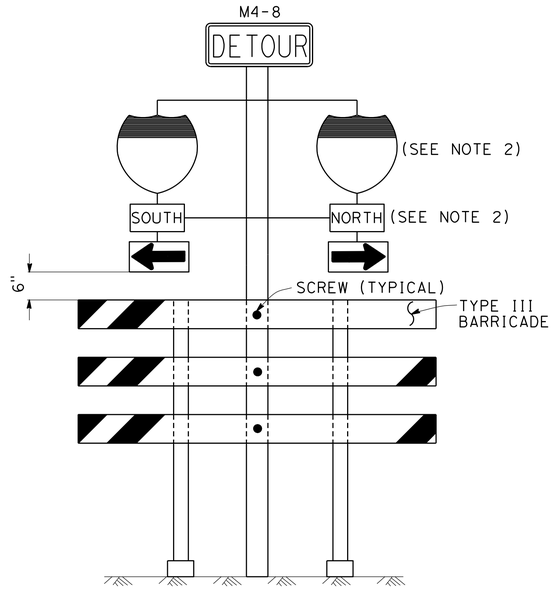
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ABBREVIATION

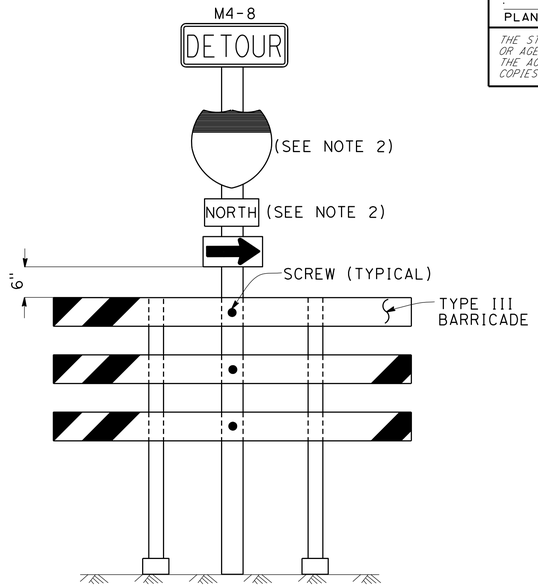
(CA) CALIFORNIA CODE



SIGN SP-2



SIGN SP-6 (SEE NOTE 1)



SIGN SP-7 (SEE NOTE 1)

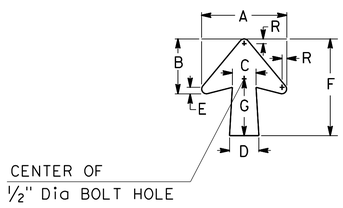
NOTES: SIGN SP-2

1. LETTERS - 6" SERIES E.
2. LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
3. BASE MATERIAL FOR SIGNS AND ARROWS MUST BE ALUMINUM (MINIMUM 0.06").
4. BELTS (LUGGAGE STRAPS) MUST BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
5. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND EXCEPT AS OTHERWISE SHOWN ON OTHER TRAFFIC HANDLING DETAILS PLANS.

NOTES: SIGNS SP-6 & SP-7

1. IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
2. USE APPROPRIATE ROUTE MARKER [G26-2(CA), G27-2(CA), G28-2(CA)] AND CARDINAL DIRECTION [NORTH (M3-1), SOUTH (M3-3), EAST (M3-2), WEST (M3-4)].

SPECIAL PORTABLE FREEWAY DETOUR SIGNS



DIMENSIONS								
A	B	C	D	E	F	G	H	R
11¼"	7¼"	3⅛"	4"	⅞"	13"	6⅜"	7¾"	⅝"

SPECIAL PORTABLE FREEWAY DETOUR SIGN

ADJUSTABLE ARROW DETAIL

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS

SHEET 2 OF 2

NO SCALE

THD-2

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
REVISED BY: DD
DATE REVISED: 9/22
FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

BORDER LAST REVISED 8/5/2020
USERNAME => $USER
DGN FILE => $REQUEST
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT XXXX
PROJECT NUMBER & PHASE XXXXXXXXXX1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	12	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ No. C90068 Exp 06-30-27 CIVIL — STATE OF CALIFORNIA

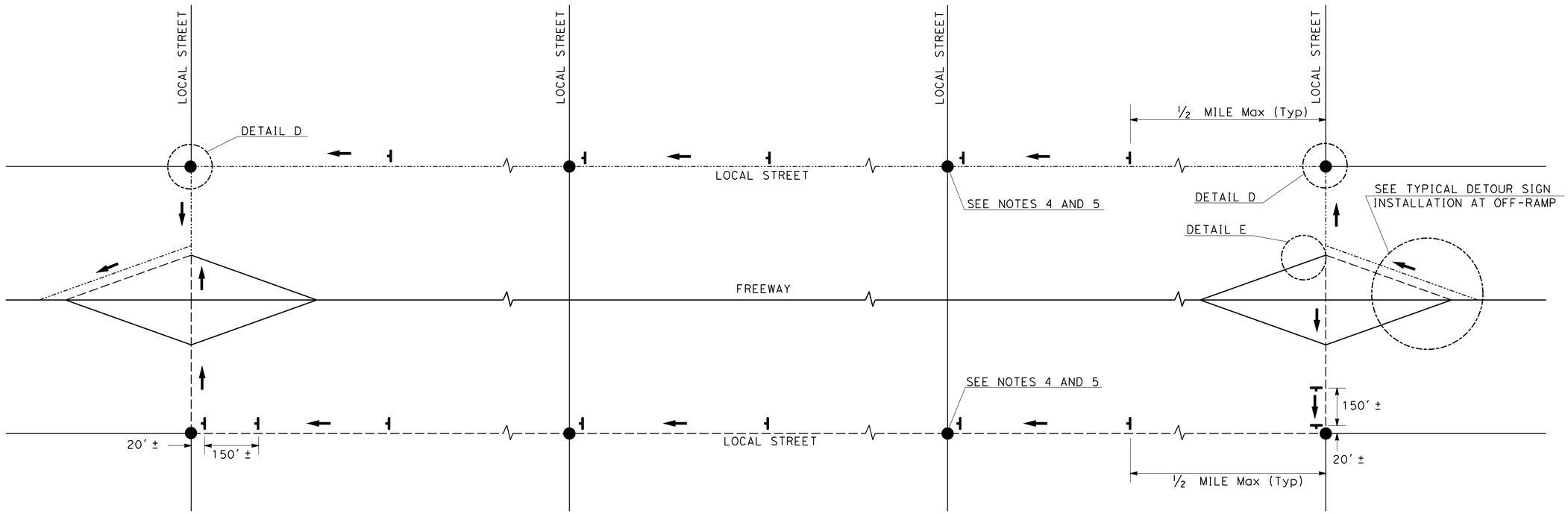
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LEGEND

- SIGN SP-2
- AND/OR — DESIGNATED DETOUR ROUTE
- DETOUR DIRECTION
- CONTROLLED INTERSECTION

NOTES:

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
4. SP-2 SIGNS MUST BE POSTED AT EACH CONTROLLED INTERSECTION (EXCEPT AT COMMERCIAL PROPERTY, RESIDENTIAL COMPLEX OR T-INTERSECTION FROM ONE-WAY STREET) ALONG THE DESIGNATED DETOUR ROUTE.
5. UNLESS OTHERWISE SHOWN ON OTHER THD PLANS, WHEN CONTROLLED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE ARE CLOSELY SPACED, PLACE SP-2 SIGNS AT CONTROLLED INTERSECTIONS AT A DISTANCE NOT TO EXCEED 1/4 MILE FROM THE PRECEDING DETOUR SIGN.
6. EXCEPT AS OTHERWISE SHOWN ON OTHER PLANS OR SPECIFIED IN THE SPECIAL PROVISIONS, SP-2 SIGNS MUST BE PLACED AS SHOWN ON THIS PLAN.



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

SHEET 1 OF 3

NO SCALE

THD-3

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
REVISED BY: KL — DATE REVISED: 11/21
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

B-4849

LAST REVISION — DATE PLOTTED => $DATE — TIME PLOTTED => $TIME

BORDER LAST REVISED 8/5/2020 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT XXXX | PROJECT NUMBER & PHASE XXXXXXXXXX1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	13	63

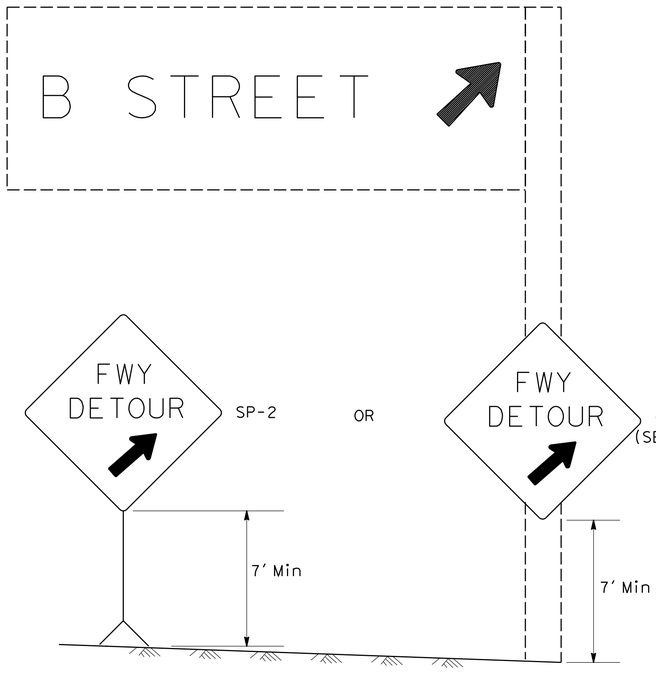
REGISTERED CIVIL ENGINEER — DATE 02-26-26

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

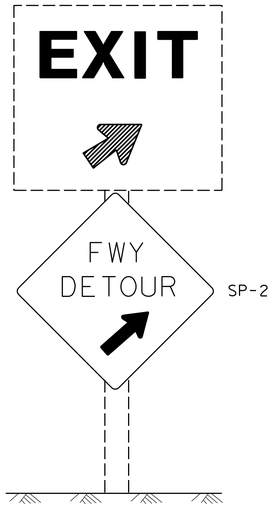
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Exist G85 (CA)



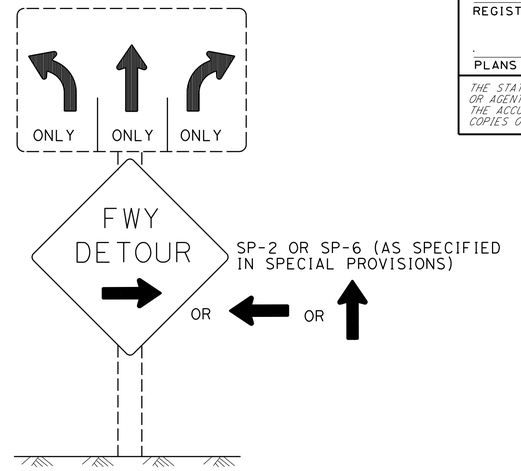
DETAIL A (SEE NOTE 3)

Exist E5-1, G84-2 (CA) OR G84-3 (CA)

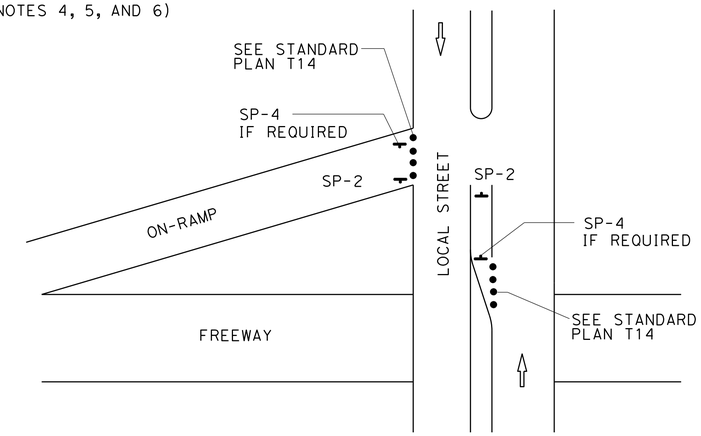


DETAIL B (SEE NOTE 3)

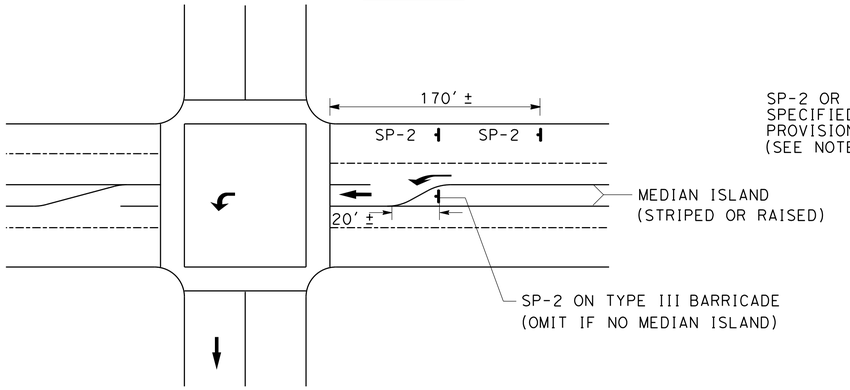
Exist R3-8 SERIES



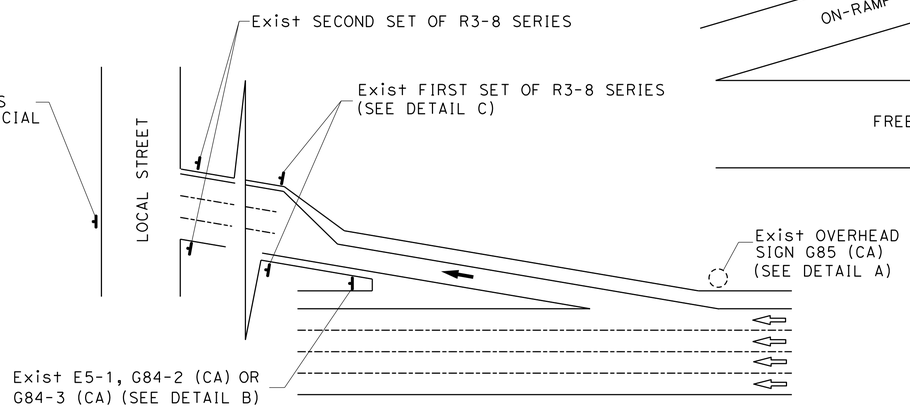
DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL E



DETAIL D



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

LEGEND

- • TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- → DETOUR DIRECTION
- ◌ EXISTING OVERHEAD SIGN

NOTES: SIGN SP-2

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. OMIT DETAILS A AND B FOR FULL FREEWAY CLOSURES.
4. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-6 SIGN DETAILS.
5. IF R3-8 SERIES SIGNS ARE NOT PRESENT AT THE OFF-RAMP, SP-2 OR SP-6 SIGNS MUST BE FASTENED ONTO EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
6. EXCEPT FOR DETAILS A & B, OMIT SP-2 SIGNS IF RAMP HAS MANDATORY SINGLE MOVE.

SIGN CODE LEGEND

XXYY-Y: FEDERAL SIGN CODE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MUTCD

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE
SHEET 2 OF 3

NO SCALE **THD-4**

B-4849

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

CALCULATED-DESIGNED BY N. VELAZQUEZ
CHECKED BY T. POYER
REVISED BY KL
DATE REVISED 11/21
FUNCTIONAL SUPERVISOR GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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BORDER LAST REVISED 8/5/2020 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT XXXX | PROJECT NUMBER & PHASE XXXXXXXXXX1

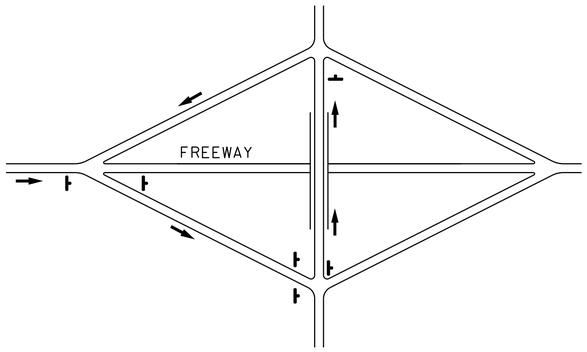
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	14	63

N. Velazquez 02-26-26
REGISTERED CIVIL ENGINEER DATE

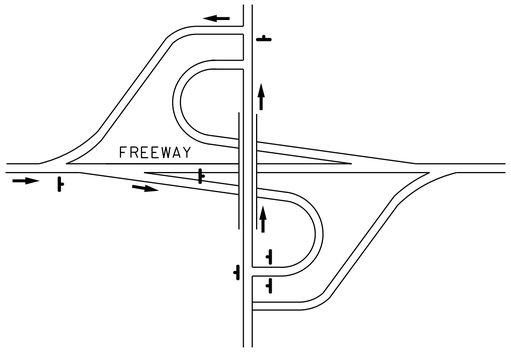
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
N. VELAZQUEZ
No. C90068
Exp 06-30-27
CIVIL
STATE OF CALIFORNIA

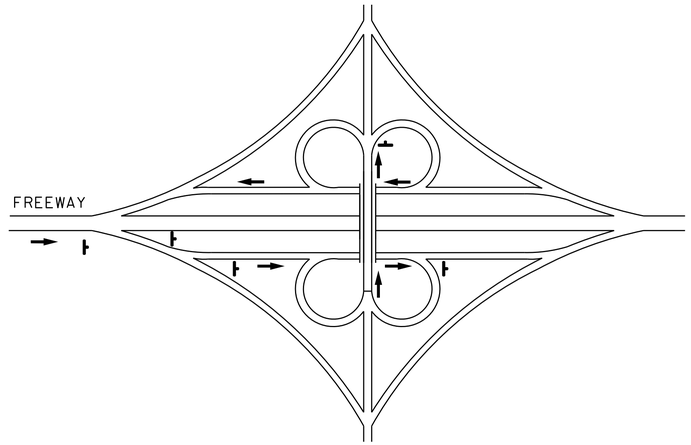
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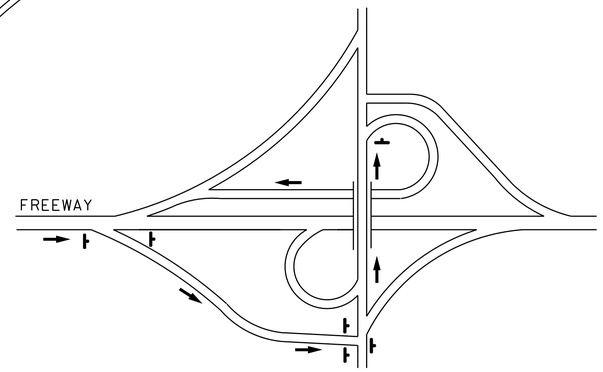
TYPE I



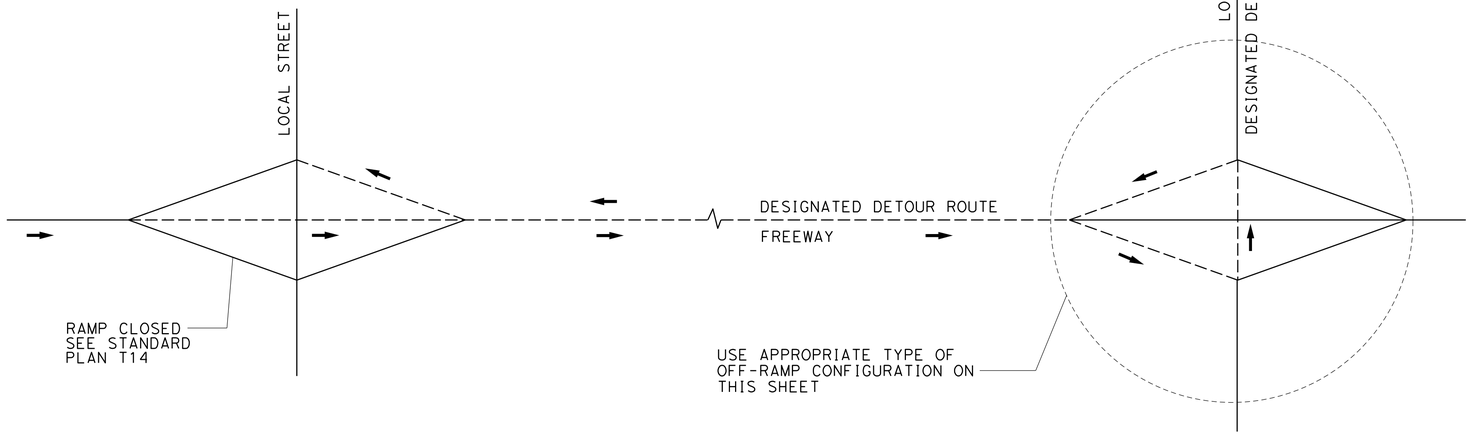
TYPE II

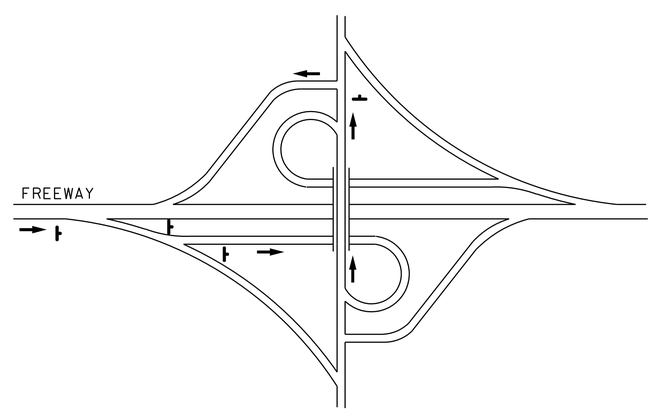


TYPE III



TYPE IV





TYPE V

TYPE OF OFF-RAMP CONFIGURATION	MINIMUM No. OF SP-2
TYPE I	6
TYPE II	6
TYPE III	5
TYPE IV	6
TYPE V	4

TYPICAL DETOUR SIGN INSTALLATION FOR OFF-RAMP CLOSURE

NOTES:

1. FOR RAMP CONFIGURATIONS NOT SHOWN, THE EXACT LOCATIONS AND MINIMUM NUMBER OF SP-2 SIGNS MUST BE DETERMINED BY THE ENGINEER.
2. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-2 SIGN DETAILS.

LEGEND

- SIGN SP-2
- DETOUR DIRECTION
- DESIGNATED DETOUR ROUTE

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE
SHEET 3 OF 3

NO SCALE **THD-5**

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

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REVISED BY	KL
DATE REVISED	11/21

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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TIME PLOTTED => $TIME

BORDER LAST REVISED 8/5/2020
USERNAME => $USER
DGN FILE => $REQUEST
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT XXXX
PROJECT NUMBER & PHASE XXXXXXXXXX1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	15	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ No. C90068 Exp 06-30-27 CIVIL — STATE OF CALIFORNIA

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NOTES:

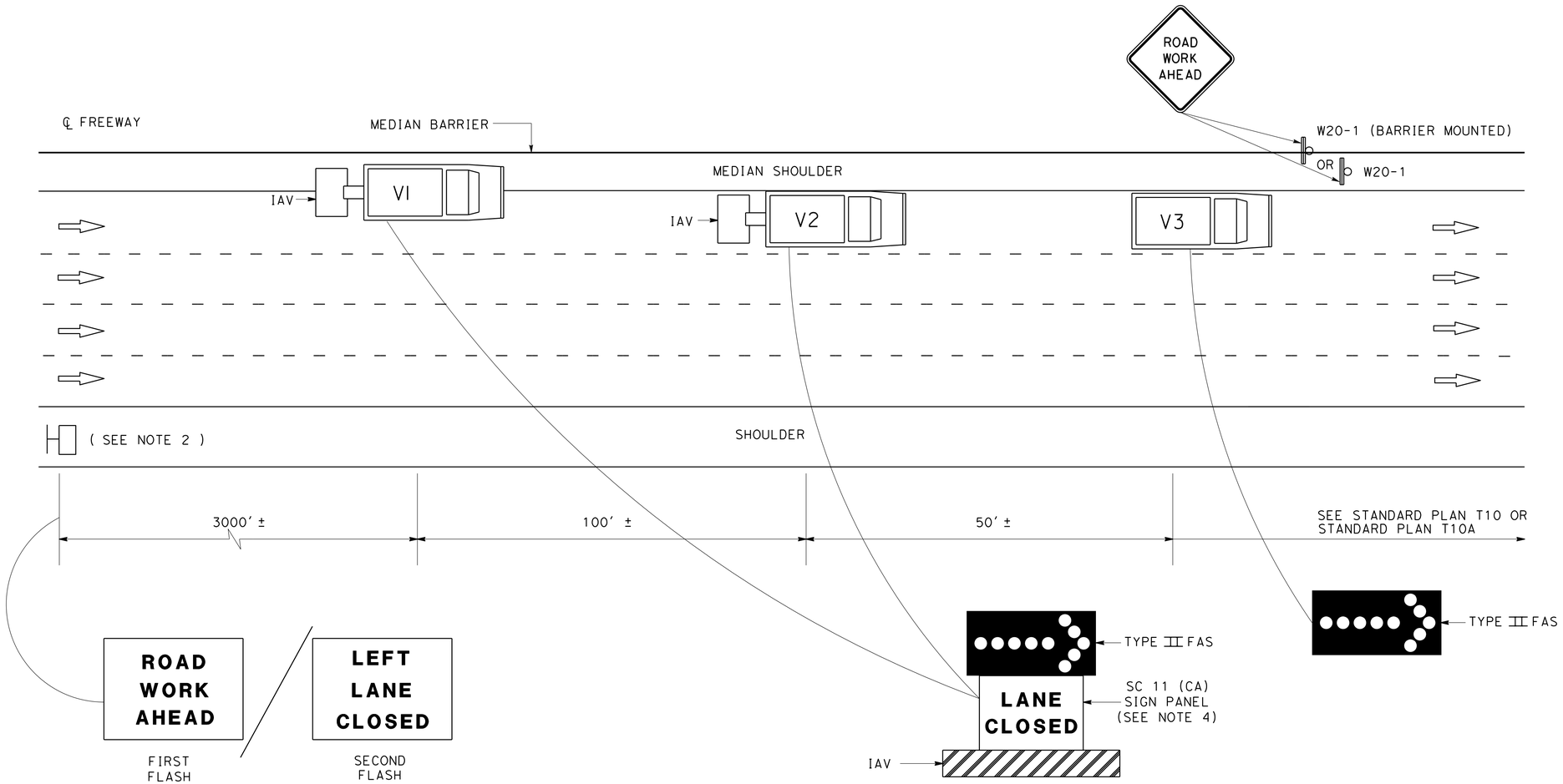
1. LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. PCMS MUST BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE LANE.
3. A MINIMUM SIGHT DISTANCE OF 1500' MUST BE PROVIDED IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS MUST BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.

LEGEND

V1, V2	SHADOW VEHICLES
V3	WORK/APPLICATION VEHICLE
	PCMS
	TEMPORARY TRAFFIC CONTROL SIGN
	FLASHING ARROW SIGN (FAS)

ABBREVIATIONS

IAV	IMPACT ATTENUATOR VEHICLE
(CA)	CALIFORNIA CODE



PCMS OR TRUCK MOUNTED CMS MESSAGE

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR MEDIAN SHOULDERS LESS THAN 8 FEET

NO SCALE

THD-6

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

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KL	11/21

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BORDER LAST REVISED 8/5/2020 | USERNAME => $USER, DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT XXXX | PROJECT NUMBER & PHASE XXXXXXXXXX1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	16	63

N. Velazquez — 02-26-26
REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER
N. VELAZQUEZ
No. C90068
Exp. 06-30-27
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

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MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

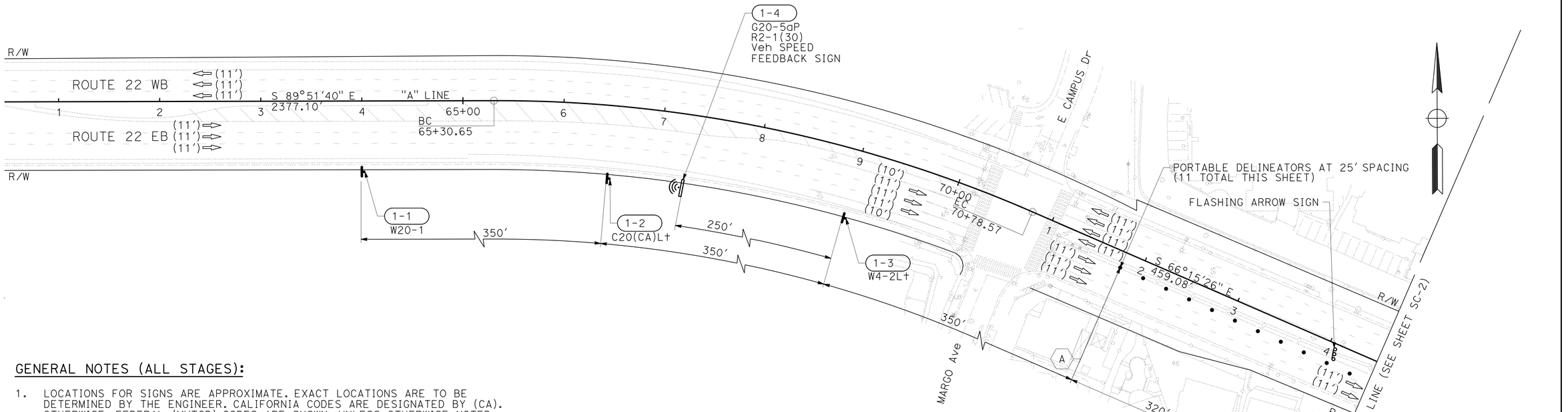
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



GENERAL NOTES (ALL STAGES):

1. LOCATIONS FOR SIGNS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER. CALIFORNIA CODES ARE DESIGNATED BY (CA). OTHERWISE, FEDERAL (MUTCD) CODES ARE SHOWN. UNLESS OTHERWISE NOTED, SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND.
2. ALL STAGE CONSTRUCTION TRAFFIC SHALL BE HANDLED USING PORTABLE DELINEATORS OR CHANNELIZING DRUM UNLESS OTHERWISE NOTED.
3. FOR LANE CLOSURE AND HOUR REQUIREMENTS, SEE PROJECT SPECIFICATIONS.

LEGEND (ALL SC SHEETS):

	CONSTRUCTION THIS STAGE	(X)	TRAFFIC HANDLING NOTE
•	PORTABLE DELINEATOR		CONSTRUCTION AREA SIGN (ONE POST)
	TYPE II BARRICADE		CONSTRUCTION AREA SIGN (TWO POST)
	FLASHING ARROW BOARD		EXISTING ROADSIDE SIGN (ONE POST)
	DIRECTION OF TRAFFIC		EXISTING ROADSIDE SIGN (TWO POST)
XX′	LANE DIMENSION	##-##	CONSTRUCTION AREA SIGN (SHEET No. - SIGN)
(XX′)	EXISTING LANE DIMENSION	BII	CONSTRUCTION SIGN MOUNTED ON TYPE II BARRICADE
(#)	CONSTRUCTION NOTE		EXISTING SIGN TO REMAIN
	PORTABLE RADAR SPEED FEEDBACK SIGN SYSTEM		

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1A

SCALE: 1" = 50′

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-1

B-4849

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:15:12 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	17	63

N. Velazquez 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
N. VELAZQUEZ
No. C90068
Exp. 06-30-27
CIVIL
STATE OF CALIFORNIA

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4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

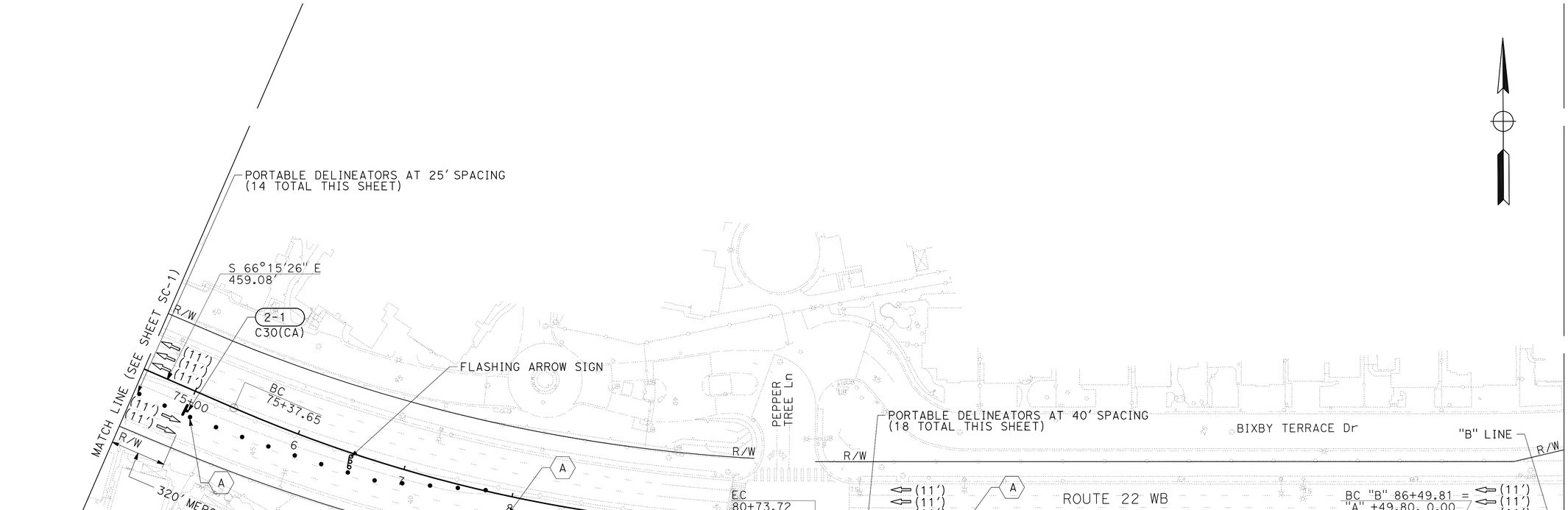
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1A

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-2

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CALCULATED-DESIGNED BY: N. VELAZQUEZ
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DATE REVISED

LAST REVISION DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:15:18 PM
00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	18	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — STATE OF CALIFORNIA

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

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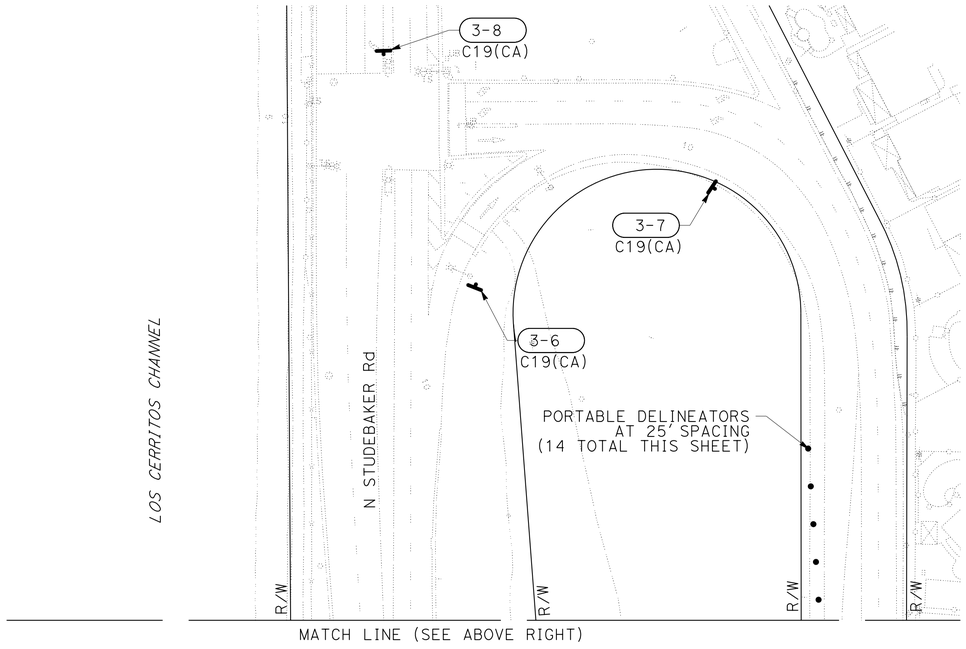
1 ERECT PANELS, INSTALL LIGHTING, AND LETTERS. (SEE Elec, Str, AND Arch PLANS)

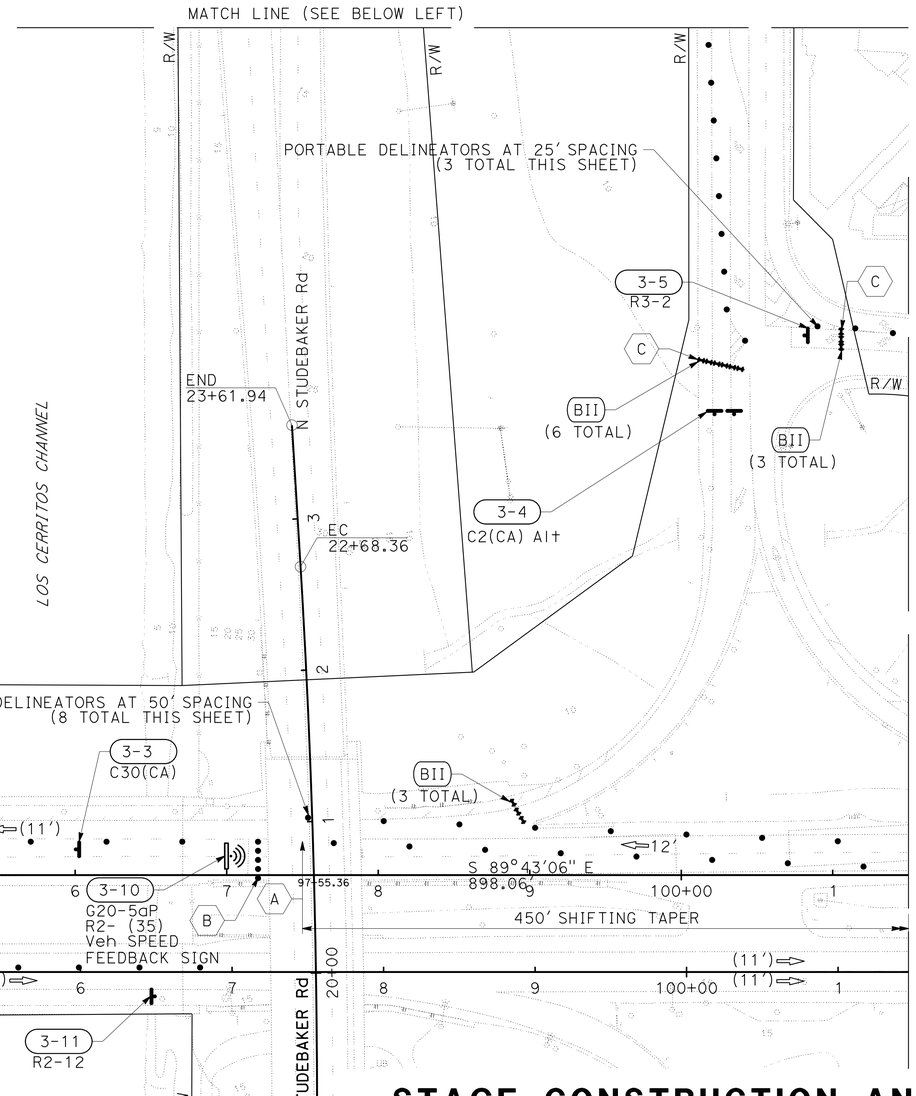
TRAFFIC HANDLING NOTES (THIS SHEET):

A SHIFTING TAPER AS SHOWN.

B LANE CLOSURE AS SHOWN.

C RAMP CLOSURE AS SHOWN.





STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1A

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-3

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
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DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026
00-00-00 | TIME PLOTTED => 12:15:25 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	19	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

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LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

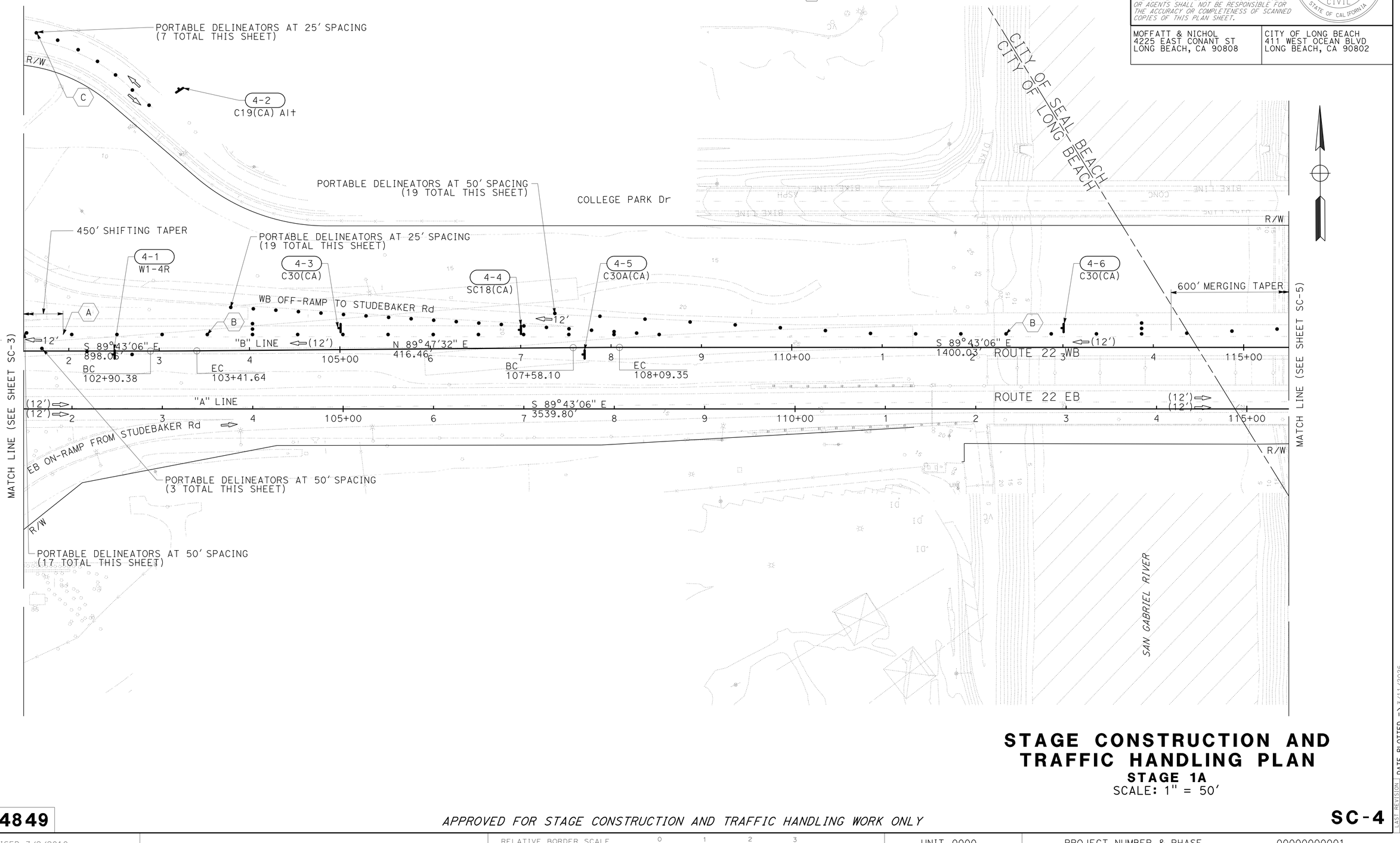
NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) SHIFTING TAPER AS SHOWN.

(B) LANE CLOSURE AS SHOWN.

(C) RAMP CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1A

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

SC-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E. | CALCULATED-DESIGNED BY: N. VELAZQUEZ | CHECKED BY: T. POYER | REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:15:31 PM | 00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma004.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	20	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

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LONG BEACH, CA 90802

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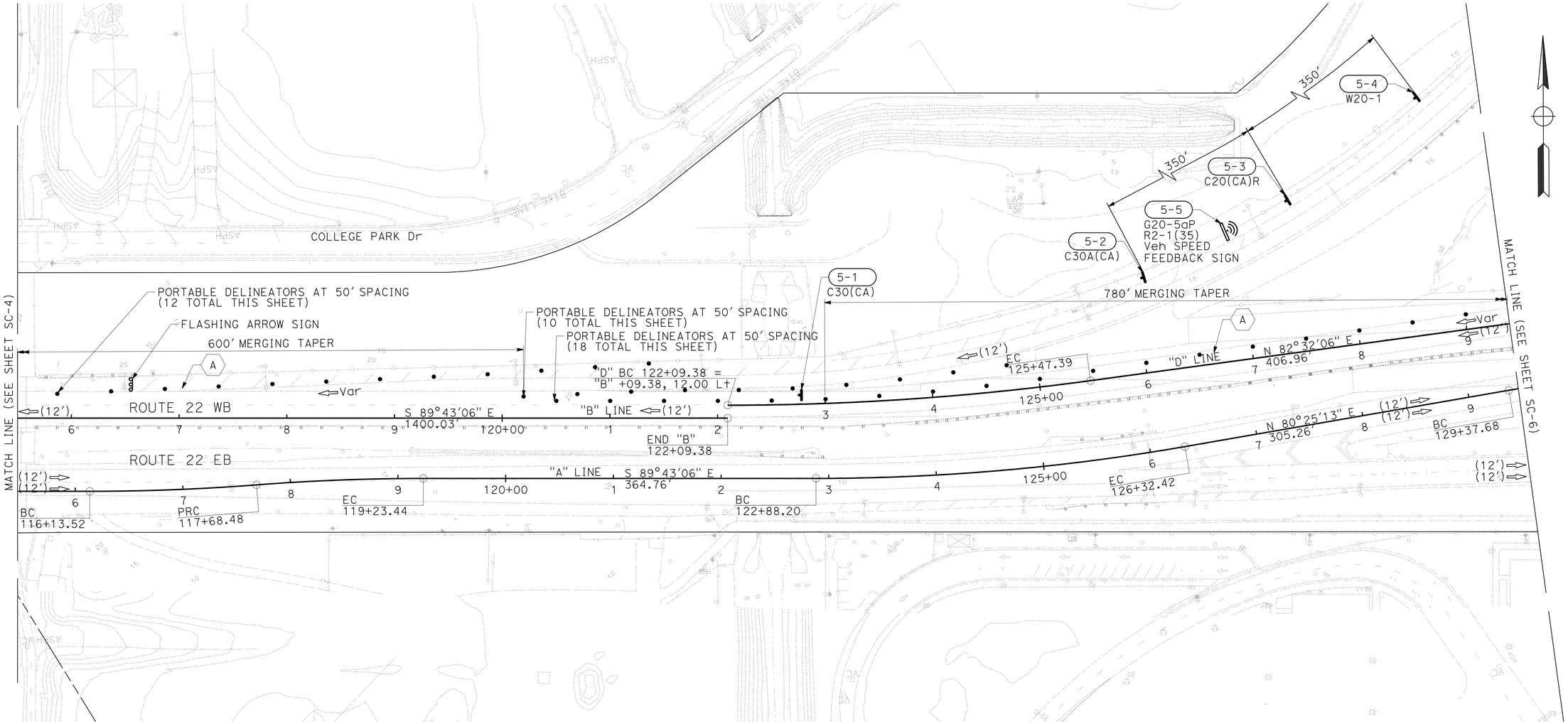
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1A

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-5

B-4849

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma005.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	21	63

REGISTERED CIVIL ENGINEER — DATE 02-26-26

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

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CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

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1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

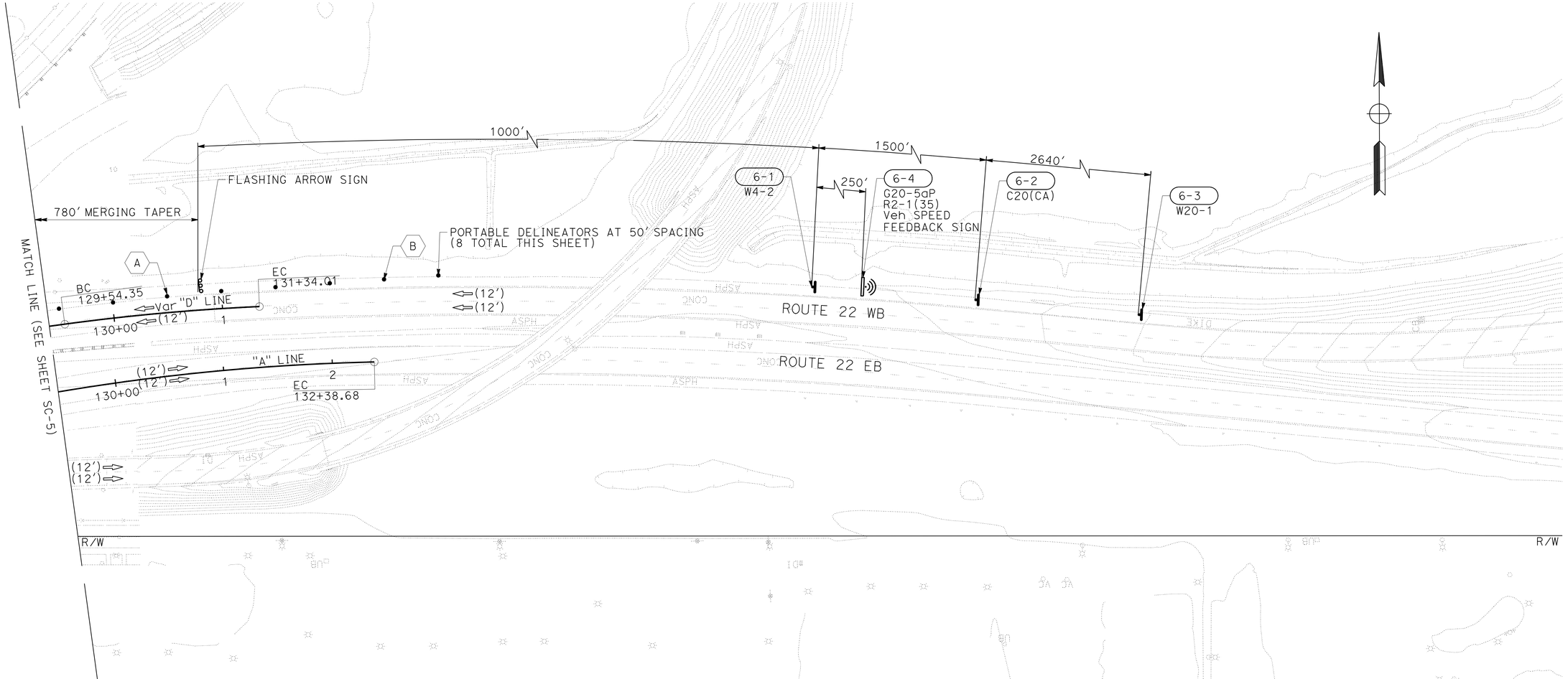
CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.

(B) SHOULDER CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1A

SCALE: 1" = 50′

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-6

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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CALCULATED-DESIGNED BY: N. VELAZQUEZ

CHECKED BY: T. POYER

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026 | 00-00-00 | TIME PLOTTED => 12:15:43 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	22	63

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PLANS APPROVAL DATE

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LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

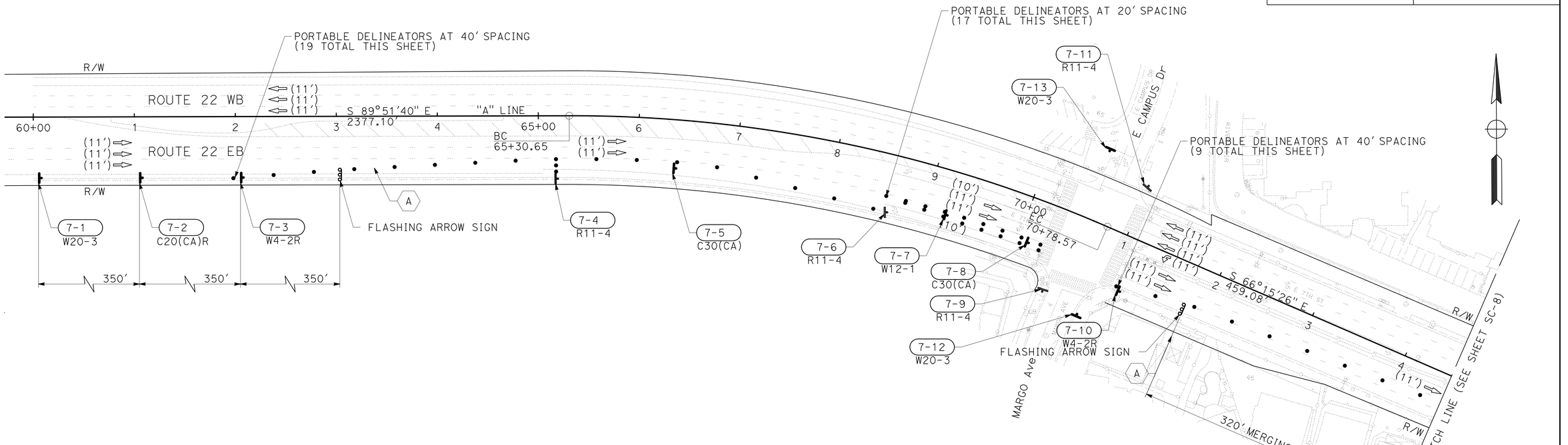
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

SC-7

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY: N. VELAZQUEZ | CHECKED BY: T. POYER

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION => 00-00-00 | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:15:50 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma007.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	23	63

REGISTERED CIVIL ENGINEER — DATE: 02-26-26

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

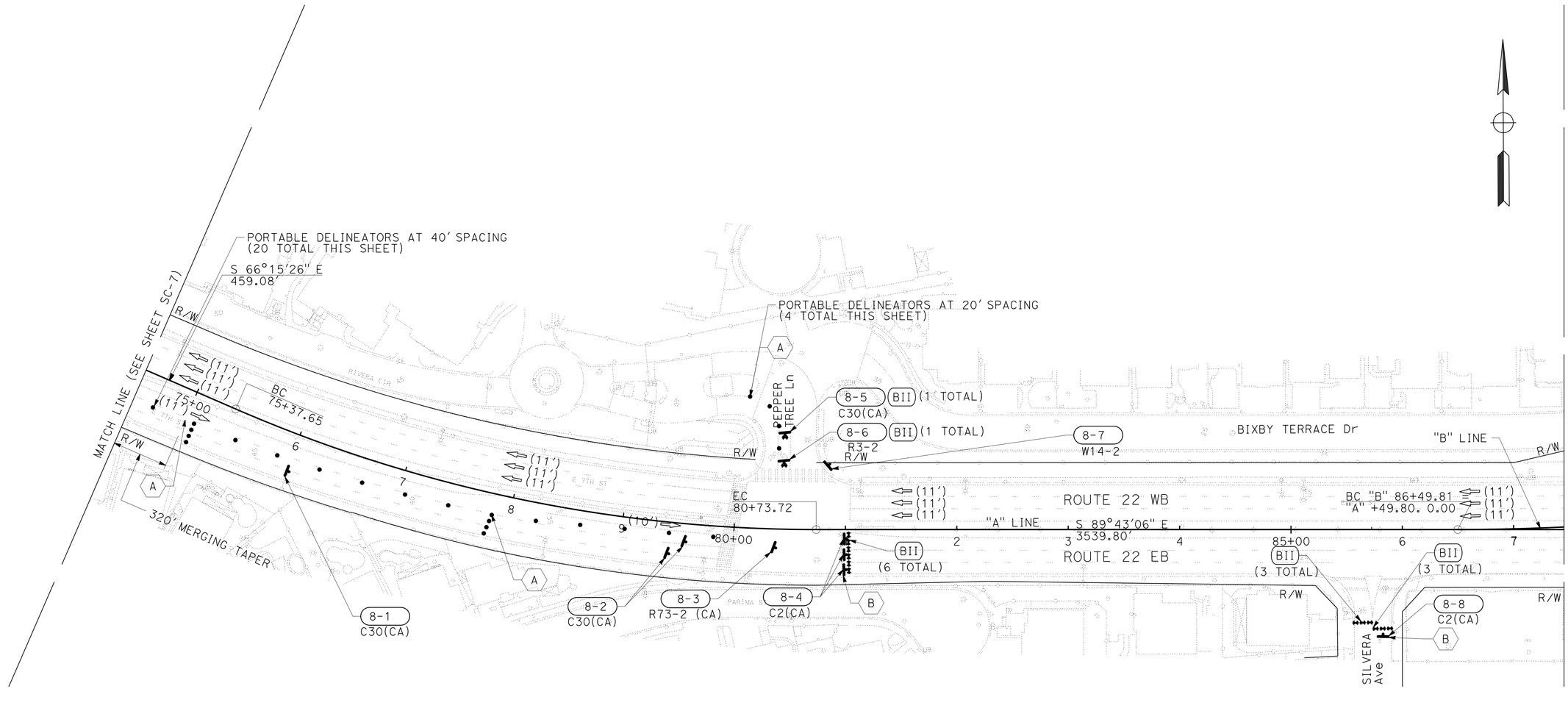
CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.

(B) ROAD CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-8

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

B-4849

LAST REVISION: DATE PLOTTED => 3/11/2026 TIME PLOTTED => 12:15:56 PM
00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma008.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	24	63

N. Velazquez — 02-26-26
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

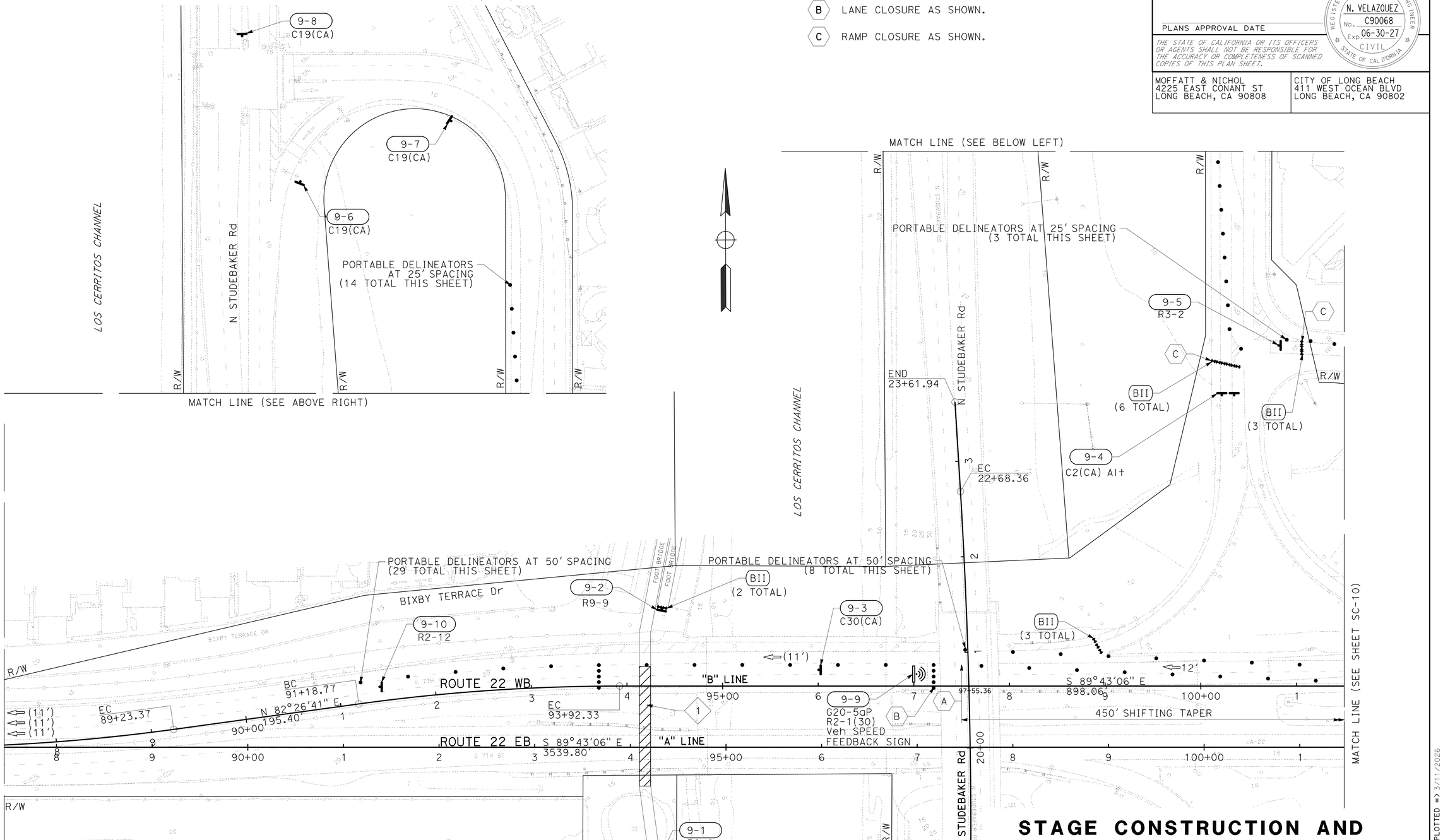
1 ERECT PANELS, INSTALL LIGHTING, AND LETTERS. (SEE Elec, Str, AND Arch PLANS)

TRAFFIC HANDLING NOTES (THIS SHEET):

A SHIFTING TAPER AS SHOWN.

B LANE CLOSURE AS SHOWN.

C RAMP CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

SC-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
REVISED BY
DATE REVISED

LAST REVISION — DATE PLOTTED => 3/11/2026 — TIME PLOTTED => 12:16:03 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma009.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	25	63

REGISTERED CIVIL ENGINEER — DATE: 02-26-26

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

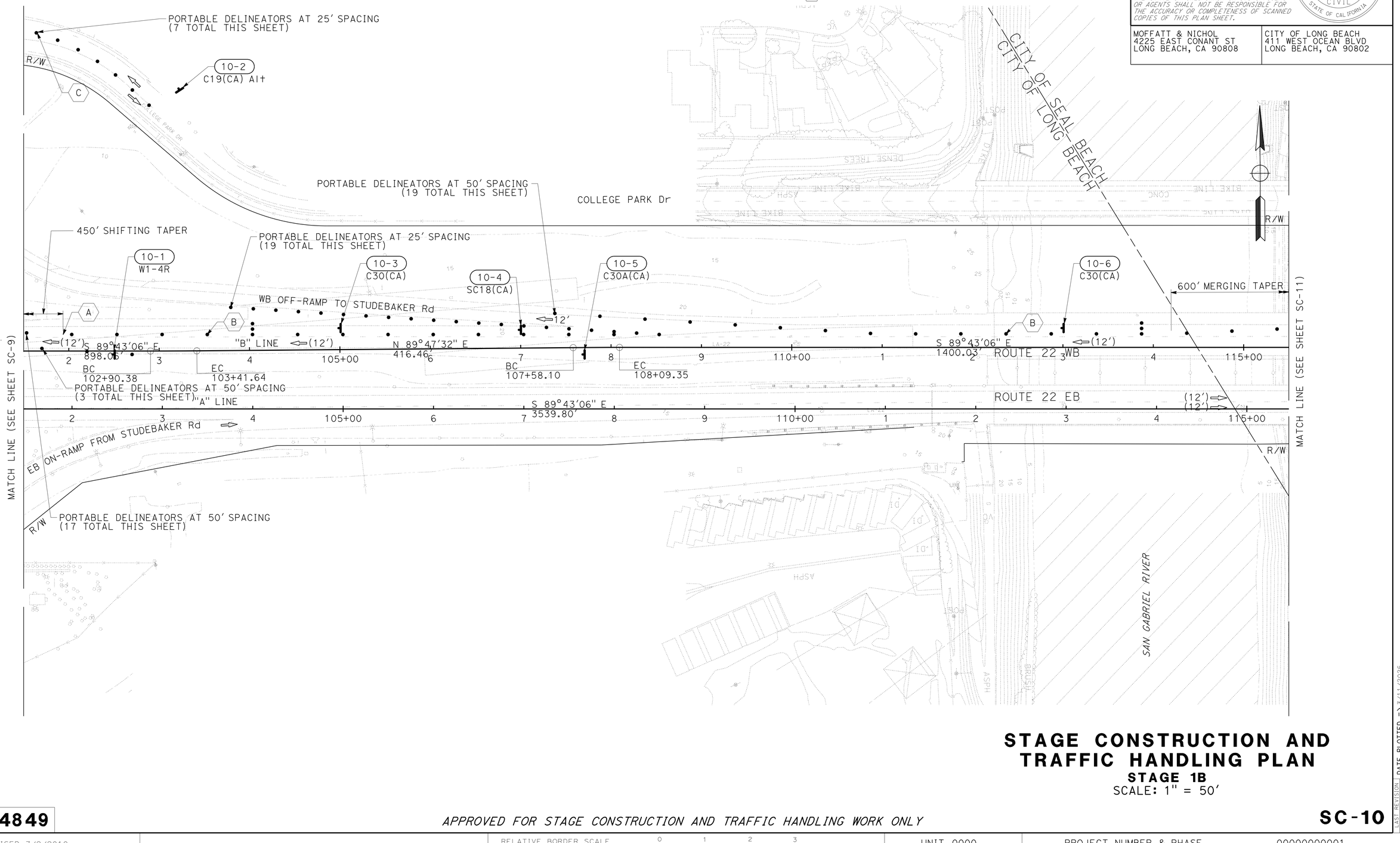
NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) SHIFTING TAPER AS SHOWN.

(B) LANE CLOSURE AS SHOWN.

(C) RAMP CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-10

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E. | CALCULATED-DESIGNED BY: N. VELAZQUEZ | CHECKED BY: T. POYER | REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:16:09 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma010.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	26	63

REGISTERED CIVIL ENGINEER — DATE: 02-26-26

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

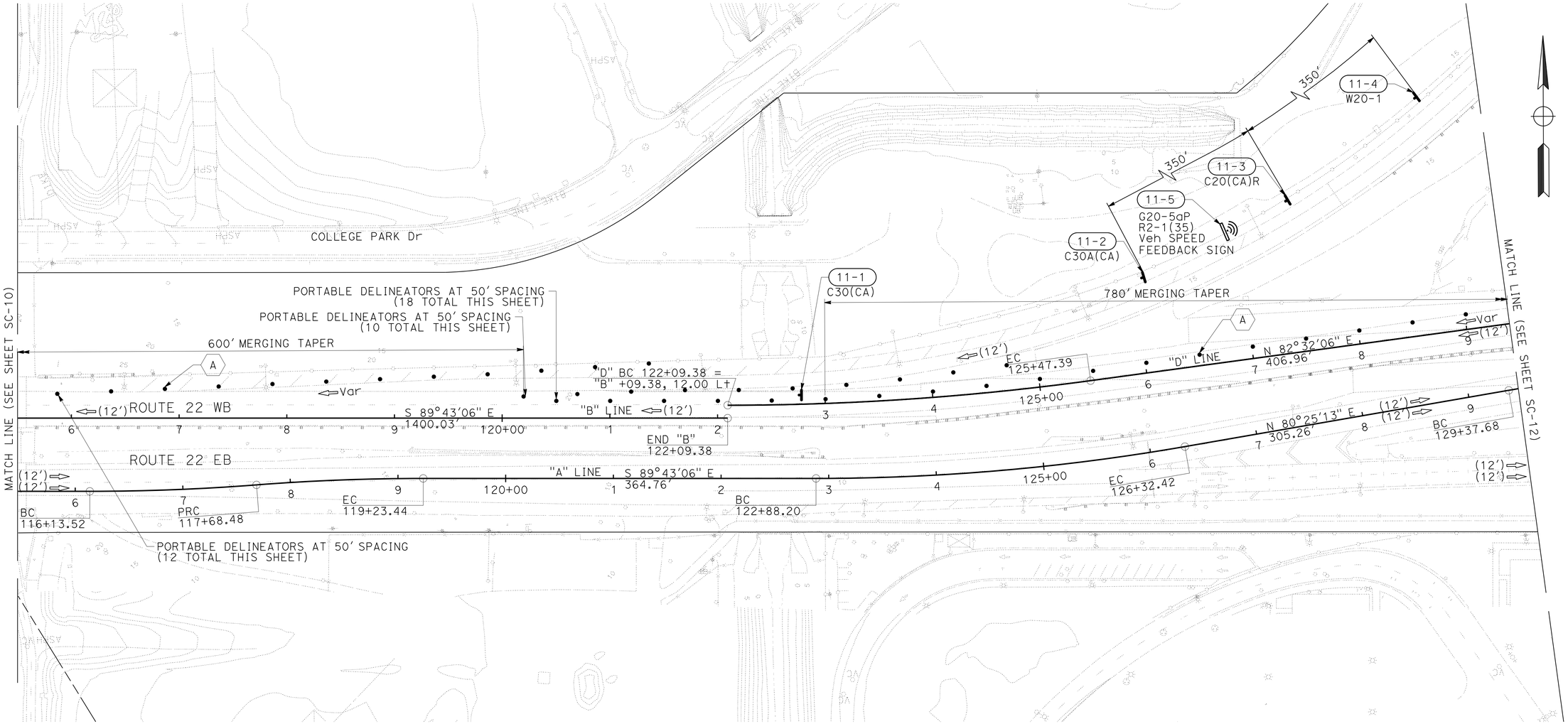
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-11

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER

REVISED BY | DATE REVISED

LAST REVISION — DATE PLOTTED => 3/11/2026 — TIME PLOTTED => 12:16:15 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma011.dgn | RELATIVE BORDER SCALE IS IN INCHES (0 1 2 3) | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	27	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

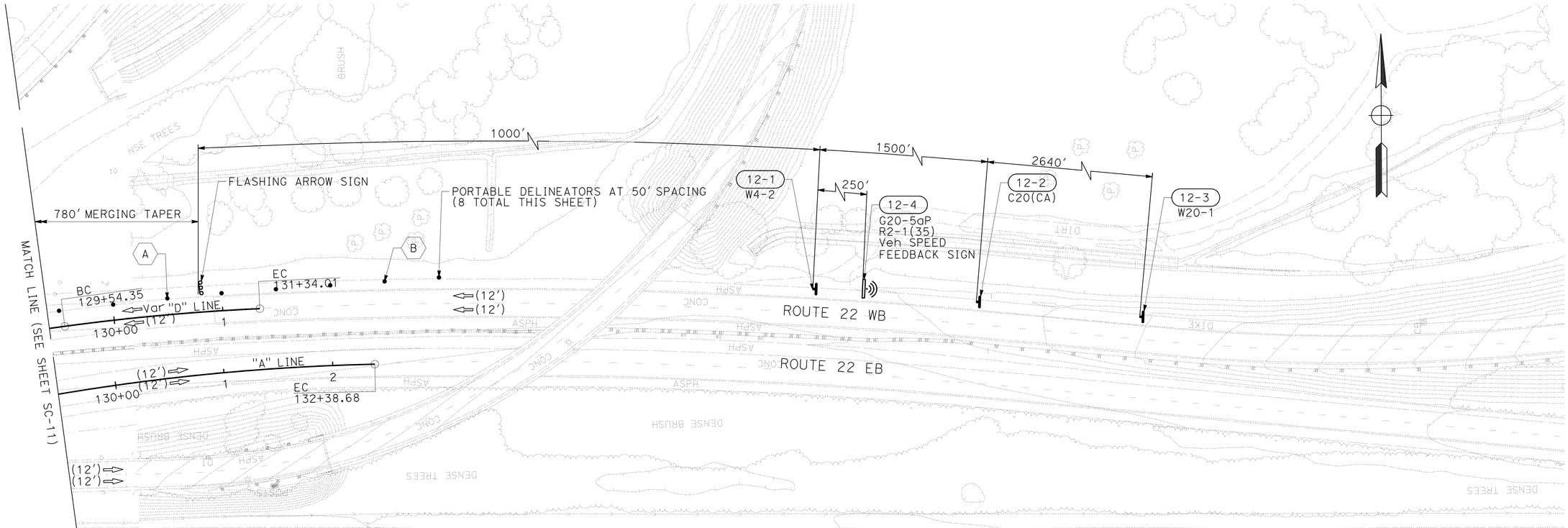
CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.

(B) SHOULDER CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1B

SCALE: 1" = 50′

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-12

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ

CHECKED BY: T. POYER

REVISED BY | DATE REVISED

LAST REVISION: DATE PLOTTED => 3/11/2026 TIME PLOTTED => 12:16:20 PM 00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma012.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	28	63

N. Velazquez 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
N. VELAZQUEZ
No. C90068
Exp. 06-30-27
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

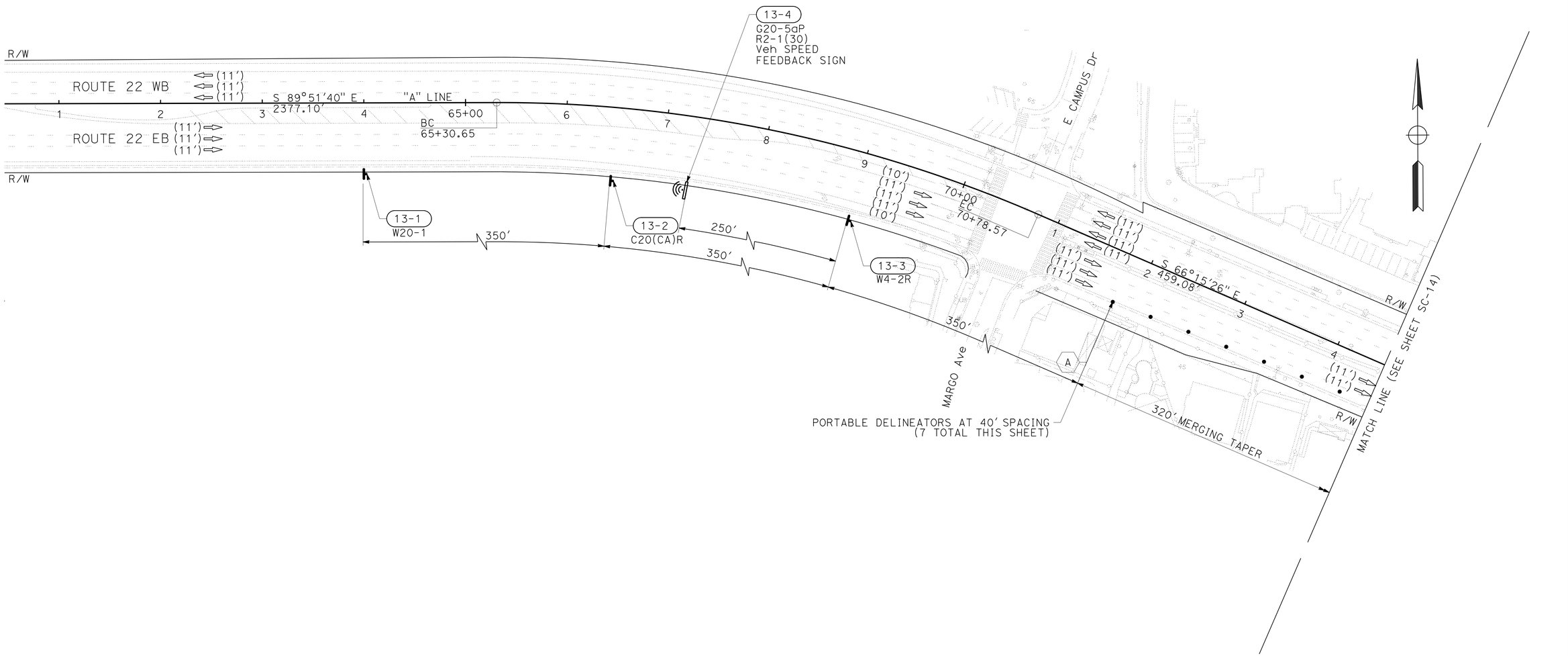
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2A

SCALE: 1" = 50′

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-13

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026
00-00-00 | TIME PLOTTED => 12:16:26 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma013.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	29	63

REGISTERED CIVIL ENGINEER — DATE 02-26-26

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

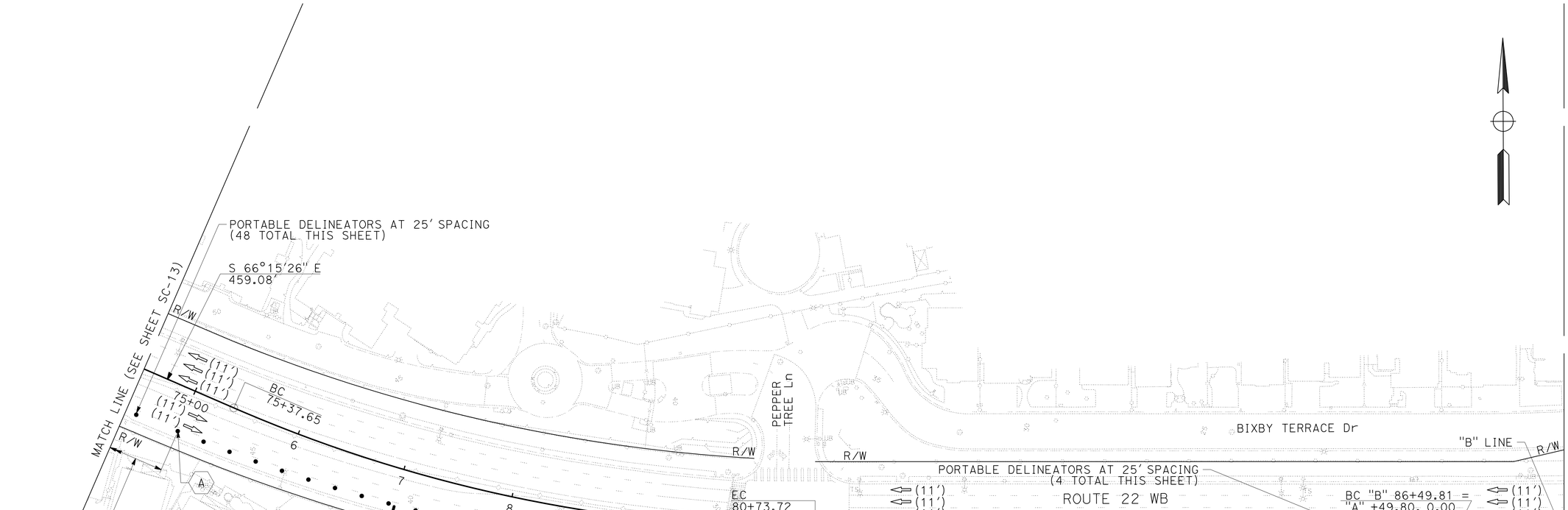
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2A

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-14

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER

REVISED BY | DATE REVISED

LAST REVISION: 00-00-00
DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:16:32 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma014.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	30	63

N. Velazquez — 02-26-26
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

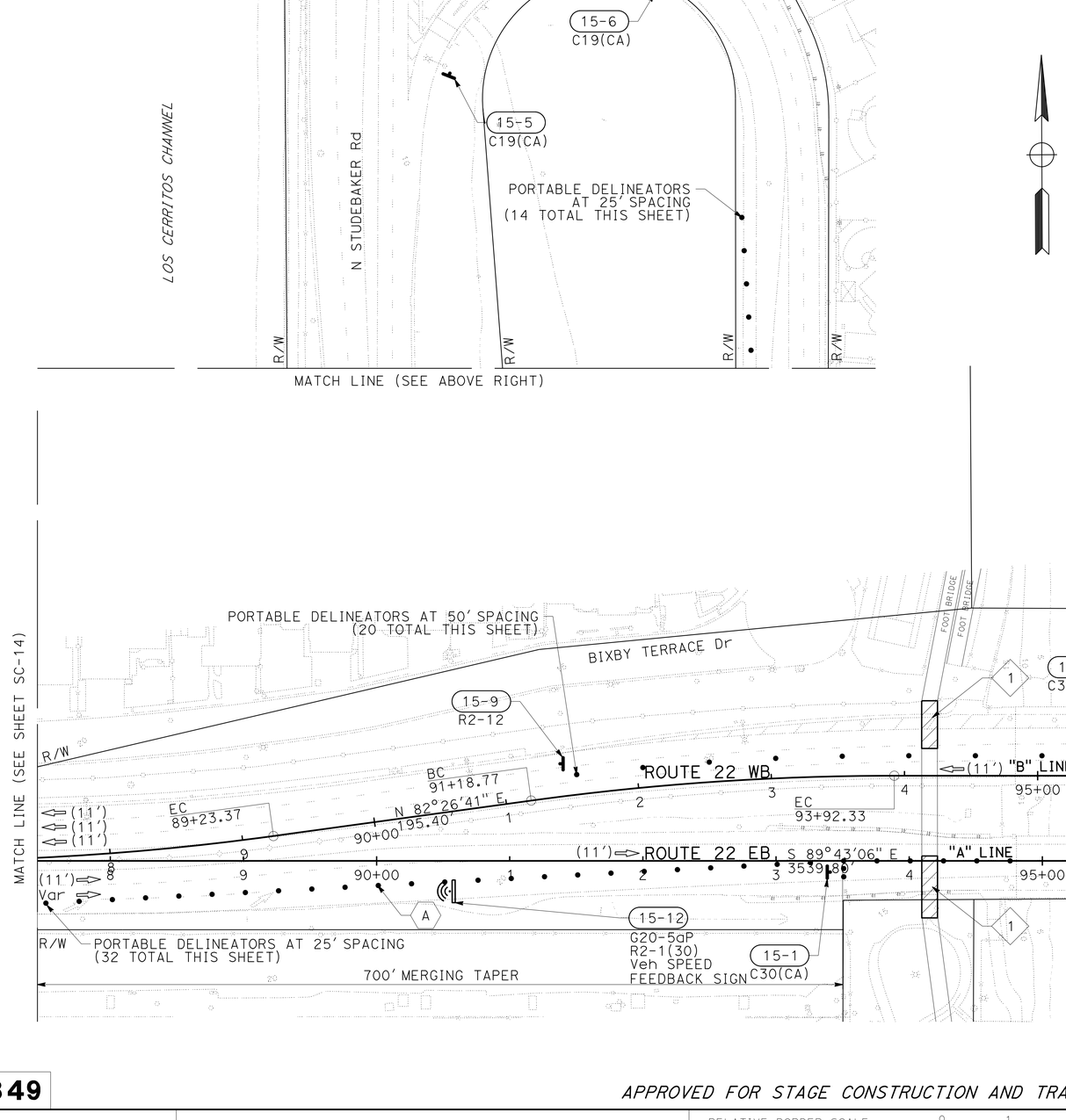
CONSTRUCTION NOTES (THIS SHEET):

1 ERECT PANELS, PAINT ABUTMENTS, INSTALL LIGHTING, AND LETTERS. (SEE Elec, Str, AND Arch PLANS)

TRAFFIC HANDLING NOTES (THIS SHEET):

A LANE CLOSURE AS SHOWN.

B RAMP CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2A

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

SC-15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 3/11/2026
00-00-00 TIME PLOTTED => 12:16:38 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma015.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	31	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

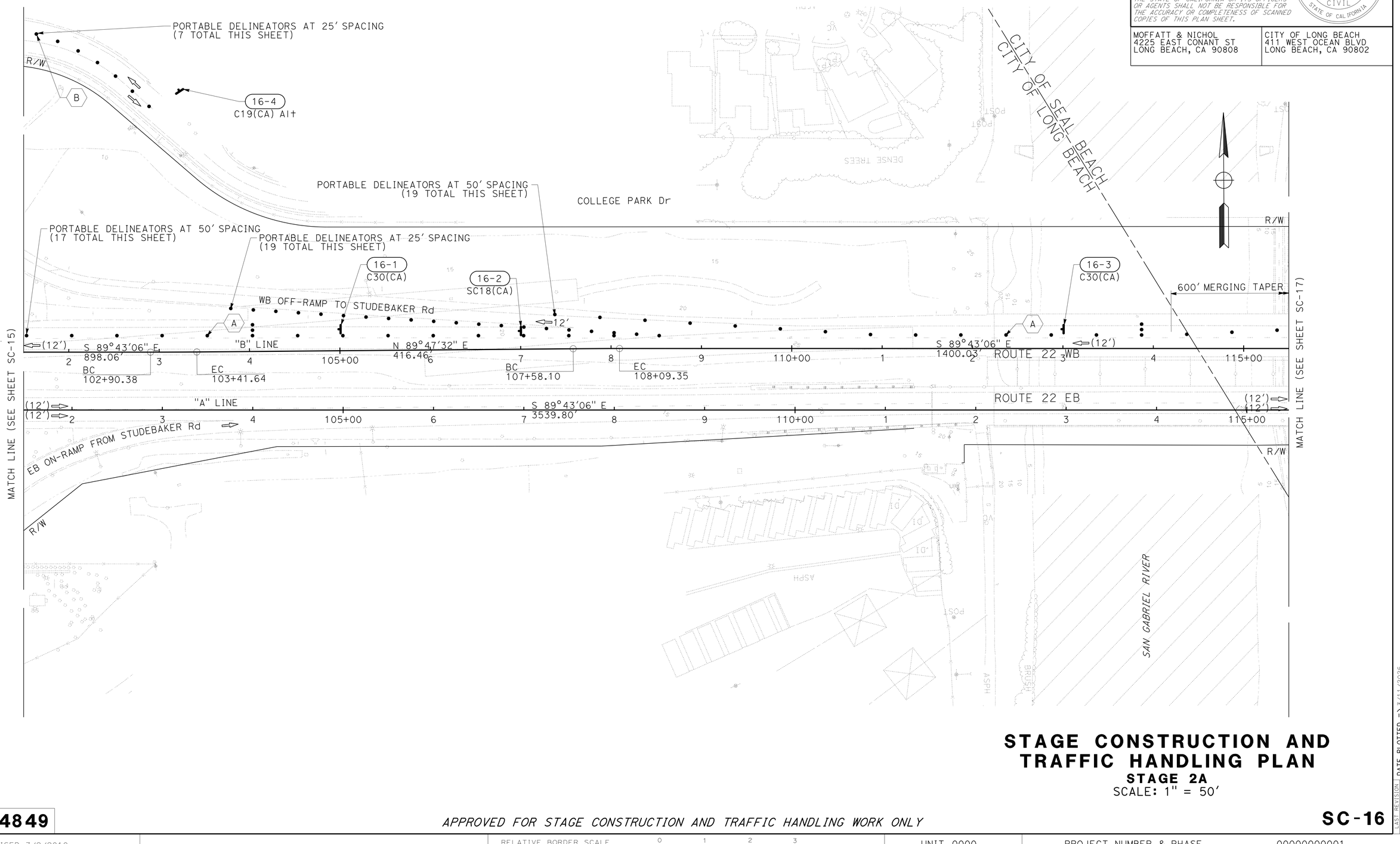
CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.

(B) RAMP CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2A

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

SC-16

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:16:44 PM | 00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma016.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	32	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

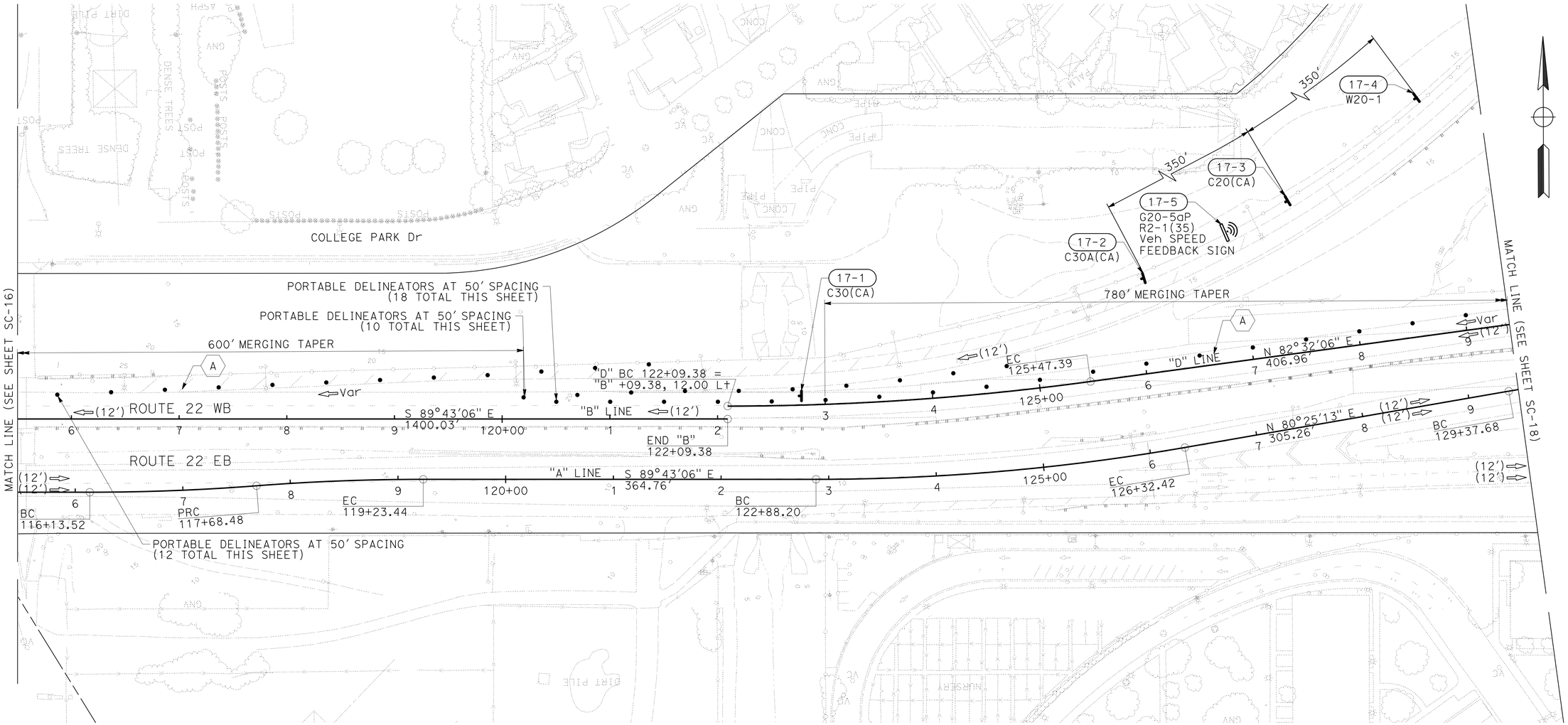
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2A

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-17

B-4849

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION | DATE PLOTTED => 3/11/2026
00-00-00 | TIME PLOTTED => 12:16:50 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma017.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	33	63

REGISTERED CIVIL ENGINEER — DATE 02-26-26

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

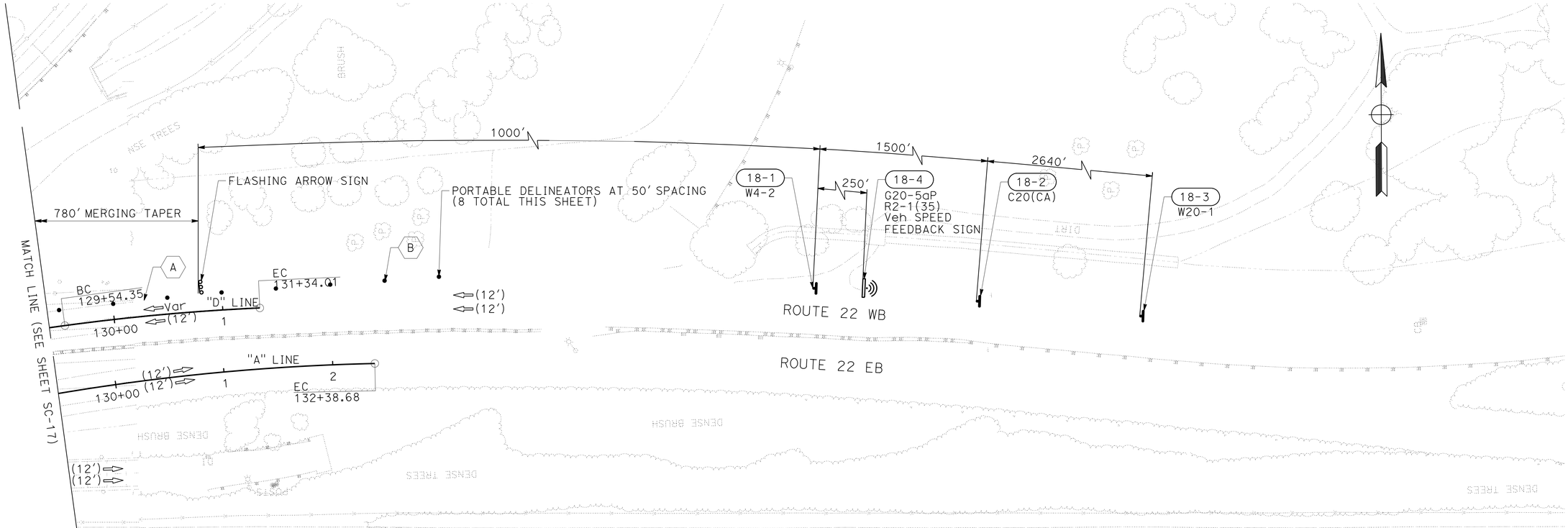
CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.

(B) SHOULDER CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2A

SCALE: 1" = 50′

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-18

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ

CHECKED BY: T. POYER

REVISED BY | DATE REVISED

LAST REVISION: 00-00-00

DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:16:57 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma018.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	34	63

REGISTERED CIVIL ENGINEER — 02-26-26 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

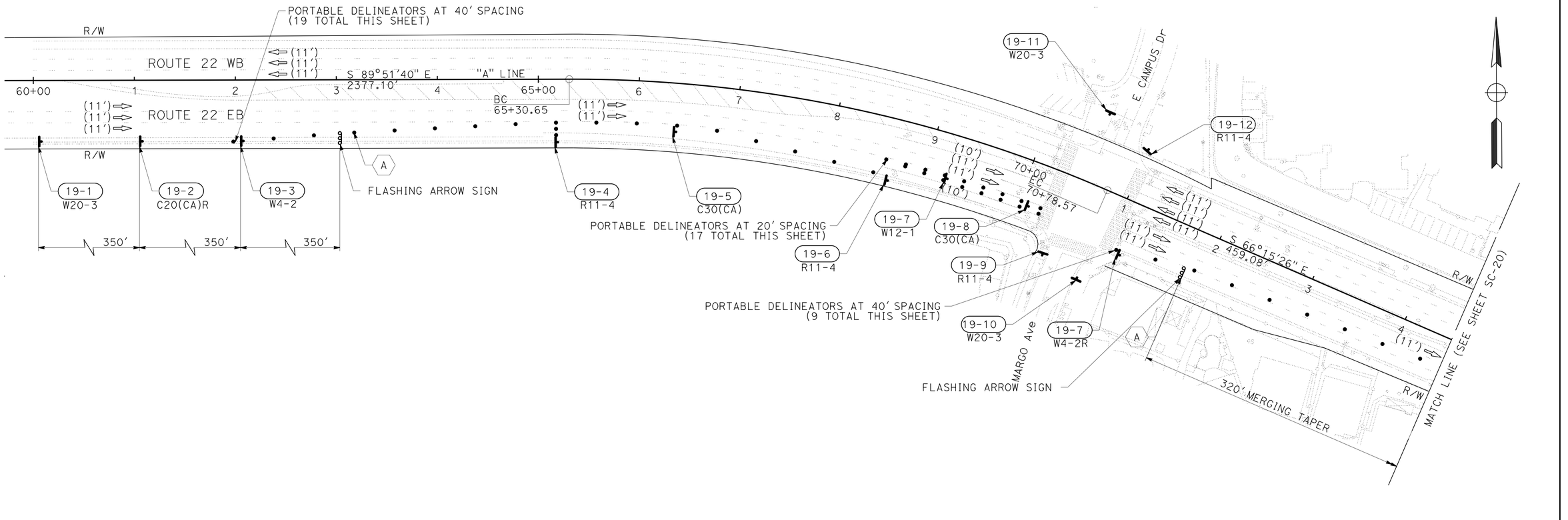
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-19

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 3/11/2026
00-00-00 TIME PLOTTED => 12:17:03 PM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	35	63

N. Velazquez — 02-26-26
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

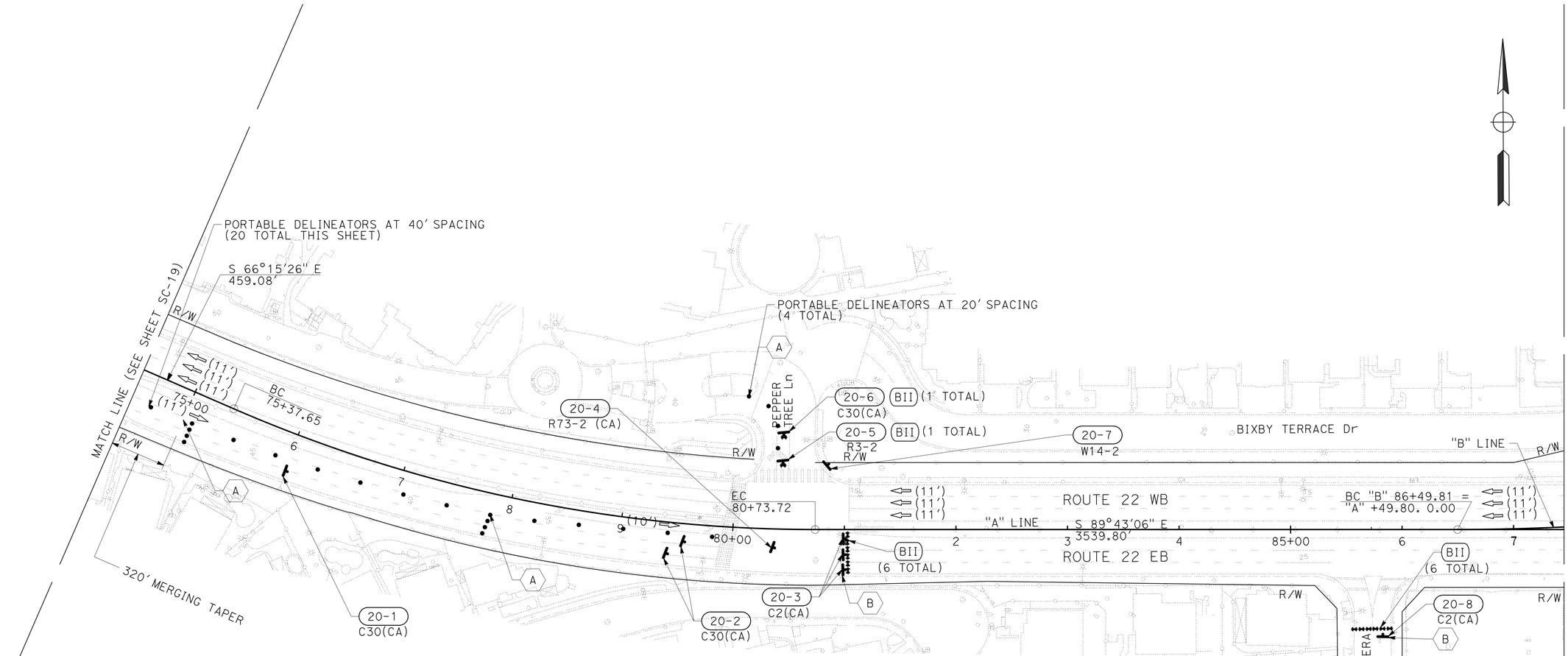
CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.

(B) ROAD CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-20

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

B-4849

LAST REVISION: DATE PLOTTED => 3/11/2026
00-00-00 TIME PLOTTED => 12:11:10 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma020.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	36	63

N. Velazquez 02-26-26
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
N. VELAZQUEZ
No. C90068
Exp. 06-30-27
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

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MOFFATT & NICHOL
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LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

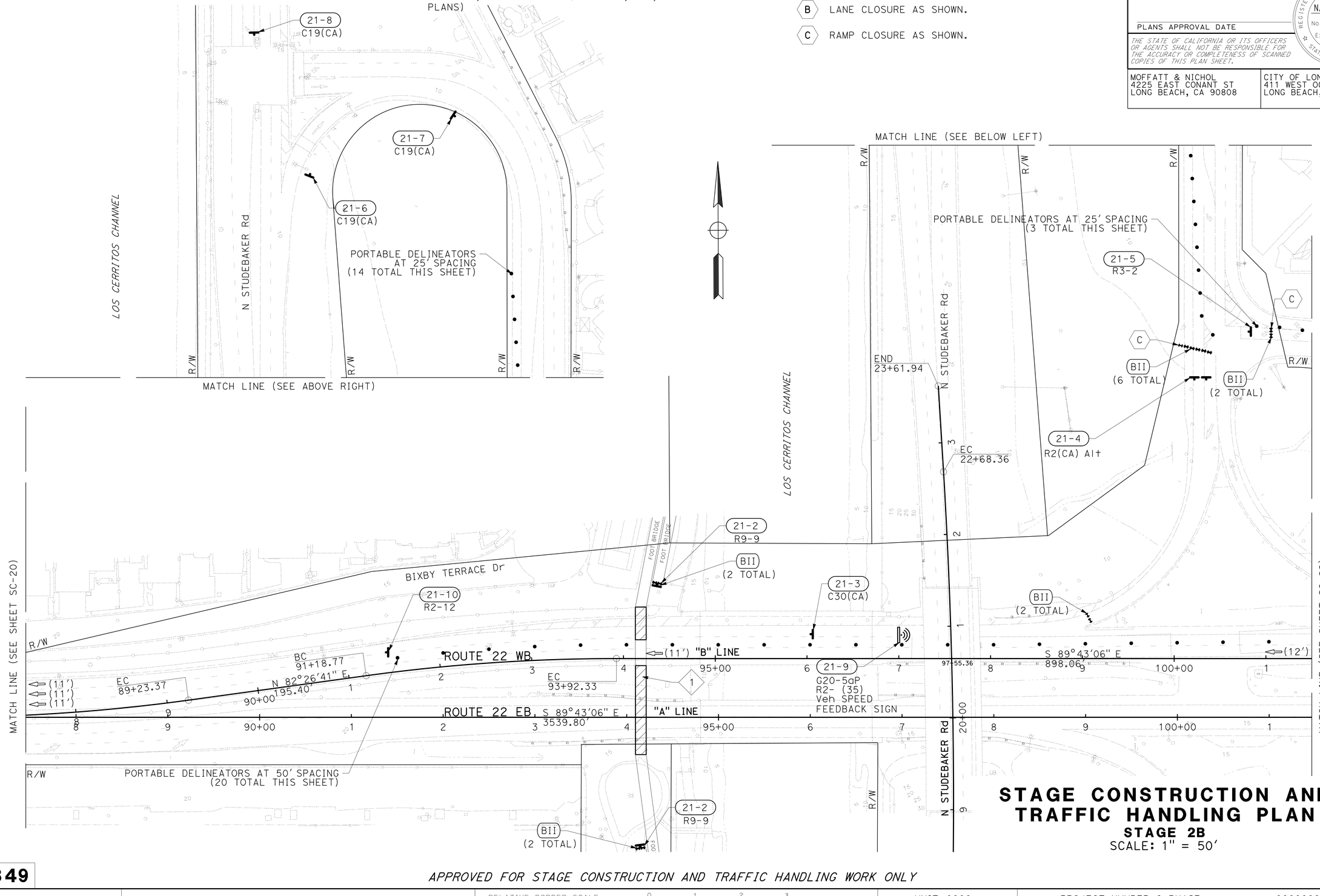
1. ERECT PANELS, PAINT ABUTMENTS, INSTALL LIGHTING, AND LETTERS. (SEE Elec, Str, AND Arch PLANS)

TRAFFIC HANDLING NOTES (THIS SHEET):

A. SHIFTING TAPER AS SHOWN.

B. LANE CLOSURE AS SHOWN.

C. RAMP CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

SC-21

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E. | CALCULATED-DESIGNED BY: N. VELAZQUEZ | CHECKED BY: T. POYER | REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:17:16 PM | 00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma021.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	37	63

N. Velazquez — 02-26-26
REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER
N. VELAZQUEZ
No. C90068
Exp. 06-30-27
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

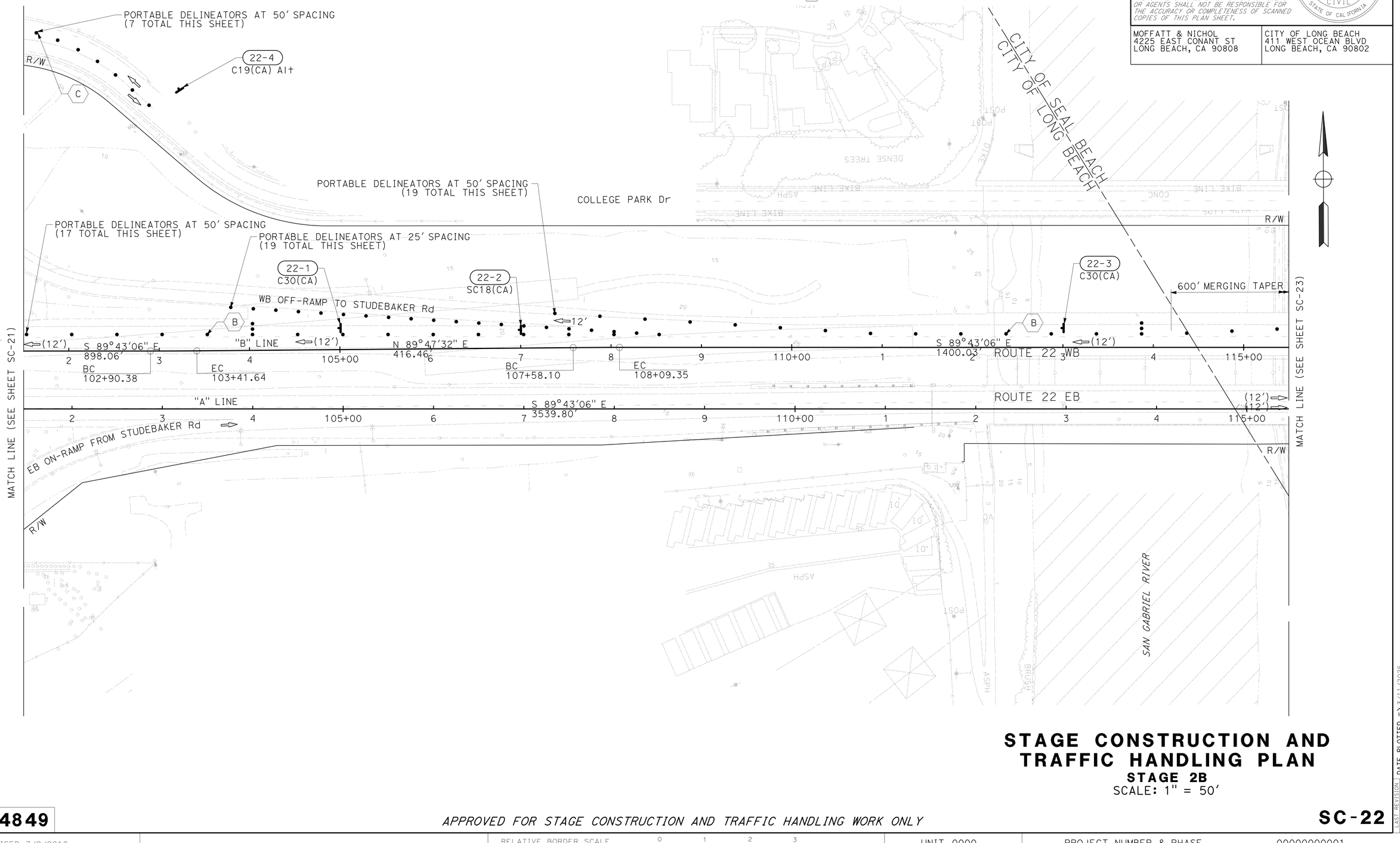
NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) SHIFTING TAPER AS SHOWN.

(B) LANE CLOSURE AS SHOWN.

(C) RAMP CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

SC-22

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION — DATE PLOTTED => 3/11/2026
00-00-00 — TIME PLOTTED => 12:17:23 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma022.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	38	63

REGISTERED CIVIL ENGINEER — DATE: 02-26-26

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

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MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

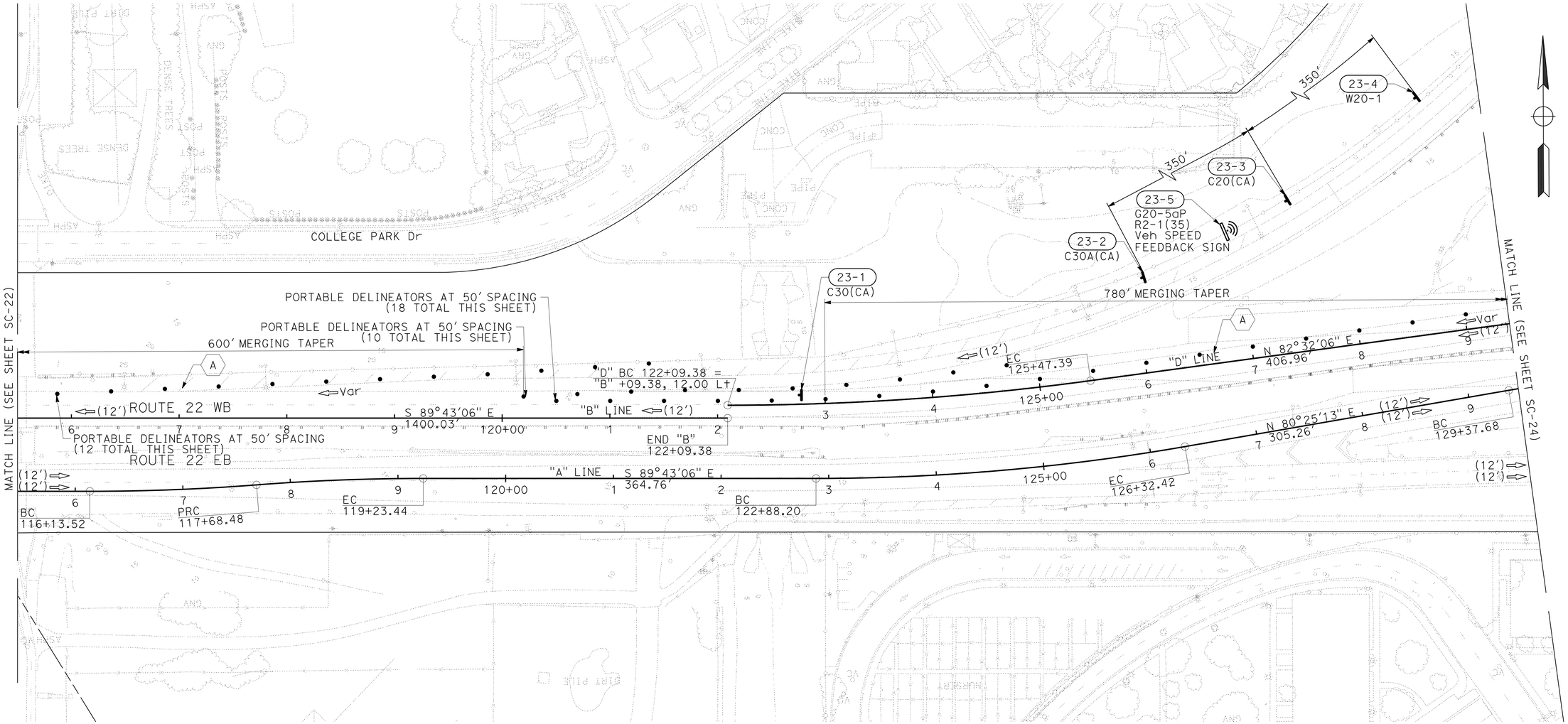
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2B

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-23

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER

REVISED BY	DATE REVISED

LAST REVISION — DATE PLOTTED => 3/11/2026 — TIME PLOTTED => 12:17:29 PM
00-00-00

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma023.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	39	63

REGISTERED CIVIL ENGINEER — DATE 02-26-26

PLANS APPROVAL DATE

N. VELAZQUEZ No. C90068 Exp. 06-30-27 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

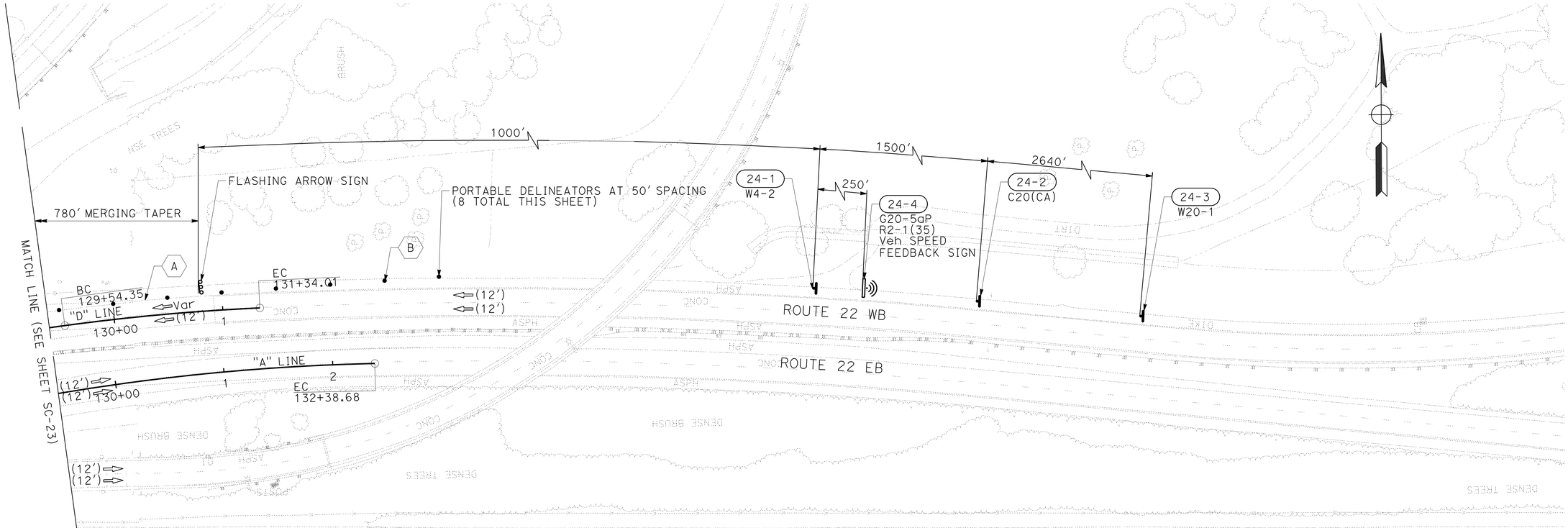
CONSTRUCTION NOTES (THIS SHEET):

NO CONSTRUCTION IN THIS STAGE.

TRAFFIC HANDLING NOTES (THIS SHEET):

(A) LANE CLOSURE AS SHOWN.

(B) SHOULDER CLOSURE AS SHOWN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2B

SCALE: 1" = 50′

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-24

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®

CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.

CALCULATED-DESIGNED BY: N. VELAZQUEZ

CHECKED BY: T. POYER

REVISED BY | DATE REVISED

LAST REVISION: 00-00-00

DATE PLOTTED => 3/11/2026

TIME PLOTTED => 12:17:35 PM

BORDER LAST REVISED 7/2/2010 | DGN FILE => 109300-33A_ma024.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	40	63

REGISTERED CIVIL ENGINEER — DATE: 02-26-26

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — N. VELAZQUEZ — No. C90068 — Exp. 06-30-27 — CIVIL — STATE OF CALIFORNIA

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MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

STAGE CONSTRUCTION AND TRAFFIC HANDLING QUANTITIES

SHEET No.	ALIGNMENT, STATION, DIRECTION	STAGE 1A			SHEET No.	STAGE 1B			SHEET No.	STAGE 2A			SHEET No.	STAGE 2B		
		PORTABLE DELINEATOR	TYPE II BARRICADE	FLASHING ARROW SIGN		PORTABLE DELINEATOR	TYPE II BARRICADE	FLASHING ARROW SIGN		PORTABLE DELINEATOR	TYPE II BARRICADE	FLASHING ARROW SIGN		PORTABLE DELINEATOR	TYPE II BARRICADE	FLASHING ARROW SIGN
		EA	EA	EA		EA	EA	EA		EA	EA	EA		EA	EA	EA
SC-1	"A", 60+50 TO 74+50, WB				SC-7				SC-13				SC-19			
	"A", 60+50 TO 74+50, EB	11		1		45		2		7				45		2
SC-2	"A", 74+50 TO 87+50, WB				SC-8				SC-14				SC-20			
	"A", 74+50 TO 87+50, EB	57		1		20	6			52		1		20	6	
	SILVERA Ave						6								6	
	PEPPER TREE Ln					4	2							4	2	
SC-3	"B", 87+50 TO 101+50, WB	65			SC-9	37			SC-15	20			SC-21	20		
	"A", 87+50 TO 101+50, EB									32						
	WB ON-RAMP FROM STUDEBAKER	14	9			14	9			14	8			14	7	
	COLLEGE PARK Dr	3	3			3	3			3	2			3	2	
	LB BIKE ROUTE 10						4								4	
SC-4	"B", 101+50 TO 115+50, WB	39			SC-10	39			SC-16	36			SC-22	36		
	"A", 101+50 TO 115+50, EB															
	WB OFF-RAMP TO STUDEBAKER	19				19				19				19		
	COLLEGE PARK Dr	7				7				7				7		
SC-5	"B", 115+50 TO 129+50, WB	40		1	SC-11	40			SC-17	40			SC-23	40		
	"A", 115+50 TO 129+50, EB															
SC-6	"B", 129+50 TO END, WB	8		1	SC-12	8		1	SC-18	8		1	SC-24	8		1
	"A", 129+50 TO END, EB															
	STAGE TOTAL	263	12	4	STAGE TOTAL	236	30	3	STAGE TOTAL	238	10	2	STAGE TOTAL	216	27	3

STAGE CONSTRUCTION AND TRAFFIC HANDLING QUANTITIES

SCQ-1

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

B-4849

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: T. POYER
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: GEORGIA A. MEDINA, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:17:41 PM

BORDER LAST REVISED 7/2/2010
DGN FILE => 109300-33A_mc001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	41	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

GEORGIA A. MEDINA No. C69996 Exp. 09-30-26 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

NOTES:

1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. SUBMIT SAMPLES OF COLORS AND MATERIALS TO CITY FOR APPROVAL BEFORE ORDERING MATERIALS.
3. SUBMIT REPLACEMENT COLORS TO CITY FOR APPROVAL IF OTHER PAINT MANUFACTURER USED.
4. CLEAN ALL Exist STRUCTURAL STEEL SURFACES VISIBLE.
5. TWO COLOR GRADIENT WITH GRADUAL TRANSITION FROM P2 TO P5 AS SHOWN IN REFEREE SAMPLE.
6. APPLY ANTI-GRAFFITI CLEAR COAT OVER ALL PAINTED SURFACES.
7. PAINT "PALO VERDE Ave POC BRIDGE No. 53-2713"
8. PAINT ALL SIDES OF EXISTING PIER WITH TWO COLOR GRADIENT AS SHOWN AND SPECIFIED.

LEGEND

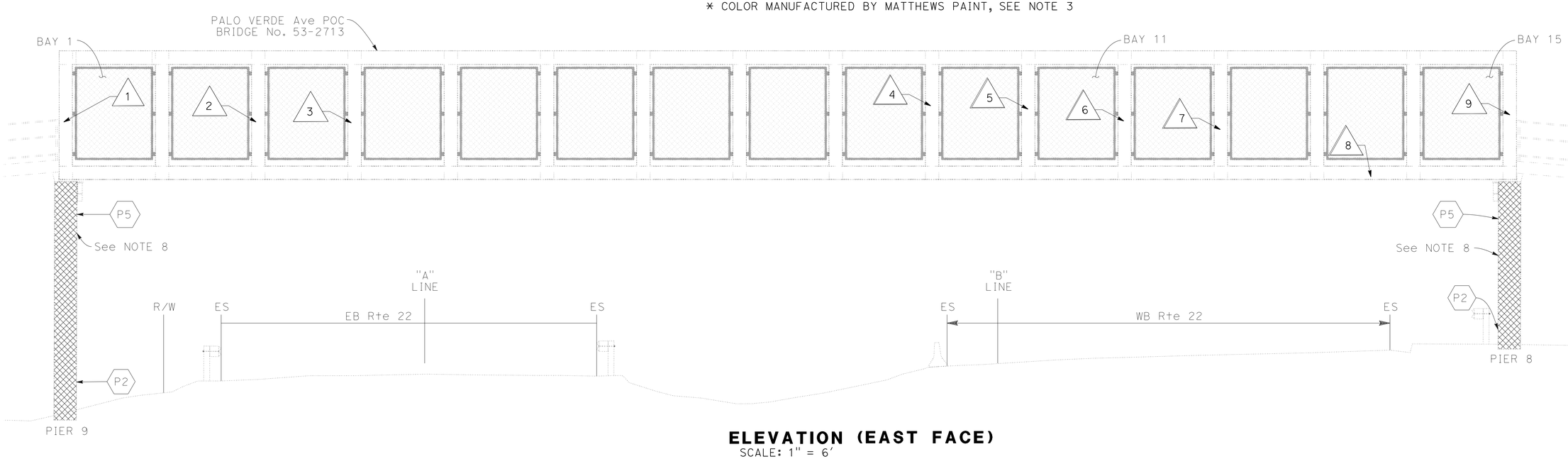
PREPARE AND PAINT CONCRETE BRIDGE PIER

#	PAINT COLOR*	PANTONE MATCH
P2	MP01992 BLUE FLAG	PMS 2935C
P5	MP07490 JET STREAM	PMS 2707C

* COLOR MANUFACTURED BY MATTHEWS PAINT, SEE NOTE 3

GRAFFITI REMOVAL (THIS SHEET ONLY)

#	HEIGHT (FT)	WIDTH (FT)	AREA (SF)
1	10.0	1.5	15.0
2	4.0	1.5	6.0
3	4.0	1.5	6.0
4	1.0	1.5	1.5
5	2.0	1.5	3.0
6	3.0	1.5	4.5
7	4.0	1.5	6.0
8	1.5	8.0	12.0
9	11.0	1.5	16.5
TOTAL			70.5



ELEVATION (EAST FACE)
SCALE: 1" = 6'

GRAFFITI REMOVAL AND PIER PAINTING (EAST FACE)

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

ARCHITECTURAL TREATMENT

SCALE: AS SHOWN

AT-1

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:17:48 PM
00-00-00

BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_pg001-clean-East.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	42	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

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MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

NOTES:

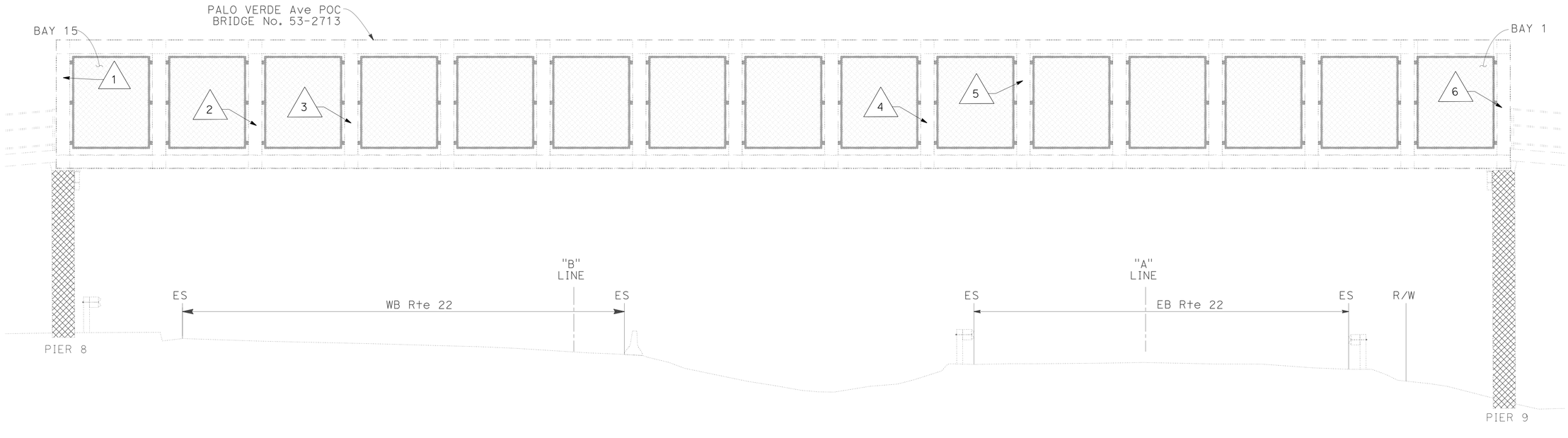
1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

LEGEND

PREPARE AND PAINT CONCRETE BRIDGE PIER, SEE Sht AT-1

GRAFFITI REMOVAL
(THIS SHEET ONLY)

#	HEIGHT (FT)	WIDTH (FT)	AREA (SF)
1	3.0	1.5	4.5
2	6.0	1.5	9.0
3	6.0	1.5	9.0
4	3.0	1.5	4.5
5	3.0	1.5	4.5
6	6.0	1.5	9.0
TOTAL			40.5



ELEVATION
(WEST FACE)
SCALE: 1" = 6'

GRAFFITI REMOVAL
(WEST FACE)

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

ARCHITECTURAL TREATMENT

SCALE: AS SHOWN

AT-2

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026
00-00-00 | TIME PLOTTED => 12:17:54 PM

BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_pg002-clean_West.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	43	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GEORGIA A. MEDINA — No. C69996 — Exp. 09-30-26 — CIVIL — STATE OF CALIFORNIA

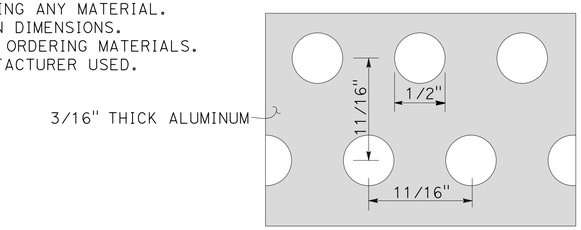
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

NOTES:

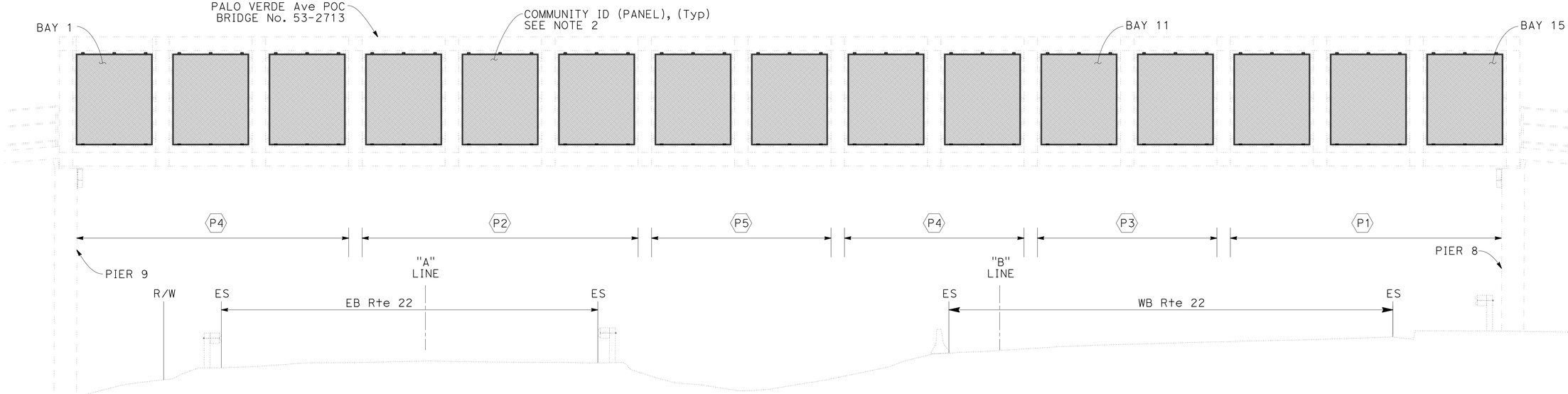
1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. PERFORATED ALUMINUM PANELS 3/16" THICK. SEE DETAIL A FOR PERFORATION DIMENSIONS.
3. SUBMIT SAMPLES OF COLORS AND MATERIALS TO CITY FOR APPROVAL BEFORE ORDERING MATERIALS.
4. SUBMIT REPLACEMENT COLORS TO CITY FOR APPROVAL IF OTHER PAINT MANUFACTURER USED.



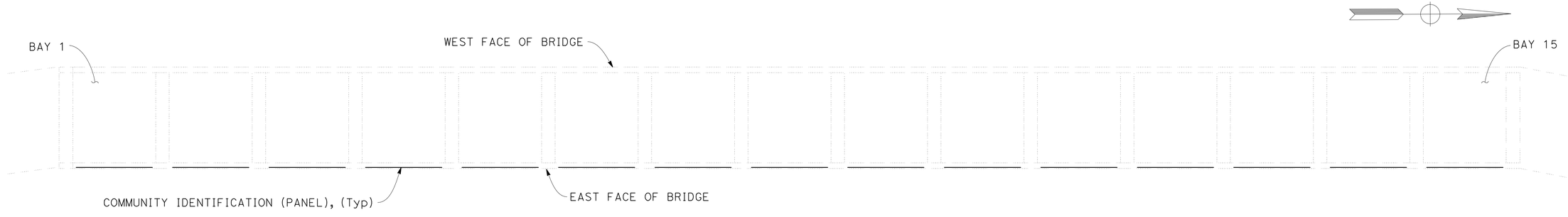
DETAIL A

	PAINT COLOR*	PANTONE MATCH
P1	MP03547 OCHO RIOS BLUE	PMS 2955C
P2	MP01992 BLUE FLAG	PMS 2935C
P3	MP09133 PROCESS CYAN U	PMS PROCESS BLUE C
P4	MATCH TO PMS 298C PANTONE MATCH	PMS 298C
P5	MP07490 JET STREAM	PMS 2707C

* COLOR MANUFACTURED BY MATTHEWS PAINT, SEE NOTE 4



ELEVATION
SCALE: 1" = 6'



PLAN
SCALE: 1" = 6'

PERFORATED PANELS

ARCHITECTURAL TREATMENT
COMMUNITY ID (PANELS)
SCALE: AS SHOWN

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

AT-3

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

B-4849

LAST REVISION 00-00-00 | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:18:01 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => nvelazquez | DGN FILE => 109300-33A_pg003-panels.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

NOTES:

1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	44	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

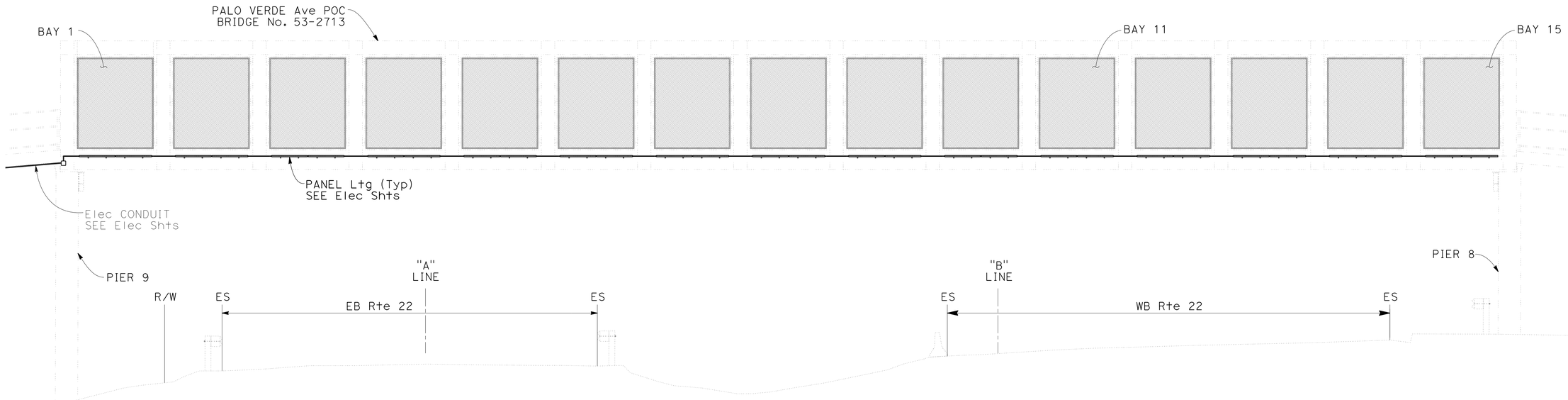
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

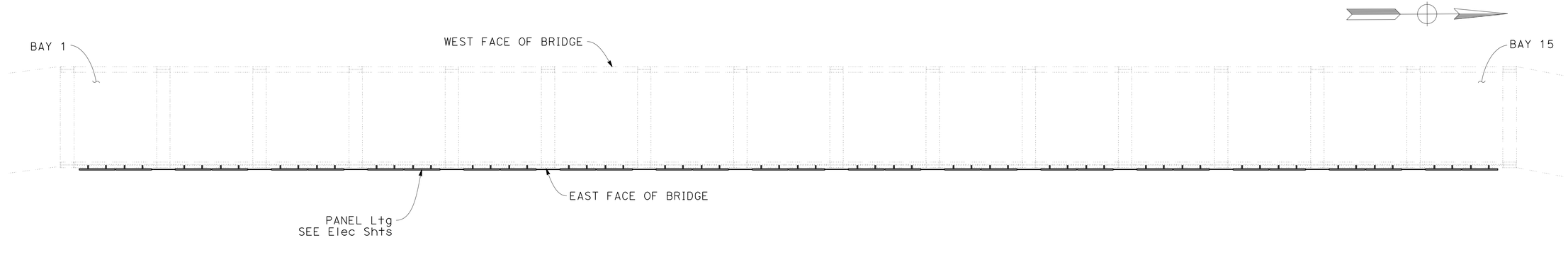
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802



ELEVATION
SCALE: 1" = 6'



PLAN
SCALE: 1" = 6'

PANEL LIGHTING

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

ARCHITECTURAL TREATMENT
COMMUNITY ID (PANELS)
SCALE: AS SHOWN

AT-4

B-4849

CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:18:30 PM

BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_pg004-lighting.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

NOTES:

1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. SUBMIT SAMPLES OF COLORS AND MATERIALS TO CITY FOR APPROVAL BEFORE ORDERING MATERIALS.

#	LETTER
1	L
2	O
3	N
4	G
5	B
6	E
7	A
8	C
9	H

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	45	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

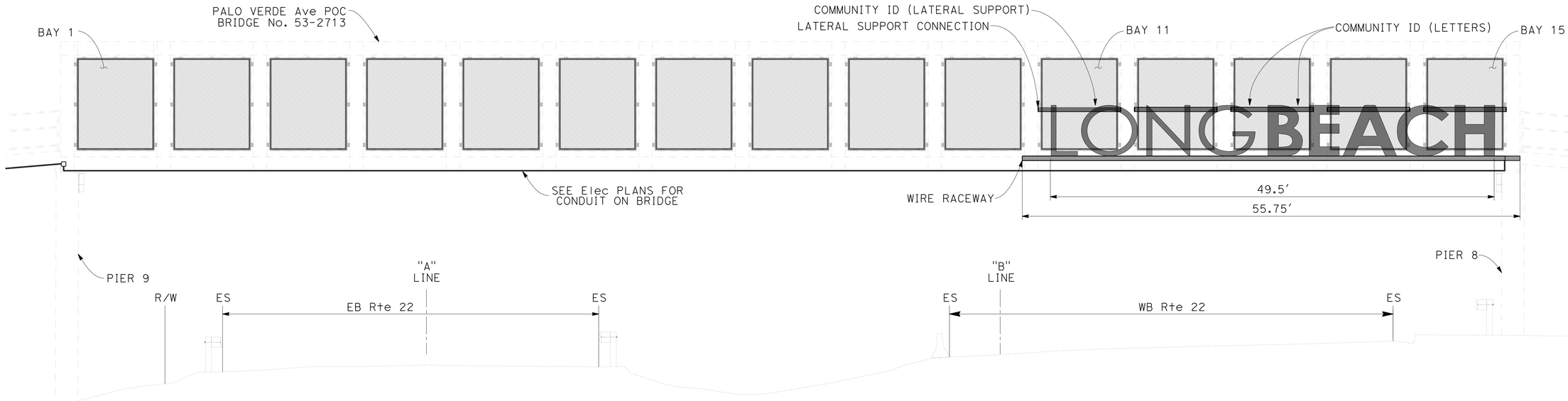
REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

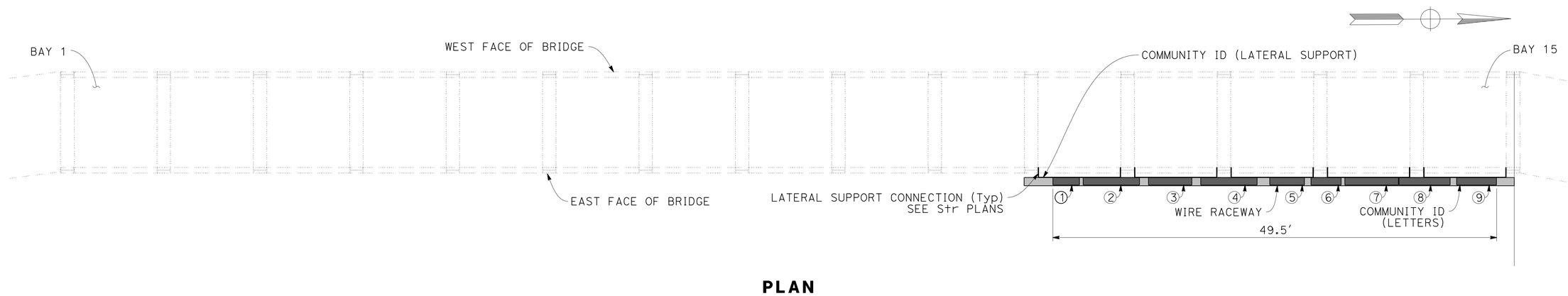
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MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802



ELEVATION
SCALE: 1" = 6′



PLAN
SCALE: 1" = 6′

INTERNALLY ILLUMINATED LETTERS

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

ARCHITECTURAL TREATMENT
COMMUNITY ID (LETTERS)
SCALE: AS SHOWN

AT-5

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:18:58 PM

BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_pg005-letters.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	46	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

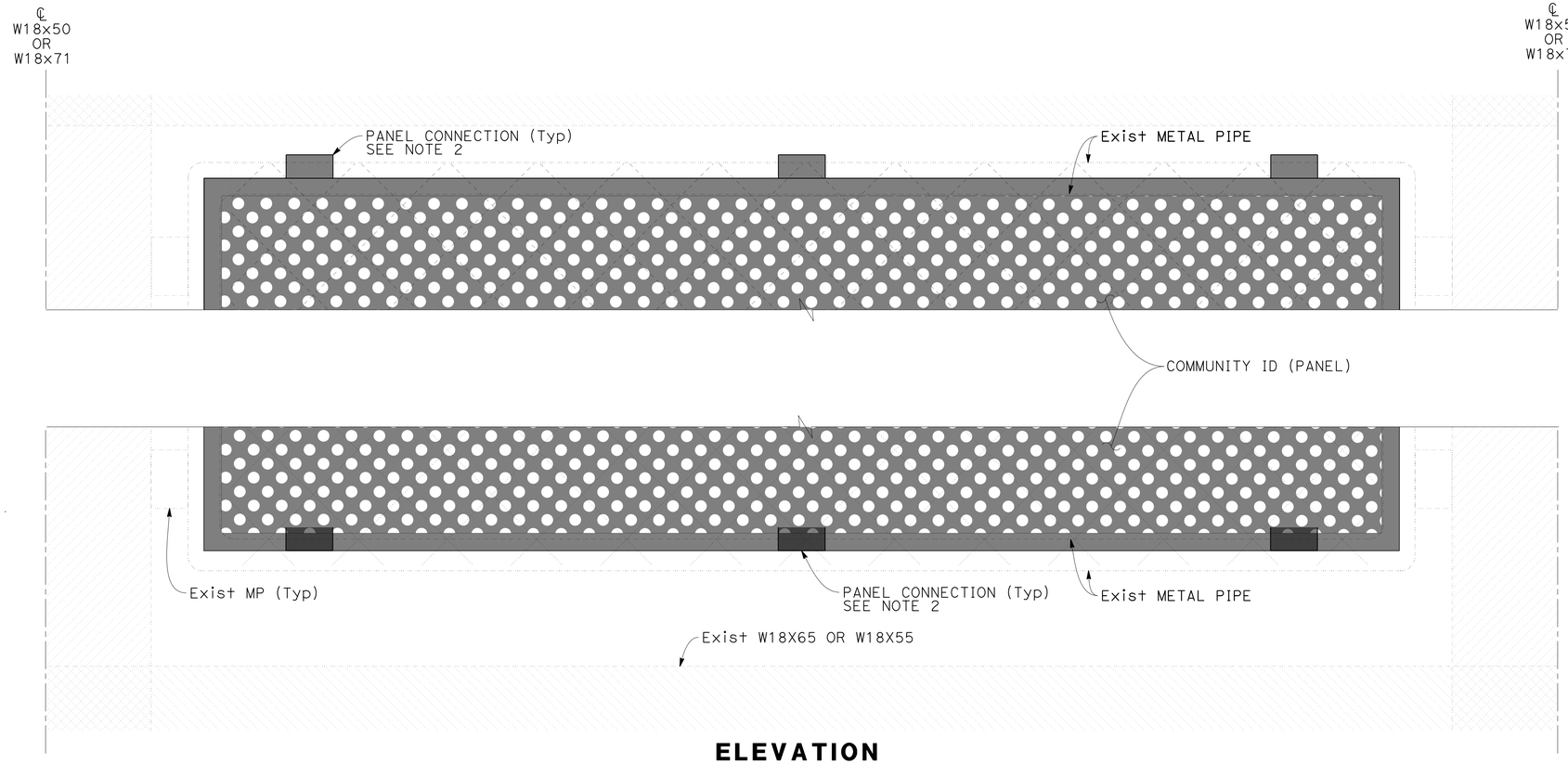
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

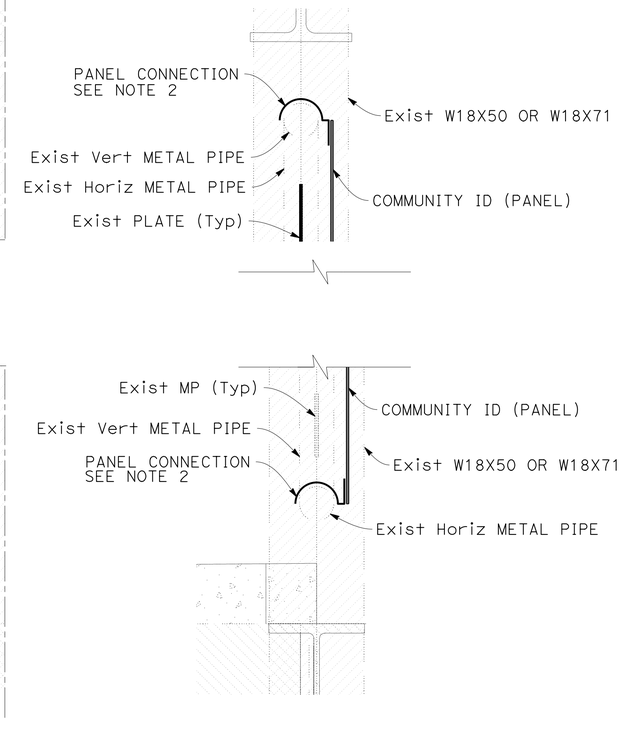
CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

NOTES:

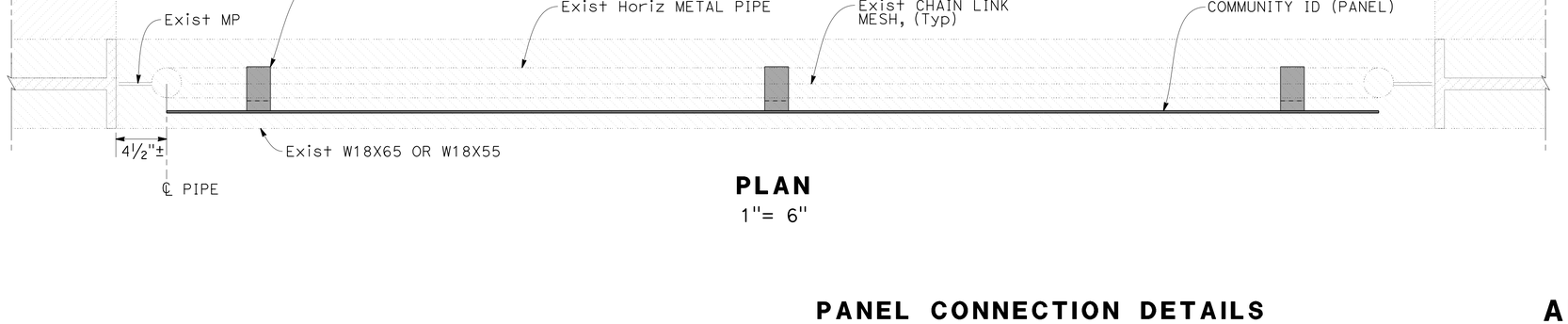
1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. SIZE, QUANITY AND LOCATIONS TO BE DETERMINED BY FABRICATOR AND APPROVED BY CALTRANS.



ELEVATION
1"= 6"



SECTION
1"= 6"



PLAN
1"= 6"

PANEL CONNECTION DETAILS

ARCHITECTURAL TREATMENT
COMMUNITY ID (PANELS) DETAILS
SCALE: AS SHOWN

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

AT-6

B-4849

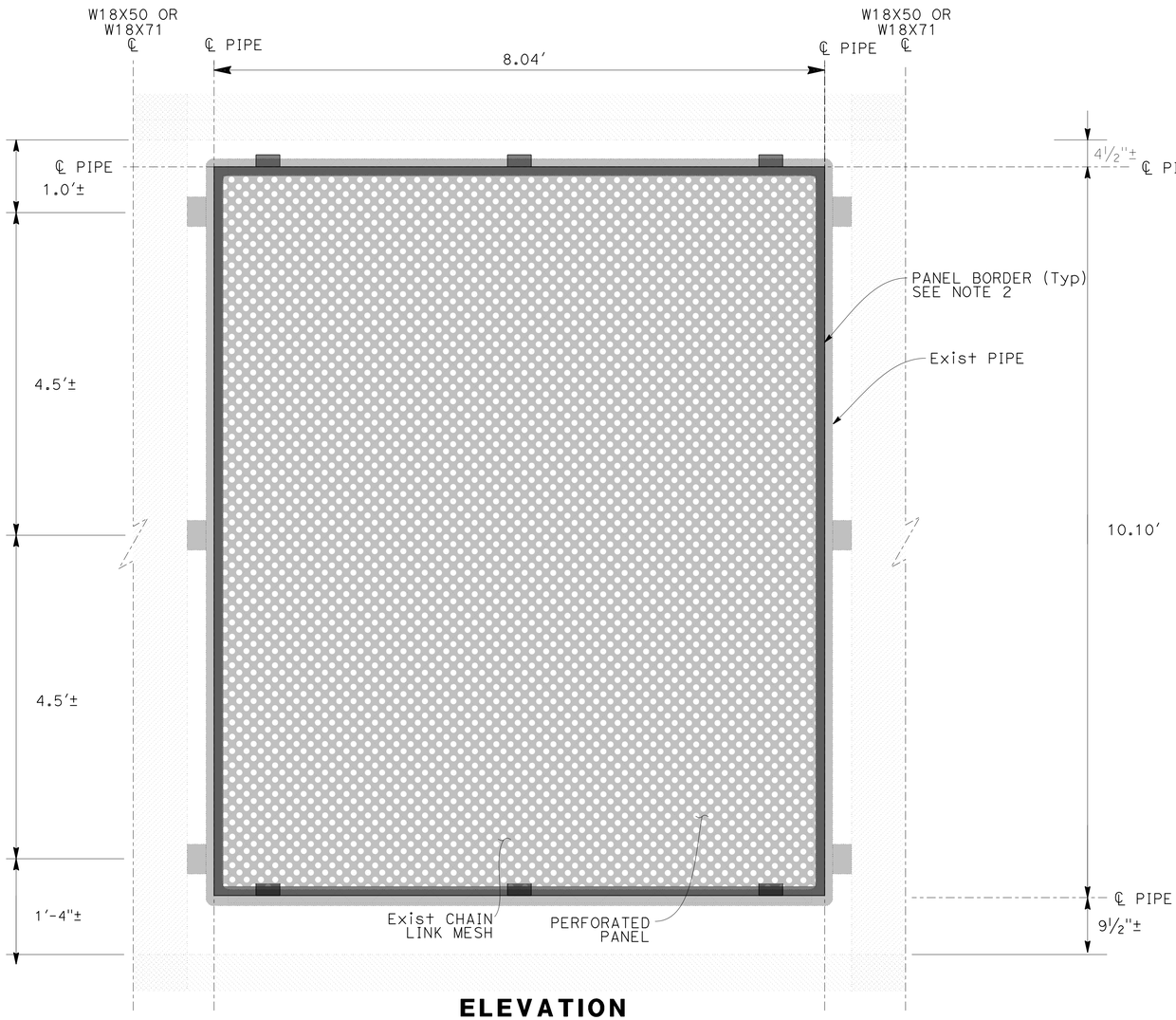
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 3/11/2026
00-00-00 | TIME PLOTTED => 12:19:26 PM

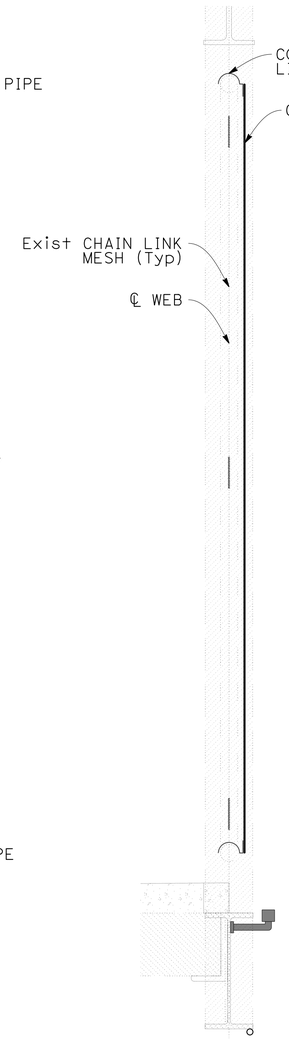
BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_pg006-panel-detail.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

NOTES:

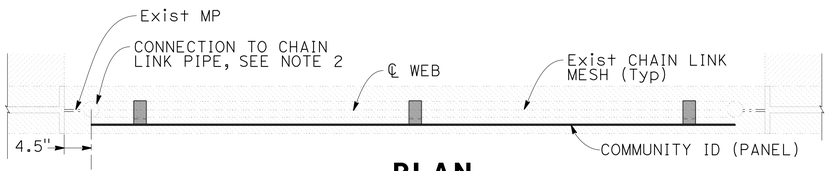
1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. PROVIDE 1.5 INCH WIDE NON-PERFORATED BORDER ALONG PANEL PERMIETER EDGE.



ELEVATION
1" = 1′



SECTION
1" = 1′



PLAN
1" = 1′

PANEL DIMENSIONS

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

ARCHITECTURAL TREATMENT
COMMUNITY ID (PANELS) DETAILS

SCALE: AS SHOWN

AT-7

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	47	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GEORGIA A. MEDINA No. C69996 Exp. 09-30-26 CIVIL — STATE OF CALIFORNIA

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MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

B-4849

LAST REVISION | DATE PLOTTED => 3/11/2026
00-00-00 | TIME PLOTTED => 12:19:35 PM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	48	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

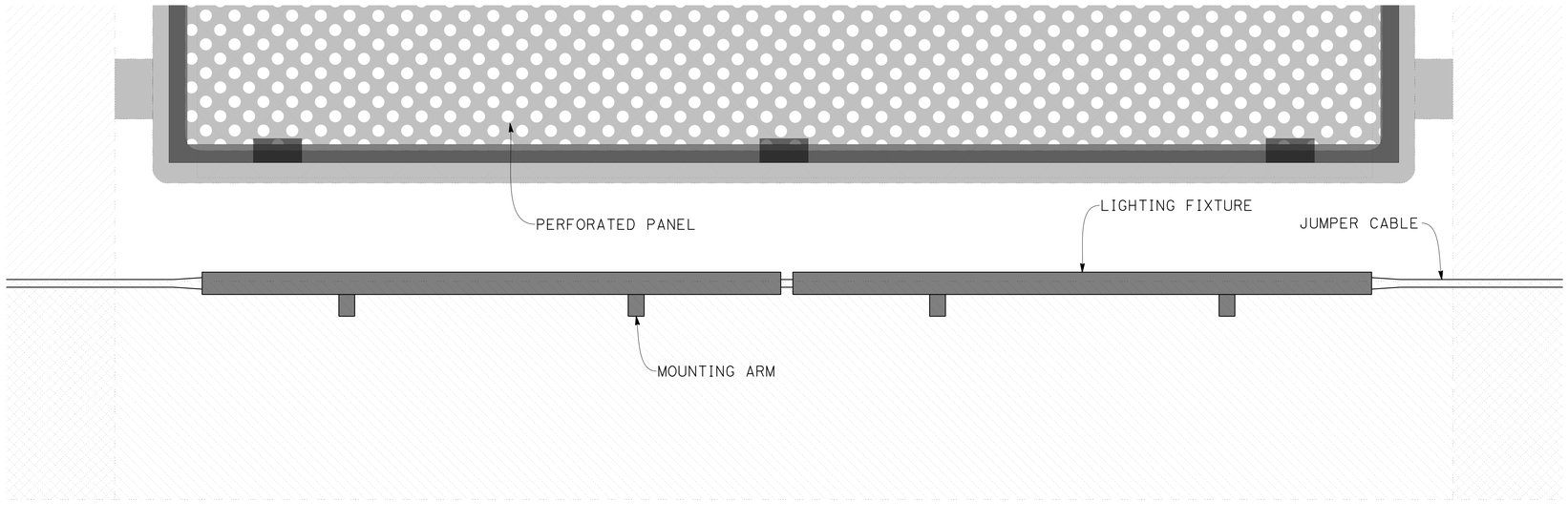
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

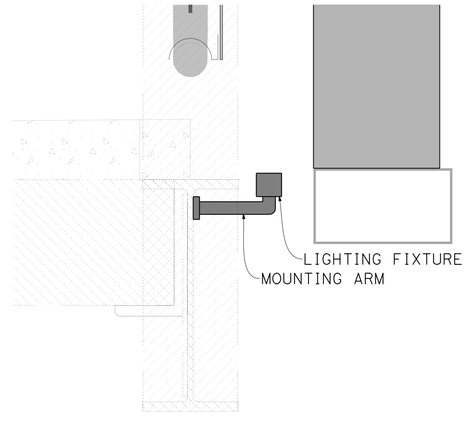
CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

NOTES:

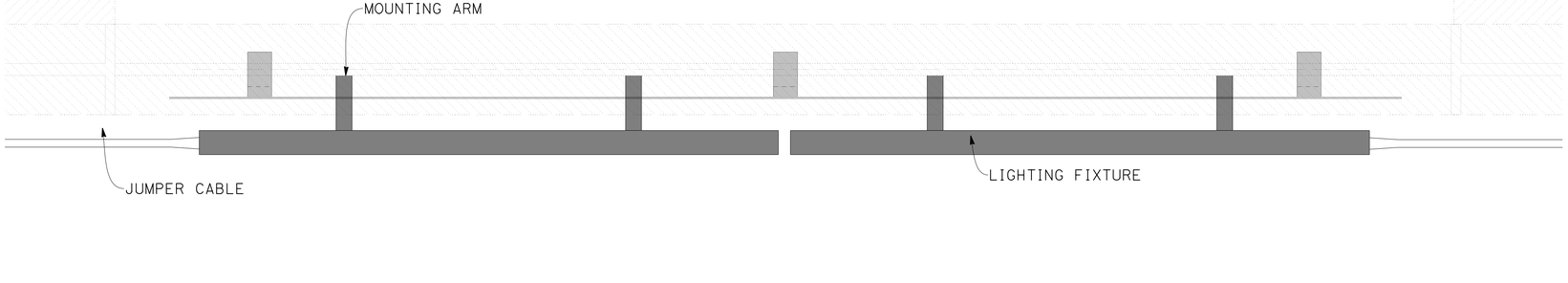
1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



ELEVATION
1"= 6"



SECTION
1"= 6"



PLAN
1"= 6"

LIGHTING FIXTURE

ARCHITECTURAL TREATMENT
COMMUNITY ID (PANELS) DETAILS
SCALE: AS SHOWN

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

AT-8

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 3/11/2026
00-00-00 TIME PLOTTED => 12:19:42 PM

BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_pg008-lighting-detail.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	49	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

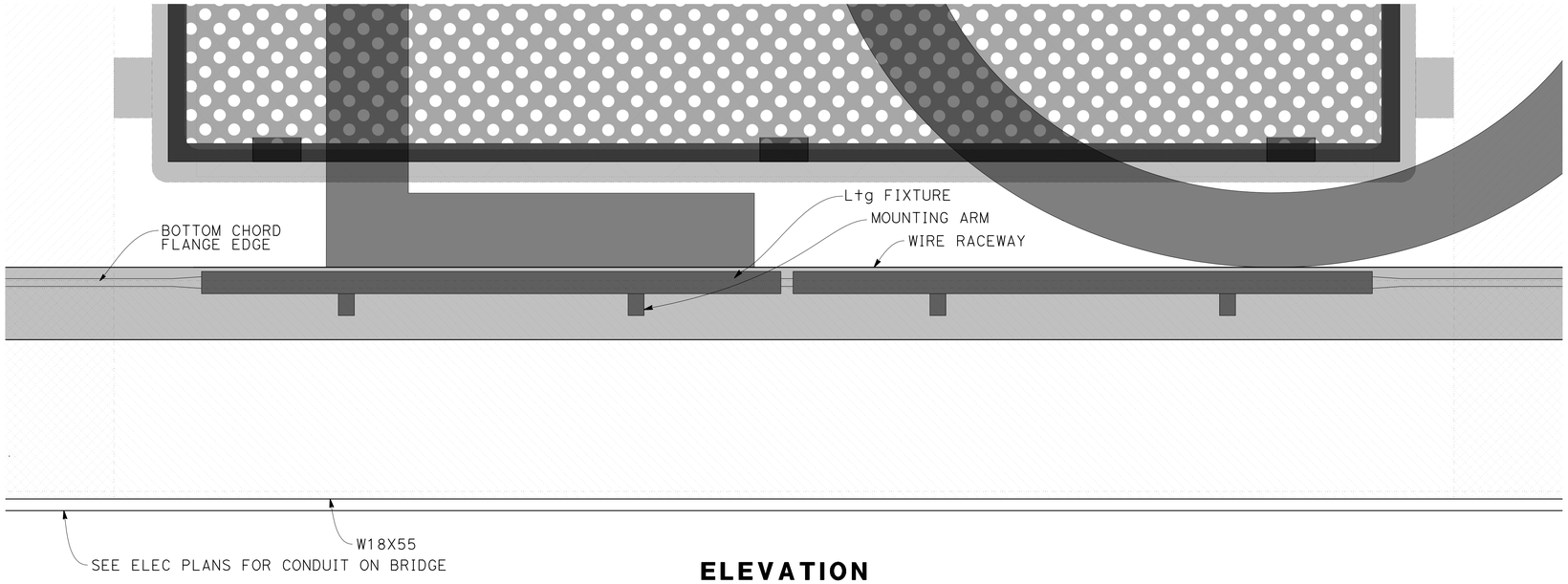
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

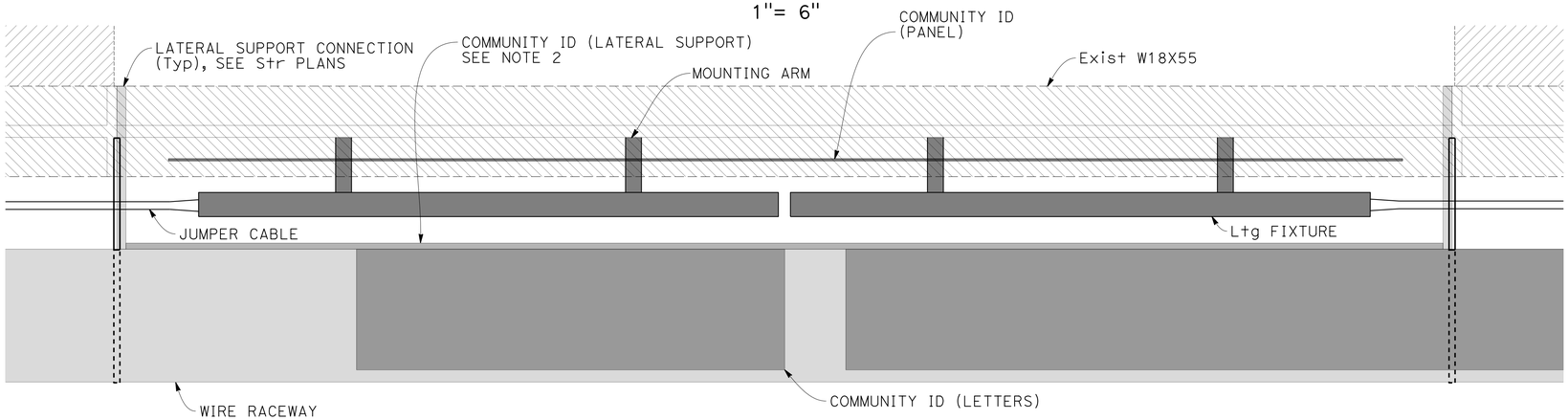
CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

NOTES:

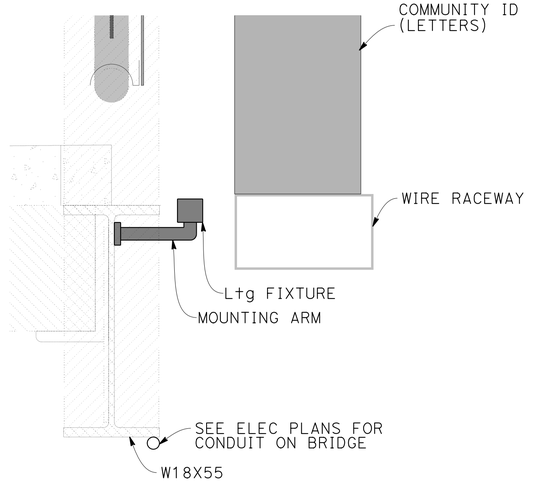
1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. METHOD FOR SECURING LETTERS TO WIREWAY TO BE DEVELOPED BY FABRICATOR AND APPROVED BY CALTRANS.



ELEVATION
1"= 6"



PLAN
1"= 6"



SECTION
1"= 6"

LIGHTING FIXTURE BEHIND LETTERS

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

ARCHITECTURAL TREATMENT
COMMUNITY ID (PANELS) DETAILS
SCALE: AS SHOWN

AT-9

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 3/11/2026
00-00-00 TIME PLOTTED => 12:19:49 PM

BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_pg009-lighting-detail.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	22	1.08/1.08	50	63

Georgia Medina 02-26-26
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGIA A. MEDINA
No. C69996
Exp. 09-30-26
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

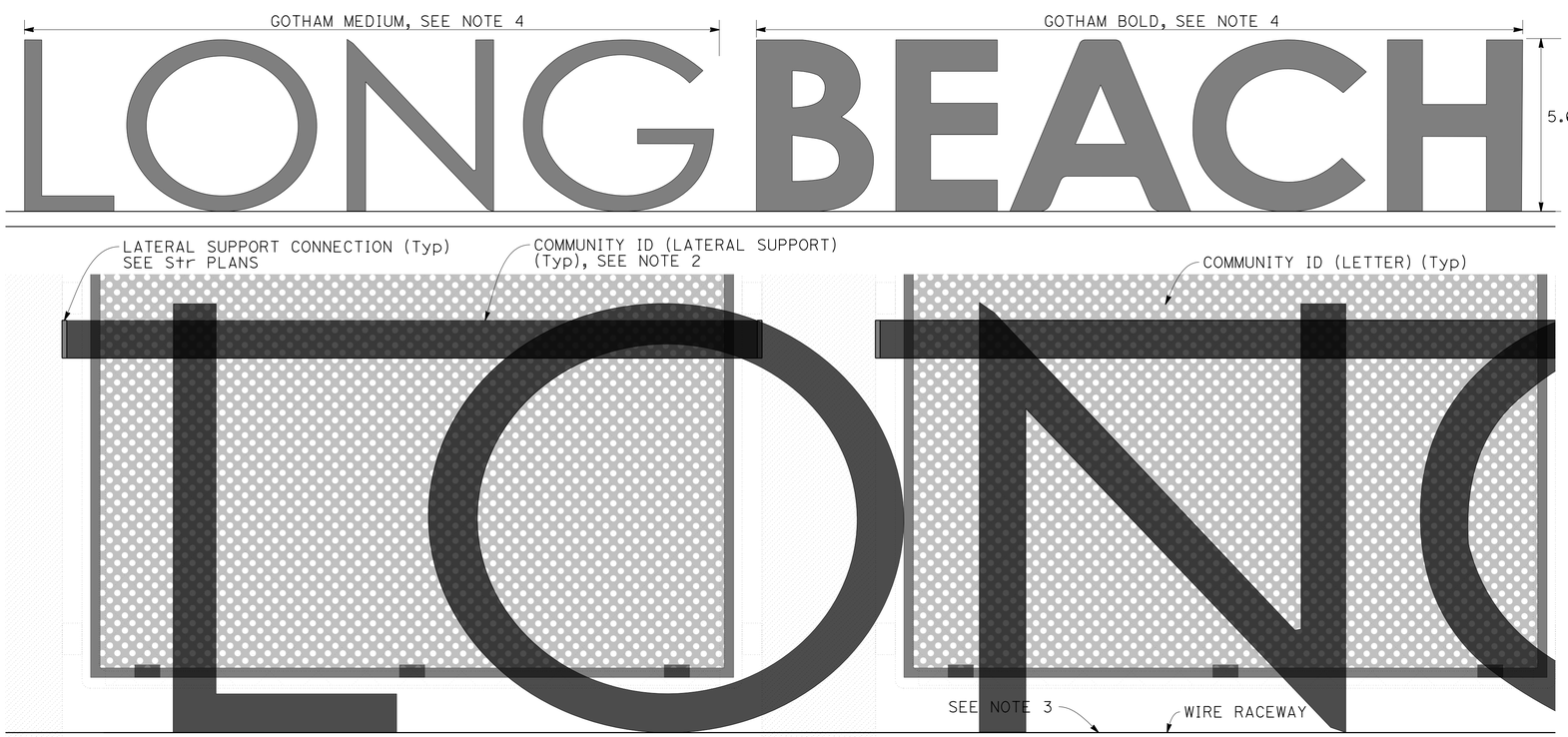
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 E CONANT STREET
LONG BEACH, CA 90808

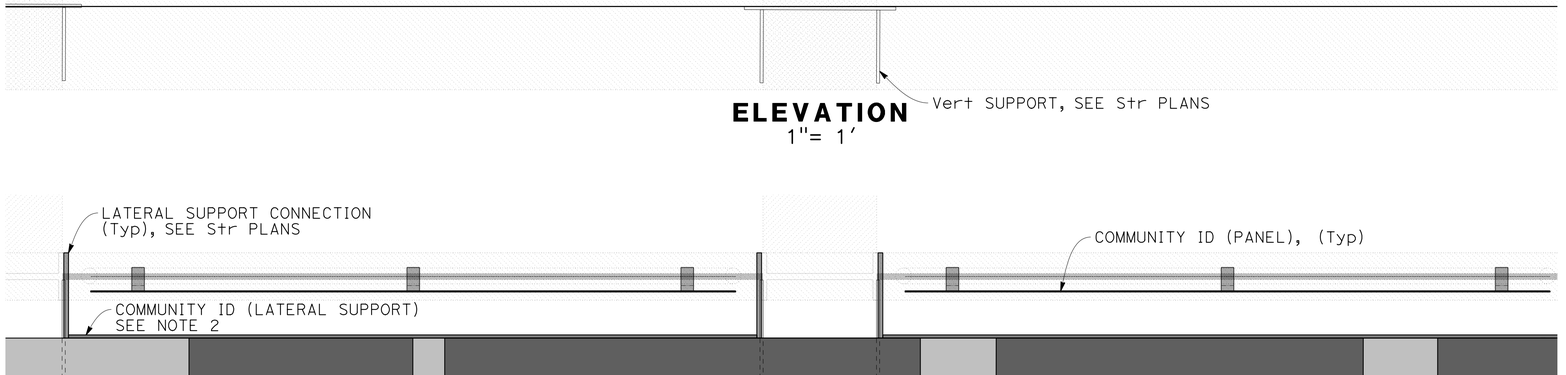
CITY OF LONG BEACH
411 WEST OCEAN BOULEVARD
LONG BEACH, CA 90802

NOTES:

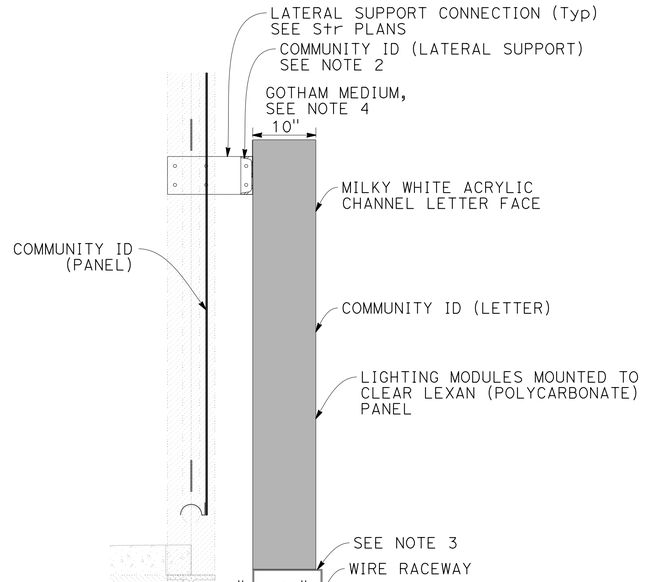
1. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. CONNECTION SIZING, QUANTITY AND LOCATIONS TO BE DETERMINED BY FABRICATOR AND APPROVED BY CALTRANS.
3. METHOD FOR SECURING LETTERS TO WIREWAY TO BE DEVELOPED BY FABRICATOR AND APPROVED BY CALTRANS.
4. LETTER SPACING TO BE DETERMINED BY FABRICATOR AND APPROVED BY CITY.



ELEVATION
1"= 1'



PLAN
1"= 1'



SECTION
1"= 1'

ILLUMINATED CHANNEL LETTER DETAILS	
LIT METHOD	FRONT-LIT
FACE	MILKY WHITE TRANSLUCENT ACRYLIC
FRAME	ALUMINUM ANGLE INTERNAL CHANNEL
BACK	ALUMINUM CHANNEL LETTER BACKER PANEL. SATIN PAINT FINISH TO MATCH RETURNS
LIGHT SOURCE	PROGRAMMABLE RGB LED MODULES
LED MODULE	TO BE DETERMINED BY FABRICATOR
CONTROLLER	PHAROS DYNAMIC LIGHTING CONTROLLER

LETTER CONNECTION DETAILS

ARCHITECTURAL TREATMENT
COMMUNITY ID (LETTERS) DETAILS

SCALE: AS SHOWN

THIS PLAN TO BE USED FOR ARCHITECTURAL TREATMENT INFORMATION ONLY

AT-10

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: NICOLAS VELAZQUEZ, P.E.
CALCULATED-DESIGNED BY: N. VELAZQUEZ
CHECKED BY: G. MEDINA
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 3/11/2026
TIME PLOTTED => 12:19:56 PM
00-00-00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	51	63

K KHOSROVIAN

REGISTERED ELECTRICAL ENGINEER — 02-26-26 DATE

REGISTERED PROFESSIONAL ENGINEER
KAMRAN KHOSROVIAN KERMANI
No. E19908
Exp. 03-31-28
ELECTRICAL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

ELECTRICAL NOTES:

1. ALL INSTALLATIONS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE LATEST CALIFORNIA ELECTRICAL CODE (CEC), HEREAFTER MENTIONED AS "ELECTRICAL CODE", AS CURRENTLY ADOPTED BY THE CITY OF LONG BEACH.

2. ELECTRICAL EQUIPMENT, DEVICES, JUNCTION BOXES, AND ENCLOSURES INSTALLED OUTDOORS SHALL BE WEATHERPROOF, CORROSION RESISTANT, AND HOT-DIPPED GALVANIZED, RATED MINIMUM NEMA 3R. USE NEMA 4X IN AREAS SUBJECT TO SPRAY, WASHDOWN, OR DIRECT MOISTURE. HARDWARE SHALL BE HOT-DIP GALVANIZED OR STAINLESS STEEL. EXTERIOR COLOR SHALL CLOSELY MATCH THE WALL OR SURFACE ON WHICH THE EQUIPMENT IS MOUNTED.

3. JUNCTION BOX, PULL BOX, AND EQUIPMENT ENCLOSURE DIMENSIONS SHOWN ARE PRELIMINARY AND BASED ON CONDUIT ENTRY REQUIREMENTS. FINAL SIZES SHALL BE VERIFIED AFTER INTERNAL COMPONENTS, TERMINATIONS, AND WIRING LAYOUTS HAVE BEEN FINALIZED. PROVIDE SUFFICIENT SPACE TO MEET NEC 314.28 AND MANUFACTURER REQUIREMENTS FOR CONDUCTOR BENDING RADIUS, WIRING CLEARANCE, AND DEVICE MOUNTING. ADJUST BOX OR ENCLOSURE DIMENSIONS AS REQUIRED TO ACCOMMODATE EQUIPMENT DEPTH, WIRING ACCESS, AND HEAT DISSIPATION.

4. ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE U.L. LISTED OR CITY OF LONG BEACH TEST LAB APPROVED.

4. 600V AND BELOW: ALL WIRES SHALL BE COPPER, RATED FOR 600V. FOR WET LOCATION, USE "THWN" INSULATION (75°C WET) FOR WIRES LESS THAN NO. 8, AND THWN-2 (90°C WET), FOR WIRES NO 8 AND LARGER. FOR DRY LOCATION, USE THHN INSULATION (90°C DRY) UNLESS OTHERWISE NOTED.

5. MINIMUM DEPTH OF DIRECT BURIAL AND CONCRETE ENCASED CONDUITS SHALL BE 3'-6" (42") FROM FINISHED SURFACE UON.

6. ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40. WHEN TRANSITIONING TO ABOVE GROUND UNDER EQUIPMENT, THE TERMINATING PORTION OF THE UNDERGROUND CONDUIT FROM NEAREST BOX TO THE TERMINATION POINT SHALL BE SCHEDULE 80 CONDUIT ALL EXTERIOR EXPOSED CONDUITS SHALL BE RIGID GALVANIZED STEEL.

7. PRIOR TO COMMENCING TRENCHING, THE CONTRACTOR SHALL REVIEW EXISTING UNDERGROUND UTILITIES. ALL EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL POTHOLE FOR ALL SUB-SURFACE INSTALLATIONS WITHIN 5 FEET FROM CENTER OF PROPOSED CONDUITS TRENCH TO DETERMINE THEIR EXACT LOCATIONS AND ELEVATIONS. THE CONTRACTOR SHALL BRING ANY CONFLICT TO THE ATTENTION OF THE ENGINEER.

8. WHERE CROSSING ANY SUBSTRUCTURES WHICH ALL ARE UNKNOWN IN DEPTH, OR WHERE NEW CONDUITS CROSS EACH OTHER, OR CROSS PIPES, THE CONTRACTOR SHALL TRENCH CAREFULLY TO LOCATE ALL SUBSTRUCTURES AT THE CROSSING NEW CONDUITS DEPTH AND INSTALLATIONS SHALL BE PER DETAIL AT THE CROSSING EXCEPT WHERE SUBSTRUCTURES OR NEW CONDUITS CROSSING MAKE THIS IMPOSSIBLE. THE CONTRACTOR SHALL REROUTE CONDUITS AT NO ADDITIONAL COST TO THE CITY, OVER OR UNDER SUBSTRUCTURE AND NEW INTERFERED CONDUITS AND PIPES, WITH A MINIMUM 6" CLEARANCE IN ACCORDANCE WITH THE ELECTRICAL CODE. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ALL CONDUITS AND WIRES DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE CITY. CALL UNDERGROUND SERVICE ALERT (USA) AT 800-422-4133 FOR FURTHER INFORMATION REGARDING EXISTING SUBSTRUCTURES, TEN WORKING DAYS PRIOR TO COMMENCING WORK.

9. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY EXISTING CONDITIONS AND INSTALL CONDUITS TO AVOID INTERFERENCES WITH OTHER EXISTING PIPES. GRADUALLY OFFSET NEW CONDUITS WHEN NEEDED TO AVOID EXISTING PIPES. ASSUME (3) INTERFERING PLACES.

10. CONDUIT RUNS ARE SHOWN "DIAGRAMMATICALLY", THE CONTRACTOR SHALL DETERMINE ACTUAL LOCATIONS AND ROUTING IN THE FIELD TO SUIT CONDITIONS.

11. AT THE COMPLETION OF ALL WORK, THE CONTRACTOR SHALL SUBMIT AN "AS BUILT" DRAWINGS SHOWING ALL THE CHANGES IN WORK OCCURRING DURING THE COURSE OF CONSTRUCTION, AND ACTUAL LOCATIONS OF CONDUIT RUNS.

12. ALL CIRCUITS AND ELECTRICAL SYSTEM SHALL BE TESTED FOR CONTINUITY, CLEAR OF GROUNDS AND SHORTS. MEGGER TEST ALL CONDUCTORS 600V OR LESS.

13. THE CONTRACTOR SHALL REPAIR ANY EQUIPMENT, STRUCTURES AND STRIPING DAMAGED BY TRENCHING OPERATIONS.

14. TRENCH EXCAVATION SHALL BE COORDINATED WITH THE CITY 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL PROTECT ALL EXCAVATIONS AND TRENCHING AGAINST CAVING IN CONFORMANCE WITH "CONSTRUCTION SAFETY ORDERS, DIVISION OF INDUSTRIAL SAFETY, STATE OF CALIFORNIA TITLE 8." THE CONTRACTOR SHALL PLACE BARRICADES AND INSTALL ADEQUATE WARNING LIGHTS TO PROTECT OPEN EXCAVATION. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY BRIDGES TO PROVIDE ACCESS TO THE AREA DURING THE TRENCHING OPERATIONS.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY COMPONENTS, CABLES, CONNECTORS, AND CONTROLS REQUIRED TO ENSURE THE PROPER OPERATION OF THE SYSTEM IN COMPLIANCE WITH ALL APPLICABLE CODES AND STANDARDS.

ABBREVIATIONS

AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AIC	AVAILABLE INTERRUPTING CURRENT
ANT	ANTENNA
AT	AMPERE TRIP
C.L.	CONTINUOUS LOAD
CLP	CITY LIGHT & POWER, Inc
D	DEPTH
DWP	DEPARTMENT OF WATER AND POWER
H	HEIGHT
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NGR	NEUTRAL GROUND RESISTOR
PH	PHASE
PL	POWERLOGIC
PLK	POWERLINK
RGS	RIGID GALVANIZED STEEL
SP	SPACE
SW	SWITCH
UL	UNDERWRITERS LABORATORIES
W	WIDTH
WP	WEATHERPROOF

SYMBOLS

	PANELBOARD
	EXISTING CLP LIGHT POLE WITH CUTOFF LUMINAIRE
	EXISTING LIGHT POLE WITH TWIN CUTOFF LUMINAIRE
	INSIGHT LIGHTING MEDLEY EXTERIOR ROUTE CATALOG #MER-LO-40K-1010-EAB-3-48-NO-TBR-CW-JC-3
1	CONSTRUCTION NOTE. APPLIES ONLY TO THE SHEET ON WHICH IT APPEARS
	STUB-OUT
	CIRCUIT HOMERUN, 3/4"C-2#12 & 1#12 GND
C1	MECHANICALLY HELD CONTACTOR
J	WEATHER RATED JUNCTION BOX WITH COVER PLATE

GENERAL NOTES, ABBREVIATIONS, SYMBOLS

NO SCALE

E-1

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KAMRAN K. KERMANI, P.E.

CALCULATED-DESIGNED BY: J. AGUILAR
CHECKED BY: K. KERMANI

REVISED BY | DATE REVISED

LAST REVISION: DATE PLOTTED => 3/11/2026
00-00-00 TIME PLOTTED => 12:20:04 PM

BORDER LAST REVISED 7/2/2010

USERNAME => nvelazquez
DGN FILE => 109300-33A_ua001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000 | PROJECT NUMBER & PHASE | 00000000001

ABBREVIATIONS
CID (LETTERS) - COMMUNITY IDENTCATION (LETTERS)
CID (PANEL) - COMMUNITY IDENTICATION (PANELS)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	52	63

K KHOSROVIAN 02-26-26
REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KAMRAN KHOSROVIAN KERMANI — No. E19908 — Exp. 03-31-28 — ELECTRICAL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MOFFATT & NICHOL
4225 EAST CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

LEGEND NOTES:

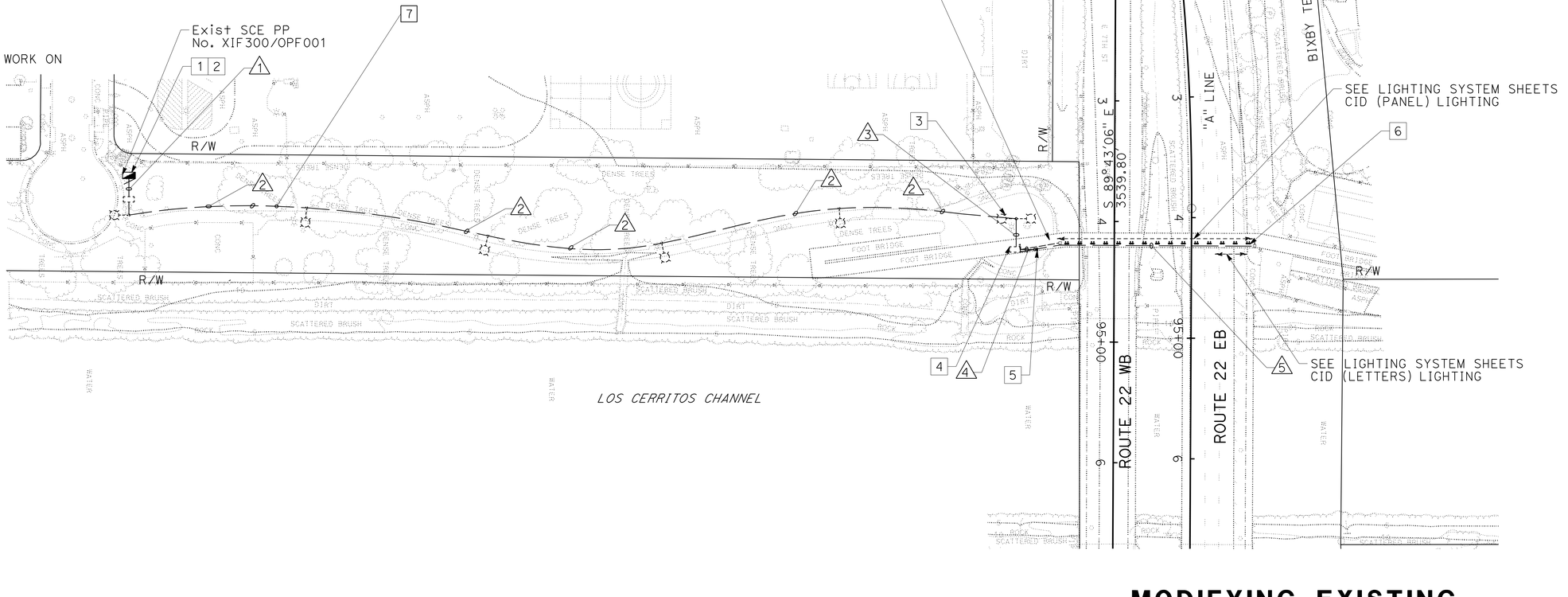
1. CONTRACTOR TO PROVIDE GE THQB 30A/2P BREAKER IN Exist CLP PANEL. USE SPACES 2 AND 4 AND CUTOUT SPACE IN PANEL DEADFRONT FOR (N) BREAKER.
2. REUSE EXISTING 1" CONDUIT AND RACEWAY FOR 3#8 TO FEED BRIDGE Ltg FEED THROUGH RACEWAY GOING ACROSS BIKE PATH TO Exist DOUBLE HEADED LIGHT POST NEAR PALOS VERDE PEDESTRIAN BRIDGE.
3. TRENCH 24" UNDERGROUND AND PROVIDE 1" PVC SCHEDULE 40 FOR FEED TO PANELBOARD "BL". PROVIDE 18" OF SLURRY CONCRETE ENCASEMENT AND 6" OF NATIVE MATERIAL OVER CONCRETE. REFER TO SHEET E-4 FOR TRENCH DETAIL.
4. PROVIDE TIER 5 13x24x24 PULLBOX TO INTERCEPT UNDERGROUND PVC CONDUIT. ROUTE PVC CONDUIT TO PANELBOARD "BL".
5. CONTRACTOR TO PROVIDE TAMPER-PROOF NEMA 4X RATED, 240V, 1 PH, 60A, 12 SP, 10 KAIC PANELBOARD. REFER TO SHEET E-6 FOR PANEL ORIENTATION. REFER TO SHEET E-4 FOR PANEL MOUNTING DETAIL AND GROUNDING DETAIL.
6. SEE SHEET E-6 FOR CID (LETTERS) AND CID (PANEL).
7. CONTRACTOR TO CONFIRM EXISTING CONDUCTOR SIZE IN EXISTING CONDUIT TO BE USED. DAMAGED EXISTING CONDUCTORS TO BE REPLACED SAME SIZE.

GENERAL NOTE

1. SEE SHEET E-6 FOR ELECTRICAL WORK ON BRIDGE SIDE OF PANEL BOARD.

CONDUCTOR AND CONDUIT SCHEDULE

CONDUCTOR DESIGNATION		RUN NUMBER									
		NUMBER OF CONDUCTORS									
		1	2	3	4	5	6	7			
#8	PANELBOARD "BL"	3	3	3	3	3					
Exist #8	PATH LIGHTING	2	2								
#10G	PANELBOARD "BL"	1	1	1	1	1					
#8	CID (LETTERS) LIGHTING						2				
#10G	CID (LETTERS) LIGHTING						1				
#8	CID (PANEL) LIGHTING							2			
#10G	CID (PANEL) LIGHTING							1			
Exist CONDUIT SIZE		1"	1"								
NEW CONDUIT SIZE (PVC)				1"	1"						
NEW CONDUIT SIZE (EMT)						1"	3/4"	3/4"			



OVERALL ELECTRICAL SITE PLAN

MODIFYING EXISTING ELECTRICAL SYSTEM (CITY)

SCALE: 1" = 50'

APPROVED FOR ELECTRICAL WORK ONLY

B-4849

E-2

REVISED BY | DATE REVISED
J. AGUILAR | K. KERMANI
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: KAMRAN K. KERMANI, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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BORDER LAST REVISED 7/2/2010 | USERNAME => nvelazquez | DGN FILE => 109300-33A_ua002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	53	63

K KHOSROVIAN KERMANI 02-26-26
REGISTERED ELECTRICAL ENGINEER DATE

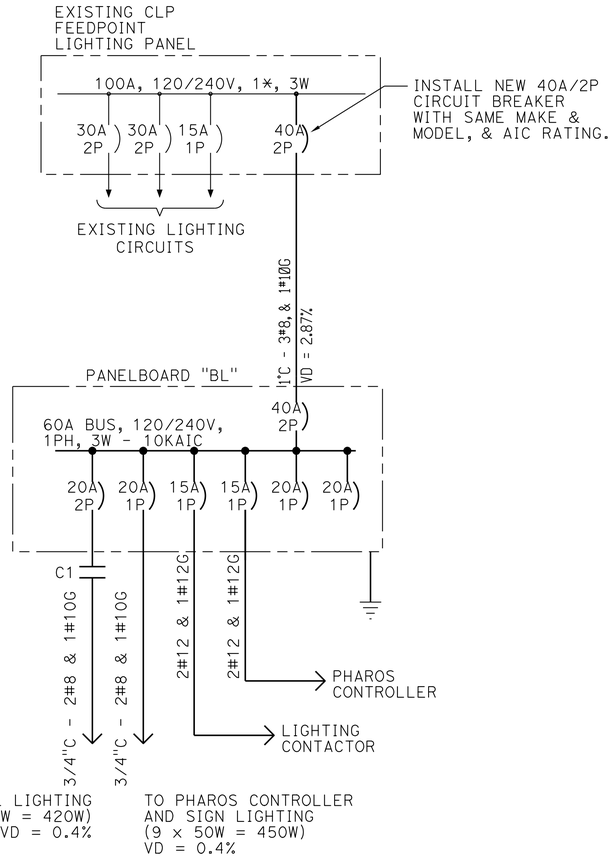
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAMRAN KHOSROVIAN KERMANI
No. E19908
Exp. 03-31-28
ELECTRICAL
STATE OF CALIFORNIA

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SINGLE LINE DIAGRAM

NOT TO SCALE

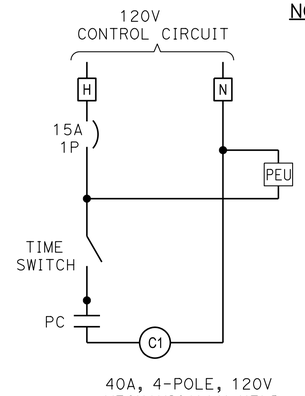
PANELBOARD "BL" 60A BUS, 10KAIC, 240V/120V					
AMPERES	POLES	VOLTS	kVA	CIRCUIT NUMBER	NAMEPLATE DESCRIPTION
20	2	240	0.42	1,3	PANEL Ltg
15	1	120	0.01	2	LIGHTING CONTACTOR
15	1	120	0.01	4	PHAROS CONTROLLER
20	1	120	0.45	5	SIGN Ltg
20	1	120	0	6	SPARE BREAKER
20	1	120	0	8	SPARE BREAKER

TOTAL LOAD: 0.89 kVA*(1.25 CONTINUOUS LOAD) = 1.11kVA
TOTAL LOAD: 4.64A

EXISTING "CLP" LOAD SCHEDULE		
LOAD NO.	DESCRIPTION	FLA
1	EXISTING LOAD	5.4A
2	PANELBOARD "BL"	4.64A
	SUBTOTAL	10.04A
	LONG CONTINUOUS LOAD	2.51A
	TOTAL LOAD	12.55A

NOTE:

Exist "CLP" HAS ADEQUATE LOAD FOR NEW ADDITIONAL LOAD.



LIGHTING CONTACTOR DIAGRAM

NOT TO SCALE

NOTE:

PROVIDE LIGHTING CONTACTOR AND PHOTOCELL IN SEPARATE NEMA RATED 4X ENCLOSURE NEXT TO PANELBOARD "BL".

ELECTRICAL DETAILS

APPROVED FOR ELECTRICAL WORK ONLY

MODIFYING EXISTING ELECTRICAL SYSTEM (CITY)

NO SCALE

E-3

B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: KAMRAN K. KERMANI, P.E.
CALCULATED-DESIGNED BY: J. AGUILAR
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	54	63

K KHOSROVIAN KERMANI 02-26-26
REGISTERED ELECTRICAL ENGINEER DATE

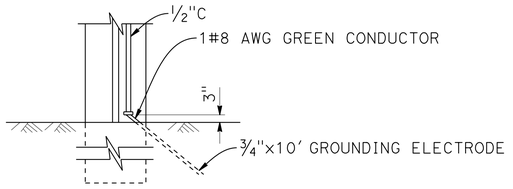
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAMRAN KHOSROVIAN KERMANI
No. E19908
Exp. 03-31-28
ELECTRICAL
STATE OF CALIFORNIA

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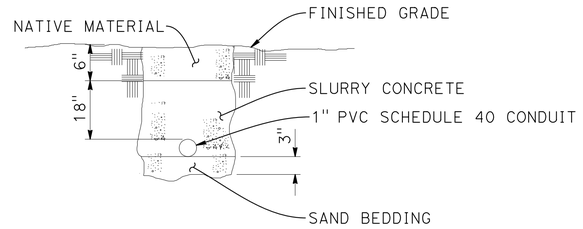
CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802



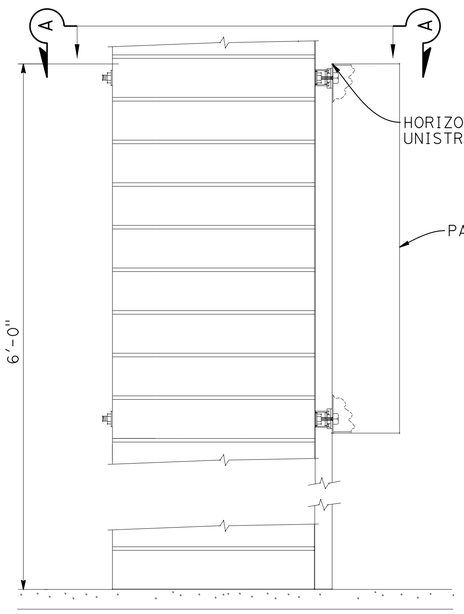
GROUNDING DETAIL
NO SCALE

NOTE:

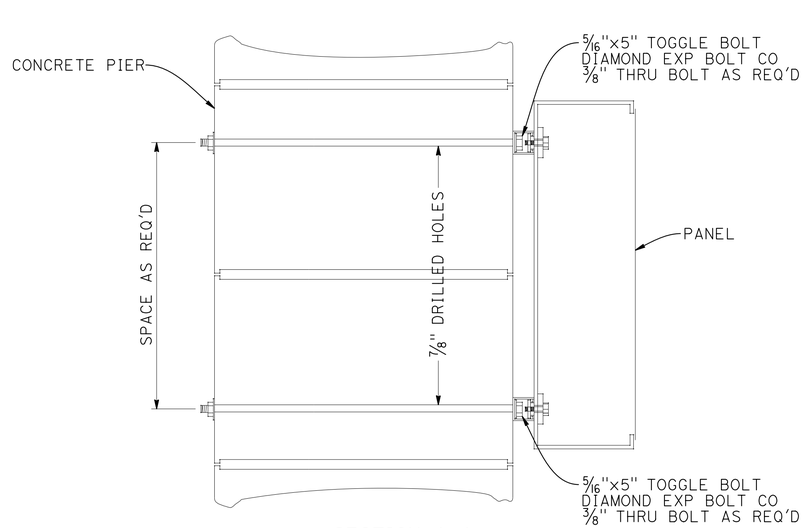
GROUND CLAMP AND REQUIRED FITTINGS MUST BE ACCESSIBLE. CONDUIT MUST EXTEND TO PROTECT GROUNDING ELECTRODE CONDUCTOR FROM MECHANICAL DAMAGE.



TRENCH DETAIL
NO SCALE



WALL MOUNTING
SECTION A-A



SECTION A-A

PANEL MOUNTING DETAIL
NO SCALE

ELECTRICAL DETAILS

APPROVED FOR ELECTRICAL WORK ONLY

MODIFYING EXISTING ELECTRICAL SYSTEM (CITY)
NO SCALE

E-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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REVISED BY
DATE REVISED

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BORDER LAST REVISED 7/2/2010 | USERNAME => nvelazquez | DGN FILE => 109300-33A_ua004.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	55	63

K KHOSROVIAN KERMANI 02-26-26
REGISTERED ELECTRICAL ENGINEER DATE

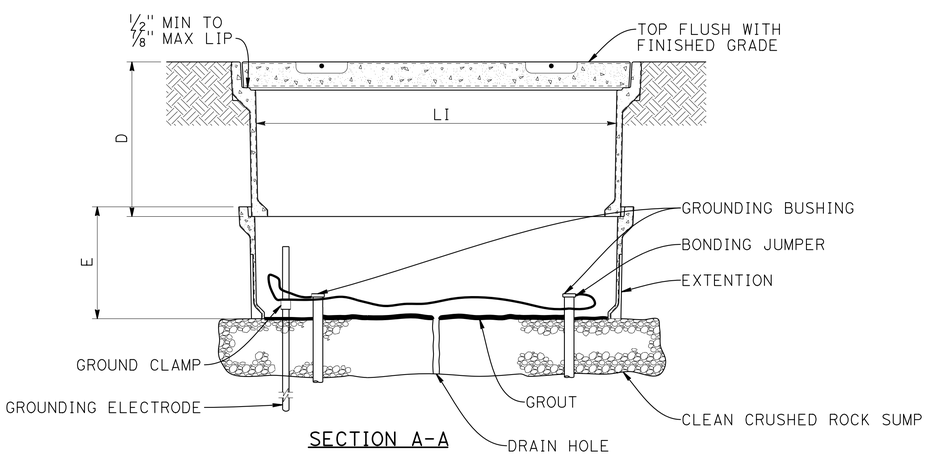
PLANS APPROVAL DATE

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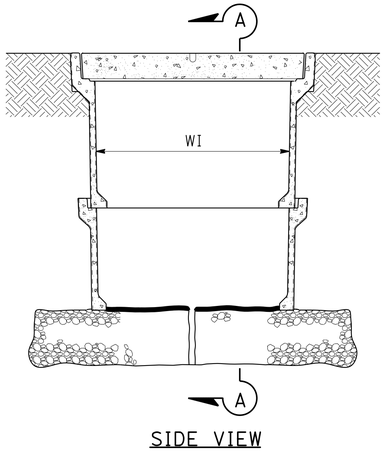
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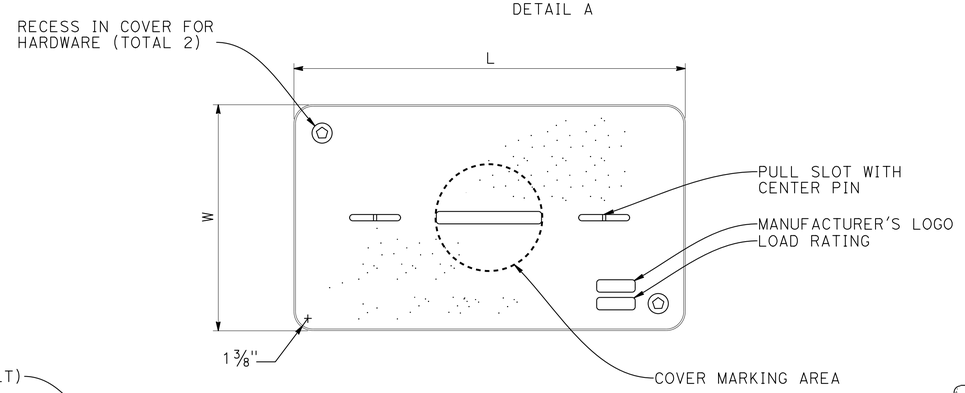
SECTION A-A



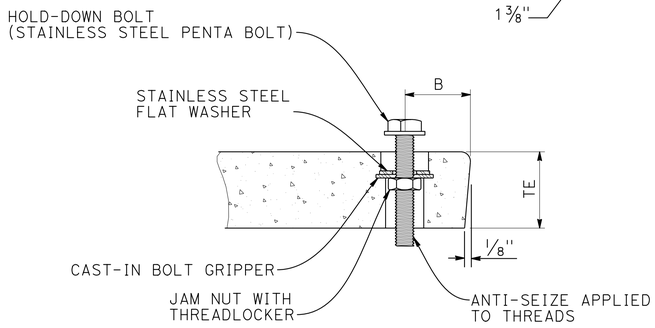
SIDE VIEW

INSTALLATION DETAILS

DETAIL A

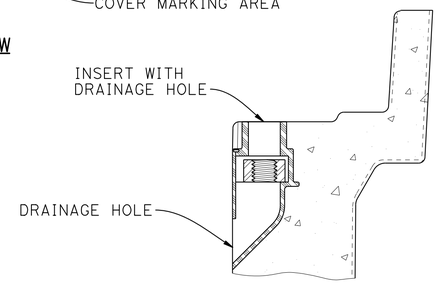


COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT

OR SIMILAR



TYPICAL THREADED INSERT

OR SIMILAR

NOMINAL DIMENSIONS TABLE										
PULL BOX						COVER				
PULL BOX TYPE	MINIMUM DEPTH BOX (D)	MINIMUM DEPTH EXTENSION (E)	MAXIMUM WEIGHT	LI Min	WI Min	TE	B	L	W	MAXIMUM WEIGHT
No. 5	24"	22"	65 lb	24"	13"	2"	1 3/4"	27 1/4"	16 1/4"	60 lb

ELECTRICAL DETAILS (NON-TRAFFIC PULL BOX)

MODIFYING EXISTING ELECTRICAL SYSTEM (CITY)

NO SCALE

E-5

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B-4849

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CALCULATED-DESIGNED BY: J. AGUILAR
CHECKED BY: K. KERMANI
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BORDER LAST REVISED 7/2/2010
USERNAME => nvelazquez
DGN FILE => 109300-33A_ua005.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	56	63

K KHOSROVIAN KERMANI 02-26-26
REGISTERED ELECTRICAL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
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No. E19908
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ELECTRICAL
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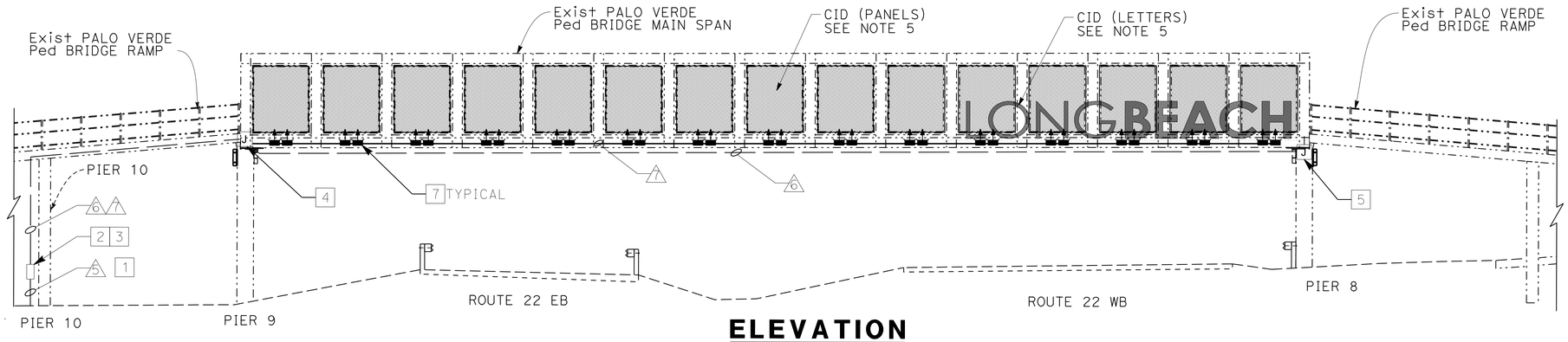
NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. LUMINARE TO BE MOUNTED ON BRIDGE FRAME TO ILLUMINATE CID (PANELS).
3. CID (LETTERS) TO BE FABRICATED WITH INTERAL ILLUMINATION.
4. CID (LETTERS) AND CID (PANELS) NOT SHOWN IN PLAN VIEW FOR CLARITY.
5. SEE AT SHEETS FOR DETAILS NOT SHOWN.
6. SEE Sht E-2 FOR WORK BETWEEN SCE SERVICE POINT AND PANEL BOARD.

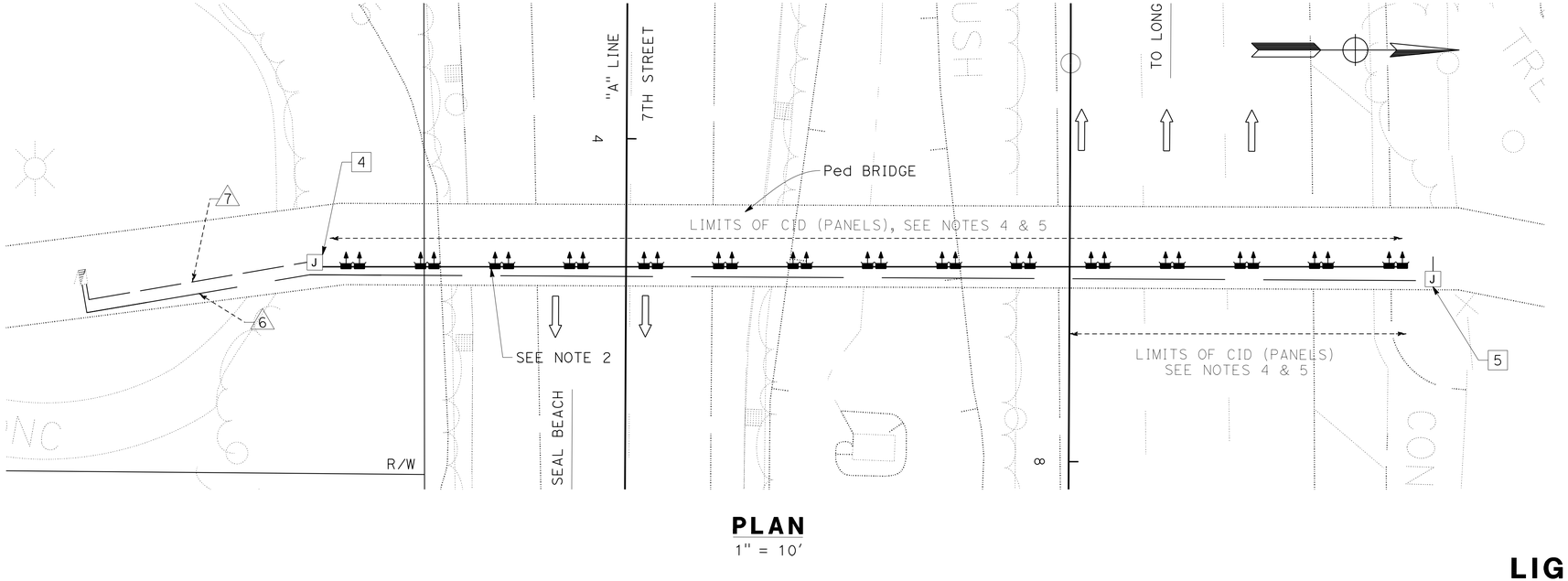
ABBREVIATIONS
CID (LETTERS) - COMMUNITY IDENTCATION (LETTERS)
CID (PANEL) - COMMUNITY IDENTICATION (PANELS)

CONDUCTOR AND CONDUIT SCHEDULE

CONDUCTOR DESIGNATION		RUN NUMBER					
		NUMBER OF CONDUCTORS					
		△5	△6	△7			
#8	PANELBOARD "BL"	3					
#10G	PANELBOARD "BL"	1					
#8	CID (LETTERS) LIGHTING		2				
#10G	CID (LETTERS) LIGHTING		1				
#8	CID (PANEL) LIGHTING			2			
#10G	CID (PANEL) LIGHTING			1			
Exist CONDUIT SIZE							
NEW CONDUIT SIZE (PVC)							
NEW CONDUIT SIZE (EMT)		1"	3/4"	3/4"			



ELEVATION
1" = 10'



PLAN
1" = 10'

CONDUIT NOTES:

△5 1"C, 3#8+1#10G (FEED TO PANELBOARD "BL")

△6 1"C, 2#8, 1#12G CID (LETTER)

△7 1"C, 2#8, 1#12G CID (PANEL)

LEGEND NOTES:

1 CONTRACTOR TO CONNECT DIRECT BURIED 1" PVC SCHEDULE 40 TO 1" RGS PVC COATED CONDUIT TO TERMINATE INTO PANELBOARD "BL".

2 CONTRACTOR TO SURFACE MOUNT BRIDGE Ltg ONTO Exist CONCRETE PIER 7 FACING SOUTH.

3 CONTRACTOR TO PROVIDE PHAROS-U1-BN-SBB DMX CONTROLLER AND TAMPER-PROOF NEMA 4X ENCLOSURE, 14x14x8 IN (HxWxD), TO PROVIDE LIGHTING CONTROLS FOR THE LED SIGNAGE MODULES. PROVIDE CRADLEPOINT COR IBR900 FOR CELL SERVICE POINT TO REMOTE CONTROL LED SIGNAGE MODULES. CONTRACTOR TO COORDINATE WITH LED SIGNAGE FABRICATOR AND LIGHTING CONTROL MANUFACTURER FOR WIRING DIRECTION. CONTRACTOR TO COORDINATE WITH CITY OF LONG BEACH TID FOR CRADLEPOINT CELL SERVICE SETUP.

4 PROVIDE NEMA 4X, 10x8x6 IN (HxWxD) WEATHERPROOF JUNCTION BOX TO CONNECT PANEL LIGHTING FIXTURE WIRING TO CIRCUIT SL-1,3. CONNECT (2) LINEAR FIXTURES END-TO-END IN EVERY PERFORATED PANEL AND USE PROVIDED JUMPER CABLES TO CONNECT LINEAR FIXTURES BETWEEN PANELS.

5 PROVIDE NEMA 4X, 10x8x6 IN (HxWxD) WEATHERPROOF JUNCTION BOX TO CONNECT SIGN LIGHTING TO CIRCUIT SL-5.

7 PROVIDE (30) PANEL Ltg. ALL FIXTURES TO BE WALL MOUNTED AND TILTED AT 90 DEGREES POINTED UP. MOUNTED LIGHTING FIXTURE WITH 3" EXTENDED ARM TO STEEL BEAM. (2) PANEL Ltg TO BE PROVIDED FOR EVERY PANEL CONNECTED END TO END AND SPACED BETWEEN EACH PANEL SECTION. SEE AT SHEETS FOR LIGHTING FIXTURE LOCATIONS.

LIGHTING SYSTEM (CITY)
SCALE: AS SHOWN

REVISED BY | DATE REVISED
J. AGUILAR | K. KERMANI
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
KAMRAN K. KERMANI, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

B-4849

APPROVED FOR ELECTRICAL WORK ONLY

E-6

LAST REVISION | DATE PLOTTED => 3/11/2026
00-00-00 | TIME PLOTTED => 12:20:30 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => nvelazquez | DGN FILE => 109300-33A_ua006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	57	63

K KHOSROVIAN KERMANI 02-26-26
REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAMRAN KHOSROVIAN KERMANI
No. E19908
Exp. 03-31-28
ELECTRICAL
STATE OF CALIFORNIA

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LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

NOTES:

1. ELECTRICAL SYSTEMS QUANTITY TABLES SUMMARIZE SIGNIFICANT COMPONENTS. SEE ELECTRICAL SYSTEM PLANS AND SPECIFICATIONS TO DETERMINE ALL MATERIALS NEEDED FOR EACH SYSTEM.

2. LISTING QUANTITIES FOR ALL ITEMS SHOWN ON THE ELECTRICAL PLANS ARE NOT SEPARATE BID ITEMS. ALL ITEMS ARE TO BE INCLUDED IN THE LUMP SUM CATEGORY SHOWN RESPECTIVELY BELOW.

MODIFYING EXISTING ELECTRICAL SYSTEM (CITY)

SHEET No.	NEMA 4X 240V 60A 1PH PANELBOARD	1" RMT CONDUIT	1/2" RMT CONDUIT	1" PVC SCHEDULE 40 CONDUIT	LIGHTING CONTACTOR	CONDUIT SUPPORT BRACKETS	PHOTOCELL	40A/2P BREAKER	#8 AWG	#10 AWG	TIER 5 PULLBOX	3/4"x10' GROUNDING ROD	TRENCH	HORIZONTAL UNISTRUTS
	EA	LF	LF	LF	EA	EA	EA	EA	LF	LF	EA	EA	LS	EA
E-2	1	50		50	1	10	1	1	1000	1000	1	1	1	2

LIGHTING SYSTEM (CITY)

SHEET No.	LED LINEAR LIGHTING FIXTURES	LIGHTING CONTROL KIT	3/4" RMT CONDUIT	CONDUIT SUPPORT BRACKETS	#8 AWG	#12 AWG
	EA	LF	LF	EA	EA	EA
E-4	30	1	400	100	500	500

ELECTRICAL SYSTEM QUANTITIES

NO SCALE

EQ-1

REVISED BY | DATE REVISED
J. AGUILAR | K. KERMANI
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: KAMRAN K. KERMANI, P.E.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 | DATE PLOTTED => 3/11/2026 | TIME PLOTTED => 12:20:34 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => nvelazquez | DGN FILE => 109300-33A_ub002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

NOTES:

(1) Community Identification (Letters)
(2) Community Identification (Panels)
(3) Existing Seat Extender Modification
(4) Community Identification (Lateral Support)
(5) Lateral Support Connection (Bays 11 thru 15). See SIGN SUPPORT DETAILS NO. 1
(6) Community Identification (Electrical Wire Raceway)
(7) Electrical Conduit, see ROADWAY PLANS
(8) Vertical Support, see "SIGN SUPPORT DETAILS NO. 1" Sheet
(9) Top of pier cap bracket retrofit

LEGEND:

—·—·—Existing Structure
Point of Minimum Vertical Clearance

NOTES:

1. For existing bridge information, see Reference 1 and 2 in the "INDEX TO PLANS" sheet.
2. For Community Identification elements, see Architectural Treatment Plans.
3. For the top of pier cap bracket retrofit and existing seat extender modification (including plates, bolts and infill grout), see "SIGN SUPPORT DETAILS NO. 2" sheet.
4. For "A" Line and "B" Line alignment data see Roadway Plans.
5. See Roadway Plan X-1 sheet.

ASSUMPTIONS:

Community Identification (Letters) are to be supported vertically on six (6) new brackets and restrained laterally by Community ID (Lateral Support) at mid-height.
All the steel plates, steel angle, bolts and welding shown on this sheet for Community ID (Lateral Support) are for illustration purpose.
Lateral support for the Community ID (Letters) shall be designed and detailed by the fabricator.
The location and elevation of the Community ID (Lateral Support) shall be determined by the fabricator of the Community ID (Letters).
The Contractor and fabricator must submit shop drawings with stamp and signed by a civil engineer who is licensed in the State of California.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	58	63

REGISTERED CIVIL ENGINEER — 03/05/26 DATE

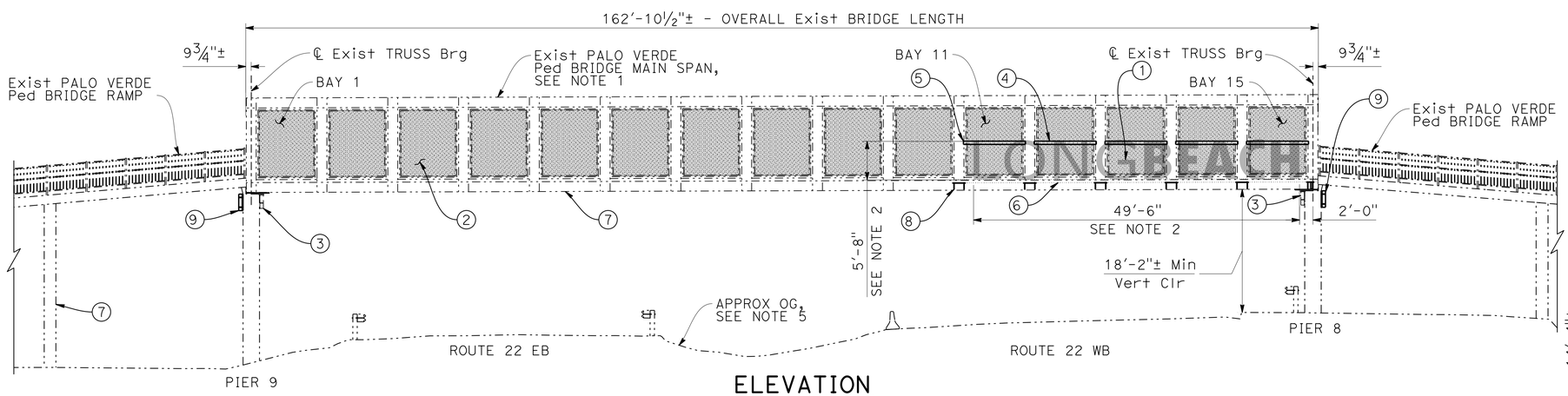
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — OMAR A. JARADAT — No. CE 60242 — Exp. 06/30/2026 — CIVIL — STATE OF CALIFORNIA

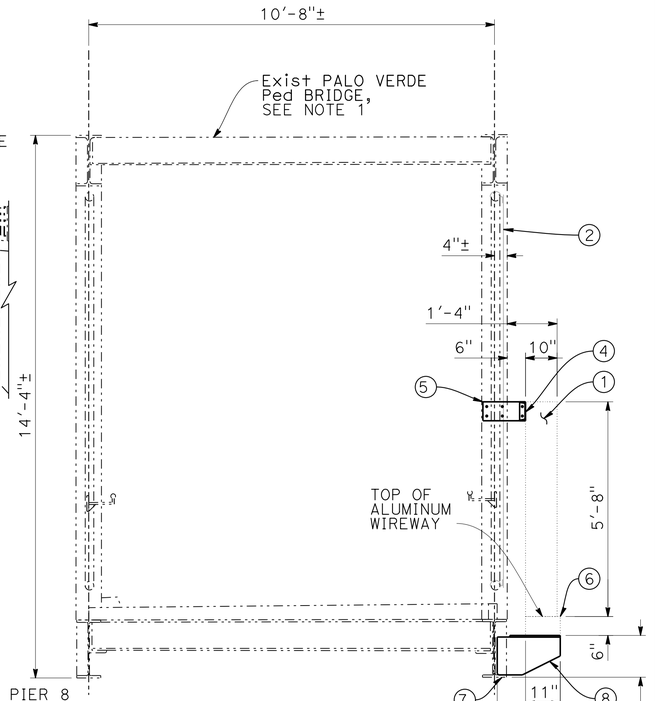
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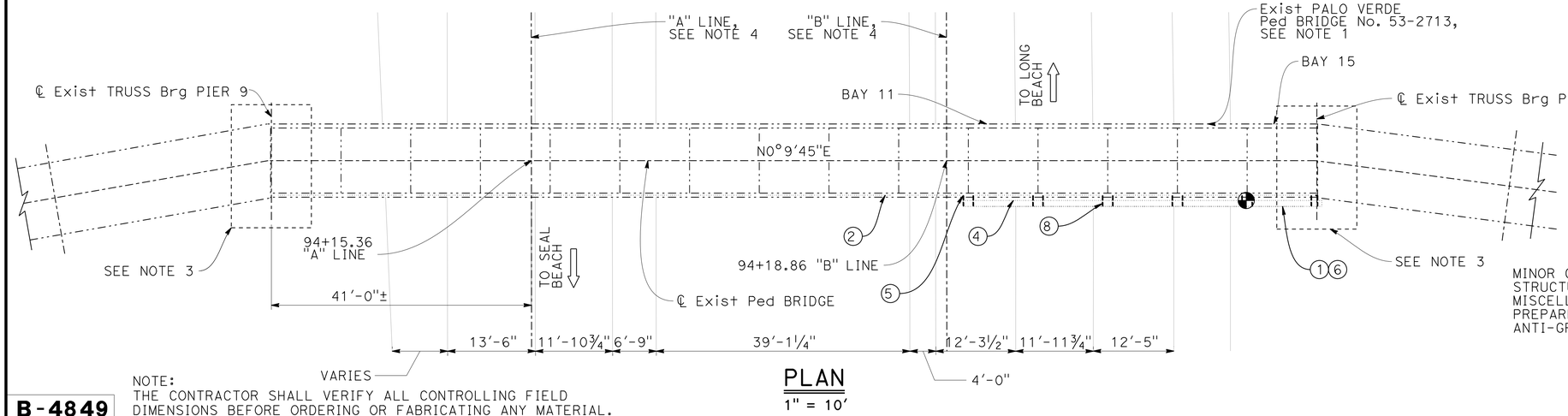
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LONG BEACH, CA 90802



ELEVATION
1" = 10'



TYPICAL SECTION
½" = 1'-0"



PLAN
1" = 10'

QUANTITIES

MINOR CONCRETE	0.17 CY
STRUCTURAL STEEL (BRIDGE)	5,256 CY
MISCELLANEOUS METAL (BRIDGE)	206 LB
PREPARE AND PAINT CONCRETE	1,166 SF
ANTI-GRAFFITI COATING	1,166 SF

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

B-4849

PALO VERDE PED BRIDGE SIGN
CITY OF LONG BEACH SIGNAGE GATEWAY
GENERAL PLAN

	BY	CHECKED
DESIGN	J. Alfonso/O. Jaradat	J. Fix
DETAILS	J. Alfonso/O. Jaradat	J. Fix/J. Hwang
QUANTITIES	J. Alfonso	J. Fix
SEISMIC ANALYSIS	J. Alfonso/O. Jaradat	J. Fix
LAYOUT	J. Alfonso/O. Jaradat	J. Fix
SPECIFICATIONS	TBD	PLANS AND SPECS COMPARED: TBD

DESIGN OVERSIGHT
SIGN OFF DATE

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Omar Jaradat
PROJECT ENGINEER

BRIDGE No. 53-2713
POST MILE 1.08

COMMUNITY
PROJECT NUMBER & PHASE: ID PROGRAM
COUNTY/ROUTE: LA/22
CONTRACT No.: N/A

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES	SHEET	OF
12/22/23	1	6

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REVISION 2/8/2022)

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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

INDEX TO PLANS

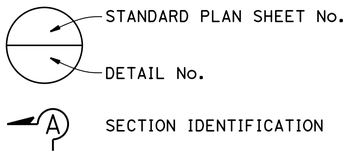
SHEET NO.	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	BRIDGE FRAMING PLAN
4	SIGN SUPPORT DETAILS No. 1
5	SIGN SUPPORT DETAILS No. 2
6	SIGN SUPPORT DETAILS No. 3

REFERENCES

1. Plans for the construction of Seventh Street Bicycle/Pedestrian Bridge & Bouton Creek Bridge at Los Cerritos Channel in the City of Long Beach. Department of Public Works, Office of the City Engineer. Dated August 24, 1981.

2. Plans for the construction of Earthquake Retrofit Project 220. Palo Verde Ave Pedestrian-Bicycle OC, Dated September 21, 1995.

PLAN SYMBOLS



GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:

Additional wind loads due to community identification on the existing structure were checked per AASHTO LRFD Bridge Design Specifications, 8th edition with California Amendments, dated April 2019.

ADDITIONAL DEAD LOAD (COMMUNITY IDENTIFICATION):

Includes 9 kips for community identification and its panels, 4 kips for community ID (letters), supports & miscellaneous connections, and 5 kips for a total of 15 community ID (panels).

This additional dead load represents approximately 5% of the total 185 kips estimated dead load of the existing bridge superstructure. Additonal mass of the proposed elements is less than 20% of the estimated Dead Load of the superstructure. Under Caltrans Memo-to-Designers (MTD) 20-4, seismic analysis is not required.

Panel perforations considered: 1/2" round on 11/16" stagged centers, see "Architectural Treatment" sheets.

LIVE LOAD:

Pedestian live load: 85 psf

WIND LOAD:

Design 3-second gust wind speed: 100 mph
Drag coefficient (C_D): 2.0 (existing structure), 1.2 (perforated panels)
Gust coefficient (G): 1.0 (existing structure), 0.85 (perforated panels)

BRACKET AND ADDITIONAL PIER BACK SIDE PLATE:

ASTM Designation: A572 Gr 50.

HIGH STRENGTH RODS:

ASTM Designation: A722 (uncoated) HS.

LOAD COMBINATIONS AND LIMIT STATES:

Strength I	1.25DC + 1.75PL
Strength III	1.25DC + 1.0WS
Service I	1.0DC + 1.0PL + 1.0WS
Service II	1.0DC + 1.3PL
Service IV	1.0DC + 1.0WS

Where:

DC: Dead load of structure components
PL: Pedestrian live load
WS: Wind on structure

STRUCTURAL STEEL:

Structural steel consists of:
1. Steel plates, brackets and bolts shown on structure plans
2. Materials for attaching letters to lateral support plate
3. Materials for attaching letters to wire raceway
4. Materials for attaching panels to existing pipe.

All new steel components shall be galvanized after fabrication except A722 HS bolts.

Galvanize new structural steel under section 75-1.02B.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	59	63

REGISTERED CIVIL ENGINEER — 03/05/26 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — OMAR A. JARADAT — No. CE 60242 — Exp. 06/30/2026 — CIVIL — STATE OF CALIFORNIA

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411 WEST OCEAN BLVD
LONG BEACH, CA 90802

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DESIGN OVERSIGHT

SIGN OFF DATE

	BY	CHECKED
DESIGN	J. Alfonso/O. Jaradat	J. Fix
DETAILS	J. Alfonso/O. Jaradat	J. Fix/J. Hwang
QUANTITIES	J. Alfonso	J. Fix

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Omar Jaradat
PROJECT ENGINEER

BRIDGE No.	53-2713
POST MILE	1.08

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CITY OF LONG BEACH SIGNAGE GATEWAY
INDEX TO PLANS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 8/16/2021)

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COMMUNITY
PROJECT NUMBER & PHASE: ID PROGRAM

COUNTY/ROUTE: LA/22
CONTRACT No.: N/A

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
12/22/23				2	6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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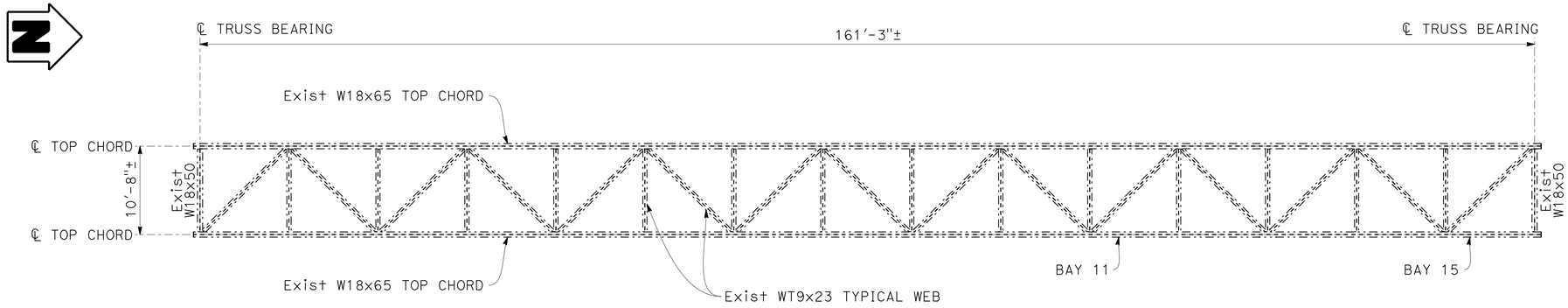
PLANS APPROVAL DATE

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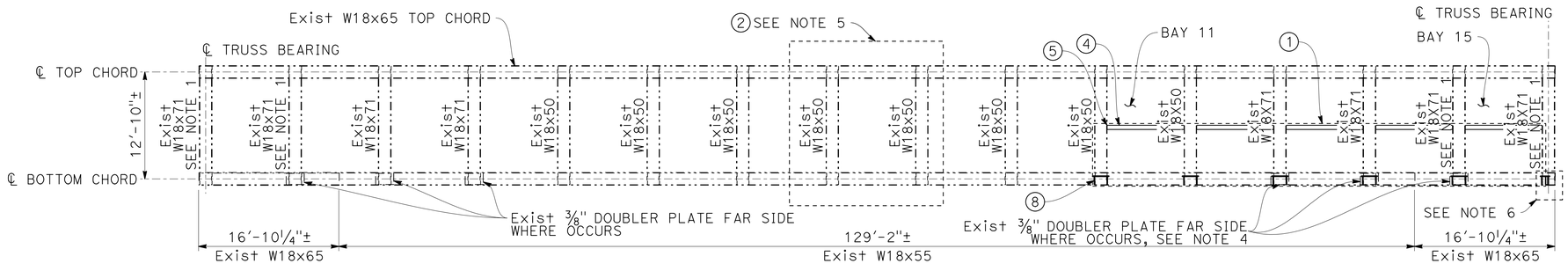
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LONG BEACH, CA 90802



BRIDGE FRAMING PLAN - TOP VIEW

1/8" = 1'-0"



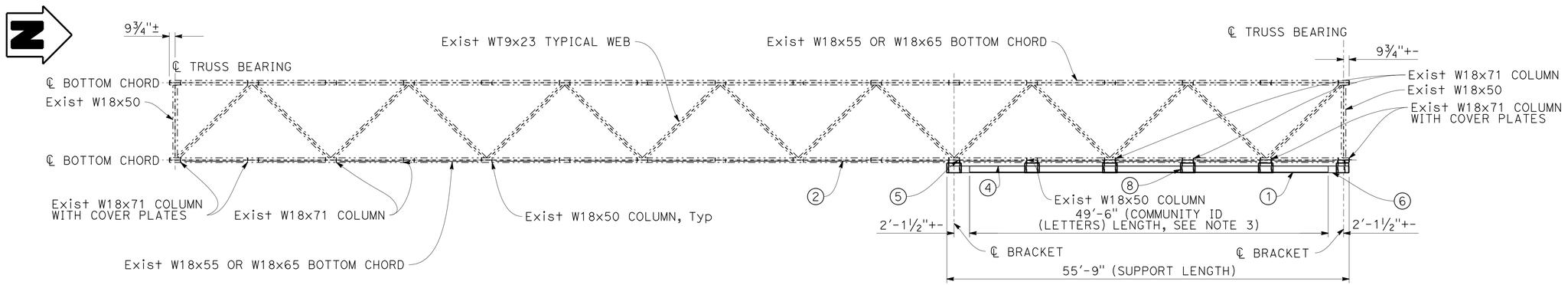
NOTES:

1. Existing ½" x 6½" cover plates at both flanges of existing W18x17 columns.
2. For existing connection details, see as-built drawings, Reference 1 in the "INDEX TO PLANS" sheet.
3. For Community Identification elements, see ROADWAY PLANS.
4. For existing doubler plate and sign support details, see "SIGN SUPPORT DETAILS NO. 1" sheet.
5. For typical bridge bay details and perforated panels location, see "SIGN SUPPORT DETAILS No. 3" sheet.
6. For north end bracket details, see "SIGN SUPPORT DETAILS NO. 3" sheet.
7. For lateral support of community ID, see "Sign Support Detail - Elevation" and "Section A-A" on "Sign Support Details No. 1" sheet

① Community Identification (Letters)
② Community Identification (Panels)
④ Community Identification (Lateral Support)
⑤ Lateral Support Connection (Bays 11 thru 15).
⑥ Community Identification (Electrical Wire Raceway)
⑧ Vertical Support, see SIGN SUPPORT DETAILS NO. 1

BRIDGE FRAMING - ELEVATION

1/8" = 1'-0"



BRIDGE FRAMING PLAN - BOTTOM VIEW

1/8" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

B-4849

PALO VERDE PED BRIDGE SIGN

CITY OF LONG BEACH SIGNAGE GATEWAY

BRIDGE FRAMING PLAN

	BY	CHECKED
DESIGN	J. Alfonso/O. Jaradat	J. Fix
DETAILS	J. Alfonso/O. Jaradat	J. Fix/J. Hwang
QUANTITIES	J. Alfonso	J. Fix

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Omar Jaradat
PROJECT ENGINEER

DESIGN OVERSIGHT

SIGN OFF DATE

BRIDGE NO. 53-2713
POST MILE 1.08

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PROJECT NUMBER & PHASE: ID PROGRAM — COMMUNITY
COUNTY/ROUTE: LA/22
CONTRACT No.: N/A

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REVISION DATES				SHEET	OF
12/22/23				3	6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	61	63

REGISTERED CIVIL ENGINEER — 03/05/26 DATE

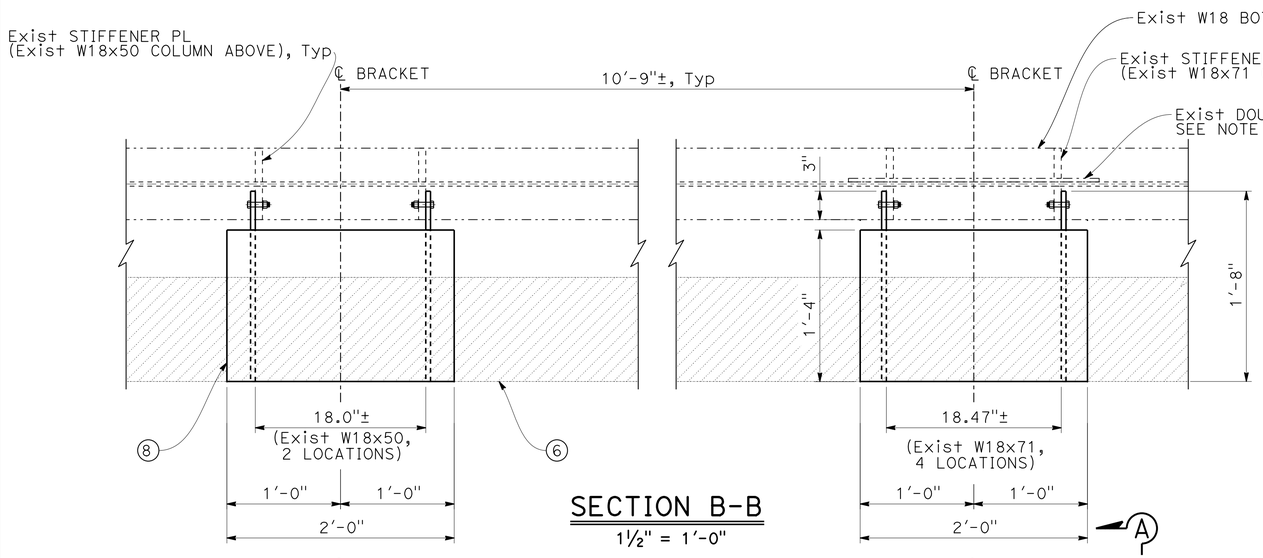
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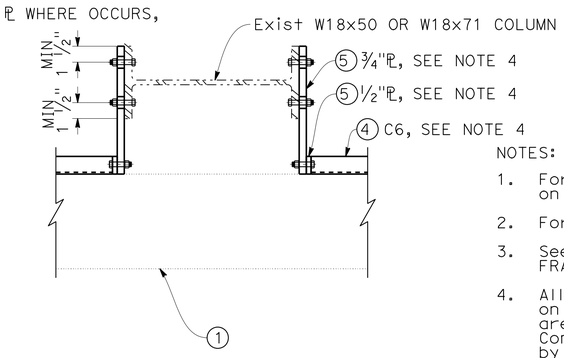
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LONG BEACH, CA 90802



SECTION B-B

1½" = 1'-0"



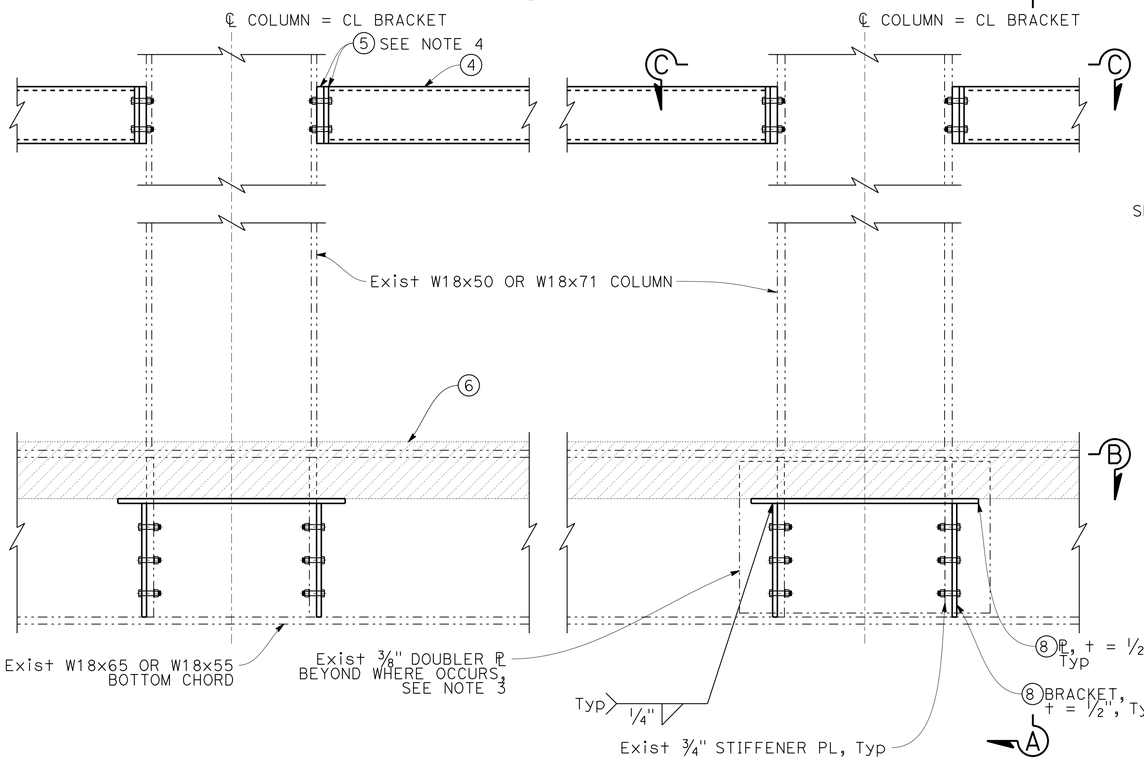
SECTION C-C

1½" = 1'-0"

NOTES:

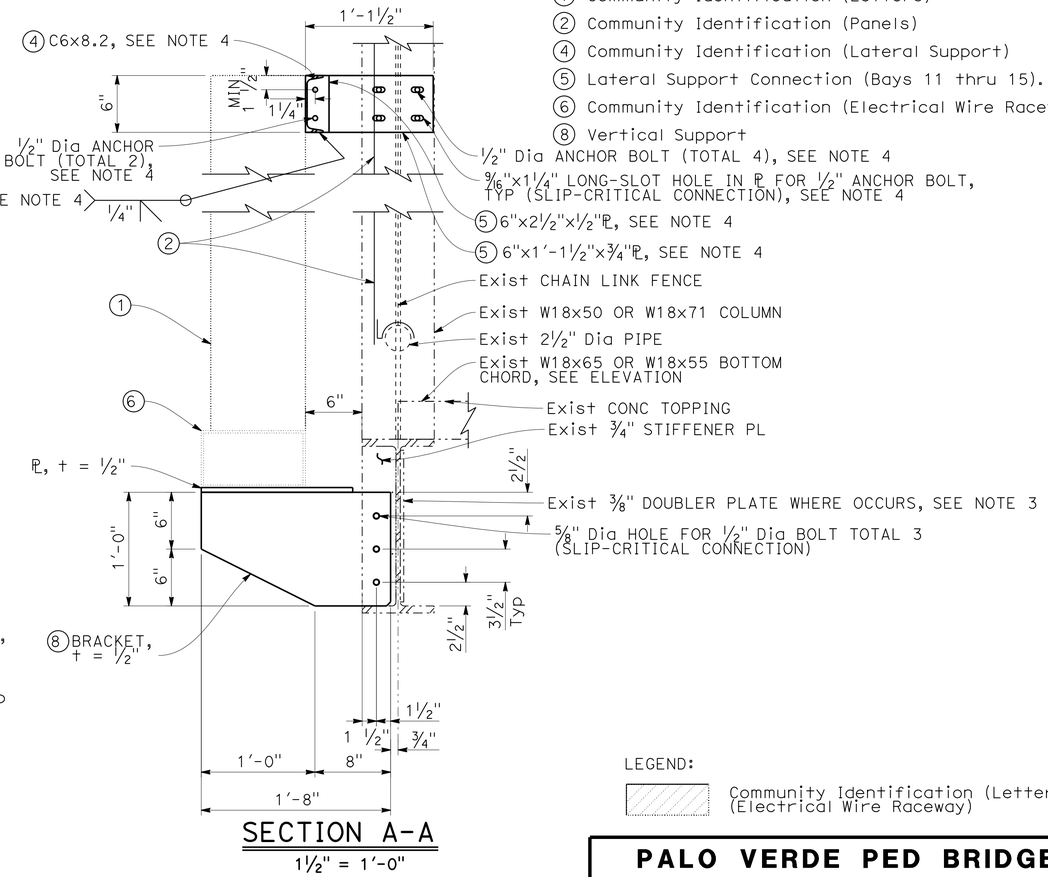
1. For design loads, see "General Notes" on "Index to Plans" sheet.
2. For Community Identification elements, see ROADWAY PLANS.
3. See existing doubler plate locations in "BRIDGE FRAMING PLAN" sheet.
4. All the steel plates, steel angle, bolts and welding shown on this sheet for Community ID (Lateral Support) are for illustration purpose. Lateral support for the Community ID (Letters) shall be designed and detailed by the fabricator. The location and elevation of the Community ID (Lateral Support) shall be determined by the fabricator of the Community ID (Letters). The Contractor and fabricator must submit shop drawings with stamp and signed by a civil engineer who is licensed in the State of California.

(1) Community Identification (Letters)
(2) Community Identification (Panels)
(4) Community Identification (Lateral Support)
(5) Lateral Support Connection (Bays 11 thru 15).
(6) Community Identification (Electrical Wire Raceway)
(8) Vertical Support



SIGN SUPPORT DETAIL - ELEVATION

1½" = 1'-0"



SECTION A-A

1½" = 1'-0"

LEGEND:

Community Identification (Letters)
(Electrical Wire Raceway)

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

B-4849

PALO VERDE PED BRIDGE SIGN

CITY OF LONG BEACH SIGNAGE GATEWAY

SIGN SUPPORT DETAILS NO. 1

	BY	CHECKED
DESIGN	J. Alfonso/O. Jaradat	J. Fix
DETAILS	J. Alfonso/O. Jaradat	J. Fix/J. Hwang
QUANTITIES	J. Alfonso	J. Fix

DESIGN OVERSIGHT

SIGN OFF DATE

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Omar Jaradat
PROJECT ENGINEER

BRIDGE No. 53-2713
POST MILE 1.08

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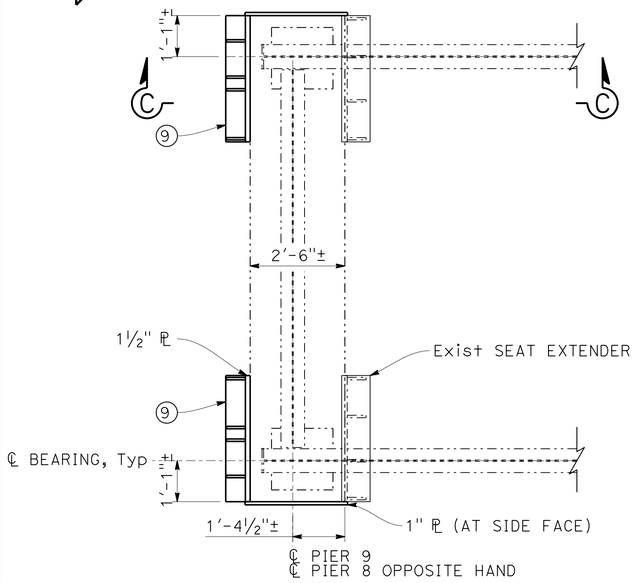
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COMMUNITY
PROJECT NUMBER & PHASE: ID PROGRAM

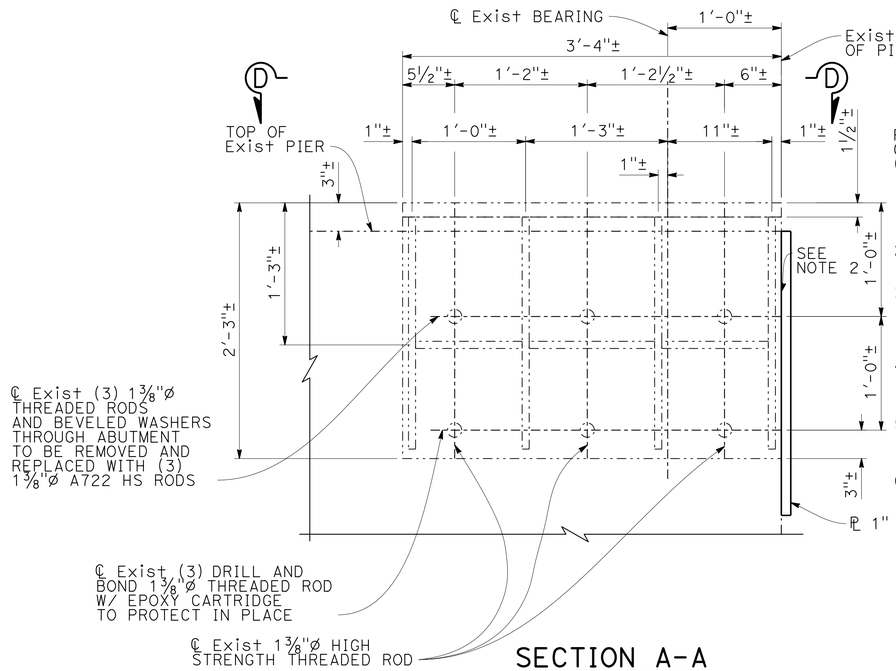
COUNTY/ROUTE: LA/22
CONTRACT No.: N/A

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
12/22/23				4	6



PLAN
½" = 1'-0"



SECTION A-A
1½" = 1'-0"

LEGEND:

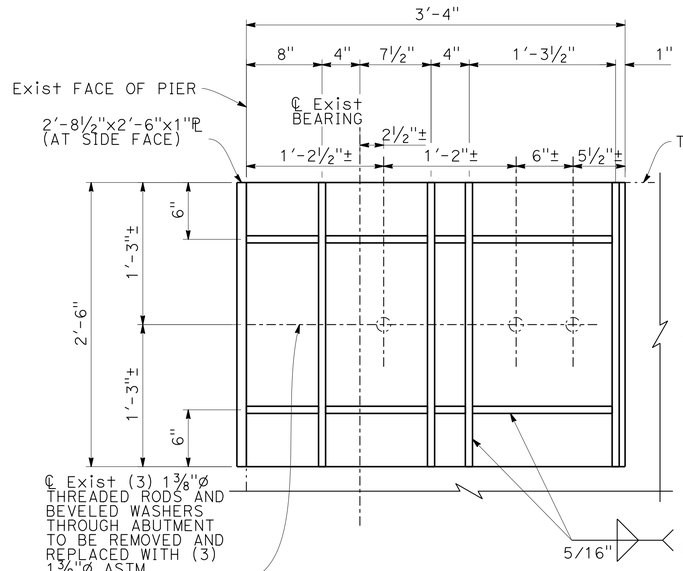
Non-shrink grout

⑨ Plates for the retrofit of the existing top of pier cap

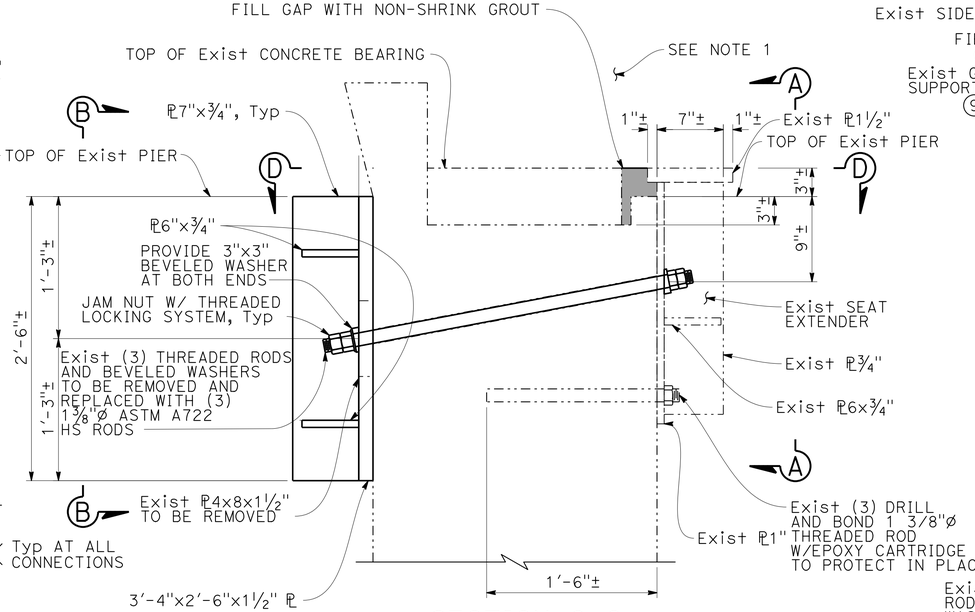
PROPOSED EXISTING TOP OF PIER CAP BRACKET RETROFIT (AT PIER 8 AND PIER 9):

1. Remove existing top layer of three (3) 1⅜"Ø through threaded rods and nuts.
2. Remove existing three (3) 4"x8"x1½" plates at back side of pier.
3. Temporarily remove existing nuts from bottom layer of the three (3) drill & bond threaded rods and protect the three (3) drill & bond threaded rods in place, and then remove the existing seat extenders at front of pier (protect to be reused).
4. Top of pier cap steel bracket to be retrofitted per details shown on this sheet. New side plate to be welded to the existing front bracket and the new back bracket per details shown on this sheet, field weld optional.
5. Install new three (3) 1⅜"Ø ASTM A722 HS rods, through top layer of existing cored holes, and washers and nuts (with threaded locking system). Place back the removed nuts at bottom layer of the existing drill & bond threaded rods.
6. Place non-shrink grout around the existing concrete bearing per details shown on this sheet.

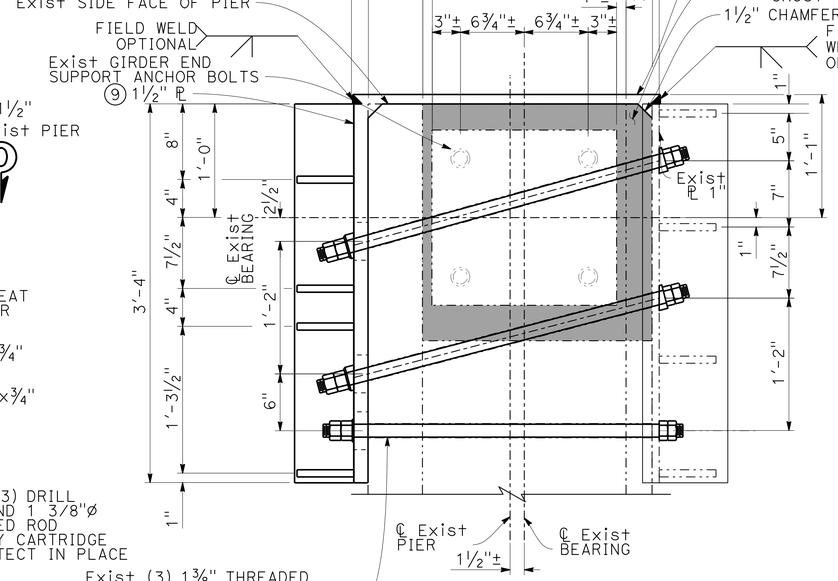
NOTES:
1. Existing bridge steel structure not shown for clarity.
2. Per field investigation, side face of the steel bracket is matching the abutment face of wall.
3. Bracket details shown for Pier 9 west side, for Pier 9 east side and Pier 8 west and east side, similar.



SECTION B-B
1½" = 1'-0"



SECTION C-C
1½" = 1'-0"



SECTION D-D
1½" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	62	63

REGISTERED CIVIL ENGINEER — DATE 03/05/26

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — OMAR A. JARADAT — No. CE 60242 — Exp. 06/30/2026 — CIVIL — STATE OF CALIFORNIA

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MOFFATT & NICHOL
4225 E CONANT ST
LONG BEACH, CA 90808

CITY OF LONG BEACH
411 WEST OCEAN BLVD
LONG BEACH, CA 90802

B-4849

PALO VERDE PED BRIDGE SIGN
CITY OF LONG BEACH SIGNAGE GATEWAY
SIGN SUPPORT DETAILS NO. 2

DESIGN OVERSIGHT

SIGN OFF DATE

	BY	CHECKED
DESIGN	J. Alfonso/O. Jaradat	J. Fix
DETAILS	J. Alfonso/O. Jaradat	J. Fix/J. Hwang
QUANTITIES	J. Alfonso	J. Fix

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Omar Jaradat
PROJECT ENGINEER

BRIDGE No. 53-2713
POST MILE 1.08

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 8/16/2021)

DATE PLOTTED => 3/11/2026 TIME PLOTTED => 12:20:59 PM
FILE => 109300-33A-u-miscdt03.dgn USERNAME => nvelazquez

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

COMMUNITY
PROJECT NUMBER & PHASE: ID PROGRAM

COUNTY/ROUTE: LA/22
CONTRACT No.: N/A

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES	SHEET	OF
12/22/23	5	6

NOTES:
1. For existing bridge details, see Reference 1 and Reference 2 in the "INDEX TO PLANS" sheet.
2. For Community Identification elements, see "ROADWAY PLANS".
3. For bracket details, see SECTION A-A in the "SIGN SUPPORT DETAILS NO. 1" sheet.

(2) Community Identification (Panels)
(6) Community Identification (Electrical Wire Raceway)
(8) Vertical Support, see "SIGN SUPPORT DETAILS NO. 1" Sheet

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	22	1.08/1.08	63	63

REGISTERED CIVIL ENGINEER — 03/05/26 DATE

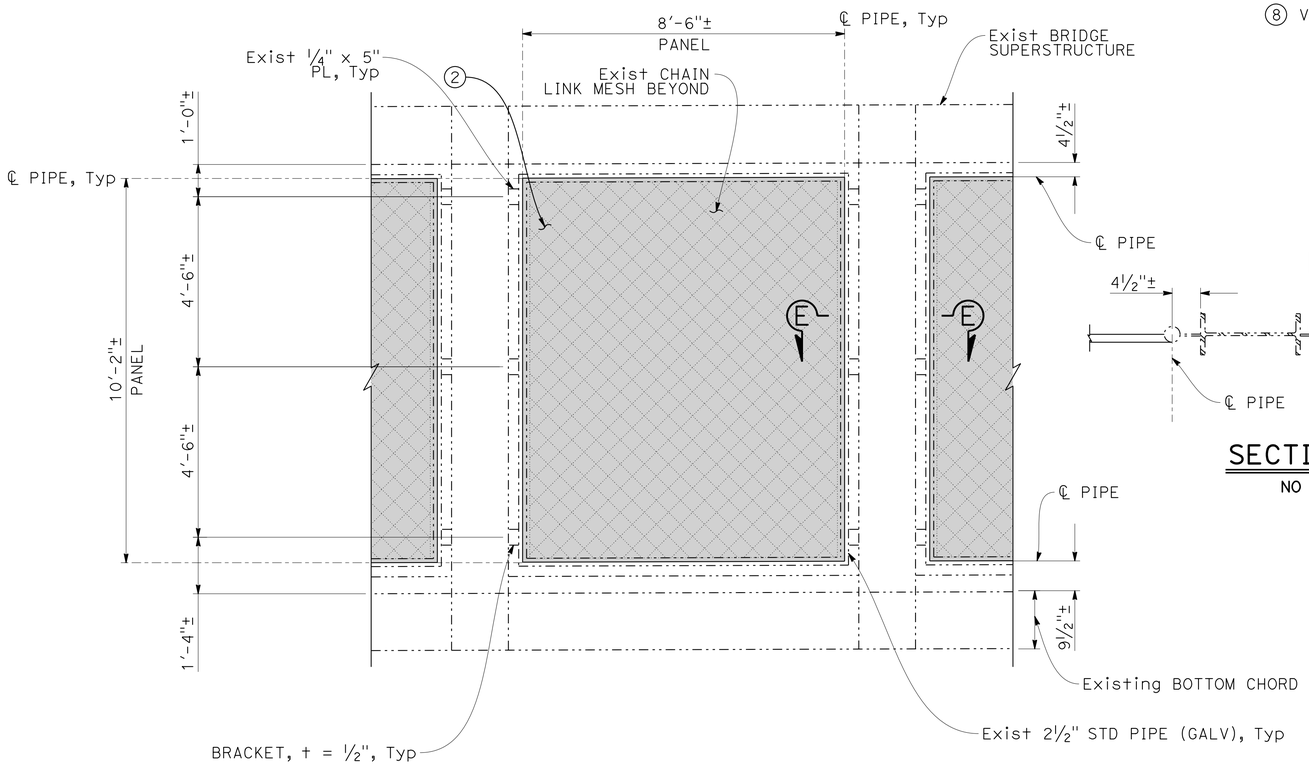
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — OMAR A. JARADAT — No. CE 60242 — Exp. 06/30/2026 — CIVIL — STATE OF CALIFORNIA

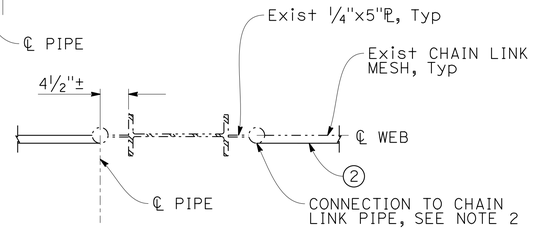
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LONG BEACH, CA 90802



TYPICAL BRIDGE BAY - ELEVATION
½" = 1'-0"



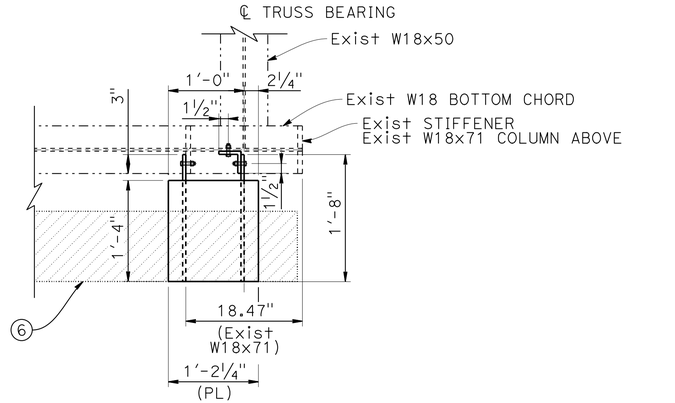
SECTION E-E
NO SCALE

LEGEND:

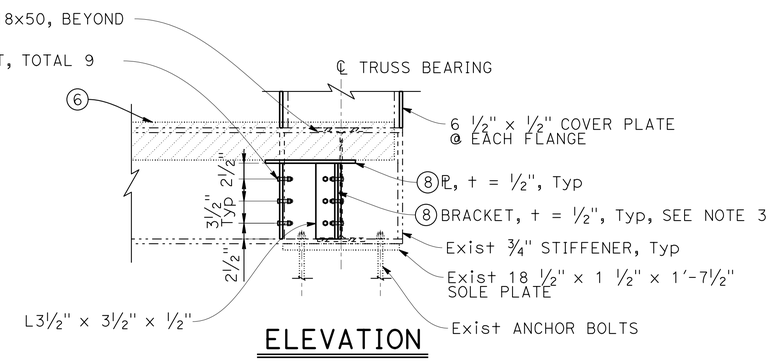
Community Identification (Letters) (Electrical Wire Raceway)

Exist chain link mesh

Perforated aluminum panels. Painted.



PLAN



ELEVATION

NORTH END BRACKET DETAIL
1" = 1'-0"

NOTE:
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B-4849

PALO VERDE PED BRIDGE SIGN
CITY OF LONG BEACH SIGNAGE GATEWAY
SIGN SUPPORT DETAILS NO. 3

DESIGN OVERSIGHT

SIGN OFF DATE

	BY	CHECKED
DESIGN	J. Alfonso/O. Jaradat	J. Fix
DETAILS	J. Alfonso/O. Jaradat	J. Fix/J. Hwang
QUANTITIES	J. Alfonso	J. Fix

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Omar Jaradat
PROJECT ENGINEER

BRIDGE No. 53-2713
POST MILE 1.08

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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PROJECT NUMBER & PHASE: ID PROGRAM COMMUNITY
COUNTY/ROUTE: LA/22
CONTRACT No.: N/A

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
12/22/23				6	6