CITY OF DOWNEY
LOS ANGELES COUNTY, CALIFORNIA

SPECIFICATIONS

FOR

CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

October 19, 2026

CITY OF DOWNEY
Public Works Department
Engineering Division
11111 Brookshire Avenue
Downey, CA 90241
(562) 904-7110, FAX (562) 904-7296

Matthew Baumgardner, P.E.
Director of Public Works/City Engineer

RCE 71932

10/21/2026
Date

Bids are due at 11:00 a.m., Tuesday, November 10, 2026, at the City of Downey Vendor Registration and Bid Opportunities online portal, Planet Bids.

CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

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CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION.....Dwg. No. 3-49-49

NOTICE CALLING FOR BIDS

CAPITAL IMPROVEMENT PROJECT NO. 24-99
DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

NOTICE IS HEREBY GIVEN that the City of Downey is seeking bids for performing all work necessary and incidental to the completion of **Capital Improvement Project No. 24-99 – Downtown Downey Gateway Sign Installation**.

The **Plans and Specifications** can be obtained through the City of Downey Vendor Registration and Bid Opportunities online portal: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids.

Electronically Uploaded Bids:
Contractors must upload bids to the City of Downey Vendor Registration and Bid Opportunities online portal: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids on or before **Tuesday, November 10, 2026 at 11:00 a.m.** local time.

Bids received after the above-cited time will be considered a late bid and not accepted.

Bids will not be opened publicly, and the City will endeavor to keep such confidential until a preferred service provider is recommended to the City Council.

The work to be performed under this Contract generally consists of the furnish and installation of an overhead gateway sign and associated improvements at the intersection of Firestone Boulevard and Downey Avenue, as shown on the project plans. The work to be undertaken shall consist of: gateway sign furnishing and installation; construction of the electrical service connection to the proposed metered pedestal and sign post; furnishing and installing the metered pedestal; sidewalk restoration and placement of new pavers, tree removal and disposal, and irrigation line re-routing; traffic control and all appurtenant work thereto necessary for the proper construction of the contemplated improvements, in accordance with Plans and Specifications entitled as **Capital Improvement Project No. 24-99 – Downtown Downey Gateway Sign Installation**. The Contractor shall have 40 working days to complete all contract work.

Each bid shall be accompanied by a corporate surety bond issued by a surety company, admitted to do business in the State of California, on the form furnished by the City as guarantee that bidder will, if an award is made to him or her in accordance with the terms of his bid, promptly secure Workers' Compensation insurance, and liability insurance, execute a contract in the required form, and furnish satisfactory bonds for the faithful performance of the Contract ("Performance Bond") and for the payment of claims of materialmen and laborers thereunder ("Payment Bond"). Said bidder's bond shall be in an amount of not less than ten percent (10%) of the amount of the bid. The Performance and Payment Bond shall be not less than one hundred percent (100%) of the total amount of the bid price named in the contract. Only bonds issued by companies admitted to do business in the State of California will be accepted in accordance with the Code of Civil Procedure Section 995.311. Failure to submit acceptable Payment and Performance Bonds as required shall result in a rejection of the bid and a forfeiture of the proposal guarantee.

The Contractor shall abide by the provisions of the California Labor Code § 1770-1781, et seq. In accordance with the provisions of the California Labor Code § 1773, the general prevailing rates of per diem wages and holiday and overtime work in the locality in which the work is to be performed has been obtained from the Director of the Department of Industrial Relations, a copy of which is on file in the office of the City Clerk of the City of Downey and will be made available to any interested party upon request. The Contractor shall post a copy of the prevailing rate of per diem wages at the job site. The Contractor, and any Subcontractor under him, shall pay not less than the specified prevailing rates of wages to all workers employed in the execution of the contract.

All projects require the successful bidder to possess a valid State of California Contractor's License at the time of Contract Award, in accordance with Section 20103.5 of the Public Contract Code. Pursuant to Section 3300 of the Public Contract Code, the City has determined that the Contractor to whom the subject contract is awarded shall possess a valid **State of California Contractor's License in the Class A (General Engineering) or Class C-45 (Sign Contractor), with electrical work performed by a licensed Class C-10 (Electrical Contractor).**

In accordance with California Labor Code Section 1771.1, no Contractor or Subcontractor shall be qualified to (a) bid on or be listed in a bid proposal on or after March 1, 2015, or (b) engage in the performance of this Work after April 1, 2015, unless registered and qualified to perform the Work pursuant to Labor Code Section 1725.5.

Contractor's performance of the Work described in this Notice Inviting Bids is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

Each Contractor submitting a proposal or bid for his or her other work shall complete and submit with the proposal all of the forms included therein, including but not limited to the Bidder's Qualifications Statement, Designation of Subcontractors, the Non-Collusion Affidavit, the Pre-Bid Site Inspection Certification and the Signature Page. Failure to include any of these documents with the proposal may disqualify the proposal.

The City of Downey reserves the right, after opening bids, to reject any or all bids, to waive any informality in any bid received, and to be the sole judge of the merits of the respective bids received. The award of the Contract, if it is awarded, will be to the lowest responsible Bidder whose bid complies with all the requirements prescribed.

Pursuant to California Public Contract Code § 22300, the Contractor at his or her sole cost and expense, may substitute authorized securities for any monies withheld by the City to ensure performance under the Contract.

Questions and Comments. Direct all questions, inquires, and comments regarding these Plans and Specifications only through the online Q&A at: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids, on or before **October 31, 2026, at 11:00 a.m.** local time.

Submittal. Bids must be uploaded to the City of Downey Vendor Registration and Bid Opportunities online portal: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids.

Bid Deadline. Bids received after the scheduled Submittal Deadline. The City reserves the right to extend the Submittal Deadline when it is in the best interest of the City.

Bid Modifications. Any Proposer who wishes to make modifications to a bid already received by the City must withdraw his/her bid in order to make the modifications. It is the responsibility of the Proposer to ensure that modified or withdrawn bids are resubmitted before the Submittal Deadline.

Bid Withdrawal. A Proposer may withdraw bid, without prejudice.

Proprietary Information. The original copy of each bid shall be retained for official files and will become public record after the award of a contract unless the bid or specific parts of the bid can be shown to be exempt by law.

NO LATE BIDS WILL BE ACCEPTED.

CITY OF DOWNEY, CALIFORNIA
Maria Alicia Duarte, CMC
City Clerk

PROPOSAL

CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

Date: _____, 2026

TO THE CITY OF DOWNEY, CALIFORNIA

Pursuant to the foregoing Notice Calling for Bids, the undersigned bidder herewith submits a Proposal on the bidding form or forms attached hereto and made a part hereof, and binds himself/herself on award by the City of Downey under this Proposal to execute in accordance with such award a Contract, of which this Proposal and the said Notice to Contractors, Instructions to Bidders, Specifications, and Drawings shall be a part, and to furnish the bond or bonds required by the Specifications. The attached Notice Calling for Bids, Instructions to Bidders, Specifications, and Drawings are made a part of this Proposal and all provisions thereof are hereby accepted. The Contractor shall have 40 working days to complete all contract work.

In the event of a bid dispute based upon the bidder's submission of this bid and the City's acceptance of same, the bidder will be required to indemnify, defend and hold harmless at its expense, including the provision of legal counsel, the City, its agents, employees and officers from liability, claims, demands, damages and costs if such dispute or action arises solely upon the award of the bid in compliance with State, Federal and local laws.

The bidder further agrees that, in case of his/her default in executing the required Contract and the required bond or bonds, or furnishing the required insurance, the money payable under the bid bond accompanying his/her proposal shall be applied by the City towards payment of the damage to the City on account of such default, as provided in these Specifications.

Firm: _____ Address: _____

By: _____ _____
Authorized Signatory (Print Name)

By: _____ Phone: _____
Authorized Signatory (Signature)

Title: _____ FAX: _____

(CORPORATE SEAL)

Nature of firm (corporation, partnership, etc.) and names of individual members of the firm, or names and titles of officers of the corporation.

_____

_____

_____

_____

Corporation organized under the laws of the State of:

_____

Note: All signatures must be notarized. Corporate seal must be impressed hereon in case of corporation.

BIDDING FORM

Name of Bidder_____

The undersigned, having examined the proposed Contract Documents and having visited the site and examined the conditions affecting the work, hereby proposes and agrees to furnish all labor, materials, equipment, and appliances, and to perform operations necessary to complete the work as required by said proposed Contract Documents, excluding work of alternates for.

BASE BID

ITEM NO.	DESCRIPTION	QUANTITY & UNIT	UNIT PRICE	SUBTOTAL
PART A – GENERAL ITEMS				
1	Traffic Control, Public Convenience & Safety (Not to Exceed 5% of the Total Bid)	1 LS	$	$
PART B –ELECTRICAL AND LIGHTING SYSTEM				
2	Furnish and Install 3" Electrical Conduit and Metered Pedestal and Construct Concrete Pad	1 LS	$	$
3	Furnish and Install 120 V, 1Phase Power Connection to Sign	1 EA	$	$
4	Furnish and Install 10" "DOWNEY" Channel Letters	6 EA	$	$
5	Furnish and Install "DOWNTOWN" Standing Channel Letters	8 EA	$	$
6	Furnish and Install Up Lights for Columns	2 EA	$	$
7	Furnish and Install GFCI Outlets	4 EA	$	$
8	Furnish and Install 1" Electrical Conduit Through Sign Cavity	1 LS	$	$
9	Furnish and Install Recessed LED Up Light	2 EA	$	$
10	Furnish and Install White LED Tape Fixture for Strut	2 EA	$	$
PART C – SIGN FRAME AND STRUCTURAL ELEMENTS				
11	Furnish and Install Decorative Post Covers and Base	2 EA	$	$
12	Construct Round Pedestal Footing	2 EA	$	$
13	Furnish and Install Structural Sign Posts	2 EA	$	$
14	Furnish and Install Curved Steel Beams	2 EA	$	$
15	Furnish and Install 5 ½" Visible Steel Tube Struts	6 EA	$	$
16	Furnish and Install 3" Steel Tube Struts Housed Inside "DOWNEY" Letters	7 EA	$	$
17	Furnish and Install Letter Spacers	23 EA	$	$
18	Furnish and Install Banner Attachments	9 EA	$	$

ITEM NO.	DESCRIPTION	QUANTITY & UNIT	UNIT PRICE	SUBTOTAL
PART D – PAVEMENT & LANDSCAPING				
19	Remove Existing Tree	1 EA	$	$
20	Remove and Reconstruct Concrete Pavement	360 SF	$	$
21	Remove Existing Pavers and Install New Pavers	14 SF	$	$
22	Remove and Reinstall Irrigation Lines	1 LS	$	$
TOTAL BASE BID – Items 1 to 22 (in Figures)				**$**
TOTAL BASE BID – Items 1 to 22 (In Words)				

NOTE:

1. The City will award the Contract to the lowest responsible bidder. The City reserves the right to reject all bids.
2. The quantities listed in the above Bid Form are estimates shown for bid comparison only. Payment will be made at the Contract Unit Price for the actual quantities constructed, based upon field measurements or certified weight tickets where appropriate. The City does not, expressly or by implication, agree that the actual amount of work will correspond therewith, and reserves the right to increase or decrease the amount of any class or portion of the work or to omit portions of the work, as may be deemed necessary or advisable by the Engineer. In case of variation between the unit cost and amount shown by bidder, the unit cost will be considered to be his/her bid.
3. Items marked with an asterisk (*), if any, indicate Specialty Items.
4. Items marked with a double asterisk (**), if any, indicate that quantities shown are fixed at time of bidding. The final pay quantity will be adjusted by change order to reflect any additional work authorized by the Engineer, as described in the Definition of Bid Items in the Special Conditions.
5. The price bid shall include all State, Federal, and other taxes applicable to the project, and shall be a firm offers for a period of 60 days after the date of bid opening.
6. Acknowledge receipt of all Addenda. The cover sheet of each addendum issued is signed by the Contractor and attached herewith.
7. The undersigned, under penalty of perjury, acknowledges that they are authorized by the bidding Contractor to submit a bid for said Contractor.

Respectfully submitted:

Date: _____

Firm: _____ Address: _____

By: _____ _____
Authorized Signatory (Print Name)

By: _____ Phone: _____
Authorized Signatory (Signature)

Title: _____ FAX: _____

Attest: _____ (Seal – if Bid is by a Corporation)

Contractor's License Number: _____ Date of Expiration: _____

Contractor's Dept. of Industrial Relations Registration Number: _____

Amount of Certified Check or Bid Bond: _____ Name of Bonding Company: _____

Note: All signatures must be notarized. Corporate seal must be impressed hereon in case of corporation.

Bond No. _____

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Downey, California ("City") has issued an invitation for bids for the work described as follows: **Capital Improvement Project No. 24-99 – Downtown Downey Gateway Sign Installation**.

WHEREAS_____

_____
(Name and address of bidder)

("Principal"), desires to submit a bid to City for the work

WHEREAS, bidders are required to furnish a form of bidder's security with their bid.

NOW, THEREFORE, we, the undersigned Principal, and that the said Surety's Office is located at:

Name _____
Address _____
_____
Telephone _____

and the Licensed Resident Agent for said Surety is:

Name _____
Insurance Agent's License No. _____
Address _____
_____
Telephone _____

("Surety") a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto the City in the penal sum of_____Dollars ($_____), being not less than ten percent (10%) of the total bid price, including alternates, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal is awarded a Contract for the work by the City and, within the time and in the manner required by the bidding specifications, enters into the written form of Contract included with bidding specifications, furnishes the required bonds, one to guarantee faithful performance and the other to guarantee payment for labor and materials, and furnishes the required insurance coverage, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this bond, Surety further agrees to pay all court costs incurred by the City in the suit and reasonable attorneys' fees in an amount fixed by the court.

IN WITNESS WHEREOF, this instrument has been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Date: _____

"Principal"	"Surety"
_____	_____
_____	_____
By: _____	By: _____
Its	Its
By: _____	By: _____
Its	Its
(Seal)	(Seal)

Note: This bond must be dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. Corporate seal must be impressed hereon in case of corporation.

BIDDER'S QUALIFICATIONS STATEMENT

1. ORGANIZATION

1.1 How many years has your organization been in business as a 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: _____

1.6 If the form of your organization is other than those listed above, describe it and name the principals:

_____

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. _____

_____

List jurisdictions in which your organization's partnership or trade name is filed. _____

_____

_____

3. EXPERIENCE

NOTE: Answers will be considered in determining bidder responsibility.

3.1 List the categories of work that your organization normally performs with its own forces.

_____

_____

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

3.2.1 State total worth of work in progress and under Contract: _____

3.3 On a separate sheet, list all projects your organization has completed in the past five (5) years, giving the name of project, owner, owner's phone number, project manager, Contract amount, date of completion, 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 may be a basis for disqualifying your bid as non-responsive.)

3.3.1 State average annual amount of construction work performed during the past five (5) years: _____

3.4 Has your organization, acting as a Prime Contractor for a public agency, completed at least one custom architectural/monumental overhead signage fabrication and installation project within the last five (5) years? Please list information for such project(s) below:

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: _____

NOTE: Repair, rehabilitation, or maintenance projects will not be considered as new construction.

3.5 On a separate sheet, list the construction experience and present commitments of the key individuals proposed to be used on this project.

3.6 Within the last five (5) years, has any officer or principal of your organization ever been an officer of another organization when it failed to complete a construction Contract? (If the answer is yes, please attach details.)

4. CLAIMS AND SUITS

NOTE: Answers will be considered in determining bidder responsibility.
If the answer to any of the questions below is yes, please attach details.

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

4.2 Are there any judgments, claims, arbitration proceedings, or suits pending or outstanding against your organization or its officers within the last five (5) years?

4.3 Has your organization filed any law suits or requested arbitration with regard to construction within the last five (5) years?

5. DEBARMENT AND SUSPENSION

NOTE: Answers will be considered in determining bidder responsibility

5.1 Is your organization or any officer or principal of your organization currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any City or County in the State of California?

5.2 Has your organization or any officer or principal of your organization ever been suspended, debarred, voluntarily excluded, or determined ineligible or ever been a principal or officer of another organization that has been suspended, debarred, voluntarily excluded, or determined ineligible from a City or County in the State of California?

5.3 Does your organization or any officer or principal of your organization have a suspension, debarment, voluntary exclusion, or determination of ineligibility by any City or County in the State of California pending?

5.4 Has your organization or any officer or principal of your organization ever been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct?

5.5 If you answered Yes to any of the above questions, please list and describe each occurrence for which the answer Yes applies along with the individual or organization to whom it applies, the dates of action, and initiating agency.

6. SURETY

NOTE: Answers will be considered in determining bidder responsibility.

6.1 If a performance and/or payment bond is required by this bid, identify the bonding company if arrangements for the bond have been made; If not, identify the bonding company for the Contractor's most recent project:

6.2 Name and address of agent:

DESIGNATION OF SUBCONTRACTORS

NAME OF BIDDER: _____

Each bidder shall set forth below:

1. The name and location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work or improvement, or a subcontractor licensed in the State of California who, under subcontract to the 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 one percent of the Contractor's total bid or $10,000, whichever is greater.
2. The portion and estimated dollar amount of the work which will be done by each subcontractor. The Contractor shall list only one subcontractor for each portion as is defined by the Contractor in his/her bid.
3. If the Contractor fails to specify a subcontractor or if the Contractor specifies more than one subcontractor for the same portion for work to be performed under the Contract in excess of one-half of one percent of the Contractor's total bid or $10,000, whichever is greater, the Contractor agrees that he/she is fully qualified to perform that portion himself/herself, and that he/she shall perform that portion himself/herself.

   If after award of Contract, the Contractor subcontracts any such portion of the work, the Contractor shall be subject to the statutory penalties.

This list and subsequent changes thereto, shall be subject to the approval of the City and additionally for cause cited in the public contract code. Submit an updated and approved DESIGNATION OF SUBCONTRACTORS form prior to execution of the City-Contractor Contract.

Please type or legibly print (attach additional sheets as necessary).

	Subcontractor's Name, Address, Contact Person, Tel. and Email	Subcontractor's License No.	Subcontractor's DIR Registration No.	Item No. of Work or Trade(s) to be Used	Estimated $ Amount
1					
2					
3					
4					
5					

The Contractor shall not:

A. Substitute any person as subcontractor in place of the subcontractor listed in the original bid, except that the City may consent to the substitution of another person as subcontractor:

   1. When the subcontractor listed in the bid, after having had a reasonable opportunity to do so, fails or refuses to execute a written Contract, based upon the general terms, conditions, Plans and Specifications for the project involved or the terms of such Contractor's written bid, is presented to him by the Contractor, or

   2. When the listed subcontractor becomes bankrupt or insolvent, or

   3. When the listed subcontractor fails or refuses to perform his/her subcontract, or

   4. When the listed subcontractor fails or refuses to meet the bond requirements of the Contractor, or

   5. When the Contractor demonstrates to the City that the name of the subcontractor was listed as the result of an inadvertent clerical error, or

   6. When the listed subcontractor is not licensed pursuant to the Contractors License Law, or

   7. When the City determines that the work performed by the listed subcontractor is substantially unsatisfactory and not in substantial accordance with the Plans and Specifications, or that the subcontractor is substantially delaying or disrupting the progress of the work.

B. Permit any subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the original bid, without the consent of the City.

C. Other than in the performance of "change orders" causing changes or deviations from the original Contract, sublet or subcontract any portion of the work in excess of one-half of one percent of the Contractor's total bid as to which his/her original bid did not designate a subcontractor.

Prior to approval of a Contractor's request for a subcontractor substitution, the City will give notice in writing to the listed subcontractor of the Contractor's request to substitute and of the reason for the request. The notice will be served by certified or registered mail to the last known address of the subcontractor. The listed subcontractor who has been so notified shall have five (5) working days within which to transmit to the City written objections to the substitution. Failure to file these written objections shall constitute the listed subcontractor's consent to the substitution.

If written objections are filed, the City will give notice in writing of at least five (5) working days to the listed subcontractor of a hearing by the City on the Contractor's request for substitution.

The Contractor, as a condition to asserting a claim of inadvertent clerical error in the listing of a subcontractor, shall within two working days after the time of the bid opening by the City, give written notice to the City and copies of such notice to both the subcontractor he/she claims to have listed in error and the intended subcontractor who had bid to the Contractor prior to the bid opening.

Subletting or subcontracting of any portion of the work in excess of one-half of one percent of the Contractor's total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the City setting forth the facts constituting the emergency or necessity.

If the Contractor violates any of the above provisions the Contractor may be in breach of this Contract and the City may exercise the option, in its own discretion, of (1) canceling this Contract, or (2) assessing the Contractor a penalty in an amount not more than ten percent of the amount of the subcontract involved, and this penalty shall be deposited in the fund out of which the prime Contract is awarded.

NONCOLLUSION AFFIDAVIT

State of California)
) ss.
County of Los Angeles)

_____ , being first duly sworn, deposes and says: That he or she is
Name

_____ of _____ , the party making the foregoing bid;
Title Company Name

that the bid is not made in the interest of, or on the behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive of sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that 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, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that 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, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

BIDDER: _____

By: _____

Title: _____

State of _____ County of _____

_____

On _____ before me _____
DATE NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC

personally appeared _____
NAME(S) SIGNER(S)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(-ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
SIGNATURE OF NOTARY

PREBID SITE INSPECTION CERTIFICATION

The bidder hereby certifies that he/she and his/her subcontractors have inspected the site and related specifications of work and fully acquainted themselves with all conditions and matters which might in any way affect the work, time of completion or the cost thereof, including, but not limited to scheduling and disclosed outside Contracts involving this work.

The bidder also certifies he/she has observed the designated Contractor work areas and access routes, if disclosed or shown, as part of work in this Contract.

BIDDER: _____

_____

_____

Date: _____

Persons who inspected site of the proposed work for your firm:

Name _____ Date of Inspection _____

Title _____

Name _____ Date of Inspection _____

Title _____

INSTRUCTIONS TO BIDDERS

1. CONTRACTORS LICENSING REQUIREMENTS

   Pursuant to Section 3300 of the Public Contract Code, the City has determined that the Contractor shall possess a valid State of California Contractor's License in full force and effect at the time of bid submission, in accordance with Section 7028.15 of the Business and Professions Code. The type and class of Contractor's License required shall be as stated in the Notice Calling for Bids.

2. CONTRACTOR'S REGISTRATION

   In accordance with California Labor Code Section 1771.1, no Contractor or Subcontractor shall be qualified to (a) bid on or be listed in a bid proposal on or after March 1, 2015, or (b) engage in the performance of this Work after April 1, 2015, unless registered and qualified to perform the Work pursuant to Labor Code Section 1725.5.

3. QUESTIONS PRIOR TO OPENING BID

   Questions regarding documents, discrepancies, or omissions in the Plans or Specifications shall be communicated to the Engineer, in writing, at least ten (10) calendar days prior to opening of Bids, to provide time for issuing and forwarding an addendum should the City consider an addendum necessary. The City will not be responsible for oral interpretation of the Plans and Specifications.

4. OBTAINING PLANS AND SPECIFICATIONS

   Plans and Specifications can be obtained through the City of Downey Vendor Registration and Bid Opportunities online portal: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids.

5. PROPOSAL FORMS - SUBMITTAL

   Contractors must upload bids to the City of Downey Vendor Registration and Bid Opportunities online portal: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids.

   Proposals received after Bid opening time as stated on the cover of this Specifications book will not be considered.

6. PROPOSAL FORM

   The full name, business address, zip code, and business telephone number, with area code of the individual, partnership, joint venture, or corporation submitting the proposal shall be typewritten or legibly printed on the proposal. The Bidder shall sign the proposal with his/her usual wet ink signature.

   An individual submitting a proposal or a partner signing for a partnership shall sign in the presence of a Notary Public and the notarial acknowledgement shall be attached to the proposal.

   A partner shall sign for a partnership and the names and addresses of all partners shall be given.

   An officer shall sign for a corporation, in the presence of a Notary Public the corporate name shall be attested by the corporate seal, and the names and titles of all officers of the corporation shall be given. A signature other than a corporate officer's will be accepted if an authenticated power of attorney is attached.

   All notarized signatures must be in accordance with the new notarial certificate requirements for acknowledgments per State of California Law effective January 1, 2008. This acknowledgment certificate is available for download at the Secretary of State's website, http://www.sos.ca.gov/business/notary/forms/notary_ack/pdf. Proposal documents that are notarized but do not meet the new requirements will be rejected.

7. PROPOSAL FORM – QUANTITIES AND PRICES

   The quantities given in the proposal are approximate only, being given as a basis for the comparison of bids. The

City does not, expressly or by implication, agree that the actual amount of work will correspond therewith, and reserves the right to increase or decrease the amount of any class or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Engineer.

The Bidder shall include in his/her Bid price(s) any and all expense or costs that may be necessary to complete the project in accordance with the requirements of the Contract.

The Bidder shall state for each item on the proposal form, in clearly legible figures, the unit price and item total or lump sum, as the case may be, for which he/she proposes to supply labor, materials, and equipment and to perform the work required by these Specifications. Alteration of a price by erasure or interlineation must be initialed or noted in the proposal over the signature of the Bidder.

In the case of a unit price item, the amount set forth, as the item total shall be the product of the estimated quantity times the unit price Bid. In the event of a discrepancy between the unit price Bid and the item total, the unit price shall prevail; however, if the unit price is ambiguous, unintelligible, or uncertain for any cause, or is omitted, or is the same amount as the entry for the item total, then the item total shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price.

Where so indicated by the makeup of the Bid form, sums shall be expressed in both words and figures, and in case of discrepancy between the two, the amount written in words shall govern.

All requested Alternates shall be Bid. If no change in the Base Bid is required, enter "No Change."

Addenda will be posted and distributed through the City of Downey Vendor Registration and Bid Opportunities online portal: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids. Each Bidder shall ascertain prior to submitting a Bid that he/she has received all Addenda issued. Each Bidder shall acknowledge receipt of all Addenda. The cover sheet of each Addendum shall be signed by the Bidder and attached to his/her Bid.

8. BID BOND

Each Bidder shall submit with his/her proposal a Bid Bond drawn on a solvent bank, payable to the City of Downey for not less than 10% of the total amount of Bid, including alternates or $1,000, whichever is greater, using the form entitled "Bid Bond" contained in these Specifications (F-5), and properly executed and acknowledged by the bidder and by a corporate admitted surety authorized to transact such business in the State of California.

Such bond shall be accompanied by a power of attorney from the surety company authorizing the person executing the bond to sign on behalf of the company. The signature of the person executing the bond shall be acknowledged by a Notary Public as the signature of the person designated in the power of attorney.

The content as well as the authority of the various acknowledgements mentioned above written in regards to the surety or sureties on the bond**,** must be satisfactory to the City Attorney, in accordance with Civil Code of Procedures Section 995.660. The City will also reject a surety bond obtained from any company not holding Certificate of Authority from the U.S. Secretary of the Treasury under the Act of Congress approved July 30, 1947, (31 U.S.C., Sections. 39-01, etc., (as amended from time to time) as acceptable sureties on federal bonds.

Any alteration of said form of Bid Bond, or imperfection in the execution thereof, as herein required, will render it informal and may, at the option of the City, result in the rejection of the proposal under which the Bid Bond is submitted.

The bond of a bidder to whom the Contract has been awarded will be returned to him/her after all of the acts, for the performance of which said security is required, have been fully performed. Bid bonds of other bidders will be returned when their proposals are rejected, or in any event, at the expiration of sixty (60) days from the date of opening bids.

9. BIDDER'S QUALIFICATIONS STATEMENT

The Bidder must complete all information required on pages F-7 of the form, entitled "Bidder's Qualifications Statement" and sign the form. If no information is to be filled in a blank space, then write "none", except for Question Number 3.5 and 4.2.

10. DESIGNATION OF SUBCONTRACTORS

The Bidder must complete all pages of the form F-5 entitled "Designation of Subcontractor" and "Bidder's List of Subcontractors" for all subcontracts in excess of one-half of one percent of the total bid or $10,000, whichever is greater, in accordance with the Subletting and Subcontracting Fair Practices Act, commencing with Section 4100 of the Public Contract Code. The bidder's attention is invited to other provisions of the Act related to the imposition of penalties for a failure to observe its provisions by using unauthorized subcontractors or by making unauthorized substitutions. Subcontractors' names and city of business shall be complete and legible. Clearly state that portion of the work to be done by each subcontractor listed, by trade and by estimated dollar amount. **All Subcontractors listed on the F-10 entitled "Designation of Subcontractor" shall possess a valid State of California Contractor's License by Trade**. Contractor may be required to submit additional information regarding the experience and qualifications of all subcontractors.

11. NONCOLLUSION AFFIDAVIT

In conformance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in the Proposal. Each Bidder shall execute and submit with his/her proposal the Noncollusion Affidavit. The Bidder signing the Noncollusion Affidavit shall meet all requirements for signing the proposal form F-12.

12. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK

The Bidder shall examine carefully the site of the work contemplated and the proposal, Plans, and Specifications therefor. The submission of a Bid will be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, the difficulties to be encountered, and to the requirements of the Proposal, Plans, Specifications,

and other Contract documents.

The Bidder is required to ascertain the locations of the existing utility services, and other underground facilities, and to provide for carrying out his/her operations so as to cause the minimum possible inconvenience to the occupants of property and along any streets affected. All work and costs involved in the safeguarding of the property of others shall be at the expense of the Bidder to whom the Contract may be awarded.

The Bidder hereby certifies on Page F-13 that he/she has: examined the local conditions, read each and every clause of the Specifications, included all costs necessary to complete the specified work in his/her Bid prices, and agrees that if he/she is awarded the Contract he/she will make no claim against the City based upon ignorance of local conditions or misunderstanding of any provision of the Contract. Should the conditions turn out otherwise than anticipated by him, the Bidder agrees to assume all risks incident thereto.

13. INTERPRETATION OF SPECIFICATIONS

Should a Bidder find discrepancies in, or omissions from, the Specifications or Plans, or should the Bidder be in doubt as to their meaning, the Bidder shall at once notify the City through the City of Downey Vendor Registration and Bid Opportunities online portal: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids, requesting an interpretation or clarification. The person submitting such request will be responsible for its prompt delivery. Should the City find that the point in question is not clearly and fully set forth, the City may issue a written Addendum which will be sent to all Specification Holders of record. The City will not be responsible for any other explanation or interpretation of the Plans or Specifications, or for any oral instructions.

Bidders shall use complete sets of Bidding Documents in preparing Bids. The City shall not assume responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

14. EXPERIENCE

Bidders, if required, shall present evidence that they have been regularly engaged in furnishing such material and equipment and constructing such work as they propose to furnish or construct and that they are fully prepared with necessary capital, equipment, and material to begin work promptly and to conduct it as required by these Specifications.

Bidders shall submit a list of reference projects with the name, title, address and current telephone number of the owner or contact person with their Bid Proposal. References for projects obtained through competitive bidding for governmental agencies in the Southern California area are preferred. A response to Bidder's Qualifications Statement Question Number 3.5 or 4.2 of 'None', 'N/A' or its equivalent shall not be an acceptable response and will be a basis for disqualifying Bidder's proposal as non-responsive.

15. PRICES AND PAYMENTS

Quantities listed on the Bidding form are estimates provided for bid comparison, and no claim shall be made against the City for excess or deficiency therein, actual or relative. Payment shall be made at the Contract Unit Prices for the actual quantities of the completed work. The Contract Unit Price shall include full compensation for furnishing all labor, materials, supplies, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced under the Contract.

16. SUBSTITUTIONS

To obtain approval during the Bid period to use unspecified products, Bidders shall submit written requests at least ten (10) calendar days before the Bid date and hour. Requests received after this time shall not be considered. Requests shall clearly describe the product for which approval is asked, including all data necessary to demonstrate acceptability. If the product or procedure is acceptable, an Addendum shall be issued covering it.

17. MODIFYING BID

Any Bidder may modify his/her Bid by written communication, provided such communication is received by the City Clerk prior to the Bid opening time. The written communication should not reveal the Bid price but should state the addition or subtraction or other modification so that the final prices or terms will not be known by the City until the sealed Bid is opened.

18. BID OPENING

All proposals will be opened and declared publicly through the City of Downey Vendor Registration and Bid Opportunities online portal: https://www.downeyca.org/our-city/departments/finance/vendor-registration-open-bids at the time stated in the Notice Calling for Bids.

After the Bid opening, proposals may be inspected at the City Engineer's Office.

19. MISTAKES IN THE BID

A Bidder shall be relieved of a Bid due to mistakes only if the Bidder can establish to the satisfaction of the City that all of the following circumstances exist:

A. A mistake was made.

B. The Bidder gave the City written notice within five (5) days after the opening of the Bids of the mistake, specifying in the notice in detail how the mistake occurred.

C. The mistake made the Bid materially different from what the Bidder intended it to be.

D. The mistake was made in filling out the Bid and not due to error in judgment or to carelessness in inspecting the site of the work, or in reading the Plans and Specifications.

20. AWARD

The City reserves the right to reject any or all proposals and to waive any or all information or technical defects, as the interest of the City may require. Award of Contract or rejection of Bid proposals will be made by the City within 60 calendar days following the Bid opening. City meetings are regularly scheduled on the second and fourth Tuesday evening of each month.

21. BASIS OF AWARD

A Contract will be awarded to the lowest responsible Bidder meeting all requirements set forth in these Specifications.

The City will award the Contract based on the lowest Base Bid and/or the lowest Base Bid including all alternates.

The City shall have the right to accept or reject alternates, unless otherwise specifically provided in these Specifications, and to determine the low Bidder on the basis of the sum of the Base Bid and alternates accepted.

In making the determination as to lowest responsible Bidder, the following criteria will apply:

A. Qualifications of Bidder: The Bidder shall be a qualified Bidder as required in paragraphs 1, 8 and 13 of this section and as otherwise required in these Specifications.

B. Responsive Proposal: The Bidder's proposal shall be responsive to the requirements of these Specifications. As stated elsewhere, the City reserves the right to waive any informalities or technical defects of the proposal as the best interests of the City may require.

C. Equalizing Factors: The bidder's bid price may not wholly determine the lowest responsible Bidder. Contained within these Specifications may be listed specific items of equipment performance, equipment design or equipment construction features, which, based on the Bidder's guarantees, would be subject

to evaluation, where such evaluation, when combined with the Bid price, would affect the total cost or value or usefulness to the City of the equipment offered. In addition, where applicable, other equalizing factors such as cost of transportation, inspection, office and field engineering (including salaries, travel and subsistence expenses), installation (if any), in addition to that of Bid price, which would affect the total cost or value or usefulness to the City of the equipment offered, will be taken into consideration in comparing Bids for award of Contract.

D. Unbalanced Bid: A bidder's proposal may undergo a bid analysis evaluating the submitted unit bid prices as compared to the Engineer's Estimate and other bidders' unit bid prices. Bids, where unit prices are found to be unusually high or low, will be further evaluated to determine whether they are "unbalanced". An "unbalanced" bid is defined as a bid containing lump sum or unit bid price items, which do not reflect reasonable actual costs, plus a reasonable share of anticipated profit, overhead costs and other indirect costs attributable to the performance of the work in question. A bid, which the City determines in its sole discretion to be unbalanced, may be rejected as a nonresponsive bid.

22. EXECUTION OF CONTRACT

Within 10 days, not including Saturdays, Sundays and legal holidays, after being notified by City that he/she has been awarded the Contract, Contractor shall deliver to the City the following documents:

A. Two (2) copies of the Contract Agreement in the form shown in Exhibit A, properly executed by Contractor and, if the Contractor is a corporation, evidence of its corporate existence and that the persons signing the Contract are authorized to do so. All signatures must be notarized.

B. Properly executed copies of the (a) Faithful Performance Bond, (b) Labor and Material Bond, and when required by the Contract Special Conditions, (c) Maintenance Bond in accordance with the requirements set forth in Article 11 of the General Conditions and in the form shown on Exhibits B1, B2 and B3. All signatures must be notarized.

C. Properly executed policies of (a) the Commercial General Liability Insurance, (b) the Automotive Liability Insurance, (c) the Excess or Liability Insurance, (d) the Waiver of Subrogation Clause, and (e) the corresponding endorsements for each policy in accordance with the requirements set forth in Article 11 of the General Conditions and in the form shown on Exhibits C1.

In any event that the tenth calendar day falls on Saturday, Sunday, a legal holiday for the State of California, or on days when City Hall is closed, the aforesaid documents shall be delivered by the following working day.

After receipt of said documents within said time period or any extension thereof granted by the City, the City shall execute the Contract and return one (1) fully executed copy of the Contract documents to Contractor for his/her files.

23. FAILURE TO EXECUTE CONTRACT

If the Bidder to whom the award is made fails to enter into the Contract as herein provided and furnish the said bonds and insurance, this shall be just cause for the annulment of the award and the forfeiture of the Bid Bond, and an award may, in the discretion of the City, be made to the Bidder whose proposal is the next most acceptable to the City in the opinion of the City, and such Bidder shall fulfill every term, covenant and condition herein as if he/she were the party to whom the first award was made.

SECTION 6

GENERAL CONDITIONS

FOR

CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

SECTION 6

CONTRACT GENERAL CONDITIONS

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GENERAL CONDITIONS

ARTICLE 1 - PRELIMINARY PROVISIONS

1.01 DEFINITIONS

The following words shall have the following meanings:

A. City or Owner: The City of Downey, California

B. Engineer: The City Engineer or his/her duly appointed representative.

C. Bidder: The individual, partnership, firm, corporation, joint venture or other legal entity submitting a bid on these Specifications or any part thereof.

D. Contractor: The individual, partnership, firm, corporation, joint venture or other legal entity with whom the Contract is made by said City, or the agent or legal representative who may be appointed to represent such individual, partnership, firm, corporation, joint venture or other legal entity in the execution of the Contract.

E. Department: City of Downey, Department of Public Works

1.02 REPRESENTATIVES

A. The Engineer shall be the representative of the City and, except as otherwise expressly provided herein, shall make all decisions and interpretations to be made by the City under the provisions of the Contract documents.

B. The Contractor shall at all times be represented on the work in person or by a duly designated agent. Instructions and information given by the Engineer to the Contractor's agent on the work shall be considered as having been given to the Contractor.

1.03 PERMITS AND LICENSES

A. The Contractor shall obtain all permits required by other agencies of the State and County as well as the City of Downey. All permits and licenses shall be obtained by and at the expense of the Contractor and/or subcontractors. The Contractor shall enforce the permit requirements. Permit fees to the City of Downey shall be waived.

B. Where requirements of the permits differ from those of the Drawings and Specifications, the more stringent requirements shall apply.

1.04 WAIVER

A waiver by City of any breach of any term, covenant, or condition contained in the Contract documents shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained therein, whether of the same or a different character.

1.05 DATA TO BE FURNISHED BY THE CONTRACTOR

The Contractor shall furnish the Engineer reasonable facilities for obtaining such information as he/she may desire respecting the character of the materials and the progress and manner of the work, including all information necessary to determine its costs, such as the number of persons employed, their pay, the time during which they worked on the various classes of construction, and other pertinent data.

1.06 PLANS AND SPECIFICATIONS

The Plans, Specifications and other Contract Documents will govern the Work. The Contract Documents are intended to be complementary and cooperative and to describe and provide for a complete project. Anything mentioned in the Specifications and not shown on the Plans, or shown on the Plans and not mentioned in the

Specifications shall be of like effect as though shown or mentioned in both.

The Contractor shall keep on the work site a copy of the Plans and Specifications, pertaining to the work and shall at all times give the Engineer access thereto. The Plans, which form a part of these Specifications, are included herein. The City will accept no responsibility for errors resulting from misinterpretation or scaling of the Plans.

If there is a conflict between Contract Documents, the document highest in precedence shall control. The order of precedence of documents shall be:

1. Requirements of law, including the City Charter, Municipal Code and Ordinances of the City of Downey.
2. Permits from City of Downey Departments.
3. Permits from other agencies as may be required by law.
4. Change Orders, Supplemental Agreements, and approved revisions to the Plans and Specifications
5. Addenda
6. Technical Special Provisions, Technical Special Conditions or Technical Specifications
7. Special Provisions or Special Conditions
8. Detailed Plans
9. General Plans
10. Standard Plans
11. General Conditions
12. Standard Specifications
13. Reference Specifications

1.07 LINES, GRADES, AND MEASUREMENTS

A. All contract work shall be constructed in accordance with the lines and grades shown on the plans. Unless otherwise specified in the Contract Special Conditions, the Contractor shall establish all lines and grades for the control of the construction. All surveying, including construction staking, shall be under the supervision of a Land Surveyor or Civil Engineer licensed to practice land surveying in the State of California.

B. Stakes will be set and stationed by the surveyor for curbs, headers, sewers, storm drains, structures, rough grade and all items ordinarily requiring grade and alignment, at intervals normally accepted by the trade involved, as approved by the Engineer. A corresponding cut or fill to finished grade (top of curb or flow-line) will be indicated on a grade sheet. The Contractor shall furnish a copy of the grade sheet and supporting calculations to the Engineer.

C. The Contractor shall carefully preserve all survey stakes and reference points so far as possible. The Contractor shall not disturb survey monuments, lot stakes (tagged), centerline ties, or benchmarks without the consent of the Engineer. Should any stakes or points be removed or destroyed unnecessarily by any act of the Contractor or his/her employees, they must be reset at the Contractor's expense.

D. The Contractor shall inform the Engineer 48 hours in advance of the times and places at which he/she intends to work in order that inspection may be provided, and that necessary measurements for records and payments may be made with minimum inconvenience.

E. No direct payment will be made for the cost to the Contractor of any of the work or delay occasioned by giving lines and grades, by making other necessary measurements, or by inspection.

F. It is also the responsibility of the Contractor to secure requisite survey information for the completion of "As-Built" plans. Any discrepancies or design errors found shall be reported to the Engineer within 24 hours of their discovery.

G. Unless a separate bid item is provided, payment for surveying shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

1.08 RIGHT OF WAY

A. The site for the installation of equipment or the right of way for the work to be constructed under this Contract will be provided by the City.

B. The City will provide the appropriate rights of way and property for pipelines and structures. Upon approval by the Engineer, the Contractor may, without cost, use portions of any of the City's rights of way or property which may be suitable for working space and for storage of equipment and materials. The Contractor will be held responsible for any damage to structures, streets, and roads, and for any damage that may result from his/her use of City property.

C. In case areas additional to those available on the City's rights of way or property are required by the Contractor for his/her operations, he/she shall make arrangements with the property owners for the use of such additional areas at his/her own expense.

1.09 CONTRACTORS OPERATIONS/STORAGE YARD

In the event the Contractor requires space for the storage and/or staging of construction materials, supplies, equipment, stockpiling of debris, or any other needs required for construction operations, he/she shall acquire at his/her own expense such areas, as he/she may desire. Private property used for storage of construction material or debris shall be restored to a legal condition with regard to appearance and maintenance upon conclusion of the project. Property should be graded and free of weeds and debris when project is completed.

For City furnished materials, the City reserves the right to have the Contractor pick up the materials within three working days after receiving notice from the City. The Contractor shall consequently keep said materials at its storage facility and shall assume full responsibilities of said delivered materials from theft, vandalism, and damage. All cost associated with the proper storage/security and transportation of said materials between the storage facility and construction site shall be considered as included in the various bid items. No additional compensation will be provided therefore.

1.10 UTILITIES

The Engineer has attempted to locate and show on the plans the approximate location of all public and private utilities, facilities and substructures to be encountered during the construction. The facilities shown are based on the best available information at the time of preparing the Plans. Neither the City nor the Engineer assumes any responsibility for having completely and precisely shown all such existing utilities. The actual location, size, type and number of underground facilities may differ from that shown on the Plans. There may be facilities present which are not shown on Plans.

Existing utilities shown on the plans are based on available records and surface features; however, neither the City nor the Engineer assumes any responsibility for having completely and precisely shown all such existing utilities. The Contractor shall notify all utility companies and agencies serving the project area before beginning any excavations, and shall coordinate all work with them.

It is the Contractor's responsibility to notify Underground Service Alert (USA) at least 48 hours in advance prior to beginning any excavation. It is also the Contractor's responsibility to determine and verify the locations of all utility facilities or substructures, which may or may not be shown on the plans, prior to commencing the work. In addition, the Contractor shall locate service laterals that may be affected by the work and take

measures to protect all utilities and service laterals in the streets and parkways. **All costs associated with potholing and verifications of utilities shall be considered as included in various bid items. No additional compensations will be provided therefor.**

The Contractor shall be responsible for the removal of all USA markings within the project limits upon the completion of the project. The USA markings shall be thoroughly removed to the satisfaction of the Engineer. The USA markings shall be removed in a manner which does not result in damage to the improvements (i.e. pavement, curb and gutter, sidewalk, etc.). **All cost associated with the removal of the USA markings shall be considered as included in various bid items. No additional compensations will be provided therefor.**

If facilities not shown on the Plans are discovered, the Contractor shall notify the Engineer immediately. In the event any utility, facility or substructure is disturbed or damaged, the Contractor shall notify the Engineer and repair or replace damaged facilities promptly, in accordance with Section 5 of SSPWC, the standard requirements set forth by each affected utility and to the satisfaction of the Engineer at no cost to the CITY. Should the Contractor fail to perform the required repairs or replacements, the cost of performing such work by others shall be deducted from any monies due or to become due to the Contractor.

The Contractor is responsible to cooperate and coordinate directly with each utility agency. The Contractor will not be entitled to additional compensation due to delays attributable to the utility agencies failure to perform adjustment, relocation, etc. of their facilities. The Contractor shall absorb all costs involved as a result of coordinating directly with each utility agency. The Contractor shall not be entitled to additional compensation or time extension from the City for Contractor's failure to coordinate with each utility agency.

The Contractor shall notify Underground Service Alert (USA) by calling 811, two (2) working days prior to beginning any excavations. Following such notice, the Contractor shall submit to the Engineer the date of notice and corresponding assigned ticket number.

The California Department of Transportation is not required by Section 4216 of the California Government Code to become a member of the regional notification center. The Contractor shall contact Caltrans for location of their subsurface installations.

Unless a separate bid item is provided, full compensation for satisfying the requirements of this section and all subsections shall be considered as included in the contract prices bid for the various items of work involved and no additional compensation will be allowed therefor.

A. Utility Contacts

The following is a list of individuals or entities, which may have facilities that may be affected by the construction of the proposed improvements. This list is established for the Contractor's use and may or may not be complete or inclusive. It is the Contractor's responsibility to notify all affected utility agencies at least 48 hours prior to start of construction. It is the Contractor's responsibility to contact all utility agencies affected by the work to be completed, verify all utility information, and coordinate all work with respect to the utilities' possible obstructions and/or interference. The Contractor shall notify all affected utility agencies at least 48 hours prior to start of construction.

Underground Service Alert		800-422-4133
City of Downey	Water & Sewer	562-904-7202
City of Downey	Traffic Engineer	562-904-7109
City of Downey	Maintenance Services	562-904-7196
LA County Dept. of Public Health	Carlos Borja	626-430-5295
California Dept. of Public Health	Wei Chang	818-551-2044

L.A. County Dept of Public Works	Michael Tjan	626-458-1700
L.A. County Dept of Public Works	Manuel Alarcon	626-458-7169
L.A. County Flood Control District	Maryam Adhami	626-458-3129
L.A. County Sanitation District	Tommy Sung	562-699-7411 ext. 1205
Metropolitan Transportation Authority	Jose Santos	213-922-5193
Central Basin MWD	Jeremy Melendez	323-201-5528
Metropolitan Water District	Ken Chung	213-217-7670
Southern California Gas Company	Ernie Gonzales	714-634-3121
SCE (Non-Transmission Lines)	Ernesto Chavez	562-903-3183
SCE (Transmission Lines)	Robert Chavez	909-592-3748
Frontier Communications (Verizon)	Tom Monahan	562-903-7939
Time Warner Cable	Ernest Chang	562-259-2015
Time Warner Cable	Gene Harrigan	562-259-2059
Time Warner Telecom	Bart Vanwey	909-456-3693
AboveNet Communications	Kevin Sullivan	714-236-8502
Charter Communications	Steve Fear	626-430-3338
Level 3/WilTel Communications	Roger Weathers	720-888-5688
NextG Networks	Ron Herrera	909-593-9700
Qwest Communications	Pat Slaney	714-936-4898
SBC	Marcella Cordoza	310-515-4370
Sprint	Joe Healy	714-781-7048
Verizon/MCI	Don Beckerman	626-666-3526
BP (Arco) Pipelines	Rob Streed	562-499-2216
Pacific Pipeline System LLC	Jim Jacoby	562-728-2020
Paramount Pipelines	Steve Peyton	562-531-2060 x-2751
Exxon/Mobil Underground Service Alert		562-921-7150
Exxon/Mobil	Melody Sebring	310-212-4141
Torrance Pipeline	Teri Shinde	310-212-1794

Prior to the paving operation, the Contractor shall notify all utility companies who have facilities, (vaults, valves, etc.), on the street to be resurfaced in order that they may schedule their work accordingly in adjusting their vaults or valves to the new grade. The Contractor may be required to assist them during their adjusting operation.

B. Location and Protection

The provisions of Section 5 "Utilities" of the Standard Specifications shall apply, except as modified and supplemented below:

The Contractor shall verify the existence and location of any underground utility pipes or structures that may be affected during the course of work. The Contractor will take due precautionary measures to protect the utilities shown, and other utilities or structures not shown on the plans that might be discovered during the process of the job.

Where underground main distribution conduits such as water, gas, sewer, electric power, telephone, or cable television are shown on the Plans, the Contractor, for the purpose of preparing a bid, shall assume that every property parcel will be served by a service connection for each type of utility.

The Contractor will take due precautionary measures to protect the utilities shown and other utilities or structures not shown on the Plan that might be discovered during the process of the job.

The City of Downey Water Division has water services and mains in the vicinity of where construction operations will be conducted by the Contractor. Care shall be taken by the Contractor not to disturb the water mains, services, meters, valves, etc. during construction operations. In the event that a water facility is damaged, the Contractor shall notify the Water Division and the Engineering Division immediately. The Contractor shall also arrange for the immediate repair of the water facility by a licensed plumbing contractor, at no cost to the City. The Contractor will not be compensated for any damages or delays as a result of water facility repairs.

Payment for location and protection of utilities shall be considered to be included in the prices paid for the various contract items of work, and no additional compensation will be allowed or paid for, and shall include repair of damaged utilities caused by the Contractor's operations.

C. Removal

The provisions of Section 5-3 "Removal" of the Standard Specifications shall apply, except as modified and supplemented below:

Unless otherwise specified, the Contractor shall remove or abandon all interfering portions of utilities shown on the Plans, or indicated in the Bid documents as "abandoned" or "to be abandoned in place". Before starting removal operations, the Contractor shall ascertain from the Agency that the abandonment is complete. The costs involved in the removal and disposal, or abandonment, shall be included in the various bid items or work, and no additional compensation will be allowed or paid for.

D. Compensation for Damage or Relocation

In accordance with Section 4215 of the California Government Code, the Contractor shall be compensated for the cost of locating and repairing damage to main or trunk line utility facilities located on the job site, not due to the failure of the Contractor to exercise reasonable care; for costs of removing or relocating such utility facilities not indicated in the Contract Documents with reasonable accuracy; and for the operating costs for equipment on the project necessarily idled during such work.

If the Contractor wishes to have any utility located, he should contact the owner at least 48 hours prior to construction in the immediate vicinity of the utility. Potholing to locate existing underground utilities shall be the responsibility of the utility owner or the contractor, and no further compensation shall be allowed therefor.

ARTICLE 2 - PERFORMANCE OF THE WORK

2.01 PERFORMANCE OF WORK - GENERAL

Contractor shall, at its own cost and expense, furnish all necessary materials, labor, transportation, and equipment for doing and performing said work and the materials used shall comply with the requirements of the Contract documents. All work shall be performed and completed as required in the Contract documents, and subject to the approval of the Engineer, or his/her designated assistant.

2.02 NO ASSIGNMENT OR DELEGATION

Contractor shall not assign or delegate the duties or obligation under this Contract or his/her interest therein in whole or in part without the prior written consent of the City, which may be withheld at the City's sole discretion.

2.03 STANDARD OF PERFORMANCE

Contractor agrees that all services performed hereunder shall be provided in a manner commensurate with the highest professional standards and shall be performed by qualified and experienced personnel; that any work performed by Contractor under the Contract will be performed in the best manner; that any material furnished shall be subject to the approval of the Engineer; and that both work and materials will meet fully the requirements of these Plans and Specifications.

2.04 DEFECTIVE WORK

The Contractor shall correct at his/her own expense any part of the work that has been improperly executed, even though it has been included in the monthly estimates. If he/she refuses or neglects to replace such defective work, prior to acceptance of the work, it may be replaced by the City at the expense of the Contractor, plus 15% for overhead expenses, and his/her sureties shall be liable therefore. (See Section 2.14 for curing defects after acceptance of the work.)

2.05 COMMUNICATIONS REGARDING THE WORK

After award of the Contract, all communications regarding the work covered by these Specifications shall be addressed to the City of Downey and mailed to:

Mr. Edwin J. Norris, Deputy Director of Public Works
City of Downey
11111 Brookshire Ave.
P.O. Box 7016
Downey, California 90241-7016

Or hand delivered to: Same as Above

2.06 WORKING HOURS

A. Unless otherwise authorized by the Engineer or specified herein, work or activity of any kind shall be limited to the hours between 8:00 a.m. to 5:00 p.m. and nightwork shall be limited to the hours between 9:00 p.m. and 6:00 a.m., in accordance with Article 2.06 of the Contract General Conditions.

B. Work in excess of eight (8) hours per day, on Saturdays, Sundays, or on City holidays requires prior consent of the Engineer and is subject to Cost of Overtime Construction Inspection, unless otherwise specified in the Contract Special Conditions.

C. Night, Sunday and Holiday Work:

Unless otherwise specified in the Contract Special Conditions, no work shall be performed at night, Sunday, or the eleven (11) legal holidays to wit: New Year's Day, Martin Luther King, Jr. Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Friday following Thanksgiving Day, Christmas Eve and Christmas Day, except work pertaining to the public safety or with the permission of the Engineer, and accordance with such regulations as he/she shall furnish in writing. Before performing any work at said times, except work pertaining to the public safety, the Contractor shall give written notice to the Engineer so that proper inspection may be provided. "Night" as used in this paragraph shall be deemed to include the hours from 5:00 P.M. to 8:00 A.M. of the next succeeding day.

2.07 COST OF OVERTIME CONSTRUCTION INSPECTION

A. Overtime construction work performed at the option of, or for the convenience of the Contractor will be inspected by the City at the expense of the Contractor. For any such overtime beyond the regular 8-hour day and for any time worked on Saturday, Sunday, or holidays the charges will be as shown in the following schedule, or as identified in the City's Uniform Schedule of Fees:

Staffing	Charge per Hour
Senior Civil Engineer	$105.00
Associate Civil Engineer	$85.00
Assistant Civil Engineer	$71.00
Construction Inspector	(City's Cost)
Pickup Truck	$7.50

B. There will be no charges for the inspection of overtime work ordered by the Engineer or required by these Specifications.

2.08 INDEPENDENT CONTRACTOR

A. The Contractor in the performance of the work hereunder will be acting in an independent capacity and not as an agent, employee, partner, or joint venture of the City.

2.09 EMERGENCY WORK

A. During Working Hours:

In case of an emergency that threatens loss or injury of property, and/or safety of life during working hours, the Contractor shall act, without previous instructions from the City, as the situation may warrant. He/she shall notify the Engineer of the emergency and the action taken immediately thereafter. Any compensation claimed by the Contractor, together with substantiating documents in regard to expense, shall be submitted to the Engineer within 15 calendar days after the emergency. Compensation, if allowed, will be paid for as extra work.

B. Outside of Working Hours:

C. Whenever, in the opinion of the City, there shall arise outside of the regular working hours on the Contract work of an emergency nature which threatens loss or injury of property, or danger to public safety, the Contractor shall act, without previous instructions from the City as the situation may warrant. He/she shall notify the Engineer of the emergency and the action taken immediately thereafter. Any

compensation claimed by the Contractor, together with substantiating documents in regard to expense, shall be submitted to the Engineer within 15 calendar days after the emergency. Compensation, if allowed, will be paid for as extra work. In the event the Contractor is not able to respond to an emergency outside of regular working hours, the City's forces will handle such emergency work. If such emergency arises out of or is the result of operations by the Contractor, the cost of the corrective measures will be billed to the Contractor and deducted from his/her payment as provided in the Contract documents. The performance of emergency work by City forces will not relieve the Contractor of any of his/her responsibilities, obligations, or liabilities under the Contract.

2.10 SUBCONTRACTORS

A. Each subcontract shall contain a reference to the Contract between the City and the principal Contractor, and the terms of the Contract and all parts thereof shall be made part of each subcontract insofar as applicable to the work covered thereby. Each subcontractor shall provide for its annulment at the order of the Engineer, if, in his/her opinion, the subcontractor fails to comply with the requirements of the principal Contract insofar as the same may be applicable to his/her work.

B. Nothing contained in these Specifications shall be construed as creating any contractual relationship between any subcontractor and the City. The sections of these Specifications are not intended to control the Contractor in dividing the work among subcontractors or to limit the work performed by any trade.

C. The Contractor shall be considered the employer of and as fully responsible to the City for the acts and omissions of subcontractors and of persons employed by them as he/she is for the acts and omissions of persons directly employed by him/her.

D. The Contractor shall be responsible for the coordination of the trades, subcontractors, and material suppliers engaged upon his/her work. It shall be his/her duty to see that all of his/her subcontractors commence their work at the proper time and carry it on with due diligence so that they do not delay or injure either the work or materials; and that all damage caused by them or their workers is made good at his/her expense.

E. The City will not undertake to settle differences between the Contractor and his/her subcontractors or between subcontractors.

F. The Contractor shall utilize the services of specialty subcontractors, without additional expense to the City, on those parts of the work, which are specified to be performed by specialty Contractors.

2.11 USE OF FACILITIES PRIOR TO COMPLETION OF CONTRACT

A. Whenever in the opinion of the Engineer any work under the Contract, or any portion thereof, is in a condition suitable for use by the City, the City may, after written notice and designation from the Engineer to the Contractor, use (which includes, but is not limited to, taking over or placing into service) any portion or portions designated by the Engineer.

B. The use of any portion or portions by the City shall not be construed as, and will not constitute acceptance in any sense, of any portion of the work of the Contractor.

C. All necessary repairs, renewals, changes, or modifications in the work or any portion thereof so used, not due to ordinary wear and tear, but due to defective materials or workmanship, the operations of the Contractor, or any other cause, shall be made at the expense of the Contractor.

D. The use of any portion by the City shall not relieve the Contractor of any of his/her responsibilities or liabilities under the Contract nor constitute a waiver by the City of any of the conditions thereof. Said use shall not cancel liquidated damages as of the first date of use, or any continuance thereof, nor impair, reduce, or change the amount of liquidated damages.

2.12 COOPERATION WITH OTHER WORK FORCES

A. The City reserves the right to perform other work at or near the site at any time by the use of its own forces or other Contractors.

B. Other Contractors, other utilities and public agencies or their Contractors, other City Contractors, and City personnel may be working in the vicinity during the project construction period. There may be some interference between these activities and the work under these Specifications. The Contractor shall cooperate and coordinate his/her work with that of other work forces to assure timely Contract completion. No delay claims may be made by the contractor for other construction activities that may cause interference to this project.

2.13 AGREEMENTS WITH PROPERTY OWNERS

Agreements with property owners for spoiling excavated material, storing materials, or other purpose related to the work shall be made in writing and a copy submitted to the Engineer for his/her information. All storage charges shall be at the Contractor's sole expense.

2.14 PROTECTION OF PROPERTY

All public and private property, pavement or improvement shall be safely guarded from damage or loss in connection with this Contract by the Contractor at all times. Should any facility, structure, or property be damaged during operations of the Contractor, he/she shall immediately notify the proper owners or authorities. The Contractor shall pay all damages and losses incurred.

2.15 CONTRACTOR'S RESPONSIBILITIES FOR LOSSES OR LIABILITIES

A. Risk of Loss:

Except as otherwise provided in the Contract documents and except as to the cost of repair or restoration of damage to the work caused by force majeure, the Contractor shall bear all losses resulting to him/her on account of the amount or character of the work, or from any unforeseen obstructions or difficulties which may be encountered, or from any encumbrances on the line of the work, or because the nature of the ground in or on which the work is done is different from what is assumed. The Contractor shall bear the risk for any City equipment, material, or supplies with which he/she has been entrusted. "Force majeure" shall include, but not be limited to, declared or undeclared war, sabotage, insurrection, riot, or other acts of civil disobedience, labor disputes, fires, explosions, floods, earthquakes or other acts of God.

B. Materials and Facilities:

The Contractor shall be responsible for materials and facilities as hereinafter provided and in the event of his/her failure to carry out said responsibilities, the same may be carried out by the City at the expense of the Contractor:

1. The Contractor shall be responsible for any materials so furnished and for the care of all work until its completion and final acceptance, and he/she shall at his/her own expense replace damaged or lost materials and repair damaged parts of the work.

2. The Contractor shall protect City facilities from damage resulting from his/her work. City facilities damaged by, or as a result of, the Contractor's work under this Contract shall be repaired or replaced, as directed by the Engineer, at the Contractor's expense.

3. The Contractor shall remove from the vicinity of the completed work all buildings, rubbish, unused material, concrete forms, and other materials belonging or used under his/her direction during construction.

4. Laws and Regulations:

5. The Contractor shall obey all laws, ordinances, and regulations in any manner affecting those engaged or employed on the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency should be discovered in this Contract, or in the Drawings or Specifications herein referred to, in relation to any such law, ordinance, regulation, order, or decree, he/she shall forthwith report the same in writing to the Engineer.

6. Contractor shall, at all times, cause all his/her agents and employees to observe and comply with all such applicable laws, ordinances, regulations, orders, and decrees in effect or which may become effective before completion of this Contract.

7. Nothing in these Drawings and/or Specifications is to be construed to permit work not conforming to such laws, ordinances, and regulations. If the Contractor ascertains at any time that any requirement of this Contract is at variance with such applicable law requirement, he/she shall promptly notify the Engineer.

8. If such applicable law requirement was not in effect on the date of submission of bids, any necessary adjustment of the Contract price shall be made as provided in Article 5 of the General Conditions. If such applicable law requirement was in effect on said date of bid submission, no adjustment of Contract price will be considered.

9. The Contractor, at his/her own expense, shall pay all taxes properly assessed against his/her equipment, materials, or property used or required in connection with the work.

2.16 GUARANTEE OF WORK

A. The Contractor guarantees all materials and workmanship against defects for a period of one year, unless noted otherwise, from the date of final acceptance of all work performed under the Contract. The date of final acceptance will be established and confirmed in writing by the Engineer.

B. The Contractor assumes responsibility for a one-year guarantee, unless noted otherwise, for all work and materials provided or performed by subcontractors, manufacturers, or suppliers.

C. The Contractor hereby agrees that if, within a period of one year, unless noted otherwise, after final acceptance of the work done under the Contract, any portion of the work installed, constructed, or performed fails to fulfill any of the requirements of the Contract, he/she will, without delay and with the least practicable inconvenience and without further cost to the City, repair or replace defective or

otherwise unsatisfactory work or materials. This Contract will not delay acceptance of the work or final payment.

D. Should the Contractor fail to act promptly in accordance with this requirement, or should the exigencies of the case require repairs or replacements to be made before the Contractor can be notified or can respond to notification, the City may at its option make the necessary repairs or replacements, or perform the necessary work, and the Contractor shall pay to the City the actual cost of such repairs plus 15 percent, or City may charge such costs to the Contractor's retention.

E. The Contractor shall be responsible for the full expense incidental to making good any and all of the above guarantees and Contracts. The above guarantees and Contracts are covenants, the performance of which shall be binding upon the Contractor and his/her sureties.

2.17 CLEANING AND ENVIRONMENTAL CONTROLS

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition. Remove waste materials, debris and rubbish from site and dispose off-site legally.

B. The Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles as directed by the Engineer to maintain the project in a condition of cleanliness acceptable to the City at all locations affected by the Contractor's operation. These affected areas include all haul routes to and from the project and all areas of construction and restoration, which have not been completed. The Contractor shall not proceed with work until job site is clean to the satisfaction of the Engineer.

C. The Contractor shall take appropriate action to insure that no dust originates from the project site.

D. Spoil sites shall not be located where spoil shall be washed back into a street gutter, storm drain, runoff conveyance or ocean.

E. Water containing mud, silt, or other pollutants from activities, shall not be allowed to enter the ocean or placed in locations that may be subject to storm runoff.

F. Any equipment or vehicles driven and/or operated within or adjacent to a street gutter, storm drain, runoff conveyance or ocean shall be checked and maintained daily to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.

G. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction, or associated activity or whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area.

H. The Contractor shall comply with all litter and pollution laws. All Contractors, subcontractors and employees shall also obey these laws and it shall be the responsibility of the Contractor to insure compliance.

2.18 SOLID WASTE DISPOSAL AND DIVERSION

The Contractor shall comply with Construction & Demolition Ordinance included in Article V, Chapter 8 of the Downey Municipal Code requiring that 100% of inert debris and at least 50% of the remaining construction and demolition (C&D) debris generated during the Project be diverted from landfill.

The Contractor shall complete and submit to the City for review and approval a C & D Waste Management Plan (Form A) as shown in Section 16, Exhibit D-1, which details anticipated diversion practices, and materials to be recycled or reused. The Waste Management Plan Compliance Report (Form B) as shown in Section 16, Exhibit D-2, must be submitted within 30 days after the completion of the Project. This form must be accompanied by legible copies of weight tickets, receipts, or invoices that specifically identify the project generating the material. Said documents must be from recycling companies and/or disposal site operators that are acceptable to the Engineer.

Further, the Contractor shall submit to the Engineer with each application for progress payment a monthly diversion/disposal report with supporting documents. Failure to submit the report and its supporting documentation will render the application for progress payment incomplete and delay progress payments.

In lieu of withholding a Performance Security Deposit in accordance with the Construction & Demolition Ordinance, the City will consider the Project Contract Retention as a form of security. If compliance of the Construction & Demolition Ordinance is not met, the City will withhold Project Contract Retention.

2.19 RECYCLED, REUSABLE AND RECYCLABLE PRODUCTS

A. The Contractor is encouraged to support the City of Downey in recycling efforts. It is City policy that all City Divisions and Sections shall utilize recycled, reusable, and recyclable products to the maximum extent practicable. Preference will be given to recycled, reusable and recyclable products, over non-recycled, non-reusable and non-recyclable products, fitness and quality being equal, whenever available at no more than the total cost of non-recycled, non-reusable and non-recyclable products.

B. Contractors are encouraged to propose recycled, reusable and recyclable products for use by the City of Downey. Those items should be clearly identified. The City of Downey may require further information or documentation to ascertain the suitability/appropriateness of a proposed product.

C. All Contractors that provide goods, supplies, or equipment to the City that contain recycled material shall provide in writing to the Engineer the following information:

1. The minimum, if not the exact, percentage of recycled material, both post-consumer waste and/or secondary waste (listed separately), in the goods, supplies, or equipment; and

2. The quantity and total dollar amount of the goods, supplies or equipment provided to the City with recycled material content.

ARTICLE 3 - TIME OF COMMENCEMENT AND COMPLETION

3.01 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

A. NOTICE TO PROCEED. Unless otherwise specified in the Contract Special Conditions, the Contract time shall commence upon the date of issuance of the City's written Notice to Proceed. The Contractor shall commence work within 7 days thereafter or on the date stipulated in the Notice to Proceed.

The Notice to Proceed will not be issued until the Contract is properly executed, bonds are furnished and approved, and insurance has been submitted and approved.

B. PROSECUTION OF THE WORK. Work shall be continued at all times with such force and equipment as will be sufficient to complete it within the specified time. The Contractor expressly proposes that he/she has taken into consideration and made allowances for all ordinary delays and hindrances to the work to be performed and that he/she will complete the work within the specified time.

C. TIME LIMIT. The work shall be completed in its entirety and made ready for service within the time specified in the Contract Special Conditions.

3.02 CITY'S DISCRETION TO EXTEND TIME

In the event the Contract work is not satisfactorily completed in all parts and in compliance with the Contract Documents, the City shall have the sole right, in its discretion, to increase the number of working days, as best to serve the interests of the City. Should the City decide to increase the number of working days, a Change Order extending only the Contract time will be issued.

3.03 DELAYS AND EXTENSIONS OF TIME FOR CONTRACTOR

A. The Contractor shall take reasonable precautions to foresee and prevent delays to the work. In the event of any delay to the work, the Contractor shall revise his/her sequence of operations, to the extent possible under the terms of the Contract, to offset the delay.

B. If any delay to the work is caused by circumstances within the Contractor's control, it is not excusable and not compensable, and the Contractor will not be entitled to any extension of time or to any other compensation for damages resulting directly or indirectly there from.

C. If any delay having a direct effect on the work is caused by circumstances beyond the control of the Contractor except for causes of delay specified in Paragraph 3.03-D., such delay may be excusable and may entitle the Contractor to an equivalent extension of time, but not to any other compensation. Excusable but not compensable causes include but are not limited to labor disputes, weather conditions unfavorable for prosecution of the work, and force majeure.

D. If any delay having a direct effect on the work is caused by failure of the City to provide information as specified, or necessary instructions for carrying on the work, or to provide the necessary right of way or site for installation, or failure of a utility to remove or relocate an existing facility such delay may be compensable and may entitle the Contractor to an equivalent extension of time, and to compensation for damages resulting directly from any of the causes of delay specified in this paragraph.

E. The Contractor shall notify the Engineer in writing of any delay having a direct effect on the work and the causes thereof within 15 days from the beginning of such delay. The Contractor shall document and substantiate the effects of the delay on the overall Contract Schedule, particularly the critical work path.

F. Any claim for an extension of time or for compensation for damages resulting from delay shall be made in writing to the Engineer not more than 30 days after the ending of such delay. The Contractor shall provide data showing the effect of the delay on the specified completion of the work, that the delay was beyond the control of the Contractor, and that the Contractor has revised his/her construction schedule, to the extent possible, to offset the delay. No extension of time or compensation for damages resulting from delay will be granted unless the delay affects the timely completion of all work under the Contract or the timely completion of a portion of the work for which a time of completion is specified.

G. The Engineer will investigate the facts and ascertain the extent of the delay, and his/her findings thereon shall be final and conclusive.

H. Failure of the Contractor to give written notice of a delay, or to submit or document a claim for an extension of time or for damages resulting from delay in the manner and within the times stated above shall constitute a waiver of all claims thereto.

I. When a Contractor experiences two concurrent delays, one compensable and the other excusable, no compensation other than an extension of time will be allowed.

J. An extension of time must be approved by the Engineer to be effective, but an extension of time whether with or without consent of the sureties, shall not release the sureties from their obligations, which shall remain in full force until the discharge of the Contract.

3.04 CLIMATIC CONDITIONS

A. The Engineer may suspend the work whenever weather conditions or conditions resulting from inclement weather are unfavorable for the prosecution of the work. The delay caused by such suspension may entitle the Contractor to an extension of time but not to any other compensation.

B. If the Contractor believes that work should be suspended under this Section 3.04, he/she may request such suspension. The delay caused by such suspension may entitle the Contractor to an extension of time but not to any other compensation.

C. No extension of time will be granted for suspension of work unless the suspension affects the timely completion of all work under the Contract or the timely completion of a portion of the work for which a time of completion is specified. Determination that the suspension for inclement weather conditions or conditions resulting from inclement weather affects timely completion and entitles the Contractor to an extension of time shall be made and agreed to in writing by the Engineer and the Contractor on each day that work is suspended. In the event of failure to agree, the Contractor may protest under the provisions of Section 7.06.

D. If work is suspended and an extension of time is granted under this Section 3.04 the Contractor will be entitled to a one day extension of time for each day that he/she is unable to work at least one-half of his/her current normal work day; and if the work is suspended at the regular starting time on any work day and the Contractor's workforce is dismissed as a result thereof, then he/she will be entitled to a one day extension of time whether or not conditions change thereafter and the major portion of the day is suitable for work.

3.05 SAFETY HAZARD

The Engineer may suspend operations if he/she determines that an imminent safety hazard exists.

3.06 COMPLETION AND ACCEPTANCE

The Contractor shall provide written notice to the Engineer asserting that the work has been complete upon which the Engineer shall inspect the work. If, in the Engineer's judgment, the work has been completed and all conditions of these Specifications have been met, the Engineer will make a recommendation to the City Council to accept the completed work. Upon final acceptance of the work by the City Council, the Contractor will be relieved from responsibility to protect the work.

Within 10 calendar days after final acceptance by the City Council, the Engineer will file with the County Registrar-Recorder a "Notice of Completion". A copy of the Notice of Completion is included in Exhibit C-3.

3.07 LIQUIDATED DAMAGES

A. Unless otherwise specified in the Contract Special Conditions, the deductions for liquidated damages shall be **$1,000.00 per calendar day** from date of required Contract completion until actual Contract completion date.

B. The liquidated damages are necessary to ensure timely completion and to defray costs of additional construction inspection and contract administration. Timely completion is required to insure that the owner may occupy the facility fully, all facilities operational and all construction activities completed in accordance with these Specifications.

C. Should the Contractor fail to complete all or portions of the contract work within the specified completion date, liquidated damages shall be assessed until such work is complete and accepted by the City. Such assessments shall be deducted from Contractors funds being held in the Contractors account or provided by the Contractor if the Contractor's account does not have sufficient funds.

D. It being impracticable or extremely difficult to fix the actual damage, the amount set forth above is hereby agreed upon as liquidated damages and will be deducted from any money due the Contractor under this Contract. Should the amount of the damages exceed the amount due the Contractor, he/she and his/her sureties shall be liable for the excess.

ARTICLE 4 - CONSTRUCTION PROGRESS SCHEDULES

4.01 INITIAL SCHEDULE

A. Within 48 hours after the Notice to Proceed has been given, and prior to the start of any work, the Contractor shall submit to the Engineer for approval three (3) copies of its proposed construction schedule with sub-schedules of related activity. If the Engineer notifies the Contractor that the schedule is unacceptable, the Contractor shall submit a revised schedule within five (5) working days thereafter.

B. Unless otherwise required, the construction schedule shall be in the form of bar charts with major activities of the project listed in chronological order showing the dates for beginning and completion of each activity. Schedule shall also show Critical Path items.

C. The construction schedule shall also contain:

1. An economic component showing the cost of each activity, the anticipated monthly earnings and a cash flow diagram.

2. A products availability schedule, which shall show the availability dates for Contractor furnished equipment affecting the progress of the work, indicate the required delivery dates for City furnished materials and equipment and indicate the required installation date for utility-furnished equipment.

4.02 REVISED SCHEDULES

A. After start of the work, the Contractor shall submit revised construction schedules not later than the 1st and 15th day of each month thereafter until completion of the Contract.

B. The revised schedules should show any significant changes in activities since submission of the previous schedule with revised projections of progress and completion. It should also provide a narrative report of problem areas, anticipated delays and the impact on the schedule, corrective action recommended and its effect, and the effect of changes on schedules of other contractors involved with the work.

C. Failure to submit accurately updated/revised construction schedules shall suspend the processing of monthly progress payments until acceptable schedules are provided and approved.

ARTICLE 5 - SUSPENSION OR TERMINATION OF CONTRACT

5.01 SUSPENSION OF WORK-DEFAULT BY CONTRACTOR

A. If the Contractor fails to begin the delivery of the materials or to commence work as provided in the Contract, or fails to make delivery of materials promptly as ordered, or to maintain the rate of delivery of materials or progress as ordered, or to maintain the rate of delivery of materials or progress of the work in such a manner as in the opinion of the Engineer will ensure a full compliance with the Contract within the time limit, or if in the opinion of the Engineer the Contractor is not carrying out the provisions of the Contract, written notice will be served on the Contractor to provide within a specified time for a satisfactory compliance with the Contract. If he/she neglects or refuses to comply with such notice, the City may suspend the operation of all or any part of the Contract, or it may in its discretion after such notice perform any part of the work or purchase any or all of the materials included in the Contract or required for the completion thereof at the expense of the Contractor without suspending the Contract.

B. Upon suspension of the Contract, the Engineer, acting in behalf of the City, may at its discretion take possession of all or any part of the machinery, tools, appliances, materials, and supplies that have been delivered by or on account of the Contractor for use in connection therewith and the same may be used either directly by the City or by other parties for the completion of the work suspended; in which case the Contractor shall be credited with a reasonable rental therefore, to be determined by the Engineer; or the City may employ other machinery or materials, purchase the materials contracted for in such manner as it may deem proper, or hire such force and buy machinery, tools, appliances, materials, and supplies at the Contractor's expense as may be necessary for the proper conduct and completion of the work. The Contractor shall not make any disposition of the plant, machinery, tools, appliances, supplies, or materials used on or in connection with the work, either by sale or conveyance, inconsistent with these provisions.

5.02 SUSPENSION OF WORK WITHOUT FAULT

The work may be suspended in whole or in part when determined by the Engineer that such suspension is necessary in the best interest of the City, regardless of fault by the Contractor. In such event, the Contractor shall comply immediately with any written order of the Engineer suspending work.

5.03 DECISION OF ENGINEER FINAL

The determination of the Engineer to suspend the work under the provisions of either section 5.01 or 5.02 shall be final and binding upon both parties.

5.04 REMAINDER OF CONTRACT IN EFFECT

Suspension of the Contract, or any part thereof, shall operate only to terminate the right of the Contractor to proceed with the work covered by the Contract or the suspended portion thereof. The provisions of the Contract permitting the City to make changes and to make proper adjustment of accounts to cover any increase or decrease of cost on account of such changes and all other provisions of the Contract except those giving the Contractor the right to proceed with work on the items covered by the suspension, shall be and remain in full force and effect after such suspension and until the Contract shall have been completed and final payment or final adjustment of accounts made.

5.05 ALLOCATION OF COST

A. Default by Contractor

When the work is suspended in whole or in part in accordance with the provisions of Section 5.01 any cost to the City in excess of the Contract price, arising from the suspension of the work, or from work performed or purchase made by the City, either before or after suspension, and required on account or failure of the Contractor to comply with his/her Contract or the orders of the Engineer issued in pursuance thereof, will be charged to the Contractor and his/her sureties, who shall be liable therefore. If the net credits shall be in excess of the claims of the City against the Contractor, the balance will be paid to the Contractor or his/her legal representative.

B. Contractor Without Fault

1. Where the work is suspended in whole or in part in accordance with the provisions of section 5.02, the Contractor will be compensated for damages incurred due to delays for which the City is responsible if such delays are unreasonable in the circumstances involved and were not within the contemplation of the parties when the Contract was awarded to the Contractor. The Engineer will determine such actual costs. The City will not be liable for, and in making this determination the Engineer will exclude, all damages which the Engineer determines the Contractor could have avoided by and reasonable means including, without limitation, the judicious handling of forces, equipment, or plant.

2. If the Contractor desires payment for such a delay it shall, within 30 days after the beginning of the delay, file with the City a written request and report as to the cause and extent of the delay. The request for payment or extension must be made at least 15 days before the specified completion date. Failure by the Contractor to file these items within the times specified will be considered grounds for refusal by the City to consider such request.

5.06 TERMINATION OF CONTRACT-DEFAULT BY CONTRACTOR

A. The Contract may be canceled by the City without liability for damage, when in the City's opinion the Contractor is not complying in good faith, has become insolvent, or has assigned or subcontracted any part of the work without the City's consent.

B. In the event of such cancellation, the Contractor will be paid the actual amount due based on unit prices or lump sums bid and the quantity of work completed at the time of cancellation, less damages caused to the City by acts of the Contractor causing the cancellation. The Contractor, in having tendered a bid, shall be deemed to have waived any and all claims for damages because of cancellation of Contract for any such reason. If the City declares the Contract canceled for any of the above reasons, written notice to that effect shall be served upon the Surety. The Surety shall, within five (5) days, assume control and perform the work as successor to the Contractor.

C. If the Contractor fails to begin delivery of material and equipment, to commence work within the time specified, to maintain the rate of delivery of material, to execute the work in the manner and at such locations as specified, or fails to maintain a work program which will ensure the City's interest, or, if the Contractor is not carrying out the intent of the Contract, the Engineer's written notice may be served upon the Contractor and the Surety on its faithful performance bond demanding satisfactory compliance with the Contract.

D. If the Contractor or its Surety does not comply with such notice within five (5) days after receiving it, or after starting to comply, fails to continue, the City may exclude it from the premises and take possession of all materials and equipment, and complete the work by City forces, by letting the unfinished work to another Contractor, or by a combination of such methods. In any event, the cost of completing the work shall be charged against the Contractor and its Surety and may be deducted from any money due or becoming due from the City. If the sums under the Contract are insufficient for completion, the Contractor or Surety shall pay to the City within five (5) days after the completion all costs in excess of the Contract price.

E. If the Surety assumes any part of the work, it shall take the Contractor's place in all respects for that part and shall be paid by the City for all work performed by it in accordance with the Contract. If the Surety assumes the entire Contract, all money due the Contractor at the time of its default shall be payable to the Surety as the work progresses, subject to the terms of the Contract.

F. The provisions of this section shall be in addition to all other rights and remedies available to the City under law.

5.07 TERMINATION OF CONTRACT - CONTRACTOR WITHOUT FAULT

A. The City may terminate the Contract when conditions encountered during the work make it impossible or impracticable to proceed, or when the City is prevented from proceeding with the Contract by force majeure as defined in Section 2.13A, by law, or by official action of a public authority.

B. When written notice by the Engineer to discontinue work is served upon the Contractor because the Contract has been terminated as provided in subsection A above; the Contractor shall comply immediately with the order of the Engineer.

C. The Contractor shall be paid for work performed to the time of termination at the unit prices named in the Contract, or in the event no unit prices are named, a sum equal to that portion of the lump sum price which the work completed to the time of termination bears to the total work to be performed under the Contract as determined by the Engineer. In no event will the City be liable to the Contractor for breach of Contract, extra work, or damages because of said termination of Contract.

ARTICLE 6 - CHANGES

6.01 CHANGES INITIATED BY CITY

The City reserves the right to make such alterations, deviations, additions to or deletions from the Drawings and Specifications, including the right to increase or decrease the quantity of any item or portion of work or to omit any item or portion of the work, and to require such changes in the work as are determined by the Engineer to be necessary or advisable for proper completion or construction of the whole work contemplated.

6.02 CHANGES AT THE CONTRACTOR'S REQUEST

If the Contractor, on account of conditions developing during the progress of the work, finds it impracticable to comply strictly with the Plans and Specifications and applies in writing for a modification of requirements or of methods of work, such change may be authorized by the Engineer, if not detrimental to the work and if without additional cost to the City.

6.03 CHANGE ORDERS - PROCEDURE

A. Engineer's Adjustment of Contract Terms:

Changes will be set forth in a Contract change order. If the work to be done or change to be made causes an increase or decrease in the Contractor's cost of performance of the Contract, an equitable adjustment may be made as determined by the Engineer. The Contract change order will specify the payment to be made or credit to be taken and adjustment of the Contract time, if any. Payment in accordance with the terms and conditions set forth in a Contract change order shall constitute full compensation for all work included therein or required thereby.

B. Contractor's Contract:

Contractor shall proceed with the ordered work, unless another starting date is specified. If the Contractor agrees with the terms and conditions of the Contract change order, he/she shall indicate his/her acceptance by signing the original copy and returning it to the Engineer within three (3) days. If the Contractor disagrees with the terms and conditions of such Contract change order, he/she shall proceed with the ordered work and shall submit a written protest in accordance with "E. Protest Procedure," contained hereinafter.

C. Submittal of Contractor's Proposal of Changes:

Prior to issuing an approved Contract change order, the Engineer may request that the Contractor submit a proposal covering the changes. The request will include a description of the work or revised Drawings or Specifications reflecting changes proposed to be ordered. Within three (3) days after receiving the request the Contractor shall submit his/her proposal to the Engineer, including any claim for extension of time and any and all compensation which may be necessary as a result of performing the changes. If the Engineer decides not to issue a Contract change order after requesting a proposal from the Contractor, the Contractor shall be notified of such decision in writing.

D. Issuance of Engineer's Order:

The Engineer may, in writing, order the Contractor to proceed with the work prior to receipt of an approved Contract change order therefore. In such case, the Engineer will, as soon as practicable, issue an approved Contract change order for the work and the provisions "E. Protest Procedure" shall be fully applicable to such subsequently issued Contract change order. The Contractor shall keep full and complete records of the cost of the ordered work until the method of compensation is determined

and the approved change order is received, and shall permit the Engineer to have access to such records. An approved change order shall supersede any previously issued written order covering the same work.

E. Protest Procedure:

1. Should the Contractor disagree with any terms or conditions set forth in an approved change order which he/she has not executed, he/she shall submit a written protest to the Engineer within five (5) calendar days after the receipt of such approved Contract change order. The protest shall state the points of disagreement, Contract references, quantities, and costs involved. The Engineer shall consider and investigate such protest within a reasonable time and his/her decision thereon shall be conclusive and binding against both parties to the Contract, except in the case of gross error. If a written protest is not submitted, adjustment of the Contract time and payment will be made as set forth in the approved Contract change order and shall constitute full compensation for all work included therein or required thereby. An unprotested, approved change order will be considered as an executed Contract change order.

2. When the protest concerning an approved Contract change order relates to compensation, the Contractor shall keep full and complete records of the cost of such work and shall permit the Engineer to have such access thereto as may be necessary to assist in the determination of the compensation payable for such work.

3. When the protest concerning an approved Contract change order relates to the adjustment of Contract time for the completion of the work, the time to be allowed therefore will be determined as provided in Section 3.03.

F. Extra Work:

1. Work not covered by any of the items of the bidding form for which there are bid prices or by any combination of such items, as determined by the Engineer, and work specifically designated as extra work in the Drawings or Specifications is extra work. The Contractor shall furnish the required labor, materials, and equipment and shall perform such extra work upon receipt of a Contract change order therefore. All labor, material, and equipment shall be subject to approval of the Engineer.

2. Extra work will be paid for by an adjustment of the Contract price or on a force-account basis as provided in Section 7.05, or a combination of both, as determined by the Engineer. Extra work will not be paid for unless ordered in writing by the Engineer. The determination of the Engineer on all questions relating to extra work shall be conclusive and binding.

ARTICLE 7 - CONTRACT PAYMENTS AND CLAIMS

7.01 GENERAL

A. Payment will be made at the price for each item listed on the bidding form or as extra work as provided in the General Conditions.

B. Initial progress payment will not be made prior to approval by the Engineer of the Schedule of Values (breakdown of lump sum contract costs), the Construction Progress Schedule, and the Schedule of Submittals.

C. No subsequent progress payment will be made until the Engineer receives the monthly revision of the Construction Progress Schedule.

7.02 SCHEDULE OF VALUES FOR PAYMENTS

A. The Contractor shall submit to the Engineer, within ten (10) working days after Notice to Proceed, three (3) copies of a Schedule of Values. The Schedule of Values shall consist of a detailed breakdown of the Contract Lump Sum or designated Lump Sum bid items. The Schedule of Values shall include an allocation of the major work task items required to perform and complete the work.

B. The total of the Schedule of Values shall agree with the total or lump sum price bid. The price breakdown shall, as a minimum, show the cost of each item of the Construction Progress Schedule, Article 4. Any additional breakdown of the Schedule of Values, by quantities and prices of work and materials, considered necessary by the Engineer will be as determined by the Engineer. The price breakdown shall not be unbalanced, shall be subject to adjustment between the Engineer and the Contractor, and will be used as a basis for progress payments.

C. Acceptance of the Schedule of Values by the Engineer shall not relieve the Contractor of the responsibility of performing all the work needed to complete the projects at the total or lump sum price bid.

7.03 PROGRESS PAYMENTS

A. Determination by Engineer: The Engineer will make an approximate measurement of all approved materials delivered to the job site and work performed by the Contractor through the last working day of each calendar month for the purpose of making a progress payment. No payment will be made for the fabrication or production of materials off the job site, or for materials stored off the job site. The Engineer will classify the work according to items listed on the Bid Form and will estimate the value thereof and the bases of price shown, or as extra work. The classification of the work performed and the value thereof will be based on the Schedule of Values submitted by the Contractor.

B. Five Percent Retention: From each progress estimate, five percent (5%) will be deducted and retained by the City as a security to ensure performance. The amount of all payments previously made to the Contractor and any amounts due to the City from the Contractor for supplies, materials, services, damages, or otherwise deductible under the terms of the Contract will be deducted from the remainder. The remaining amount will be paid as a progress payment by the City to the Contractor on the Friday after approval is given and submitted to the City's Finance Division.

C. Additional Retention: In addition to the retention under Paragraph B above, the whole or part of any payment of the estimated amount due the Contractor may be withheld as an additional retention if such course be deemed necessary to protect the City from loss due to the Contractor's failure to protect any

of the following: (1) meet his/her obligations; (2) expedite the work; (3) correct rejected work; (4) settle damages as provided; or (5) produce substantial evidence that no claims will or have been filed, and/or if it has been determined that unpaid balance may be insufficient to complete the work.

D. Effect of Progress Payment: All materials and work covered by progress payments thereupon become the sole property of the City, but this provision shall not be construed as relieving the Contractor from sole responsibility for all materials and work upon which payments have been made or the restoration of any damaged work as a waiver of the City's right to require fulfillment of all terms of the Contract.

7.04 FINAL PAYMENT AND RELEASE OF CLAIMS

A. Notice of Completion and final payment: A Notice of Completion will be prepared by the Engineer and recorded with the office of the County Registrar-Recorder, within ten (10) days after acceptance of the work by the City Council. The Contractor shall submit the final as-built/record drawings prior to the issuance of the final payment. Final payment will be made not sooner than thirty-five (35) calendar days following the date of recording of the Notice of Completion. Final payment shall include the remaining amount due the Contractor, less all prior payments and advances whatsoever to or for the account of the Contractor for supplies, materials, services, damages, or otherwise deductible under the terms of the Contract. All prior estimates and payments including those relating to extra work shall be subject to correction by this payment, which throughout this Contract is called "final payment."

B. Release of Claims: Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall have delivered to the City a complete release of all claims against the City arising under and by virtue of this Contract and related to undisputed amounts, including claims of subcontractors and suppliers of either materials or labor.

C. Acceptance of final payment constitutes release: The acceptance of the final payment by the Contractor shall be and shall operate as a release to the City of all claims and of all liability to the Contractor for all things done or furnished in connection with the work and for every act and neglect of the City and others relating to or arising out of this work. No payments, however, final or otherwise, shall operate to release the Contractor or his/her sureties from any obligation under this Contract or the bonds for payment and for faithful performance.

7.05 FORCE-ACCOUNT PAYMENT

A. Computation of Payment: When work is to be paid for on a force-account basis, the Contractor will be paid the costs of labor, materials, and equipment as provided in Paragraphs 7.05.B, 7.05.C and 7.05.D, except when agreement has been reached to pay in accordance with Paragraph 7.05.E. To the total of the costs computed as provided in Paragraphs 7.05.B, 7.05.C and 7.05.D, there will be added the following markups:

1.	Labor	20%
2.	Materials	15%
3.	Equipment Rental	15%
4.	Other Items and Expenditures	15%
5.	Bonding	1%
6.	Work by Subcontractor	
	a. First $5,000 of the subcontracted portion	10%
	b. In excess of $5,000 of the subcontracted portion	5%

These markups shall constitute full compensation for profit and for all overhead costs inclusive of home office overhead which include superintendence, bond and insurance premiums, and all other items of

expense not specifically designated as cost or equipment rental in Paragraphs 7.05.B, 7.05.C and 7.05.D. The total payment made as provided above shall constitute full compensation for work performed on a force-account basis.

It is understood that labor, materials and equipment may be furnished by the Contractor or by a subcontractor or by others on behalf of the Contractor. When work paid for on a force-account basis is performed by forces other than the Contractor's organization, the Contractor shall reach agreement with such other forces as to the distribution of the payment made by the City for such work and no additional payment therefore will be made by the City.

B. Labor: The cost of labor used in performing the work, whether the employer is the Contractor, subcontractor, or other forces, will be the sum of the following:

1. Wages. Prevailing wages paid to other workers, including foremen devoting their exclusive attention to the work in question. The wages shall include payments to, or on behalf of, workers for health and welfare, pension, vacation, and similar purposes.

2. Labor Surcharge To the actual wages, as defined in Paragraph 7.05.B.1 above, will be added 10 percent which percentage shall constitute full compensation for all payments imposed by State and Federal laws, and for all other payments made to, or on behalf of, the workers, other than actual wages as defined in Paragraph 7.05.B.1 above and the amount paid for travel and subsistence as specified in Paragraph 7.05.B.3 following.

3. Travel and Subsistence: The amount paid to the workers for travel and subsistence as defined in applicable collective bargaining agreements filed with the Department of Industrial Relations.

C. Materials: Only materials incorporated in the work will be paid for, the cost of which will be the cost to the purchaser, whether Contractor, subcontractor, or other forces, from the supplier thereof, except as the following are applicable:

1. If a cash or trade discount by the actual supplier is offered or available to the purchaser, it shall be credited to the City notwithstanding the fact that such discount may not have been taken.

2. If materials are procured by the purchaser by any method which is not a direct purchase from a direct billing by the actual supplier to such purchaser, the cost of such materials shall be deemed to be the price paid to the actual supplier as determined by the Engineer. No markup except for costs incurred in the handling of such materials will be permitted.

3. If the materials are obtained from a supply or source owned wholly or in part by the purchaser, payment therefore will not exceed the price paid by the purchaser for similar materials furnished from said source on Contract items or the current wholesale price for such materials delivered on the job site, whichever price is lower.

4. If the cost of such materials is excessive, in the opinion of the Engineer, then the cost of such materials shall be deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned delivered to the job site, less any discounts as provided in Paragraph 7.05.C.1 above.

5. If the Contractor does not furnish satisfactory evidence of the cost of such materials from the actual supplier thereof, the cost shall then be determined as provided in Paragraph 7.05.C.4

above.

The City reserves the right to furnish such materials as it deems advisable, and the Contractor shall have no claims for costs and profit on such materials.

D. Equipment: The Contractor will be paid for the use of equipment at the rental rates established as provided in Paragraph 7.05.D.1 and 7.05.D.2 below, which rates shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Operators of rented equipment will be paid for as provided in Paragraph 7.05.B above.

All rented equipment shall, as determined by the Engineer, be in good working condition for the purpose for which it is to be used. Unless otherwise specified, manufacturers' ratings shall be used to classify equipment for the determination of applicable rental rates.

1. Equipment on the work: For the use of any equipment normally required for the Contract regardless of whether the equipment is already on the work or is to be delivered to the work and regardless of ownership and any rental or other Contract entered into by the Contractor for the use of such equipment, the Contractor will be paid as provided herein at the current local rental rates used by the State of California. (Copies of the Equipment Rental Rates used by the State will be furnished on request.)

   Individual pieces of equipment not listed and having a replacement value of Two Hundred Dollars ($200) or less shall be considered to be tools or small equipment and no payment will be made for their use on the work.

   The hourly rates for equipment not listed under the schedules of rental rates set forth by the State of California shall be those agreed upon by the Contractor and the Engineer prior to the use of the equipment, except that in no case shall the rental rates exceed those of established distributors or equipment rental agencies.

   In computing the hourly rental of equipment, less than 30 minutes shall be considered ½-hour, except that the minimum rental time to be paid per day shall be one hour. Rental time will not be allowed while equipment is inoperative due to breakdowns or non-working days.

   The rental time of equipment to be paid for shall be the time the equipment is in operation on the force-account work being performed. Loading and transporting costs will be allowed when the equipment is moved by means other than its own power, except that no payment will be made if the equipment is used at the site of the force-account work on other than the force-account work.

2. Equipment not on the work: For the use of equipment not required under the Contract and moved in on the work and used exclusively for force-account work, the Contractor will be paid as provided herein and at the rates agreed upon by the Contractor and the Engineer, except that in no case shall the rental rates paid exceed those of established distributors or equipment rental agencies.

   The rental period shall begin at the time the equipment is unloaded at the site of the force-account work and shall terminate at the end of the day on which the order to discontinue the force-account work is given to the Contractor by the Engineer, except that the minimum total rental time to be paid for shall be not less than eight (8) hours.

Except as provided in the last sentence of this paragraph, the Contractor will be paid the cost of transporting the equipment to the work and its return to its original location, provided the original location of the equipment has been agreed to in advance by the Engineer, and provided further that such costs shall not exceed the applicable minimum Public Utility Commission's established rates for transporting the equipment. Should the equipment be transported by low bed trailers, hourly rates charged by established haulers will be paid. Also, the City will pay for loading and unloading costs. Should the Contractor desire the return of the equipment to a location other than its original location, the City will pay the cost of transportation in accordance with the above provisions, provided such cost does not exceed the cost of moving the equipment to the work. Payment for transporting and loading and unloading the equipment as provided herein will not be made if the equipment is used on the work in any other way than upon the force-account work.

E. Work Performed by Special Forces or Other Special Services: When the Engineer and the Contractor, by Contract, determine that a special service or an item of force-account work cannot be performed by the forces of the Contractor or those of any of his/her subcontractors, such service or force-account work item may be performed by a specialist. Invoices of such services or item or force-account work on the basis of the current market prices thereof may be accepted without complete itemization of labor, materials, and equipment rental costs when it is impracticable and not in accordance with the established practice of the special service industry to provide such complete itemization. In those instances wherein the Contractor is required to perform force-account work necessitating a fabrication or machining process in a fabrication or machine shop facility away from the job site, the charges for that portion of force-account work performed in such facility may, by Contract, be accepted as a specialist billing.

To the specialist invoice price, less credit to the City for any cash or trade discount offered or available, whether or not such discount may have been taken, will be added 15 percent in lieu of the percentages provided in Paragraph 7.05.A above.

F. Reporting and Invoicing: The Contractor shall submit a daily report to the Engineer for all force-account work on forms furnished by the City. These Daily Extra Work Reports shall be signed by both parties and thereafter be considered the true record of force-account work done. The Daily Extra Work Reports shall have an individual identifying number which will be used for tracking purposes. Complete detailed invoices covering the force-account work shall be submitted for payment no later than 15 days after the completion of the work. Invoices lacking sufficient detail, identifying tracking number or supporting documentation will not be processed for payment until details are furnished to the satisfaction of the Engineer.

The charges for work performed by the Contractor, by a subcontractor, and by an employee of a subcontractor shall be reported separately. Substantiating invoices from suppliers, vendors, and subcontractors shall be included with the Contractor's invoices. The Contractor shall permit examination of accounts, bills, and vouchers relating to the force-account work, when requested by the Engineer.

7.06 CLAIMS AND PROTESTS-CONTRACT REQUIREMENTS

A. Written Protest: If work demanded of the Contractor is considered by him to be outside the requirements of the Contract, or if he/she considers any decision of the Engineer to be unfair, he/she shall, upon such work being demanded or such decision being made, proceed without delay to perform the work or conform to the decision, and shall give written notice of protest to the Engineer within 48 hours. The written notice shall include the date and circumstances of the order or decision and his/her objections thereto. The Engineer will consider and investigate the protest and his/her decision thereon shall be

final and conclusive, except in the case of gross error. In the event of a gross error, the Engineer may reconsider his/her findings and thereafter his/her findings shall be final and conclusive. Except for such protests as are made of record in the manner specified, the Contractor waives all grounds for protest to such orders or decisions of the Engineer.

B. Written Claim: No more than 30 days after submitting a protest in accordance with 7.06.A. above or 30 days after completing the protested work, if that is later, the Contractor shall submit to the Engineer his/her claim concerning the matter so noticed. The claim shall set forth clearly concerning the matter so noticed. The claim shall set forth clearly and in detail, for each item of additional compensation or time adjustment claimed, the reasons for the claim, the references to applicable provisions of these Specifications, the nature and amount of cost or time involved, or both, the computations used in determining such cost or time, or both, and all other pertinent factual data. The Contractor shall furnish such clarification and further available information and data as may be requested in writing by the Engineer within the time specified in such request. In addition, he/she shall maintain complete and accurate daily records of the costs of any portion of the work for which additional compensation is claimed, and shall give the Engineer access thereto or certified copies thereof as requested.

Any order or decisions of the Engineer as to which the Contractor has submitted a protest shall be final and conclusive on the Contractor if he/she fails to submit or document a claim with respect thereto in the manner and within the times above stated, and such failure shall constitute a waiver of all claims in connection therewith, whether direct, indirect, or consequential in nature.

C. Written Decision: After reviewing the written claim submitted by the Contractor and any additional information furnished by the Contractor and after considering the facts of the matter, the Engineer will give the Contractor written notice of the Engineer's final determination regarding the claim.

ARTICLE 8 - MATERIALS

8.01 GENERAL

A. The Contractor shall furnish and install all materials needed to complete the work as required under the terms of this Contract, except those materials that are specified to be furnished by the City.

B. The Contractor shall submit satisfactory evidence of compliance with these Specifications of such materials to be furnished and used in the work as the Engineer may require. Materials incorporated in the work and not specifically covered in these Specifications shall be the best of their kind. Unless otherwise specified, all materials and equipment incorporated in the work under the Contract shall be new.

8.02 QUALITY AND WORKMANSHIP

All materials must be of the specified quality and equal to approved samples, if samples have been required. All work shall be done and completed in a thorough, workmanlike manner, notwithstanding any omission from these Specifications or the Drawings, and it shall be the duty of the Contractor to call attention to apparent errors or omissions and request instructions before proceeding with the work. The Engineer may, by appropriate instructions, correct errors and supply omissions, which instructions shall be binding upon the Contractor as though contained in the original Specifications or Drawings. All work performed under these Specifications will be inspected by the Engineer as provided in Paragraph 8.04. All work performed within the rights of way of the City, County or State shall meet the requirements of the agency having jurisdiction. All materials furnished and all work done must be satisfactory to the Engineer. Work, material, or equipment not in accordance with these Specifications, in the opinion of the Engineer shall be made to conform thereto. Unsatisfactory materials and equipment will be rejected, and if so ordered by the Engineer, shall, at the Contractor's expense, be immediately removed from the vicinity of the work.

8.03 TRADE NAMES, "OR EQUALS," SUBSTITUTIONS

A. Whenever any particular material, process, or equipment described in the Plans or Specifications is indicated by proprietary brand name, or by name of manufacturer, such wording is used for facilitating its description and shall be deemed to be followed by the words *"or equal."* The specified proprietary brand name is intended to indicate a measure of quality and utility or a standard.

B. Substitutions

1. The Contractor may offer any material, process or equipment considered to be equivalent to that specified, provided the use of such brand or manufacture involves no additional cost to the City. The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor. It shall be the Contractor's responsibility to demonstrate that all products proposed for substitution are equivalent those specified. The Contractor shall, at his/her expense, furnish sufficient information, samples and test data to permit a comparative analysis, including three (3) copies of a complete materials list showing all items proposed as substitutes.

2. The Engineer shall determine whether the proposed substitute is equivalent to that specified. The Engineer shall be the sole judge as to the quality and suitability of the item offered as a substitute. Evaluation of equivalence will be made on the basis of physical or chemical properties, performance, longevity, ease of maintenance, dimensional compatibility, appearance, quality, strength, efficiency, durability and ability to fulfill its intended function. The Engineer's decision shall be final.

3. All requests for substitutions shall be submitted in writing to the Engineer not less than ten (10) days prior to the bid date.

4. The Engineer shall respond within two (2) working days as to acceptance or rejection of the proposed substitution. If the substitution is approved, the City will issue an Addendum to the bid documents indicating that the substitute material, process or equipment is considered to be an acceptable substitute to that specified.

5. Proposed substitutions submitted after bidding will not be accepted.

6. Substitutes will be considered for any material, process or equipment considered to be equivalent to that specified, except in those instances where the product is designated to match others in use on a particular public improvement either completed or in the course of completion.

8.04 APPROVAL OF MATERIALS

A. The Contractor shall furnish without additional cost to the City such quantities of construction materials as may be required by the Engineer for test purposes. He/she shall place at the Engineer's disposal all available facilities for and cooperate with him in the sampling and testing of all materials and workmanship. The Contractor shall prepay all shipping charges on samples. No samples are to be submitted with the bids unless otherwise specified.

B. Each sample submitted shall be labeled. A letter of transmittal shall accompany each shipment of samples from the Contractor to the Engineer. Both the letter of transmittal and the label on the sample shall clearly indicate the material represented, its place of origin, the names of the producer and the Contractor, the Project Number and Title, and a reference to the applicable Drawings and Specifications paragraphs.

C. Materials or equipment of which samples are required shall not be used on the work until the Engineer has given written approval. Approval of any sample shall be only for the characteristics of the uses named in such approval and no other. No approval of a sample shall be taken in itself to change or modify any Contract requirement.

D. Failure of any material to pass the specified tests will be sufficient cause for refusal to consider under this Contract, any further sample of the same brand or make of that material.

8.05 ORDERING MATERIALS

One copy of each of the Contractor's purchase orders for materials forming a portion of the work must be furnished to the Engineer, if requested. Each such purchase order shall contain a statement that the materials included in the order are subject to inspection by the City. Materials purchased locally will be inspected at the point of manufacture or supply, and materials supplied from points outside the Los Angeles area will be inspected upon arrival at the job, except when other inspection requirements are provided for specific materials in other sections of these Specifications.

8.06 AUTHORITY OF THE ENGINEER

On all questions concerning the acceptability of materials or machinery, the classification of materials, the execution of the work, and conflicting interests of Contractors performing related work, the decision of the Engineer shall be final and binding.

The Engineer will make periodic observations of materials and completed work to observe their compliance with Plans, Specifications, and design and planning concepts, but he/she is not responsible for the superintendence of construction processes, site conditions, operations, equipment, personnel, or the maintenance of a safe place to work or any safety in, on, or about the site of work.

8.07 INSPECTION

All materials furnished and work done under this Contract will be subject to rigid inspection. The Contractor shall furnish, without extra charge, the necessary test pieces and samples, including facilities and labor for obtaining them, as requested by the Engineer. The Engineer, or his/her authorized agent or agents, at all times shall have access to all parts of the shop and the works where such materials under his/her inspection is being manufactured or the work performed. Work or material that does not conform to these Specifications, although accepted through oversight, may be rejected at any stage of the work. Whenever the Contractor is permitted or directed to do night work or to vary the period during which work is carried on each day, he/she shall give the Engineer due notice, so that inspection may be provided. Such work shall be done under regulations to be furnished in writing by the Engineer.

8.08 INFRINGEMENT OF PATENTS

The Contractor shall hold and save the City, its officers, agents, servants, and employees harmless from and against all and every demand or demands, of any nature or kind, for or on account of the use of any patented invention, process, equipment, article, or appliance employed in the execution of the work or included in the materials or supplies agreed to be furnished under this Contract, and should the Contractor, his/her agents, servants, or employees, or any of them, be enjoined from furnishing or using any invention, process, equipment, article, materials, supplies or appliance supplied or required to be supplied or used under this Contract, the Contractor shall promptly substitute other inventions, processes, equipment, articles, materials, supplies, or appliances in lieu thereof, of equal efficiency, quality, finish, suitability, and market value, and satisfactory in all respects to the Engineer. Or in the event that the Engineer elects, in lieu of such substitution, to have, supplied, and to retain and use, any such invention, process, equipment, article, materials, supplies, or appliances, as may by this Contract be required to be supplied and used, in that event the Contractor shall at his/her expense pay such royalties and secure such valid licenses as may be requisite and necessary to enable the City, its officers, agents, servants, and employees, or any of them, to use such invention, process, equipment, article, materials, supplies, or appliances without being disturbed or in way interfered with by any proceeding in law or equity on account thereof. Should the Contractor neglect or refuse promptly to make the substitution required, or to pay such royalties and secure such licenses as may be necessary and requisite for the purpose aforesaid, then in that event the Engineer shall have the right to make such substitution, or the City may pay such royalties and secure such licenses and charge the cost thereof against any money due the Contractor from the City, or recover the amount thereof from him/her and his/her surety, notwithstanding final payment under this Contract may have been made.

ARTICLE 9 - SUBMITTALS

9.01 GENERAL

A. The Contractor shall submit samples, drawings, and data for the Engineer's approval, which demonstrate fully that the construction, and the materials and equipment to be furnished will comply with the provisions and intent of these Plans and Specifications.

B. Specific items to be covered by the submittals shall include, as a minimum, the following:

1. For structures, submit all shop, setting, equipment, miscellaneous iron and reinforcement drawings and schedules necessary.

2. For conduits, submit a detailed layout of the conduit with details of bends and fabricated specials and furnish any other details necessary. Show location of shop and field welds.

3. For equipment which requires electrical service, submit detailed information to show power supply requirements, wiring diagrams, control and protection schematics, shop test data, operation and maintenance procedures, outline drawings, and manufacturer's recommendation of the interface/interlock among the equipment.

4. For mechanical equipment submit all data pertinent to the installation and maintenance of the equipment including shop drawings, manufacturer's recommended installation procedure, detailed installation drawings, test data and curves, maintenance manuals, and other details necessary.

5. Samples.

6. Colors.

7. Substitutions.

8. Manuals.

9. As-built drawings.

9.02 PRODUCT HANDLING

A. Submittals shall be accompanied by a letter of transmittal and shall be in strict accordance with the provisions of this section.

B. Submit priority of processing when appropriate.

9.03 SCHEDULE OF SUBMITTALS

A. The Contractor shall prepare and submit a schedule of submittals. The schedule of submittals shall be in the form acceptable to the Engineer. All material submittals shall be listed on the schedule of submittals. The City reserves the right not to review materials no listed on said schedule. As a result, the Contractor shall not be entitled to any time extension.

9.04 SHOP DRAWINGS

A. All shop drawings shall be produced to a scale sufficiently large to show all pertinent features of the item and its method of connection to the work.

B. All shop drawing prints shall be made in blue or black line on white background. Reproductions of City Drawings are not acceptable.

C. The overall dimensions of each drawing submitted to the Engineer shall be equal to one of the City's standard sheet sizes as listed below. The title block shall be located in the lower right hand corner of each drawing and shall be clear of all line work, dimensions, details, and notes.

Sheet Sizes
Height X Width
11" X 8-1/2"
11" X 17"
24" X 36"

9.05 COLORS

Unless the precise color and pattern are specified elsewhere, submit accurate color charts and pattern charts to the Engineer for his/her review and selection whenever a choice of color or pattern is available in a specified product. Label each chart naming the source, the proposed location of use on the project, and the project.

9.06 MANUFACTURERS' LITERATURE

Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly show which portions of the contents are being submitted for review.

9.07 SUBSTITUTIONS

A. The Contract is based on the materials, equipment, and methods described in the Contract Documents. All substitutions are subject to the Engineer's approval.

B. The Engineer will consider proposals for substitution of materials, equipment, and methods only when full and complete technical data and all other information accompany such proposals as required by the Engineer to evaluate the proposed substitution.

C. Trade names and "or approved equal" provision:

1. See Article 8.03.

9.08 MANUALS

A. When manuals are required to be submitted covering items included in this work, prepare such manuals in approximately 8-1/2" X 11" format in durable plastic binders and with at least the following:

1. Identification on, or readable through, the front covers stating general nature of the manual.

2. Neatly typewritten index near the front of the manual, furnishing immediate information as to location in the manual of all emergency data regarding the installation.

3. Complete instructions regarding operation and maintenance of all equipment involved.

4. Complete nomenclature of all replaceable parts, their part numbers, current cost, and name and address of nearest vendor of parts.

5. Copy of all guarantees and warranties issued.

6. Copy of drawings with all data concerning changes made during construction.

B. Where contents of manuals include manufacturers' catalog pages, clearly indicate the precise items included in this installation and delete, or otherwise clearly indicate, all manufacturers' data with which this installation is not concerned.

9.09 RECORD DRAWINGS

A. When specified in the Contract Special Conditions, the Contractor shall prepare the record drawings. The Contractor shall deliver to the City one complete hard copy set of final record drawings showing completed construction, for City records before the Contract will be accepted by the City.

B. The drawings shall consist of full size reproductions of the originals.

C. The legibility and contrast of each drawing submitted to the City shall be such that every line, number, letter, and character is clearly readable in a full size blowup from a 35 mm microfilm negative of the drawing.

9.10 SUBMITTALS QUANTITIES

A. Submit three (3) copies of all data and drawings unless specified otherwise.

B. Submit all samples, unless specified otherwise, in the quantity to be returned, plus one, which will be retained by the Engineer.

9.11 IDENTIFICATION OF SUBMITTALS

A. Completely identify each submittal and resubmittal by showing at least the following information:

B. Name and address of submitter, plus name and telephone number of the individual who may be contacted for further information.

C. Name of project as it appears in these Specifications and Specifications number.

D. Drawing and Specifications section number other than this section to which the submittal applies.

E. Whether this is an original submittal or resubmittal.

F. For samples, indicate the source of the sample.

9.12 SCHEDULE OF SUBMITTALS

A. Submit initial schedule of submittals within five (5) working days after Notice to Proceed.

B. Submit revised schedule of submittals within five (5) working days after date of request from the Engineer.

C. Engineer will review schedule of submittals and will notify Contractor that schedule is acceptable or not acceptable within five (5) working days after receipt.

9.13 COORDINATION OF SUBMITTALS

A. Prior to submittal for Engineer's review, use all means necessary to fully coordinate all material, including the following procedures:

1. Determine and verify all field dimensions and conditions, materials, catalog numbers, and similar data.

2. Coordinate as required with all trades and with all public agencies involved.

3. Secure all necessary approvals from public agencies and others and signify by stamp, or other means that they have been secured.

4. Clearly indicate all deviations from these Specifications.

B. Unless otherwise specifically permitted by the Engineer, the Contractor shall group all associated items as one submittal package. The Engineer may reject partial submittals as not complying with the provisions of these Specifications.

9.14 TIMING FOR SUBMITTALS

A. Make all submittals far enough in advance of scheduled dates of installation to provide all required time for reviews, for securing necessary approvals, for possible revision and resubmittal, and for placing orders and securing delivery.

B. In scheduling, allow at least fifteen (15) working days working for the Engineer's review, plus the transit time to and from the City office.

C. Manuals shall be submitted prior to performing functional tests.

9.15 APPROVAL BY CITY

A. One copy of each submittal, except manuals, schedule of costs for progress payments, and as-built drawings will be returned to the Contractor marked "No Exceptions Taken," “Make Corrections Noted - Do Not Resubmit,” or “Make Corrections Noted - Resubmit.” Manuals, schedule of costs, and as-built drawings will be returned for resubmittal if incomplete or unacceptable.

B. Submittals marked "Approved as Noted" need not be resubmitted, but the notes shall be followed.

C. If submittal is returned for correction, it will be marked to indicate what is unsatisfactory.

D. Resubmit revised drawings or data as indicated, in five (5) copies.

E. Approval of each submittal by the Engineer will be general only and shall not be construed as:

1. Permitting any departures from these Specifications requirements.

2. Relieving the Contractor of the responsibility for any errors and omissions in details, dimensions, or of other nature that may exist.

3. Approving departures from additional details or instructions previously furnished by the Engineer.

9.16 CHANGES TO APPROVED SUBMITTALS

A. A resubmittal is required for any proposed change to an approved submittal. Changes which require resubmittal include, but are not necessarily limited to, drawing revisions, changes in materials and equipment, installation procedures and test data. All resubmittals shall include an explanation of the necessity for the change.

B. Minor corrections to an approved submittal may be accomplished by submitting a "Corrected Copy".

ARTICLE 10 - SAFETY

10.01 PROTECTION OF PERSONS AND PROPERTY

Contractor's Responsibility: Notwithstanding any other provision of these Specifications, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property, during performance of the work. This requirement will apply continuously and will not be limited to normal working hours. Safety and sanitary provisions shall conform to all applicable Federal, State, County, and local laws, regulations, ordinances, standards, and codes. Where any of these are in conflict, the more stringent requirement shall be followed.

10.02 PROTECTION FROM HAZARDS

A. Trench Excavation

Excavation for any trench four (4) feet or more in depth shall not begin until the Contractor has received approval from the Engineer of the Contractor's detailed plan for worker protection from the hazards of caving ground during the excavation of such trench. Such plan shall show the details of the design of shoring, bracing, sloping or other provisions to be made for worker protection during such excavation. No such plan shall allow the use of shoring, sloping or protective system less effective than that required by the Construction Safety Orders of the Division of Occupational Safety and Health, and if such plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared and signed by an engineer who is registered as a Civil or Structural Engineer in the State of California.

B. Confined Spaces

Contractor shall comply with all of the provisions of General Industry Safety Orders of the California Code of Regulations. Entry of a confined space shall not be allowed until the Contractor has received approval from the Engineer of the Contractor's program for confined space entry. Confined space means a space that (1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and (2) Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and (3) Is not designed for continuous employee occupancy. Failure to submit a confined space entry program may result in actions as provided in Article 5, "SUSPENSION OR TERMINATION OF CONTRACT", of these Specifications.

C. Material Safety Data Sheet

Contractor shall comply with all of the provisions of General Industry Safety Orders of the California Administrative Code. The Contractor shall submit to the Engineer a Material Safety Data Sheet (MSDS) for each hazardous substance proposed to be used, ten (10) days prior to the delivery of such materials to the job site or use of such materials at a manufacturing plant where the Engineer is to perform an inspection. For materials that are to be tested in City laboratories, the MSDS shall be submitted with the sample(s). Hazardous substance is defined as any substance included in the list (Director's List) of hazardous substances prepared by the Director, California Department of Industrial Relations, pursuant to Labor Code Section 6382. Failure to submit an MSDS for any hazardous substance may result in actions as provided in Article 5, "SUSPENSION OR TERMINATION OF CONTRACT", of these Specifications.

D. Electrical Hazards

Contractor shall comply with all of the provisions of the Construction Safety Orders of the Occupational Safety and Health Administration (OSHA) when working with or around electricity and shall take all cautions to avoid the possibility of electrical shock, electrocution and arcing.

10.03 DIFFERING SITE CONDITIONS

A. Before such conditions are disturbed, the Contractor shall promptly notify the Engineer in writing of:

1. Material that the Contractor believes may be hazardous waste that is required by law to be removed to a Class I, Class II, or Class III disposal site.

2. Subsurface or latent physical conditions at the site differing materially from those indicated in its Contract.

3. Unknown physical conditions at their site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in these Specifications.

B. The Engineer will promptly investigate the conditions and If he/she finds that such conditions do materially differ, or do involve hazardous waste, and do cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the work under this Contract, an equitable adjustment will be made, as determined by the Engineer.

C. In the event of disagreement between the Contractor and the Engineer whether the conditions do materially differ or whether a hazardous waste is involved or whether the conditions cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any completion date required by the Contract, but shall proceed with all work to be performed under the Contract.

D. The Contractor shall retain all rights provided by, and shall be subject to all requirements of, this Contract, which pertain to the resolution of disputes and protests.

10.04 TRAFFIC REGULATION

A. During the performance of the work the Contractor shall furnish and maintain necessary temporary fences, bridges, railings, lights, signals, barriers, or other safeguards as shall be appropriate under the circumstance in his/her judgment for the prevention of accidents. The Contractor shall take all other precautions as necessary for public safety including, but not limited to, traffic control. Traffic control shall be conducted in accordance with the latest edition of the California Manual on Uniform Traffic Control Devices (CAMUTCD) or the State of California Manual of Traffic Controls, whichever is more stringent, and as approved by the Engineer.

B. Traffic Control Plan

1. When specified in the Contract Special Conditions, the Contractor shall submit a detailed traffic control plan at least five (5) working days prior to commencement of work. The Contractor’s traffic control plan shall be approved by all agencies having jurisdiction and shall conform to all requirements of these Specifications.

2. No changes or deviations from the approved detailed traffic control plan shall be made, except

temporary changes in emergency situations, without prior approval of the Engineer and all agencies having jurisdiction. The Contractor shall immediately notify the Engineer and the agencies having jurisdiction of occurrences that necessitate modification of the approved traffic control plan.

3. No work shall begin until the Engineer and all agencies having jurisdiction have approved the traffic control plan. The Contractor shall obtain, at no cost to the City, the required permits, licenses or rights of entry authorizing the Contractor to perform said work for the City. Unless otherwise provided by a bid item, there shall be no separate payment for traffic control. Compensation for all traffic control required, including fees, permits, and traffic control plans, shall be included in the various work items of work in the Proposal, and no additional compensation shall be allowed therefore.

10.05 TRAFFIC CONTROL DEVICES

A. Traffic signs, flashing lights, barricades and other traffic safety devices used to control traffic shall conform to the requirements of the APWA Work Area Traffic Control Handbook (WATCH) or the State of California Manual of Traffic Controls, whichever is more stringent, and as approved by the Engineer.

1. Portable signals shall not be used unless permission is given in writing by the agency having jurisdiction.

2. Warning signs used for nighttime conditions shall be reflectorized or illuminated. "Reflectorized signs" shall have a reflectorized background and shall conform to the current State of California Department of Transportation specification for reflective sheeting on highway signs.

10.06 EXECUTION

A. The Contractor shall provide written notification to the City of Downey Police Department, Field Operations Division at P.O. Box 7016, Downey, CA 90241-7016, at least two (2) weeks prior to the beginning of construction at any particular location. Notification shall include description of the specific location, project dates, what lanes of the roadway will be closed and when. Notification shall also include the name and business phone numbers for the Contractor's staff in responsible charge of the construction project.

B. The Contractor shall notify the City of Downey Police Department, Watch Commander (562) 904-2319 at the completion of the posting of temporary no parking signs. The Contractor's notification shall include the times, dates and locations of the posting and when vehicles must be towed for violation of temporary no parking signs. The person who actually posted the signs, or on-view supervisor of that posting, shall be present to answer pertinent questions that may be asked by the parking enforcement officer or police officer towing the vehicles.

C. The Contractor shall notify the City of Downey Fire Department, during the entire period that construction is in progress whenever roadways are closed, reduced in width or blocked. Notification shall be made to the Fire Department Dispatch (562) 904-7313, and the Contractor shall provide the information required identifying which roadways would have accessibility problems due to his/her operations. The Contractor shall submit a schedule of work to the City Fire Department for their use and files.

D. Roads subject to interference from the Contract work shall be kept open until the work is finished. The Contractor shall maintain fences subject to interference from the Contract work until the work is finished.

Except where public roads have been approved for closure, traffic shall be permitted to pass through designated traffic lanes with as little inconvenience and delay as possible.

E. Where alternating one-way traffic has been authorized, the maximum time that traffic will be delayed shall be posted at each end of the one-way traffic section. The maximum delay time shall be approved by the agency having jurisdiction.

F. Contractor shall install temporary traffic markings where required to direct the flow of traffic and shall maintain the traffic markings for the duration of need. Contractor shall remove the markings by abrasive blasting when no longer required.

G. Convenient access to driveways and buildings in the vicinity of work shall be maintained as much as possible. Temporary approaches to, and crossing of, intersecting traffic lanes shall be provided and kept in good condition.

H. When leaving a work area and entering a roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic.

10.07 FLAGGING

A. Contractor shall provide flaggers to control traffic where required by the approved traffic control plan.

1. Flaggers shall perform their duties and shall be provided with the necessary equipment in accordance with the current "Instructions to Flaggers" of the California Department of Transportation.

2. Flaggers shall be employed full time on traffic control and shall have no other duties.

10.08 PEDESTRIAN CANOPIES OR BARRICADE PAYMENTS

Refer to City of Downey Building and Safety Division for requirements for building or access road safety improvements to be constructed during the construction period. If deemed necessary as part of permit application, the cost of these devices or improvements will be included in Contractor’s cost.

ARTICLE 11 - INDEMNITY, INSURANCE AND BONDS

11.01 INDEMNITY

To the fullest extent permitted by law, Contractor hereby agrees, at its sole cost and expense, to defend, protect, indemnify, and hold harmless the City of Downey ("City"), and its officers, employees, elected officials, attorneys, members of boards and commissions, agents, and volunteers (hereinafter collectively referred to as "Indemnitees") from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, expenses, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants, attorneys, or other professionals and all costs associated therewith (hereinafter collectively referred to as "Liabilities"), arising or claimed to arise, directly or indirectly, out of, in connection with, resulting from, or related to any act, failure to act, error, or omission of Contractor or any of its officers, agents, servants, employees, subcontractors, suppliers or their officers, agents, servants or employees, arising or claimed to arise, directly or indirectly, out of, in connection with, resulting from, or related to the Contract or the performance or failure to perform any term, provision, covenant, or condition of the Contract, including this indemnity provision.

This indemnity provision is effective regardless of any prior, concurrent, or subsequent active or passive negligence by Indemnitees, except that, to the limited extent mandated by California Civil Code Section 2782, the Contractor shall not be responsible for liabilities which arise from the sole negligence or willful misconduct of Indemnitees or arise from the active negligence of City.

This indemnity provision shall survive the termination of the Contract or final payment hereunder and is in addition to any other rights or remedies which City may have under the law or under the Contract. Payment is not required as a condition precedent to an Indemnitee's right to recover under this indemnity provision, and an entry of judgment against an Indemnitee shall be conclusive in favor of the Indemnitee's right to recover under this indemnity provision.

11.02 PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE

Contractor shall assume all responsibility for damages to property or injuries to persons, including accidental death, which may arise out of or may be caused by Contractor’s performance of this Contract, by its subcontractor, or by anyone it directly or indirectly employed, and whether the damage or injury may accrue, or may be discovered, before or after termination of this Contract.

Contractor shall obtain, pay for, and maintain during the life of this Contract an “occurrence” policy for Commercial General Liability, including Contractual Liability, and an Automobile Liability policy that shall protect it and the City from claims for injuries and damages. The insurance company shall be an “admitted” insurer in the State of California; shall be domiciled within, and organized under the laws of, a State of the United States; and shall carry an A.M. Best & Company minimum rating of “A: VII.” The policy shall name the City of Downey, its officers, agents, and employees as additional insureds under the policy.

Unless specified otherwise in the Contract Special Conditions, the coverage shall provide the following minimum limits:

A. **COMMERCIAL GENERAL LIABILITY INSURANCE** a combined single limit policy with aggregate limits of not less than TWO MILLION DOLLARS ($2,000,000) for bodily injury, death, or property damage; and

B. **AUTOMOBILE LIABILITY INSURANCE** a combined single limit policy of not less than ONE MILLION DOLLARS ($1,000,000) for bodily injury, death, or property damage, endorsed for all vehicles, whether owned, scheduled, hired or non-owned.

All policies shall contain a "Severability of Interests" clause and a "Primary Coverage" clause for any loss arising out of or caused by Contractor's performance of the Contract. The Contractor's insurance policy shall include, or be endorsed to include a "Severability of Interests" provision (ISO Form CG 0001, or equivalent) ensuring that each "additional insured" is treated as if it is the only insured. Contractor's insurance shall be primary insurance. Any other insurance carried by the City of Downey and its respective elected and/or appointed boards, officials, officers, agents, employees and volunteers shall be "excess only and non-contributing."

In addition, the policies shall contain a statement of obligation on the carrier's part to notify the City, by registered mail, at least 30 days in advance of any policy cancellation, termination, or reduction in the amount of coverage. Contractor shall furnish the City with a "certificate of insurance" **and** an "additional insured endorsement", both documents countersigned by the insurance carrier or its authorized representative, on forms satisfactory to the City Attorney, which set forth the above provisions.

The countersigned certificate, along with the additional insured endorsement, shall state: "The City of Downey, its officers, agents, and employees are named as additional insureds under this policy." This insurance is primary to the coverage of the City of Downey. Neither the City nor any of its insurers shall be required to contribute to any loss. This policy contains a severability of interest clause. The issuing company shall mail 30 days advance notice to the City of any policy cancellation, termination, or reduction in the amount of coverage.

The certificate of insurance must also state if any claim has been paid or is currently pending under the policy, and if so, the amount of such claim(s). Any deductibles or self-insured retentions shall be set forth on the certificate and shall be subject to the City's review and approval.

CONTRACTOR SHALL FURNISH THE REQUIRED CERTIFICATE(-S) OF INSURANCE AND ENDORSEMENTS(-S) BEFORE THE CITY SIGNS THIS CONTRACT.

11.03 CONTRACTOR'S FAILURE TO OBTAIN, PAY FOR, OR MAINTAIN INSURANCE

Contractor's failure to obtain, pay for, or maintain any required insurance shall constitute a material breach upon which the City may immediately terminate or suspend this Contract. At its discretion, the City may obtain or renew the insurance and pay all or part of the premiums. Upon demand, Contractor shall repay the City all monies the City has paid to obtain or renew the insurance, or the City may offset the cost of the premium against any monies due Contractor from the City.

11.04 WORKERS' COMPENSATION INSURANCE

Contractor understands and agrees that all persons furnishing services to the City under this Contract are, for the purpose of workers' compensation liability, employees solely of Contractor and not of the City. Contractor shall bear the sole responsibility, liability, and costs of furnishing workers' compensation benefits to its employees, or anyone it directly or indirectly employs, for injuries arising out of or connected with services performed on behalf of Contractor.

Contractor shall obtain, pay for, and maintain for the duration of this Contract, complete workers' compensation insurance. The City of Downey shall not be responsible for any claims at law or in equity caused by Contractor's failure to comply with this paragraph. Contractor shall provide proof of workers' compensation coverage by furnishing the City with an insurance certificate or a certificate of consent to self-insure.

All workers' compensation insurance policies shall bear an endorsement, or shall attach a rider, which provides that the carrier will notify the City, by registered mail, at least 30 days in advance of the policy's expiration, termination, or cancellation.

11.05 BUILDERS RISK/COURSE OF CONSTRUCTION INSURANCE

A. When specified in the Contract Special Conditions, the Contractor shall obtain and maintain during the life of the Contract, in the name of the Contractor and the City, "all risk" builders risk/course of construction

insurance issued on a completed value form covering the entire work of the Contract for 100% of the replacement value thereof without deductibles. Such insurance shall include items of labor and materials in place or to be used as part of the permanent construction, surplus miscellaneous materials and supplies incident to the work, temporary buildings, debris removal, and false work, staging, towers, forms and equipment, whether or not owned or rented by the Contractor, and demolition required by the enforcement of any Contract, law or regulation. Such insurance shall also include coverage for damage due to earthquake and flood.

B. In the event of a loss by the perils insured against, of any or all of the work and/or materials herein provided for, at any time prior to the final completion of the Contract and the final acceptance by the City, the Contractor shall promptly reconstruct, repair, replace or restore all work or materials so destroyed.

C. Nothing herein provided for shall in any way excuse the Contractor or his/her surety from the obligation of furnishing all the required materials and completing the work in full compliance with the terms of the Contract.

D. The following endorsements/coverages shall be included in the policy:

1. The coverages are primary to any other applicable insurance coverage carried by the City.

2. The Contractor and the insurance company waive all rights of subrogation and contribution against the City, its officers, employees, elected officials, attorneys, members of boards and commissions, agents and volunteers; and

1. The policy shall not be canceled nor the above coverages/ endorsements reduced without 60 days written notice to the City.

11.06 ENDORSEMENTS AND CERTIFICATE

A. Contractor shall have its insurance carrier(s) complete and execute the following documents, together with a copy of each insurance policy required under the Contract, including all endorsements thereto, which shall be delivered to the City Engineer within 14 calendar days following issuance of the Notice of Award:

Form entitled: Commercial General Liability/Automobile Liability/Special Endorsement, attached hereto as Exhibit "C-1."

Proof of Workers' Compensation Insurance, or if Contractor is self-insured for worker's compensation, a self-insuring certificate therefore from the State of California.

Form entitled: Certificate of Insurance, with 30 days prior notice of cancellation required as to all coverage and policies.

B. The Notice to Proceed will not be issued until the aforesaid insurance documents have been received and approved by the City. City's decision as to the acceptability of all insurance documents is final. No substitution of the form of the documents or the endorsements or amendments thereto will be permitted without the prior written consent of City.

11.07 BONDS

A. Contractor shall furnish the following bonds:

1. A Faithful Performance Bond in an amount equal to One Hundred percent (100%) of the Contract price in the form shown in Exhibit "B-1" attached hereto

2. A Payment Bond (Labor and Material) in an amount equal to One Hundred percent (100%) of the total Contract price in the form shown in Exhibit "B-2" attached hereto.

3. When specified in the Contract Special Conditions: A Maintenance Bond in an amount equal to Ten percent (10%) of the total Contract price in the form shown in Exhibit "B-3" attached hereto.

B. All such bonds shall be accompanied by a power of attorney from the surety company authorizing the person executing the bond to sign on behalf of the company. If the bonds are executed outside the State of California, a California representative of the surety must countersign all copies of the bonds. The signature of the person executing the bond shall be acknowledged by a Notary Public as the signature of the person designated in the power of attorney.

C. The surety or sureties on all bonds furnished must be satisfactory to the City. City will reject surety bonds obtained from any company which is not an admitted surety insurer under the laws of the State of California and which does not hold a Certificate of Authority from the U.S. Secretary of the Treasury under 31 U.S.C. as an acceptable surety on Federal bonds. The surety must also be listed in the latest edition of U.S. Department of Treasury Circular 570, and the bonds provided must not exceed the surety's bonding limitations as set forth in Circular 570.

D. If, during the continuance of the Contract, any of the sureties, in the opinion of the City, are or become non-responsible or otherwise unacceptable to City, City may require other new or additional sureties, which the Contractor shall furnish to the satisfaction of City within ten (10) days after notice, and in default thereof the Contract may be suspended and the materials may be purchased or the work completed as provided in Article 5 herein.

E. No modifications or alterations made in the work to be performed under the Contract or the time of performance shall operate to release any surety from liability on any bond or bonds required to be given herein. The surety shall waive notice of such events.

F. The Notice to Proceed will not be issued until the aforesaid bonds have been received and approved by City. City's decision as to the acceptability of all sureties and bonds is final. No substitution of the form of the documents will be permitted without the prior written consent of City.

ARTICLE 12 - LABOR PROVISIONS

12.01 GENERAL

A. Character of Workers

The Contractor shall not allow his/her agents or employees, subcontractors, or any agent or employee thereof, to trespass on premises or lands in the vicinity of the work. Only skilled foremen and workers shall be employed on work requiring special qualifications, and when required by the Engineer, the Contractor shall discharge any person who commits trespass, or in the opinion of the Engineer, acts in a disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable manner. Any employee being intoxicated or bringing or having intoxicating liquors or controlled substances on the work shall be discharged. Such discharge shall not be the basis of any claim for compensation of damages against the City or any of its officers, agents, and employees.

12.02 COMPLIANCE WITH STATE LABOR CODE

A. The Contractor shall comply with the provisions of the California Labor Code, Division 2, Part 7, Chapter 1 applicable to the payment of prevailing wages on public works contracts.

B. Scope and Operation

1. Pursuant to Labor Code Section 1726, the City is required to "take cognizance" of violations of the public works laws. Then, either on its own or pursuant to a Notice to Withhold issued by the State Division of Labor Standards Enforcement (Labor Commissioner), the City is required to withhold contract payments to the Contractor in an amount specified in the notice.

2. Pursuant to Labor Code Section 1727, all progress payments, except the final payment, are subject to withholding either by the City or State Division of Labor Standards Enforcement (Labor Commissioner), only after a full investigation. Amounts withheld shall cover and all wages and penalties which have been forfeited. However, the final payment is subject to withholding pending completion of a full investigation. Before making payments to the Contractor of money due under the contract, the City will withhold and retain therefrom all wages and penalties that have been forfeited.

C. Wages

1. Prevailing Wages

a. Pursuant to Labor Code Sections 1771 and 1774, the Contractor and all subcontractors shall pay not less than the prevailing rate of per diem wages to all workers.

b. The prevailing rate of per diem wages for this project shall be in accordance with General Prevailing Wage Determinations of the State of California, Director of Industrial Relations, Pursuant to Labor Code Sections 1770, 1773 and 1773.1. Copies of the prevailing rate of per diem wages are on file in the office of the City Engineer of the City of Downey, and are available to any interested party on request. Prospective bidders may also obtain wage rate information on the internet by contacting the State Division of Labor Statistics and Research website at: ***http://www.dir.ca.gov/dlsr/PWD/***

c. The Contractor shall post a copy of the prevailing wage rates at the job site.

d. Pursuant to Labor Code Section 1773, the holidays upon which such rates shall be paid shall be those recognized in the collective bargaining agreement applicable to the particular craft, classification, or type of worker employed on the project.

e. Pursuant to Labor Code Section 1773.1, the prevailing wage rate shall include employer payments for health and welfare, pension, vacation, travel time, and subsistence pay, and apprenticeship or other training programs.

f. Pursuant to Labor Code Section 1773.8, the Contractor shall be required to provide travel and subsistence payments to each worker, as defined in the collective bargaining agreement applicable to the particular craft, classification, or type of worker employed on the project.

g. Pursuant to Labor Code Section 1775, failure of the Contractor to comply with the payment of prevailing wages may result in the assessment of a penalty of not more than $50 per day for each worker paid less than the prevailing wage rate. The Contractor shall also make restitution payment to each worker paid less than prevailing wage. Such restitution payment shall consist of the difference between the prevailing wage rate and the amount actually paid to each worker.

h. The specified wage rates are minimum rates only and the City will not consider and shall not be liable for any claims for additional compensation made by the Contractor because of payment by him/her of any wage rate in excess of the general prevailing rates. The Contractor at his/her own expense shall adjust all disputes in regard to the payment of wages in excess of those specified herein.

2. Certified Payroll Records

a. Pursuant to Labor Code Section 1776, the Contractor and each subcontractor shall keep an accurate payroll record for each worker employed on the project. The payroll record shall indicate 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 in connection with the work.

b. The payroll records shall be certified and made available for inspection, as provided for in Labor Code Section 1776.

c. Submittal of Certified Payrolls to the City by the Prime Contractor or subcontractors is a requirement on all federally funded projects. On non-federal participating projects, submittal of Certified Payrolls is not required. However, subject to the requirements and limitations set forth in Labor Code Section 1776, submittal of Certified Payrolls may be required pursuant to:

1.) A request of the public, or

2.) A labor compliance investigation conducted by the City of Downey, the State Division of Labor Standards Enforcement, or the State Division of Apprenticeship Standards.

3. Apprenticeship

a. Pursuant to Labor Code Section 1773.3, the City must send a copy of the award to the Division

of Apprenticeship Standards.

b. In the performance of the work under this Contract, the Contractor and any subcontractor under him/her shall comply with the provisions of the California Labor Code Sections 1777.5 and 1777.7 concerning the employment of apprentices.

c. Labor Code Section 1777.5 does not apply to contracts or subcontracts of less than $30,000 or 20 working days.

d. Compliance with Labor Code Section 1777.5 requires all public works Contractors and subcontractors to:

1.) Submit contract award information to at least one of the Apprenticeship Committees for each applicable apprenticeable craft or trade

2.) Employ registered apprentices, as defined by Labor Code Section 3077, during the performance of a public work project in accordance with the required 1:5 ratio of apprentice to journeymen hours, unless covered by one of the exemptions enumerated in Labor Code Section 1777.5.

a.) Registered apprentices can only be obtained from the Apprenticeship Committee of the craft or trade in the area of the site of the public work.

b.) If a non-signatory Contractor declines to abide by and comply with the terms of a local committee's standards, the Apprenticeship Committee shall not be required to dispatch apprentices to such contractor.

c.) Apprentices shall be paid the prevailing per diem wage rate, available from the Division of Apprenticeship Standards.

3.) Contribute to the training fund in the amount identified in the prevailingwage rate publication for journeymen and apprentices. However, where trust fund administrators are unable to accept the training funds, Contractors not signatory to the trust agreement shall pay a like amount to the California Apprenticeship Council, P.O. Box 603, San Francisco, CA 94101.

e. The Prime Contractor shall be responsible for compliance with the stipulations of Labor Code Section 1777.5 for all apprenticeable crafts or trades.

f. Pursuant to Labor Code Section 1777.7, failure of the Contractor to meet these obligations may result in civil penalties being assessed and/or, if a willful violation is found, an order may be issued debarring the Contractor from bidding on public works contracts for up to three years.

D. Working Hours

1. Pursuant to Labor Code Section 1811, the time of service of any worker employed upon the work shall be limited and restricted to 8 hours during any one calendar day, and 40 hours during any one calendar week, except as provided for in Labor Code Section 1815. Work in excess of 8 hours during any one calendar day, and 40 hours during any one calendar week shall be considered overtime.

2. Pursuant to Labor Code Section 1812, the Contractor and every subcontractor shall keep an accurate record showing the name of and the actual hours worked each calendar day and each calendar week by each worker employed by him/her in connection with the work. The record shall be kept open at all reasonable hours to the inspection of the City and to the State Division of Labor Standards Enforcement.

3. Pursuant to Labor Code Section 1815, work performed by employees of the Contractor in excess of 8 hours per day and 40 hours during any one calendar week, shall be permitted upon compensation at the overtime rate of not less than 1-1/2 times the basic rate of pay.

4. Pursuant to Labor Code Section 1813, failure of the Contractor to comply with the payment of required overtime wages shall result in the assessment of a penalty of $25 per day for each worker paid less than the required overtime rate.

E. Securing Workers' Compensation

1. In accordance with the provisions of Labor Code Section 3700, every Contractor will be required to secure the payment of compensation to his/her employees.

2. Pursuant to Labor Code Section 1861, each Contractor to whom a public works contract is awarded shall sign the following certification prior to performing the work of the contract:

    a. "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract."

3. The above certification is included in the Contract Agreement, shown in Exhibit A.

ARTICLE 13 - ADA AND TITLE VI/NON-DISCRIMINATION ASSURANCES

13.01 COMPLIANCE WITH ADA AND TITLE VI/NON-DISCRIMINATION ASSURANCES

The Contractor and his/her agents or employees, subcontractors, or any agent must comply with all Federal and State statutes and regulations relating to ADA and Title VI/Non-discrimination. These include but are not limited to:

1. Title VI of the Civil Rights Act of 1964 (P.L. 88-352;34 CFR Part 100) which prohibits discrimination on the basis of race, color or national origin;

2. Federal Equal Employment Opportunities Act of 1972, which prohibits employment discrimination on the basis of race, color, religion, sex, or national origin;

3. Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex;

4. Section 504 of the Rehabilitation Act of 1973, as amended) 29 U.S.C. 794; 34 CFR Part 104), which prohibits discrimination on the basis of disabilities and the Americans with Disabilities Act (ADA) of 1990, 42 U.S.C. 12101 et. Seq;

5. Section 162 (a) of the Federal-Aid Highway of 1973 (23 USC 324), which prohibits discrimination on the basis of sex;

6. Age Discrimination Act of 1975, as amended (42 U.S.C. 6101 et. Seq; 45 CFR part 90), which prohibits discrimination on the basis of age; and

7. Section 5332 of the Federal Transit Law (49 U.S.C. § 5332), which prohibits any person being excluded from participating in, denied a benefit of, or discriminated against under, a project, program, or activity receiving financial assistance from FTA because of race, color, religion, national origin, sex, disability, or age.

SECTION 15
SPECIAL CONDITIONS

FOR

CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

CAPITAL IMPROVEMENT PROJECT NO. 24-99
DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

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DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

PART 1 GENERAL

1.01 CONTRACT LIMITS

The work shall involve the following project intersection:

- Downey Ave North of the intersection of Downey Ave and Firestone Boulevard

1.02 WORK TO BE DONE BY CONTRACTOR

The work to be performed under this Contract generally consists of the furnish and installation of an overhead gateway sign and associated improvements at the intersection of Firestone Boulevard and Downey Avenue, as shown on the project plans. The work to be undertaken shall consist of: gateway sign furnishing and installation; construction of the electrical service connection to the proposed metered pedestal and sign post; furnishing and installing the metered pedestal; sidewalk restoration and placement of new pavers, tree removal and disposal, and irrigation line re-routing; traffic control and all appurtenant work thereto necessary for the proper construction of the contemplated improvements, in accordance with Plans and Specifications entitled as Capital Improvement Project No. 24-99 – Downtown Downey Gateway Sign Installation.

1.03 TIME LIMIT

The contractor shall order all equipment on the first Notice to Proceed, and shall furnish copies of the purchase orders to the city which shall include the estimated delivery dates. A second Notice to Proceed will be issued to allow the Contractor to commence field work 20 working days prior to the delivery of the last ordered equipment. The Contractor shall then have **40 working days** to complete all contract work.

The amount of **Liquidated Damages** stipulated under Article 3.07 of the Contract General Conditions is hereby amended to **$1,000.00 per calendar day**. This amount shall be deducted from any compensation due the Contractor should he/she fail to complete the work required by the terms of this contract within the time specified hereinabove, plus any authorized time extensions. Material lead time is included in the number of working days. It is the responsibility of the Contractor to plan work diligently such that the critical path is not impacted by the lead time of the materials.

1.04 CONSTRUCTION STAGES

The City anticipates awarding the construction contract in November 2026; the contract document will be forwarded to the Contractor for execution immediately thereafter. The Contractor shall plan and initiate the construction of the Downtown Downey Gateway Sign Installation to comply with the project requirements. The Contractor shall submit a construction schedule consistent with the order of construction tasks as described below, considering Section 1.04 above:

1. Potholing proposed sign footing and electrical service connection locations.
2. Construction and installation of new gateway sign system complete per plan.

Any changes to this order of the work shall be approved in writing by the City. All other construction activities can be done prior, during, or after the above three items, however the order of the above three items shall be kept at all times and also be used as a base for preparation of the work and the construction schedule.

The Contractor shall be required to submit to the Engineer for approval, a progress schedule, in accordance with Section 8-1.04 "Progress Schedule," of the Caltrans Standard Specifications. The progress schedule shall be consistent in all respects with the time and order of work requirements described in these Special Conditions.

1.05 NUMBER OF TRAVEL LANES AND NIGHT TIME WORK

As described in Section 01570, Traffic Control, 1.01K, Lane Closures, of these Special Conditions, lane closures shall be limited to 8:30 a.m. to 3:30 p.m. unless otherwise authorized by the Engineer. The Contractor shall maintain two travel lanes in each direction at all times, except during working hours, when necessary, this may be reduced to one travel lane in each direction.

1.06 WORKING HOURS

Unless otherwise authorized by the Engineer or specified herein, all work under this contract shall be completed during normal working hours, weekdays between 8:00 a.m. and 5:00 p.m. and nightwork shall be limited to weekdays between 9:00 p.m. and 6:00 a.m. , in accordance with Article 2.06 of the Contract General Conditions.

1.07 INSPECTION AND MATERIALS TESTING

The City of Downey and its agents will provide for all inspection necessary including materials testing and special (deputy) inspection as required. Electrical Inspection shall be performed by electrical inspectors under contract to the City of Downey.

1.08 COORDINATION WITH OTHER AGENCIES AND UTILITIES

The Contractor shall be responsible for the coordination of the work with other agencies and utilities.

A. City of Downey

The Contractor shall contact the Traffic Engineering Office, Mr. Edwin Norris at (562) 904-7110, at least two working days prior to commencement of work, for approval of proposed layout.

The Contractor shall contact the Maintenance Superintendent, Mr. Josef Kekula at (562) 904-7194, at least two working days prior to removing tree, for approval of landscape.

B. Underground Service Alert

The Contractor shall contact Underground Service Alert at least two working days prior to excavating. The Contractor shall notify Underground Service Alert at (800) 422-4133 to assist in the location of underground utilities.

C. Utility Companies and other Contractors Working in the Project Proximity

The Contractor shall contact and closely coordinate with Mr. Ernesto Chavez of SCE, at (562) 903-3183, for work related to underground and overhead power distribution lines.

The Contractor shall contact and closely coordinate with Mr. Ray Roundtree of Frontier Communications (Verizon), at (562) 903-7939, for work related to underground and overhead telephone lines.

The Contractor shall contact and closely coordinate with Mr. Gene Harrigan of Time Warner Cable, at (562) 259-2059, for work related to underground and overhead communication lines.

The Contractor shall contact and closely coordinate with Mr. Ron Herrera of NextG Networks, Inc., at (909) 593-9700, for work related to underground and overhead communication lines.

The Contractor shall contact and closely coordinate with Mr. Steve Fear of Charter Communications, at (626) 430-3338, for work related to underground and overhead communication lines.

The Contractor shall coordinate with the Los Angeles County Metropolitan Transportation Authority at (562) 922-4632 and Downey Link Transit at (562) 529-LINK to plan and to accommodate bus routes and passengers at least five (5) working days prior to commencement of any work which will involve any of their facilities.

Full compensation for satisfying the requirements of coordination with other agencies and utilities shall be considered as included in the appropriate bid item and no additional compensation will be allowed therefore.

1.09 NOTIFICATION OF RESIDENTS AND BUSINESSES

All adjacent homeowners, business, and occupants shall be duly notified by the Contractor, in writing, of his proposed operation. Notice shall be delivered at least ten (10) working days prior to the start of construction. The Contractor shall prepare a letter for this purpose and submit a copy to the City Engineer for approval at least five (5) working days prior to the date needed for its circulation. The Contractor shall be responsible for reproduction and distribution of the letters.

Re-notification will be required if the Contractor's schedule is altered or other delays occur, which significantly affects the scheduled work. Re-notification shall be at the Contractor's expense.

Prior to the actual start of the operation the Contractor shall inform the residents, tenants, business owners or occupants regarding the construction to preclude entrapment of cars and vehicles in driveways, garages, or parking areas. Unless specifically covered under a separate bid item, all costs involved in notification of residents and businesses shall be included in the various contract items of work and no additional compensation will be allowed therefore.

1.10 SAFEGUARDING OF EQUIPMENT, MATERIALS, AND WORK

Contractor shall properly safeguard all equipment, material, and work against loss, damage, malicious mischief, or tampering by unauthorized persons until acceptance of the work by the City. Locked and covered storage, or continuous surveillance by a watchman, shall be provided by the Contractor, if required to accomplish this purpose. All costs for safeguarding equipment, material, and work shall be considered incidental to the cost of the work, and no additional compensation will be allowed or paid for.

1.11 CONTRACTOR USE OF PROJECT SITE

The Contractor's use of the project site shall be limited to its construction operations for the day. The Contractor shall provide his own off-site staging area at his own expense.

1.12 POTHOLING

The Contractor shall determine the exact location of all utilities, whether shown or not shown on the plans, prior to beginning construction Contract Work which have potential conflicts with underground utilities. If conflicts are discovered, the Contractor shall notify the Engineer immediately. The cost of potholing and if necessary, trench plating shall be included in the various bid items, and no additional compensation will be paid.

1.13 RECORD DRAWINGS

The Contractor shall document and prepare the record drawings of the improvements constructed on the project in accordance with Special Conditions Section 15102. Said record drawings shall clearly illustrate the changes as constructed in the field, addition and deletion of work, from the improvements as originally shown on the Plans. The cost of the record drawings shall be included in the various bid items, and no additional compensation will be paid.

1.14 PERMITS

The Contractor and/or subcontractors shall be responsible for obtaining any and all municipal permits and business license from the City of Downey. City of Downey encroachment/excavation permit fees shall be waived by the City of Downey. However, the fee for a business license from the City of Downey shall not be waived. Compensation for a City business license(s) shall be included in the various items of work. No additional compensation will be allowed.

1.15 PROJECT MANAGEMENT ADMINISTRATIVE REQUIREMENTS

The Contractor and/or subcontractors shall be required to transmit all project documentation in electronic format via email. The City's intent of electronic communication is to expedite the construction documentation process by reducing paperwork, improving information flow and decreasing turnaround time.

1.16 FAILURE TO COMPLY

If the Contractor should refuse or neglect to comply with the provisions of the Contract or the orders of the Engineer, the City may have such provision or orders carried out by others at the expense of the Contractor.

1.17 NONCOMPLIANCE WITH PLANS AND SPECIFICATIONS ITEM DESCRIPTIONS

Failure of the Contractor to comply with any requirement of the Specifications and Drawings, or failure to immediately remedy any noncompliance upon notice from the Engineer, may result in suspension of contract progress payments. Any progress payments so suspended shall remain in suspension until the Contractor's operations are brought into compliance to the satisfaction of the Engineer in accordance with the Contract Documents and Specifications. No additional compensation will be allowed as a result of suspension of progress payments due to noncompliance with the Plans and Specifications

1.18 SITE ACCESS

The City Engineer or his representative, testing agencies, and government agencies with jurisdictional interests shall be allowed access to the work at all times for their observation, inspection, and testing. The Contractor will provide proper and safe conditions for such access

1.19 PARKWAY RESTORATION

The Contractor shall restore parkway areas as well as private properties that were disturbed due to the Contractor's operation. Parkway restoration shall be done in accordance with and shall include all work specified in Subsection 300-1, "Clearing and Grubbing," and Section 400, "Protection and Restoration," of the SSPWC, except as modified below or specifically covered elsewhere in these Specifications.

The Contractor shall give reasonable written notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, and other improvements within the right-of-way which are designated for removal and would be destroyed because of the work.

The Contractor shall be responsible for sod and root removal, backfill, compaction, grading of the parkway, and re-seeding in kind of parkway and grass areas where turf was removed or damaged by construction. The Contractor shall repair sprinkler systems damaged by construction at his own expense.

Areas in the parkway which have been raised (or humped) by tree roots, or tree removal, shall be corrected as described below and as directed by the Engineer. The parkway shall be graded to standard parkway cross slope between back of curb and property line adjacent to the whole length of the new improvement. Grading shall extend onto private property at a 4:1 slope where grading is required.

It may be necessary for the Contractor to import soil for backfilling parkway areas adjacent to concrete repairs. All parkway backfill shall be clean topsoil of the same composition and characteristics as the existing native topsoil, as approved by the Engineer. Clay, sand, rocks, rubble or other deleterious materials will not be permitted in the backfill.

Unless a separate bid item is provided, payment for fulfilling the requirements of this Section shall be considered as included in the various items of work, and shall include furnishing all labor, materials, equipment and incidentals necessary to perform the items of work. No additional compensation will be allowed therefor.

1.20 FINAL CLEANUP

Prior to final acceptance, the Contractor shall restore the entire project site to a condition equal or better than the pre construction condition as evidenced by film, notes, sketches and other construction records. All painted Underground Service Alert (USA) markings, construction staking, etc. shall be removed prior to final acceptance.

A. Cleaning and Dust Control

Clean-up and dust control shall conform to Subsection 3-12, "Work Site Maintenance," of the SSPWC. During execution of work, the Contractor will daily clean the site, adjacent properties, and public access roads, and dispose of waste materials, debris, and rubbish to assure that all affected properties are maintained free from accumulations of water, materials and rubbish. Watering for dust control shall consist of developing a water supply and furnishing and placing all water required for dust control. Contractor will provide containers for collection and disposal of waste materials, debris, and rubbish. Contractor will cover all loads of excavated material leaving the site or of material being imported, to prevent excessive dust from being created.

B. Cleanup

At the end of each day, Contractor shall be responsible for the clean-up of all job sites. All job sites must be left in a safe and orderly condition. The Contractor will perform additional clean-up as directed by the Engineer. The cost for all clean-up shall be considered incidental to the cost of the work and no additional compensation will be allowed therefor.

1.21 SAFETY

All construction will be performed in compliance with the standards as established by OSHA and in accordance with the appropriate State of California regulations. It will be the Contractor's responsibility to acquaint them and abide by these regulations during all phases of construction. The Contractor will hold harmless and indemnify the City and its agents for any damages caused by failure to abide by said regulations.

1.22 SIGN FABRICATOR AND CONTRACTOR QUALIFICATION REQUIREMNTS

The gateway sign shall be fabricated and installed by a qualified specialty signage contractor with a minimum of five (5) years of experience in the fabrication and installation of custom exterior signage of similar size, complexity, materials and construction. The contractor shall demonstrate successful completion of comparable municipal, civic or large-scale specialty/architectural signage projects and shall employ personnel experienced in structural fabrication, specialty metalwork, electrical/LED illumination, and field installation. Upon request, the contractor shall provide project references, photographs of comparable completed work, and evidence of all applicable licenses and certifications related for the work.

1.23 BID ITEM DESCRIPTIONS

1. *Traffic Control, Public Convenience and Safety:* This item of work shall consist of providing traffic control and ensuring public safety and convenience during the whole duration of the construction in accordance with Section 01570, conforming to the requirements of environmental and stormwater compliance measures in accordance with Section 01100, and all additional Specifications contained herein.

   Payment will be made at the Contract LUMP SUM (LS) price bid for Traffic Control, Public Convenience and Safety. The Contractor shall comply with all requirements specified in those licenses and permits; and provide incidentals necessary to perform all related items of work. No additional compensation will be allowed. The Contractor will not be paid for any corrective action requested by the Engineer. The Contractor shall be back charged for any costs incurred by the City for corrective action by City forces. Any deviation from these requirements is absolutely not permitted. No further payment will be made to the Contractor until problems are resolved to the satisfaction of the Engineer.

2. *Furnish and Install 3" Electrical Conduit and Metered Pedestal and Construct Concrete Pad:* Work under this item shall include furnishing and installing a 3-inch electrical conduit from the existing Southern California Edison (SCE) handhole to the proposed metered pedestal, complete in place, in accordance with SCE requirements and the construction plans. This work also includes furnishing and installing the metered pedestal, construction of the concrete pad, and constructing the complete electrical service connection—including the electrical conduit from the metered

pedestal to the sign—as detailed on the plans and as specified in Sections 01025, 01100, 01650, 02050, 02120, 02210, 02510, and Divisions 3 and 26 of these Special Conditions.

Full compensation for conforming to all requirements to construct the electrical service connection and furnish and install the metered pedestal complete per plan shall be included in the Contract Lump Sum Price for the item actually installed, and no additional compensation shall be allowed therefor.

3–10. *Electrical and Lighting System:* Bid Items 3 – 10 shall include the furnishing and installation of full electrical and lighting system, as shown on the Plan and as directed by the Engineer, in accordance with Divisions 26 and 10 of these Special Conditions and all additional Specifications contained herein. The electrical and lighting components shall be approved by the Engineer prior to installation. The layout shall be subject to minor changes and variations from the Plans, as required by existing field conditions.

Payment for the various electrical and lighting system items shall be made at the Contract Unit Price per unit of item actually installed. Full compensation for conforming to the requirements of Bid Items 2 – 9 shall be made at the Contract Unit Price bid per unit of item actually installed. Such payment shall be considered as full compensation for all work specified herein including all labor, tools, equipment, materials and incidentals necessary to complete this work. No additional compensation will be allowed therefor.

11–18. *Sign Frame and Structural Elements*: Bid Items 11 – 18 shall include the furnishing and installation of sign frame and structural elements including sign posts, decorative post covers and base, struts, spacers, banner attachments and construction of concrete pedestal footings, as shown on the Plan and as directed by the Engineer, in accordance with Divisions 3, 10, 16 and 26 of these Special Conditions and all additional Specifications contained herein.
Payment for the various sign frame and structural element items shall be made at the Contract Unit Price per each item actually installed. Full compensation for conforming to the requirements of Bid Items 10 – 17 shall be made at the Contract Unit Price bid per unit of item actually constructed. Such payment shall be considered as full compensation for all work specified herein including all labor, tools, equipment, materials and incidentals necessary to complete this work. No additional compensation will be allowed therefor.

19. *Remove Existing Tree*: This Bid Item shall include removal and disposal of parkway trees, stumps, roots, and the resulting organic debris; and furnishing, placing and compaction of backfill materials, and backfill the resulting excavation to subgrade, in accordance with Subsection 300-1, “Clearing and Grubbing,” of the SSPWC, except as modified herein. The Contractor shall not remove any trees other than those specifically shown on the Plan or marked for removal by the Engineer.

The Contractor shall completely remove trees and grind stumps a minimum of 10” to 12” below top of curb. All protruding surface and subsurface roots beyond the stump area, noticeable from visual inspection, shall also be removed to a depth of 10” to 12” below top of curb. The Contractor shall backfill the vacated tree footprint to subgrade and the disturbed area shall be surfaced with new decorative pavers in accordance with the project plans. All labor, materials, and surface area associated with the decorative pavers within this tree well footprint are incidental to and included in Bid Item 21, "Remove Existing Pavers and Install New Pavers." The Contractor shall remove all excess material and debris from the work site.

Tree trunks shall be cut to within four inches above the top of curb and adequately barricaded until grinding and backfilling operations are completed. The organic debris from tree removal shall be disposed of at a green waste recycling/composting facility, or used as alternate daily cover material at an approved sanitary landfill.

Payment for Bid Item 19 "**Remove Existing Tree**" shall be made at the Contract Unit Price bid per each tree removed. The estimated quantities are used for bid purposes only to assist in the determination of the lowest responsible bidder. Payments shall include full compensation for furnishing all labor, materials tools, equipment, and incidentals, and for doing all the work specified above. No additional compensation will be allowed therefor.

20. *Remove and Reconstruct Concrete Pavement:* This Bid Item shall include the sawcut, removal, and disposal of existing improvements and construction of 4- inch thick Portland Cement Concrete (PCC) sidewalk and slab, as shown on the plans and as specified in Sections 02210, 02050, 02510 and 03110. This shall also include excavation, root removal, subgrade preparation, backfill, compaction, cleanup, and replacement of existing drains removed or damaged by the new construction. New sidewalk scoring shall be installed with a scoring tool and shall match the existing scoring pattern adjacent to the new sidewalk improvements.

    All work shall be completed in accordance with SPPWC Standard Plans 112-2 and 113-2, and Subsections 300-2, "Unclassified Excavation," 301-1, "Subgrade Preparation," and 303-5, "Concrete Curbs, Walks, etc.," of the SSPWC. All PCC improvements to be removed shall be sawcut at join lines prior to removal. The Contractor shall remove A.C. ramping from the existing PCC to be left in place and joined. Damage to the improvements to be left in place shall be remedied by saw cutting, removal and reconstruction at the Contractor's expense and to the satisfaction of the Engineer. Under sidewalk drain shall be in accordance with SPPWC Standard Plan 150-3. Restoration of the parkway shall be done in accordance with Section 1.19, "Parkway Restoration," of the General Requirements of these Special Conditions.

    Wherever a tree well exists or is proposed in the new sidewalk, forming for the tree well shall be included in the contract unit price for this item. No additional compensation will be provided for installing and removing forms for tree wells. Wherever a new tree well is being proposed on existing sidewalk, saw cutting and PCC slab removal for the tree well shall be included in the contract unit price for this item. No additional compensation will be provided for installing new tree wells.

    Payment for Bid Item 20 "**Remove and Reconstruct Concrete Pavement"** shall be made at the Contract Unit Price bid per Square Foot of sidewalk/slab actually constructed, and shall include full compensation for all labor, materials, tools, and equipment involved, and all work described herein, and no additional compensation will be allowed.

21. *Remove Existing Pavers and Install New Pavers:* This Bid Item shall include the consist of the removal, salvage, and lawful disposal of existing damaged or disturbed concrete pavers, along with the excavation, grading, and compaction of the existing subgrade and setting bed as necessary. It includes the complete supply, placement, and compaction of new, concrete pavers matching the existing pavers in color, shape, size, texture, and manufacturer (like-for-like) or approved equivalent, including setting bed materials, edge restraints, joint sand, and all necessary incidental work as shown on the construction plans and as specified in Sections 02210, 02050, and 03110.

    Wherever a tree well exists or is proposed in the new pavers, forming for the tree well shall be included in the contract unit price for this item. No additional compensation will be provided for installing and removing forms for tree wells. Wherever a new tree well is being proposed on existing pavers, saw cutting and paver removal for the tree well shall be included in the contract unit price for this item. No additional compensation will be provided for installing new tree wells.

    Payment for Bid Item 21 "**Remove Existing Pavers and Install New Pavers**" shall be made at the Contract Unit Price bid per Square Foot of pavers actually constructed, and shall include full compensation for all labor, materials, tools, and equipment involved, and all work described herein, and no additional compensation will be allowed.

22. *Remove and Reinstall Irrigation Lines:* This Bid Item shall consist of modifying the irrigation system to route around the proposed concrete footing for the Gateway Sign, as shown on the plans, while

maintaining full water spray coverage on the landscape areas. The work includes, but not limited to, relocation of sprinkler heads and irrigation lines, capping off or removing existing risers, removing, salvaging and reinstalling sprinkler heads, and furnishing and installing new sprinkler heads similar to the existing.

Refer to Section 1.19, "Parkway Restoration," of the General Requirements of these Special Conditions, for any other requirements.

Payment for Bid Item 22 "**Remove and Reinstall Irrigation Lines**" shall be made at the Contract Lump Sum Price, and shall include full compensation for furnishing all labor, materials tools, equipment, and incidentals, and for doing all the work involved and no additional compensation shall be allowed therefor.

Additive Alternate Bid Items

None.

END OF SECTION

SECTION 01025 - MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT:

The unit prices and lump sum amounts to be paid for the items listed in the Proposal shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to the completed work and for performing all work contemplated and embraced under the Contract, in accordance with the Plans and Specifications. This shall include the Contractor's costs involved with bonding, insurance, worker's compensation, overhead, financing, obtaining required permits and permit fees, mobilization, traffic control, public convenience and safety, protective barricading, sanitary facilities, storage of equipment and materials, security against theft and vandalism, project site maintenance, dust and runoff control, clean-up and all other items incidental to the work.

Payment for Unit Price work shall be made for the actual quantities of Contract Items removed, constructed, or disposed of in accordance with the Plans and these Specifications. Measurement of Unit Price work shall be as specified in Section 9-1, “Measurement of Quantities for Unit Price Work,” of the Standard Specifications for Public Works Construction (SSPWC). Payment for Lump Sum work shall be paid for at the price indicated in the Bid, in accordance with Section 9-2, “Lump Sum Work,” of the SSPWC.

PART 2 PRODUCTS (not used)

PART 3 EXECUTION (not used)

END OF SECTION

SECTION 01100 - STORMWATER RUNOFF

PART 1 GENERAL

National Pollutant Discharge Elimination System (NPDES) for Storm Water Discharges Associated with Construction and Land Disturbance Activities Water Quality Order No. WQ 2022-0057-DWQ.

On September 8, 2022, the State Water Resources Control Board (SWRCB) adopted Order No. WQ 2022-0057-DWQ (Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activities and Land Disturbance Activities). Effective September 1, 2023, all discharges (construction sites where calculated soil disturbance totals 1 acre or more) are required to obtain coverage and comply with this Construction General Permit (CGP).

A copy of this permit and related documents/attachments may be found on the internet at:

https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html

The Contractor is hereby directed to read and understand all the requirements of this Permit as they related to this project.

1.01 WATER POLLUTION

A. Attention is directed to Article 2, Sections 2.15, 2.16 and 2.17 of the General Conditions and these special provisions.

B. The Contractor shall exercise every reasonable precaution to protect rivers and bays from pollution with fuels, oils, bitumens, calcium chloride and other harmful materials and shall conduct his operations so as to avoid mudding or silting of said rivers and bays.

C. Methods to keep pollutants and prohibited wastewaters from the rivers and bays are called Best Management Practices (BMPs). The Contractor shall exercise all BMPs to keep pollutants and prohibited wastewaters from the rivers and bays.

D. Effective, erosion control devices are required during the rainy season, October 15 through April 15, to control surface drainage. The Contractor shall provide emergency twenty-four (24) hour telephone number(s) of responsible Contractor personnel.

1.02 RUNOFF CONTROL MEASURES

A. The following runoff control measures shall be observed at all times during the course of construction.

1. Sediment, construction waste, and other pollutants from construction sites and parking areas shall be retained on the site to the maximum extent practicable.

2. Any sediment or other materials which are not retained on the site shall be removed within 24 hours.

3. Excavated soil shall be located on the site in a manner that minimizes the amount of sediments transported into the street or adjoining properties. Soil piles shall be covered until the soil is used or removed.

4. No washing of construction or other industrial vehicles shall be allowed at or adjacent to the construction site. No water from the washing of vehicles shall be allowed to run off into a storm drain system.

5. Stormwater pollution from concrete materials and wastes shall be eliminated:

a. Washout of concrete trucks shall occur in designated site areas. Do not wash concrete trucks where runoff might enter storm drains, open ditches, streets, or streams;

b. Storing materials under cover, away from drainage rainfall or flow paths;

c. Avoiding mixing excess amounts of concrete or cement on-site.

6. Projects not requiring a SWGCP shall submit an Erosion Control Plan for approval by the Engineer prior to start of construction.

PART 2 PRODUCTS

Various applicable documents including but not limited to: Storm Water Pollution Prevention Plan (SWPPP), Construction General Permit (CGP) or Stormwater Construction Permit, Rain Event Action Plans (REAP) etc.

2.01 STORMWATER CONSTRUCTION PERMIT

NO CONSTRUCTION ACTIVITY CAN BE ALLOWED UNTIL THE CITY HAS RECEIVED A WDID NUMBER FROM THE SWRCB

Prior to commencing work, the Contractor will electronically submit the:

- Notice of Intent
- Risk Level Assessment
- Legally Responsibly Person
- Signed certification Statement

The Contractor shall create an account on the state's SMARTS system and upload the above and all relevant information. Upon City approval of SWPPP and associated documents, Contractor shall allow the city to link to the Contractor's SMARTS account for final uploading under the City's SMARTS account.

Contractor shall allow sufficient time for city review and approval of SWPPP and associated documents and any delays due to untimely submittal of documents by Contractor shall not be the City's responsibility.

2.02 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

The Contractor shall develop a Storm Water Pollution Prevention Plan (SWPPP) as required by the Construction General Permit (CGP). The SWPPP shall be developed, amended, and certified by a Qualified SWPPP Developer. A Qualified SWPPP Developer shall have one of the registrations or certifications listed in Section VII.B.1 of the CGP, and effective September 2, 2011, must have attended a State Water Board-sponsored or approved Qualified SWPPP Developer training Course and passed the exam. A copy of the SWPPP shall be provided to the City.

The SWPPP shall be developed and updated using Section 2 and Appendix B of the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook Web Portal for Construction (requires subscription to access). The CASQA Construction BMP Web Portal requires a subscription to be purchased from CASQA and can be accessed at the following link:

http://www.casqa.org/LeftNavigation/BMPHandbooksPortal/tabid/200/Default.aspx

The Contractor shall implement, maintain, and amend the SWPPP as needed during the course of work to reflect actual construction progress and construction practices. The Contractor shall designate a Qualified SWPPP Practitioner (QSP), as defined by the CGP and who has passed the exam, who will be responsible for compliance with CGP requirements for the Project at all times.

The Contractor shall be responsible for and shall submit to the Engineer copies of all Contractor generated SWPPP documents, including all sampling test results, inspection reports, Rain Event Action Plans (REAP), annual reports, and other time sensitive documents involving monitoring data. Such documentation shall be provided as soon as the information is made available and shall be provided within twenty-four (24) hours when requested by the Engineer.

The Contractor shall be required to produce such data and documentation at the Project site on demand if so requested by Los Angeles Regional Water Quality Control Board Staff during a site inspection.

The SWPPP shall not be construed to be a waiver of the Contractor's obligation to review and understand the CGP before submitting a bid. By submitting a bid, the Contractor acknowledges that he has read and understands the requirements of the CGP.

2.03 REPORTING

The Contractor shall be responsible for providing all reports required by the CGP (monitoring, inspection, Rain Event Action Plans, annual reports, etc.) to the City for review. Time-sensitive reports involving monitoring data shall be provided as soon as the information is available. All other reports shall be provided to the City a minimum of two weeks prior to their deadline for submittal to the SWRCB through SMARTS.

The requirements of Construction General Permit (CGP) shall include, but not be limited to, the following:

1. Develop a SWPPP to conform to the Risk Level as determined by the City and the Contractor's actual construction practices;
2. Administer, implement, maintain, and ensure adequate functioning of the various water quality control measures identified within the SWPPP during construction including all Numeric Action Level (NAL) and Numeric Effluent Limitation (NEL) sampling, monitoring and reporting requirements statutorily required for the determined Risk Level of the Project site. These tasks must be performed by Qualified SWPPP Practitioner (QSP). Effective on September 2, 2011, a QSP shall meet the requirements listed in the CGP.
3. Provide and maintain all documentation (at the jobsite) and administration for the entire Contract period;
4. Perform all work required for compliance with the requirements of the CGP including preparation of all Rain Event Action Plans (REAPs), construction of effective treatment control BMPs (i.e.: contingency basins, chemical treatments, etc.);
5. Provide all labor, tools, equipment, and materials for any additional BMPs which may be required to comply with the requirements of the CGP.

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full compensation for conforming to the requirements of Stormwater Runoff shall be included in the lump sum bid item for TRAFFIC CONTROL, PUBLIC CONVENIENCE AND SAFETY as shown on the proposal and description of the bid items, and shall include furnishing all labor, materials, equipment and incidentals necessary to perform the items of work. No additional compensation will be allowed for furnishing labor, materials, equipment, rental of necessary storage sites for storage of equipment, project information signs, obtaining all City business licenses or permits, including permit fees, as required, and incidentals necessary to perform the items of work.

END OF SECTION

SECTION 01570 - TRAFFIC CONTROL

PART 1 GENERAL

1.01 TRAFFIC CONTROL

The Contractor shall provide traffic control and access in accordance with Article 10 of the Contract General Conditions; the standards contained in the "California Manual on Uniform Traffic Control Devices" (CAMUTCD); (latest edition) and these special conditions. In the case of a conflict, the highest standard shall prevail.

A. General Requirements

1. The Contractor shall conduct his operations so as to offer the least possible obstruction and inconvenience to the public, and shall have under construction, no greater length or amount of work than can be prosecuted properly with due regard to the rights of the public. The Contractor's operations will cause no unnecessary inconvenience. The access rights of the public will be considered at all times.

2. The Contractor shall furnish and maintain all construction signs, channelizing devices, barricades, temporary traffic striping and pavement markings, lighting devices, etc., to safely guide the traffic through the project limits, as described herein, and as directed by the Engineer.

3. The Contractor shall provide temporary K-rails, visual barriers and temporary crash cushions as necessary to protect traffic from excavation areas and existing utility facilities, including power pole and guy anchors.

4. Traffic shall be permitted to pass through the project site from all approaches at all times. Any location considered not accessible by pedestrians or motorists as determined by the Engineer will be resolved at the direction of the Engineer.

5. The Contractor shall maintain safe and adequate pedestrian and vehicular access to intersecting streets, commercial and retail establishments, businesses, churches, parking lots, fire hydrants, etc. Access to these facilities shall be continuous and unobstructed, unless otherwise approved by the Engineer.

6. The Contractor will be required to cooperate with the delivery of mail and trash collection and to maintain existing schedules for these services.

7. The Contractor shall coordinate with the Los Angeles County Metropolitan Transportation Authority (Metro) to plan and to accommodate bus routes and passengers at least five (5) working days prior to commencement of any work which will involve any of their facilities. Contact Mattie Hopes, Metro Stops and Zones Supervisor at (213) 922-5023.

B. Construction Signs

The Contractor shall furnish and post various construction signs, including those described below, and as directed by the Engineer. All construction signs shall be fabricated on 0.08 inch aluminum and shall be reflectorized or illuminated for nighttime visibility. Construction signs may be mounted on portable supports or barricades.

C. Public Notification

The Contractor shall provide a general written notice about the proposed project to all businesses and residents approximately one week prior to commencement of work. The Contractor shall provide written notice to the businesses and residents at least 48 hours in advance of all construction operations that will restrict or impede parking and access. A copy of the Contractor's written notice shall be submitted to the City for approval prior to public distribution. The Contractor shall provide verification to the City that this has been accomplished. The Contractor shall provide upon request

by the Engineer a list by address of businesses and residents notified.

D. Pedestrians

A minimum walkway of 48 inches in width must be maintained at all times for safe pedestrian passage through all parkway work areas. Crosswalks shall remain unobstructed at all times. Obstructions within the walkway areas shall be illuminated during the hours of darkness and marked with Type II barricades with flashing warning lights.

a. Where construction prohibits pedestrian access, alternate crossing areas shall be established with appropriate signing and other devices as required by the Engineer. Pedestrian access facilities shall be provided through construction area within the right-of-way. Pedestrian walkways shall be provided with surfacing as required to maintain safe and accessible pathways. Surface shall be skid resistant and free of irregularities.

b. The Contractor shall keep the areas adjacent to the project site clear of any objects that may be hazardous to pedestrians and motorists. Provisions to reroute pedestrians, including the disabled, around the work area must be clearly delineated and maintained. If the Contractor's operations require the closure of a walkway, then another walkway shall be provided nearby, off the traveled roadway, along the general path of travel.

E. Driveways

Vehicular access to driveways shall be maintained at all times, except when necessary construction precludes such access for temporary periods.

F. Parking

On-street parking may be restricted within the project limits. Temporary "NO PARKING – TOW AWAY" signs shall be provided and posted by the Contractor not less than seventy-two (72) hours in advance of the start of construction. Temporary signs shall be maintained at all times. All temporary parking restriction signs shall clearly reference the applicable provisions of the California Vehicle Code (CVC) and Downey Municipal Code (DMC) sections authorizing the towing and parking restrictions.

G. Street Lighting

The Contractor shall maintain illumination of the traveled roadway after the hours of darkness throughout the duration of the project, as follows:

a. The street lighting system shall be installed and removed in phases such that not less than one-half of the street lights are operable each evening.

b. A minimum illumination level of 0.4 foot-candle with a 6:1 uniformity ratio shall be provided, unless otherwise approved by the Engineer.

H. Lane Closures

The Contractor shall comply with the following general lane closure requirements:

a. Lane closures shall be limited to 8:30 a.m. to 3:30 p.m. unless otherwise authorized by the Engineer.

I. Road Closures

Selected Contractor shall be responsible for obtaining Encroachment permit and preparing engineered Traffic Control Plan & detour Plan for Downey Avenue road closure. Traffic Control Plan shall be stamped and signed by a registered Civil Engineer in the State of California.

J. Shutdowns

Traffic signal shutdowns shall be restricted to two hours maximum, between the hours of 9am and 3pm, during one 24-hour period unless authorized by the Engineer. Where traffic signal shut downs

are required, the Contractor shall furnish and install temporary stop signs for each travel lane at 24"x24" in size securely mounted and placed in clear view to all approaching traffic. See Traffic Signal specification section, "Maintaining Existing and Temporary Electrical Systems."

a. In the event that work takes place during peak hours of work, between the hours of 6am-9am and 3pm-6pm, the presence of two uniformed police officers to direct traffic during shutdown period is required, and as directed by the Engineer. All related expenses and wages of the police officers shall be borne by the Contractor.

b. The Contractor shall provide the Engineer five (5) working days advance notice prior to any traffic signal shutdown for the purpose of scheduling police traffic control. All shutdowns shall be scheduled pursuant to Section 86-1.06 of the Caltrans Standard Specifications. No signal shutdowns will be allowed on Fridays.

K. Emergency Response

The Contractor shall maintain a 24-hour emergency service to remove, install, relocate, and maintain warning devices and shall furnish the Engineer with names and telephone numbers of at least three people responsible for emergency service response. In the event these people do not promptly respond when notified, or it becomes necessary to call other forces to accomplish emergency service, the Contractor will be held liable for any costs incurred. A $400/hour at 4 hours minimum will be charged to the Contractor.

a. During Working Hours:

In case of an emergency that threatens loss or injury of property, and/or safety of life during working hours, the Contractor shall act, without previous instructions from the City, as the situation may warrant. He/she shall notify the Engineer of the emergency and the action taken immediately thereafter. Any compensation claimed by the Contractor, together with substantiating documents in regard to expense, shall be submitted to the Engineer within 15 calendar days after the emergency. Compensation, if allowed, will be paid for as extra work.

b. Outside of Working Hours:

Whenever, in the opinion of the City, there shall arise outside of the regular working hours on the Contract work of an emergency nature which threatens loss or injury of property, or danger to public safety, the Contractor shall act, without previous instructions from the City as the situation may warrant. He/she shall notify the Engineer of the emergency and the action taken immediately thereafter. Any compensation claimed by the Contractor, together with substantiating documents in regard to expense, shall be submitted to the Engineer within 15 calendar days after the emergency. Compensation, if allowed, will be paid for as extra work. In the event the Contractor is not able to respond to an emergency outside of regular working hours, the City's forces will handle such emergency work. If such emergency arises out of or is the result of operations by the Contractor, the cost of the corrective measures will be billed to the Contractor and deducted from his/her payment as provided in the Contract documents. The performance of emergency work by City forces will not relieve the Contractor of any of his/her responsibilities, obligations, or liabilities under the Contract.

PART 2 PRODUCTS (not used)

PART 3 EXECUTION (not used)

END OF SECTION

SECTION 01650 - MOBILIZATION

PART 1 GENERAL

1.01 MOBILIZATION

The work shall consist of furnishing all labor, materials, tools, equipment and incidentals necessary to perform all work included in the project and will include all mobilizations required to meet the staging requirements for the project, in accordance with Section 9-3.4 of the Standard Specifications for Public Works Construction (SSPWC), and Section 11: "Mobilization" of the Caltrans Standard Specifications.

Mobilization shall consist of all preparatory work and operations 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 and for all other work and operations which must be performed or costs incurred including bonds, insurance, permits, permit fees, and financing prior to beginning work on the various contract items on the project site. 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 safe condition and all other related work as required at all times and for all non- working days during construction period.

The Contractor shall have on the work site at all times a competent English-speaking superintendent, as his agent, capable of reading and thoroughly understanding the plans and specifications and other related documents.

PART 2 PRODUCTS (not used)

PART 3 EXECUTION

3.01 PAYMENT

Full compensation for conforming to the requirements of Mobilization shall be included in the lump sum bid item for TRAFFIC CONTROL, PUBLIC CONVENIENCE AND SAFETY and shall include furnishing all labor, materials, equipment and incidentals necessary to perform the items of work. No additional compensation will be allowed for furnishing labor, materials, equipment, rental of necessary storage sites for storage of equipment, project information signs, obtaining all City business licenses or permits, including permit fees, as required, and incidentals necessary to perform the items of work.

END OF SECTION

SECTION 02050 - DEMOLITION AND REMOVALS

PART 1 GENERAL

1.01 REFERENCES:

Section 02050 – Demolition and Removals

Section 02120 – Relocation and Adjustments

Section 02210 – PCC Removals

1.02 SCOPE

The work shall consist of furnishing all labor, materials, tools, equipment and incidentals necessary to perform all demolition and removals within the project limits, in accordance with Section 300-1: "Clearing and Grubbing" of the SSPWC, and Section 15: "Existing Highway Facilities" of the Caltrans Standard Specifications.

The work of this section includes relocating, adjusting to grade and salvaging various existing improvements, within the public right-of-way and on private property, as shown on the plans and described herein. This work shall include, but not limited to, removal of trees, shrubs and all vegetation that are necessary to construct a proposed improvement as shown on plan, irrigation systems, irrigation valves, water valves, water meters and boxes, signs, air vacuum valves, backflow preventers, pull boxes, streetlights, utility vaults, foundations, grate inlets, manholes, survey monuments and fire hydrants, fences, masonry walls, bollards, planters, etc.

The Contractor shall comply with the City of Downey Construction and Demolition Ordinance as described in Section 2.18 of the Contract General Conditions.

Work shall include but not be limited to the demolition, removal and disposal of the following improvements in conflict with the proposed improvements:

1. Utilities and appurtenances including abandoned water service pipes, air vents, air release valves, meter boxes, etc.
2. Existing street light and traffic signal poles, foundations, conduits, conductors and pull boxes.
3. Landscape elements including trees, shrubs, planters, and irrigation systems/equipment, etc. including root pruning.
4. Removal of interfering portions of fences, planters, sign foundations, post, bollards, vegetation and irrigation systems; replacement planting and irrigation system modification of impacted landscaping and irrigation.
5. Protection of utilities, trees, fences, walls, signs and other facilities within the construction zone, except those directed to be removed or relocated.
6. Removal and salvaging of existing signs.
7. Relocation and/or relocation of signs and posts/bollards, except for large overhead signs.
8. Removal of private lighting systems impacted by the project.
9. Maintain dust control at all times by watering.
10. All sawcutting of existing A.C. pavement and concrete pavement surfaces necessary to facilitate construction of the project using Best Management Practices (i.e. vacuum).
11. Removal of the raised medians, and removal/adjustment/relocation of all items in the median area.
12. Removal and reconstruction of interfering portions of existing curb drains.
13. Removal of interfering portions of existing reinforced culverts (including steel rail deck & st

Removal and abandonment of existing storm drain pipe and structures (catch basins, grate basins, etc.) in accordance with Section 306-5: "Abandonment of Conduits and Structures" of the SSPWC.

14. Removal and relocation of any other items within the work zone which are not accounted for under individual items of work or described in these special provisions.

The Contractor shall conduct demolition and removal to minimize interference with adjacent areas. Maintain safe egress and access at all times. Items requiring removal or relocation to provide access shall be replaced upon completion of the work.

Conduct demolition and removal to minimize interference with adjacent areas. Maintain safe egress and access at all times. Items requiring removal or relocation to provide access shall be replaced upon completion of the work.

Contractor shall obtain permission of the Engineer prior to the removal of equipment or structures.

Provide, erect, and maintain temporary barriers and security devices under provisions of Section 01570 – Traffic Control, Public Convenience and Safety.

1.03 APPLICABLE STANDARDS:

1. Applicable Standards of State of California Division of Industrial Safety
2. Construction Safety Orders
3. General Industrial Safety Orders
4. Latest Edition of the following codes, adopted by the City of Downey:
5. California Building Standards Code, latest edition
6. NEC Electrical Code
7. UBC Mechanical and Plumbing Code
8. Standard Specifications for Public Works Construction (SSPWC), latest edition
9. Caltrans Standard Specifications, latest edition

PART 2 PRODUCTS (not used)

PART 3 EXECUTION

3.01 GENERAL

City will provide access to all available plans of surface and subsurface facilities on the site. City does not guarantee the accuracy or correctness of such plans. All improvement locations and locations of utilities shall be determined and verified by Contractor.

Any items not shown on the drawings, or which are encountered during the Contractor's operations, shall be brought to the attention of the Engineer who will determine what disposition is to be made of the item(s).

The Contractor shall notify owners of utilities, piping, structures, or equipment in the removal or construction area and arrange for any needed protection.

The Contractor shall disconnect, remove, and cap or relocate utility services within the demolition area, or protect these items if required in the construction of those facilities.

The Contractor shall not interfere with the use of or access to adjacent facilities. All existing buildings shall be operational during their normal business hours.

The Contractor shall cease operation and notify the Engineer immediately if the safety of any facility appears to be endangered.

The Contractor shall not resume operations until safe conditions have been restored.

The Contractor shall provide erect and maintain barricades, lighting, guard rails and fencing required to protect the general public, workers and adjoining property.

All removed materials of the project shall become the property of the Contractor, unless otherwise noted. The Contractor shall properly dispose of all material removed from the jobsite and shall bear all expenses of hauling and disposal of said materials.

Should the Contractor decide to move any large items intact off the site, the Contractor shall make his own arrangements with the City for permits, clearances and/or utilities removal and replacement.

Demolition work shall be performed in accordance with applicable requirements of authorities having jurisdiction and under the Engineer's inspection.

The Contractor shall have, at the work site, copies of applicable extracts of: Construction Safety Orders, and General Industrial Safety Orders issued by the State Division of Industrial Safety.

The Contractor shall comply with provisions of these and other applicable laws, ordinances and regulations.

Except where otherwise noted or directed, immediately remove demolished materials from site.

Do not burn or bury materials on site.

At completion of work, leave areas of work in a clean condition.

C. Concrete

Concrete sidewalks, ramps, cross gutters, curb and/or gutter, and driveway approaches shall be sawcut and removed at locations as indicated on the plans and marked by the Engineer.

The Contractor shall not use a drop-hammer “Stomper” for any portion of the work on this project.

No additional compensation will be made for removal of concrete containing rebar, anchor bolts or metallic conduits.

Concrete sidewalk, ramps, cross gutters and driveway approaches shall be removed to neatly-sawed edges with sawcuts made to a minimum depth of 2 inches shall be neat and in straight lines either parallel to the curb or at right angles to the alignment of the sidewalk. No section to be replaced shall be smaller than 5 feet in length. If the sawcut should fall within 48 inches of a construction joint, expansion joint, or edge, the concrete shall be removed to the joint or edge, except that where the sawcut would fall within 12 inches of a score mark, the sawcut shall be made in and along the score mark.

Concrete curb and/or gutter shall be removed to the nearest expansion joint. If the expansion joint is eight (8) feet or further away from the desired joint location, then the curb and gutter shall be sawcut to a minimum depth of 4 inches. Removal limits shall conform as close as practicable to those shown on the plans.

Under no circumstances shall the Contractor place concrete forms with the intent of leaving the forms in place for more than 24 hours, aside from curing freshly poured concrete. Access to all residences and businesses shall be maintained to an acceptable condition unless approved otherwise by the Engineer or necessary to facilitate or protect work.

F. Private Property Improvements

The Contractor shall demolish, remove, salvage and dispose of all private property improvements within the public right of way as shown on the Plan. All the removed improvements shall either be salvaged to the private property owner or disposed of as directed by the Engineer.

3.03 PATCHING AND FILLING

Where removals leave holes and damaged surfaces exposed in the finished work, patch and repair these holes and damaged surfaces to match adjacent finished surfaces. Where new work is to be applied to existing surfaces, perform removals and patching in a manner to produce surfaces suitable for receiving new work. Finished surfaces of patched area shall be flush with the adjacent existing surface and shall match the existing adjacent surface as closely as possible as to texture and finish. Patching shall be as specified and indicated.

Where curb, gutter, sidewalk and other concrete surfaces are to remain in place, the Contractor shall patch and sack the existing surfaces to remove chips and gouges. A concrete bonding agent shall be used to bond the new patch to the existing surface. The surface must be cleaned and prepared to receive the patch.

3.04 DISPOSITION OF MATERIAL

A. Title to Materials

Except where specified in other sections, all materials and equipment removed, and not reused, shall become the property of the Contractor and shall be removed from City property. Title to materials resulting from demolition, and materials and equipment to be removed, is vested in the Contractor upon approval by the Engineer of the Contractor's demolition and removal procedures, and authorization by the Engineer to begin demolition. The City will not be responsible for the condition or loss of, or damage to, such property after notice to proceed. Materials and equipment shall not be viewed by prospective purchasers or sold on the site.

B. Reuse of Materials and Equipment

Remove and store materials and equipment listed and indicated on the drawings to be reused or relocated to prevent damage, and reinstall as the work progresses.

C. Salvaged Materials and Equipment

Any removed materials and equipment that are to be removed by the Contractor and that are to remain the property of the City, shall be delivered to a storage site as directed by the Engineer within five (5) miles of the work site.

D. Salvage of Existing Materials and Equipment

Existing materials and equipment which are required to be removed or disconnected to perform the work, but are not indicated or specified for use in the new work, shall remain the property of the City and shall be transported to storage areas where directed by the Engineer. Likewise, items indicated to be salvaged shall remain the property of the City, and if not indicated to be reused in the new work shall be transported to storage areas where directed by the Engineer.

3.05 CLEANUP

A. Debris and Rubbish

Remove and transport debris and rubbish in a manner that will prevent spillage on pavements, streets or adjacent areas. Clean up spillage from streets and adjacent areas.

Construction site to be left clean daily.

3.06 PAYMENT

Full compensation for conforming to the requirements of DEMOLITION AND REMOVALS as related to the demolition and removal of various miscellaneous items on the project and listed in the bid items list, including furnishing all materials, equipment, incidentals and labor, and for doing all the work necessary to complete the removal of various miscellaneous items listed in the bid items list, shall be considered included in the Contract Unit Price bid per the unit of each of these listed items. No additional compensation shall be allowed therefore.

There will be no separate measurement and payment for the requirements as specified in Special Conditions Section 02050 - DEMOLITION AND REMOVALS as related to the demolition and removal of all miscellaneous items on the project and not listed in the bid items list. Full compensation for conforming to the requirements of Special Conditions Section 02050 - DEMOLITION AND REMOVALS shall be included in the various bid items of work, and shall include furnishing all labor, materials, equipment and incidentals necessary to perform the items of work. No additional compensation will be allowed for furnishing labor, materials, equipment, and incidentals necessary to perform the items of work.

END OF SECTION

SECTION 02120 - RELOCATION AND ADJUSTMENTS

PART 1 GENERAL

1.01 SCOPE:

The work of this section includes relocating, adjusting to grade and salvaging various existing improvements as shown on the plans and described herein, including but not limited to irrigation meters, irrigation valves, water valves, water meters and boxes, signs, air vacuum valves, backflow preventers, pull boxes, streetlights, utility vaults, foundations, grate inlets, manholes, survey monuments and fire hydrants, etc.

1.02 REFERENCES:

Section 02050 – Demolition and Removals

PART 2 PRODUCTS

Where materials, products or components must be supplied in order to adjust, relocate or repair the items of work or this section said materials shall be of equivalent quality as the original. Such replacement products shall in no way compromise the appearance or performance capacity of the work item. All replacement parts are subject to the approval of the Engineer.

PART 3 EXECUTION

3.01 PREPARATION:

A. Verify with the Engineer and clearly identify in the field all items that are to be relocated, adjusted to grade and salvaged prior to starting work.

B. Inspect all items for existing damage prior to beginning work and verify with City if it is to be repaired, replaced, or left as is for incorporation in the new construction.

C. Notify all utility companies whose facilities are involved in the adjustments and relocations and coordinate work with them.

D. All utility protection, removals, and relocations to conform with Section 5 of the Standard Specification for Public Works Construction (SSPWC).

3.02 PROCEDURE:

A. The Contractor shall be responsible for adjusting utility boxes, irrigation meters and valve boxes, water meters and valve boxes to sidewalk grade in parkway areas. This work shall be considered incidental work to the PCC improvements and no additional compensation will be made therefore.

B. The Contractor shall be responsible for paving up to and matching existing manhole and/or vault grades. This is not considered “manhole adjustment” and no additional compensation will be made therefore.

C. Carefully expose and remove all items to be relocated, adjusted or salvaged for required disposition.

D. Items which will not be immediately relocated shall be safely stored and protected from all damage from any source until reinstalled and the work is accepted by the Engineer.

E. Damaged items shall be repaired or replaced to the satisfaction of the Engineer, at no additional cost to the City

F. Utility frames and covers for survey monuments, water valves boxes, water meters boxes, traffic signal pull boxes, manholes and other items shown on the plans within the construction area shall be set to finish grade by the Contractor before construction of the new pavement. Manholes, valves and other structures in AC pavement shall be set to finish grade in accordance with the provisions of Subsections

301-1.6 and 302-5.8 of the Standard Specifications for Public Works Construction (SSPWC).

G. Remove existing streetlight poles and foundations as indicated on the plans, preserve as necessary to enable relocation, repainting, and installation.

H. The Contractor shall have a California Licensed Land Surveyor locate all intersection monument ties and reestablish them upon completion of the new access ramps. The surveyor shall file all required Record of Survey documents as required by State and Local regulations. Compensation for this work will be considered included in the contract bid items and no additional compensation will be allowed.

SECTION 02210 - PCC REMOVALS

PART 1 GENERAL

1.01 SCOPE

The work shall consist of furnishing all labor, materials, tools, equipment and incidentals necessary for PCC removals, as shown on the Plan, in accordance with Section 300, "Earthwork" and 301, "Treated Soils, Subgrade Preparation and Placement of Base Materials" of the Standard Specifications for Public Works Construction (SSPWC), and as specified herein.

The Contractor shall comply with the City of Downey Construction and Demolition Ordinance as described in Section 2.18 of the Contract General Conditions.

The work shall also include PCC removals with or without reinforcement. The work shall include removal and disposal of existing pavement structural section, curb, gutter, sidewalk, ramps, driveways, pavement, interfering portions of existing reinforced culverts (including steel rail & rebar), etc. No additional compensation will be provided for removing reinforced concrete structures.

1.02 RELATED REQUIREMENTS

Related items of work performed by others, and related requirements which apply to the work described under this Section, are included in, but not limited to, the following Sections:

Section 02050 – Demolition and Removals

Section 03110 – Miscellaneous Concrete Construction

1.03 GENERAL REQUIREMENTS

A. Data

Survey and other reference data, not included in the Contract Documents but made available to the Contractor by the Engineer, are given for the Contractor's information only, and the Engineer assumes no responsibility for any conclusion the Contractor may draw therefrom.

B. Quality Assurance

C. Applicable Criteria, Tests and Standards.

1. For Waste: Material deemed unsuitable by the Engineer from tests or visual inspection, and all material delivered to fill or embankment, which cannot be satisfactorily compacted, shall be wasted at an approved site. Perform trucking and materials handling in a careful manner to prevent spillage and dust or damage to paved surfaces or structures.

2. For Clean Up: Remove and dispose of all rubbish, debris, junk, temporary materials, and any waste excavated materials from the Project Site in accordance with all applicable laws, regulations, permits and approvals from owners of property upon which the material will be disposed. Perform restoration of staging and storage areas and temporary roads to the satisfaction of the Engineer, prior to acceptance and final payment.

3. Cleanup and Disposal: Material deemed unsuitable by the Engineer from tests or visual inspection, and all material delivered to fill or embankment, which cannot be satisfactorily compacted, shall be wasted at an approved site. Perform trucking and materials handling in a careful manner to prevent spillage and dust or damage to paved surfaces or structures.

4. Utilities and Structures: Protect utility lines and structures indicated on the Plans, which are to remain in service from any damage as a result of construction operations. Where utility lines or structures not shown on the Plans are encountered, report them to the Engineer before proceeding with the work. Repair or replace utility lines or structures, which are broken or damaged during the operations at no extra cost to Engineer.

PART 2 PRODUCTS (not used)

PART 3 EXECUTION

3.01 EARTHWORK

A. Dust Control

Take all steps possible to prevent and reduce dust arising from the construction activity. Have an adequate water supply and hoses available at all times and water, as necessary, the areas where dust may arise. Cooperate fully with the Engineer and water immediately, when directed.

B. Care of Drainage Water

Deal with all drainage water from the construction operations and storm water and wastewater reaching the construction area from any source, per the requirements of the Contractor's Storm Water Pollution Prevention Plan as approved by the City, so that no damage is done to the excavation, pipe or structures. The Contractor shall be responsible for any damages to persons or property on or off the construction site due to such drainage water or to the interruption or division of such storm water or wastewater on account of his operations.

Perform all grading necessary to prevent surface water from flowing into excavations, and remove water accumulating therein by pumping or by other approved methods.

C. Clean Up

Upon completion of work in this Section, remove all rubbish and debris from the job site. Remove all construction equipment and implements of service and leave the entire area involved in a neat, clean and acceptable condition.

3.02 PAYMENT

Full compensation for conforming to the requirements of PCC REMOVAL ITEMS as related to the PCC removal items on the project and listed in the bid items list, including furnishing all materials, equipment, incidentals and labor, and for doing all the work necessary to complete the removal of various miscellaneous items listed in the bid items list, shall be considered included in the price bid per square foot (SF) for bid item 20 REMOVE AND RECONSTRUCT CONCRETE PAVEMENT and bid item 21 REMOVE EXISTING PAVERS AND INSTALL NEW PAVERS. No additional compensation shall be allowed therefore.

There will be no separate measurement and payment for the requirements as specified in Special Conditions Section 02210 – PCC REMOVAL as related to the various items of all miscellaneous items on the project and not listed in the bid items list. Full compensation for conforming to the requirements of Special Conditions Section 02210 - PCC REMOVAL shall be included in the in the price bid per square foot (SF) for bid item 20 REMOVE AND RECONSTRUCT CONCRETE PAVEMENT and bid item 21 REMOVE EXISTING PAVERS AND INSTALL NEW PAVERS and shall include furnishing all labor, materials, equipment and incidentals necessary to perform the items of work. No additional compensation will be allowed for furnishing labor, materials, equipment, and incidentals necessary to perform the items of work.

END OF SECTION

SECTION 02510 - ASPHALT CONCRETE PAVING

PART 1 GENERAL

1.01 ASPHALT CONCRETE PAVEOUT:

A. Description

This Item shall include replacement of the existing A.C. pavement and subgrade material and reconstruction of A.C. paveouts, having a minimum thickness of 4 inches and a minimum width of 1 foot, adjacent to the PCC improvements, as shown on the Plan, and/or as marked in the field. This Item shall be considered included in the bid item 20 REMOVE AND RECONSTRUCT CONCRETE PAVEMENT.

Excavation and preparation of subgrade shall be done in accordance with, and shall include all work specified in Subsections 300-2, "Unclassified Excavation," and 301-1, "Subgrade Preparation," of the SSWPC, except as modified and supplemented herein. Subgrade compaction in paveout areas shall be 95% relative compaction. Pavement to be removed shall be sawcut minimum depth of two inches prior to removal. Paveout edges broken during construction shall be re-saw cut prior to paving.

Paveout reconstruction shall be completed as described below, in accordance with Subsections 203-6, "Asphalt Concrete," and 302-5, "Asphalt Concrete Pavement," of the Standard Specifications for Public Works Construction (SSPWC).

B. Materials

The asphalt concrete pavement for the A.C. paveout shall consist of Type D2-PG 64-10 with 6.0 percent asphalt binder. An asphalt concrete base pavement may be used if the existing pavement section is greater than 4-inches thick. The asphalt concrete base pavement shall consist of Type B-PG 64-10 with 5.3 percent asphalt binder. The thicker A.C. paveouts, greater than 4-inches thick, shall be placed in two lifts, +3" A.C. base pavement course (Type B-PG 64-10), and 2" A.C. cap (Type C2-PG 64-10).

C. Construction

All A.C. paveouts shall have a minimum total thickness of 4-inches (4") and compaction shall be accomplished with a suitable wheel roller. If the existing pavement section is greater than 4-inches thick, the overall A.C. paveout thickness shall be a minimum of one inch greater than the existing pavement section removed and shall be placed in courses not exceeding 4 inches in thickness.

Wherever a utility box, water valve box, or water meter box exists in the new paveout, the box shall be adjusted to the pavement grade and the adjustment shall be included in the Contract Unit Price bid and no additional compensation will be allowed therefore.

The Contractor shall water-test all finished A.C. surface prior to final inspection. Any irregularities causing water to stand shall be corrected at the Contractor's Expense. The Contractor shall also be responsible for all debris generated from the project site and properly disposed of. Use of air blowing equipment shall be prohibited.

The contact surfaces of all cold pavement joints, curbs, etc. shall be painted with emulsified asphalt immediately before the adjoining A.C. paveout is placed. A tack coat of slow-setting emulsified asphalt shall be uniformly applied to contact surfaces of all existing A.C. and PCC improvements against which A.C. surfacing is to be placed. The surface shall be free of all loose material or dust when the tack coat is applied. The tack coat material shall be Type SS-1h emulsified asphalt, in accordance with Subsection 203-3, "Emulsified Asphalt," of the SSWPC.

END OF SECTION

DIVISION 3 - CONCRETE

SECTION 03110 - MISCELLANEOUS CONCRETE CONSTRUCTION

PART 1 GENERAL

1.01 DESCRIPTION

Work Included in this Section: construction of sidewalk panels, gateway sign footings, and cabinet foundations, and flatwork. **Contractor is required to provide a clean-out bin (wash basin) for the concrete trucks and concrete construction.**

1.02 CONFORMANCE REQUIREMENTS

Unless specifically noted otherwise in this section, all work shall conform to Section 201-1, "Portland Cement Concrete" of the Standard Specifications for Public Works Construction (SSPWC).

1.03 QUALITY ASSURANCE

All materials and equipment furnished under this section shall: (1) be the product of a manufacturer who has been regularly engaged in the design and manufacture of the product; and (2) be demonstrated to the satisfaction of the Engineer that the quality is equal to the product made by those manufacturers specifically named herein, if an alternate product manufacturer is proposed.

1.04 SUBMITTALS

A. The Contractor shall submit for City approval the design mix for PCC to be used at least ten (10) working days in advance of concrete pouring.

B. The Contractor shall provide to the Engineer weigh tickets from the manufacturer of Portland Cement Concrete delivered to the job site on a daily basis.

PART 2 PRODUCTS

2.01 CONCRETE

All work shall conform to Section 201-1, "Portland Cement Concrete" of the Standard Specifications for Public Works Construction (SSPWC). "Fly Ash" supplementary cementitious material will not be allowed in any of the concrete mix designs and concrete material delivered to the project.

PART 3 EXECUTION

3.01 CONSTRUCT PCC PAVEMENT

All work shall be in accordance with the applicable provisions of Section 302-6, "Portland Cement Concrete Pavement".

3.02 SCORE JOINTS

Joints shall be as specified on Drawings. Form in fresh concrete using a jointer to cut the groove to a smooth, uniform impression. Finish joints shall be no wider than 1/8" except as otherwise noted on the Plans.

3.03 FINISHING

A. See plan for finishes and finish locations.

B. Curbs, Swales and Gutters: Light broom.

C. Place curing compound on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.

D. Finishes:

1. General - Compact and stamp concrete as specified herein (unless retardant finish is specified), to bring 3/8 inch of mortar to surface, float with wood screeds and floats only,

and apply following finishes after surface by floating. Do not use steel or any plastic screeds, floats or "Fresno" for initial floating and screeding operations.

2. All concrete finishes shall be as listed on the Drawings. Finishes are as follows:

Broom Finish: Immediately after slab has been screeded and floated, the surface shall be broomed in the direction and depth as indicated on Drawings or by Engineer with a stiff bristle broom.

3.04 CONSTRUCT PCC SIDEWALK AND RECONSTRUCT HARDSCAPE IMPROVEMENTS:

The construction of PCC sidewalk/slab shall conform to the SPPWC No. 112-2 and shall include all labor, materials, and equipment necessary for excavation and subgrade preparation, sawcutting, root removal, forms, P.C.C. improvements, slot paving, backfilling in front of and behind sidewalk/slab, parkway and onsite restoration and reseeding, irrigation and sprinkler system repair and/or relocation and all other work as required to complete the work. The construction of PCC sidewalk shall conform with lines and grades to meet existing improvement and in like kind.

The construction of PCC sidewalk (pedestrian concrete paving) shall be a natural gray (without color) and shall have a medium broom finish and tooled score joints. Score joint locations and spacing shall match scoring in the field or as directed by the Engineer. When joining, new construction shall match existing improvements with proper grade to form a safe and smooth surface.

Wherever a utility box, water valve box, or water meter box exists in the new sidewalk, the utility box shall be adjusted to the sidewalk grade and the adjustment shall be included in the contract unit price bid and no additional compensation will be allowed therefore. Wherever a tree well exists or is proposed in the new sidewalk, forming for the tree well shall be included in the contract unit price for the Construct 4-inch Thick PCC Sidewalk/Slab item. Compensation will not be provided for the tree well. Landscaped areas (i.e., tree wells) will not be included in the sidewalk quantities.

Access to buildings over the newly placed walk shall be provided the day following the placement of walk. New walk shall be protected by the Contractor with the use of materials such as roofing paper, plywood, or other means approved by the Engineer.

All labor, materials, and equipment necessary to complete this work and tie-in of all existing drains, including excavation and subgrade preparation, root removal, forms, PCC improvements, restoring form areas and all other work as required to complete the work, shall be included.

All work shall be in accordance with the applicable provisions of Section 300-1.3, "Removal and Disposal of Materials," Section 300-2, "Unclassified Excavation," and Section 303-5, "Concrete Curb, Walk...," of the Standard Specifications for Public Works Construction (SSPWC) , and all applicable Sections of these Special Conditions.

All PCC improvements to be removed shall be sawcut at join lines prior to removal. Damage to any existing improvements shall be remedied by sawcutting, removal and reconstruction at the Contractor's expense and to the satisfaction of the Engineer.

3.05 CONSTRUCT CONCRETE FOOTING

Concrete Footing shall conform to the plans and specifications and shall include all labor, materials, and equipment necessary for excavation and subgrade preparation, sawcutting, root removal, forms, P.C.C. improvements, backfilling, parkway and onsite restoration and reseeding, irrigation and sprinkler system repair and/or relocation and all other work as required to complete the work.

All PCC improvements to be removed shall be sawcut at join lines prior to removal. Damage to the improvements to be left in place shall be remedied by sawcutting, removal and reconstruction at the Contractor’s expense, and to the satisfaction of the Engineer. Residue from sawcutting operations shall be picked up by means of a vacuum or other method approved by the Engineer and shall not be allowed to flow into the street or enter any drainage structure. The residue shall be removed from the project site and properly disposed of at the Contractor’s expense.

All work shall be in accordance with the applicable provisions of Section 300-1.3, "Removal and Disposal of Materials", Section 300-2, "Unclassified Excavation", Section 303, "Concrete and Masonry Construction" of the Specifications for Public Works Construction (SSPWC) and all applicable Sections of these Special Conditions.

PART 4 MEASUREMENT AND PAYMENT

There will be no separate payment for concrete work. Full compensation for conforming to the requirements of MISCELLANEOUS CONCRETE CONSTRUCTION items shall be included in the respective prices bid per each (EA) or per square foot (SF) for bid item 12 CONSTRUCT ROUND PEDESTAL FOOTING, bid item 20 REMOVE AND RECONSTRUCT CONCRETE PAVEMENT, and bid item 21 REMOVE EXISTING PAVERS AND INSTALL NEW PAVERS, and shall include furnishing all labor, materials, equipment, and incidentals necessary to perform the items of work including asphalt concrete paveout (Section 02510). No additional compensation will be allowed.

END OF SECTION

DIVISION 10 - SIGNAGE

SECTION 10 14 00 – SIGNAGE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Conduit shall be in accordance with Section 86-1.02 of the Caltrans Standard Specifications, except as modified or supplemented herein.

1.02 DESCRIPTION OF WORK

A. The work is to be performed at the City of Downey.
B. The Sign Contractor shall perform all work necessary to furnish, deliver and install all items shown on the Design Intent Drawings and specified herein, including preparation of digital files, typefonts and camera-ready art for use in production. The fabricator shall be responsible for developing the sign based on the typical concept shown in the drawings.

1.03 EXISTING CONDITIONS

A. The Sign Contractor shall take measurements at the site and shall check all measurements and grades on the contract drawings or subsequent drawings. Such information given on the contract drawings and in the specifications relative to existing conditions is reliable but shall be subject to verification in the field. The contractor must field verify exact location and condition and notify the Owner in writing, of any discrepancies, omissions, or clarifications as they affect sign design or location

1.04 EXAMINATION OF DOCUMENTS

A. Before submitting a proposal, the Sign Contractor should carefully examine the Design Intent Drawings and Construction Specifications, visit the site and fully inform themselves as to all existing conditions and limitations. Should any discrepancies or omissions from the drawings and specifications be found, or should there be any doubt as to their meaning, he should notify the Owner at once, in writing.
B. Sign Contractor shall participate in a pre-production conference with the Owner's representative and the Design to review the contract requirements, clarify the scope and nature of the work as outlined in the Drawings and Specifications, to establish clear lines of responsibility and checkpoints for the performance of the work.

1.05 QUALITY ASSURANCE

A. Qualifications
    1. The Sign Contractor shall have been continuously engaged in fabrication of similar work for a minimum of five (5) years. The Sign Contractor shall warrant and guarantee that none but experienced workmen will be employed on the work and that all items fabricated and/or provided by him shall be of the best of their respective kinds.
    2. The Sign Contractor certifies that he is able to furnish sufficient forces to ensure prosecution of the work in accordance with approved progress schedules and that he can furnish a work force that can work in harmony with all elements of labor employed in the work and at the site of the work.

3. The Sign Installer shall be trained and authorized by the Sign Fabricator for installations of required scope and products.

B. Protection of Work and Property
   1. The Sign Contractor shall be responsible for the work until it is acceptable by the Owner, and the Sign Contractor shall cover and protect all items from damage during transportation, storage and installation. If any loss or damage occurs prior to acceptance by the Owner, the Sign Contractor shall promptly repair or replace the part or parts lost or damaged, as directed by the Owner, at no cost to the Owner.
   2. The Sign Contractor shall also be responsible for any loss or damage to the Owner's property and to the property of others due to operations under Contact and shall make good, at his own expense and to the complete satisfaction of the Owner, such loss or damage.
   3. The Sign Contractor shall package materials and supplies in biodegradable packing whenever possible.

C. Supervision
   1. The Sign Contractor shall provide all necessary supervision by a person especially qualified and experienced in handling the work covered in his proposal. This individual and his qualifications shall be satisfactory to and approved by the Owner. The Sign Contractor shall consult with the City of Downey should any error or inconsistency develop in the drawings and specifications and if there is any doubt, in no case shall the Sign Contractor proceed with the work without approval. The Sign Contractor shall be entirely responsible for the proper laying-out of his work and for any damages that may occur because of his errors or inaccuracies.

1.06 COORDINATION

A. The Sign Contractor shall coordinate all activities related to the work with the Owner's designated site superintendent. It shall be the Sign Contractor's responsibility to meet any construction schedules required by the General Contractors due to related site work
B. The Sign Contractor shall also be responsible for coordinating his work with that of all other trades at the job site and for coordinating excavations as necessary to protect below-grade utilities, including but not limited to irrigation lines, telephone lines, and cable TV lines**.**

1.07 GUARANTEE AND/OR WARRANTY

A. The Sign Contractor shall agree to bring all portions of work to entire completion free of all defects in materials and workmanship for a period of one (1) year from the date of final acceptance of the completed work by the Owner.
B. Defects include but are not limited to: electrolytic decomposition; oxidation; dislocation of fasteners, anchors, welds or any other connecting devices; de-lamination; pitting of surfaces or finishes; non-adhesion; warping, canning or other distortions of uniform surfaces; fading or discoloration.
C. The Sign Contractor also guarantees, within a reasonable time after receipt of written notice thereof, to make good any defects in materials and/or workmanship which may develop within such period for which materials and workmanship are warranted, and to pay or cause to be paid for any damage to other work resulting therefrom, which may develop during the period of one (1) year from the date of final acceptance of the completed work by the Owner.

1.08 PRODUCTION SCHEDULE

A. The sign fabricator is to submit a Production Schedule to Owner for approval prior to any work beginning, including and accounting for contractor's full scope of services, appropriate lead times for all products ordered as part of this work, and including installation of all approved signs to completion of work. Fabricator should designate all expected deliverable dates, including all Submittals and Samples as noted in this section, and allowing for appropriate review time by Owner. Once agreed upon with Owner, the Fabricator is responsible for meeting all schedule milestones, and if not able to do so, must notify the Owner of any issues as they arise and prior to any approved deadlines.

1.09 SUBMITTALS

A. Samples
   1. All rejected samples, shop drawings, patterns, etc. must be revised and re-submitted to the Graphic Designer until approval is obtained. A full set of final plans must be approved and stamped by the Owner and/or Graphic Designer prior to permit application or sign fabrication.
   2. Samples shall be labeled on the backside with the Project Name, the Submittal # (i.e. 1,2 etc.), the Design Intent Sign Type designation (i.e. P2, V1, etc.), a description (i.e. paint to match DE3544 semi-gloss with anti-graffiti coating, etc.). Sign Contractor shall submit three (3) complete sets of samples of the following to the Owner for approval prior to fabrication:
      a. Material samples for each designated paint color and surface finish including:
         1) Metal:
            Submit actual production sections showing coating color and finish for aluminum and steel (3 samples on 8"x 8" squares)
         2) Acrylics:
            Submit samples of acrylic / plastic materials for the various applications in their finished state and data describing the materials and finishes.
         3) Paint:
            Submit (3) 8" x 8" square samples.
         4) Sealant / Silicone:
            Submit sample of sealant and silicone where color match is required.
         5) Anti-Graffiti Coating:
            Sample of anti-graffiti coating on finished surfaces – one half of the paint sample to have the anti-graffiti coating.

B. Shop Drawings:
   1. Sign Contractor shall submit a complete set of fully dimensioned Shop Drawings to the Owner for approval prior to fabrication as a PDF file. The cover shall state the initial submittal date and subsequent revision dates, and identify the package as Submittal 1, Submittal 2, etc. if the Shop Drawings are broken into components and submitted at different times.
   2. The shop drawings are expected to include additional details that are not shown on the Design Intent Drawings. It is not acceptable for the Sign Contractor to copy/repackage Graphic Solutions Design Intent Drawings and label them as "shop drawings." All such submittals shall be rejected. Any Digital Files of the Design Intent Drawings requested by the Sign Contractor will be sent as PDF.
   3. Shop Drawings shall establish the actual detail of all manufactured or fabricated items and shall include specifications for the paint system to be used for signage/graphics as well as specifications for all required electrical fixtures and components. Drawings shall also indicate proper relation to existing work, reflect all structural engineering requirements, and incorporate changes of design or construction, as directed by the Owner, to suit actual field conditions. In addition, drawings shall

indicate internal structural supports; adhesives; exact location and treatment of seams and joints; thickness of materials; exact location of access panels and safety switches; footing details; and details of installation, including sign attachments. Scaled drawings will show the sign in elevation and plan dimensioning its position in relationship to the architectural or landscape setting.

4. Shop drawings shall also indicate the source and location of electrical service for the sign installation, as well as complete specifications for all electrical fixtures and components.
5. All shop drawings and construction details must be fully dimensioned. Use 1-1/2" = 1'-0" minimum for construction details.
6. Sign Contractor must continue to revise rejected plans and resubmit until approval is obtained. For initial submittal and re-submittals, the Sign Contractor shall work from one set of drawings (i.e., this one set of drawings must incorporate all previous revisions/adjustments).
7. Drawings not in compliance with all of these requirements shall be rejected.
8. A complete Shop Drawing set with all revisions/adjustments shall be provided by the Sign Contractor to each party responsible for reviewing installed signs prior to the punch list date.

C. Patterns and/or Photo-Ready Art
   1. Prior to fabrication, Sign Contractor shall submit ¼" scale letter form and work spacing patterns, that include the curved beam outline and the struts, for approval by the Graphic Designer.

D. Engineering Calculations:
   1. Stamped engineering calculations are provided for this sign. The Sign Contractor shall be responsible for reviewing these and determining if any additional engineering will be required for this sign and for resolving any discrepancies that may exist between the engineering and the details of the Design Intent Drawings.
   2. The Sign Contractor shall be responsible for obtaining and paying for any additional structural engineering that may be required in connection with the work. If engineering affects the size and shape of the intended forms as shown on the Bid Drawings, the Sign Contractor must notify the General Contractor prior to submittal of Shop Drawings. Engineering is to be submitted to the Owner for approval in conjunction with shop drawing submittal.

E. First-Article Letters:
   1. Fabricator to provide full-scale and fully functional First-Article letters. The letter "N" for "Downey" and the letter "N" for "Downtown" as described in the Design Intent Drawings prior to fabrication of full program. The First-Article letters shall include all necessary attachment hardware, lighting modules, drivers and material finishes and coatings. Letters shall include finished front and backs. Fabricator shall indicate location of electrical conduit and access panels. Letters are required to be fully functional and illuminated.
   2. First Article letters shall be displayed free-standing.
   3. If any exceptions are made to the First Article letters, whether for safety or cost, fabricator shall notify all parties and make clearly understood such exceptions.
   4. Owner reserves the right to reject any First Article item not meeting expectations and request a new prototype be made to the specifications noted herein without additional cost incurred to the project. Full production and fabrication of the sign program may not proceed until approval of all prototypes by Owner.

F. As-Built Drawings: One complete set of drawings reflecting the as-built condition of all signs shall be submitted to the Owner within 30 days of acceptance of the work. This set of drawings shall incorporate all details of the work—references to previous drawings or submittals are not acceptable. If Shop Drawings were broken into separate packages, the As Built Drawings must include a comprehensive cover that identifies each sub-package and a comprehensive table of contents that lists all signs alphabetically showing which subpackage and page they can be found on.

PART 2 PRODUCTS

2.01 MATERIALS

A. Aluminum:
   1. Extrusions and rolled material shall have a strength and durability no less than that which is specified in ASTM B 221 for alloy 6063-T5. Sheets shall have a strength and durability no less than that which is specified in ASTM B 209 for alloy 5052-H32. All exposed aluminum shall have a quality finish suitable for painting.
   2. Material shall be of highest visual grade, free of mill marks, nicks, pits, gouges and other imperfections.
   3. All welds shall be continuous. Where appropriate, exceptions may be granted as part of the shop drawing review. Welding shall be of the correct type to minimize permanent distortion of flat surfaces. Visible welds are to be filled and ground smooth. Welds shall comply with standards established by the American Welding Society, and the Aluminum Association.
   4. All visible parts shall be ground smooth and filled before painting so that no grinding abrasions are apparent and there is no distortion of the intended form.
   5. All aluminum shall be of sufficient gauge to prevent warping and canning. Warped or canned sign faces or backs shall be unacceptable.
   6. Aluminum cabinets shall be welded and finished so as to appear seamless.
   7. Where aluminum is in contact with concrete, the aluminum material shall be coated with coal tar epoxy.
   8. All seams shall be water-tight.
   9. Use Matthews Paint System (or equivalent with Owner approval).

B. Steel:
   1. See construction specifications provided by structural engineer.

C. Acrylic:
   1. Acrylic material shall be new stock free from defects, and manufactured by Rohm & Haas or approved equivalent.
   2. All work or cut edges shall be free of saw marks and chips and shall be polished mechanically with an appropriate compound. Flame polishing shall not be acceptable. Edges shall be square to the face.
   3. No discoloration from bonding solvent shall be apparent on acrylic sign faces.

D. Adhesive:
   1. Type and usage shall be as recommended by the manufacturer for the particular conditions and project requirements.
      a. Identify each type and usage on Shop Drawings.
      b. Include data describing method of application.
   2. Adhesives that will fade, discolor, or delaminate as result of exposure to ultraviolet light or heat, or that change the color of or deteriorate the condition of the materials to which they are applied shall not be used. Adhesives must not be seen from public view.
   3. All “2-stick” tape shall be VHB by 3M (or equivalent) and used in conjunction with silicone adhesive.

E. Paints:
   1. Paints shall be of the type made for the surface material on which applied and recommended by manufacturer.
      a. Identify each type and usage on Shop Drawings.
      b. Include data describing method of application.

2. Products that will deface, discolor or delaminate as a result of exposure to ultraviolet light source or heat therefrom shall not be used.
3. Prepare surfaces per manufacturer's specifications prior to painting. Include, as a part of this work, prime coats (such as Matthews One-Coat 74-734 and Matthews Metal Pre-Treatment 74-735) and other surface pre-treatments (such as zinc chromate or acid wash), where recommended by the manufacturer for inks, paints and lacquers. Porous material should be filled sanded smooth and primed prior to painting unless indicated otherwise.
4. All paint shall be spray applied. Pretreatment of surfaces and spray application of paint shall be performed in accordance with manufacturer's specifications.
5. Paints shall be applied without pinholes, scratches, peeling, application marks, etc.
    a. Internally illuminated panels containing defects that cause light leaks in surface areas intended to be opaque will not be accepted.
6. All paint for metal signage, unless otherwise specified, shall be acrylic aliphatic isocyanate/acrylic polyurethane with ultraviolet (UV) inhibitors and formulated for exterior use in colors specified on the Design Intent Drawings or as otherwise specified by the Graphic Designer. Paint is to be the highest quality recommended by the manufacturer for specific surfaces. Apply paint to the manufacturer's recommended thickness for highest durability.
7. Paint is to be applied to all interior and exterior surfaces, visible and non-visible, and edges of metal parts and components unless otherwise noted and approved.
8. All finish coats should be satin unless otherwise specified or approved as part of the Shop Drawings.

F. Letterforms and Spacing:
1. All letterforms, typestyles and spacing shall be as specified on Design Intent Drawings.
2. Letterforms with rounded positive or negative corners resulting from the cutting/fabricating process will not be accepted. Corners of fabricated letterforms must be as sharp as intended in the typefont.

G. Hardware, Fasteners, and Gaskets:
1. All exposed hardware shall match adjacent surfaces unless specifically noted otherwise.
2. All dissimilar metals shall be separated with 3M Scotchrap™ All Weather Corrosion Protection Tape to prevent electrolysis. Surface to be prepared with Scotchrap™ Pipe Primer before applying tape.
3. In addition to the tape in (2) above, stainless steel screws or fasteners shall be used to secure ferrous to non-ferrous metals.
4. Unless otherwise specified in the Design Intent Drawings, screws shall be flathead metal. Exposed screws shall be countersunk, and screw heads shall be finished to match the surrounding sign finish and color. Exact locations, sizes, and centers of screws shall be noted on the Shop Drawings.
5. All exposed bolt and screw heads accessible to the public shall be tamper resistant and shall be specified in shop drawing submittal.

H. LED (Light Emitting Diode illumination):
1. Sign Contractor shall use highest quality LED modules with a minimum life span of 50,000 hours..
2. Adequate cooling / venting for LED's and power supply should be used per manufacturer's recommendations to prevent overheating.
3. LEDs should be arranged to provide even color and lighting with no hot spots or dark areas.
4. Letters with acrylic faces shall be fabricated in a way to eliminate gaps and prevent all light leaks.

I. Concrete:
1. See construction specifications provided by structural engineer.

2.02 ELECTRICAL FIXTURES:

A. Automatic Time Switch:
1. Where specified, Sign Contractor shall furnish and install a Time Switch for automatic on-off control

of sign lighting. Time Switch shall be INTEMATIC ET70000C series or equal.

2. The electronic Time Switch shall be a solid state digital type capable of distributing set points on independent daily schedules throughout a 7 day time period. The Time Switch shall provide for 5 weekday program entry for typical 5/2 day load control. The Time Switch shall provide astronomic programming and momentary or interval programming for any or all circuits independently. The Time Switch shall provide full year control by providing automatic leap year and daylight saving time adjustment. The Time Switch shall also provide holiday or special day control requirements by providing up to 99 holiday schedules.
3. Where specified, Sign Contractor shall furnish and install a Photo Control for "On-Off" control of sign lighting. Photo Control shall be INTERMATIC K4000 series or equal.

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin construction or installation of products until all Submittals and Samples have been properly prepared, reviewed, and approved.

3.02 CONSTRUCTION

A. Conduit. Signs must be of durable rust-inhibited materials that are appropriate and complementary to the site.
B. All formed metal, such as letterforms, shall be fabricated using full-weld construction. Formed metal sign components shall be bent on a continuous curve without apparent elbows or kinks.
C. Dissimilar metals shall be separated with non-conductive 3M Scotchrap™ All Weather Corrosion Protection Tape to prevent electrolysis and secured with stainless steel fasteners as required.
D. Paint colors must be reviewed and approved by the Owner. Color coatings shall exactly match the colors specified on the approved plans.
E. Surfaces with color mixes and hues prone to fading (e.g., pastels, fluorescent, complex mixtures, and intense reds, yellows and purples) shall be coated with ultraviolet-inhibiting clear coat in a matte or semi-gloss finish unless otherwise noted and approved.
F. Joining of materials (e.g., seams) shall be finished in such a way as to be tight, secure and unnoticeable (i.e., butted seams). Overlapped seams shall be considered unacceptable. Visible welds shall be continuous and ground smooth. Screws, and other fasteners that extend to visible surfaces shall be flush, filled, and finished so as to be unnoticeable.
G. Finished surfaces of metal shall be free from canning and warping. Flat surfaces shall have faces of such flatness that when measured from corner to corner along the diagonal, the maximum deviation from the nominal plane of surface shall not exceed 1/16" for measured distances up to 5'-0".
H. All sign finishes shall be free of dust, orange peel, drips, and runs and shall have a uniform surface conforming to the highest standards of the industry.
I. Brightness of signs shall be even and consistent in intensity, coverage, and color both within signs and between signs of similar lighting technique and subject to approval by Owner. All aluminum cabinets to be free from light leaks.
J. All conduit, raceways, crossovers, wiring, transformers, and other equipment necessary for sign connection shall be concealed.
K. All access panels shall be waterproof and concealed from public view. Panels shall be inset so that outer surface of panel aligns flush with outer surface of sign to which it is attached. Attachment shall be by means of counter sunk flat head screws (tamper proof where accessible to public). Paint finish screw heads to match surrounding color.

L. Metal below grade or in contact with grade-level concrete shall be coated with coal tar epoxy.
M. All metal interior surfaces of internally illuminated sign cabinets to be painted white.
N. Where design of channel letters is such that the front-edge of the letter return or retainer is visible on the face of the letter, the front edge of the return shall be painted.
O. Anti-graffiti coating to be applied to sign. Specify brand of anti-graffiti coating and provide cut sheet along with Shop Drawings showing where protection is applied.
P. Letter returns must accommodate expansion and contraction of acrylic over a 120° F temperature range. Indicate tolerance dimensions on shop drawings.
Q. Sign Contractor shall construct signage in such a manner that illuminated letter forms shall be free of lighting leaks.
R. Provide ventilation for electrical components. Openings for ventilation must be louvered, baffled (no light leaks), screened and weather proof. Locate openings away from public view and show on Shop Drawings.

3.03 INSTALLATION

A. Schedule
    1. All dates for sign installation must be approved in advance and coordinated with the Owner
A. Location and Placement
    1. Letters shall be carefully spaced and accurately set in place, both vertically and horizontally, with overall inscription to conform with the Design Intent Drawings and approved templates and patterns.
    2. Sign installation shall be coordinated with other work on the site as outlined in Section 1, herein.
    3. Installation shall be done in a manner to withstand all actions imposed by wind, water and other environmental forces.
B. Installation Conditions
    1. Working areas are to be left clean and orderly every day during the period of installation. All work is to be coordinated with the General Contractor and other trades working on the site.
    2. In case of damage to landscaping material, irrigation lines, or other underground or aboveground equipment, the Owner and/or General Contractor shall be notified and the repairs shall be made to his satisfaction. All damaged material shall be repaired and left in the same condition as it was found. All grades are to be restored to the original condition.
    3. All installations are to comply with approved Shop Drawings.

3.04 ADJUSTMENTS AND REPAIRS

A. The Sign Contractor shall repair, or remove and replace with new materials, all damaged units and units not complying with Contact Documents as approved by the Graphic Designer, at no additional cost to the Owner.

3.05 ADJUSTMENTS AND REPAIRS CLEANING

A. Prior to final inspection and acceptance by the Owner, the Sign Contractor shall remove all protective coatings and stickers, clean metal and painted surfaces in accordance with manufacturer's recommendations, and remove debris from the work site.

3.06 ADJUSTMENTS AND REPAIRS MAINTENANCE

A. Prior to final payment, the Sign Contractor shall provide to the Owner written instructions for proper maintenance of all signage elements. Instructions shall address periodic cleaning, service access, replacement procedures, and painting. Where applicable, color specifications shall also be provided.

END OF SECTION

DIVISION 16 – STRUCTURAL

SECTION 16102.1 - STRUCTURAL GENERAL PROVISIONS

PART 1 GENERAL

1.01 STRUCTURAL GENERAL PROVISIONS

A. All structural work, including materials, construction, and testing, shall conform to the structural calculations and structural plans prepared by the structural consultant, as included in the contract plan set approved and stamped by the Owner and/or YJ Sign Inc. prior to permit application or sign fabrication.

B. All special provisions, specific notes, design criteria, construction sequences, and detailed requirements pertaining to the structural scope of work are explicitly detailed on the structural plan sheet. Contractors and bidders shall refer directly to the structural plans for all specialized requirements governing this section. In the event of a conflict between standard specifications and the notes or details provided on the plans, the information and requirements on the plans shall govern.

END OF SECTION

DIVISION 26 – ELECTRICAL

SECTION 26 00 00 - ELECTRICAL GENERAL PROVISIONS

PART 1 GENERAL

1.01 SCOPE

A. Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete, as shown on the drawings and/or specified herein. Work includes, but is not necessarily limited to, the following:

1. Examine all other sections for work related to those other sections and required to be included as work under this section.

2. General provisions and requirements for electrical work.

1.02 GENERAL SUMMARY OF ELECTRICAL WORK

A. The specifications and drawings are intended to cover a complete installation of systems. The omission of expressed reference to any item of labor or material for the proper execution of the work in accordance with present practice of the trade shall not relieve the Contractor from providing such additional labor and materials.

B. Refer to the drawings and shop drawings of other trades for additional details, which affect the proper installation of this work. Diagrams and symbols showing electrical connections are diagrammatic only. Wiring diagrams do not necessarily show the exact physical arrangement of the equipment.

C. Before submitting a bid, the Contractor shall familiarize himself with all features of the drawings and site, which may affect the execution of the work. No extra payment will be allowed for failure to obtain this information.

D. If there are omissions or conflicts between the drawings and specifications, clarify these points with the Engineer before submitting bid.

1.03 LOCATIONS OF EQUIPMENT

A. The drawings indicate diagrammatically the desired locations or arrangements of conduit runs, outlets, equipment, etc., and are to be followed as closely as possible. Proper judgment must be exercised in executing the work so as to secure the best possible installation in the available space and to overcome local difficulties due to space limitations or interference of structure conditions encountered.

B. In the event changes in the indicated locations or arrangements are necessary, due to developed conditions in the building construction or rearrangement of furnishings or equipment, such changes made without cost, providing the change is ordered before the conduit runs, etc., and work directly connected to same is installed and no extra materials are required.

C. The locations of existing utilities, building, equipment and conduit shown on the drawings is approximate. Verify exact locations and routing of existing systems in the field. Include all costs in contract price for adjustment required to accommodate existing conditions.

D. Coordinate and cooperate in every way with other trades in order to avoid interference and assure a satisfactory job.

1.04 POWER SERVICES

A. Power service and metering facilities shall conform to the requirements of the Southern California Edison Company (SCE). Contractor shall verify service locations and requirements.

B. Conform to all requirements of the serving utility company. Location of meter pedestals, pull boxes and routing of service conduits indicated on the drawings are approximate and shall be verified with SCE prior to installation. Installation of service shall not begin until approved drawings have been received from SCE.

C. Within 14 calendar days of receipt of notice that the contract award has been made, the Contractor shall notify the New Business Departments of the District Office of SCE and shall provide information as to the total power requirements of the contract. The Contractor shall furnish at the same time information as to the estimated completion date of job or the date when the respective utility company circuits, will be ready for installation, energizing and activation of the service.

D. In addition to the requirements of SCE, all power service conduits for utility company circuits, shall be completely encased with concrete if requested.

1.05 QUALITY ASSURANCE

A. Work and materials in full accordance with the latest rules and regulations of the California Code of Regulations Title 24, Part 3 "2025 California Electrical Codes", Title 8 "Division of Industrial Safety", the California Building Code and other applicable Federal and State laws and regulations.

B. All material and equipment shall be new and shall be delivered to the site in unbroken packages. All material and equipment shall be listed and labeled by Underwriters Laboratories or other recognized testing laboratories, where such listings are available. Comply with all installation requirements and restrictions pertaining to such listings.

C. Work and material shown on the drawings and in the specifications is new and included in the contract unless specifically indicated as existing or N.I.C. (not-in-contract).

D. Keep a copy of all applicable codes available at the job site at all times while performing work under this section. Nothing in plans or specifications shall be construed to permit work not conforming to the most stringent of codes.

1.06 SUBMITTALS

A. General

1. Review of Contractor submittals is for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities; dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of work with that of all other trades and satisfactory performance of their work.

2. The Contractor shall review each submittal in detail for compliance with the requirements of the contract documents prior to submittal to the Engineer. The Contractor shall "Ink Stamp" and sign each item of the submittal with a statement "CERTIFYING THE SUBMITTAL HAS BEEN REVIEWED BY THE CONTRACTOR AND COMPLIES WITH ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS".

3. Where the construction documents indicate specific manufacturer(s) for any given product, it shall be considered a substitution if the Contractor proposes to use any manufacturer other than those specifically named. The Contractor shall clearly and specifically identify each individual proposed substitution or proposed deviation from the requirements of the contract documents with a statement "THIS ITEM IS A SUBSTITUTION".

B. Material Lists and Shop Drawings:

1. Submit material list, equipment manufacturers and shop drawings for approval within two (2) weeks of notice to proceed. Give name of manufacturer and where applicable, brand name, type and/or catalog number of each item. Listing of more than one manufacturer for any one item of equipment, or listing items "as specified", without both make and model or type designation, is not acceptable. Shop drawings shall be submitted in completed bound groups.

2. Submittals which are intended to be reviewed as substitution or departure from the contract documents must be specifically noted as such or the requirements of the contract documents will prevail regardless of the acceptance of the submittal.

3. Shop drawings shall include dimensioned plans, elevations, details, wiring diagrams and descriptive literature of components.

4. The Contractor shall verify dimensions of equipment and be satisfied as to fit and that they comply with all code requirements relating to clear working space about electrical equipment prior to submitting shop drawings for approval.

5. Shop drawings shall include the manufacturer's projected days for shipment from the factory of completed equipment, after the equipment is released for production by the Contractor. It shall be the responsibility of the Contractor to insure that all material and equipment is ordered and installed in time to provide an orderly progression of the work, and to allow full occupancy and full operation of the facility at the scheduled completion date. The Contractor shall notify the Engineer of any changes in delivery, which would affect the project completion date.

C. The Contractor shall be responsible for incidental, direct and indirect costs resulting from the substitution of specified contract materials or work.

D. Maintenance and Operating Manuals

1. The Contractor shall furnish three copies of typewritten maintenance and operating manuals for all electrical equipment, fire alarm equipment, sound system equipment, etc., to the City and instruct City's personnel in correct operation of all equipment at completion of project.

2. Maintenance and operating manuals shall be bound in three-ring, hard-cover, plastic binders and shall be delivered to the City with letter of transmittal, carbon copy to the Engineer.

E. Portable or Detachable Parts:

1. The Contractor shall retain in his possession, and shall be responsible for all portable and detachable parts or portions of the installation such as fuses, keys, locks, adapters, locking clips, and inserts until final completion of contract work. These parts shall then be delivered to the City or his authorized representative and an itemized receipt obtained, with copies of receipt sent to the Engineer.

F. Record Drawings

1. Provide and maintain in good order at the job site a complete set of electrical contract prints. Changes to the contract to be clearly recorded on this set of prints. No pay request by the Contractor will be granted without verification that the jobsite prints are up-to-date and current with the project construction. At the end of the project, the Contractor shall transfer all changes to one set of drawings to be delivered unfolded to the Engineer. Drawings shall be prepared in an organized and clearly legible fashion by persons skilled in drafting techniques.

2. The actual location and elevation of all buried lines, boxes, monuments, vaults, stub-outs

and other provisions for future connections shall be referenced to the building lines or other clearly established base lines and to approved bench marks. All measurements shall be witnessed by the job inspector who shall make his own record of the dimensions. Before the inspector signs the record drawings, he shall check his own dimensions against those on the drawings. If any necessary dimensions are omitted from the record drawings, the Contractor shall, at his own expense, do all excavation required to expose the buried work and to establish the correct locations.

3. The Contractor shall keep the "record" prints up to date and current with all work performed.

4. A mandrel shall be pulled through each underground conduit after the backfill has been compacted and prior to restoration of finished surfaces. All mandrelling must be done in the presence of the job inspector.

1.07 CLEANING EQUIPMENT, MATERIALS, PREMISES

All parts of the equipment shall be thoroughly cleaned of dirt, rust, cement, plaster, etc., and all cracks and corners scraped out clean.

1.08 JOB CONDITIONS - PROTECTION

Protect all work, materials and equipment from damage from any cause whatever and provide adequate and proper storage facilities during the progress of the work. Provide for the safety and good condition of all the work until final acceptance of the work by the City and replace all damaged or defective work, materials and equipment before requesting final acceptance.

1.09 PUBLIC CONVENIENCE AND TRAFFIC CONTROL

A. Public convenience and traffic control shall conform to Section 7-1 of the Standard Specifications and these Special Provisions.

B. The Contractor shall be responsible for notification of the local residents and businesses, a minimum of forty-eight (48) hours prior to any work. Notices to the local residents will be supplied by the City. The Contractor shall be required to complete the notice as to the date the work will be performed and deliver a copy to each resident and business a minimum of two (2) working days prior to scheduled work.

C. In order to minimize inconvenience to the public and maximize traffic safety during the peak traffic periods, the City has restricted work hours within the street right-of-way as follows:

1. Flaggers, whose sole duty shall be to direct or warn traffic, shall be provided by the Contractor if required by the Engineer.

2. The Contractor shall be required to provide and maintain all necessary flagmen, barricades, delineators, signs, flashers and any other safety equipment, and perform any necessary removal of lane lines as set forth in the latest publication of the “State of California Manual of Warning Signs, Lights and Devices,” or as required by the Engineer to ensure safe passage of traffic. All necessary traffic control devices shall be in place prior to start of work on a project section.

3. Flasher-equipped barricades, and other barriers, shall be placed at the ends and along the sides of all excavations from sunset each day to sunrise of the next day to warn all pedestrian and vehicular traffic of such excavations. Pipe trenches, foundations, and other hazardous excavations shall be filled in, securely enclosed or covered at the close of each working day to the satisfaction of the Engineer. Flasher equipped barricades and other barriers left in operation beyond the normal work hours as prescribed shall be solar/battery-powered only.

4. The Contractor shall so conduct his operations as to offer the least possible obstruction and inconvenience to public traffic. Every effort shall be made to provide a clear and

unobstructed view of all traffic control signs, signals or markers. If, however, it becomes necessary for the Contractor to place his equipment so that it prevents a clear and unobstructed view of said traffic control signs, signals or markers, adequate temporary signs shall be erected by the Contractor to protect the work and prevent accidents during construction. Said temporary signs shall be so placed as to be clearly visible to motorists and pedestrians.

5. The Contractor shall maintain access for emergency vehicles at all times on all streets.

6. Failure or refusal by the Contractor to comply with the above requirements shall be sufficient cause for the City Engineer to order the work done by City forces and all costs thereof to be borne by the Contractor.

7. The Contractor may post "Temporary No Parking" signs only after notifying and receiving approval from the Engineer. Type of sign, and method and location of posting shall conform to the State of California uniform sign chart. Refer to Section 01570.F.

8. The Contractor shall be required to provide and maintain all necessary flag persons, barricades, delineators, signs, flashers, and any other safety equipment as set forth in the latest publication of the State of California, Manual of Traffic control, or as required by the Engineer to insure safe passage of traffic.

9. Lane closure for all arterial streets shall require the use of lighted arrow boards. Arrow boards required overnight shall be solar/battery-powered.

10. The Engineer reserves the right to alter above traffic conditions as require during construction.

11. Existing signs shall be covered when directed by the Engineer.

12. The Contractor shall field check daily all temporary traffic control signs, barricades and other devices including Saturdays, Sundays and holidays to ensure their proper maintenance and conformance to Plans, Specifications and detailed instructions of the Traffic Control Plan.

13. No separate payment for traffic maintenance, safety protection and signing shall be made. The cost of all flagmen, barricades, flashers, delineators, signs, ramping, or any other item for traffic maintenance and safety as required by the Engineer, shall be included in the bid items requiring this work.

1.10 CUTTING AND PATCHING

Perform cutting and patching of the construction work which may be required for the proper installation of the electrical work. Patching shall be of the same material, thickness, workmanship and finish as existing and accurately match surrounding work to the satisfaction of the Engineer.

1.11 TESTING

A. The Contractor shall obtain an independent NETA certified testing laboratory that will provide all instrumentation and tests on the electrical system and equipment as hereinafter described and further directed by the Engineer. The test shall be performed after the completion of all electrical systems. All tests shall be recorded and documented and submitted to the Engineer for review.

1. Test for Phase to Ground Condition:

   a. Open main service disconnect.

   b. Isolate the system neutral from ground by removing the neutral disconnect link located in the service pedestal.

   c. Close all sub-main disconnects.

   d. Close all branch feeder circuit breakers.

e. Measure the resistance of each phase to ground. A properly calibrated "megger" type test instrument shall be used. The test voltage shall be 500 volts.

f. Record all readings after one minute duration and document into a complete report.

2. Isolating Grounds: In the event that low resistance grounds are found in the system, they shall be isolated and located by testing each circuit individually as outlined above. Make proper corrections to restore the resistance values to an acceptable value.

B. Prior to connection to any equipment, perform "fall-of-potential" tests on each grounding electrode per IEEE Standard No. 81, Section 8.2.1.5. When suitable locations for test rods are not available, a low resistance dead earth or reference ground will be utilized.

C. After all grounding connections are complete, perform the two-point method test per IEEE Standard No. 81, Section 8.2.1.1, to determine the ground resistance between the main grounding system and all major electrical equipment frames and system neutral.

D. All instrumentation and personnel required for testing shall be furnished by the Contractor.

E. If, in the opinion of the Engineer, the voltages and regulations are not met within acceptable limits, make arrangements with the serving utility for proper electrical service and then verify that such has been provided.

1.12 ELECTRICAL WORK CLOSEOUT

A. Prepare the following items and submit to the Engineer before final acceptance.

1. Two copies of all test results as required under this section.

2. Copies of as-built record drawings as required under the General Conditions, pertinent Division One Sections and Electrical General Provisions.

3. Two copies of all receipts transferring portable or detachable parts to the City when requested.

4. Notify the Engineer in writing when installation is complete and that a final inspection of this work can be performed. In the event any defect or deficiencies are found during this final inspection they shall be corrected to the satisfaction of the Engineer before final acceptance can be issued.

END OF SECTION

SECTION 26 56 00 – EXTERIOR LIGHTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Exterior luminaires.

B. LED Power Supply Units (Drivers).

1.02 RELATED REQUIREMENTS

A. Section 26 05 26 - Grounding and Bonding for Electrical Systems.

B. Section 26 05 29 - Hangers and Supports for Electrical Systems.

C. Section 26 05 33.16 - Boxes for Electrical Systems.

D. Section 26 09 23 - Lighting Control Devices.

1. Includes automatic controls for lighting including outdoor motion sensors, time switches, and outdoor photo controls.

E. Section 26 27 26 - Wiring Devices: Receptacles for installation in poles.

F. Section 26 28 13 - Fuses.

1.03 REFERENCE STANDARDS

A. IEC 60529 - Degrees of Protection Provided by Enclosures (IP Code); 1989 (Corrigendum 2019).

B. IEEE C2 - National Electrical Safety Code(R) (NESC(R)); 2023.

C. IES LM-63 - Approved Method: IES Standard File Format for the Electronic Transfer of Photometric Data and Related Information; 2019 (Reaffirmed 2025).

D. IES LM-79 - Approved Method: Optical and Electrical Measurements of Solid-State Lighting Products; 2024.

E. IES LM-80 - Approved Method: Measuring Maintenance of Light Output Characteristics of Solid-State Light Sources; 2021.

F. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.

G. NECA/IESNA 501 - Standard for Installing Exterior Lighting Systems; 2000 (Reaffirmed 2006).

H. NEMA 410 - Performance Testing for Lighting Controls and Switching Devices with Electronic Drivers and Discharge Ballasts; 2023.

I. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

J. UL 844 - Luminaires for Use in Hazardous (Classified) Locations; Current Edition, Including All Revisions.

K. UL 1598 - Luminaires; Current Edition, Including All Revisions.

L. UL 8750 - Light Emitting Diode (LED) Equipment for Use in Lighting Products; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Notify Representative of any conflicts or deviations from Contract Documents to obtain direction prior to proceeding with work.

1.05 SUBMITTALS

A. Shop Drawings
   1. Indicate dimensions and components for each luminaire that is not a standard product of the manufacturer.
   2. Provide photometric calculations where luminaires are proposed for substitution upon request.

B. Product Data: Provide manufacturer's standard catalog pages and data sheets including detailed information on poles, luminaire construction, dimensions, ratings, finishes, mounting requirements, listings, service conditions, photometric performance, weight, effective projected area (EPA), and installed accessories; include model number nomenclature clearly marked with all proposed features
   1. LED Luminaires:
      a. Include estimated useful life, calculated based on IES LM-80 test data.
      b. Include IES LM-79 test report.
   2. Provide electronic files of photometric data certified by a National Voluntary Laboratory Accreditation Program (NVLAP) lab or independent testing agency in IES LM-63 standard format upon request.

C. Field Quality Control Reports.
   1. Include test report indicating measured illumination levels.

D. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.

E. Operation and Maintenance Data: Instructions for each product including information on replacement parts.

1.06 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

C. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.07 DEVELIVERY

A. Receive, handle, and store products according to NECA/IESNA 501 and manufacturer's written instructions.

B. Keep products in original manufacturer's packaging and protect from damage until ready for installation.

1.08 WARRANTY

A. Provide 2-year manufacturer warranty for all LED luminaires, including drivers.

PART 2 PRODUCTS

2.01 LUMINAIRE TYPES

A. Furnish products as indicated in luminaire schedule included on the drawings.

2.02 LUMINAIRES

A. Provide products that comply with requirements of NFPA 70.

B. Provide products that are listed and labeled as complying with UL 1598, where applicable.

C. Provide products listed, classified, and labeled as suitable for the purpose intended.
D. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, drivers, reflectors, lenses, housings and other components required to position, energize and protect the lamp and distribute the light.
E. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, hardware, poles, foundations, supports, trims, accessories, etc. as necessary for a complete operating system.
F. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc.
G. Provide luminaires listed and labeled as suitable for wet locations unless otherwise indicated.
H. Luminaires Mounted in Continuous Rows: Provide quantity of units required for length indicated, with all accessories required for joining and aligning.
I. LED Luminaires:
    1. Components: UL 8750 recognized or listed as applicable.
    2. Tested in accordance with IES LM-79 and IES LM-80.
    3. LED Estimated Useful Life: Minimum of 50,000 hours at 70 percent lumen maintenance, calculated based on IES LM-80 test data.
J. LED Tape Lighting Systems: Provide all power supplies, drivers, cables, connectors, channels, covers, mounting accessories, and interfaces as necessary to complete installation.
    1. LED Tape - General Requirements:
        a. Listed.
        b. Designed for field cutting in accordance with listing.
        c. Wet Location Applications: IEC 60529, IP 68 (waterproof) rated.
K. Exposed Hardware: Stainless steel.

2.03 LED POWER SUPPLY UNITS (DRIVERS)

A. General Requirements
    1. Electronic Drivers: Inrush currents not exceeding peak currents specified in NEMA 410.
    2. Minimum efficiency shall be 85 percent.
    3. Designed to operate on the voltage indicated.
B. Dimmable LED Drivers:
    1. Dimming Range: Continuous dimming from 100 percent to five percent relative light output unless dimming capability to lower level is indicated, without flicker.
    2. Control Compatibility: Fully compatible with the dimming controls to be installed.

2.04 LED LIGHT SOURCES

A. Correlated Color Temperature (CCT) shall be in accordance with NEMA ANSLG C78.377:
    1. Nominal CCT: As indicated.
B. Color Rendering Inder (CRI) shall be:
    1. Greater than or equal to 70 for light sources.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.
B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate conductors in accordance with NFPA 70.

C. Verify that suitable support frames are installed where required.
D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to luminaires.
E. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Provide extension rings to bring outlet boxes flush with finished surface.
B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

3.03 INSTALLATION

A. Coordinate locations of outlet boxes provided under Section 26 05 33.16 as required for installation of luminaires provided under this section.
B. Perform work in accordance with NECA 1 (general workmanship).
C. Install products in accordance with manufacturer's instructions.
D. Install luminaires in accordance with NECA/IESNA 501.
E. Provide required support and attachment in accordance with Section 26 05 29.
F. Install luminaires plumb and square and aligned with building lines and with adjacent luminaires.
G. Install accessories furnished with each luminaire.
H. Bond products and metal accessories to branch circuit equipment grounding conductor.
I. Install lamps in each luminaire.

3.04 INSTALLATION

A. Inspect each product for damage and defects.
B. Operate each luminaire after installation and connection to verify proper operation.
C. Correct wiring deficiencies and repair or replace damaged or defective products. Repair or replace excessively noisy ballasts as determined by Representative.
D. Measure illumination levels at night with calibrated meters to verify compliance with performance requirements. Record test results in written report to be included with submittals.

3.05 ADJUSTING

A. Aim and position adjustable luminaires to achieve desired illumination as indicated or as directed by Representative. Secure locking fittings in place.
B. Luminaires with Field-Rotatable Optics: Position optics according to manufacturer's instructions to achieve lighting distribution as indicated or as directed by Representative.

3.06 CLEANING

A. Clean surfaces according to NECA/IESNA 501 and manufacturer's instructions to remove dirt, fingerprints, paint, or other foreign material and restore finishes to match original factory finish.

3.07 INSTALLATION

A. Demonstration: Demonstrate proper operation of luminaires to Representative, and correct deficiencies or make adjustments as directed.
B. Just prior to Substantial Completion, replace all lamps that have failed.

3.08 PROTECTION

A. Protect installed luminaires from subsequent construction operations.

END OF SECTION

SECTION 26 27 26 - WIRING DEVICES

PART 1 GENERAL

1.01 INCLUDES

A. Receptacles.
B. Wall plates and covers.

1.02 RELATED REQUIREMENTS

A. A Section 26 05 26 - Grounding and Bonding for Electrical Systems.
B. Section 26 05 33.16 - Boxes for Electrical Systems.
C. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.

1.03 REFERENCE STANDARDS

A. FS W-C-596 - Connector, Electrical, Power, General Specification for; 2014h (Validated 2022).
B. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
C. NECA 130 - Standard for Installing and Maintaining Wiring Devices; 2016.
D. NEMA WD 1 - General Color Requirements for Wiring Devices; 1999 (Reaffirmed 2020).
E. NEMA WD 6 - Wiring Devices - Dimensional Specifications; 2021.
F. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
G. UL 498 - Attachment Plugs and Receptacles; Current Edition, Including All Revisions.
H. UL 514D - Cover Plates for Flush-Mounted Wiring Devices; Current Edition, Including All Revisions.
I. UL 943 - Ground-Fault Circuit-Interrupters; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
    1. Coordinate the placement of outlet boxes with millwork, furniture, equipment, etc. installed under other sections or by others.
    2. Coordinate wiring device ratings and configurations with the electrical requirements of actual equipment to be installed.
    3. Coordinate the installation and preparation of uneven surfaces, such as split face block, to provide suitable surface for installation of wiring devices.
    4. Notify Representative of any conflicts or deviations from Contract Documents to obtain direction prior to proceeding with work.

1.05 SUBMITTALS

A. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.
B. Field Quality Control Test Reports.
C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
D. Operation and Maintenance Data:
    1. GFCI Receptacles: Include information on status indicators.
E. Project Record Documents: Record actual installed locations of wiring devices.

1.06 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70
B. Products: Listed, classified, and labeled as suitable for the purpose intended.
C. Product Evaluation and Listing Organization Qualifications: Organization engaged in evaluation of products and services, including those recognized by OSHA as Nationally Recognized Testing Laboratories (NRTL), and acceptable to authorities having jurisdiction.

PART 2 PRODUCTS

2.01 WIRING DEVICES - GENERAL REQUIREMENTS

A. Provide wiring devices suitable for intended use with ratings adequate for load served.
B. Wiring Device Applications:
    1. Receptacles Installed Outdoors or in Damp or Wet Locations: Use weather-resistant GFCI receptacles with weatherproof covers.

I. WALL PLATES AND COVERS

1. Wall Plates: Comply with UL 514D.
    a. Configuration: One piece cover as required for quantity and types of corresponding wiring devices.
    b. Size: Standard in finished spaces and oversized for concrete and block walls.
    c. Screws: Metal with slotted heads finished to match wall plate finish.
2. Stainless Steel Wall Plates: Brushed satin finish, Type 302 stainless steel.
3. Weatherproof Receptacle Covers for Wet Locations: Gasketed, cast aluminum, with hinged lockable cover and corrosion-resistant screws; listed as suitable for use in wet locations while in use with attachment plugs connected and identified as extra-duty type.

2.02 RECEPTACLES

A. General Requirements: Self-grounding, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 498, and where applicable, FS W-C-596; types as indicated on the drawings.
    1. Wiring Provisions: Terminal screws for side wiring with separate ground terminal screw.
    2. NEMA configurations specified are according to NEMA WD 6.
B. GFCI Receptacles:
    1. General Requirements: Self-testing, with feed-through protection and light to indicate ground fault tripped condition and loss of protection; listed as complying with UL 943, class A.
        a. Provide test and reset buttons of same color as device.
    2. Standard GFCI Receptacles: Industrial specification grade, duplex, 20A, 125V, NEMA 5-20R, rectangular decorator style.
    3. Weather Resistant GFCI Receptacles: Industrial specification grade, duplex, 20A, 125V, NEMA 5-20R, rectangular decorator style, listed and labeled as weather resistant type complying with UL 498 Supplement SD suitable for installation in damp or wet locations.

2.03 WALL PLATES AND COVERS

A. Wall Plates: Comply with UL 514D.
    1. Configuration: One piece cover as required for quantity and types of corresponding wiring devices.
    2. Size: Standard in finished spaces and oversized for concrete and block walls.
    3. Screws: Metal with slotted heads finished to match wall plate finish.

B. Stainless Steel Wall Plates: Brushed satin finish, Type 302 stainless steel.
C. Weatherproof Receptacle Covers for Wet Locations: Gasketed, cast aluminum, with hinged lockable cover and corrosion-resistant screws; listed as suitable for use in wet locations while in use with attachment plugs connected and identified as extra-duty type.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.
B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate devices and conductors in accordance with NFPA.
C. Verify that wall openings are neatly cut and will be completely covered by wall plates.
D. Verify that final surface finishes are complete.
E. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.
F. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Provide extension rings to bring outlet boxes flush with finished surface.
B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

3.03 INSTALLATION

A. Perform work in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards unless otherwise indicated.
B. Coordinate locations of outlet boxes provided under Section 26 05 33.16 as required for installation of wiring devices provided under this section.
    1. Mounting Heights: Unless otherwise indicated, as follows:
        a. Receptacles: 18 inches above finished floor or 6 inches above counter.
    2. Orient outlet boxes for vertical installation of wiring devices unless otherwise indicated.
C. Install wiring devices in accordance with manufacturer's instructions.
D. Install permanent barrier between ganged wiring devices when voltage between adjacent devices exceeds 300 V.
E. Where required, connect wiring devices using pigtails not less than 6 inches long. Do not connect more than one conductor to wiring device terminals.
F. Connect wiring devices by wrapping conductor clockwise 3/4 turn around screw terminal and tightening to proper torque specified by the manufacturer. Where present, do not use push-in pressure terminals that do not rely on screw-actuated binding.
G. Unless otherwise indicated, connect wiring device grounding terminal to branch circuit equipment grounding conductor and to outlet box with bonding jumper.
H. Provide GFCI receptacles with integral GFCI protection at each location indicated. Do not use feed-through wiring to protect downstream devices.
I. Install wiring devices plumb and level with mounting yoke held rigidly in place.
J. Install wall switches with OFF position down.
K. Install vertically mounted receptacles with grounding pole on bottom and horizontally mounted receptacles with grounding pole on left.

L. Install wall plates to fit completely flush to wall with no gaps and rough opening completely covered without strain on wall plate. Repair or reinstall improperly installed outlet boxes or improperly sized rough openings. Do not use oversized wall plates in lieu of meeting this requirement.
M. Install blank wall plates on junction boxes and on outlet boxes with no wiring devices installed or designated for future use.
N. Identify wiring devices in accordance with Section 26 05 53.

3.04 FIELD QUALITY CONTROL

A. Inspect each wiring device for damage and defects.
B. Test each receptacle to verify operation and proper polarity.
C. Test each GFCI receptacle for proper tripping operation according to manufacturer's instructions.
D. Correct wiring deficiencies and replace damaged or defective wiring devices.

3.05 ADJUSTING

A. Adjust devices and wall plates to be flush and level.
B. Adjust presets for wall dimmers according to manufacturer's instructions as directed by Representative.

3.06 CLEANING

A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

END OF SECTION

SECTION 26 24 16 - PANELBOARDS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Load centers.
B. Overcurrent protective devices for panelboards.

1.02 RELATED REQUIREMENTS

A. Section 03 30 00 - Cast-in-Place Concrete: Concrete equipment pads.
B. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
C. Section 26 05 29 - Hangers and Supports for Electrical Systems.
D. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.
E. Section 26 05 73 - ELECTRICAL POWER SYSTEM STUDY: Additional criteria for the selection and adjustment of equipment and associated protective devices specified in this section.
F. Section 26 27 13 - Electricity Metering: For interface with equipment specified in this section.
G. Section 26 43 00 - Surge Protective Devices.

1.03 REFERENCE STANDARDS

A. FS W-C-375 - Circuit Breakers, Molded Case; Branch Circuit and Service; 2013e, with Amendments (2022).
B. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
C. NECA 407 - Standard for Installing and Maintaining Panelboards; 2025.
D. NEMA EN 10250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2024.
E. NEMA PB 1 - Panelboards; 2011.
F. NEMA PB 1.1 - General Instructions for Proper Installation, Operation and Maintenance of Panelboards Rated 1000V or Less; 2023.
G. NETA ATS - Standard for Acceptance Testing Specifications for Electrical Power Equipment And Systems; 2025.
H. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
I. UL 50 - Enclosures for Electrical Equipment, Non-Environmental Considerations; Current Edition, Including All Revisions.
J. UL 50E - Enclosures for Electrical Equipment, Environmental Considerations; Current Edition, Including All Revisions.
K. UL 67 - Panelboards; Current Edition, Including All Revisions.
L. UL 98 - Enclosed and Dead-Front Switches; Current Edition, Including All Revisions.
M. UL 489 - Molded-Case Circuit Breakers, Molded-Case Switches and Circuit Breaker Enclosures; Current Edition, Including All Revisions.
N. UL 869A - Reference Standard for Service Equipment; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
    1. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
    2. Verify with manufacturer that conductor terminations are suitable for use with the conductors to be installed.

3. Notify Representative of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.05 SUBMITTALS

A. Load centers. Product Data: Provide manufacturer's standard catalog pages and data sheets for panelboards, enclosures, overcurrent protective devices, and other installed components and accessories.
   1. Include characteristic trip curves for each type and rating of overcurrent protective device upon request.
B. Shop Drawings: Indicate outline and support point dimensions, voltage, main bus ampacity, overcurrent protective device arrangement and sizes, short circuit current ratings, conduit entry locations, conductor terminal information, and installed features and accessories.
   1. Include dimensioned plan and elevation views of panelboards and adjacent equipment with all required clearances indicated.
   2. Include wiring diagrams showing all factory and field connections.
C. Source Quality Control Test Reports: Include reports for tests designated in NEMA PB 1 as routine tests.
D. Field Quality Control Test Reports.
E. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
F. Project Record Documents: Record actual installed locations of panelboards and actual installed circuiting arrangements.
G. Maintenance Data: Include information on replacement parts and recommended maintenance procedures and intervals.
H. Maintenance Materials: Furnish the following for Representative's use in maintenance of project.
   1. Panelboard Keys: Two of each different key.

1.06 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.
B. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Eaton Corporation: www.eaton.com/#sle.
B. Or equal.

2.02 PANELBOARDS - GENERAL REQUIREMENTS

A. Provide products listed, classified, and labeled as suitable for the purpose intended.
B. Unless otherwise indicated, provide products suitable for continuous operation under the following service conditions:
   1. Altitude: Less than 6,600 feet.
   2. Ambient Temperature:
      a. Panelboards Containing Circuit Breakers: Between 23 degrees F and 104 degrees F.
C. Short Circuit Current Rating:

1. Provide panelboards with listed short circuit current rating not less than the available fault current at the installed location as indicated on the drawings.
2. Listed series ratings are not acceptable.

D. Panelboards Used for Service Entrance: Listed and labeled as suitable for use as service equipment according to UL 869A.
E. Mains: Configure for top or bottom incoming feed as indicated or as required for the installation.
F. Branch Overcurrent Protective Devices: Replaceable without disturbing adjacent devices.
G. Bussing: Sized in accordance with UL 67 temperature rise requirements.
   1. Provide fully rated neutral bus unless otherwise indicated, with a suitable lug for each feeder or branch circuit requiring a neutral connection.
   2. Provide solidly bonded equipment ground bus in each panelboard, with a suitable lug for each feeder and branch circuit equipment grounding conductor.
H. Conductor Terminations: Suitable for use with the conductors to be installed.
I. Enclosures: Comply with NEMA EN 10250, and list and label as complying with UL 50 and UL 50E.
   1. Environment Type per NEMA EN 10250: Unless otherwise indicated, as specified for the following installation locations:
      a. Outdoor Locations: Type 3R.
   2. Boxes: Galvanized steel unless otherwise indicated:
      a. Provide wiring gutters sized to accommodate the conductors to be installed.
      b. Provide painted steel boxes for surface-mounted panelboards where indicated, finish to match fronts.
   3. Fronts:
      a. Fronts for Surface-Mounted Enclosures: Same dimensions as boxes.
      b. Fronts for Flush-Mounted Enclosures: Overlap boxes on all sides to conceal rough opening.
      c. Finish for Painted Steel Fronts: Manufacturer's standard grey unless otherwise indicated.
   4. Lockable Doors: All locks keyed alike unless otherwise indicated.
J. Future Provisions: Prepare all unused spaces for future installation of devices including bussing, connectors, mounting hardware and all other required provisions.

2.03 LOAD CENTERS

A. Description: Circuit breaker type load centers listed and labeled as complying with UL 67; ratings, configurations, and features as indicated on the drawings
B. Bussing:
   1. Phase Bus Connections: Arranged for sequential phasing of overcurrent protective devices.
   2. Material: Copper.
C. Circuit Breakers: Thermal magnetic plug-in type.
D. Enclosures:
   1. Provide surface-mounted or flush-mounted enclosures unless otherwise indicated.
   2. Fronts: Provide lockable hinged door with concealed hinges for access to overcurrent protective device handles without exposing live parts.
   3. Provide circuit directory label on inside of door or individual circuit labels adjacent to circuit breakers.

2.04 OVERCURRENT PROTECTIVE DEVICES

A. Molded Case Circuit Breakers:

1. Description: Quick-make, quick-break, over center toggle, trip-free, trip-indicating circuit breakers listed and labeled as complying with UL 489, and complying with FS W-C-375 where applicable; ratings, configurations, and features as indicated on the drawings.
2. Interrupting Capacity:
    a. Provide circuit breakers with interrupting capacity as required to provide the short circuit current rating indicated, but not less than:
        1. 10,000 rms symmetrical amperes at 240 VAC or 208 VAC.
    b. Fully Rated Systems: Provide circuit breakers with interrupting capacity not less than the short circuit current rating indicated.
3. Conductor Terminations:
    a. Provide mechanical lugs unless otherwise indicated.
    b. Lug Material: Copper, suitable for terminating copper conductors only.
4. Thermal Magnetic Circuit Breakers: For each pole, furnish thermal inverse time tripping element for overload protection and magnetic instantaneous tripping element for short circuit protection.
5. Multi-Pole Circuit Breakers: Furnish with common trip for all poles.
6. Do not use tandem circuit breakers.
7. Do not use handle ties in lieu of multi-pole circuit breakers.
8. Provide multi-pole circuit breakers for multi-wire branch circuits as required by NFPA 70.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated
B. Verify that the ratings and configurations of the panelboards and associated components are consistent with the indicated requirements.
C. Verify that mounting surfaces are ready to receive panelboards.
D. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Perform work in accordance with NECA 1 (general workmanship).
B. Install products in accordance with manufacturer's instructions.
C. Install panelboards in accordance with NECA 407 and NEMA PB 1.1.
D. Arrange equipment to provide minimum clearances in accordance with manufacturer's instructions and NFPA 70.
E. Provide required support and attachment in accordance with Section 26 05 29.
F. Install panelboards plumb.
G. Install flush-mounted panelboards so that trims fit completely flush to wall with no gaps and rough opening completely covered.
H. Mount panelboards such that the highest position of any operating handle for circuit breakers or switches does not exceed 79 inches above the floor or working platform.
I. Mount floor-mounted power distribution panelboards on properly sized 3 inch high concrete pad constructed.
J. Provide grounding and bonding in accordance with Section 26 05 26.
K. Install all field-installed branch devices, components, and accessories.
L. Where accessories are not self-powered, provide control power source as indicated or as required to complete installation.

M. Multi-Wire Branch Circuits: Group grounded and ungrounded conductors together in the panelboard as required by NFPA 70.
N. Set field-adjustable circuit breaker tripping function settings as determined by overcurrent protective device coordination study performed according to Section 26 05 73.
O. Provide filler plates to cover unused spaces in panelboards.
P. Identify panelboards in accordance with Section 26 05 53.

3.03 FIELD QUALITY CONTROL

A. Inspect and test in accordance with NETA ATS, except Section 4.
B. Molded Case Circuit Breakers: Perform inspections and tests listed in NETA ATS, Section 7.6.1.1 for all main circuit breakers. Tests listed as optional are not required.
C. Procure services of a qualified manufacturer's representative to observe installation and assist in inspection, testing, and adjusting. Include manufacturer's reports with field quality control submittals.
D. Correct deficiencies and replace damaged or defective panelboards or associated components.

3.04 ADJUSTING

A. Adjust tightness of mechanical and electrical connections to manufacturer's recommended torque settings.
B. Adjust alignment of panelboard fronts.

3.05 CLEANING

A. Clean dirt and debris from panelboard enclosures and components according to manufacturer's instructions.
B. Repair scratched or marred exterior surfaces to match original factory finish.

END OF SECTION

SECTION 26 21 00 - LOW-VOLTAGE ELECTRICAL SERVICE ENTRANCE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Electrical service requirements.

1.02 RELATED REQUIREMENTS

A. Section 03 30 00 - Cast-in-Place Concrete: Concrete equipment pads.
B. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
C. Section 26 05 29 - Hangers and Supports for Electrical Systems.
D. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.
E. Section 31 23 16 - Excavation.
F. Section 31 23 23 - Fill: Bedding and backfilling.

1.03 REFERENCE STANDARDS

A. Service Point: The point of connection between the facilities of the serving utility and the premises wiring as defined in NFPA 70, and as designated by the Utility Company

1.04 REFERENCE STANDARDS

A. IEEE C2 - National Electrical Safety Code(R) (NESC(R)); 2023.
B. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.05 ADMINISTRATIVE REQUIREMENTS

A. No later than two weeks following date of the Agreement, notify Utility Company of anticipated date of service.
B. Coordination:
    1. Verify the following with Utility Company representative:
        a. Utility Company requirements, including division of responsibility
        b. Exact location and details of utility point of connection.
        c. Utility easement requirements.
        d. Utility Company charges associated with providing service.
    2. Coordinate the work with other trades to avoid placement of other utilities or obstructions within the spaces dedicated for electrical service and associated equipment.
    3. arrangement of service entrance equipment with the dimensions and clearance requirements of the actual equipment to be installed.
    4. Notify Representative of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.
C. Arrange for Utility Company to provide permanent electrical service. Prepare and submit documentation required by Utility Company.
D. Utility Company charges associated with providing permanent service to be paid by Owner.
E. Preinstallation Meeting: Convene one week prior to commencing work of this section to review service requirements and details with Utility Company representative.
F. Scheduling:
    1. Arrange for inspections necessary to obtain Utility Company approval of installation.

1.06 SUBMITTALS

A. Utility Company letter of availability for providing electrical service to project.
B. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product. Include ratings, configurations, standard wiring diagrams, outline and support point dimensions, finishes, weights, service condition requirements, and installed features.
C. Shop Drawings: Include dimensioned plan views and sections indicating locations and arrangement of Utility Company and service entrance equipment, metering provisions, required clearances, and proposed service routing.
D. Drawings prepared by Utility Company.
E. Project Record Documents: Record actual locations of equipment and installed service routing.

1.07 QUALITY ASSURANCE

A. Comply with the following:
    1. IEEE C2 (National Electrical Safety Code).
    2. NFPA 70 (National Electrical Code).
    3. The requirements of the Utility Company.
B. Products: Listed, classified, and labeled as suitable for the purpose intended.
C. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

PART 2 PRODUCTS

2.01 ELECTRICAL SERVICE REQUIREMENTS

A. Contractor shall provide new electrical service pedestal consisting of all required conduits, conductors, equipment, metering provisions, supports, accessories, etc. as necessary for connection between Utility Company point of supply and service entrance equipment.
B. Electrical Service Characteristics: As indicated on drawings.
C. Utility Company: As indicated on drawings.
D. Division of Responsibility:
    1. Pad-Mounted Utility Transformers:
        a. Transformer Vaults and Pads: Furnished and installed by Contractor per Utility Company requirements.
        b. Transformers: Furnished and installed by Utility Company.
        c. Transformer Grounding Provisions: Furnished and installed by Contractor per Utility Company requirements.
        d. Transformer Protective Bollards: Furnished and installed by Contractor per Utility Company requirements.
        e. Primary:
            1) Trenching and Backfilling: Provided by Contractor.
            2) Conduits: Furnished and installed by Contractor.
            3) Conductors: Furnished and installed by Utility Company.
        f. Secondary:
            1) Trenching and Backfilling: Provided by Contractor.
            2) Conduits: Furnished and installed by Contractor.
            3) Conductors: Furnished and installed by Utility Company (Service Point at service entrance equipment).

2. Terminations at Service Point: Provided by Utility Company.
3. Metering Provisions:
   a. Meter Bases: Furnished and installed by Contractor per Utility Company requirements.
   b. Metering Compartments in Service Entrance Equipment: Furnished and installed by Contractor per Utility Company requirements.
   c. Metering Transformers: Furnished and installed by Utility Company.
   d. Wiring Between Metering Transformers and Meters: Furnished and installed by Utility Company.
   e. Communications Conduits for Meters: Furnished and installed by Contractor per Utility Company requirements.
   f. Products Furnished by Contractor: Comply with Utility Company requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.
B. Verify that ratings and configurations of service entrance equipment are consistent with the indicated requirements.
C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Verify and mark locations of existing underground utilities.

3.03 INSTALLATION

A. Install products in accordance with manufacturer's instructions and Utility Company requirements.
B. Perform work in accordance with NECA 1 (general workmanship).
C. Arrange equipment to provide minimum clearances and required maintenance access.
D. Provide required trenching and backfilling in accordance with Section 31 23 16 and Section 31 23 23.
E. Construct cast-in-place concrete pads for utility equipment in accordance with Utility Company requirements.
F. Provide required protective bollards in accordance with Utility Company requirements.
G. Provide required support and attachment components in accordance with Section 26 05 29.
H. Provide grounding and bonding for service entrance equipment in accordance with Section 26 05 26.
I. Identify service entrance equipment, including main service disconnect(s) in accordance with Section 26 05 53.

3.04 PROTECTION

A. Protect installed equipment from subsequent construction operations.

END OF SECTION

SECTION 26 09 23 - LIGHTING CONTROL DEVICES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Time switches.
B. Outdoor photo controls

1.02 RELATED REQUIREMENTS

A. Section 26 05 19 - Low-Voltage Electrical Power Conductors and Cables
B. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
C. Section 26 05 29 - Hangers and Supports for Electrical Systems
D. Section 26 05 33.16 - Boxes for Electrical Systems.
E. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.
F. Section 26 51 00 - Interior Lighting.
G. Section 26 56 00 - Exterior Lighting.

1.03 REFERENCE STANDARDS

A. ANSI C136.24 - American National Standard for Roadway and Area Lighting Equipment—Nonlocking (Button)–Type Photocontrols; 2026.
B. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
C. NECA 130 - Standard for Installing and Maintaining Wiring Devices; 2016.
D. NEMA EN 10250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2024.
E. NEMA 410 - Performance Testing for Lighting Controls and Switching Devices with Electronic Drivers and Discharge Ballasts; 2023.
F. NEMA IA 10039 - Control Circuit and Pilot Devices; 2025.
G. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
H. UL 773A - Nonindustrial Photoelectric Switches for Lighting Control; Current Edition, Including All Revisions.
I. UL 916 - Energy Management Equipment; Current Edition, Including All Revisions.
J. UL 917 - Clock-Operated Switches; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
    1. Coordinate placement of lighting control devices with equipment and other potential conflicts.
    2. Coordinate lighting control device product selections with luminaire characteristics; see Section 26 51 00 and lighting fixture schedule.
    3. Notify Representative of conflicts or deviations from Contract Documents to obtain direction prior to proceeding with work.
B. Sequencing:
    1. Do not install lighting control devices until final surface finishes and painting are complete.

1.05 SUBMITTALS

A. Product Data: Include ratings, operating modes or sequence of functions, configurations, standard wiring diagrams, dimensions, colors, service condition requirements, and installed features.
B. Field quality control reports.

C. Manufacturer's Installation Instructions: Include application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
D. Operation and Maintenance Data: Include detailed information on device programming and setup.
E. Project Record Documents: Record actual installed locations and settings for lighting control devices.

1.06 QUALITY ASSURANCE

A. Comply with NFPA 70.
B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
C. Product Evaluation and Listing Organization Qualifications: Organization engaged in evaluation of products and services, including those recognized by OSHA as Nationally Recognized Testing Laboratories (NRTL), and acceptable to authorities having jurisdiction.

1.07 DELIVERY, STORAGE, AND PROTECTION

A. Store products in clean, dry space in original manufacturer's packaging in accordance with manufacturer's written instructions until ready for installation.

1.08 WARRANTY

A. Manufacturer Warranty: Provide manufacturer warranty for defects in material and workmanship for a duration of minimum three (3) years. Complete forms in Representative's name and register with manufacturer.

PART 2 PRODUCTS

2.01 LIGHTING CONTROL DEVICES - GENERAL REQUIREMENTS

A. Provide products listed, classified, and labeled as suitable for purpose intended.
B. Unless specifically indicated as excluded, provide components necessary for complete operating system including, but not limited to, conduit, wiring, connectors, hardware, and accessories.
C. Products for Switching of Electronic Ballasts/Drivers: Tested and rated to be suitable for peak inrush currents specified in NEMA 410.

2.02 TIME SWITCHES

A. Digital Electronic Time Switches:
    1. Description: Factory-assembled solid state programmable controller with LCD display, listed and labeled as complying with UL 916 or UL 917.
    2. Program Capability:
        a. Astronomic Time Switches: Single channel, capable of different schedule for each day of week with additional holiday schedule available to override normal schedule for selected days and field-configurable astronomic feature to automatically adjust for seasonal changes in sunrise and sunset times.
    3. Schedule Capacity: Not less than 16 programmable on/off operations.
    4. Provide automatic daylight savings time and leap year compensation.
    5. Provide power outage backup to retain programming and maintain clock.
    6. Manual override: Capable of overriding current schedule both permanently and temporarily until next scheduled event.
    7. Provide remote photocell input with light level adjustment.

8. Input Supply Voltage: 120 V ac unless otherwise indicated.
9. Output Switch Configuration: As required to control load indicated on drawings.
10. Output Switch Contact Ratings: As required to control load indicated on drawings.
11. Provide lockable enclosure; environmental type per NEMA EN 10250 as specified for the following installation locations:
    a. Indoor clean, dry locations: Type 1.
    b. Outdoor locations: Type 3R.

2.03 OUTDOOR PHOTO CONTROLS

A. Button Type Outdoor Photo Controls
    1. Description: Direct-wired photo control unit complying with ANSI C136.24 with weatherproof gasketed wall plate where required or indicated, listed and labeled as complying with UL 773A.
    2. Housing: Weather resistant polycarbonate.
    3. Photo Sensor: Cadmium sulfide.
    4. Light Level Activation: 1 to 3 footcandles turn-on and 3 to 1 turn-off to turn-on ratio with delayed turn-off.
    5. Voltage: As required to control load indicated on drawings.
    6. Failure Mode: Fails to the on position.
    7. Load Rating: As required to control load indicated on drawings.

2.04 ACCESSORIES

A. Auxiliary Contacts:
    1. Comply with NEMA IA 10039.
    2. Provide number and type of contacts indicated or required to perform necessary functions, including holding (seal-in) circuit and interlocking, plus one normally open (NO) and one normally closed (NC) spare contact for each lighting contactor, minimum.
B. Control and Timing Relays:
    1. Comply with NEMA IA 10039.
    2. Provide number and type of relays indicated or required to perform necessary functions.

PART 3 EXECUTION

3.01 EXAMINATION

A. Time switches. Verify that field measurements are as indicated.
B. Verify that final surface finishes are complete, including painting.
C. Verify that branch circuit wiring installation is completed, tested, and ready for connection to lighting control devices.
D. Verify that service voltage and ratings of lighting control devices are appropriate for service voltage and load requirements at location to be installed.
E. Verify that conditions are satisfactory for installation prior to starting work.

3.02 SECTION INCLUDES

A. Install lighting control devices in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards unless otherwise indicated.
B. Coordinate locations of outlet boxes as required for installation of lighting control devices; see Section 26 05 33.16.

1. Orient outlet boxes for vertical installation of lighting control devices unless otherwise indicated.

C. Maintain separation of remote-control, signaling, and power-limited circuits.
   1. See manufacturer instructions and Section 26 05 19 for control wiring conductors, wiring methods, and identification requirements.
D. Install lighting control devices in accordance with manufacturer's instructions.
E. Unless otherwise indicated, connect lighting control device grounding terminal or conductor to branch circuit equipment grounding conductor and to outlet box with bonding jumper.
F. Install lighting control devices plumb and level, and held securely in place.
G. Where required and not furnished with lighting control device, provide wall plate; see Section 26 27 26.
H. Provide required supports; see Section 26 05 29.
I. Identify lighting control devices; see Section 26 05 53.
J. Outdoor Photo Control Locations:
   1. Where possible, locate outdoor photo controls with photo sensor facing north. If north facing photo sensor is not possible, install with photo sensor facing east, west, or down.
   2. Locate outdoor photo controls so that photo sensors do not face artificial light sources (i.e., headlights from passing vehicles), including light sources controlled by photo control itself.
K. Install outdoor photo controls so that connections are weatherproof. Do not install photo controls with conduit stem facing up in order to prevent infiltration of water into photo control.
L. Where indicated, install separate compatible wall switches for manual control interface with lighting control devices or associated power packs.
M. Where indicated or required, provide cabinet or enclosure for mounting of lighting control device system components; see Section 26 05 33.16.

3.03 FIELD QUALITY CONTROL

A. Inspect each lighting control device for damage and defects.
B. Test time switches to verify proper operation.
C. Test outdoor photo controls to verify proper operation, including time delays where applicable.
D. Correct wiring deficiencies and replace damaged or defective conductors, cables, and lighting control devices.

3.04 ADJUSTING

A. Adjust time switch settings to achieve desired operation schedule as indicated or as directed by Representative. Record settings in written report to be included with submittals

3.05 FIELD QUALITY CONTROL

A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish

3.06 CLOSEOUT ACTIVTIES

A. Demonstration: Demonstrate proper operation of lighting control devices to Representative, and correct deficiencies or make adjustments as directed.
B. Training: Train Owner's personnel on operation, adjustment, programming, and maintenance of lighting control devices.
   1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
   2. Provide minimum of two hours of training.
   3. Instructor: Qualified contractor familiar with the project and with sufficient knowledge of installed

lighting control devices.

4. Location: At project site.

END OF SECTION

SECTION 26 05 53 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Electrical identification requirements.
B. Identification nameplates and labels.
C. Wire and cable markers.
D. Underground warning tape.
E. Warning signs and labels.

1.02 RELATED REQUIREMENTS

A. Section 26 05 19 - Low-Voltage Electrical Power Conductors and Cables: Color coding for power conductors and cables 600 V and less; vinyl color coding electrical tape.
B. Section 26 05 73 - ELECTRICAL POWER SYSTEM STUDY: Arc flash hazard warning labels.

1.03 REFERENCE STANDARDS

A. ANSI Z535.2 - American National Standard for Environmental and Facility Safety Signs; 2023.
B. ANSI Z535.4 - American National Standard for Product Safety Signs and Labels; 2023.
C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
D. NFPA 70E - Standard for Electrical Safety in the Workplace; 2024.
E. UL 969 - Marking and Labeling Systems; Current Edition, Including All Revisions.

1.04 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

PART 2 PRODUCTS

2.01 IDENTIFICATION REQUIREMENTS

A. Time switches. Identification for Equipment:
    1. Use identification nameplate to identify each piece of electrical distribution and control equipment and associated sections, compartments, and components. In addition to the equipment tag/name, include information as follows:
    2. Service Equipment:
        a. Use identification nameplate to identify each service disconnecting means.
        b. For buildings or structures supplied by more than one service, or any combination of branch circuits, feeders, and services, use identification nameplate or means of identification acceptable to authority having jurisdiction at each service disconnecting means to identify all other services, feeders, and branch circuits supplying that building or structure. Verify format and descriptions with authority having jurisdiction.
    3. Available Fault Current Documentation: Use identification label to identify the available fault current and date calculations were performed at locations requiring documentation by NFPA 70 including but not limited to the following.
        a. Service equipment.
    4. Arc Flash Hazard Warning Labels: Use warning labels to identify arc flash hazards for electrical equipment, such as switchboards, panelboards, industrial control panels, meter socket

enclosures, and motor control centers that are likely to require examination, adjustment, servicing, or maintenance while energized.

a. Minimum Size: 3.5 by 5 inches.
b. Legend: Include orange header that reads "WARNING", followed by the word message "Arc Flash and Shock Hazard; Appropriate PPE Required; Do not operate controls or open covers without appropriate personal protection equipment; Failure to comply may result in injury or death; Refer to NFPA 70E for minimum PPE requirements" or approved equivalent.
c. Service Equipment: Include the following information in accordance with NFPA 70.
    1) Nominal system voltage.
    2) Available fault current.
    3) Clearing time of service overcurrent protective device(s).
    4) Date label applied.

5. Use warning signs to identify electrical hazards for entrances to all rooms and other guarded locations that contain exposed live parts operating at 600 V nominal or less with the word message "DANGER; Electrical hazard; Authorized personnel only" or approved equivalent.

B. Identification for Conductors and Cables:
1. Color Coding for Power Conductors 600 V and Less: Comply with Section 26 05 19.
2. Use identification nameplate or identification label to identify color code for ungrounded and grounded power conductors inside door or enclosure at each piece of feeder or branch-circuit distribution equipment when premises has feeders or branch circuits served by more than one nominal voltage system.
3. Use wire and cable markers to identify circuit number or other designation indicated for power, control, and instrumentation conductors and cables at the following locations:
    a. At each source and load connection.
    b. Within boxes when more than one circuit is present.
    c. Within equipment enclosures when conductors and cables enter or leave the enclosure.
4. Use wire and cable markers to identify connected grounding electrode system components for grounding electrode conductors.
5. Use underground warning tape to identify direct buried cables.

C. Identification for Boxes:
1. Use identification labels to identify circuits enclosed.
2. All boxes shall be labeled inside the box and on the box exterior.

2.02 IDENTIFICATION NAMEPLATES AND LABELS

A. Identification Nameplates:
1. Materials:
    a. Outdoor Locations: Use plastic, stainless steel, or aluminum nameplates suitable for exterior use.
2. Plastic Nameplates: Two-layer or three-layer laminated acrylic or electrically non-conductive phenolic with beveled edges; minimum thickness of 1/16 inch; engraved text.
    a. Exception: Provide minimum thickness of 1/8 inch when any dimension is greater than 4 inches.
3. Stainless Steel Nameplates: Minimum thickness of 1/32 inch; engraved or laser-etched text.
4. Aluminum Nameplates: Anodized; minimum thickness of 1/32 inch; engraved or laser-etched text.
5. Mounting Holes for Mechanical Fasteners: Two, centered on sides for sizes up to 1 inch high; Four, located at corners for larger sizes.

B. Identification Labels:

1. Materials: Use self-adhesive laminated plastic labels; UV, chemical, water, heat, and abrasion resistant.
    a. Use only for indoor locations.
2. Text: Use factory pre-printed or machine-printed text. Do not use handwritten text unless otherwise indicated.

C. Format for Equipment Identification:
1. Minimum Size: 1 inch by 2.5 inches.
2. Legend:
    a. Equipment designation or other approved description.
    b. Other information as indicated.
3. Text: All capitalized unless otherwise indicated.
4. Minimum Text Height:
    a. System Designation: 1/2 inch.
    b. Equipment Designation: 1/4 inch.
    c. Other Information: 1/8 inch.
    d. Exception: Provide minimum text height of 1 inch for equipment located more than 10 feet above floor or working platform.
5. Color:
    a. Normal Power System: White text on black background.

D. Format for General Information and Operating Instructions:
1. Minimum Size: 1 inch by 2.5 inches.
2. Legend: Include information or instructions indicated or as required for proper and safe operation and maintenance.
3. Text: All capitalized unless otherwise indicated.
4. Minimum Text Height: 1/4 inch.
5. Color: Black text on white background unless otherwise indicated.
    a. Exceptions:
        1) Provide white text on red background for general information or operational instructions for emergency systems.
        2) Provide white text on red background for general information or operational instructions for fire alarm systems.

E. Format for Caution and Warning Messages:
1. Minimum Size: 2 inches by 4 inches.
2. Legend: Include information or instructions indicated or as required for proper and safe operation and maintenance.
3. Text: All capitalized unless otherwise indicated.
4. Minimum Text Height: 1/2 inch.
5. Color: Black text on yellow background unless otherwise indicated.

F. Format for Control Device Identification:
1. Minimum Size: 3/8 inch by 1.5 inches.
2. Legend: Load controlled or other designation indicated.
3. Text: All capitalized unless otherwise indicated.
4. Minimum Text Height: 3/16 inch.
5. Color: Black text on clear background.

2.03 WIRE AND CABLE MARKERS

A. Markers for Conductors and Cables: Use wrap-around self-adhesive vinyl cloth, wrap-around self-adhesive vinyl self-laminating, heat-shrink sleeve, plastic sleeve, plastic clip-on, or vinyl split sleeve type markers suitable for the conductor or cable to be identified.
B. Markers for Conductor and Cable Bundles: Use plastic marker tags secured by nylon cable ties.
C. Legend: Power source and circuit number or other designation indicated.
D. Text: Use factory pre-printed or machine-printed text, all capitalized unless otherwise indicated.
    1. Do not use handwritten text.
E. Minimum Text Height: 1/8 inch.
F. Color: Black text on white background unless otherwise indicated.

2.04 UNDERGROUND WARNING TAPE

A. Time switches. Materials: Use foil-backed detectable type polyethylene tape suitable for direct burial, unless otherwise indicated.
B. Foil-backed Detectable Type Tape: 6 inches wide, with minimum thickness of 5 mil, unless otherwise required for proper detection.
C. Legend: Type of service, continuously repeated over full length of tape.
D. Color:
    1. Tape for Buried Power Lines: Black text on red background.
    2. Tape for Buried Communication, Alarm, and Signal Lines: Black text on orange background.

2.05 WARNING SIGNS AND LABELS

A. Comply with ANSI Z535.2 or ANSI Z535.4 as applicable.
B. Warning Signs:
    1. Materials:
        a. Outdoor Locations: Use factory pre-printed rigid aluminum signs.
    2. Rigid Signs: Provide four mounting holes at corners for mechanical fasteners.
    3. Minimum Size: 7 by 10 inches unless otherwise indicated.
C. Warning Labels:
    1. Materials: Use factory pre-printed or machine-printed self-adhesive polyester or self-adhesive vinyl labels; UV, chemical, water, heat, and abrasion resistant; produced using materials recognized to UL 969.
        a. Do not use labels designed to be completed using handwritten text.
    2. Machine-Printed Labels: Use thermal transfer process printing machines and accessories recommended by label manufacturer.
    3. Minimum Size: 2 by 4 inches unless otherwise indicated.

PART 3 EXECUTION

3.01 PREPARATION

A. Clean surfaces to receive adhesive products according to manufacturer's instructions.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.
B. Install identification products to be plainly visible for examination, adjustment, servicing, and maintenance. Unless otherwise indicated, locate products as follows:
    1. Surface-Mounted Equipment: Enclosure front.
    2. Free-Standing Equipment: Enclosure front; also enclosure rear for equipment with rear access.

3. Elevated Equipment: Legible from the floor or working platform.
4. Interior Components: Legible from the point of access.
5. Boxes: Inside and Outside face of cover.
6. Conductors and Cables: Legible from the point of access.

C. Install identification products centered, level, and parallel with lines of item being identified.

D. Secure nameplates to exterior surfaces of enclosures using stainless steel screws and to interior surfaces using self-adhesive backing or epoxy cement.
   1. Do not use adhesives on exterior surfaces except where substrate cannot be penetrated.

E. Install self-adhesive labels and markers to achieve maximum adhesion, with no bubbles or wrinkles and edges properly sealed.

F. Install underground warning tape above buried lines with one tape per trench at 3 inches below finished grade.

G. Secure rigid signs using stainless steel screws.

3.03 FIELD QUALITY CONTROL

A. Replace self-adhesive labels and markers that exhibit bubbles, wrinkles, curling or other signs of improper adhesion.

END OF SECTION

SECTION 26 05 33.16 - BOXES FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Outlet and device boxes up to 100 cubic inches, including those used as junction and pull boxes.
B. Cabinets and enclosures, including junction and pull boxes larger than 100 cubic inches.
C. Underground boxes/enclosures.

1.02 RELATED REQUIREMENTS

A. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
B. Section 26 05 29 - Hangers and Supports for Electrical Systems.
C. Section 26 05 33.13 - Conduit for Electrical Systems:
   1. Conduit bodies and other fittings.
   2. Additional requirements for locating boxes to limit conduit length and/or number of bends between pulling points.
D. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.

1.03 REFERENCE STANDARDS

A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
B. NECA 130 - Standard for Installing and Maintaining Wiring Devices; 2016.
C. NEMA EN 10250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2024.
D. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable; 2014.
E. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports; 2013 (Reaffirmed 2020).
F. NEMA OS 2 - Nonmetallic Outlet Boxes, Device Boxes, Covers and Box Supports; 2013 (Reaffirmed 2020).
G. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
H. SCTE 77 - Specifications for Underground Enclosure Integrity; 2023.
I. UL 50 - Enclosures for Electrical Equipment, Non-Environmental Considerations; Current Edition, Including All Revisions.
J. UL 50E - Enclosures for Electrical Equipment, Environmental Considerations; Current Edition, Including All Revisions.
K. UL 508A - Industrial Control Panels; Current Edition, Including All Revisions.
L. UL 514A - Metallic Outlet Boxes; Current Edition, Including All Revisions.
M. UL 514C - Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and working clearances for electrical equipment required by NFPA 70.
   2. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.

3. Coordinate minimum sizes of boxes with the actual installed arrangement of conductors, clamps, support fittings, and devices, calculated according to NFPA 70.
4. Coordinate minimum sizes of pull boxes with the actual installed arrangement of connected conduits, calculated according to NFPA 70.
5. Notify Representative of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.05 SUBMITTALS

A. Product Data: Provide manufacturer's standard catalog pages and data sheets for outlet and device boxes, junction and pull boxes, cabinets and enclosures, and underground boxes/enclosures.
   1. Underground Boxes/Enclosures: Include reports for load testing in accordance with SCTE 77 certified by a professional engineer or an independent testing agency upon request.
B. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
C. Project Record Documents: Record actual locations for pull boxes, cabinets and enclosures, and underground boxes/enclosures.
D. Maintenance Materials: Furnish the following for Representative's use in maintenance of project.
   1. Keys for Lockable Enclosures: Two of each different key.

1.06 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.
B. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

PART 2 PRODUCTS

2.01 BOXES

A. General Requirements:
   1. Do not use boxes and associated accessories for applications other than as permitted by NFPA 70 and product listing.
   2. Provide all boxes, fittings, supports, and accessories required for a complete raceway system and to accommodate devices and equipment to be installed.
   3. Provide products listed, classified, and labeled as suitable for the purpose intended.
   4. Where box size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.
   5. Provide grounding terminals within boxes where equipment grounding conductors terminate.
   6. For sheet-steel boxes extensions must match. (Welded box needs welded extension; Stamped box needs stamped extension)
B. Outlet and Device Boxes Up to 100 cubic inches, Including Those Used as Junction and Pull Boxes:
   1. Use cast iron boxes or cast aluminum boxes for damp or wet locations unless otherwise indicated or required; furnish with compatible weatherproof gasketed covers.
   2. Use cast iron boxes or cast aluminum boxes where exposed galvanized steel rigid metal conduit or exposed intermediate metal conduit (IMC) is used.
   3. Use cast iron boxes in locations subject to damage.
   4. Use cast aluminum boxes in locations not subject to damage.
   5. Use cast aluminum boxes where aluminum rigid metal conduit is used.

6. Use nonmetallic boxes where exposed rigid PVC conduit is used.
7. Use suitable concrete type boxes where flush-mounted in concrete.
8. Use suitable masonry type boxes where flush-mounted in masonry walls.
9. Do not use "through-wall" boxes designed for access from both sides of wall.
10. Cast Metal Boxes: Comply with NEMA FB 1, and list and label as complying with UL 514A; furnish with threaded hubs.
11. Nonmetallic Boxes: Comply with NEMA OS 2, and list and label as complying with UL 514C.
12. Boxes for Ganged Devices: Use multigang boxes of single-piece construction. Do not use field-connected gangable boxes unless specifically indicated or permitted.
13. Minimum Box Size, Unless Otherwise Indicated:
    a. Wiring Devices (Other Than Communications Systems Outlets): 4 inch square by 1-1/2 inch deep (100 by 38 mm) trade size.

C. Cabinets and Enclosures, Including Junction and Pull Boxes Larger Than 100 cubic inches:
1. Comply with NEMA EN 10250, and list and label as complying with UL 50 and UL 50E, or UL 508A.
2. NEMA EN 10250 Environment Type, Unless Otherwise Indicated:
    a. Outdoor Locations: Type 3R, painted steel.
3. Junction and Pull Boxes Larger Than 100 cubic inches:
    a. Provide screw-cover or hinged-cover enclosures unless otherwise indicated.
    b. Boxes 6 square feet and Larger: Provide sectionalized screw-cover or hinged-cover enclosures.
4. Cabinets and Hinged-Cover Enclosures, Other Than Junction and Pull Boxes:
    a. Provide lockable hinged covers, all locks keyed alike unless otherwise indicated.
    b. Back Panels: Painted steel, removable.
5. Finish for Painted Steel Enclosures: Manufacturer's standard grey unless otherwise indicated.

D. Underground Boxes/Enclosures:
1. Description: In-ground, open bottom boxes furnished with flush, non-skid covers with legend indicating type of service and stainless steel tamper resistant cover bolts.
2. Size: Minimum 11" by 17" or larger as required or indicated on the drawings.
3. Depth: As required to extend below frost line to prevent frost upheaval, but not less than 12 inches.
4. Provide logo on cover to indicate type of service.
5. Applications:
    a. Sidewalks and Landscaped Areas Subject Only to Occasional Nondeliberate Vehicular Traffic: Use polymer concrete enclosures, with minimum SCTE 77 Tier 8 load rating.
    b. Parking Lots, in Areas Subject Only To Occasional Nondeliberate Vehicular Traffic: Use polymer concrete enclosures, with minimum SCTE 77 Tier 15 load rating.
    c. Do not use polymer concrete enclosures in areas subject to deliberate vehicular traffic.
6. Polymer Concrete Underground Boxes/Enclosures: Comply with SCTE 77.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.
B. Verify that mounting surfaces are ready to receive boxes.
C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Install boxes in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards where mounting heights are not indicated.
C. Arrange equipment to provide minimum clearances in accordance with manufacturer's instructions and NFPA 70.
D. Provide separate boxes for emergency power and normal power systems.
E. Unless otherwise indicated, provide separate boxes for line voltage and low voltage systems.
F. Unless otherwise indicated, boxes may be surface-mounted where exposed conduits are indicated or permitted.
G. Box Locations:
    1. Unless dimensioned, box locations indicated are approximate.
    2. Locate boxes as required for devices installed under other sections or by others.
    3. Locate junction and pull boxes as indicated, as required to facilitate installation of conductors, and to limit conduit length and/or number of bends between pulling points in accordance with Section 26 05 33.13.
H. Box Supports:
    1. Secure and support boxes in accordance with NFPA 70 and Section 26 05 29 using suitable supports and methods approved by the authority having jurisdiction.
    2. Provide independent support from building structure except for cast metal boxes (other than boxes used for fixture support) supported by threaded conduit connections in accordance with NFPA 70. Do not provide support from piping, ductwork, or other systems.
I. Install boxes plumb and level.
J. Install boxes as required to preserve insulation integrity.
K. Underground Boxes/Enclosures:
    1. Install enclosure on gravel base, minimum 6 inches deep.
    2. Flush-mount enclosures located in concrete or paved areas.
    3. Mount enclosures located in landscaped areas with top at 1 inch above finished grade.
    4. Install additional bracing inside enclosures in accordance with manufacturer's instructions to minimize box sidewall deflections during backfilling. Backfill with cover bolted in place.
L. Install permanent barrier between ganged wiring devices when voltage between adjacent devices exceeds 300 V.
M. Close unused box openings.
N. Install blank wall plates on junction boxes and on outlet boxes with no devices or equipment installed or designated for future use.
O. Provide grounding and bonding in accordance with Section 26 05 26.
P. Identify boxes in accordance with Section 26 05 53.

3.03 CLEANING

A. Clean interior of boxes to remove dirt, debris, plaster and other foreign material.

3.04 PROTECTION

A. Immediately after installation, protect boxes from entry of moisture and foreign material until ready for installation of conductors.

END OF SECTION

SECTION 26 05 33.13 - CONDUIT FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. A. Galvanized steel rigid metal conduit (RMC).
B. Galvanized steel intermediate metal conduit (IMC).
C. PVC-coated galvanized steel rigid metal conduit (RMC).
D. Liquidtight flexible metal conduit (LFMC).
E. Galvanized steel electrical metallic tubing (EMT).
F. Rigid polyvinyl chloride (PVC) conduit.

1.02 RELATED REQUIREMENTS

A. Section 03 30 00 - Cast-in-Place Concrete: Concrete encasement of conduits.
B. Section 26 05 19 - Low-Voltage Electrical Power Conductors and Cables.
C. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
   1. Includes additional requirements for fittings for grounding and bonding.
D. Section 26 05 29 - Hangers and Supports for Electrical Systems.
E. Section 26 05 33.16 - Boxes for Electrical Systems.
F. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.
G. Section 26 05 43 - Underground Ducts and Raceways for Electrical Systems.

1.03 REFERENCE STANDARDS

A. ANSI C80.1 - American National Standard for Electrical Rigid Steel Conduit (ERSC); 2025.
B. ANSI C80.3 - American National Standard for Electrical Metallic Tubing -- Steel (EMT-S); 2020.
C. ANSI C80.6 - American National Standard for Electrical Intermediate Metal Conduit; 2025.
D. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
E. NECA 101 - Standard for Installing Steel Conduits (Rigid, IMC, EMT); 2020.
F. NECA 111 - Standard for Installing Nonmetallic Raceways (RNC, ENT, LFNC); 2025.
G. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable; 2014.
H. NEMA RN 1 - Polyvinyl-Chloride (PVC) Externally Coated Galvanized Rigid Steel Metal Conduit and Intermediate Metal Conduit; 2018.
I. NEMA TC 2 - Electrical Polyvinyl Chloride (PVC) Conduit; 2020.
J. NEMA TC 3 - Polyvinyl Chloride (PVC) Fittings for Use with Rigid PVC Conduit and Tubing; 2021.
K. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
L. UL 6 - Electrical Rigid Metal Conduit-Steel; Current Edition, Including All Revisions.
M. UL 360 - Liquid-Tight Flexible Metal Conduit; Current Edition, Including All Revisions.
N. UL 514A - Metallic Outlet Boxes; Current Edition, Including All Revisions.
O. UL 514B - Conduit, Tubing, and Cable Fittings; Current Edition, Including All Revisions.
P. UL 651 - Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings; Current Edition, Including All Revisions.
Q. UL 797 - Electrical Metallic Tubing-Steel; Current Edition, Including All Revisions.
R. UL 1242 - Electrical Intermediate Metal Conduit-Steel; Current Edition, Including All Revisions.
S. UL 2419 - Outline of Investigation for Electrically Conductive Corrosion Resistant Compounds; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate minimum sizes of conduits with actual type and quantity of conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
   2. Verify exact conduit termination locations required for boxes, enclosures, and equipment.
   3. Notify Representative of conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

B. Sequencing:
   1. Do not begin installation of conductors and cables until installation of conduit between termination points is complete.

1.05 SUBMITTALS

A. Product Data: Provide manufacturer's standard catalog pages and data sheets for conduits and fittings.

B. Project Record Documents: Record actual routing for conduits installed underground, conduits embedded within concrete slabs, and conduits 2-inch (53 mm) trade size and larger.

1.06 QUALITY ASSURANCE

A. Documents at Project Site: Maintain at project site one copy of manufacturer's instructions and shop drawings.

B. Product Listing Organization Qualifications: Organization recognized by OSHA as Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

PART 2 PRODUCTS

2.01 CONDUIT APPLICATIONS

A. Do not use conduit and associated fittings for applications other than as permitted by NFPA 70, manufacturer's instructions, and product listing.

B. Unless otherwise indicated and where not otherwise restricted, use conduit types indicated for specified applications. Where more than one listed application applies, comply with most restrictive requirements. Where conduit type for particular application is not specified, use galvanized steel rigid metal conduit.

C. Underground:
   1. Exterior, Direct-Buried: Use rigid PVC conduit.
   2. Exterior, Embedded Within Concrete: Use PVC-coated galvanized steel rigid metal conduit or rigid PVC conduit where necessary at elbows and bends.
   3. Where rigid polyvinyl chloride (PVC) conduit is provided, transition to galvanized steel rigid metal conduit (RMC) where emerging from underground.
   4. Where rigid polyvinyl (PVC) conduit larger than 2-inch (53 mm) trade size is provided, use PVC-coated galvanized steel rigid metal conduit (RMC) elbows or concrete-encased PVC elbows for bends.

D. Underground Boxes/Enclosures:
   1. Description: In-ground, open bottom boxes furnished with flush, non-skid covers with legend indicating type of service and stainless steel tamper resistant cover bolts.

E. Exposed, Exterior, Not Subject to Severe Physical Damage: Use galvanized steel rigid metal conduit (RMC) or galvanized steel electrical metallic tubing (EMT).

F. Exposed, Exterior, Subject to Severe Physical Damage: Use galvanized steel rigid metal conduit (RMC).

G. Concealed, Exterior, Not Embedded in Concrete or in Contact With Earth: Use galvanized steel rigid metal conduit (RMC), galvanized steel intermediate metal conduit (IMC), or galvanized steel electrical metallic tubing (EMT).
H. Flexible Connections to Vibrating Equipment:
   1. Dry Locations: Use flexible metal conduit (FMC).
   2. Damp, Wet, or Corrosive Locations: Use liquidtight flexible metal conduit (LFMC).
   3. Maximum Length: 6 feet unless otherwise indicated.
   4. Vibrating equipment includes, but is not limited to:
      a. Transformers.
      b. Motors.

2.02 CONDUIT - GENERAL REQUIREMENTS

A. Comply with NFPA 70.
B. Fittings for Grounding and Bonding: See Section 26 05 26 for additional requirements.
C. Provide conduit, fittings, supports, and accessories required for complete raceway system.
D. Provide products listed, classified, and labeled as suitable for purpose intended.
E. Minimum Conduit Size, Unless Otherwise Indicated.
   1. Branch Circuits: 3/4 inch (21 mm) trade size.
   2. Branch Circuit Homeruns: 3/4 inch (21 mm) trade size.
   3. Control Circuits: 3/4 inch (21 mm) trade size.
   4. Underground, Exterior: 1 inch (27 mm) trade size.
F. Where conduit size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

2.03 GALVANIZED STEEL RIGID METAL CONDUIT (RMC)

A. Description: NFPA 70, Type RMC galvanized steel rigid metal conduit complying with ANSI C80.1 and listed and labeled as complying with UL 6.
B. Fittings:
   1. Nonhazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B or UL 6.
   2. Material: Use steel or malleable iron.
      a. Do not use die cast zinc fittings.

2.04 GALVANIZED STEEL INTERMEDIATE METAL CONDUIT (IMC)

A. Description: NFPA 70, Type IMC galvanized steel intermediate metal conduit complying with ANSI C80.6 and listed and labeled as complying with UL 1242.
B. Fittings:
   1. Nonhazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B or UL 1242.
   2. Material: Use steel or malleable iron.
      a. Do not use die cast zinc fittings.
   3. Connectors and Couplings: Use threaded type fittings only. Threadless fittings, including set screw and compression/gland types, are not permitted.

2.05 PVC-COATED GALVANIZED STEEL RIGID METAL CONDUIT (RMC)

A. Description: NFPA 70, Type RMC galvanized steel rigid metal conduit with external polyvinyl chloride (PVC) coating complying with NEMA RN 1 and listed and labeled as complying with UL 6.

B. Exterior Coating: Polyvinyl chloride (PVC), nominal thickness of 40 mil, 0.040 inch.
C. Interior Coating: Urethane, minimum thickness of 2 mil, 0.002 inch.
D. PVC-Coated Boxes and Fittings:
    1. Manufacturer: Same as manufacturer of PVC-coated conduit to be installed.
    2. Nonhazardous Locations: Use boxes and fittings listed and labeled as complying with UL 514A, UL 514B, or UL 6.
    3. Material: Use steel or malleable iron.
    4. Exterior Coating: Polyvinyl chloride (PVC), minimum thickness of 40 mil, 0.040 inch.
    5. Interior Coating: Urethane, minimum thickness of 2 mil, 0.002 inch.
E. PVC-Coated Supports: Furnish with exterior coating of polyvinyl chloride (PVC), minimum thickness of 15 mil, 0.015 inch.

2.06 LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC)

A. Description: NFPA 70, Type LFMC polyvinyl chloride (PVC) jacketed steel flexible metal conduit listed and labeled as complying with UL 360.
B. Fittings:
    1. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
    2. Material: Use steel or malleable iron.
        a. Do not use die cast zinc fittings.

2.07 GALVANIZED STEEL ELECTRICAL METALLIC TUBING (EMT)

A. Description: NFPA 70, Type EMT galvanized steel electrical metallic tubing complying with ANSI C80.3 and listed and labeled as complying with UL 797.
B. Fittings:
    1. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
    2. Material: Use steel or malleable iron.
    3. Do not use die cast zinc fittings.
    4. Damp or Wet Locations, Where Permitted: Use fittings listed for use in wet locations.
    5. Embedded Within Concrete, Where Permitted: Use fittings listed as concrete-tight. Fittings that require taping to be concrete-tight are acceptable.

2.08 RIGID POLYVINYL CHLORIDE (PVC) CONDUIT

A. Fittings:
    1. Description: Fittings complying with NEMA TC 3 and listed and labeled as complying with UL 651; material to match conduit.

2.09 ACCESSORIES

A. Corrosion Protection Tape: PVC-based, minimum thickness of 20 mil, 0.020 inch.
B. Conduit Joint Compound: Corrosion-resistant, electrically conductive compound listed as complying with UL 2419; suitable for use with conduit to be installed.
C. Solvent Cement for PVC Conduit and Fittings: As recommended by manufacturer of conduit and fittings to be installed.
D. Pull Strings: Use nylon or polyester tape with average breaking strength of not less than 1,250 lbf.
E. Conduit Mechanical Seals:
    1. Listed as complying with UL 514B.
    2. Specifically designed for sealing conduit openings against water, moisture, gases, and dust.
    3. Suitable for sealing around conductors/cables to be installed.

F. Duct Bank Spacers: Nonmetallic; designed for maintaining conduit/duct spacing for concrete encasement in open trench installation; suitable for conduit/duct arrangement to be installed.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that mounting surfaces are ready to receive conduits.
B. Verify that conditions are satisfactory for installation prior to starting work

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.
B. Install conduit in accordance with NECA 1.
C. Galvanized Steel Rigid Metal Conduit (RMC): Install in accordance with NECA 101.
D. Intermediate Metal Conduit (IMC): Install in accordance with NECA 101.
E. PVC-Coated Galvanized Steel Rigid Metal Conduit (RMC): Install using only tools approved by manufacturer.
F. Rigid Polyvinyl Chloride (PVC) Conduit: Install in accordance with NECA 111.
G. Conduit Routing:
    1. Unless dimensioned, conduit routing indicated is diagrammatic.
    2. When conduit destination is indicated without specific routing, determine exact routing required.
    3. Conceal conduits unless specifically indicated to be exposed.
    4. Conduits installed underground or embedded in concrete may be routed in shortest possible manner unless otherwise indicated. Route other conduits parallel or perpendicular to building structure and surfaces, following surface contours where practical.
    5. Arrange conduit to maintain adequate headroom, clearances, and access.
    6. Arrange conduit to provide no more than the equivalent of three 90 degree bends between pull points for power.
    7. Arrange conduit to provide no more than the equivalent of two 90 degree bends between pull points for communication.
    8. Arrange conduit to provide no more than 150 feet between pull points.
    9. Route conduits above water and drain piping where possible.
    10. Arrange conduit to prevent moisture traps. Provide drain fittings at low points and at sealing fittings where moisture may collect.
    11. Maintain minimum clearance of 6 inches between conduits and piping for other systems.
    12. Maintain minimum clearance of 12 inches between conduits and hot surfaces.
    13. In exterior locations, conduit shall terminate in bottom or sides of boxes (not the top).
H. Conduit Support:
    1. Secure and support conduits in accordance with NFPA 70 using suitable supports and methods approved by authorities having jurisdiction; see Section 26 05 29.
    2. Use conduit strap to support single surface-mounted conduit.
        a. Use clamp back spacer with conduit strap for damp and wet locations to provide space between conduit and mounting surface.
    3. Use metal channel/strut with accessory conduit clamps to support multiple parallel surface-mounted conduits.
    4. Use conduit clamp to support single conduit from beam clamp or threaded rod.
    5. Use of wire for support of conduits is not permitted.

6. Where conduit support intervals specified in NFPA 70 and NECA standards differ, comply with most stringent requirements.

I. Connections and Terminations:
   1. Use approved zinc-rich paint or conduit joint compound on field-cut threads of galvanized steel conduits prior to making connections.
   2. Where two threaded conduits must be joined and neither can be rotated, use three-piece couplings or split couplings. Do not use running threads.
   3. Use suitable adapters where required to transition from one type of conduit to another.
   4. Provide drip loops for liquidtight flexible conduit connections to prevent drainage of liquid into connectors.
   5. Terminate threaded conduits in boxes and enclosures using threaded hubs or double lock rings with ground bushings for dry locations and raintight hubs for wet locations.
   6. Where spare conduits stub up through concrete floors and are not terminated in box or enclosure, provide threaded couplings equipped with threaded plugs set flush with finished floor.
   7. Secure joints and connections to provide mechanical strength and electrical continuity.

J. Penetrations:
   1. Make penetrations perpendicular to surfaces unless otherwise indicated.
   2. Provide sleeves for penetrations as indicated or as required to facilitate installation. Set sleeves flush with exposed surfaces unless otherwise indicated or required.
   3. Conceal bends for conduit risers emerging above ground.
   4. Provide metal escutcheon plates for conduit penetrations exposed to public view.

K. Underground Installation:
   1. Minimum Cover, Unless Otherwise Indicated or Required:
      a. Underground, Exterior: 18 inches.
      b. Under Slab on Grade: 12 inches to bottom of slab.
   2. Provide underground warning tape along entire conduit length for service entrance where not concrete-encased; see Section 26 05 53.

L. Concrete Encasement: Where conduits not otherwise embedded within concrete are indicated to be concrete-encased, provide concrete with minimum concrete cover of 3 inches on all sides unless otherwise indicated.

M. Conduit Movement Provisions: Where conduits are subject to movement, provide expansion and expansion/deflection fittings to prevent damage to enclosed conductors or connected equipment. This includes, but is not limited to:
   1. Where conduits cross structural joints intended for expansion, contraction, or deflection.
   2. Where calculated in accordance with NFPA 70 for rigid polyvinyl chloride (PVC) conduit installed above ground to compensate for thermal expansion and contraction.
   3. Where conduits are subject to earth movement by settlement or frost.

N. Conduit Sealing:
   1. Use foam conduit sealant to prevent entry of moisture and gases. This includes, but is not limited to:
      a. Where conduits enter building from outside.
      b. Where service conduits enter building from underground distribution system.
      c. Where conduits enter building from underground.
      d. Where conduits may transport moisture to contact live parts.
   2. Where conduits cross barriers between areas of potential substantial temperature differential, use foam conduit sealant at accessible point near penetration to prevent condensation. This includes, but is not limited to:
      a. Where conduits pass from outdoors into conditioned interior spaces.

b. Where conduits pass from unconditioned interior spaces into conditioned interior spaces.

O. Provide pull string in each empty conduit and in conduits where conductors and cables are to be installed by others. Leave minimum slack of 12 inches at each end.

P. Provide grounding and bonding; see Section 26 05 26.

Q. Identify conduits; see Section 26 05 53.

3.03 FIELD QUALITY CONTROL

A. Repair cuts and abrasions in galvanized finishes using zinc-rich paint recommended by manufacturer. Replace components that exhibit signs of corrosion.

B. Where coating of PVC-coated galvanized steel rigid metal conduit (RMC) contains cuts or abrasions, repair in accordance with manufacturer's instructions.

C. Correct deficiencies and replace damaged or defective conduits.

3.04 CLEANING

A. Clean interior of conduits to remove moisture and foreign matter.

3.05 PROTECTION

A. Immediately after installation of conduit, use suitable manufactured plugs to provide protection from entry of moisture and foreign material and do not remove until ready for installation of conductors.

B. All spare underground conduits shall have compression type plugs installed.

END OF SECTION

SECTION 26 05 29 – HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

A. Section 26 05 33.13 - Conduit for Electrical Systems: Additional support and attachment requirements for conduits.
B. Section 26 05 33.16 - Boxes for Electrical Systems: Additional support and attachment requirements for boxes.
C. Section 26 56 00 - Exterior Lighting: Additional support and attachment requirements for exterior luminaires.

1.02 REFERENCE STANDARDS

A. MFMA-4 - Metal Framing Standards Publication; 2004.
B. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
D. UL 5B - Strut-Type Channel Raceways and Fittings; Current Edition, Including All Revisions.

1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate sizes and arrangement of supports and bases with actual equipment and components to be installed.
   2. Coordinate work to provide additional framing and materials required for installation.
   3. Coordinate compatibility of support and attachment components with mounting surfaces at installed locations.
   4. Notify Representative of conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.04 QUALITY ASSURANCE

A. Product Listing Organization Qualifications: Organization recognized by OSHA as Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

PART 2 PRODUCTS

2.01 SUPPORT AND ATTACHMENT COMPONENTS

A. General Requirements:
   1. Comply with the following. Where requirements differ, comply with most stringent.
      a. NFPA 70.
      b. Requirements of authorities having jurisdiction.
   2. Provide required hangers, supports, anchors, fasteners, fittings, accessories, and hardware as necessary for complete installation of electrical work.
   3. Provide products listed, classified, and labeled as suitable for purpose intended, where applicable.
   4. Do not use products for applications other than as permitted by NFPA 70 and product listing.
   5. Steel Components: Use corrosion-resistant materials suitable for environment where installed.
      a. Outdoor and Damp or Wet Indoor Locations: Use stainless steel unless otherwise indicated.
B. Conduit and Cable Supports: Straps and clamps suitable for conduit or cable to be supported.
   1. Conduit Straps: One-hole or two-hole type; steel or malleable iron.

2. Conduit Clamps: Bolted type or unistrut strap type, unless otherwise indicated.

C. Outlet Box Supports: Hangers and brackets suitable for boxes to be supported.

D. Metal Channel/Strut Framing Systems:
1. Description: Factory-fabricated, continuous-slot, metal channel/strut and associated fittings, accessories, and hardware required for field assembly of supports.
2. Comply with MFMA-4.
3. Channel Material:
    i. Outdoor and Damp or Wet Indoor Locations: Use galvanized steel.
4. Minimum Channel Thickness: Steel sheet, 12 gauge, 0.1046 inch.
5. Minimum Channel Dimensions: 1-1/2 inch width by 7/8 inch height.

E. Metal Channel/Strut Framing Systems:
1. Description: Factory-fabricated, continuous-slot, metal channel/strut and associated fittings, accessories, and hardware required for field assembly of supports.
2. Comply with MFMA-4.
3. Channel Material:
4. Outdoor and Damp or Wet Indoor Locations: Use galvanized steel.
5. Minimum Channel Thickness: Steel sheet, 12 gauge, 0.1046 inch.
6. Minimum Channel Dimensions: 1-1/2 inch width by 7/8 inch height.

PART 3 EXECUTION

3.01 PAYMENT:

A. Verify that field measurements are as indicated.

B. Verify that mounting surfaces are ready to receive support and attachment components.

C. Verify that conditions are satisfactory for installation prior to starting work

3.02 PAYMENT:

A. Install products in accordance with manufacturer's instructions.

B. Install hangers and supports in accordance with NECA 1.

C. Install anchors and fasteners in accordance with ICC Evaluation Services, LLC (ICC-ES) evaluation report conditions of use where applicable.

D. Unless specifically indicated or approved by Representative, do not provide support from roof deck.

E. Do not penetrate or otherwise notch or cut structural members without approval of Structural Engineer.

F. Equipment Support and Attachment:
1. Use metal, fabricated supports or supports assembled from metal channel/strut to support equipment as required.
2. Use metal channel/strut secured to studs to support equipment surface mounted on hollow stud walls when wall strength is not sufficient to resist pull-out.
3. Use metal channel/strut to support surface-mounted equipment in wet or damp locations to provide space between equipment and mounting surface.
4. Securely fasten floor-mounted equipment. Do not install equipment such that it relies on its own weight for support.

G. Conduit Support and Attachment: See Section 26 05 33.13 for additional requirements.

H. Box Support and Attachment: See Section 26 05 33.16 for additional requirements.

I. Exterior Luminaire Support and Attachment: See Section 26 56 00 for additional requirements.

J. Secure fasteners in accordance with manufacturer's recommended torque settings.

K. Remove temporary supports.

3.03 FIELD QUALITY CONTROL

A. Inspect support and attachment components for damage and defects.
B. Repair cuts and abrasions in galvanized finishes using zinc-rich paint recommended by manufacturer. Replace components that exhibit signs of corrosion.
C. Correct deficiencies and replace damaged or defective support and attachment components.

END OF SECTION

SECTION 26 05 26 – GROUNDING AND BODING FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Grounding and bonding requirements.
B. Conductors for grounding and bonding.
C. Connectors for grounding and bonding.
D. Ground rod electrodes.

1.02 RELATED REQUIREMENTS

A. Section 26 05 19 - Low-Voltage Electrical Power Conductors and Cables: Additional requirements for conductors for grounding and bonding, including conductor color coding.
    1. Includes oxide inhibiting compound.
B. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.

1.03 REFERENCE STANDARDS

A. IEEE 81 - IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Grounding System; 2012.
B. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
C. NEMA GR 1 - Grounding Rod Electrodes and Grounding Rod Electrode Couplings; 2022.
D. NETA ATS - Standard for Acceptance Testing Specifications for Electrical Power Equipment And Systems; 2025.
E. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
F. UL 467 - Grounding and Bonding Equipment; Current Edition, Including All Revisions

1.04 SUBMITTALS

A. Product Data: Provide manufacturer's standard catalog pages and data sheets for grounding and bonding system components.
B. Field quality control test reports.
C. Project Record Documents: Record actual locations of grounding electrode system components and connections.

1.05 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.
B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
C. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

PART 2 PRODUCTS

2.01 GROUNDING AND BONDING REQUIREMENTS

A. Do not use products for applications other than as permitted by NFPA 70 and product listing.
B. Unless specifically indicated to be excluded, provide all required components, conductors, connectors, conduit, boxes, fittings, supports, accessories, etc. as necessary for a complete grounding and bonding

system.

C. Where conductor size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

D. Grounding System Resistance:
   1. Achieve specified grounding system resistance under normally dry conditions unless otherwise approved by Representative. Precipitation within the previous 48 hours does not constitute normally dry conditions.
   2. Grounding Electrode System: Not greater than 25 ohms to ground, when tested according to IEEE 81 using "fall-of-potential" method.

E. Grounding Electrode System:
   1. Provide connection to required and supplemental grounding electrodes indicated to form grounding electrode system.
      a. Provide continuous grounding electrode conductors without splice or joint.
      b. Install grounding electrode conductors in raceway where exposed to physical damage. Bond grounding electrode conductor to metallic raceways at each end with bonding jumper.
   2. Concrete-Encased Electrode:
      a. Provide connection to concrete-encased electrode consisting of not less than 20 feet of either steel reinforcing bars or bare copper conductor not smaller than 4 AWG embedded within concrete foundation or footing that is in direct contact with earth in accordance with NFPA 70.
   3. Ground Rod Electrode(s):
      a. Provide single electrode unless otherwise indicated or required.
      b. Space electrodes not less than 10 feet from each other and any other ground electrode.
      c. Where location is not indicated, locate electrode(s) at least 5 feet outside building perimeter foundation as near as possible to electrical service entrance; where possible, locate in softscape (uncovered) area.
      d. Provide ground enhancement material around electrode where indicated.
      e. Provide ground access well for first connected electrode.
   4. Provide additional ground electrode(s) as required to achieve specified grounding electrode system resistance

F. Service-Supplied System Grounding
   1. For each service disconnect, provide grounding electrode conductor to connect neutral (grounded) service conductor to grounding electrode system. Unless otherwise indicated, make connection at neutral (grounded) bus in service disconnect enclosure.
   2. For each service disconnect, provide main bonding jumper to connect neutral (grounded) bus to equipment ground bus where not factory-installed. Do not make any other connections between neutral (grounded) conductors and ground on load side of service disconnect.

G. Bonding and Equipment Grounding:
   1. Provide bonding for equipment grounding conductors, equipment ground busses, metallic equipment enclosures, metallic raceways and boxes, device grounding terminals, and other normally non-current-carrying conductive materials enclosing electrical conductors/equipment or likely to become energized as indicated and in accordance with NFPA 70.
   2. Provide insulated equipment grounding conductor in each feeder and branch circuit raceway. Do not use raceways as sole equipment grounding conductor.
   3. Where circuit conductor sizes are increased for voltage drop, increase size of equipment

grounding conductor proportionally in accordance with NFPA 70.

4. Unless otherwise indicated, connect wiring device grounding terminal to branch circuit equipment grounding conductor and to outlet box with bonding jumper.
5. Terminate branch circuit equipment grounding conductors on solidly bonded equipment ground bus only. Do not terminate on neutral (grounded) or isolated/insulated ground bus.

2.02 GROUNDING AND BONDING COMPONENTS

A. General Requirements:
   1. Provide products listed, classified, and labeled as suitable for the purpose intended.
   2. Provide products listed and labeled as complying with UL 467 where applicable.
B. Conductors for Grounding and Bonding, in Addition to Requirements of Section 26 05 26:
   1. Use insulated copper conductors unless otherwise indicated.
      a. Exceptions:
         1) Use hard drawn copper conductors where installed underground in direct contact with earth.
         2) Use bare copper conductors where directly encased in concrete (not in raceway).
C. Connectors for Grounding and Bonding:
   1. Description: Connectors appropriate for the application and suitable for the conductors and items to be connected; listed and labeled as complying with UL 467.
   2. Unless otherwise indicated, use exothermic welded connections for underground, concealed and other inaccessible connections.
   3. Unless otherwise indicated, use mechanical connectors, compression connectors, or exothermic welded connections for accessible connections.
D. Ground Rod Electrodes:
   1. Comply with NEMA GR 1.
   2. Material: Copper-bonded (copper-clad) steel.
   3. Size: 3/4 inch diameter by 10 feet length, unless otherwise indicated.
   4. Where rod lengths of greater than 10 feet are indicated or otherwise required, sectionalized ground rods may be used.
E. Oxide Inhibiting Compound: Comply with Section 26 05 19.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that work likely to damage grounding and bonding system components has been completed.
B. Verify that field measurements are as indicated.
C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.
B. Perform work in accordance with NECA 1 (general workmanship).
C. Ground Rod Electrodes: Unless otherwise indicated, install ground rod electrodes vertically. Where encountered rock prohibits vertical installation, install at 45 degree angle or bury horizontally in trench at least 30 inches (750 mm) deep in accordance with NFPA 70 or install at 45 degree angle or bury horizontally in trench at least 30 inches (750 mm) deep in accordance with NFPA 70.
   1. Outdoor Installations: Unless otherwise indicated, install with top of rod 6 inches below finished

grade.

D. Make grounding and bonding connections using specified connectors.
    1. Remove appropriate amount of conductor insulation for making connections without cutting, nicking or damaging conductors. Do not remove conductor strands to facilitate insertion into connector.
    2. Remove nonconductive paint, enamel, or similar coating at threads, contact points, and contact surfaces.
    3. Exothermic Welds: Make connections using molds and weld material suitable for the items to be connected in accordance with manufacturer's recommendations.
    4. Mechanical Connectors: Secure connections according to manufacturer's recommended torque settings.
    5. Compression Connectors: Secure connections using manufacturer's recommended tools and dies.
E. Identify grounding and bonding system components in accordance with Section 26 05 53.

3.03 FIELD QUALITY CONTROL

A. Inspect and test in accordance with NETA ATS except Section 4.
B. Perform inspections and tests listed in NETA ATS, Section 7.13.
C. Perform ground electrode resistance tests under normally dry conditions. Precipitation within the previous 48 hours does not constitute normally dry conditions.
D. Investigate and correct deficiencies where measured ground resistances do not comply with specified requirements.

END OF SECTION

SECTION 26 05 19 – LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Single conductor building wire.
B. Wiring connectors.
C. Electrical tape.
D. Heat shrink tubing.
E. Wire pulling lubricant.
F. Cable ties.

1.02 RELATED REQUIREMENTS

A. Section 26 05 26 - Grounding and Bonding for Electrical Systems: Additional requirements for grounding conductors and grounding connectors.
B. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.
C.

1.03 REFERENCE STANDARDS

A. ASTM B3 - Standard Specification for Soft or Annealed Copper Wire; 2013 (Reapproved 2024).
B. ASTM B8 - Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft; 2023.
C. ASTM B33 - Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes; 2010, with Editorial Revision (2020).
D. ASTM B787/B787M - Standard Specification for 19 Wire Combination Unilay-Stranded Copper Conductors for Subsequent Insulation; 2004 (Reapproved 2020).
E. ASTM D3005 - Standard Specification for Low-Temperature Resistant Vinyl Chloride Plastic Pressure-Sensitive Electrical Insulating Tape; 2024.
F. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
G. NEMA WC 70 - Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy; 2021.
H. NETA ATS - Standard for Acceptance Testing Specifications for Electrical Power Equipment And Systems; 2025.
I. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
J. UL 44 - Thermoset-Insulated Wires and Cables; Current Edition, Including All Revisions.
K. UL 83 - Thermoplastic-Insulated Wires and Cables; Current Edition, Including All Revisions.
L. UL 486A-486B - Wire Connectors; Current Edition, Including All Revisions.
M. UL 486C - Splicing Wire Connectors; Current Edition, Including All Revisions.
N. UL 486D - Sealed Wire Connector Systems; Current Edition, Including All Revisions.
O. UL 510 - Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
    1. Coordinate with electrical equipment installed under other sections to provide terminations suitable for use with the conductors to be installed.
    2. Notify Representative of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.05 SUBMITTALS

A. Product Data: Provide manufacturer's standard catalog pages and data sheets for conductors and cables, including detailed information on materials, construction, ratings, listings, and available sizes, configurations, and stranding.
B. Field Quality Control Test Reports.
C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
D. Project Record Documents: Record actual installed circuiting arrangements. Record actual routing for underground circuits

1.06 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.
B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
C. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

PART 2 PRODUCTS

2.01 CONDUCTOR AND CABLE APPLICATIONS

A. Do not use conductors and cables for applications other than as permitted by NFPA 70 and product listing.
B. Provide single conductor building wire installed in suitable raceway unless otherwise indicated, permitted, or required.
C. Nonmetallic-sheathed cable is not permitted.
D. Manufactured wiring systems are not permitted.

2.02 CONDUCTOR AND CABLE GENERAL REQUIREMENTS

A. Provide products that comply with requirements of NFPA 70.
B. Provide products listed, classified, and labeled as suitable for the purpose intended.
C. Provide new conductors and cables manufactured not more than one year prior to installation.
D. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, etc. as required for a complete operating system.
E. Comply with NEMA WC 70.
F. Thermoplastic-Insulated Conductors and Cables: Listed and labeled as complying with UL 83.
G. Thermoset-Insulated Conductors and Cables: Listed and labeled as complying with UL 44.
H. Conductors for Grounding and Bonding: Also comply with Section 26 05 26.
I. Conductor Material:
    1. Provide copper conductors only. Aluminum conductors are not acceptable for this project. Conductor sizes indicated are based on copper.
    2. Copper Conductors: Soft drawn annealed, 98 percent conductivity, uncoated copper conductors complying with ASTM B3, ASTM B8, or ASTM B787/B787M unless otherwise indicated.
    3. Tinned Copper Conductors: Comply with ASTM B33.
J. Minimum Conductor Size.
    1. Branch Circuits: 12 AWG.

2. Control Circuits: 14 AWG.

K. Where conductor size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

L. Conductor Color Coding:
1. Color code conductors as indicated unless otherwise required by the authority having jurisdiction. Maintain consistent color coding throughout project.
2. Color Coding Method: Integrally colored insulation.
3. Color Code:
a. 208Y/120 V, 3 Phase, 4 Wire System:
1) Phase A: Black.
2) Phase B: Red.
3) Phase C: Blue.
4) Neutral/Grounded: White.
b. 240/120 V High-Leg Delta, 3 Phase, 4 Wire System:
1) Phase A: Black.
2) Phase B (High-Leg): Orange.
3) Phase C: Blue.
4) Neutral/Grounded: White.
c. 240/120 V, 1 Phase, 3 Wire System:
1) Phase A: Black.
2) Phase B: Red.
3) Neutral/Grounded: White.
d. Equipment Ground, All Systems: Green.
e. For control circuits, comply with manufacturer's recommended color code.

2.03 SINGLE CONDUCTOR BUILDING WIRE

A. Description: Single conductor insulated wire.

B. Conductor Stranding:
1. Feeders and Branch Circuits:
a. Size 12 AWG and Smaller: Solid.
b. Size 10 AWG and Larger: Stranded
2. Control Circuits: Stranded.

C. Insulation Voltage Rating: 600 V.

D. Insulation:
1. Copper Building Wire: Type THHN/THWN-2, except as indicated below, rated 90 degree C.
a. Installed Underground: Type XHHW-2, 90 degree C.

2.04 WIRING CONNECTORS

A. Description: Wiring connectors appropriate for the application, suitable for use with the conductors to be connected, and listed as complying with UL 486A-486B or UL 486C as applicable.

B. Connectors for Grounding and Bonding: Comply with Section 26 05 26.

C. Wiring Connectors for Splices and Taps:
1. Copper Conductors Size 8 AWG and Smaller: Use twist-on insulated spring connectors or push-in wire connectors.
2. Copper Conductors Size 6 AWG and Larger: Use mechanical connectors or compression connectors.

D. Wiring Connectors for Terminations:

1. Provide terminal lugs for connecting conductors to equipment furnished with terminations designed for terminal lugs.
2. Provide compression adapters for connecting conductors to equipment furnished with mechanical lugs when only compression connectors are specified.
3. Where over-sized conductors are larger than the equipment terminations can accommodate, provide connectors suitable for reducing to appropriate size, but not less than required for the rating of the overcurrent protective device.
4. Copper Conductors Size 8 AWG and Larger: Use mechanical connectors or compression connectors where connectors are required.
    a. Provide compression type, long barrel, double-hole, copper-type lugs (2 crimp minimum) for all power and grounding connections landed on bus.
5. Conductors for Control Circuits: Use crimped terminals for all connections.

E. Twist-on Insulated Spring Connectors: Rated 600 V, 221 degrees F for standard applications and 302 degrees F for high temperature applications; pre-filled with sealant and listed as complying with UL 486D for damp and wet locations.
F. Push-in Wire Connectors: Rated 600 V, 221 degrees F.
G. Mechanical Connectors: Provide bolted type or set-screw type.
H. Compression Connectors: Provide circumferential type or hex type crimp configuration with inspection port.
I. Crimped Terminals: Nylon-insulated, with insulation grip and terminal configuration suitable for connection to be made

2.05 ACCESSORIES

A. Electrical Tape:
    1. Vinyl Insulating Electrical Tape: Complying with ASTM D3005 and listed as complying with UL 510; minimum thickness of 7 mil; resistant to abrasion, corrosion, and sunlight; conformable for application down to 0 degrees F and suitable for continuous temperature environment up to 221 degrees F.
B. Heat Shrink Tubing: Heavy-wall, split-resistant, with factory-applied adhesive; rated 600 V; suitable for direct burial applications; listed as complying with UL 486D.
C. Cable Ties: Material and tensile strength rating suitable for application. Any cable ties exposed to the elements, weather, sunlight, or located within a manhole must be black and UV resistant.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that work likely to damage wire and cable has been completed.
B. Verify that raceways, boxes, and equipment enclosures are installed and are properly sized to accommodate conductors and cables in accordance with NFPA 70.
C. Verify that field measurements are as indicated.
D. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Clean raceways thoroughly to remove foreign materials before installing conductors and cables.

3.03 INSTALLATION

A. Circuiting Requirements:
    1. Unless dimensioned, circuit routing indicated is diagrammatic.

2. When circuit destination is indicated without specific routing, determine exact routing required.
3. Arrange circuiting to minimize splices.
4. Circuiting Adjustments: Unless otherwise indicated, when branch circuits are shown as separate, combining them together in a single raceway is permitted, under the following conditions:
    a. Provide no more than 9 current-carrying conductors in a single raceway. Dedicated neutral conductors are considered current-carrying conductors.
    b. Increase size of conductors as required to account for ampacity derating.
    c. Size raceways, boxes, etc. to accommodate conductors.
5. Common Neutrals: Unless otherwise indicated, sharing of neutral/grounded conductors among up to three single phase branch circuits of different phases installed in the same raceway is not permitted. Provide dedicated neutral/grounded conductor for each individual branch circuit.

B. Install products in accordance with manufacturer's instructions.
C. Perform work in accordance with NECA 1 (general workmanship).
D. Installation in Raceway:
    1. Tape ends of conductors and cables to prevent infiltration of moisture and other contaminants.
    2. Pull all conductors and cables together into raceway at same time.
    3. Do not damage conductors and cables or exceed manufacturer's recommended maximum pulling tension and sidewall pressure.
    4. Use suitable wire pulling lubricant where necessary, except when lubricant is not recommended by the manufacturer.
E. Secure and support conductors and cables in accordance with NFPA 70 using suitable supports and methods approved by the authority having jurisdiction. Provide independent support from building structure. Do not provide support from raceways, piping, ductwork, or other systems.
    1. Installation in Vertical Raceways: Provide supports where vertical rise exceeds permissible limits.
F. Install conductors with a minimum of 6 inches of slack at each outlet.
G. Where conductors are installed in enclosures for future termination by others, provide a minimum of 5 feet of slack.
H. Neatly train and bundle conductors inside boxes, wireways, panelboards and other equipment enclosures.
I. Group or otherwise identify neutral/grounded conductors with associated ungrounded conductors inside enclosures in accordance with NFPA 70.
J. Make wiring connections using specified wiring connectors
K. Insulate splices and taps that are made with uninsulated connectors using methods suitable for the application, with insulation and mechanical strength at least equivalent to unspliced conductors.
    1. Wet Locations: Use heat shrink tubing.
L. Insulate ends of spare conductors using vinyl insulating electrical tape.
M. Identify conductors and cables in accordance with Section 26 05 53.
N. Unless specifically indicated to be excluded, provide final connections to all equipment and devices, including those furnished by others, as required for a complete operating system.

3.04 FIELD QUALITY CONTROL

A. Inspect and test in accordance with NETA ATS, except Section 4.
B. Perform inspections and tests listed in NETA ATS, Section 7.3.2. The insulation resistance test is required for all conductors. The resistance test for parallel conductors listed as optional is not required.
C. Correct deficiencies and replace damaged or defective conductors and cables.

END OF SECTION

SECTION 16
EXHIBITS

FOR

CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

CONTRACT AGREEMENT

Capital Improvement Project No. 24-99
DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

THIS CONTRACT is made and entered into at Downey, California this_____ day of _____, 2026, by and between the CITY OF DOWNEY, a chartered municipal corporation (hereinafter "City") and **[CONTRACTOR NAME]**, (hereinafter "Contractor").

THE PARTIES HERETO AGREE AS FOLLOWS:

1. CONTRACT DOCUMENTS - Contractor agrees to perform all work specified in the Plans and Specifications, entitled Capital Improvement Project No. 24-99 Downtown Downey Gateway Sign Installation, in accordance with the documents hereinafter described, which are by reference incorporated herein and made a part hereof, and are in the Office of the City Engineer. The Contractor shall have 40 working days to complete all contract work.

   A. Plans for **Capital Improvement Project No. 24-99 Downtown Downey Gateway Sign Installation**.

   B. Specifications for **Capital Improvement Project No. 24-99 Downtown Downey Gateway Sign Installation**, including both the General Conditions and the Special Conditions.

   C. Notice Calling for Bids, including ascertainment of prevailing wage scale established which wage scale is on file and available for inspection by any party at the City Engineer's Office.

   D. Instructions to Bidders.

   E. Proposal for **Capital Improvement Project No. 24-99 Downtown Downey Gateway Sign Installation**, executed by the Contractor.

   F. Addenda to the Plans and Specifications for **Capital Improvement Project No. 24-99 Downtown Downey Gateway Sign Installation**.

2. PAYMENT - In consideration thereof the City agrees to pay to the Contractor the sum of $_____ (*in words*)_____ Dollars, payable as set forth in the General Conditions, and in accordance with the Contract Unit Prices shown in the following quantity schedule:

BASE BID

ITEM NO.	DESCRIPTION	QUANTITY & UNIT	UNIT PRICE	SUBTOTAL
PART A – GENERAL ITEMS				
1	Traffic Control, Public Convenience & Safety (Not to Exceed 5% of the Total Bid)	1 LS	$	$
PART B –ELECTRICAL AND LIGHTING SYSTEM				
2	Furnish and Install 3" Electrical Conduit and Metered Pedestal and Construct Concrete Pad	1 LS	$	$
3	Furnish and Install 120 V, 1Phase Power Connection to Sign	1 EA	$	$
4	Furnish and Install 10" "DOWNEY" Channel Letters	6 EA	$	$
5	Furnish and Install "DOWNTOWN" Standing Channel Letters	8 EA	$	$
6	Furnish and Install Up Lights for Columns	2 EA	$	$
7	Furnish and Install GFCI Outlets	4 EA	$	$
8	Furnish and Install 1" Electrical Conduit Through Sign Cavity	1 LS	$	$
9	Furnish and Install Recessed LED Up Light	2 EA	$	$
10	Furnish and Install White LED Tape Fixture for Strut	2 EA	$	$
PART C – SIGN FRAME AND STRUCTURAL ELEMENTS				
11	Furnish and Install Decorative Post Covers and Base	2 EA	$	$
12	Construct Round Pedestal Footing	2 EA	$	$
13	Furnish and Install Structural Sign Posts	2 EA	$	$
14	Furnish and Install Curved Steel Beams	2 EA	$	$
15	Furnish and Install 5 ½" Visible Steel Tube Struts	6 EA	$	$
16	Furnish and Install 3" Steel Tube Struts Housed Inside "DOWNEY" Letters	7 EA	$	$
17	Furnish and Install Letter Spacers	23 EA	$	$
18	Furnish and Install Banner Attachments	9 EA	$	$
PART D – PAVEMENT & LANDSCAPING				
19	Remove Existing Tree	1 EA	$	$
20	Remove and Reconstruct Concrete Pavement	360 SF	$	$
21	Remove Existing Pavers and Install New Pavers	14 SF	$	$

ITEM NO.	DESCRIPTION	QUANTITY & UNIT	UNIT PRICE	SUBTOTAL
22	Remove and Reinstall Irrigation Lines	1 LS	$	$
TOTAL BASE BID – Items 1 to 22 (in Figures)				**$**
TOTAL BASE BID – Items 1 to 22 (In Words)				

3. INDEMNIFICATION. To the fullest extent allowed by law, Contractor and its subcontractors hereby agree to defend, indemnify, and hold harmless City, its City Council, boards and commissions, officers, agents, employees, representatives and volunteers (hereinafter collectively referred to as "Indemnitees"), through legal counsel acceptable to City, from and against any liability, claims, actions, costs, damages or losses, including reasonable costs and attorney's fees, for injury, including death to any person or damage to any property, arising directly or indirectly from, or in any manner relating to, any of the following:

   A. Performance or nonperformance of the Project by Contractor or its subcontractors of any lower tier;

   B. Performance or nonperformance of any of the obligations under the Contract Documents by Contractor or its subcontractors of any lower tier;

   C. The construction activities of Contractor or its subcontractors of any lower tier, either on the Project site or on other properties;

   D. The payment or nonpayment by Contractor or any of its subcontractors of any lower tier for work performed on or off the Project site; and

   E. Any personal injury, property damage or economic loss to third persons related to and arising from the performance or nonperformance of the Project by Contractor or its subcontractors of any lower tier.

   The indemnity obligations of subcontractors provided by this section shall be included in all subcontract documents issued by Contractor. Nothing in the Contract Documents shall be construed to give rise to any implied right of indemnity in favor of Contractor against City or any other Indemnitee.

IN WITNESS WHEREOF, the parties have caused this Contract to be executed the date and year first above written.

[Contractor's Name]

By: _____
Authorized Signatory (Print Name)

By: _____
Authorized Signatory (Signature)

Date: _____

CITY OF DOWNEY

By: _____
Claudia Frometa, Mayor

Date: _____

APPROVED AS TO FORM:

By: _____
John M. Funk, City Attorney

Date: _____

ATTEST:

By: _____
Maria Alicia Duarte, CMC, City Clerk

Date: _____

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract.

[Contractor's Name]

By: _____
Authorized Signatory (Print Name)

By: _____
Authorized Signatory (Signature)

Date: _____

Note: This Contract Agreement must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

Bond No. _____

PERFORMANCE BOND

CAPITAL IMPROVEMENT PROJECT NO. 24-99
DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Downey, California ("City"), has awarded **CAPITAL IMPROVEMENT PROJECT NO. 24-99, DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION** ("Contract") to _____ ("Principal"), for the construction of **CAPITAL IMPROVEMENT PROJECT NO. 24-99, DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION**.

WHEREAS, Principal is required under the terms of the Contract to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, we, the undersigned Principal, and _____ ("Surety") a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto the City in the penal sum of _____ Dollars ($_____), this amount being not less than the total Contract price, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, or his/her heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements in the Contract and any alteration thereof made as therein provided, on the Principal's part to be kept and performed, all within the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and hold harmless the City, its officers, agents, and others as therein provided, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this bond, Surety further agrees as part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by the City in successfully enforcing such obligation, all to be treated as cost and included in any resolution.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition or modification to the terms of the Contract, or of the work to be performed thereunder, or the Specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the Specifications thereunder.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Date:_____

"Principal"	"Surety"
_____	_____
_____	_____
By:_____	_____
Its	Its
By:_____	_____
Its	Its
(Seal)	(Seal)

Note: This bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

Bond No. _____

PAYMENT BOND
(LABOR AND MATERIAL)

CAPITAL IMPROVEMENT PROJECT NO. 24-99
DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Downey, California ("City"), has awarded **CAPITAL IMPROVEMENT PROJECT NO. 24-99, DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION** ("Contract") to _____ ("Principal"), for the construction of **CAPITAL IMPROVEMENT PROJECT NO. 24-99, DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION**.

WHEREAS, Principal is required under the terms of the Contract and the California Civil Code to secure the payment of claims of laborer, mechanics, material suppliers, and other persons as provided by law.

NOW, THEREFORE, we, the undersigned Principal, and _____ ("Surety") a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto the City in the penal sum of _____ Dollars ($_____), this amount being not less than the total Contract price, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bound Principal, or his/her heirs, executors, administrators, successors or assigns, or subcontractors shall fail to pay any of the persons named in Section 3181 of the California Civil Code, or any amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal and subcontractors pursuant to Section 13030 of the Unemployment Insurance Code, with respect to work or labor performed under the Contract, the Surety will pay for the same in an amount not exceeding the penal sum specified in this bond; otherwise, this obligation shall become null and void.

This bond shall inure to the benefit of any of the persons named in Section 3181 of the California Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon the bond. In case suit is brought upon this bond, Surety further agrees to pay all court costs incurred by the City in the suit and attorneys' fees.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition or modification to the terms of the Contract, or of the work to be performed thereunder, or these Specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to these Specifications thereunder.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Date:_____

"Principal"	"Surety"
_____	_____
_____	_____
By:_____	_____
Its	Its
By:_____	_____
Its	Its
(Seal)	(Seal)

Note: This bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

GENERAL LIABILITY/AUTOMOBILE LIABILITY INSURANCE DOCUMENTATION FOR CONTRACT AGREEMENT

FOR THE CITY OF DOWNEY, CALIFORNIA

CASH CONTRACT / MISCELLANEOUS PROJECT / PERMIT / PURCHASE ORDER / AGREEMENT NUMBER: CIP 24-99

This document acknowledges insurance provided under the following:

☐ **COMMERCIAL GENERAL LIABILITY INSURANCE COVERAGE PART**

☐ **AUTOMOBILE LIABILITY INSURANCE COVERAGE PART**

In consideration of the premium charged and notwithstanding any inconsistent statement in the policy to which this document is attached or in any endorsement which now or later attaches to the policy, the Company agrees as follows:

ADDITIONAL INSURED: The City of Downey, its officers, agents and employees are included as additional insured, with respect to liability and defense of claims and suits arising out of the operations and uses performed by or on behalf of the named insured.

CONTRIBUTION WAIVED: This insurance is primary. The City of Downey's insurance program shall be excess of this insurance. The Company shall not seek contribution from the City and its insurers.

SEPARATION OF INSURED: This insurance applies separately to each insured against whom claim is made or suit is brought, except that the naming of multiple insured shall not increase the Company's limits of liability. The inclusion of any person, organization, firm or entity as an insured under the policy shall not affect any right which such person, organization, firm or entity would have as a claimant if not so included.

CANCELLATION NOTICE: If the Company elects to cancel or terminate this insurance before the stated expiration date, or declines to renew a continuous policy, or reduces the stated limits other than by impairment of an aggregate limit, the Company shall mail written notice to the City at least 30 days in advance of such election. For non-payment of premium, the Company shall give the City at least ten (10) days advance written notice of cancellation or termination.

Except as stated above, all other endorsements, provisions, conditions, limits and exclusions of this insurance shall remain unchanged.

COMMERCIAL GENERAL LIABILITY POLICY NUMBER:	AUTOMOBILE LIABILITY POLICY NUMBER:

By my signature on this insurance document, I warrant that I have authority to bind the insurance company and do so bind the company to this document:

AUTHORIZED REPRESENTATIVE'S SIGNATURE:	DATE SIGNED:

GUIDANCE FOR SUBMITTING EVIDENCE OF INSURANCE TO THE CITY OF DOWNEY

1. For faster processing of your permit application, lease, contract or purchase order, please give this insurance document to your insurance company, or its authorized representative, for completion of this form. No modifications to this form are permitted.

2. **If your insurance company or the authorized representative chooses instead to use its own endorsement form, you should allow for extra processing time by the City. The City Attorney's office must review all insurance company forms for compliance with the conditions of your permit, lease, contract or purchase order, or other City insurance requirements.**

3. In addition to this insurance document, or your insurance company's endorsement form, you must submit to the City a "certificate of insurance" from your insurance company. The certificate must comply with the City's insurance requirements.

4. **YOUR CERTIFICATE OF INSURANCE AND THIS INSURANCE DOCUMENT MUST SHOW <u>COMMERCIAL GENERAL LIABILITY COVERAGE</u> AND <u>AUTOMOBILE LIABILITY COVERAGE</u>, UNLESS CITY PERSONNEL INSTRUCT YOU OTHERWISE.**

5. Please return this insurance document and the certificate to the City Department below:

Permit Applicants:	**Engineering Division**
Vendors:	**Purchasing**
Contractors, Consultants, Lessees:	**City Department responsible for your Contract or requesting your services**

Recording Requested by:

CITY OF DOWNEY

When Recorded Mail to:

CITY CLERK
CITY HALL, P.O. Box 7016
DOWNEY, CA 90241-7016

NOTICE OF COMPLETION
CAPITAL IMPROVEMENT PROJECT NO. 24-99
DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

NOTICE IS HEREBY GIVEN THAT:

1. The City of Downey, a municipal corporation, with mailing address at P.O. Box 7016, Downey, California, 90241-7016, is the holder of fee title and easements of the property herein after described.
2. Completion Date: _____
3. Name and Address of Contractor: _____
4. The property on which said work of improvement was completed is in the City of Downey, County of Los Angeles, State of California, and is described as follows: The intersection of Firestone Boulevard and Downey Avenue.
5. Description of Work: The work to be performed under this Contract generally consists of the furnish and installation of an overhead gateway sign and associated improvements at the intersection of Firestone Boulevard and Downey Avenue, as shown on the project plans. The work to be undertaken shall consist of: gateway sign furnishing and installation; construction of the electrical service connection to the proposed metered pedestal and sign post; furnishing and installing the metered pedestal; sidewalk restoration and placement of new pavers, tree removal and disposal, and irrigation line re-routing; traffic control and all appurtenant work thereto necessary for the proper construction of the contemplated improvements, in accordance with Plans and Specifications entitled as Capital Improvement Project No. 24-99 – Downtown Downey Gateway Sign Installation.
6. Date of Contract: _____
7. Surety: _____

ATTEST:

_____
Maria Alicia Duarte, CMC, City Clerk

CITY OF DOWNEY:

By: _____
Matthew Baumgardner, P.E., Director of Public Works/City Engineer

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

Matthew Baumgardner, being duly sworn, deposes and says: That he is the Director of Public Works/City Engineer for the City of Downey; that he has read the foregoing Notice of Completion and knows the contents thereof to be true.

_____
Matthew Baumgardner, P.E., Director of Public Works/City Engineer

Subscribed and sworn to before me on this_____day of_____, 2026 by Matthew Baumgardner, personally known to me to be the person who appeared before me.

_____
NOTARY PUBLIC

CITY OF DOWNEY - CONSTRUCTION & DEMOLITION APPLICATION

WASTE MANAGEMENT PLAN – FORM A

Page 1 of 3

Article V, Chapter 8 (Ordinance No. 09-1252) of the Downey Municipal Code requires that 100% of inert debris and at least 50% of the remaining construction and demolition(C&D) debris generated during a construction or demolition project, be diverted from landfill. Covered applicants are required to complete a C&D Waste Management Plan (Form A) that details anticipated diversion practices, and materials to be recycled or reused. The Waste Management Plan Compliance Report (Form B) must be submitted 30 days after the completion of the project.

Please complete this form and submit it to the City of Downey Building Division or Engineering Division, 11111 Brookshire Ave., Downey, CA, 90241, along with your: 1) building permit application, and 2) performance security, unless otherwise instructed.

Applicant Name: _____ Date: _____

Contractor Name: _____ Phone #: _____

Job Site Address: _____

Type of Project: ☐ New Construction ☐ Demolition ☐ Renovation ☐ Grading ☐ Other_____

Type of Building: ☐ Residential ☐ Non-residential

Relation to Project: ☐ Owner ☐ Contractor ☐ Authorized Representative

Project Valuation: $_____ Estimated Project Start Date: _____ Estimated Project Completion Date: _____

Project Description (include square footage): _____

_____

Who will handle refuse & recyclables generated by your project? (Please check one or more of the following boxes)

☐ **1 - CalMet Services.** *I plan to use CalMet Services for trash and recycling services on the project on an exclusive basis (i.e., I will not hire any other company(s) to haul material nor will I self-haul waste from the project site for recycling and disposal).* Applicant must contact CalMet at **(562) 259-1239** to obtain a work order and to arrange for disposal and recycling. If any change to collection service occurs, the applicant must immediately inform the City and submit a revised Form A. Failure to do so is a violation of the Downey Municipal Code, and will result in a Stop Work Notice and other penalties. CalMet will be responsible for assuring conformance with the ordinance. *Please complete the Performance Security section below, sign where indicated, and submit this form along with your Performance Security Deposit and building permit application to the City of Downey. Applicant does not need to complete pages 2 and 3 of Form A.*

☐ **2 - Recycling Facility.** A recycling facility will provide bins to the project site. Segregated materials from the construction and demolition site will be placed in the bin(s) and the recycling facility will service the bins as needed. Recycling facilities must be chosen from the approved list provided. No refuse should be placed in any recycling bin. All **refuse** will be hauled by CalMet unless you choose to self-haul (check box 3, as well). *Please complete the Performance Security section below, pages 2 and 3 of this form; then sign and submit form with Performance Security Deposit and building permit application to the City of Downey.*

☐ **3 - Self Haul.** Material will be collected and delivered to recyclers, processors, and landfills using only the applicant's equipment and vehicles. Refer to attached list of recycling facilities and approved processors to which material may be delivered. *Please complete the Performance Security section below, pages 2 and 3 of this form; then sign and submit form along with your Performance Security Deposit and building permit application to the City of Downey.*

PERFORMANCE SECURITY DEPOSIT

A Performance Security Deposit must be paid to the City and will be refunded in full to the applicant after the completion of the project and upon confirmation that 100% of inert materials and at least 50% of the remaining waste generated by the project was diverted from landfill. Return of deposit may be withheld if applicant does not meet diversion requirements. Deposit amount should equal 3% of the total project valuation, or a minimum of $2,500. Payment can be made in the form of cash, credit card, money order (made payable to the City of Downey), performance bond, surety bond, letter of credit, and certificate of deposit. **Total Project Value $**_____ **Deposit Amount $**_____

I hereby state that all information presented herein is true and accurate to the best of my knowledge. I further state that I have read and that I understand the C&D Ordinance and that I will comply in all respects with all requirements contained therein.

Signature _____ Print Name _____ Date _____

For City Use Only Deposit Received $_____

WMP Approved_____ Date_____

Deposit Returned $_____ Date_____

By_____

Diversion: Inert_____% Other C&D_____% Total_____%

☐ Compliant ☐ Good Faith ☐ Non-Compliant

_____ _____

APPROVED - WMP COMPLIANCE OFFICER DATE

CITY OF DOWNEY - CONSTRUCTION & DEMOLITION

WASTE MANAGEMENT PLAN – FORM A – Page 2 of 3

APPLICANT NAME: _____

PROJECT ADDRESS: _____

ORIGINALS of all receipts and weight tags from recycling facilities, salvage companies, deconstruction contractors, haulers, transfer stations, processors, and landfills MUST be submitted with final Compliance Report – Form B.

APPLICANTS ARE REQUIRED TO RECYCLE 100% OF ALL INERT DEBRIS AND AT LEAST 50% OF THE REMAINING C&D DEBRIS

Indicate materials to be generated, their estimated tonnages, and expected destinations. To convert units of volume (for example – cubic feet (cf), cubic yards (cy), etc.) into tons, use the conversion factors provided. Note: 1 ton = 2,000 lbs.

INERT MATERIALS ONLY

INERT Materials	Recycled (tons)	Reused (tons)	Disposed (tons)	Total Quantity Generated	Facility to be Used/Destination of Material
Example: Dirt 10 cy = 18,900 lbs	*5 tons*	*8 tons*	*10 tons*	*23 tons*	*Example: Recycle – Azusa Land Reclamation Reuse – On job site for grading Dispose – Puente Hills Landfill*
Asphalt 1 cy = 1,380 lbs					
Brick 1 cy = 3,024 lbs					
Concrete 1 cy = 1,855 lbs					
Rock, Gravel					
Tile (ceramic), Stone 1 cy = 1,214 lbs					
Other					
Other					

Fill in the blanks to determine if you will divert **100% of the INERT MATERIAL** generated by your project:

Recycled _____ + Reused _____ = _____ ÷ Quantity Generated _____ =_____ x 100 =_____%

LIST REMAINING CONSTRUCTION & DEMOLITION DEBRIS ON NEXT PAGE

WASTE MANAGEMENT PLAN – FORM A - Page 3 of 3

REMAINDER OF C&D MATERIAL

Material	Recycled (tons)	Reused (tons)	Disposed (tons)	Total Quantity Generated	Facility to be Used/Destination of Material
Building Materials (ceiling tile, doors, fixtures, windows, etc.)					
Cardboard, Paper 1 cy = 100 lbs					
Carpet, Carpet Padding 1 cy = 84.4 lbs					
Dirt 10 cy = 18,900 lbs					
Glass 1 cy = 2,160 lbs					
Green Waste 40 cy = 4,320 lbs					
Gypsum/Dry Wall 1 cy = 3,834 lbs					
Metals 1 cy = 906 lbs					
Mixed C&D (commingled, recyclable)					
Plastic 1 cy = 22.55 lbs					
Roofing Material					
Stucco					
Wood (lumber, doors, etc.) 1 cy = 329.5 lbs					
Refuse					
Other					
Other					
TOTALS					

Fill in the blanks to determine if you will divert at least **50%** of the materials above generated by your project:

Recycled _____ + Reused _____ = _____ ÷ Quantity Generated _____ =_____ x 100 =_____%

For City Use Only

☐ WMP Approved

☐ Resubmit _____

Reviewed by _____ Date_____

CITY OF DOWNEY - CONSTRUCTION & DEMOLITION

WASTE MANAGEMENT PLAN - COMPLIANCE REPORT

FORM B – Page 1 of 3

DATE OF SUBMITTAL: _____

BUILDING PERMIT #: _____ PROJECT COMPLETION DATE: _____

APPLICANT NAME: _____

COMPANY NAME: _____

PROJECT ADDRESS: _____

This entire form must be completed and submitted to the City of Downey within 30 days following the completion of the project. *FAILURE TO SUBMIT THIS FORM could be cause for surrender of deposit, non- issuance of final project approval, and delay of issuance of construction and/or demolition permits for site development.*

Originals of all receipts and weight tags from recycling facilities, Salvage companies, deconstruction contractors, haulers, processors, Transfer stations, and landfills MUST be attached to this report.

APPLICANTS ARE REQUIRED TO RECYCLE 100% OF ALL INERT DEBRIS AND AT LEAST 50% OF THE REMAINING C&D DEBRIS

Complete and submit to:

City of Downey
Public Works / Engineering
Attn: WMP Compliance Officer
11111 Brookshire Avenue
Downey, CA 90241

City Hall Office Hours:

7:30 a.m. – 5:30 p.m.

Tele: (562) 904-7110
FAX: (562) 904-7296

I, the undersigned, am authorized to sign on behalf of the applicant, and hereby acknowledge the requirements of Chapter 8, Ordinance No. 07-1217, of the Downey Municipal Code relating to the diversion of Construction and Demolition waste. I attest that all information presented on Form B, pages 1 and 2, is true and accurate.

Applicant Signature_____ Print Name_____ Date _____

FOR CITY USE ONLY

Deposit to be returned? Yes_____ No_____

Deposit Amount $_____ Date_____

By_____

Diversion: Inert _____% Other C&D_____%

☐ Compliant ☐ Good Faith ☐ Non-Compliant

_____ _____
FINAL APPROVAL - WMP COMPLIANCE OFFICER DATE

(Form continued)

CITY OF DOWNEY - CONSTRUCTION & DEMOLITION

WASTE MANAGEMENT PLAN - COMPLIANCE REPORT

FORM B – Page 2 of 3

Originals of all receipts and weight tags from recycling facilities, Salvage companies, deconstruction contractors, haulers, processors, Transfer stations, and landfills MUST be attached to this report.

APPLICANTS ARE REQUIRED TO RECYCLE 100% OF ALL INERT DEBRIS AND AT LEAST 50% OF THE REMAINING C&D DEBRIS

INERT MATERIALS ONLY

INERT Materials	Recycled (tons)	Reused (tons)	Disposed (tons)	Total Quantity Generated	Facility to be Used/Destination of Material
Example: Dirt 10 cy = 18,900 lbs	*5 tons*	*8 tons*	*10 tons*	*23 tons*	*Example: Recycle – Azusa Land Reclamation Reuse – On job site for grading Dispose – Puente Hills Landfill*
* Asphalt 1 cy = 1,380 lbs					
* Brick 1 cy = 3,024 lbs					
* Concrete 1 cy = 1,855 lbs					
* Rock, Gravel					
* Tile (ceramic), Stone 1 cy = 1,214 lbs					

* Fill in the blanks to determine if you will divert **100% of the INERT MATERIAL (marked "*")** generated by your project:

Recycled _____ + Reused _____ = _____ ÷ Quantity Generated _____ =_____ x 100 =_____%

LIST REMAINING CONSTRUCTION & DEMOLITION DEBRIS ON NEXT PAGE

(Continued)

WASTE MANAGEMENT PLAN - COMPLIANCE REPORT

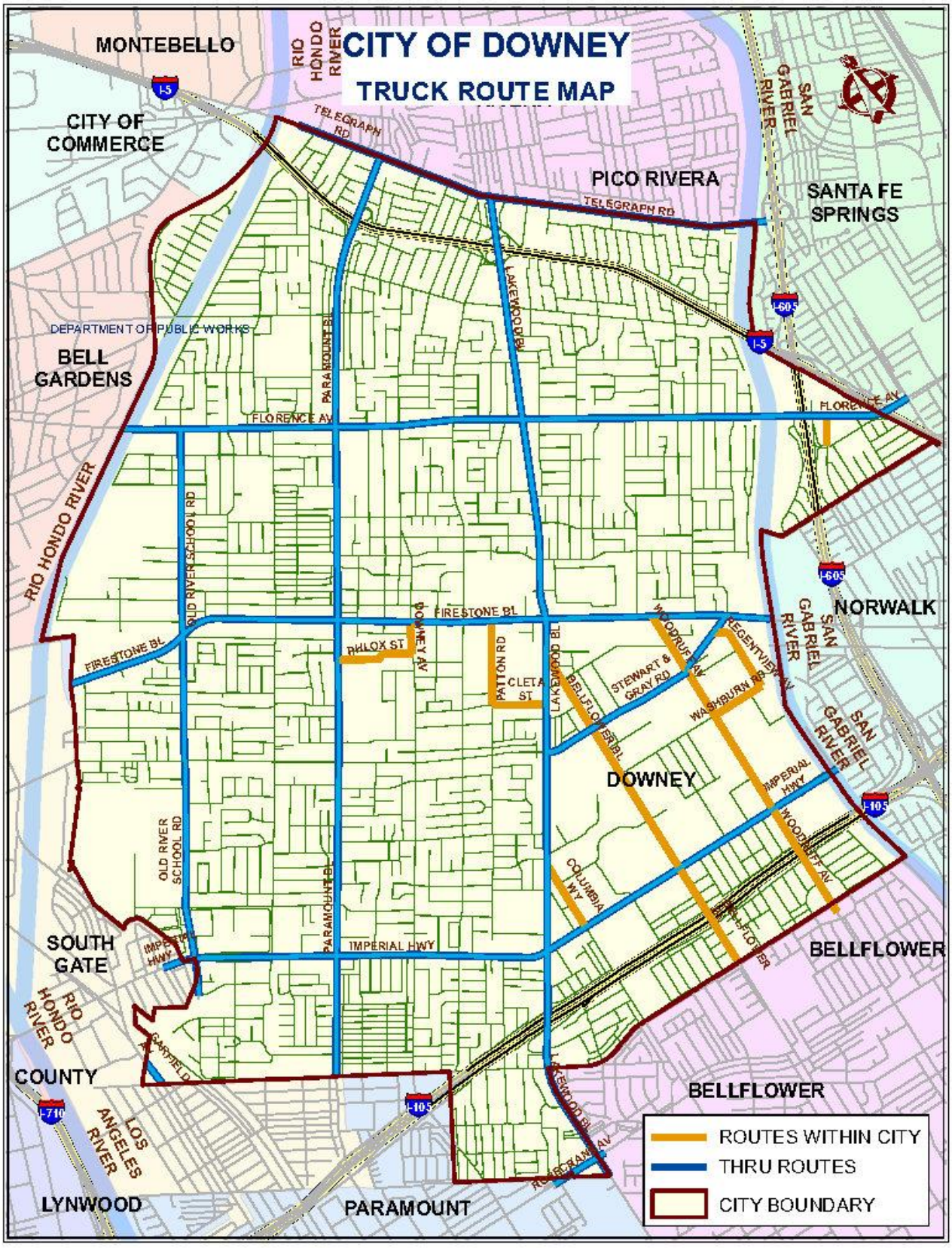
FORM B – Page 3 of 3

REMAINDER OF C&D MATERIAL

Material	Recycled (tons)	Reused (tons)	Disposed (tons)	Total Quantity Generated	Facility to be Used/Destination of Material
Building Materials (ceiling tile, doors, fixtures, windows, etc.)					
Cardboard, Paper 1 cy = 100 lbs					
Carpet, Carpet Padding 1 cy = 84.4 lbs					
Dirt 10 cy = 18,900 lbs					
Glass 1 cy = 2,160 lbs					
Green Waste 40 cy = 4,320 lbs					
Gypsum/Dry Wall 1 cy = 3,834 lbs					
Metals 1 cy = 906 lbs					
Mixed C&D (commingled, recyclable)					
Plastic 1 cy = 22.55 lbs					
Roofing Material					
Stucco					
Wood (lumber, doors, etc.) 1 cy = 329.5 lbs					
Refuse					
Other					
Other					
TOTALS					

Fill in the blanks to determine if you diverted at least **50%** of the remaining material generated by your project:

Recycled _____ + Reused _____ = _____ ÷ Quantity Generated _____ =_____ x 100 =_____%


CITY OF DOWNEY
TRUCK ROUTE MAP
MONTEBELLO
CITY OF COMMERCE
PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
DEPARTMENT OF PUBLIC WORKS
NORWALK
DOWNEY
SOUTH GATE
BELLFLOWER
LYNWOOD
PARAMOUNT
COUNTY
RIO HONDO RIVER
SAN GABRIEL RIVER
LOS ANGELES RIVER
TELEGRAPH RD
FLORENCE AV
FIRESTONE BL
IMPERIAL HWY
I-5
I-605
I-105
I-710
ROUTES WITHIN CITY
THRU ROUTES
CITY BOUNDARY

SECTION 17
APPENDICES

FOR

CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

APPENDIX A
REFERENCE STANDARDS

REFERENCE STANDARDS

The standards referred to, except as modified, shall have full force and effect as though printed in these Specifications, and shall be the latest edition or revision thereof in effect on the bid opening date, unless a particular edition or issue is indicated. Copies of these standards are not available from the City. Abbreviations and terms, or pronouns in place of them, shall be interpreted as follows:

AA:	Aluminum Association
AAC:	Architectural Anodizers Council
AABC:	Associated Air Balance Council
AAMA:	American Architectural Manufacturers Association
AAN:	American Association of Nurserymen
AASHTO:	American Association of State Highway and Transportation Officials
ACEC:	American Consulting Engineers Council
ACI:	American Concrete Institute
ACPA:	American Concrete Pipe Association
ACPA:	American Concrete Pumping Association
ADC:	Air Diffusion Council
AFSA:	American Fire Sprinkler Association
AGA:	American Gas Association
AGC:	Associated General Contractors of America
AHDGA:	American Hot Dip Galvanizers Association
AI:	Asphalt Institute
AIA:	The American Institute of Architects
AISC:	American Institute of Steel Construction
AISI:	American Iron and Steel Institute
ALCA:	Associated Landscape Contractors of America
ALSC:	American Lumber Standards Committee
AMCA:	Air Movement and Control Association

ANSI:	American National Standards Institute
AOSA:	Association of Official Speed Analysts
APA:	American Plywood Association
API:	American Petroleum Institute
APWA:	American Public Works Association
ARMA:	Asphalt Roofing Manufacturers Association
ASA:	American Subcontractors Association
ASC:	Associated Specialty Contractors
ASCE:	American Society of Civil Engineers
ASHRAE:	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASLA:	American Society of Landscape Architects
ASME:	American Society of Mechanical Engineers
ASPE:	American Society of Plumbing Engineers
ASSE:	American Society of Sanitary Engineering
ASTM:	American Society for Testing and Materials
AWA:	Association of Women in Architecture
AWPA:	American Wood-Preservers' Association
AWPB:	American Wood Preservers Bureau
AWS:	American Welding Society
AWWA:	American Water Works Association
BHMA:	Builders' Hardware Manufacturers Association
CABO:	Council of American Building Officials
CAC:	California Administrative Code: See California Code of Regulations (CCR).
CCR:	California Code of Regulations
CBM:	Certified Ballast Manufacturers Association

CEC:	California Electrical Code
CFR:	Code of Federal Regulations
CIMA:	Construction Industry Manufacturers Association
CISPI:	Cast Iron Soil Pipe Institute
CPSC:	Consumer Product Safety Commission
CLFMI:	Chain Link Fence Manufacturers Institute
CMAA:	Crane Manufacturers' Association of America
CRA:	California Redwood Association
CRSI:	Concrete Reinforcing Steel Institute
CSI:	The Construction Specifications Institute
CSS:	Caltrans Standard Specifications, State of California, Department of Transportation
CTIOA:	Ceramic Tile Institute of America, Inc.
DHI:	Door and Hardware Institute
DOC:	U.S. Department of Commerce
DOSH:	Division of Occupational Safety and Health, State of California, Department of Industrial Relations
DOT:	U.S. Department of Transportation
ECA:	Engineering Contractors Association
EIMA:	Exterior Insulation Manufacturers Association
EJMA:	Expansion Joint Manufacturers Association
EPA:	Environmental Protection Agency
FCC:	Federal Communications Commission
FEMA:	Fire Equipment Manufacturers' Association
GA:	Gypsum Association
IAPMO:	International Association of Plumbing and Mechanical Officials
ICBO:	International Conference of Building Officials

ICEA:	Insulated Cable Engineers Association, Inc.
IEEE:	Institute of Electrical and Electronic Engineers
IESNA:	Illuminating Engineering Society of North America
IMSA:	International Municipal Signal Association
MaSIA:	Masonry Institute of America
ML/SFA:	Metal Lath/Steel Framing Association
MSS:	Manufacturers Standardization Society
NAAMM:	National Association of Architectural Metal Manufacturers
NACE:	National Association of Corrosion Engineers, Standards
NADC:	National Association of Demolition Contractors
NAMC:	National Association of Minority Contractors
NAPA:	National Asphalt Pavement Association
NCMA:	National Concrete Masonry Association
NEC:	National Electric Code
NECA:	National Electrical Contractors Association
NEMA:	National Electrical Manufacturers' Association
NETA:	International Electrical Testing Association
NFC:	National Fire Code
NFPA:	National Fire Protection Association
N.F.P.A.:	National Forest Products Association
NFSA:	National Fire Sprinkler Association
NGA:	National Glass Association
NIBS:	National Institute of Building Sciences
NIST:	National Institute of Standards and Technology
NPCA:	National Precast Concrete Association

NRCA:	National Roofing Contractors Association
NSF:	National Sanitation Foundation
NSPE:	National Society of Professional Engineers
OSA:	Office of the State Architect (California)
OSHA:	Occupational Safety and Health Administration
PCA:	Portland Cement Association
PCI:	Precast/Prestressed Concrete Institute
PDCA:	Painting and Decorating Contractors of America
PDI:	Plumbing and Drainage Institute
PTI:	Post-Tensioning Institute
RIS:	Redwood Inspection Service
SDI:	Steel Door Institute
SFPA:	Society of Fire Protection Engineers
SGCC:	Safety Glazing Certification Council
SMACNA:	Sheet Metal and Air Conditioning Contractors National Association, Inc.
SSI:	Stainless Steel Institute
SSPC:	Steel Structures Painting Council
SSPWC:	Standard Specifications for Public Works Construction (Green book)
SWRI:	Sealant, Waterproofing and Restoration Institute
TCA:	Tile Council of America
UBC:	Uniform Building Code of the International Conference of Building Officials
UFC:	Uniform Fire Code
UL:	Underwriters Laboratories, Inc.
UMC:	Uniform Mechanical Code
UPC:	Uniform Plumbing Code

USDA: U.S. Department of Agriculture

WCLIB: West Coast Lumber Inspection Bureau

WLPDIA: Western Lath, Plaster, Drywall Industries Association

WWPA: Western Wood Products Association

REFERENCE STANDARD PLANS

CDSP: City of Downey Standard Plans

SPPWC: Standard Plans for Public Works Construction

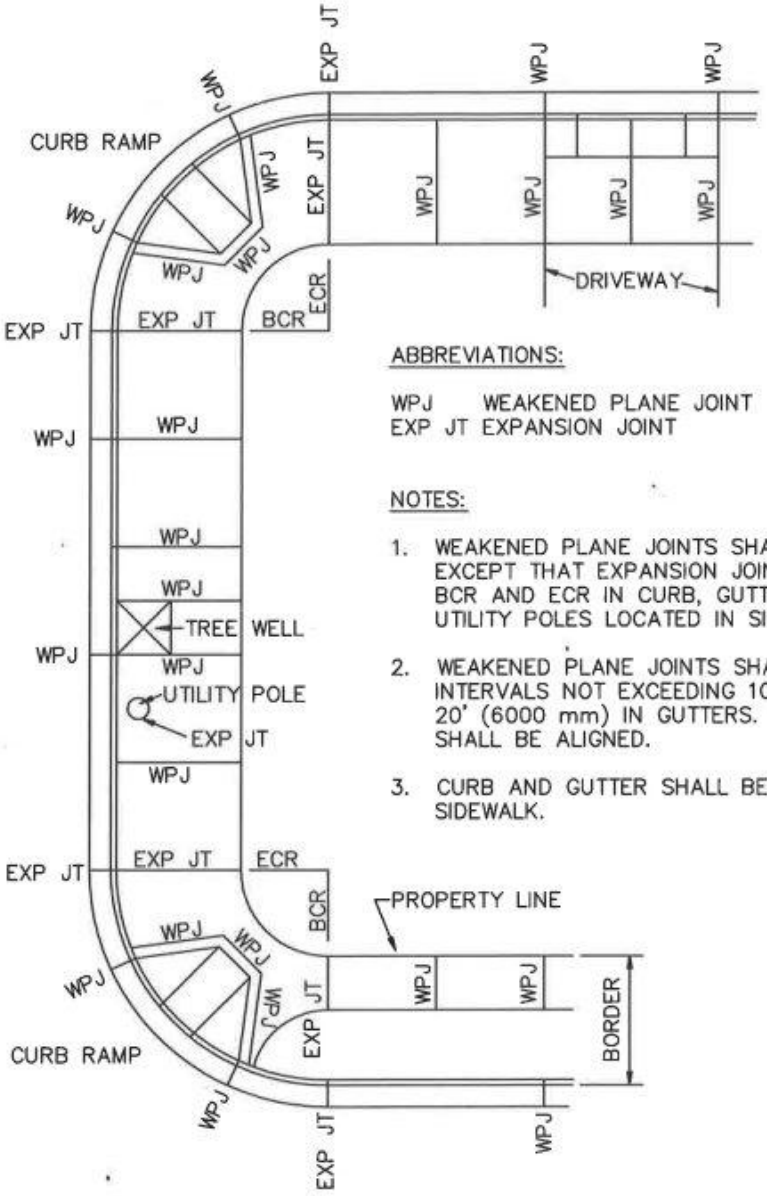
SECTION 18
STANDARD PLANS

FOR

CAPITAL IMPROVEMENT PROJECT NO. 24-99

DOWNTOWN DOWNEY GATEWAY SIGN INSTALLATION

Standard Plans for Public Works Construction (SPPWC)
2021



ABBREVIATIONS:

WPJ	WEAKENED PLANE JOINT	BCR	BEGINNING OF CURB RETURN
EXP JT	EXPANSION JOINT	ECR	END OF CURB RETURN

NOTES:

1. WEAKENED PLANE JOINTS SHALL BE USED FOR ALL JOINTS, EXCEPT THAT EXPANSION JOINTS SHALL BE PLACED AT THE BCR AND ECR IN CURB, GUTTER AND SIDEWALK, AND AROUND UTILITY POLES LOCATED IN SIDEWALK AREAS.
2. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT EXCEEDING 10' (3000 mm) IN WALKS AND 20' (6000 mm) IN GUTTERS. JOINTS IN CURB AND WALK SHALL BE ALIGNED.
3. CURB AND GUTTER SHALL BE CONSTRUCTED SEPARATELY FROM SIDEWALK.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1964 REV. 1996, 2009

CURB AND SIDEWALK JOINTS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

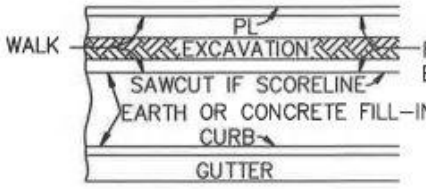
STANDARD PLAN 112-2

SHEET 1 OF 1

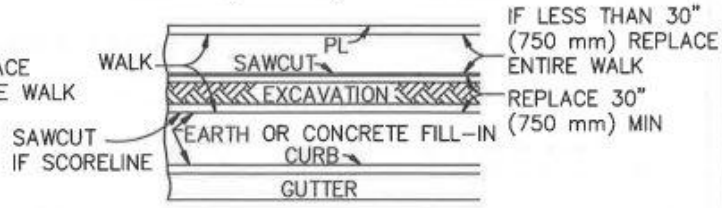
WALK OR FILL–IN REPLACEMENT FOR EXCAVATIONS MADE PARALLEL TO CURB OR PROPERTY LINE

WALK ADJACENT TO PROPERTY LINE

WALK LESS THAN 5' (1500 mm) WIDE

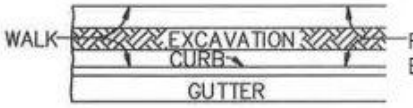


WALK 5' (1500 mm) WIDE OR MORE

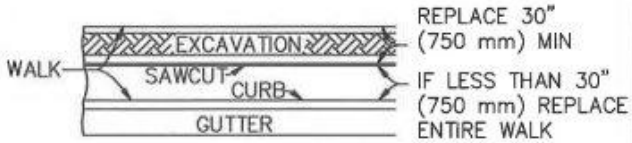


WALK ADJACENT TO CURB

WALK LESS THAN 5' (1500 mm) WIDE

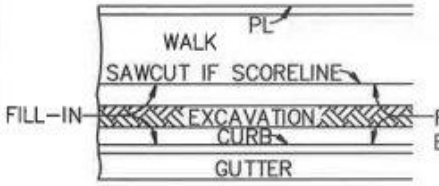


WALK 5' (1500 mm) WIDE OR MORE

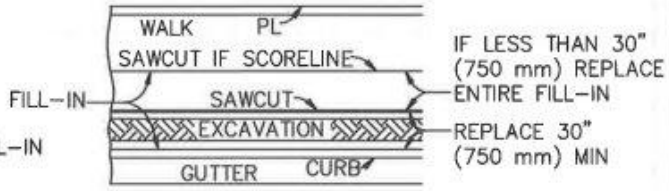


FILL–IN REPLACEMENT

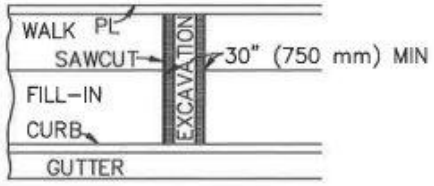
FILL–IN LESS THAN 5' (1500 mm) WIDE



FILL–IN 5' (1500 mm) WIDE OR MORE



WALK OR FILL–IN REPLACEMENT FOR EXCAVATIONS MADE NORMAL TO CURB OR PROPERTY LINE



THESE REQUIREMENTS ALSO APPLY TO ENDS OF PARALLEL EXCAVATIONS.

IF AN EXCAVATION FALLS WITHIN 30" (750 mm) OF AN EXPANSION JOINT, CONSTRUCTION JOINT, WEAKENED PLANE JOINT, OR EDGE, THE CONCRETE SHALL BE REMOVED AND REPLACED TO THE JOINT OR EDGE.

IF AN EXCAVATION FALLS WITHIN 12" (300 mm) OF A SCORELINE, THE CONCRETE SHALL BE REMOVED AND REPLACED TO THE SCORELINE. THE SCORELINE SHALL BE SAWCUT BEFORE CONCRETE REMOVAL.

THE MINIMUM LENGTH OF REPLACEMENT IN BOTH CASES SHALL BE 30" (750 mm).

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1993 REV. 1996, 2009

SIDEWALK & DRIVEWAY REPLACEMENT

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 113–2

NOTES

1. CONCRETE WALK, FILL-IN AND DRIVEWAYS REMOVED IN CONNECTION WITH CONSTRUCTION SHALL BE REPLACED TO NEATLY SAWED EDGES. ALL CUTS SHALL BE PARALLEL TO OR PERPENDICULAR TO THE CURB; ON CURVES, THE CUT SHALL BE RADIAL TO THE CURB.

2. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS LESS THAN 11' (3300 mm) SHALL BE REPLACED IN THEIR ENTIRETY IF CUT IN ANY AREA.

3. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS 11' (3300 mm') OR MORE MAY BE CUT WITHIN THE "W" SECTION. THE MINIMUM REPLACEMENT SHALL BE 30" (750 mm) IN LENGTH. THE MINIMUM DISTANCE ALLOWED BETWEEN SUCH CUTS SHALL BE 14' (4200 mm').

4. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS 11' (3300 mm) OR MORE MAY BE CUT IN THE "X" OR "R" SECTION. REPLACEMENT SHALL BE THE ENTIRE "X" OR "R" SECTION.

5. DRIVEWAY APRONS SHALL BE REPLACED FROM THE BACK OF THE CURB TO THE FRONT EDGE OF THE WALK, EXCEPT, WHERE WALK IS ADJACENT TO CURB, REPLACEMENT SHALL BE FROM BACK OF CURB TO BACK OF WALK.

6. WALK PORTIONS OF DRIVEWAYS SHALL BE REPLACED AS SHOWN ABOVE FOR EXCAVATIONS MADE PARALLEL OR NORMAL TO CURB.

7. REPLACEMENT OF THE "X" OR "R" SECTION SHALL MATCH EXISTING CONSTRUCTION.

Project Plans (Drawing No. 3-49-49)