

CONTRACT  
36418

THIS CONTRACT is made and entered, as of September 15, 2022, for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on August 16, 2022, by and between SPECTRA COMPANY, a California corporation ("Contractor"), whose address is 2510 Supply Street, Pomona, California 91767, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, pursuant to Invitation to Bid PW22-075 for Window Replacements at Bay Shore Library in the City of Long Beach, California, bids were received, publicly opened and declared on the date specified in said Notice; and

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

WHEREAS, the City Council authorized the City Manager to enter a contract with Contractor for the work described in Invitation to Bid PW22-075;

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

1. SCOPE OF WORK. Contractor shall furnish all necessary labor, supervision, tools, materials, supplies, appliances, equipment and transportation for the work described in Invitation to Bid PW22-075 for Window Replacements at Bay Shore Library in the City of Long Beach, California, said work to be performed according to the Contract Documents identified below. This Contract is intended to provide complete and finished work and, to that end, Contractor shall do everything necessary to complete the work, whether or not specifically described in the Contract Documents.

2. PRICE AND PAYMENT.

A. City shall pay to Contractor the amount(s) for materials and work identified in Invitation to Bid PW22-075 for Window Replacements at Bay Shore Library in the City of Long Beach, California, attached hereto as Exhibit "A", and more particularly described in Contractor's Proposal, attached hereto as Exhibit

1 "A-1"; in the amount of Three Hundred Seventy-Three Thousand Five Hundred  
2 Twelve Dollars (\$373,512) with a twenty percent (20%) contingency in the amount  
3 of Seventy-Four Thousand Seven Hundred Two Dollars (\$74,702), for a total not to  
4 exceed amount of Four Hundred Forty-Eight Thousand Two Hundred Fourteen  
5 Dollars (\$448,214).

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

10 3. CONTRACT DOCUMENTS.

11 A. The Contract Documents include: Invitation to Bid PW22-075  
12 (which may include by reference the Standard Specifications for Public Works  
13 Construction, latest edition, and any supplements thereto, collectively the "Standard  
14 Specifications"); the City of Long Beach Standard Plans; Project Drawings for this  
15 work; the California Code of Regulations; the various Uniform Codes applicable to  
16 trades; the prevailing wage rates; Instructions to Bidders; the Bid; the bid security;  
17 the City of Long Beach Disadvantaged, Minority and Women-Owned Business  
18 Enterprise Program; this Contract and all documents attached hereto or referenced  
19 herein including but not limited to insurance; Bond for Faithful Performance;  
20 Payment Bond; Notice to Proceed; Notice of Completion; any addenda or change  
21 orders issued in accordance with the Standard Specifications; any permits required  
22 and issued for the work; approved final design drawings and documents; and the  
23 Information Sheet ("Contract Documents"). These Contract Documents are  
24 incorporated herein by the above reference and form a part of this Contract.

25 B. Notwithstanding Section 2-5.2 of the Standard Specifications,  
26 if any conflict or inconsistency exists or develops among or between Contract  
27 Documents, the following priority shall govern: 1) Permit(s) from other public  
28 agencies; 2) Change Orders; 3) this Contract (including any and all amendments

1 hereto); 4) Addenda (which shall include written clarifications, corrections and  
2 changes to the bid documents and other types of written notices issued prior to bid  
3 opening; 5) Project Specifications; 6) Project Plans (including drawings); 7) the City  
4 of Long Beach Standard Plans; 8) Standard Specifications (as identified in Section  
5 3.A. of the Greenbook); 9) other reference specifications; 10) other reference  
6 plans; 11) the Bid; and 12) the Notice Inviting Bids.

7 4. TIME FOR CONTRACT. The term of this Contract shall commence  
8 at midnight on October 1, 2022, and shall terminate at 11:59 p.m. on September 30, 2023,  
9 unless sooner terminated as provided in this Contract, or unless the services or the Project  
10 is completed sooner. The Parties have the option to extend the term for four (4) additional  
11 one-year periods. Time is of the essence hereunder. City will suffer damage if the work is  
12 not completed within the time stated, but those damages would be difficult or impractical  
13 to determine. So, Contractor shall pay to City, as liquidated damages, the amount stated  
14 in the Contract Documents.

15 5. WARRANTY. Contractor warrants that the goods, machinery or  
16 equipment delivered or the work performed hereunder shall conform to the specifications,  
17 drawing, samples or other description specified by the City and shall be fit and sufficient  
18 for the purposes intended, merchantable, of good material and workmanship, in good  
19 working order and free from defect of faulty workmanship for a period of one (1) year from  
20 the date of acceptance of the work by the City. When defective goods, machinery, or  
21 equipment or faulty workmanship is discovered which requires repair or replacement  
22 pursuant to this warranty, Contractor shall provide all labor, materials, parts and equipment  
23 to correct such defect at no expense to the City.

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

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

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

10                  9.     CLAIMS. Contractor shall, upon completion of the work, deliver  
11 possession thereof to City ready for use and free and discharged from all claims for labor  
12 and materials in doing the work and shall assume and be responsible for, and shall protect,  
13 defend, indemnify and hold harmless City from and against any and all claims, demands,  
14 causes of action, liability, loss, costs or expenses for injuries to or death of persons, or  
15 damages to property, including property of City, which arises from or is connected with the  
16 performance of the work.

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

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

23                  11.    WORK DAY. Contractor shall comply with Sections 1810 through  
24 1815 of the California Labor Code regarding hours of work. Contractor shall forfeit, as a  
25 penalty to City, the sum of Twenty-Five Dollars (\$25.00) for each worker employed by  
26 Contractor or any subcontractor for each calendar day such worker is required or permitted  
27 to work more than eight (8) hours unless that worker receives compensation in accordance  
28 with Section 1815.



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

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

14. CERTIFIED PAYROLL RECORDS.

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

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

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

15. COORDINATION WITH GOVERNMENTAL REGULATIONS.

A. If the work is terminated pursuant to an order of any Federal or State authority, Contractor shall accept as full and complete compensation under this Contract such amount of money as will equal the product of multiplying the Contract price stated herein by the percentage of work completed by Contractor as

1 of the date of such termination, and for which Contractor has not been paid. If the  
2 work is so terminated, the City Engineer, after consultation with Contractor, shall  
3 determine the percentage of work completed and the determination of the City  
4 Engineer shall be final.

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

12 16. NOTICES.

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

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

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

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

7           19.   RESPONSIBILITY OF CONTRACTOR. Notwithstanding anything to  
8 the contrary in the Standard Specifications, Contractor shall have the responsibility, care  
9 and custody of the work. If any loss or damage occurs to the work that is not covered by  
10 collectible commercial insurance, excluding loss or damage caused by earthquake or flood  
11 or the negligence or willful misconduct of City, then Contractor shall immediately make the  
12 City whole for any such loss or pay for any damage. If Contractor fails or refuses to make  
13 the City whole or pay, then City may do so and the cost and expense of doing so shall be  
14 deducted from the amount due Contractor from City hereunder.

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

18           21.   TAXES AND TAX REPORTING.

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

27           B.   Contractor shall cooperate with City in all matters relating to  
28 taxation and the collection of taxes, particularly with respect to the self-accrual of

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

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

15 D. In completing the form and obtaining the permit(s), Contractor  
16 shall use the address of the Work site as its business address and may use any  
17 address for its mailing address. Copies of the form and permit(s) shall also be  
18 delivered to the City Engineer. The form must be submitted and the permit(s)  
19 obtained as soon as Contractor receives a Notice to Proceed. Contractor shall not  
20 order any materials or equipment over One Hundred Thousand Dollars  
21 (\$100,000.00) from vendors outside California until the form is submitted and the  
22 permit(s) obtained and, if Contractor does so, it shall be a material breach of this  
23 Contract. In addition, Contractor shall make all purchases from the Long Beach  
24 sales office of its vendors if those vendors have a Long Beach office and all  
25 purchases made by Contractor under this Contract which are subject to use tax of  
26 Five Hundred Thousand Dollars (\$500,000.00) or more shall be allocated to the City  
27 of Long Beach. Contractor shall require the same cooperation with City, with  
28 regards to subsections B, C and D under this section (including forms and permits),

1 from its subcontractors and any other subcontractors who work directly or indirectly  
2 under the overall authority of this Contract.

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

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

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

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

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

25 26. SUBCONTRACTORS. Contractor agrees to and shall bind every  
26 subcontractor to the terms of this Contract; provided, however, that nothing herein shall  
27 create any obligation on the part of City to pay any subcontractor except in accordance  
28 with a court order in an action to foreclose a stop notice. Failure of Contractor to comply

1 with this Section shall be deemed a material breach of this Contract. A list of  
2 subcontractor(s) submitted by Contractor in compliance with Public Contract Code  
3 Sections 4100 et seq. is attached hereto as Exhibit "D" and incorporated herein by this  
4 reference.

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

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

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

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

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

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

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

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

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

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

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

24          32.    DEFAULT. Default shall include but not be limited to Contractor's  
25          failure to perform in accordance with the Plans and Specifications, failure to comply with  
26          any Contract Document, failure to pay any penalties, fines or charges assessed against  
27          Contractor by any public agency, failure to pay any charges or fees for services performed  
28          by the City, and if Contractor has substituted any security in lieu of retention, then default



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

1 shall also include City's receipt of a stop notice. If default occurs and Contractor has  
2 substituted any security in lieu of retention, then in addition to City's other legal remedies,  
3 City shall have the right to draw on the security in accordance with Public Contract Code  
4 Section 22300 and without further notice to Contractor. If default occurs and Contractor  
5 has not substituted any security in lieu of retention, then City shall have all legal remedies  
6 available to it.

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

9 SPECTRA COMPANY, a California  
10 corporation company), a corporation

11 \_\_\_\_\_, 2022 By [Signature]  
12 Name Mary Adamyk  
13 Title CEO

14 \_\_\_\_\_, 2022 By [Signature]  
15 Name TIM HARRIS  
16 Title COO

17 "Contractor"

18 CITY OF LONG BEACH, a municipal  
19 corporation

20 By Linda J. Jabum  
21 City Manager

22 "City"

EXECUTED POWER OF ATTORNEY  
TO SECURE THE CITY OF LONG BEACH

23 This Contract is approved as to form on November 11, 2022.

24 CHARLES PARKIN, City Attorney

25 By [Signature]  
26 Deputy

**PAYMENT BOND  
(Labor and Material Bond)**

WHEREAS, The CITY OF LONG BEACH, a municipal corporation, hereinafter the "City" or "Obligee," have conditionally awarded to **SPECTRA COMPANY, a California corporation** designated as the "Contractor" or "Principal" herein, a contract for the work ("Work") described as follows: **Window Replacements at Bay Shore Library in the City of Long Beach, California**, as described in Invitation to Bid No.: PW22-075.

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

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

NOW THEREFORE, we the undersigned Contractor, as Principal, and The Ohio Casualty Insurance Company admitted as a surety insurer in the State of California ("Surety"), are held and firmly bound to the City for payment of the penal sum of **Three Hundred Seventy-Three Thousand Five Hundred Twelve Dollars (\$373,512)** lawful money of the United States, for which payment we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally.

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

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

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

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

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above-named, on the 12th day of October, 2022.

The Ohio Casualty Insurance Company  
By: [Signature] Surety Name  
Name: Aaron Steffey Signature  
Title: Attorney-in-Fact Printed Name  
Address: 175 Berkeley St, Boston, MA 02116  
Telephone: 800-843-6446

Aaron Steffey  
[Signature] Attorney-in-Fact  
Signature

Spectra Company, a California corporation  
By: [Signature] Signature  
Name: TIM HARRIS Printed Name  
Title: Chief Operating Officer  
By: [Signature] Signature  
Name: Mary Adams Printed Name  
Title: CEO

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

NOVEMBER 10, 2022 November 11, 2022

Approved as to form.

Approved as to sufficiency.

CHARLES PARKIN, City Attorney

CITY OF LONG BEACH, a municipal corporation

By: [Signature]  
Deputy City Attorney

By: [Signature]  
City Manager/City Engineer

NOTE:

1. Execution of this bond must be acknowledged by both the Principal and Surety before a Notary Public and Notary's certificate of each acknowledgment must be attached.
2. A corporation must execute this bond by duly authorized officers or agents, and a certified copy of a resolution of its Board of Directors authorizing such execution, or other evidence of authority for such execution, must be attached if executed by persons other than the officers listed in Section 313, California Corporations Code.

EXECUTED PURSUANT  
TO SECTION 301 OF  
THE CITY CHARTER

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of California

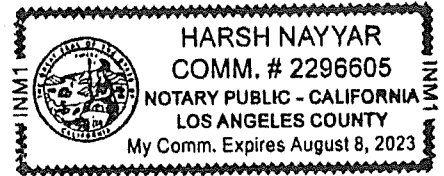
On November 3, 2022 before me, HARSH NAYYAR (NOTARY PUBLIC)  
(insert name and title of the officer)

personally appeared May Adeniyi  
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 the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Harsh Nayyar (Seal)



CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Los Angeles

On October 19, 2022 before me,

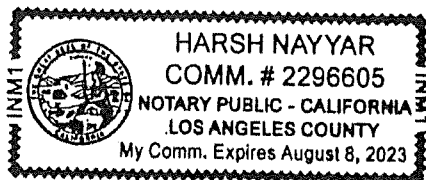
DATE

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared TIM HARRIS

NAME(S) OF SIGNER(S)



Place Notary Seal Above

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 the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Harsh Nayyar  
SIGNATURE OF NOTARY

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

- ☐ INDIVIDUAL  
☒ CORPORATE OFFICER

C O OFFICER  
TITLE(S)

- ☐ PARTNER(S) ☐ LIMITED  
☐ GENERAL  
☐ ATTORNEY-IN-FACT  
☐ TRUSTEE(S)  
☐ GUARDIAN/CONSERVATOR  
☐ OTHER: \_\_\_\_\_

DESCRIPTION OF ATTACHED DOCUMENT

Bonds

TITLE OR TYPE OF DOCUMENT

NUMBER OF PAGES

DATE OF DOCUMENT

SIGNER IS REPRESENTING:  
NAME OF PERSON(S) OR ENTITY(IES)

CAR DRIVER

LICENSE

SIGNER(S) OTHER THAN NAMED ABOVE



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

Certificate No: **8207164-992384**

## POWER OF ATTORNEY

**KNOWN ALL PERSONS BY THESE PRESENTS:** That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Aaron M. Steffey, Lisa M. Battista

all of the city of Houston state of TX each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

**IN WITNESS WHEREOF,** this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 21st day of January, 2022.



Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

By:

David M. Carey  
David M. Carey, Assistant Secretary

State of PENNSYLVANIA ss  
County of MONTGOMERY

On this 21st day of January, 2022 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**IN WITNESS WHEREOF,** I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal  
Teresa Pastella, Notary Public  
Montgomery County  
My commission expires March 24, 2025  
Commission number 1726444  
Member: Pennsylvania Association of Notaries

By:

Teresa Pastella  
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

### ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

### ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

**Certificate of Designation** - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

**Authorization** - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF,** I have hereunto set my hand and affixed the seals of said Companies this 12th day of October, 2022.



By:

Renee C. Llewellyn  
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

**PERFORMANCE BOND**  
**(Bond for Faithful Performance)**

WHEREAS, The CITY OF LONG BEACH, a municipal corporation of the State of California, hereinafter the "City" or "Obligee," have conditionally awarded to SPECTRA COMPANY, a California corporation designated as the "Contractor" or "Principal" herein, a contract for the work ("Work") described as follows: Window Replacements at Bay Shore Library in the City of Long Beach, California, as described in Invitation to Bid No.: PW22-075.

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

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

NOW, THEREFORE, we the undersigned Contractor, as Principal, and The Ohio Casualty Insurance Company, an admitted surety insurer in the State of California, as Surety, are held and firmly bound unto THE CITY OF LONG BEACH, a municipal corporation of the State of California (hereinafter the "City" or "Obligee") in the penal sum of Three Hundred Seventy-Three Thousand Five Hundred Twelve Dollars (\$373,512) lawful money of the United States, for the payment of which sum, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

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

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

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

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

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

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

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

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above-named, on the 12th day of October, 2022.

The Ohio Casualty Insurance Company  
By: [Signature] Surety Name  
Name: Aaron Steffey Signature  
Title: Attorney-in-Fact Printed Name  
Address: 175 Berkeley St, Boston, MA 02116  
Telephone: 800-843-6446

Aaron Steffey  
[Signature] Attorney-in-Fact  
[Signature] Signature

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

NOVEMBER 10, 2022

Approved as to form.

CHARLES PARKIN, City Attorney  
By: [Signature]  
Deputy City Attorney

Spectra Company, a California corporation  
By: [Signature]  
Name: TIM HARRIS Signature  
Title: Chief Operating Officer Printed Name  
By: [Signature]  
Name: May Adeniyi Signature  
Title: CEO Printed Name

Approved as to sufficiency.

CITY OF LONG BEACH, a municipal corporation  
By: [Signature]  
City Manager/City Engineer

NOTE:

1. Execution of this bond must be acknowledged by both PRINCIPAL and SURETY before a Notary Public and Notary's certificate of each acknowledgment must be attached.
2. A corporation must execute this bond by duly authorized officers or agents, and a certified copy of a resolution of its Board of Directors authorizing such execution, or other evidence of authority for such execution, must be attached if executed by persons other than the officers listed in Section 313, California Corporations Code.

**EXECUTED PURSUANT  
TO SECTION 301 OF  
THE CITY CHARTER.**



## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of California

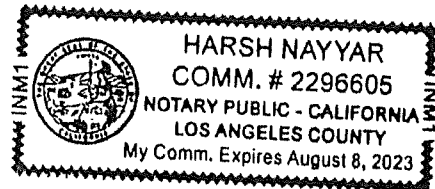
On November 3, 2022 before me, HARSH NAYYAR (NOTARY PUBLIC)  
(insert name and title of the officer)

personally appeared May Adami  
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 the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Harsh Nayyar (Seal)



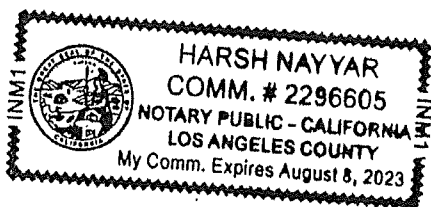
**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

State of California  
 County of Los Angeles

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

On October 19, 2022 before me, HARSH NAYYAR (NOTARY PUBLIC)  
DATE NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared TIM HARRIS  
NAME(S) OF 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 the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

Harsh Nayyar  
SIGNATURE OF NOTARY

**OPTIONAL**

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL  
☒ CORPORATE OFFICER

C O OFFICER  
TITLE(S)

- ☐ PARTNER(S) ☐ LIMITED  
☐ GENERAL  
☐ ATTORNEY-IN-FACT  
☐ TRUSTEE(S)  
☐ GUARDIAN/CONSERVATOR  
☐ OTHER: \_\_\_\_\_

**DESCRIPTION OF ATTACHED DOCUMENT**

Payment Bond  
TITLE OR TYPE OF DOCUMENT

NUMBER OF PAGES

DATE OF DOCUMENT

**SIGNER IS REPRESENTING:**  
NAME OF PERSON(S) OR ENTITY(IES)

CALIF. DRIVER LICENSE

SIGNER(S) OTHER THAN NAMED ABOVE



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

Certificate No: **8207164-992384**

## POWER OF ATTORNEY

**KNOWN ALL PERSONS BY THESE PRESENTS:** That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Aaron M. Steffey, Lisa M. Battista

all of the city of Houston state of TX each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

**IN WITNESS WHEREOF,** this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 21st day of January, 2022.



Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

By: David M. Carey  
David M. Carey, Assistant Secretary

State of PENNSYLVANIA ss  
County of MONTGOMERY

On this 21st day of January, 2022 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**IN WITNESS WHEREOF,** I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal  
Teresa Pastella, Notary Public  
Montgomery County  
My commission expires March 2nd, 2025  
Commission number 112044  
Member Pennsylvania Association of Notaries

By: Teresa Pastella  
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

### ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

### ARTICLE XIII - Execution of Contracts: Section 5 Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

**Certificate of Designation** - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

**Authorization** - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF,** I have hereunto set my hand and affixed the seals of said Companies this 12th day of October, 2022.



By: Renee C. Llewellyn  
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

(Acknowledgement of Surety)

State of Indiana

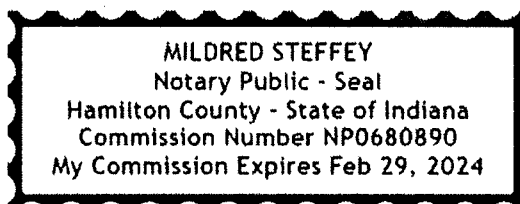
County of Hamilton

On this 12th day of October, 2022, before me personally appeared Aaron Steffey, to me personally known, who, being by me duly sworn, did depose and say that s/he resides in Philadelphia; that s/he is the Attorney in Fact of the The Ohio Casualty Insurance Company the corporation described in and which executed the within instrument; that by order of the board of directors of said corporation s/he signed his/her name thereto and said further says that s/he is acquainted with Aaron Steffey and knows him/her to be the Attorney in Fact of the said corporation; that the signature of the said Aaron Steffey subscribed to the within instrument is in the genuine handwriting of the said Aaron Steffey and was subscribed thereto by like order of the board of directors in the presence of him/her the said Attorney in Fact.

Subscribed and sworn to before me, this

12th day of October, 2022.

Mildred Steffey  
Notary Public



# EXHIBIT “A”

Invitation to Bid PW22-075



# City of Long Beach

Invitation to Bid PW22-075  
Window Replacements at Bay Shore Library

## Overview

### Summary

Furnish all labor, materials, equipment, services and incidentals for the Removal and Replacement of Windows at Bay Shore Library, including lead paint abatement.

### Key Dates

Release Date: May 6, 2022

Mandatory Pre-Bid Meeting: 10:00 A.M. May 18, 2022

Questions Due to the City: 11:00 A.M. May 25, 2022

Posting of Questions and Answers: June 1, 2022

Bids Due: 11:00 A.M. June 10, 2022

*The City reserves the right to modify these dates at any time, with appropriate notice to prospective Bidders.*

### How to Bid

Instructions for what to include in your bid and how to submit it are detailed in Section 2.

Bids must be submitted electronically via the City's PlanetBids portal, available at <https://pbsystem.planetbids.com/portal/15810/portal-home>.

### Official Contact

Elisa Landeros  
[purchasingbids@longbeach.gov](mailto:purchasingbids@longbeach.gov)

*All communication with the City related to this ITB must be directed to the contact listed above.*

## Contents

### 1 The Opportunity

#### 1.1 Overview & Goals

#### 1.2 Specifications

#### 1.3 Award Terms

#### 1.4 Contract Management

### 2 Bid Instructions & Content

#### 2.1 Bid Timelines & Instructions

#### 2.2 Bid Content

### 3 Terms & Conditions

Attachment A: Supplemental Bid Information & Authorization



# 1 The Opportunity

## 1.1 Overview & Goals

The City of Long Beach, Public Works, Project Management is seeking bids to remove and replace the windows at the Bay Shore Library.

## 1.2 Specifications

Project Specifications are included in Attachment 2

Scope of Work; Contractor shall furnish all necessary labor, supervision, tools, materials, supplies, appliances, equipment, and transportation for the work described in the Project Plans and Specifications and Attachments for the Removal and Replacement of windows at the Bay Shore Library in Long Beach, California, said work to be performed according to the Contract Documents identified. However, this Contract is intended to provide the City with complete and finished work, and, to that end, the Contractor shall do everything necessary to complete the work, whether or not explicitly described in the Contract Documents.

**Warranty Requirements:** Standard warranty terms may include:

- The Contractor shall warrant/guarantee all parts and work done against failure due to defective material and/or faulty workmanship from the date of acceptance of the work by the City of Long Beach for a minimum of one year.

## 1.3 Award Terms

The Contractor shall commence work on a date to be specified in a written "Notice to Proceed" from City and shall complete all work within one hundred eighty-six (186) working days thereafter, subject to strikes, lockouts, and events beyond the control of the Contractor.

**CONTRACTOR'S LICENSE:** The Contractor shall possess a valid California Class B, General Building Contractor license at the time of contract award. The Contractor or sub-contractor performing the lead paint abatement shall be an EPA "Lead-Safe Certified Firm". The City may deem any Bidder who fails to possess the required license to be non-responsive.

#### 1.4 Contract Management

All communications shall go through the designated City Representative. The City Representative and the Contractor shall hold bi-weekly progress meetings to ensure moving the project forward. The Contractor shall submit a Look-Ahead Schedule that shows the work completed in the week prior to the current week, the work completed and scheduled for the current week, and the work scheduled for the upcoming two (2) weeks. Also, the Look-Ahead Schedule shall indicate percent complete for each activity, as related to each Bid Item.

**Contract Payment:** The City of Long Beach issues payment based upon services rendered. After a contract is finalized and work is performed, the Awarded Contractor shall invoice the City. The City will remit payment within 30 calendar days of being billed.

Payment shall conform to Section 01280 Measurement and Payment of the Specifications.

## 2 Bid Instructions & Content

### 2.1 Bid Timelines & Instructions

<b>MILESTONE</b>	<b>TIME (PACIFIC) &amp; DATE</b>	<b>LOCATION / ADDITIONAL INFORMATION</b>
Release date	May 6, 2022	<ul style="list-style-type: none"> <li>It is recommended that bidders visit the City's PlanetBids portal on a regular basis for any addenda: <a href="https://pbsystem.planetbids.com/portal/15810/portal-home">https://pbsystem.planetbids.com/portal/15810/portal-home</a>.</li> </ul>
Mandatory Pre-Proposal Meeting	10:00 A.M. May 18, 2022	<ul style="list-style-type: none"> <li>Location: Bay Shore Library 195, Bay Shore Ave, Long Beach, CA 90803 Community Room 195</li> <li>RSVP Instructions, i.e.: RSVPs are requested, but not required. Please RSVP using the "RSVP" button on PlanetBids.</li> <li>Limited Public parking is available on site. Parking will not be validated.</li> <li>Meeting will provide a general project overview SBE and labor compliance requirements and allow for UNOFFICIAL general questions and answers. Answers will be issued to all prospective proposers only to written questions received by the deadline for questions.</li> <li>Site Tour will be conducted within a limited timeframe.</li> </ul>
Questions due to the City	11:00 A.M. May 24 2022	<ul style="list-style-type: none"> <li>Submit all inquiries via email to <a href="mailto:purchasingbids@longbeach.gov">purchasingbids@longbeach.gov</a>. Include the bid number and official contact name in the subject line of the email message.</li> </ul>
Approved Equals due to the City		<ul style="list-style-type: none"> <li>If you desire to bid an "approved equal" item, submit a request to do via email to <a href="mailto:purchasingbids@longbeach.gov">purchasingbids@longbeach.gov</a>. Include all data necessary to substantiate that the item is equal. The City will notify you in writing of approval or disapproved of the equivalent item no later than 05/24/2022.</li> </ul>

		<ul style="list-style-type: none"> <li>• "Approved equal" is defined as any material or process equal in every respect to that so indicated or specified.</li> </ul>
Posting of the Q&A	June 1, 2022	<ul style="list-style-type: none"> <li>• Responses to the questions will be posted on the City's PlanetBids portal, available at <a href="https://pbsystem.planetbids.com/portal/15810/portal-home">https://pbsystem.planetbids.com/portal/15810/portal-home</a>.</li> </ul>
Bids due	11:00AM June 10, 2022	<ul style="list-style-type: none"> <li>• Bids should be submitted electronically via the City's PlanetBids portal, available at <a href="https://pbsystem.planetbids.com/portal/15810/portal-home">https://pbsystem.planetbids.com/portal/15810/portal-home</a>.</li> <li>• All required sections of the bid must be submitted via this portal.</li> <li>• Bids are sealed and cannot be viewed by the City until the closing date and time. If you need to withdraw your bid, you may do so any time before the bid deadline, by going back into the system and selecting "withdraw".</li> <li>• Late bids, or bids submitted through other channels will not be accepted.</li> <li>• Bidders are responsible for submitting their Bids completely and on time. <ul style="list-style-type: none"> <li>◦ Bidders will receive a confirmation number with a time stamp from PlanetBids indicating that the bid was submitted successfully. The City will only receive bids that were transmitted successfully.</li> <li>◦ Technical support is available by phone at (818) 992-1771</li> <li>◦ Support resources including a list of Frequently Asked Questions are available on PlanetBids at <a href="https://pbsystem.planetbids.com/portal/15810/help">https://pbsystem.planetbids.com/portal/15810/help</a>.</li> </ul> </li> </ul>
Bid Opening & Contractor Selection	June 10, 2022	<ul style="list-style-type: none"> <li>• Bids are awarded to the lowest responsible and responsive bidder meeting the City's specifications.</li> <li>• Bids results are opened and posted publicly on the City's online system as soon as they have been reviewed for responsiveness.</li> </ul>

		<ul style="list-style-type: none"> <li>Bidders will automatically be notified by email when results are posted to the City's online system. Bid results will not be given out via telephone, email, or facsimile.</li> </ul>
Contract Execution	June 17 2022 (estimated)	<ul style="list-style-type: none"> <li>Upon award, the Awarded Contractor must submit originals with wet signatures of all attachments listed in Section 2.2. Documents must be mailed to: CITY OF LONG BEACH CITY CLERK – ATTN: Elisa Landeros 411 W OCEAN BLVD/LOBBY LEVEL LONG BEACH CA 90802</li> <li>A contract is not in effect until the City Manager or Designee makes an award and contract documents (including insurance and bonds) are signed, submitted and approved.</li> </ul>

## 2.2 Bid Content

Complete bids will include the following. We encourage you to use this table as a checklist to ensure all components are included in your bid.

<b>DOCUMENT CHECKLIST</b>
<input type="checkbox"/> <b>Bid:</b> Pricing shall be submitted electronically on the Line Items tab of the City's PlanetBids portal. <ul style="list-style-type: none"> <li>• If bids on certain items are labeled "optional", indicate "no bid" or "N/A" in the space provided for an item for which no bid is being offered.</li> </ul>
<b>Mandatory Attachments:</b> <i>The following are posted with the bid documents on PlanetBids. They should be completed and uploaded as Attachments to your bid. All signatures should be by the individual legally authorized to bind the Bidder. Upon award, the Awarded Contractor must submit originals of each of the following with wet signatures.</i>
<input type="checkbox"/> A. Supplemental Bid Information & Authorization <ul style="list-style-type: none"> <li>• Bidder Information</li> <li>• References</li> <li>• Sub-Contractor Information (if applicable)</li> <li>• Additional Bid Information</li> <li>• Signature Page</li> </ul>
<input type="checkbox"/> B. California All Purpose Acknowledgement (for out of state bidders, notarized)
<input type="checkbox"/> C. Equal Benefits Ordinance (EBO) Form
<input type="checkbox"/> D. Small Business Enterprise (SBE) Goal Commitment Plan Form or documentation of Good Faith Effort (GFE)
<input type="checkbox"/> Proof of registration with the California Department of Industrial Relations
<b>Attachments Which May Be Submitted Upon Award:</b> <i>Upon award, Awarded Contractors will be required to submit the following. We encourage you to take note of these requirements, and where possible include available information as part of your bid to expedite processing.</i>
<input type="checkbox"/> W-9
<input type="checkbox"/> Business License
<input type="checkbox"/> Proof of Registration with California Secretary of State
<input type="checkbox"/> Certificate of Insurance
<input type="checkbox"/> Faithful Performance Bond: <i>Awarded Contractor(s) will be required to submit a Faithful Performance Bond for 100 percentage of cost of bid. This will only be required if award is made. The City will provide notice of award and the City's required bond form to the Awarded Contractor(s). Awarded Contractor(s) must submit the required bond within ten calendar days of notice to intent to award.</i>
<input type="checkbox"/> Labor and Materials Bond: <i>Successful bidder(s) will be required to submit a Labor and Materials Bond for 100 percent of cost of bid if the total bid amount is more</i>

	<i>than \$25,000. This will only be required if award is made. The City will provide notice of award and a required bond form to the successful bidder(s).</i>
<input type="checkbox"/>	Current Contractor's State License Board, printed out from the California Contractor's website: <a href="http://www.cslb.ca.gov">www.cslb.ca.gov</a>
<input type="checkbox"/>	<b>PlanetBids Contact Information:</b> <i>The City of Long Beach is committed to providing maximum opportunities for Disadvantaged, Minority, Women and Long Beach Business Enterprises (DBEs, MBEs, WBEs and Local) to compete successfully in supplying our needs for products and services. Ensure your organization's PlanetBids profile is up to date, including an email address, phone number, and with any socioeconomic classifications you may qualify for.</i>

<b>Appendices</b>
Attachment 1 - Plans
Attachment 2 -Specifications
Attachment 3 -Environmental Report
Attachment 4- Environmental Work Plan

### 3 Terms & Conditions

#### Solicitation Terms & Conditions

1. **COMPLETE CONTRACT:** This Invitation to Bid or any attachments thereto shall become the Contract upon its acceptance by the City Manager or designee on behalf of the City of Long Beach. Contractor will be provided with a copy of the executed Contract. All materials or services provided by the Contractor shall comply with the City Charter, and all applicable Federal, State and City Laws.
2. **SERVICES TO BE PROVIDED BY THE CONTRACTOR:** Contractor shall upon acceptance of this bid by the City, furnish the goods and services herein specified according to the terms and conditions set forth herein.
3. **PRICES:** Prices shall be in accordance with those extended to other governmental agencies. In case of error in extension of prices, unit price will govern. All prices must be firm for the Contract term unless the City specifically provides for adjustment. Bidder shall quote his lowest price and best delivery date as no changes are permitted after the bid opening. Bidder may submit alternate prices or name a lump sum or discount conditional on two or more items being awarded to him. Cash discounts offered for payment within fourteen (14) days or less will not be considered when evaluating bids.
4. **ADDITIONAL CHARGES:** Prices quoted shall include all shipping, handling, unloading, pick-up, inside delivery charges to the location designated at time of order, which shall be within the City of Long Beach. Bidder shall not charge any fees or charges for restocking or service fees for incorrect items, defective items, minimum orders, deliveries, pick-ups, disposals, environmental fees, fuel surcharges, etc.
5. **LOCAL PREFERENCE:** In order to help support the success of businesses in Long Beach, the City of Long Beach has a local preference provision.

In bids for materials, equipment, supplies and nonprofessional services under \$100,000, Long Beach-based businesses meeting the criteria set forth below may have their bid price reduced by ten percent solely for the purpose of determining the lowest responsible bid (if selected as the winning bid, you would be paid based upon your actual bid price, not the reduced price).

The maximum preference a bidder may be awarded pursuant to this Section and any other provision of law shall be ten percent (10%). However, in no case shall the maximum preference cost under this Section exceed ten thousand dollars (\$10,000.00) for any bid.



The City Purchasing Agent has determined that the local preference is applicable to this Invitation to Bid. (The local preference does not apply to bids for all purchases funded in full or a fraction thereof by any tidelands fund, by any grant funds, nor by any funds received from the State of California. This section shall not apply to purchases made pursuant to Section 1801 and 1807 of the City Charter and to bids for public works, as that term is defined in Section 1720(a) of the California Labor Code.)

To qualify for the local preference, eligible bidders must attach copies of the following documents to their bid package:

1. A current, valid business license from the City of Long Beach showing a place of business within the city limits; and
2. A current, valid seller's permit (also known as a sales tax permit) showing a place of business within the city limits.
6. MINIMUM ORDERS: No "minimum orders" will be permitted. Bids indicating a minimum order will be rejected.
7. BRAND NAMES AND SPECIFICATIONS: The detailed specifications and/or brand names stated are descriptive only and indicate quality, design and construction of items required. Whenever in the specifications any material or process is indicated or specified by patent or proprietary name and/or by name of manufacturer, such specifications shall be used for the purpose of facilitating descriptions of the material and/or process desired and shall be deemed to be followed by the words "or equivalent.". The contractor may offer any material or process which shall be equal in every respect to that so indicated or specified, provided however, that if the material, process or article offered by the contractor is not, in the opinion of the City of Long Beach, equal in every respect to that specified, then the contractor must furnish the material, process or article specified or one that in the opinion of the City of Long Beach is the equal thereof in every respect. Offers will be considered to supply articles substantially the same as those described herein but with minor variations. Bidders must describe variations in the bid. Substitute items must be equal in quality, utility and performance. The phrase "or approved equal" throughout the specifications means that the City in its sole and absolute discretion shall make the final determination whether or not the substitute items are equal.
8. SAFETY APPROVAL: Where required by City Regulations, any items delivered must carry Underwriters Laboratories Approval or City of Long Beach City Safety Officer approval. Failure to so comply will be cause to reject bid. Also, any equipment

must conform with the Safety Orders of the California Division of Industrial Safety and OSHA regulations.

9. SAMPLES: Samples of items when requested or required must be furnished to the City free of expense to the City and, if not destroyed by tests, will upon request be returned at Bidder's expense.
10. CONDITIONS OF WORK: Bidder is responsible for carefully examining the Site to become fully informed regarding all existing and expected conditions and matters, which could affect performance, cost or time of the Work. Any visits to the Site prior to submittal of the bid, shall be at the expense of Bidder.
11. EXAMINATION OF BID: Bidder is responsible for examining the Invitation to Bid and submitting its bid complete and in conformance with these instructions.
12. DISCREPANCIES IN BID DOCUMENTS: If Bidder finds discrepancies in or omissions from the Invitation to Bid, if the intent of the Invitation is not clear, or if provisions of the Specifications restrict Bidder from bidding, he may request in writing that the deficiency(s) be modified. Such request should be submitted electronically via PlanetBids at least five (5) working days before bid opening date. Bidders will be notified by Addendum of any approved changes in the Invitation to Bid.
13. ORAL STATEMENTS: The City of Long Beach shall not be bound by oral statements made by any employee or agent concerning this Invitation to Bid. If Bidder requires specific information, Bidder must request it in writing and obtain a reply in writing from the City.
14. PREPARATION OF BID: The preparation of the bid, shall be at the expense of Bidder. Bidder shall state brand name or make of each item bid. If not bidding on item as described, the manufacturer's name and catalog number of the substitute must be given. Bidder shall also attach specifications and furnish other data to establish the suitability of the substitute. Bidder shall quote separately on each item.
15. DOCUMENTS REQUIRED TO COMPLETE TRANSACTION: Contractor shall submit samples of all documents that Contractor may require the City to execute to complete this transaction. By accepting these samples as part of the bid or by awarding the Contract to a Contractor who has submitted said samples, the City does not agree to the terms stated in said samples. This Invitation to Bid and Contractor's bid shall take priority over said samples and this Invitation and Contractor's bid shall become the Contract between the City and the Contractor.

16. PUBLIC RECORDS: Bid will become public record upon award unless the bid or specific parts of the bid can be shown to be exempt by law. Each Bidder may clearly label all or part of a bid as "CONFIDENTIAL" provided that the Bidder thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any information that is released by the City shall constitute a complete waiver of any and all claims for damages caused by any release of the information.
17. AWARD: The City prefers to award to a single bidder but reserves the right to award contracts to multiple bidders. The City reserves the right in its sole discretion to award all items to one bidder, or to award separate items or groups of items to various bidders, or to increase or decrease the quantities of any item. The City reserves the right to reject at any time any or all bids.
18. OFFER VALIDITY: Bid shall be subject to acceptance by the City for a period of three (3) months unless a lesser period is prescribed in the quotation by Bidder.
19. NO GUARANTEE: The City's purchases of goods and services are based on the City's actual needs and requirements. All quantities stated herein are only ESTIMATES. The City reserves the right to increase or decrease these estimated quantities based on its actual needs and funds available. The City is obligated to purchase and pay for only those goods and services that the City needs and requires, and that the City actually orders and receives. Any dollar amount identified as a "not to exceed:" amount in any City document is not a guaranteed payment amount to any contractor or service provider. Furthermore, the City may determine that its needs and requirements may be met by City labor or by a second contractor or service provider, even after an award is made to one contractor or service provider. An award is not a promise or guarantee of exclusivity.
20. CHOICE OF ALTERNATE PROVISIONS; OPTIONS; NOTIFICATION: When alternative provisions are requested, or options are offered, Contractor will be notified as to which provision, or option, is being accepted at the same time that he is notified that he is the successful Bidder.
21. RIGHT TO REJECT: The City reserves the right, in its discretion, to reject at any time any or all bids, or parts thereof, and to waive any variances, technicalities and informalities which do not impair the quality, utility, durability or performance of the items.
22. SINGLE BID RECEIPT: If the City receives a single responsive, responsible bid, the City may request an extension of the bid acceptance period and/or conduct a price or cost analysis on such bid. The Bidder shall promptly provide all cost or

pricing data, documentation and explanation requested by the City to assist such analysis. By conducting such analysis, the City shall not be obligated to accept the single bid. The City reserves the right to reject such bid or any portion thereof.

#### General Contract Terms

23. Acceptance of the offer contained in this Contract is expressly limited to the terms and conditions of such offer as herein stated.
24. This Contract shall be construed in accordance with the laws of the State of California, and the venue for any legal actions brought by any party with respect to this Agreement shall be the County of Los Angeles, State of California for state actions and the Central District of California for any federal actions.
25. Contractor shall comply with all applicable federal, state and local laws pertaining to the subject matter hereof.
26. Contractor shall deliver the materials, equipment, supplies or services, or cause the work to be performed, within the time and in the manner specified in the Contract. Times and dates stated herein are of the essence. If at any time Contractor has reason to believe that deliveries will not be made as scheduled, written notice setting forth the cause of the anticipated delay shall be given immediately to the City. Deliveries must be prepaid. C.O.D. shipments will not be accepted.
27. Contractor warrants that the goods, machinery or equipment delivered or the work performed hereunder shall conform to the specifications, drawings, samples or other description specified by the City and shall be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, in good working order and free from defect or faulty workmanship for a period of ninety (90) days. When defective goods, machinery, or equipment or faulty workmanship is discovered which requires repair or replacement pursuant to this warranty, Contractor shall provide all labor, materials, parts and equipment to correct such defect at no expense to the City.
28. No return or exchange of material, equipment or supplies shall be permitted without written approval by the Department Administrator.
29. This Contract shall not be assigned in whole or in part, nor any duties delegated without the City's prior written approval.
30. No performance of this contract or any portion thereof may be assigned or subcontracted by Contractor without the express written consent of the City. Any attempt by the Contractor to assign or subcontract any performance of the terms

of this contract without said consent shall be null and void and shall constitute a default under this contract. In the event of such a default, the City may immediately terminate this contract. In the event the City consents to assignment or subcontracting, each term and condition of this contract shall be binding on the assigns, successors or administrators of the respective parties. In the event the City consents to subcontracting, the Contractor shall include in all subcontracts the following provision: "This contract is a subcontract under the terms of a prime contract with the City of Long Beach. All provisions of that prime contract shall apply to this subcontract." The Contractor and all subcontractors must obtain and maintain in effect a valid City of Long Beach Business License prior to commencement of work, and during the entire time that work is being performed under the contract. The Contractor shall pay all taxes properly assessed against any equipment or property used or required in connection with the performance of security services. Bidder shall list the name and location of the place of business of each Subcontractor who will be a supplier/perform work for the bidder in an amount in excess of one-half of one percent of the bidder's total Purchase Order cost. The Subcontractor list shall be submitted with the bidder's bid.

31. Contractor, in the performance of any work or the furnishing of any labor under this Contract, shall be considered as an independent contractor. Contractor, his agents and employees shall not be considered as employees of the City.
32. The City reserves the right at any time to make changes in drawings and specifications, in methods of shipment and packaging and in place of delivery as to any articles covered by this Contract. In such event there will be made an equitable adjustment in price and time of performance mutually satisfactory to Contractor and the City; but any claim by Contractor for such an adjustment must be made within thirty (30) days of such change.
33. The City reserves the right to terminate this Contract at any time in whole or in part even though Contractor is not in default hereunder. In such event there will be made an equitable adjustment of the terms that is mutually satisfactory to the City and Contractor. Upon receipt of any notice of such termination, Contractor shall, unless such notice otherwise directs, immediately discontinue all work on the Contract and deliver, if and as directed, to the City all completed and partially completed articles, work in process and materials purchased or acquired for performance of the Contract. The provisions of this section shall not limit or affect the right of the City to terminate this Contract immediately upon written notice of breach.
34. The City reserves the right to cancel this Contract or any part thereof and reject delivery of goods if delivery is not undertaken and completed when specified and

in accordance with specifications. Contractor shall be charged for any direct losses, but not any consequential damages, sustained by the City by reason of such delay or failure, excepting losses caused by a delay for reasons beyond Contractor's reasonable control. Direct losses shall include any costs to the city in excess of the Contract price of obtaining goods from other sources similar to those cancelled or rejected hereunder.

35. The City's obligation to pay the sum herein stated for any one fiscal year shall be contingent upon the City Council of the City appropriating the necessary funds for such payment by the City in each fiscal year during the term of this Contract. For the purposes of this section a fiscal year commences on October 1 of the year and continues through September 30 of the following year. In the event that the City Council of the City fails to appropriate the necessary funds for any fiscal year, then, and in that event, the Contract will terminate at no additional cost or obligation to the City.
36. The remedies herein reserved shall be cumulative and additional to any other remedies at law or in equity. The waiver of any breach of this Contract shall not be held to be a waiver of any other or subsequent breach. The City's failure to object to provisions contained in any communication from Contractor shall not be deemed an acceptance of such provisions or a waiver of the provisions of this Contract.
37. This Contract shall not be amended or modified, except by written agreement signed by the parties and expressly referring to this Contract.
38. The City reserves the right to change any portion of the work required, to add and/or delete items, or amend such other terms and conditions that may become necessary. Any such revisions shall be accomplished by written amendment to the contract and executed by the Contractor and the City.
39. The invalidity, unenforceability or illegality of any provision of the contract shall not render the other provisions invalid, unenforceable, or illegal.

#### Price & Payments

40. No charges for taxes, transportation, boxing, packaging, crating or returnable containers will be allowed and paid by the City unless separately stated hereon. All sales, use, excise or similar taxes to be paid by the City must be itemized separately hereon and on invoices. The City is exempt from payment of Federal Excise Tax under Certificate No. 95-73 0502K and none shall be charged to the City.

41. The City shall pay Contractor for the goods or services as described in the section entitled "1.4. Contract Management."
42. Contractor shall furnish further itemization and breakdown of the Contract price when requested by the City.
43. Payment terms are NET/30 unless Bidder otherwise quotes. All Cash Discounts shall be taken and computed from the date of delivery or completion and acceptance of the material, or from date of receipt of invoice, whichever occurs last. Invoices must be submitted as specified at the time of shipping authorization. Partial payments may be made by the City on delivery & acceptance of goods and on receipt of goods and on receipt of Contractor's invoice.
44. All royalties for patents, or changes for the use of patents, which may be involved in any article to be furnished under this Contract shall be included in the Contract price.
45. The City reserves the right to exercise, at its option, an increase in expenditures by ten (10) percent annually, but the City does not guarantee such an increase.
46. In cases where a price subject to escalation has been agreed upon, the price escalation shall be shown as a separate item on the invoice. Unless an escalator clause has been shown as a specific part of this Contract Contractor shall not be entitled to reimbursement for costs incurred due to escalation.
47. The City shall pay to Contractor the price(s) specified in the Contract on delivery of the materials, equipment, supplies or services and acceptance thereof by the City Manager or his designee, or upon completion of the work to be performed and accepted thereof, as specified in the Contract. Defective articles or articles not in accordance with the City's specifications shall be held for Contractor's instructions at Contractor's risk, and if Contractor so directs will be returned at Contractor's expense.

#### Confidentiality & Data Security

48. Contractor shall keep confidential and not disclose to others or use in any way to the detriment of the City confidential business or technical information that the City may disclose in conjunction with this Contract or Contractor may learn as a result of performing this Contract.

#### Indemnification

49. To the extent allowed by law, Contractor shall defend, indemnify, and hold harmless the City, its Commissions and Boards, and their officials, employees, and agents from and against any and all demands, claims, causes of action, liability,

loss, liens, damage, costs, and expenses (including attorney's fees) arising from or in any way connected or alleged to be connected with Contractor's performance of the performance under the Contract or the work under or related to the Contract and from any act or omission, willful misconduct, or negligence (active or passive) by or alleged to be by Contractor, its employees, agents, or subcontractors either as a sole or contributory cause, sustained by any person or entity (including employees or representatives of City or Contractor). The foregoing shall not apply to claims or causes of action caused by the sole negligence or willful misconduct of the City, its Commissions and Boards, or their officials, employees, or agents.

50. In addition to Contractor's duty to indemnify, Contractor shall have a separate and wholly independent duty to defend Indemnified Parties at Contractor's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Contractor shall be required for the duty to defend to arise. City shall notify Contractor of any Claim, shall tender the defense of the Claim to Contractor, and shall assist Contractor, as may be reasonably requested, in the defense.
51. If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Contractor's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties. The provisions of this section shall survive the expiration or termination of this contract.
52. Contractor shall indemnify, hold harmless and defend the City, its Commissions and Boards, and their officials, employees, and agents from any damage, claim, loss, cost, liability, cause of action or expense, including reasonable attorney's fees, whether or not reduced to judgment, arising from any infringement or claimed infringement of any patent, trademark or copyright, or misappropriation of confidential information or trade secrets of any third party and based on the manufacture, sale or use of goods, machinery or equipment supplied hereunder.
53. If the Contractor elects to use subcontractors as set forth in these this contract, Contractor agrees to require its subcontractors to indemnify Indemnified Parties and to provide insurance coverage to the same extent as Contractor. The provisions of this section shall survive the expiration or termination of this Contract

#### Insurance



54. As a condition precedent to the effectiveness of this Contract, Contractor shall procure and maintain at its expense, until completion of performance and acceptance by City, from an insurer admitted (licensed) in the State of California with a current financial responsibility rating of A (Excellent) or better and a current financial size category (FSC) of V (capital surplus and conditional surplus funds of greater than \$10 million) or greater rating as reported by A.M. Best Company or equivalent, unless waived in writing by City's Risk Manager, or non-admitted in the State of California with a current financial responsibility rating of A (Excellent) or better and a current financial size category (FSC) of VIII (capital surplus and conditional surplus funds of greater than \$100 million) or greater rating as reported by A.M. Best Company or equivalent, unless waived in writing by City's Risk Manager.

- a. **Commercial general liability insurance or self-insurance equivalent** in coverage scope to ISO CG 00 01 10 93 naming the City of Long Beach, and its boards, officials, employees, and agents as additional insureds on a form equivalent in coverage scope to ISO CG 20 10 11 85 from and against claims, demands, causes of action, expenses, costs, or liability for injury to or death of persons, or damage to or loss of property arising out activities performed by or on behalf of the Contractor in an amount not less than One Million Dollars (US \$1,000,000) per occurrence and Two Million Dollars (US \$2,000,000) in general aggregate.
- b. **Lead abatement liability insurance**, including defense of and liability for bodily injury, disease, or illness including death at any time as a result therefrom, and property damage for current and future claims arising in whole or in part out of the removal, repair, handling, or disposal, or clean-up of lead containing materials, in an amount not less than One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) general aggregate. The City of Long Beach, its officials, employees, and agents shall be added as additional insureds by endorsement and such endorsement shall protect the City, its officials, employees, and agents from and against any and all claims, demands, causes of action, expenses, costs, or liability for injury to or death of persons, or damage to or loss of property arising out activities performed by or on behalf of the Contractor. This insurance shall contain no special limitations on the scope of protection afforded to the City, its officials, employees, and agents.
- c. **Workers' compensation coverage** as required by the Labor Code of the State of California and Employer's liability insurance with minimum limits of One Million Dollars (US \$1,000,000) per accident or occupational illness. The policy shall be endorsed with a waiver of the insurer's right of subrogation

against the City of Long Beach and its boards, officials, employees, and agents.

- d. **Automobile liability insurance** equivalent in coverage scope to ISO CA 00 01 06 92 in an amount not less than Five Hundred Thousand Dollars (US \$500,000) combined single limit (CSL) per accident for bodily injury and property damage covering Symbol 1 ("all autos")

- 55. Any self-insurance program or self-insurance retention must be approved separately in writing by the City's Risk Manager or designate and shall protect the City of Long Beach, and its boards, officials, employees, and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention provisions. Each insurance policy shall be endorsed to state that coverage shall not be suspended, voided, or canceled by either party except after thirty (30) days prior written notice to the City of Long Beach, and shall be primary and not contributing to any other insurance or self-insurance maintained by the City of Long Beach.
- 56. Any subcontractors of all tiers which Contractor may use in the performance of this Contract shall be required to maintain insurance in compliance with the provisions of this section. The additional insured endorsement form number applicable to subcontractors with respect to the general liability insurance shall be the ISO CG 20 26 11 85 form or its equivalent.
- 57. Contractor shall deliver to the City of Long Beach certificates of insurance and original endorsements for approval as to sufficiency and form prior to the start of performance hereunder. The certificates and endorsements for each insurance policy shall contain the original signature of a person authorized by that insurer to bind coverage on its behalf. "Claims-made" policies are not acceptable unless the City's Risk Manager determines that "Occurrence" policies are not available in the market for the risk being insured. In a "Claims-made" policy is accepted, it must provide for an extended reporting period of not less than three (3) years. Such insurance as required herein shall not be deemed to limit Contractor's liability relating to performance under this Contract. The City of Long Beach reserves the right to require complete certified copies of all said policies at any time. Any modification or waiver of the insurance requirements herein shall be made only with the approval of the City's Risk Manager. The procuring of insurance shall not be construed as a limitation on liability or as full performance of the indemnification provisions of this Contract.
- 58. To the extent more stringent insurance requirements apply in accordance with the City of Long Beach's Administrative Regulation 8-27 (AR 8-27) and its

amendments, the currently in-force AR 8-27 regulations and requirements supersede and replace any insurance requirements stated herein.

Work for the City or on City Property

59. Before execution of a Contract, the bidder shall file two surety bonds with the City of Long Beach subject to the approval of the City Engineer and City Attorney. The bonds shall be on forms provided by the City or acceptable to the City Attorney. The Payment Bond (Material and Labor Bond) shall satisfy claims of material suppliers and mechanics and laborers employed by the contractor on the Work. This bond shall be maintained by the contractor in full force and effect until the work is accepted by the City of Long Beach and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code. The Performance Bond shall guarantee faithful performance of all work within the time and manner prescribed, free from original or developed defects. This bond shall remain in effect as prescribed within the Contract, until the end of all warranty periods.
60. In the event the Contract to be awarded hereunder, including specifications and other documents incorporated therein by reference, provides for the withholding of moneys by the City to ensure performance of such Contract, Contractor may deposit with the City, as a substitute for said withheld moneys, securities listed in Section 16430 of the California Government Code or bank or savings and loan certificates of deposit, or both, equivalent to the amount withheld, provided Contractor requests permission to make such substitution and bears all expenses in connection therewith.
61. If at any time during the progress of the Work, Contractor shall allow any indebtedness to accrue for labor, equipment or materials, or which may become a claim against the City, Contractor shall immediately upon request from the City pay such claim or indebtedness or cause such lien to be dissolved and discharged by giving a bond or otherwise and, in case of his failure so to do, the City may withhold any money due Contractor until such claim or indebtedness is paid or may apply such money toward the discharge thereof; or in such event the City may, at its option, declare this Contract to be terminated, take possession and control of the Work, and complete the same or cause the same to be completed according to the specifications. Contractor shall pay to the City the difference between the Contract price and the actual cost to the City in completing or causing the Work to be completed.
62. Contractor shall carry on the Work at its own risk until the same is fully completed and accepted and shall, in case of any accident, destruction or injury to the Work or materials before its final completion and acceptance, repair or replace the

Work or materials so injured, damaged and destroyed, at his own expense and to the satisfaction of the City. When materials and equipment are furnished by others for installation or erection by Contractor, Contractor shall receive, unload, store and handle same at the Site and become responsible therefore as though such materials and equipment were being furnished by Contractor under the Contract.

63. Contractor shall list the name and location of the place of business of each Subcontractor who will perform work, labor or services for Contractor, or who specially fabricates and installs a portion of the Work or improvement in an amount in excess of one-half of one percent of Contractor's total contract cost. The Subcontractor list shall be submitted with Contractor's bid.

#### Regulatory Compliance

64. BUSINESS LICENSE: The Long Beach Municipal Code (LBMC) requires all businesses operating in the City of Long Beach to pay a business license tax. In some cases, the City may require a regulatory permit and/or evidence of a State or Federal license. Prior to issuing a business license, certain business types will require the business license application and/or business location to be reviewed by the Development Services, Fire, Health, and/or Police Departments. For more information, go to [www.longbeach.gov/finance/business\\_license](http://www.longbeach.gov/finance/business_license).
65. PERMITS AND LICENSING: All permits and licenses necessary to the performance the work shall be secured by the Contractor at the Contractor's own expense.
66. USE TAX: Contractor shall cooperate with the City in all matters relating to taxation and the collection of taxes, particularly with respect to the self-accrual of use tax. Contractor shall cooperate as follows: (i) for all leases and purchases of materials, equipment, supplies or other tangible personal property totaling over \$100,000 shipped from outside California, a qualified Contractor shall complete and submit to the appropriate governmental entity the form in Appendix "A" attached hereto; and (ii) for construction contracts and subcontracts totaling \$5,000,000 or more, Contractor shall obtain a sub-permit from the California Board of Equalization for the Work site. "Qualified" means that the Contractor purchased at least \$500,000 in tangible personal property that was subject to sales or use tax in the previous calendar year.

In completing the form and obtaining the permit(s), Contractor shall use the address of the Work site as its business address and may use any address for its mailing address. Copies of the form and permit(s) shall also be delivered to the Purchasing Agent. The form must be submitted and the permit(s) obtained as

soon as Contractor receives a notice of award. Contractor shall not order any materials or equipment over \$100,000 from vendors outside California until the form is submitted and the permit(s) obtained and, if Contractor does so, it shall be a material breach of the Agreement. In addition, Contractor shall make all purchases from its Long Beach sales office and the Long Beach sales office of its vendors if those vendors have a Long Beach office and all purchases made by Contractor under this Agreement which are subject to use tax of \$500,000 or more shall be allocated to the City of Long Beach. Contractor shall require the same form and permit(s) from its subcontractors.

Contractor shall not be entitled to and by signing this Contract waives any claim or damages for delay against City if Contractor does not timely submit these forms to the appropriate governmental entity. Contractor may contact the Budget Analysis Officer for the Department of Financial Management at 562-570-6869 for assistance with the form.

67. CAL/OSHA: All materials, supplies and equipment provided under this Contract shall be in full compliance with the Safety Orders and Regulations of the Division of Industrial Safety of the State of California, Title 8, California Code of Regulations (CAL/OSHA) and all applicable OSHA regulations as well as all other applicable California Code of Regulations. Contractor shall indemnify and hold the City, its officials, and employees harmless for, of and from any and all loss, including but not limited to fines, penalties and corrective measures, the City may sustain by reason of Contractor's failure to comply with said laws, rules and regulations in connection with the performance of this Contract.
68. ENVIRONMENTAL: The California Integrated Waste Management Act (Public Resources Code, Sec. 40000 et seq.) requires governmental entities to achieve fifty (50) percent diversion of waste. In conjunction with the City's Integrated Resources Bureau, the City is currently developing an Environmentally Preferable Product (EPP) procurement plan. These guidelines enable the City Purchasing Agent to greatly expand procurement programs by moving beyond a singular consideration of "recycled-content". EPP procurement facilitates the purchase of products that qualify within a broad range of "environmentally preferable" criteria, such as: minimal packaging; energy savings; non-toxic; manufactured from sustainably-harvested materials. Contractor shall monitor products that fall within the EPP guidelines and document all criteria that qualifies the product as an EPP. Documentation from the manufacturer will be acceptable and may be required during the term of the Contract.

69. EQUAL OPPORTUNITY: Contractor and subcontractor(s) shall not discriminate against any person in the performance of this Contract and shall comply with applicable federal, state and city equal employment opportunity laws, ordinances, rules and regulations. Contractor and subcontractor(s) shall not discriminate against any employee or applicant for employment or against any subcontractor on the basis of race, color, religion, national origin, sex, sexual orientation, AIDS, HIV status, age, disability, or handicap, subject to federal and state laws, rules and regulations.

70. AMERICANS WITH DISABILITIES ACT: Contractor shall have and be allocated the sole responsibility to comply with the Americans with Disabilities Act of 1990 ("ADA") with respect to performance hereunder and contractor shall defend, indemnify and hold the City, its officials and employees harmless from and against any and all claims of failure to comply with or violation of the ADA as said claim relates to this Contract.

71. EQUAL BENEFITS ORDINANCE: Bidders are advised that any contract awarded pursuant to this procurement process shall be subject to the applicable provisions of Long Beach Municipal Code Section 2.73 et seq., the Equal Benefits Ordinance. Bidders shall refer to Attachment/Appendix for further information regarding the requirements of the Ordinance.

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

72. PUBLIC WORKS OF IMPROVEMENT ONLY: Contractor agrees that all public work (as defined in California Labor Code Section 1720) performed pursuant to this Agreement (the "Public Work"), if any, shall comply with the requirements of California Labor Code Sections 1770 et seq. If there is a difference between the general prevailing wage rates determined by the director of the Department of Industrial Relations and the applicable minimum wage rates determined by the Secretary of Labor (for federally assisted projects) for similar classifications of work, the Contractor and its subcontractors of every tier shall pay their workers not less than the higher wage rate.

73. In all bid specifications, contracts and subcontracts for any such Public Work, Contractor shall obtain the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft,

classification or type of worker needed to perform the Public Work, and shall include such rates in the bid specifications, contract or subcontract. Such bid specifications, contract or subcontract must contain the following provision: "It shall be mandatory for the contractor to pay not less than the said prevailing rate of wages to all workers employed by the contractor in the execution of this contract. The awarded contractor expressly agrees to comply with the penalty provisions of California Labor Code Section 1776.

**74. CALIFORNIA WAGE RATE REQUIREMENTS:** This project is a public work under Labor Code § 1720 et seq. Pursuant to Division 2, Part 7, Chapter 1 of the Labor Code of the State of California, the Director of Public Works of the City by and on behalf of the City Council has obtained from the Director of the Department of Industrial Relations of the State of California the general prevailing rate of per diem wages, and the general prevailing rate of holiday and overtime work in the locality in which the public work is to be performed for each craft, classification or type of workers needed to perform the Work. Copies of prevailing rate of per diem wages are on file in the office of the City Engineer, 5<sup>th</sup> floor, City Hall, 411 West Ocean Boulevard, Long Beach, California 90802, and shall be made available upon request. Copies may also be obtained on the California Department of Industrial Relations website <http://www.dir.ca.gov/dlsr>. This project will be subject the **2022-1 prevailing wage** rate, as determined by the Director of the Department of Industrial Relations for the State of California. The Contractor to whom the Contract is awarded, and its subcontractors is directed to pay not less than the general rate of per diem wages for each craft, classification, or type of worker needed to execute the contract. Contractor is required to post a copy of the determination of the director of the prevailing rate of per diem wages at each job site. Contractors are required to pay at least the California minimum wage for the basic hourly rate in all cases where the published prevailing wage rate is below the California minimum wage. Any and all employer payments required by the prevailing wage determinations must also be paid. If the California minimum wage is increased in the future to an amount above that shown in the prevailing wage determination, the basic hourly rate in that determination automatically increases to the new minimum wage.

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

2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractors are further cautioned that certified payrolls shall be submitted electronically directly to the Department of Industrial Relations.

- 76. CERTIFIED PAYROLL SUBMISSION TO THE CITY OF LONG BEACH:** Pursuant to the provisions of Labor Code Section 1776, Contractor shall keep and shall cause each subcontractor performing any portion of the work under this Contract to keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor or subcontractor in connection with the work. Such payroll records for Contractor and all subcontractors shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor pursuant to the provisions of Section 1776 of the Labor Code. Contractor's failure to furnish such records to City or City's authorized Labor Compliance representative in the manner provided herein for notices shall entitle City to withhold the penalty prescribed by law from progress payments due to Contractor.
- 77.** Each contractor and every subcontractor and supplier shall be required to submit certified payrolls and labor compliance documentation electronically at the discretion of and the manner specified by the City of Long Beach. Electronic submittal will be a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor will be given a Log On identification and password to access the City of Long Beach reporting system. The foregoing is in addition to, and not in lieu of, any other requirements or obligations established and imposed by any department of the City with regard to submission and retention of certified payroll records for Contractor and subcontractors.
- 78. APPRENTICESHIP EMPLOYMENT (CONTRACTS OVER \$30,000 ONLY):** The Contractor shall comply with Section 1777.5 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under the Contractor and, by submitting a bid and executing the Contract, the Contractor stipulates that it shall so comply. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.



79. **PENALTIES:** Contractor and subcontractors are subject to penalties, including, but not limited to, under Labor Code §§ 1775, 1776, 1777.7 and 1813, for failure to comply with Labor Code § 1720 et seq. The awarded contractor expressly agrees to comply with the penalty provisions of California Labor Code section 1776.
80. **SMALL BUSINESS ENTERPRISE (SBE) PROGRAM:** Bidders are advised that this project is subject to the City's Small Business (SBE), Very Small Business, (VSBE), and Local Small Business (LSBE) Enterprise Program ("SBE Program"). A 9.35% SBE/VSBE/LSBE combined goal has been assigned to this project. See Attachment G of the Specifications for SBE program requirements.

#### Additional Requirements

1. Any Contract arising from this procurement process may be funded in whole or in part by various granting agencies. Pursuant to said grants, the Awarded Contractor is required to comply with (and to incorporate into its agreements with any sub-vendors) the following provisions in the performance of the Contract, as applicable.
2. **ORDER OF PRECEDENCE:** In the event of conflicts or discrepancies between these grant funding provisions and any other Contract document, the Federal grant provisions shall take precedence.
3. **ACCESS TO CONTRACTOR'S RECORDS:** The Awarded Contractor shall provide the City, the Office of State and Local Government Coordination and Preparedness, the Comptroller General of the United States, or any of their authorized representatives, access to any books, documents, papers, and records of the Awarded Contractor which are directly pertinent to the work performed under the Contract for the purposes of making audit, examination, excerpts or transcriptions.
4. **AMERICANS WITH DISABILITIES ACT:** The Awarded Contractor hereby certifies that it will comply, as applicable, with the Americans with Disabilities Act of 1990 ("ADA"), 42 USC §§ 12101 et seq., and its implementing regulations, including Subtitle A, Title II of the ADA. The Awarded Contractor will provide, as applicable, reasonable accommodations to allow qualified individuals with disabilities to have access to and to participate in its programs, services and activities in accordance with the provisions of the ADA. The Awarded Contractor will not discriminate against persons with disabilities or against persons due to their relationship to or association with a person with a disability. Any contract entered into by the Awarded Contractor (or any subcontract thereof), relating to this Agreement, shall be subject to the provisions of this paragraph.

5. COMPLIANCE WITH CONTRACT WORK HOURS AND SAFETY STANDARDS ACT: The Awarded Contractor shall comply with the requirements of §§ 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5).
6. COMPLIANCE WITH COPELAND "ANTI-KICKBACK" ACT: The Awarded Contractor shall comply with the requirements of the Copeland "Anti-Kickback" Act (18 U.S.C. § 874) as supplemented in the Department of Labor regulations (29 CFR Part 3).
7. COMPLIANCE WITH DAVIS-BACON ACT: If applicable, the Awarded Contractor shall comply with the requirements of the Davis-Bacon Act (40 U.S.C. §§ 276 to 276-a7) as supplemented by Department of Labor regulations (29 CFR Part 5) where applicable and shall provide the City with all applicable payroll records on a weekly basis.
8. COPYRIGHT: The Awarded Contractor acknowledges the existence of requirements and regulations of the awarding Federal agency relating to copyrights and right in data, including, but not limited to those set forth in 44 CFR Part 13.34 which states: "The Federal awarding agency reserves royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes: (a) The copyright in any work developed under a grant, subgrant, or contract under a grant or subgrant; and (b) Any rights of copyright to which a grantee, subgrantee or a contractor purchases ownership with grant support." The Awarded Contractor shall comply with 25 CFR 85.34
9. DRUG-FREE WORKPLACE: The Awarded Contractor hereby certifies that it shall provide or shall continue to provide a drug-free workplace as required by the Drug-Free Workplace Act of 1988 (41 U.S.C. § 701), and implemented at 44 CFR Part 17.
10. ENERGY EFFICIENCY: The Awarded Contractor shall comply with all mandatory standards and policies relating to energy efficiency that are contained in the State of California's energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L.94-163, 89 Stat. 871).
11. ENVIRONMENTAL LEGISLATION: The Awarded Contractor shall comply with all applicable standards, orders or requirements issued under § 306 of the Clean Air Act (42 U.S.C. 1857 (h)), § 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15).

12. MINORITY, WOMEN, AND OTHER BUSINESS ENTERPRISE OUTREACH: In accordance with CalOES/Grantor directives, as applicable, firms who represent small business enterprises (SBEs), minority business enterprises (MBEs) and women business enterprises (WBEs) are encouraged to participate in competition for this opportunity. Any such enterprise shall include the appropriate SBE/MBE/WBE certification along with its proposal. The Awarded Contractor agrees that, to the extent contractors or subcontractors are utilized, the Awarded Contractors shall use small, minority, women-owned, or disadvantaged business concerns and contractors or subcontractors to the extent practicable and shall take the affirmative steps as set forth in 44 CFR §13.36(e).
13. NATIONAL PRESERVATION ACTS: The Awarded Contractor shall assist City (if necessary) in assuring compliance with § 106 of the National Historic Preservation Act of 1966 (16 U.S.C. § 470), Executive Order 11593 (identification and protection of historic properties), the Archeological and Historical Preservation Act of 1974 (16 U.S.C. § 469 a-1 et seq.), and the National Environmental Policy Act of 1969 (42 U.S.C. § 4321)
14. NONDISCRIMINATION; EQUAL EMPLOYMENT OPPORTUNITY: The Awarded Contractor hereby assures the City that in performing its obligations pursuant to the Contract, it will comply with all applicable nondiscrimination requirements as set forth in 44 CFR Part 13.36. In addition, the Awarded Contractor shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Opportunity Employment," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60), and where applicable to the nondiscrimination provisions of the Omnibus Crime Control and Safe Street Acts of 1968 (42 U.S.C. § 3789d), the Victims of Crimes Act (42 U.S.C. § 10604(e)), the Juvenile Justice and Delinquency Prevention Act (42 U.S.C. § 5672(b)), the Civil Rights Act of 1964 (42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (29 U.S.C. § 794), the Americans with Disabilities Act of 1990 (42 U.S.C. §§ 12131-34), the Education Amendments of 1972 (20 U.S.C. §§ 1681, 1683, 1685-86), and the Age Discrimination Act of 1975 (42 U.S.C. §§ 6101-07), see Executive Order 13279 (equal protection of the laws for faith-based and community organizations). This provision must be incorporated by Awarded Contractor into any subcontract exceeding \$10,000.
15. PATENT RIGHTS: The Awarded Contractor acknowledges the existence of requirements and regulations of the awarding Federal agency relating to patent rights with respect to any discovery or invention which arises or is developed in the course or under this Contract, including, but not limited to those regulations and requirements set forth in 44 CFR Part 13.36. Any discovery or invention that

arises during the course of this Contract shall be immediately reported to the Department's project management team. The awarding Federal agency shall determine how rights in the invention/discovery shall be allocated consistent with "Government Patent Policy" and 37 CFR Part 401.

16. PAYMENTS, REPORTS, RECORDS, RETENTION AND ENFORCEMENT: The Awarded Contractor acknowledges the requirements and regulations set forth in 44 CFR Parts 13.36 through 13.42 and 49 CFR Part 18 and agrees to cooperate with the City in order to allow the City to comply with said requirements. The Awarded Contractor shall retain all of its records relating to the project for a period of five (5) years after City makes final payment to the Awarded Contractor and all other pending matters are closed.
17. PUBLICATIONS: All publications created and/or published with funding under any contract arising from this RFP shall prominently contain the following statement: "This document was prepared under a grant from FEMA's Grant Programs Directorate, U.S. Department of Homeland Security. Points of view or opinions in this document are those of the author(s) and do not necessarily represent the official position or policies of FEMA's Grant Programs Directorate or the U.S. Department of Homeland Security."
18. RIGHTS TO DATA: The Grantor and the City shall have unlimited rights or copyright license to any data first produced or delivered under this Agreement. "Unlimited rights" means the right to use, disclose, reproduce, prepare derivative works, distribute copies to the public and perform and display publicly, or permit others to do so; as required by 48 CFR 27.401. Where the data are not first produced under this Contract or are published copyrighted data with the notice of 17 U.S.C § 401 or 402, the Grantor acquires the data under copyright license as set forth in 48 CFR 27.404(f) (2) instead of unlimited rights (4 CFR 27.404(a)).
19. RIGHTS TO USE INVENTIONS: City and all grantors and/or awarding Federal Agency shall have an unencumbered right, and a non-exclusive, irrevocable, royalty-free license, to use, manufacture, improve upon and all others to do so for all governmental purposes, any Invention developed under the Contract.
20. SYSTEM FOR AWARD MANAGEMENT (SAM): In accordance with Executive Orders 12549 and 12689 concerning suspension and debarment, contracts must prohibit contractors from awarding any subcontract to persons (individuals or organizations) listed as having an active exclusion of the Federal system for Awards Management Database ([www.sam.gov](http://www.sam.gov)).

#### Protest Procedures

## Who May Protest

Only a Bidder who has actually submitted a bid is eligible to protest a contract awarded through an Invitation to Bid (ITB). A Bidder may not rely on the protest submitted by another Bidder but must pursue its own protest.

## Time for Protest

The City will post a notice of the intent to award a contract at least ten (10) business days before an award is made. The notice will be available to all Bidders who submitted a bid via the City's electronic bid notification system at <https://pbsystem.planetbids.com/portal/15810/help>. A Bidder desiring to submit a protest for a Bid must do so within five (5) business days of the electronic notification of intent to award. The City Purchasing Agent must receive the protest by the close of business on the fifth (5th) business day following posting of notification of intent to award the contract. Bidders are responsible for registering with the City's electronic bid notification system and maintaining an updated Contractor profile. The City is not responsible for Bidders' failure to obtain notification for any reason, including but not limited to failure to maintain updated email addresses, failure to open/read electronic messages and failure of their own computer/technology equipment. The City's ITB justification memo will be available for review by protestors once the notification of intent to award has been posted via the City's electronic bid notification system.

## Form of Protest

The protest must be in writing and signed by the individual who signed the bid or, if the Bidder is a corporation, by an officer of the corporation, and addressed to the City Purchasing Agent. Protests must be submitted via the email address above. They must include a valid email address and phone number. Protests must set forth a complete and detailed statement of the grounds for the protest and include all relevant information to support the grounds stated, and must refer to specific portions of the ITB and attachments upon which the protest is based. Once the protest is received by the City Purchasing Agent, the City will not accept additional information on the protest unless the City requests it.

## City Response to Protest

The City Purchasing Agent or designee will respond with a decision regarding the protest within five (5) business days of receipt of protest to the email address provided in the protest. This decision shall be final.

### Limitation of Remedy

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

## Attachment A: Supplemental Bid Information & Authorization

An editable version of the template below has been posted to PlanetBids. Bidders should complete the editable template and submit it an attachment to their bid.

BIDDER INFORMATION		
<b>Organization</b>	Company Name	
	Company Address	
	Website	
	Federal Tax ID #	
<b>Authorized Representative</b>	Name	
	Title	
	Email Address	
	Phone Number	
<b>Other Point of Contact (if required)</b>	Name	
	Title	
	Email Address	
	Phone Number	
What type of enterprise is the organization?		<input type="checkbox"/> Non-Profit Corporation
		<input type="checkbox"/> Sole Proprietorship
		<input type="checkbox"/> General Partnership
		<input type="checkbox"/> Corporation <i>State and Date of incorporation:</i> _____
		<input type="checkbox"/> Limited Liability Company
		<input type="checkbox"/> Other _____
Do you qualify for the City of Long Beach local preference? (See Section 3 for additional information.)		<input type="checkbox"/> Yes
Note per Section 3: to qualify, copies of the following must be included in the bid package: (1) Current, valid business license from the City of Long Beach showing a place of business within the city limits; (2) Current, valid seller's permit (also known as a sales tax permit) showing a place of business within the city limits.		<input type="checkbox"/> No
How many employees does the organization have in total and residing in Long Beach?		
If other agencies express an interest in participating in this bid, would you supply		<input type="checkbox"/> Yes
		<input type="checkbox"/> No

the same items? (If yes, any agency electing to participate in this ITB will order its own requirements without regard to the City of Long Beach. The City of Long Beach assumes no liability or payment guarantee on any units sold to participating agencies.)	
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<b>REFERENCES</b>		
Please list customers for whom you have provided similar items and quantities. The City may contact these references to determine product reliability, performance and other information. Failure to include references may result in your bid being rejected.		
<b>Reference 1</b>	Company	
	Contact Person	
	Phone Number	
	Email Address	
<b>Reference 2</b>	Company	
	Contact Person	
	Phone Number	
	Email Address	
<b>Reference 3</b>	Company	
	Contact Person	
	Phone Number	
	Email Address	



<b>SUB-CONTRACTOR INFORMATION</b>		
Does the bid include subcontractors?		<input type="checkbox"/> Yes
		<input type="checkbox"/> No
<b>If applicable, provide the following for all subcontractors included in this bid.</b>		
<b>Organization</b>	Company Name	
	Company Address	
<b>Authorized Representative</b>	Name	
	Title	
	Email Address	
	Phone Number	
<b>Other Point of Contact (if required)</b>	Name	
	Title	
	Email Address	
	Phone Number	
What type of enterprise is the organization?		<input type="checkbox"/> Non-Profit
		<input type="checkbox"/> Sole Proprietorship
		<input type="checkbox"/> General Partnership
		<input type="checkbox"/> Corporation State and Date of incorporation: _____
		<input type="checkbox"/> Limited Liability Company
		<input type="checkbox"/> _____ Other
Which specific requirements of this ITB will the subcontractor perform?		
Is the subcontractor registered with the California Department of Industrial Relations? If yes, provide registration number.		
How many employees does the organization have in total and residing in Long Beach?		

**ADDITIONAL BID INFORMATION**

*Please verify the following aspects of your bid.*

Payment Terms	Net ____; ____% discount in ____ days.
---------------	--

Warranty	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe:
----------	--

Price List - Per Plans and Specifications for line item bid.

**SIGNATURE PAGE**

I certify that:

- i. I am authorized by the bidder to submit this Invitation to Bid. NOTE: FAILURE TO COMPLY MAY RESULT IN DISQUALIFICATION OF YOUR BID. ALL SIGNATURES MUST BE NOTARIZED IF THE ENTITY IS LOCATED OUTSIDE THE STATE OF CALIFORNIA.
  - a. INDIVIDUAL (Doing Business As): The only acceptable signature is the owner of the company. (Only one signature is required.)
  - b. PARTNERSHIP: The only acceptable signature(s) is/are that of the general partner or partners.
  - c. CORPORATION: Two (2) officers of the corporation must sign; OR the signature of one officer or the signature of person other than an officer is acceptable if the Bid is accompanied by a certified corporate resolution granting authority to said person to execute contracts on behalf of the corporation.
  - d. LIMITED LIABILITY COMPANY: The signature on the bid must be a member or, if the Articles provide for a manager, must be the manager. (Only one signature is required.)
- ii. Under penalty of perjury that this bid is genuine and not sham or collusive, or made in the interest or on behalf of any person or entity not herein named; that the Bidder has not directly or indirectly induced or solicited any other Bidder to submit a sham bid, or any other person or entity to refrain from bidding, and that the Bidder has not in any manner sought by collusion to secure to himself any advantage over other Bidders.
- iii. No City employee whose position in the City enables him/her to influence the award of the Contract or any competing Contract, and no spouse or economic dependent of such employee is or shall be employed in any capacity by the Bidder herein, or does or shall have any direct or indirect financial interest in a potential resulting Contract.
- iv. I have read and agree to the City of Long Beach Code of Ethics.

Name	Signature	Date

**CITY OF LONG BEACH AUTHORIZATION**

IN WITNESS WHEREOF the City of Long Beach has caused this contract to be executed as required by law as of the date stated below.

City Manager	Signature	Date

**CITY OF LONG BEACH APPROVAL AS TO FORM**

Deputy City Attorney	Signature	Date

195 BAY SHORE AVE. LONG BEACH, CA 90803

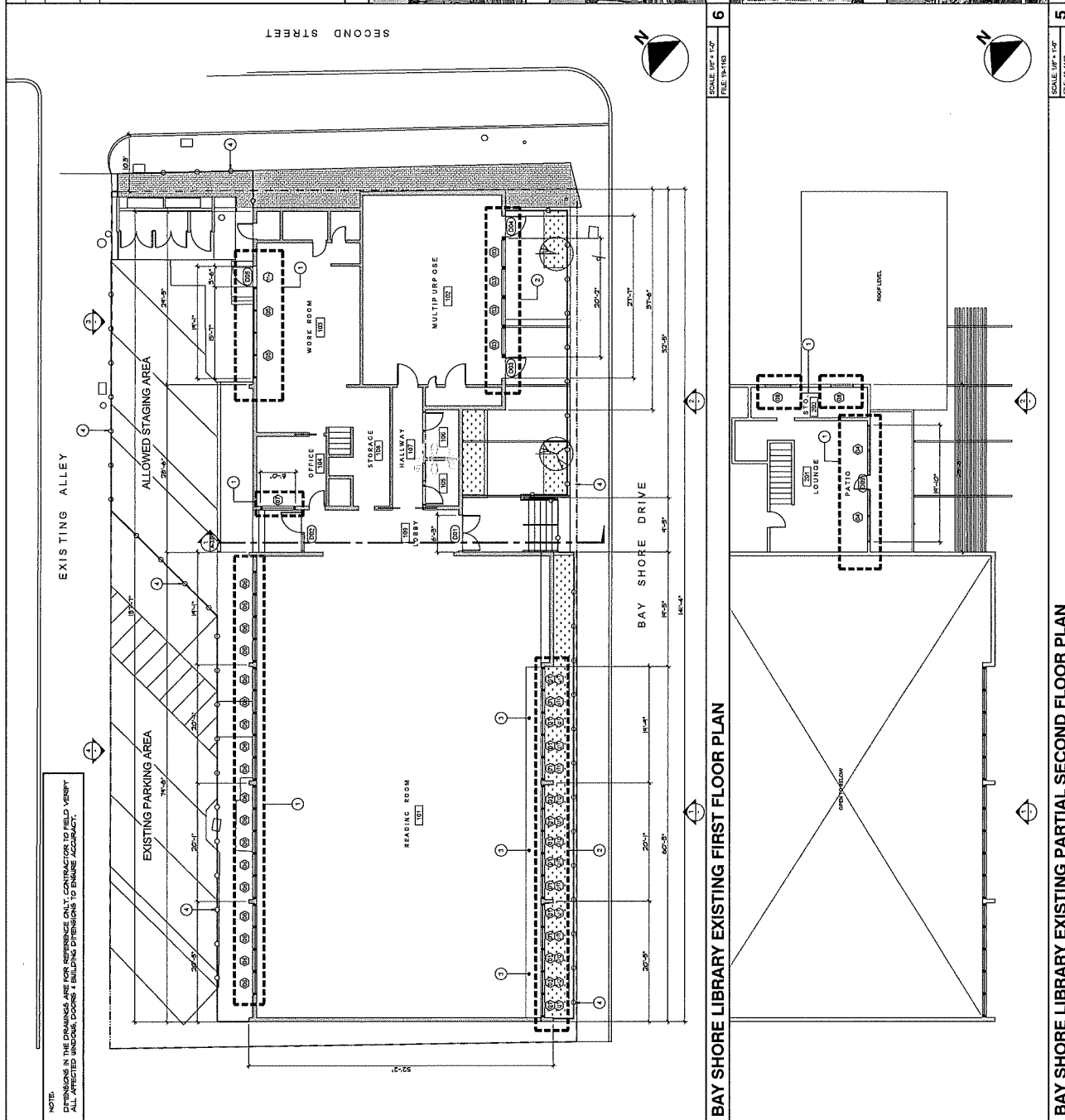


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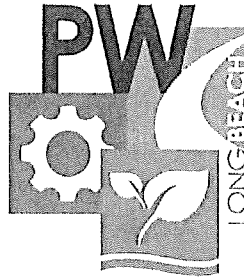
**BREN**  
Columbiana Inc.

1140 WEST 10TH STREET, SUITE 200  
YUEN, ONT. M6H 4A4  
TEL: (416) 464-8254  
FAX: (416) 464-8205

REGISTERED PROFESSIONAL ENGINEER  
No. E20643  
S. 0-7-94

DRAWN BY: —  
DESIGNED BY: —  
CHECKED BY: —  
APPROVED BY: J.M.





## CITY OF LONG BEACH

Department of Public Works

### PLANS AND SPECIFICATIONS FOR Bay Shore Library Windows Replacement



C-22657  
AIA No.

11/30/2023  
Exp. Date

For:  
Project Management Bureau  
City of Long Beach  
411 W. Ocean Boulevard  
Long Beach, CA 90802  
Phone: (562) 570-6634



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## **SECTION 011100 - SUMMARY OF WORK**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. The furnishing of all labor, materials, equipment, services, and incidentals necessary for Work of **Exterior Façade Improvement** at the **Bay Shore Library** located at **195 Bay Shore Avenue, California 90803**, including but not limited to: windows replacement, new infill walls sections with all work incorporated into three phases. Phase 1: Rear of Building. Phase 2: Front of Building. Phase 3: Second Floor, as set forth in the Construction Documents which include, but are not limited to, the Drawings, Addenda and Specifications.

### **PART 2 - PRODUCTS (Not used)**

### **PART 3 - EXECUTION**

#### **3.01 USE OF PREMISES**

- A. CONTRACTOR shall coordinate Work of all trades, Subcontractors, utility service providers, with OWNER and/or Separate Work Contract. CONTRACTOR shall sequence, coordinate, and perform the Work to impose minimum hardship on the operation and use of the existing facilities and/or Project site. CONTRACTOR shall install all necessary protection for existing improvements, Project site, property, and new Work against dust, dirt, weather, damage, vandalism, and maintain and relocate all protection to accommodate progression of the Work.
- B. CONTRACTOR shall confine entrance and exiting to the Project site and/or facilities to routes designated by the Owner's Authorized Representative (OAR).
- C. Within existing facilities, OWNER will remove portable equipment, furniture, and supplies from Work areas prior to the start of Work. CONTRACTOR shall cover and protect remaining items in areas of the Work.
- D. CONTRACTOR shall utilize all available means to prevent generation of unnecessary noise and maintain noise levels to a minimum. When required by the OAR, CONTRACTOR shall immediately discontinue noise-generating activities and/or provide alternative methods to minimize noise generation. CONTRACTOR shall install and maintain air compressors, tractors, cranes, hoists, vehicles, and other internal combustion engine equipment with mufflers, including unloading cycle of compressors. CONTRACTOR shall discontinue operation of equipment producing objectionable noise as required by the OAR.
- E. CONTRACTOR shall furnish, install, and maintain adequate supports, shoring, and bracing to preserve structural integrity and prevent collapse of existing improvements and/or Work modified and/or altered as part of the Work.

## **SECTION 011100 - SUMMARY OF WORK**

- F. CONTRACTOR shall secure building entrances, exits, and Work areas with locking devices as required by the OAR.
- G. CONTRACTOR assumes custody and control of OWNER property, both fixed and portable, remaining in existing facilities vacated during the Work.
- H. CONTRACTOR shall cover and protect surfaces of rooms and spaces in existing facilities turned over for the Work, including OWNER property remaining within as required to prevent soiling or damage from dust, dirt, water, and/or fumes. CONTRACTOR shall protect areas adjacent to the Work in a similar manner. Prior to OWNER occupancy, CONTRACTOR shall clean all surfaces including OWNER property.
- I. CONTRACTOR shall not use or allow anyone other than OWNER employees to use facility telephones and/or other equipment, except in an emergency. CONTRACTOR shall reimburse OWNER for telephone toll charges originating from the facility except those arising from emergencies or use by OWNER employees.
- J. CONTRACTOR shall protect all surfaces, coverings, materials, and finished Work from damage. Mobile equipment shall be provided with pneumatic tires.
- K. CONTRACTOR shall not permit the use of portable and/or fixed radio's or other types of sound producing devices.

### **3.02 PROPERTY INVENTORY**

- A. Property, OWNER intends to remove; will be removed by OWNER before a room or space is vacated for the Work. Before performing Work in each room or space, OAR and CONTRACTOR shall prepare a detailed initial written inventory of OWNER property remaining within, including equipment and telephone instruments and the condition thereof. OAR and CONTRACTOR shall retain a signed copy of the inventory dated and signed by both parties. Prior to subsequent OWNER occupancy of each such room or space, OAR and CONTRACTOR shall perform a final inventory of OWNER property and all discrepancies between the initial inventory and final inventory shall be the responsibility of CONTRACTOR.

**END OF SECTION**

## **SECTION 012500 - SUBSTITUTION PROCEDURES**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 1 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Sections:
  - 1. Division 1 Section "Materials and Equipment" for requirements for submitting comparable product submittals for products by listed manufacturers.
  - 2. Divisions 2 through 33 Sections for specific requirements and limitations for substitutions.

#### **1.3 DEFINITIONS**

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
  - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

#### **1.4 SUBMITTALS**

- A. Product Substitution Submittal: Submit request for consideration of each product to be substituted. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles. (All submittals shall be reviewed and approved by OWNER and Architect as required. Do NOT proceed with intended work prior approval of submitted substitutions.
  - 1. Submittal Form: Use CSI Form 13.1A or Contractor's comparable form.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

## **SECTION 012500 - SUBSTITUTION PROCEDURES**

- a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
- b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
- c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
- e. Samples, where applicable or requested.
- f. Certificates and qualification data, where applicable or requested.
- g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
- h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES or another model code organization acceptable to authorities having jurisdiction.
- j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
- k. Cost information, including a proposal of change, if any, in the Contract Sum.
- l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, is compatible with related materials, and is appropriate for applications indicated.

## **SECTION 012500 - SUBSTITUTION PROCEDURES**

- m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a product substitution submittal. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of submittal, or seven days of receipt of additional information or documentation, whichever is later.
  - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

### **1.5 QUALITY ASSURANCE**

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.
  - 1. Contractor is responsible for providing products and construction methods compatible with products and construction methods previously selected.
  - 2. If a dispute arises over concurrently selectable but incompatible products, Architect will determine which products shall be used.

### **1.6 PROCEDURES**

- A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

## **PART 2 - PRODUCTS**

### **2.1 SUBSTITUTIONS**

- A. Substitutions for Cause: Submit product substitution submittal immediately upon discovery of need for change, but not later than thirty-five 35 days following the date of the Owner's Award of Contract to the Contractor by action of the Board of Trustee's.
  - 1. Conditions: Architect will consider Contractor's product substitution submittal when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

## SECTION 012500 - SUBSTITUTION PROCEDURES

- a. Substitute product offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
  - b. Substitute product is consistent with the Contract Documents and will produce indicated results.
    - 1) Use of proposed product does not require revisions to the Contract Documents.
  - c. Product substitution submittal is fully documented and properly submitted.
    - 1) Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
    - 2) List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
    - 3) Samples, as requested by OWNER and Architect.
  - d. Use of proposed product will not adversely affect Contractor's construction schedule.
  - e. Substitute product has received required approvals of authorities having jurisdiction.
  - f. Substitute product is compatible with other portions of the Work.
  - g. Use of proposed product has been coordinated with other portions of the Work.
  - h. Substitute product provides specified warranty.
  - i. If use of proposed product involves more than one contractor, use of proposed product has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider product substitution submittals if received within 35 days after the Notice of Award unless otherwise



## SECTION 012500 - SUBSTITUTION PROCEDURES

indicated. Requests received after that time may be considered or rejected at discretion of Architect.

1. Conditions: Architect will consider Contractor's product substitution submittal when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
  - a. Substitute product offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
  - b. Substitute product is consistent with the Contract Documents and will produce indicated results.
    - 1) Use of proposed product does not require revisions to the Contract Documents.
  - c. Product substitution submittal is fully documented and properly submitted.
    - 1) Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
    - 2) List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
    - 3) Samples, as requested by OWNER and Architect.
  - d. Use of proposed product will not adversely affect Contractor's construction schedule.
  - e. Substitute product has received necessary approvals of authorities having jurisdiction.
  - f. Substitute product is compatible with other portions of the Work.
  - g. Use of proposed product has been coordinated with other portions of the Work.
  - h. Substitute product provides specified warranty.

## **SECTION 012500 - SUBSTITUTION PROCEDURES**

- i. If use of proposed product involves more than one contractor, use of proposed product has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

### **PART 3 - EXECUTION (Not Used)**

**END OF SECTION**

## **SECTION 012973 - SCHEDULE OF VALUES**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Procedure for submission of a certified Schedule of Values for review and approval by the OAR.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 012976: Progress Payment Procedures.
- B. Section 013113: Project Coordination.
- C. Section 013216: Construction Schedule.
- D. Section 013300: Submittal Procedures.

### **PART 2 - PRODUCTS (Not used)**

### **PART 3 - EXECUTION**

#### **3.01 PREPARATION**

- A. Upon receipt of the Notice of Intent to Award, CONTRACTOR shall commence preparation of a Schedule of Values.
- B. CONTRACTOR shall coordinate the preparation of a Schedule of Values with preparation of the Construction Schedule as set forth in Section 013216. The corresponding values from the specification division totals on cost loaded schedule shall match with the approved Schedule of Values.
- C. Include the following Project identification on a certified Schedule of Values:
  - 1. Project name and location.
  - 2. Project Number.
  - 3. Contract #.
  - 4. CONTRACTOR name.
  - 5. Date of Submittal.
- D. The Schedule of Values shall be in tabular form with separate columns and shall include the following items:

## SECTION 012973 - SCHEDULE OF VALUES

1. Related Specification Section and Division.
  2. Description of Work.
  3. Name of Subcontractor, manufacturer or supplier.
  4. Dollar value, quantity and unit of measure of each line item.
  5. Percentage of Contract amount to nearest one-hundredth percent, adjusted to total 100 percent.
- E. Round amounts to the nearest whole dollar; the total shall equal the Contract Amount.
- F. Provide a breakdown of the Contract Amount in enough detail acceptable to OAR to facilitate continued evaluation of Application for Payment and progress reports. Coordinate with the Project Manual table of content and Schedule of Values form. Provide line items for subcontract amounts, where appropriate.
- G. Provide separate line items for items in the Schedule of Values for total installed value of that part of the Work.
- H. Provide separate line item for labor and material when required by the OAR.
- I. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item except the amounts shown as separate line items.
- J. Temporary facilities and other cost items that are not direct cost of actual work-in-place shall be shown as separate line items.
- K. An approved certified Schedule of Values shall serve as the basis for the monthly certified Application for Payment.
- L. If at any time, OWNER determines, in its reasonable discretion, that the schedule of Values does not approximate the actual cost being incurred by CONTRACTOR to perform the Work, CONTRACTOR shall prepare, for OAR approval, a revised Schedule of Values, which then shall be used as the basis for future progress payments. Without changing the Contract Amount, OWNER reserves the right to require CONTRACTOR:
1. To increase or decrease amounts within the line items in the Schedule of Values; and,
  2. To conform the price breakdown to OWNER accounting practice.

## **SECTION 012973 - SCHEDULE OF VALUES**

### **3.02 SUBMITTAL**

- A. CONTRACTOR shall submit three (3) certified copies of a Schedule of Values for review and approval by the OAR at least 14 days before the first Application for Payment.
- B. OAR will review and if necessary, return the submitted Schedule of Values with summary comments noting items not in compliance with the requirements of the Contract Documents. CONTRACTOR shall revise the submitted Schedule of Values and return five copies within three days of receipt of summary comments.
- C. Signature by OAR shall constitute acceptance of the submitted Schedule of Values.
- D. An approved copy of the Schedule of Values by OAR will be transmitted to CONTRACTOR, and Inspector.

**END OF SECTION**

## **SECTION 012976 - PROGRESS PAYMENT PROCEDURES**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES:**

- A. This Section specifies administrative and procedural requirements for a certified Application for Payment.
  - 1. Coordinate the certified Schedule of Values and certified Application for Payment with, but not limited to, the Construction Schedule, submittal log, and list of Subcontractors.

#### **1.02 RELATED REQUIREMENTS:**

- A. Section 012973: Schedule of Values.
- B. Section 013216: Construction Schedule.
- C. Section 017000: Contract Closeout.

### **PART 2 - PRODUCTS (Not used)**

### **PART 3 - EXECUTION**

#### **3.01 APPLICATION FOR PAYMENT**

- A. Each certified Application for Payment shall be consistent with previous applications and payments as reviewed by OAR, paid for by OWNER, and:
  - 1. The initial Application for Payment and Final Application for Payment at time of Substantial Completion involve additional requirements.
- B. Payment Application Times: The period of Work covered by each Application for Payment is payment date for each progress payment as specified in the General Conditions. The period covered by each Application for Payment is previous month.
- C. Payment Application Forms: Use OWNER provided forms for the Application for Payment.
- D. Application Preparation: Complete every entry on the form. Include execution by a person authorized to sign legal documents on behalf of CONTRACTOR. OAR will return incomplete applications without action.
- E. Transmittal: Submit a minimum of four signed and original copies of each certified Application for Payment to OAR. All copies shall be complete, including releases and similar attachments.

## **SECTION 012976 - PROGRESS PAYMENT PROCEDURES**

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to OAR.
- F. Initial Application for Payment within 60 days of issuance of Notice to Proceed: Administrative actions and submittals, that must precede or coincide with submittal for first certified Application for Payment include, but are not limited to, the following:
1. Certified Schedule of Values.
  2. Performance and payment bonds.
  3. List of principal suppliers and fabricators.
  4. Worker Compensation certificates, if applicable.
  5. Auto Insurance, if applicable.
  6. Hazardous Material Insurance Certificates, if applicable.
  7. Construction Schedule.
  8. Submittal Schedule.
  9. Emergency Contact List.
  10. Copies of authorizations and licenses from governing authorities for performance of Work.
  11. Certified Payroll (Submitted directly to Labor Compliance in electronic format as specified by OWNER including hard copy).
- G. Applications for Payment: Administrative actions and submittals that must precede or coincide with submittal of Progress Applications for Payment include, but are not limited to, the following:
1. Certified Payroll (submitted directly to Labor Compliance in electronic format as specified by OWNER including hard copy).
  2. Updated and current Project Record Drawings (as-built).
  3. Monthly Construction Schedule (updated, submitted and approved).
  4. Approved Schedule of Values.
  5. List of Subcontractors (Payments Summary).

## **SECTION 012976 - PROGRESS PAYMENT PROCEDURES**

H. Final Application for Payment at Substantial Completion: Following OAR issuance of certificate of Substantial Completion, submit an Application for Payment:

1. Administrative actions, submittals and/or Work that shall precede or coincide with this application include:
  - a. Occupancy permits and similar approvals by authorities having legal jurisdiction over Work.
  - b. Removal of temporary facilities and services.
  - c. Testing, adjusting and balance records.
  - d. Removal of surplus materials, rubbish, and similar elements.
  - e. Meter readings.
  - f. Start-up performance reports.
  - g. OWNER training and orientations.
  - h. Operating and maintenance instruction manuals.
  - i. Preliminary Warranties, guarantees and maintenance agreements.
  - j. Delivery of extra materials, products and or stock.
  - k. Change over information related to OWNER occupancy, use, operation, and maintenance.
  - l. Final cleaning.
  - m. Ensure that Work is completed.
  - n. Advise on shifting insurance coverage.
  - o. List of defective Work, recognized as exceptions to certificate of Substantial Completion.
  - p. Change of door locks, including keys, to OWNER system.
  - q. Certified Payroll (submitted directly to Labor Compliance in electronic format as specified by the OWNER including hard copy).
  - r. Waivers and releases for CONTRACTOR.

**END OF SECTION**



## **SECTION 013113 - PROJECT COORDINATION**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. This Section specifies administrative and procedural requirements necessary for coordinating Work operations including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 013216: Construction Schedule.
- B. Section 013300: Submittal Procedures.
- C. Section 014523: Test and Inspection.
- D. Section 017000: Contract Closeout.

### **PART 2 -PRODUCTS (Not used)**

### **PART 3 - EXECUTION**

#### **3.01 COORDINATION**

- A. CONTRACTOR shall coordinate operations included in various sections of Contract Documents to assure efficient and orderly installation of each part of Work. Coordinate Work operations included under related sections of Contract Documents that depend on each other for proper installation, connection, and operation of Work, including but not limited to:
  - 1. Schedule construction operations in sequence required where installation of one part of Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
  - 3. Provide provisions to accommodate items scheduled for later installation.
  - 4. Prepare and administer provisions for coordination drawings.

## **SECTION 013113 - PROJECT COORDINATION**

- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required in notices, reports, attendance at meetings, and:
  - 1. Prepare similar memoranda for OAR and Separate Work Contract where coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of Work. Such administrative activities include, but are not limited to, following:
  - 1. Preparation of schedules.
  - 2. Installation, relocation, and removal of temporary facilities.
  - 3. Delivery and processing of submittals.
  - 4. Progress meetings.
  - 5. Project closeout activities.
- D. Conservation: Coordinate Work operations to assure operations are carried out with consideration given to conservation of energy, water, materials, and:
  - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into Work.

### **3.02 SUBMITTALS**

- A. Coordination Drawings: CONTRACTOR shall prepare coordination drawings to coordinate the installation of products and materials fabricated, furnished and installed by separate entities, under different parts of the Contract. CONTRACTOR shall notify OAR and ARCHITECT of all major conflicts in writing in a timely manner so that the design team can respond without construction delays. Coordination drawings shall address the following at a minimum:
  - 1. Limitations in available space for installation or service. CONTRACTOR shall overlay plans of each trade and verify space requirements and conflicts between trades. Minor changes and adjustments that do not affect design intent shall be made by CONTRACTOR and shall be highlighted for ARCHITECT'S review.
  - 2. Inconsistencies between drawings, specifications and codes (between trades and within each trade).
  - 3. Additional items required for existing facilities construction projects shall be designed and prepared from available as-built drawings that are verified

## **SECTION 013113 - PROJECT COORDINATION**

through non-invasive and non-destructive, visual observation only. CONTRACTOR shall field verify actual existing conditions during and upon completion of demolition work and incorporate findings into preparation of co-ordination drawings. Minor changes and adjustments that do not affect design intent shall be made by Sub-Contractor and shall be highlighted for OAR and ARCHITECT'S reviews.

- B. Prepare coordination drawings in CAD with each trade on a separate layer, in specified color and scale. CONTRACTOR and each Subcontractor shall provide and forward reproducible copies and CAD drawing files in the order described here:
1. Structural shop drawings shall indicate location and sizes of columns, beams and other structural members, as well as wall, roof and slab penetrations, and will be provided to mechanical, electrical, low voltage and plumbing Sub-contractors for co-ordination. Structural items shall be indicated using black lines.
  2. CONTRACTOR will be responsible for the overall coordination review. As each coordination drawing is completed, CONTRACTOR will meet with OAR to review and resolve all conflicts on coordination drawings.
  3. Coordination meetings will be held in Project field office of CONTRACTOR. CONTRACTOR is required to distribute Shop Drawings, cut sheets and submittals to Subcontractors where appropriate. Reviewed coordination drawings will be maintained in Project field office of CONTRACTOR. Meeting minutes shall be developed by CONTRACTOR and submitted to OAR within 5 days from last meeting attended.

**END OF SECTION**

**SECTION 013216 - CONSTRUCTION SCHEDULE  
(SMALL PROJECT/SHORT DURATION)**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Required procedures for the development of the Baseline Construction Schedule, Monthly Schedule Update, Two-Week Rolling Schedule, Recovery Schedules, Fragnets and Time Extension requests.

**1.02 RELATED REQUIREMENTS**

- A. Section 011100: Summary of Work.
- B. Section 012973: Schedule of Values.
- C. Section 013300: Submittal Procedures.
- D. Section 014523: Testing and Inspection.
- E. Section 017000: Contract Closeout.

**1.03 SCHEDULER QUALIFICATIONS**

- A. CONTRACTOR shall have a scheduler with a minimum of 5 years direct experience in the development and maintenance of schedules.
- B. CONTRACTOR shall submit the resume of the construction scheduler to OWNER for review and approval. OAR has the right to refuse to accept the Scheduler based upon a lack of experience as required by this Section or based on lack of on-site performance and timeliness of schedule submittals. If OAR does not accept the proposed Scheduler, CONTRACTOR shall within one week of disapproval, propose another Scheduler who meets the experience requirements stated above.

**1.04 SUBMITTALS**

- A. Within ten calendar days after the effective date of the Notice to Proceed (or as stipulated in the milestones. CONTRACTOR shall submit to OWNER for review, a detailed Baseline Construction Schedule setting forth all requirements for complete execution of the Work. Include individual activities for the preparation of specific submittals, activities for owner review periods, activities for the procurement / fabrication period, installation activities, any applicable start-up & testing activities, and all contract milestones. With the exception of submittals and fabrication /procurement activities, each work activity shall range in duration from 1 workday minimum to a 10 workday maximum. The Scheduling system shall indicate all inter-relationships (logic ties) between the activities and shall be logically tied to all relevant milestones. CONTRACTOR shall cost load the

**SECTION 013216 - CONSTRUCTION SCHEDULE  
(SMALL PROJECT/SHORT DURATION)**

activities with a "budgeted cost" that totals up to the Contract award value. The format shall be coordinated with Specification Section 012973 (Schedule of Values), and Specification Section 012976 (Progress Payment Procedures).

- B. The level of detail indicated in the schedule shall be greater than that provided by Section 000110: Table of Contents of Contract Technical Specifications, including any Addenda. Duration and events indicated on schedule shall conform to phasing and shall show any area or building within a particular phase. Each activity description shall outline the specific work scope (by trade) and the location. Schedule shall indicate any and all Contract "milestone events" and other milestones agreed to by OWNER, but no other manually-imposed dates will be accepted unless approved by OWNER.
- C. CONTRACTOR shall allow for inclement weather in the Proposed Baseline Schedule by incorporating an activity titled "Rain Day Impact Allowance" as the last activity prior to the Substantial Completion Milestone. No other activities may be concurrent with it. The Rain Day Impact Allowance activity will have a (XX) calendar day Duration. On projects that have multiple phases with defined start & finish dates, the cumulative rain impact allowance may be split up (pro-rated) into their designated phases upon OAR approval. When rainfall at the Project site impacts Critical Path activities, CONTRACTOR may provide OWNER with a written request for a rain impact day describing the inclement weather delay on the Critical Path activities. The inclement weather delay must be clearly indicated by a 70 percent decrease in the field labor workforce hours on Critical Path activities on the day in question and be scheduled on an actual work day. Upon OWNER'S independent confirmation of the amount of rainfall and impact, OWNER will authorize CONTRACTOR to reduce the duration of the Rain Day Impact Allowance by one day. Rainfall on non-scheduled workdays shall not be granted as rain impact days. If the effects of rain from a non-scheduled Work Day carry forward to a scheduled work day and impacts the Critical Path as noted above, then the scheduled work day will be considered impacted by rain. Any unused rain day allowance at the end of the project will be shown as available float to the Substantial Completion Milestone.
- D. CONTRACTOR shall submit a color bar chart of all activities organized by Area (Location) and sorted by early start date in a graphically "left to right" manner. In addition, submit a Critical Path (Longest Path) color bar chart filter. Include the following column headings on the left hand side of both bar chart reports: activity ID, activity description, original duration, remaining duration, percent complete, start date, finish date, total float (slack time), and budgeted cost. CONTRACTOR shall also include an electronic copy of the Schedule on a CD in an acceptable format (i.e. XER, PRX) to the OWNER.
- E. Include a written schedule narrative sufficiently comprehensive to explain the basis of the CONTRACTOR'S approach to work. The written schedule narrative should include a paragraph of the project's Critical Path, the anticipated crew sizes (by

**SECTION 013216 - CONSTRUCTION SCHEDULE  
(SMALL PROJECT/SHORT DURATION)**

trade), any planned equipment needed, a discussion on any long lead procurement/fabrication items, and any site logistic challenges.

- F. Seven calendar days after receipt of the OWNER'S review comments, CONTRACTOR shall revise & re-submit the Construction Schedule acceptable to OWNER. Once the Baseline Construction Schedule is approved, no changes will be allowed unless authorized by the OWNER.
- G. Failure of CONTRACTOR to submit a Construction Schedule in full compliance with the Contract Documents will result in a delay in progress payment processing. The Construction Schedule is to be used in evaluating progress and for monthly payment approval.
- H. Subsequently with each Monthly Progress Payment Request, CONTRACTOR shall deliver to OWNER a Monthly Schedule Update reflecting Work progressed to the end of the Progress Payment Request period (set as the last day of the month). Each such Monthly Schedule Update shall indicate actual progress to date in execution of the Work, together with a projected schedule for completion of all the remaining Work. CONTRACTOR shall copy & re-name the schedule file each month, status the activities with actual start and/or finish dates, adjust remaining durations, add re-submittals (if applicable), calculate the schedule with a "data date" to the end of the pay period, and submit the required reports outlined in Article 1.06 to OWNER. Each Monthly Schedule Update shall be submitted con-currently with the Monthly Pay Application no later than the fifth day of the succeeding month in accordance with Article 14 of the General Conditions. In updating the Schedule, CONTRACTOR shall not modify Activity ID numbers, activity descriptions, original durations, logic, schedule calculation rules/criteria, or the Activity Coding unless authorized by the OAR.
- I. All Schedule submittals are subject to review and acceptance by OWNER. OWNER retains the right to withhold progress payments in whole (or in part) until CONTRACTOR submits a Construction Schedule acceptable to OWNER.

**1.05 TWO-WEEK ROLLING SCHEDULE**

- A. At each Weekly Progress Meeting, CONTRACTOR shall present a Two-Week Rolling Schedule in Bar Chart format. It shall show one (1) week of actual and one (1) week of forecasted progress. The Two-Week Rolling Schedule shall be used as a basis for discussing progress and work planned during the one (1) week.
  - 1. The Two-Week Rolling Schedule shall be based on the most recent OAR Accepted Monthly Schedule Update. It shall include weekly updates to all construction, submittal, fabrication and procurement, and separate work contract activities. CONTRACTOR shall ensure that it accurately reflects the current progress of the Work.

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(SMALL PROJECT/SHORT DURATION)**

2. CONTRACTOR shall discuss at the Weekly Progress meeting the actual dates and any variances to critical or near critical activities.
3. Upon request by OAR, CONTRACTOR shall provide the Two-Week Rolling Schedule in electronic format.
4. If the Two-Week Rolling Schedule indicates activities are behind schedule, CONTRACTOR shall provide a Recovery Schedule in accordance with Article 1.08 below.
5. If the CONTRACTOR chooses to provide a Two-Week Rolling Schedule in a greater level of detail (by trade/subcontractor) outside of the monthly schedule database, then upon CONTRACTOR REQUEST and OAR written approval, the CONTRACTOR may proceed as long as the detailed activities roll-up to the contractual monthly schedule updates. These detailed activities will need to be linked to the overall Substantial Completion date as to properly forecast whether the project is ahead or behind schedule during the weekly Progress Meetings. The Two-Week Rolling Schedule must accurately reflect the work that is going on during the current week and must accurately reflect what will happen in the next three weeks.

**1.06 RECOVERY SCHEDULES**

- A. If a Monthly Schedule Update indicates negative float greater than ten (10) days on a critical path as result of events not predicated by Articles 10 and 12 of the General Conditions, CONTRACTOR shall prepare a Proposed Recovery Schedule demonstrating CONTRACTOR'S plan to regain the time lost. The Recovery Schedule shall be submitted either in advance of or concurrent with the Monthly Schedule Update and CONTRACTOR progress request. Both the Monthly Schedule Update and the Proposed Recovery Schedule shall be based on the same percentages of completion and actual dates accepted by OAR under Article 1.06.
- B. The Proposed Recovery Schedule shall be based on a copy of the Monthly Schedule Update for the calendar month during which the negative float first appears.
- C. The Proposed Recovery Schedule shall include a written narrative that identifies the causes of the negative float on the critical path and provides CONTRACTOR'S proposed corrective action to ensure timely completion of all Milestones and the Substantial Completion Date. CONTRACTOR'S corrective actions shall include but are not limited to increasing concurrent operations, increasing labor, adding multiple shifts in a 24-hour period, and adding overtime.
- D. During any period of time when CONTRACTOR is found to be behind schedule by OAR, the Monthly Schedule Update described above shall become a weekly requirement (at no additional cost to OWNER) to provide a greater degree of focus on the timely completion of the Work. These Updates shall be submitted to OAR

**SECTION 013216 - CONSTRUCTION SCHEDULE  
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every Monday morning. When CONTRACTOR is deemed by OAR to be back on schedule, CONTRACTOR may revert to submitting the schedule monthly.

- E. CONTRACTOR'S progress payment may not be processed until OAR accepts the Proposed Recovery Schedule. Following such an acceptance, the Proposed Recovery Schedule will be known as the Recovery Schedule and future Work will be performed by CONTRACTOR in accordance with it.

**1.07 FRAGNETS AND TIME EXTENSION REQUESTS**

- A. Float is not for exclusive use or benefit of either OWNER or CONTRACTOR but is an expiring resource available to both parties on a non-discriminatory basis. If required to meet specified Milestones, either party may utilize float. Adjustments to Milestones or Contract Time will only be authorized by Change Order and only to the extent the claimed adjustments exceed total float along the most critical path of the current Monthly Schedule Update in effect at the time of the claimed adjustments. The claimed adjustments to the Milestones and/or Contract Time must also cause the Substantial Completion Date to exceed that currently indicated in the Monthly Schedule Update. No time extensions will be granted nor delay damages paid under contract until all available float is used and the CONTRACTOR obtains a Time Extension Request approval from the OAR in accordance with Article 1.12 in its entirety. CONTRACTOR claimed adjustments to an existing negative float path will not receive consideration until the activity with the highest negative float is driven even further negative.
  - 1. Claimed adjustments to the Milestones or Contract Time will be administered in conjunction with those set forth in the General Conditions.
- B. Pursuant to the float sharing requirements of this Section, the use of float suppression techniques such as preferential sequencing or logic, special lead or lag logic restraints, and extended activity times or durations are prohibited. The use of float time disclosed or implied by the use of alternate float suppression techniques shall be proportionally shared to benefit OWNER and CONTRACTOR. The use of any technique solely for the purpose of suppressing float will result in OWNER rejection of the submitted Monthly Schedule Update.
- C. In the event CONTRACTOR believes the Project has suffered an adverse impact arising from events predicated by Articles 10 and 12 of the General Conditions, CONTRACTOR may prepare a Time Extension Request by submitting a Schedule Fragnet and a written narrative outlining the detail of the impact. A Schedule Fragnet must demonstrate a critical path delay. Such a delay must adversely impact the Substantial Completion Date for CONTRACTOR to receive a time extension. To demonstrate such an impact successfully, CONTRACTOR shall prepare a Schedule Fragnet based on a copy of OWNER accepted Monthly Schedule Update for the calendar month during which the adverse impact occurred. This "copy" of the OWNER accepted Monthly Schedule Update shall however first be updated (by OWNER and CONTRACTOR jointly) with both Percentages of Completion and



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Actual Dates up to the day the delay commenced. This process will provide the "pre-delay" project status. Once OWNER and CONTRACTOR have agreed to the "pre-delay" project status, CONTRACTOR should make a copy of this "pre-delay" schedule and this copy is to be the starting point for CONTRACTOR'S Schedule Fragnet development. OWNER will evaluate the activities, logic, durations, etc., in the Schedule Fragnet and will evaluate if the adverse impact arose from events described by Articles 10 and 12 of the General Conditions. The Fragnet shall also include CONTRACTOR-caused delays that affect the critical or near critical path in the network and should be accounted for in the Time Impact Analysis if overlapped at any point in time with OWNER-caused delay. If rain impact days were granted between the Start and Finish of OWNER-caused delay period, they should be accounted for in the Time Impact Analysis as well. Provided OWNER determines such an impact occurred, CONTRACTOR may be due a time extension equal to the number of proportioned days of variance/delay that resulted to the Substantial Completion Date.

- D. Activities added into a Schedule Fragnet to demonstrate the impact of adverse event shall be assigned a unique activity code. The Schedule shall be organized by this unique activity code.
- E. The Schedule Fragnet shall incorporate logic ties that are accurately reflective of the adverse event to pre-event predecessor activities and post event successor activities.
- F. The format and components of a Schedule Fragnet submittal shall be in accordance with this Section and Articles 10 and 12 of the General Conditions. It is crucial for the Fragnet to be submitted within the same month of discovery so it can be resolved during the monthly schedule update review. The notice shall be transmitted to OAR within the stipulations outlined in Article 12 of the General Conditions.
- G. If OWNER accepts CONTRACTOR'S Schedule Fragnet and an extension is granted, a Change Order will be prepared. OWNER will advise what change order number the time extension will become. When CONTRACTOR receives this Change Order number, all the activities added to the Schedule Fragnet shall be given Activity Identification Numbers that corresponds with the Change Order number. CONTRACTOR shall cost load the activities if required by OWNER. If resource loading is required, the resource loading shall include a breakdown of labor, material, and equipment quantities.
- H. If OWNER rejects CONTRACTOR'S Schedule Fragnet in part based on improper forecast logic or activity tasks then it shall be revised accordingly to conform to OWNER'S review comments and be re-submitted. If the forecast logic and activity tasks cannot be agreed to then the pre-delay schedule outlined in Article 1.09, C shall be compared to the actual as-built data in the succeeding month of the encountering issue, event, condition, circumstance, and/or cause. The variance to the project between the pre-delay and post delay schedules shall be discussed in

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CONTRACTOR'S written narrative and proportioned between the different parties involved in the delay.

- I. If OWNER rejects CONTRACTOR'S Schedule Fragnet in whole then CONTRACTOR may follow the procedures set forth in Article 16 of the General Conditions.

**1.08 FAILURE TO COMPLY WITH REQUIREMENTS**

- A. At any time during the project if CONTRACTOR fails to comply with the specified requirements, OWNER reserves the right to engage independent estimating and scheduling consultants to fulfill these requirements. Upon notice to CONTRACTOR, OWNER shall assess against CONTRACTOR, incurred costs for these additional services.
- B. In such an event, OWNER will require, and CONTRACTOR shall participate and provide requested information to ensure the resulting Milestones Schedule accurately reflects CONTRACTOR's plan to execute the Work in compliance with the Contract Documents. If it becomes necessary for OWNER to recommend logic or duration revisions as a result of CONTRACTOR failure to furnish acceptable data, and if CONTRACTOR has objections to the recommendations, CONTRACTOR shall provide notice to OWNER within three days and CONTRACTOR shall provide an acceptable alternate plan. If CONTRACTOR fails to so note any objections and provide an acceptable alternate plan, or if CONTRACTOR implements the recommendations of OWNER without so noting any objections, CONTRACTOR will be deemed to have waived all objections and concurred with the recommended logic/duration revisions provided by ARCHITECT and/or OWNER.
- C. Submittal of any Monthly Schedule Updates are subject to review and acceptance by OWNER. OWNER retains the right, including, but not limited to Article 14 of the General Conditions, to withhold progress payments in whole or part until CONTRACTOR submits a Monthly Schedule Update acceptable to OWNER. If a Monthly Schedule Update is "Rejected" due to the OWNER not receiving a satisfactory schedule that accurately reflects the on-going work activities, the OWNER will mandate a separate meeting with the CONTRACTOR and approved Scheduler to remedy the non-conformance. If after the 2nd consecutive month the OWNER still has to "Reject" the monthly Schedule update due to non-conformance, then the CONTRACTOR'S Scheduler will need to be replaced at no additional cost to the OWNER. CONTRACTOR shall within one week of disapproval, propose another Scheduler who meets the required experience.

**1.09 CONTRACTOR RESPONSIBILITY**

- A. Nothing in this Section shall be construed to be a usurpation of CONTRACTOR authority, responsibility, and obligation to plan and schedule Work as

**SECTION 013216 - CONSTRUCTION SCHEDULE  
(SMALL PROJECT/SHORT DURATION)**

CONTRACTOR deems necessary, subject to all other requirements of the Contract Documents.

- B. CONTRACTOR shall provide at all times sufficient competent labor, materials, and equipment to properly carry-on Work and to ensure completion of each part in accordance with Construction Schedule and within time agreed. CONTRACTOR shall involve the subcontractors, manufacturers, and suppliers in the development and periodic updating of the schedule.

**1.10 RECORD DOCUMENTS / FINAL AS-BUILT SCHEDULE**

- A. Prior to Contract Completion of the Work, CONTRACTOR shall submit a final as-built schedule, and a time-scaled network diagram (bar chart) reflecting the actual dates of all activities. This shall be submitted prior to the final application of payment and prior to the request to release retention.

**PART 2 – PRODUCTS – NOT USED**

**PART 3 – EXECUTION – NOT USED**

**END OF SECTION**

## **SECTION 013300 - SUBMITTAL PROCEDURES**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Administrative and procedural requirements for submittals required for the Work, including but not limited to; Shop Drawings, Product Data, Samples, material lists, and quality control items.
- B. Throughout the Contract Documents, the minimum acceptable quality of materials, fabrication, and execution have been defined by the name and catalog number of a manufacturer and by reference of recognized industry standards.
- C. To ensure that specified products are furnished and installed in accordance with the design intent, procedures have been established for submittal of design data and for its review by ARCHITECT, OAR and others.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 012973: Schedule of Values.
- B. Section 012976: Progress Payment Procedures.
- C. Section 013113: Project Coordination.
- D. Section 013216: Construction Schedule.
- E. Section 014523: Testing and Inspection.
- F. Section 015000: Temporary Facilities and Controls.
- G. Section 017329: Cutting and Patching.
- H. Section 017000: Contract Closeout.
- I. Section 017836: Warranties.

### **PART 2 – PRODUCTS (Not used)**

### **PART 3 - EXECUTION**

#### **3.01 PROCEDURES**

- A. CONTRACTOR is required to review and approve every submittal and shop drawing prior to transmittal and delivery to ARCHITECT. Should CONTRACTOR determine a submittal contains errors, or does not meet the requirements of the contract, CONTRACTOR shall immediately return the submittals and shop drawings

## SECTION 013300 - SUBMITTAL PROCEDURES

to the producer and expedite the corrections prior to transmitting the submittal to ARCHITECT. Submittals shall not be used by CONTRACTOR to request clarifications or submit questions. CONTRACTOR will affix stamp to each submittal certifying CONTRACTOR has performed, at minimum, the following:

1. Verified the submittal is complete in all respects and follows the requirements of the Contract Documents without variance.
  2. Confirmed that no substitutions have been included. If substitutions are included, CONTRACTOR shall eliminate them from the submittal and process them in accordance with Section 00 7000 General Conditions Article 6.14.
  3. Identified any variances from the requirements of the Contract Documents and confirmed that the identified variance meets, but does not exceed the allowable limitations or tolerances as defined in these specifications.
  4. Verified that all submitted materials, dimensions and tolerances are compatible with existing or planned conditions of the Work in order to erect, fabricate, or install the submitted assembly in conformance with the requirements of the Contract Documents.
  5. Coordinated and verified that the dimensions match CONTRACTOR measured field or installation conditions.
  6. Coordinated and verified that the products of separate manufacturers required within any field produced assembly are compatible in all respects for such assembly.
  7. Packaged together all related submittals or shop drawings where such is necessary for a comprehensive ARCHITECT review.
- B. CONTRACTOR shall package each submittal appropriately for transmittal and handling. Transmittal format shall be as required by OWNER. CONTRACTOR shall transmit and deliver six sets of each submittal or re-submittal to ARCHITECT, two of which shall be returned to CONTRACTOR. Some specifications may require additional copies be provided. CONTRACTOR shall provide the OWNER additional copies as specified or as requested by OAR. ARCHITECT will not accept submittals received from sources other than from CONTRACTOR.
- C. After ARCHITECT'S review, ARCHITECT will transmit submittals to OAR and OAR shall further distribute to CONTRACTOR, INSPECTOR and others as required. Work shall not commence, unless otherwise approved by OAR, until approved submittals are transmitted to CONTRACTOR.
- D. CONTRACTOR shall clearly identify any deviations from the Contract Documents on each submittal. Any deviation not so noted even though stamped reviewed is not acceptable.

## SECTION 013300 - SUBMITTAL PROCEDURES

- E. CONTRACTOR shall coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities requiring sequential activity.
- F. Timing of Submittals:
  - 1. In accordance with General Conditions, CONTRACTOR shall submit to ARCHITECT, with copy of transmittal to the OAR, those Shop Drawings, Product Data, diagrams, materials lists, Samples and other submittals required by the Contract Documents.
  - 2. The scheduling of submittals shall be sequenced to support the progress of the Work, and shall be:
    - a. Submitted sufficiently in advance of construction, fabrication or installation in order to allow time for transmittal, review, modification, correction, (and resubmission and re-review when required.)
    - b. Phased with adequate time between submittals in order to allow for proper review by the ARCHITECT without negative impact to the Milestones Schedule.
  - 3. CONTRACTOR shall coordinate submittal of related items and ARCHITECT reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received by ARCHITECT.
  - 4. CONTRACTOR shall revise, update and submit submittal schedule to ARCHITECT and OAR on the first of each month, or as required by OAR.
  - 5. CONTRACTOR shall allow in the Construction Schedule, at least sixteen days for ARCHITECT review following ARCHITECT receipt of submittal. For mechanical, plumbing, electrical, low voltage, fire sprinklers, door and hardware, and other submittals requiring joint review with OAR, CONTRACTOR shall allow a minimum of eighteen days following ARCHITECT receipt of submittal. Deferred approval items shall be allowed additional time for DSA review.
  - 6. No adjustments to the Contract Time or Milestones will be authorized because of a failure to transmit submittals to ARCHITECT sufficiently in advance of the Work to permit review and processing or where CONTRACTOR fails to provide ARCHITECT submittals on related items.
  - 7. In case of product substitution, Shop Drawing preparation shall not commence until such time as OWNER accepts or rejects the proposed substitution in accordance with the procedures described in the General Conditions.

## SECTION 013300 - SUBMITTAL PROCEDURES

- G. If required, resubmit submittals in a timely manner. Resubmit as specified for initial submittal but identify as such. Review times for re-submitted items shall be as per the time frames for initial submittal review.
- H. Shop Drawing preparation shall not commence until such time as CONTRACTOR receives Product Data acceptance.
- I. ARCHITECT will stamp each submittal with a uniform, action stamp. ARCHITECT will mark the stamp appropriately to indicate the action taken, as follows:
  - 1. Final Unrestricted Release: When ARCHITECT marks a submittal "Reviewed" the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
  - 2. Final-But-Restricted Release: When ARCHITECT, or authorized agent, marks a submittal "Reviewed as Noted," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
  - 3. Returned for Re-submittal: When ARCHITECT, or authorized agent, marks a submittal "Rejected, Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat as necessary to obtain different action mark. In case of multiple submittals covering same items of Work, CONTRACTOR is responsible for any time delays, schedule disruptions, out of sequence Work, or additional costs due to multiple submissions of the same submittal item. Do not use, or allow others to use, submittals marked "Rejected, Revise and Resubmit" at the Project site or elsewhere where Work is in progress.
  - 4. Other Action: Where a submittal is for information or record purposes or special processing or other activity, ARCHITECT, or authorized agent, will return the submittal marked "Action Not Required".

### 3.02 SHOP DRAWINGS

- A. Shop Drawings are original drawings prepared by CONTRACTOR, Sub-contractor, supplier, or distributor illustrating some portion of Work by showing fabrication, layout, setting, or erection and shall not be based on reproduced Contract Documents or copied standard information.
- B. Produce Shop Drawings to an accurate scale that is large enough to indicate all pertinent features and methods. Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.

## **SECTION 013300 - SUBMITTAL PROCEDURES**

- C. Shop Drawings shall include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:
  - 1. Dimensions.
  - 2. Identification of products and materials included by sheet and detail number.
  - 3. Compliance with specified standards.
  - 4. Notation of coordination requirements.
  - 5. Notation of dimensions established by field measurement.
- D. Provide a space of approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record CONTRACTOR and ARCHITECT review, and the action taken. Include the following information on the label for processing and recording action taken:
  - 1. Project name.
  - 2. Date.
  - 3. Name and address of ARCHITECT.
  - 4. Name and address of CONTRACTOR.
  - 5. Name and address of Subcontractor.
  - 6. Name and address of supplier.
  - 7. Name and address of manufacturer.
  - 8. Name and title of appropriate Specification section.
  - 9. Drawing number and detail references, as appropriate.
- E. Unless otherwise agreed to or indicated in individual Specification sections, submit a sufficient number of sets to allow for adequate distribution to CONTRACTOR, Sub-Contractor, supplier, manufacturer and fabricators plus four (4) sets (two sets to be retained by ARCHITECT, one set to the INSPECTOR and one set to OAR).

### **3.03 PRODUCT DATA**

- A. Collect Product Data into a single submittal for each element of Work or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, wiring diagrams, schedules, illustrations, or performance curves.



## **SECTION 013300 - SUBMITTAL PROCEDURES**

1. Mark each copy to show or delineate pertinent materials, products, models, applicable choices, or options. Where Product Data includes information on several products that are not required, clearly mark copies to indicate the applicable information. Include the following information:
  - a. Manufacturer's printed recommendations.
  - b. Compliance with trade association standards.
  - c. Compliance with recognized testing agency standards.
  - d. Application of testing agency labels and seals.
  - e. Notation of dimensions verified by field measurement.
  - f. Notation of coordination requirements.
  - g. Notation of dimensions and required clearances.
  - h. Indicate performance characteristics and capacities.
  - i. Indicate wiring diagrams and controls.
2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed by CONTRACTOR.

B. Required Copies and Distribution: Same as denoted in Article 3.02.E.

### **3.04 SAMPLES**

A. Procedure:

1. Submit Samples of sufficient size, quantity, cured and finished and physically identical to the proposed product or material. Samples include partial or full sections or range of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches denoting color, texture, and/or pattern.
  - a. Mount or display Samples in the manner to facilitate review of qualities indicated. Include the following:
    - 1) Specification section number and reference.
    - 2) Generic description of the Sample.
    - 3) Sampling source.
    - 4) Product name or name of manufacturer.

## SECTION 013300 - SUBMITTAL PROCEDURES

- 5) Compliance with recognized standards.
  - 6) Availability and delivery time.
2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
- a. Where variations in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least three (3) multiple units that show the approximate limits of the variations.
  - b. Refer to other Specification sections for requirements for Samples that illustrate materials, fabrication techniques, assembly details, connections, operation, and similar construction characteristics.
  - c. Refer to other sections for Samples to be returned to CONTRACTOR for incorporation into the Work. Such Samples must be undamaged at time of installation. On the transmittal indicate special requests regarding disposition of Sample submittals.
  - d. Samples not incorporated into the Work, or otherwise not designated as Owner property, remain the property of CONTRACTOR and shall be removed from the Project site prior to Substantial Completion.
3. Color and Pattern: Whenever a choice of color or pattern is available in a specified product, submit accurate color chips and pattern charts to OAR for review and selection.
4. Number Required: Submit six, minimum, of each. Two will be returned to CONTRACTOR.
- B. When specified, erect field Samples and mock-ups at the Project site to illustrate products, materials, fabrications, or execution and to establish standards by which completed Work shall be judged.
- C. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of the Work. Sample sets may be used to obtain final acceptance of the Work associated with each set.

### 3.05 QUALITY CONTROL SUBMITTALS

- A. Submit quality control submittals, including design data, certifications, manufacturer's field reports, and other quality control submittals as required under other sections of the Contract Documents.

## **SECTION 013300 - SUBMITTAL PROCEDURES**

- B. When other sections of the Contract Documents require manufacturer's certification of a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
- C. Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the represented company.
- D. Requirements for submittal of inspection and test reports are specified in other sections of the Contract Documents.

**END OF SECTION**

## **SECTION 01 4523 - TESTING AND INSPECTION**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Testing and inspection services to meet requirements of the California Building Code 2019. (CBC 2019).
- B. Tests of materials are required by a certified testing agency as set forth in Section 4-335 of the California Building Standards Commission's, California Administrative Code.

### **PART 2 – PRODUCTS - (Not used)**

### **PART 3 – EXECUTION**

#### **3.01 TESTS**

- A. OWNER will select and provide an independent certified testing agency (the agency) to conduct tests, sampling, and testing of materials. Selection of material to be tested shall be by the agency and not by CONTRACTOR.
- B. Any material shipped from the source of supply prior to having satisfactorily passed such testing and inspection, or prior to the receipt of notice from PI such testing and inspection is not required, shall not be incorporated into the Work.
- C. OWNER will select, and directly reimburse, the agency for costs of all City of Long Beach required tests and inspections; however, the agency but may be reimbursed by CONTRACTOR for such costs as specified or noted in related sections of the Contract Documents.
- D. The independent testing agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.
- E. The agency shall not perform any duties of CONTRACTOR.
- F. CONTRACTOR shall provide an insulated curing box with the capacity for twenty concrete cylinders and will relocate said box and cylinders as rapidly as required in order to provide for progress of the Work.

#### **3.02 TEST REPORTS**

- A. Test reports shall include all tests performed, regardless of whether such tests indicate the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations, when and as required, shall also be reported. Reports shall indicate the material (or materials)

## **SECTION 01 4523 - TESTING AND INSPECTION**

was sampled and tested in accordance with requirements of CBC, Title 24, Parts 1 and 2, as indicated on the Drawings. Test reports shall indicate specified design strength and specifically state whether or not the material (or materials) tested comply with the specified requirements. Copies of test reports shall be submitted to City of Long Beach, IOR, OAR and AOR.

### **3.03 VERIFICATION OF TEST REPORTS**

- A. Each testing agency shall submit to the City of Long Beach, in duplicate, a verified report covering all tests required to be performed by that agency during the progress of the Work. Such report, covering all required tests, shall be furnished prior to Substantial Completion and/or, when construction on the Work is suspended, covering all tests up to the time of Work suspension.

### **3.04 INSPECTION BY OWNER**

- A. OWNER, and its representatives, shall have access, for purposes of inspection, at all times to all parts of the Work and to all shops wherein the Work is in preparation. CONTRACTOR shall, at all times, maintain proper facilities and provide safe access for such inspection.
- B. OAR shall have the right to reject materials and/or workmanship deemed defective Work and to require correction. Defective workmanship shall be corrected in a satisfactory manner and defective materials shall be removed from the premises and legally disposed of without charge to OWNER. If CONTRACTOR does not correct such defective Work within a reasonable time, fixed by written notice and in accordance with the terms and conditions of the Contract Documents, OWNER may correct such defective Work and proceed in accordance with related Articles of the Contract Documents.
- C. CONTRACTOR is responsible for compliance to all applicable local, state, and federal regulations regarding codes, regulations, ordinances, restrictions, and requirements.

### **3.05 PROJECT INSPECTOR**

- A. A Project Inspector shall be employed by OWNER in accordance with requirements of Title 24 of the California Code of Regulations with their duties specifically defined therein. Additional certified inspectors may be employed and assigned to the Work by OWNER in accordance with the requirements of California Building Standards Commission's, California Administrative Code with their duties as specifically defined in Section 4-333(b).

## **SECTION 01 4523 - TESTING AND INSPECTION**

- B. Inspection of Work shall not relieve CONTRACTOR from any obligation to fulfill all terms and conditions of the Contract Documents.
- C. CONTRACTOR shall be responsible for scheduling times of inspection, tests, sample taking, and similar activities of the Work.

**END OF SECTION**

## **SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Description of temporary utilities and protection of construction facilities that are to be provided and maintained by Contractor to include:
- Building Code Requirements.
  - City of Long Beach.
  - Health and safety regulations.
  - Utility company regulations.
  - Police, fire department and rescue squad requirements.
  - Environmental protection regulations.

#### **1.02 TEMPORARY UTILITIES**

- A. Electricity:
1. Furnish, install and pay for necessary temporary wiring and metering devices and, upon completion of work, remove such temporary facilities.
- B. Existing Sites: N/A Water and electricity at existing sites will be provided by the Owner, unless otherwise indicated.
- C. Gas: Contractor shall provide and install gas equipment and piping necessary to perform his work, and shall remove same upon completion of work. Contractor shall pay for the gas used in work.
- D. Use means necessary to maintain temporary facilities and controls in proper and safe condition throughout progress of work.
- E. Make required connections to existing utility systems with minimum disruption to services in existing utility systems. When disruption of existing service is required, do not proceed without the Architect's approval and, when required, provide alternate temporary service.

#### **1.03 CONTRACTOR'S FACILITIES**

- A. Contractor shall provide storage sheds, fencing, barricades, chutes, elevators, hoists, scaffolds, railings and other facilities as required. Installation and maintenance of such items shall be responsibility of Contractor.

## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

### B. Sanitary Facilities:

1. Contractor shall provide temporary toilet facilities which may consist of portable chemical toilets. Number of toilets shall be based on number of workers - 1 per 15 workers.
2. Toilet facilities shall be kept supplied with toilet paper and kept in a clean and sanitary condition until completion of work, and then be removed from work site. Upon removal, that portion of site shall be properly cleaned and graded.
3. Contractor's employees shall not use toilet within Library Facilities.

### C. Contractor's Security Barricade:

1. Contractor shall erect temporary security barricade indicated on Drawings or as required for safety and as specified. New or used material may be used. Used equipment must be in good working order. Contractor shall enclose the area of work to protect public from access; install a minimum of 6' high fence with green visibility privacy screen/mesh.
2. Unless otherwise indicated or specified, barricade shall be constructed of 6'-0" high chain link fencing. Space posts not to exceed 10'-0" on centers. Posts shall be of following nominal pipe dimensions: terminal, corner, and gate posts 2-1/2", line posts 2". Chain link fabric shall be not less than #13 gage, 2" mesh, and in one width. Posts, fabric and accessories shall be galvanized.
  - a. All terminal, corner, gate, and every fifth intermediate line post shall be placed in approved approved-ground bracing avoiding penetrations into finish surfaces.
  - b. Fabric shall be attached to posts with #14 gage tie wire at 16" on centers. A #6 gage steel tension wire with turnbuckles shall be installed at top and bottom of barricade fencing. Wire tie fabric to tension wires at 18" centers.
3. Chain link fencing shall be free from barbs, icicles or other projections resulting from galvanizing process. Fence fabric having such defects will be rejected even though it has been erected.
4. Gates shall be fabricated of steel pipe with welded corners, and bracing as required. Fabric to be attached to frame at 12" centers. Provide all gate hardware of a strength and quality to perform satisfactorily until barricade is removed upon completion of work.



## **SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS**

5. All areas of construction need to be completely covered, secured, isolated from public after working hours. Coordinate hours with city officials.
6. At completion of work, remove barricade. Existing surface paving that is damaged shall be patched and sealed to match surrounding areas.
7. Provide protective barriers around plants and other improvements designated to remain.
8. Provide directional signage per CBC to maintain compliant ADA access to building as required for accessible parking and public walkways.

### **D. Storage Yards and Sheds:**

1. Contractor shall fence and maintain storage yards in an orderly manner.
2. Provide storage sheds for materials that cannot be stored outside.
3. Exact location, size and access of storage yards and sheds shall be approved by the Owner.
4. Remove storage yards and sheds as rapidly as progress of work will permit.

## **1.04 GENERAL ITEMS**

- A. **Staging:** Staging areas for delivery of materials and equipment will be at locations designated by the Owner.
- B. **Noise Control:** Muffle all equipment.
- C. **Dust Control:** Contractor is responsible for dust control on and off the Project site. When Work operations produce dust the Project site and/or streets shall be sprinkled with water to minimize the generation of dust. Contractor shall clean all soils and debris from construction vehicles and cover both earth and debris loads prior to leaving the Project site. Contractor shall, on a daily basis, clean all streets and/or public improvements within the right of way of any and all debris, dirt, mud and/or other materials attributable to operations of contractor. Contractor to fully coordinate operations to maximize interior dust control by isolating areas within scope of work and properly utilizing building exhaust fans and / or provide a vacuum system as required to control dust circulation into areas not in scope of work.
- D. **Waste Disposal:** Contractor shall provide and maintain trash bins on the Project site. Trash bins shall be serviced on an as needed basis and contractor is responsible for the transportation of and the legal disposal of all contents.

## **SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS**

- E. General Safety: Scaffolding, fall protection, clearances, etc. Safety construction items to be reviewed and Architect, Owner and Inspector of Record. Provide safety as required to maintain project under construction secure at all times during non-working hours.

### **PART 2 - PRODUCTS**

Not Applicable

### **PART 3 - EXECUTION**

Not Applicable

**END OF SECTION**

## **SECTION 017000 - CONTRACT CLOSEOUT**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. This Section includes administrative and procedural requirements for Contract Closeout, including but not limited to, the following:
  - 1. Inspection procedures.
  - 2. Project record documents submittal.
  - 3. Operation and maintenance manual submittal.
  - 4. OWNER orientation and instruction.
  - 5. Final cleaning.

#### **1.02 RELATED REQUIREMENTS:**

- A. Section 013300 - Submittal Procedures.
- B. Section 017836 - Warranties.

### **PART 2 – PRODUCTS (Not used)**

### **PART 3 - EXECUTION**

#### **3.01 SUBSTANTIAL COMPLETION**

- A. Inspection Procedures: On receipt of the Request For Certificate of Substantial Completion, OAR will authorize commencement of inspection. INSPECTOR, OAR, CONTRACTOR and ARCHITECT will inspect the Work.
  - 1. If after inspection of the Work, OAR does not consider the Work substantially complete, OAR will notify CONTRACTOR.
  - 2. If after inspection, OAR considers the Work substantially complete, INSPECTOR shall prepare a comprehensive Punch List of items to be corrected.
    - a. INSPECTOR may repeat inspection to assure the Work is corrected.
    - b. Results of the completed inspection will form a partial basis of the requirements for Release of Retention.

## **SECTION 017000 - CONTRACT CLOSEOUT**

### **3.02 ADMINISTRATIVE CLOSEOUT**

- A. Re-inspection Procedures: INSPECTOR, OAR, CONTRACTOR and ARCHITECT may inspect the Work upon notice, including final inspection of Punch List items from earlier inspections, has been corrected, except for items whose completion is delayed under circumstances acceptable to OAR.
  - 1. OWNER has the right to preclude CONTRACTOR from Punch List correction and documents submittals after the Contract Completion date; unless OWNER elects to authorize CONTRACTOR to extend Administrative Contract duration. CONTRACTOR will be assessed actual cost for the unsettled items. Withholds amounts exceeding actual costs to correct or to obtain deliverable will be released.
  - 2. If allowed by the OAR, re-inspection will be repeated, but may be assessed against CONTRACTOR if OWNER is subject to additional professional service and or additional costs of inspection.

### **3.03 PROJECT RECORD DOCUMENT SUBMITTAL**

- A. General: Do not use project record documents for construction purposes. Protect record documents from deterioration and loss. Provide access to record documents for ARCHITECT, INSPECTOR and OAR reference during normal working hours. Project record document shall be updated on a weekly basis. Prior to submitting each application for payment, secure INSPECTOR and ARCHITECT approval of project record documents.
- B. Record Drawings: Maintain a clean, undamaged set of prints of Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark the Drawing that is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Drawings. Provide detailed and accurate field dimensions for concealed elements that would be difficult to measure and record at a later date.
  - 1. Mark record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the Work. Date and number entries in the same format as submitted. Call attention to entry by a "cloud" around the affected areas.
  - 2. Mark new information important to OWNER but was not shown on Drawings or Shop Drawings.
  - 3. Utility location and depth below finished grade and above ceilings and attic spaces shall be fully dimensioned and indicated on record drawings. Dimensions shall be measured from building lines or permanent landmarks and shall be triangulated to those features.

## SECTION 017000 - CONTRACT CLOSEOUT

4. Note related Change Order or Construction Directive numbers where applicable. RFC submissions shall be referenced on each affected sheet, Drawing and Shop Drawing.
  5. Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.
  6. Prior to Contract Completion of the Work, review of the project record drawings by ARCHITECT; prepare a final set of project record drawings using AutoCAD.dwg format. Submit final set of electronic files to ARCHITECT.
- C. Record Specifications: Maintain two complete copies of the Specifications, including Addenda. Include with the Specifications two copies of other written Contract Documents, such as Change Orders or Construction Directives issued during construction.
1. Mark these record documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
  2. Give particular attention to substitutions and selection of options and information on concealed Work that cannot otherwise be readily discerned later by direct observation.
  3. Note related record document information with Product Data.
  4. Prior to Contract Completion of the Work, submit record Specifications to ARCHITECT for OWNER records.
- D. Record Product Data: Maintain two copies of each Product Data submittal. Note related Change Orders and Construction Directives and mark-up of record drawings and Specifications.
1. Mark these documents to illustrate significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the Project site and from the manufacturer's installation instructions and recommendations.
  2. Provide detailed and accurate information regarding concealed products and portions of Work that cannot otherwise be readily discerned later by direct observation.
  3. Prior to Contract Completion, submit complete set of record Product Data to ARCHITECT for OWNER records.

## **SECTION 017000 - CONTRACT CLOSEOUT**

- E. Record Samples: Immediately prior to Substantial Completion, CONTRACTOR shall meet with ARCHITECT and OAR at the Project site to determine which Samples are to be transmitted to OWNER for record purposes. Comply with OAR instructions regarding delivery to OWNER storage area.
- F. Miscellaneous Records: Refer to other Specification sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Prior to the date of Contract Completion, complete and compile miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to Architect for OWNER records.
- G. Maintenance Manuals: Prior to Substantial Completion, organize operation and maintenance data into suitable two sets of manageable size. Bind properly indexed data in individual, heavy-duty, two to three-inch 3-ring, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Submit to ARCHITECT for OWNER records. Include the following types of information.
  - 1. Emergency instructions.
  - 2. Spare parts list.
  - 3. Copies of warranties.
  - 4. Wiring diagrams.
  - 5. Recommended "turn-around" cycles.
  - 6. Inspection procedures.
  - 7. Shop Drawings and Product Data.
  - 8. Fixture lamping schedule.
- H. Verified Reports: Construction progress of the Work shall be reported to OWNER via a duly verified report as per Title 24, Part 1, Sections 4-336 and 4-343.c of the California Building Standards Commission's, California Administrative Code.

### **3.04 OPERATION AND MAINTENANCE:**

- A. Operation and Maintenance Instructions: Prior to Substantial Completion, arrange for each installer of equipment that requires regular operation and maintenance to meet with designated OWNER personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:

## **SECTION 017000 - CONTRACT CLOSEOUT**

1. Maintenance manuals.
  2. Spare parts and materials.
  3. Tools.
  4. Lubricants.
  5. Fuels.
  6. Identification systems.
  7. Control sequences.
  8. Hazards.
  9. Cleaning.
  10. Warranties and bonds.
  11. Maintenance agreements and similar continuing commitments.
- B. As part of instruction for operating equipment, demonstrate the following procedures:
1. Start-up.
  2. Shutdown.
  3. Emergency operations.
  4. Noise and vibration adjustments.
  5. Safety procedures.
  6. Economy and efficiency adjustments.
  7. Effective energy utilization.

### **3.05 FINAL CLEANING**

- A. General: Related sections of the Contract Documents specify general cleaning during performance of the Work. General cleaning is included in Division 01 Section "Construction Facilities and Temporary Controls".
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

## **SECTION 017000 - CONTRACT CLOSEOUT**

1. Complete the following cleaning operations before requesting inspection for a certificate of Substantial Completion.
  - a. Remove labels that are not permanent labels.
  - b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
  - c. Clean exposed exterior and interior hard-surfaced finished to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
  - d. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
  - e. Clean the Project site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted to a smooth, even-textured surface.

**END OF SECTION**



## **SECTION 017329 - CUTTING AND PATCHING**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. This Section specifies procedural requirements for cutting and patching.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 013300 - Submittal Procedures.
- B. Section 017836 - Warranties.

#### **1.03 SUBMITTALS**

- A. The word "cutting" as used in the Contract Documents includes, but is not limited to, cutting, drilling, chopping, and other similar operations and the word "patching" includes, but is not limited to, patching, rebuilding, reinforcing, repairing, refurbishing, restoring, replacing, or other similar operations.
- B. Cutting and Patching Proposal: CONTRACTOR shall submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Contract Documents requires approval of these procedures before proceeding. Include the following information, as applicable, in the proposal:
  - 1. Describe the extent of cutting and patching required. Denote how it will be performed and indicate why it cannot be avoided.
  - 2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance or other significant visual elements.
  - 3. List products to be used and firms or entities that will perform this Work.
  - 4. Indicate dates when cutting and patching will be performed.
  - 5. Utilities: List utilities that cutting and patching operations will disturb or affect. List utilities to be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
  - 6. Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.
  - 7. Review by ARCHITECT prior to proceeding with cutting and patching does not waive ARCHITECT right to later require complete removal and replacement of defective Work.

## SECTION 017329 - CUTTING AND PATCHING

### 1.04 QUALITY ASSURANCE

- A. Requirements for structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.
  - 1. Obtain approval from ARCHITECT of the cutting and patching proposal before cutting and patching the following structural elements:
    - a. Foundation construction.
    - b. Bearing and retaining walls.
    - c. Structural concrete.
    - d. Structural steel.
    - e. Lintels.
    - f. Timber and primary wood framing.
    - g. Structural decking.
    - h. Stair systems.
    - i. Miscellaneous structural metals.
    - j. Exterior curtain-wall construction.
    - k. Equipment supports.
    - l. Piping, ductwork, vessels, and equipment.
    - m. Structural systems of special construction in Division 13 Sections.
- B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safely.
  - 1. Obtain review of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
    - a. Primary operational systems and equipment.
    - b. Air or smoke barriers.
    - c. Water, moisture, or vapor barriers.

## SECTION 017329 - CUTTING AND PATCHING

- d. Membranes and flashings.
  - e. Fire protection systems.
  - f. Noise and vibration control elements and systems.
  - g. Control systems.
  - h. Communication and/or data systems.
  - i. Conveying systems.
  - j. Electrical wiring systems.
  - k. Operating systems of special construction in Division 13 Sections.
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the opinion of ARCHITECT, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.
- 1. If possible, retain the original installer or fabricator to cut and patch the exposed Work listed below. If it is impossible to engage the original installer or fabricator, engage another recognized experienced and specialized firm.
    - a. Firestopping.
    - b. Acoustical ceilings.
    - c. Acoustical panels.
    - d. Finished wood flooring.
    - e. Synthetic sports flooring.
    - f. Carpeting.
    - g. HVAC enclosures, cabinets, or covers.
    - h. Ceramic and quarry tile.
    - i. Gypsum board.
    - j. Masonry (exterior and interior where exposed).
    - k. Tack boards.

## **SECTION 017329 - CUTTING AND PATCHING**

- l. Casework.
- m. Finish carpentry.

### **1.05 WARRANTY**

- A. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

### **PART 2 - PRODUCTS (Not applicable)**

### **PART 3 - EXECUTION**

#### **3.01 INSPECTION**

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.
  - 1. Before proceeding, meet at the Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

#### **3.02 PREPARATION**

- A. Temporary support: Provide adequate temporary support of existing improvements or Work to be cut.
- B. Protection: Protect existing improvements and Work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of existing improvements or Work that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Where the Work requires sandblasting of existing surfaces in order to receive new materials secured by cementitious, adhesive or chemical bond, completely remove existing finishes, stains, oil, grease, bitumen, mastic and adhesives or other substances deleterious to the new bonding or fastening of new Work. Utilize wet sand blasting for interior surfaces and for exterior surfaces where necessary to prevent objectionable production of dust.

## SECTION 017329 - CUTTING AND PATCHING

### 3.03 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Carefully remove existing Work to be salvaged and/or reinstalled. Protect and store for reuse into the Work. Verify compatibility and suitability of existing substrates before starting the Work.
- B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining Work. Where possible, review proposed procedures with the original installer; comply with the original installer's recommendations.
  - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Cut through concrete and masonry using a cutting machine, such as a carborundum saw or a diamond-core drill. Saw cut reinforcing bars and paint ends with bituminous paint except where bonded into new concrete or masonry.
  - 4. Comply with requirements of applicable Sections of Divisions 31, 32, and 33 where cutting and patching requires excavating, backfill, and re-compaction.
  - 5. Woodwork: Cut and or remove to a panel or joint line.
  - 6. Sheet Metal: Remove back to joint, lap, or connection. Secure loose or unfastened ends or edges and seal watertight.
  - 7. Glass: Remove cracked, broken, or damaged glass and clean rebates and stops of setting materials.
  - 8. Plaster: Cut back to sound plaster on straight lines, and back bevel edges of remaining plaster. Trim existing lath and prepare for new lath.
  - 9. Gypsum Wallboard: Cut back on straight lines to undamaged surfaces with at least two opposite cut edges centered on supports.
  - 10. Acoustical ceilings: Remove hanger wires and related appurtenances where ceilings are not scheduled to be installed.
  - 11. Tile: Cut back to sound tile and backing on joint lines.

## SECTION 017329 - CUTTING AND PATCHING

12. Flooring: Completely remove flooring and clean backing of prior adhesive. Carefully remove wood flooring for patching and repairing of existing wood flooring scheduled to remain.
- C. Patching: Patch with durable seams that are as invisible as possible. Comply with required tolerances.
1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation. Verify conditions of existing substrates prior to executing Work.
  2. Restore exposed finishes of patched areas and extend finish restoration into retaining adjoining construction in a manner that will eliminate all evidence of patching and refinishing.
  3. Concrete: Maintain cut edges in a moist condition for twenty four hours prior to the placement of new concrete. In lieu of this an epoxy adhesive may be provided. Finish placed concrete to match existing unless noted otherwise. Concrete shall have a compressive strength of 3,000 psi where installed to repair and match existing improvements, unless noted otherwise.
  4. Metal Fabrications: Items to remain exposed shall have their edges cut and ground smooth and rounded.
  5. Sheet Metal: Replace removed or damaged sheet metal items for new Work.
  6. Glass: Install matching glass and re-seal exterior window assemblies.
  7. Lath and Plaster: Install new lath materials to match existing and fasten to supports at 6-inch centers. Provide a 6-inch lap where new lath to adjoins existing lath. Fasten new lath as required for new Work. Restore paper backings as required. Apply a bonding agent on cut edges of existing plaster. Apply three coat plaster of the type, thickness, finish, texture, and color to match existing.
  8. Gypsum Wallboard: Fasten cut edges of wallboard. Install patches with at least two opposite edges centered on supports and secure at 6-inch centers. Tape and finish joints and fastener heads. Patching shall be non-apparent when painted or finished.
  9. Acoustical Ceilings: Comply with the requirements for new Work specified in related sections of the Contract Documents.
  10. Resilient Flooring: Completely remove flooring and prepare substrate for new material.

## **SECTION 017329 - CUTTING AND PATCHING**

11. Painting: Prepare areas to be patched, patch and paint as specified under related sections of the Contract Documents.

### **3.04 CLEANING**

- A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged coverings to their original condition.

**END OF SECTION**

## **SECTION 017418 WATER POLLUTION CONTROL**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

- A. Section Includes:
  - 1. Control runoff and pollutants from the site during construction activities.
- B. Related Requirements:
  - 1. Division 01 – General Requirements.

#### **1.02 ACRONYMS AND DEFINITIONS**

BMP	Best Management Practice.
CAN	Corrective Action Notice.
CGP	NPDES General Permit for Storm Water Discharges Associated with Construction Activities.
DWQ	Division of Water Quality.
LARWQCB	Los Angeles Regional Water Quality Control Board.
NPDES	National Pollutant Discharge Elimination System.
SWPPP	Storm Water Pollution Prevention.
SWRCB	State Water Resources Control Board.

#### **1.03 REQUIREMENTS**

- A. CONTRACTOR shall:
  - 1. Implement Good Site Management "Housekeeping".
  - 2. Install and maintain BMPs. Insure that BMPs are designed to protect all exposed portions of the site, including:
    - a. Erosion, Sediment, Tracking, and Wind Erosion Control BMPs.
    - b. Non--storm Water Control BMPs.
    - c. Waste Management BMPs.
  - 3. Incorporate BMP activities into the Project Schedule.
  - 4. Inform CONTRACTOR and Subcontractors personnel on the BMP procedures to prevent pollutants from entering the storm drain system, before the start of construction activities. Keep personnel informed of the BMP implementation process and of changes to the procedures. Provide record to OAR of Storm Water Topics discussed.
  - 5. Pay fines and penalties from regulatory agencies against OWNER due to CONTRACTOR'S non-compliance with storm water regulations.



## **SECTION 017418 WATER POLLUTION CONTROL**

OWNER shall recover costs of fines and penalties by appropriate OWNER assessment. Review of the BMPs by OAR shall not relieve CONTRACTOR from liabilities arising from non-compliance of storm water pollution regulations.

- B. Project Inspector will conduct inspection and examination of site storm water regulation compliance.

### **1.04 SUBMITTALS**

- A. BMP material quality, grade, type as specified in the CASCA BMP Handbook.

### **1.05 QUALITY ASSURANCE**

- A. Regulatory Requirements: Comply with the following requirements:
  - 1. National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Lands Disturbance Activities; ORDER NO. 2009-0009-DWQ; NPDES NO. CAS000002, adopted by the State Water Resources Control Board.
  - 2. Regulations of the California Environmental Protection Agency, State Water Resources Control Board; Los Angeles Regional Water Control Board, and local ordinances.

### **1.06 STORAGE AND PROTECTION**

- A. Provide proper storage of materials and equipment to prevent rain and storm water runoff to come in contact with pollutants, such as soil stabilizers, paint or fluids from vehicles.

## **PART 2 – PRODUCTS NOT USED**

## **PART 3 – EXECUTION**

### **3.01 IMPLEMENTATION**

- A. Install perimeter controls prior to starting Work at the Project site.
- B. Implement BMP plan to contain on-site storm water on the Project site. Provide storm drain inlet protection. Do not drain on-site water directly into the storm drain without proper BMP in place.
- C. Prevent pollutant discharges into the storm drain system. Prevent storm water from coming into contact with pollutants, such as sediment, material spills, or leakage from storage tanks, waste containers or transfer areas. In the event contamination is found CONTRACTOR shall immediately notify OAR who will contact the OWNER.
- D. Protect exposed dirt, such as stockpiles, landscaping areas, and hillsides.

## **SECTION 017418 WATER POLLUTION CONTROL**

- E. Properly manage non-storm water discharges such as ground water, broken utility lines and fire hydrant testing per BMP Implementation Plan.
- F. Adjust BMP's locations and layouts in accordance to construction progress to assure compliance to regulations.
- G. Conduct inspections of pollution prevention controls and provide Site Monitoring Report to OAR immediately if pollutants are discharged into the site runoff. CONTRACTOR shall remediate contaminated water.
- H. Upon Substantial Completion: Maintain and leave post-construction storm water pollution prevention controls in place and remove those that are not needed as determined by the OAR.

### **3.02 CLOSEOUT**

- A. Verify the following prior to Substantial Completion:
  - 1. Final stabilization of site has been demonstrated.
  - 2. There is no potential for construction related storm water pollutants to be discharged into site runoff.
  - 3. Construction related equipment and temporary BMP have been removed from site.
  - 4. Rubbish, debris, and waste materials have been removed and legally disposed of off the Project site.

**END OF SECTION**

## **SECTION 017419 - CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 1 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for the following:
  - 1. Recycling nonhazardous demolition and construction waste.
  - 2. Disposing of nonhazardous demolition and construction waste.
- B. Related Sections include the following:
  - 1. Division 1 Section "Construction Facilities and Temporary Controls" for environmental-protection measures during construction.
  - 2. Division 2 Section "Selective Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements.

#### **1.3 DEFINITIONS**

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

## **SECTION 017419 - CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT**

### **1.4 SUBMITTALS**

- A. Waste Management Plan: Submit one electronic copy of plan to BMT within 10 days of date established for the Notice to Proceed.
- B. Contractor shall submit weight tickets, bill of ladings, or tonnage reports of any waste materials sent out for recycling from a work site within the District to the Construction Manager on a monthly basis with the Pay Application submission.

### **1.5 QUALITY ASSURANCE**

- A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- B. Regulatory Requirements:
  - 1. Comply with hauling and disposal regulations of authorities having jurisdiction.
  - 2. Comply with applicable provisions in California Integrated Waste Management Act of 1989 (AB 939).
  - 3. Comply with applicable provisions in California Code of Regulations Title 14, Section 18700 et seq.
- C. Waste Management Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to waste management including, but not limited to, the following:
  - 1. Review and discuss waste management plan including responsibilities of Design-Builder's Waste Management Coordinator.
  - 2. Review requirements for documenting quantities of each type of waste and its disposition.
  - 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
  - 4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
  - 5. Review waste management requirements for each trade.

### **1.6 WASTE MANAGEMENT PLAN**

- A. General: Develop plan consisting of waste identification, waste reduction work plan. Include separate sections in plan for demolition and construction waste.

## **SECTION 017419 - CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT**

Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.

- B. Waste Identification: Indicate anticipated types and quantities of demolition, site-clearing, and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
  - 1. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
  - 2. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
  - 3. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

### **PART 2 - PRODUCTS (Not Used)**

### **PART 3 - EXECUTION**

#### **3.1 PLAN IMPLEMENTATION**

- A. General: Implement waste management plan as approved by Owner. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
  - 1. Comply with Division 1 Section "Temporary Facilities and Controls" for operation, termination, and removal requirements.
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
  - 1. Distribute waste management plan to everyone concerned within three days of submittal return.
  - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.

## **SECTION 017419 - CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT**

- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
  - 2. Comply with Division 1 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

### **3.2 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL**

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
  - 1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
    - a. Inspect containers and bins for contamination and remove contaminated materials if found.
  - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
  - 4. Store components off the ground and protect from the weather.
  - 5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.

### **3.3 RECYCLING DEMOLITION WASTE**

- A. Asphaltic Concrete Paving: Break up and transport paving to asphalt-recycling facility.
- B. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
  - 1. Break up and transport concrete to concrete-recycling facility.
- C. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.

## SECTION 017419 - CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT

1. Clean and stack undamaged, whole masonry units on wood pallets.
2. Transport masonry to masonry-recycling facility.
- D. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- E. Metals: Separate metals by type.
  1. Structural Steel: Stack members according to size, type of member, and length.
  2. Remove and dispose of bolts, nuts, washers, and other rough hardware.
- F. Asphalt Roofing: Separate organic and glass-fiber asphalt felts. Remove and dispose of nails, staples, and accessories.
- G. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- H. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
  1. Separate suspension system, trim, and other metals from panels and tile and sort with other metals.
- I. Carpet and Pad: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
  1. Store clean, dry carpet and pad in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- J. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- K. Plumbing Fixtures: Separate by type and size.
- L. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- M. Lighting Fixtures: Separate lamps by type and protect from breakage.
- N. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panel boards, circuit breakers, and other devices by type.
- O. Conduit: Reduce conduit to straight lengths and store by type and size.

## **SECTION 017419 - CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT**

### **3.4 RECYCLING CONSTRUCTION WASTE**

#### **A. Packaging:**

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
2. Polystyrene Packaging: Separate and bag materials.
3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

#### **B. Site-Clearing Wastes: Chip brush, branches, and trees on-site or at landfill facility.**

1. Comply with requirements in Division 32 Section "Exterior Plants" for use of chipped organic waste as organic mulch.

#### **C. Wood Materials:**

1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
  - a. Comply with requirements in Division 32 Section "Exterior Plants." for use of clean sawdust as organic mulch.

#### **D. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location.**

1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.
  - a. Comply with requirements in Division 32 Section "Exterior Plants." for use of clean ground gypsum board as inorganic soil amendment.

### **3.5 DISPOSAL OF WASTE**

#### **A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.**

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.



## **SECTION 017419 - CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT**

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

**END OF SECTION**

## **SECTION 017836 - WARRANTIES**

### **PART 1 - GENERAL**

#### **1.01 SECTION INCLUDES**

- A. This Section includes administrative and procedural requirements for warranties, including manufacturers and installer's standard warranties on products and special product warranties.
  - 1. Refer to the General Conditions for terms of the guarantee period for the Work.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 017000 - Contract Closeout.
- B. Section 017329 - Cutting and Patching.

### **PART 2 - PRODUCTS (Not applicable)**

### **PART 3 - EXECUTION**

#### **3.01 WARRANTY REQUIREMENTS**

- A. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties shall not relieve CONTACTOR of the warranty of the Work incorporating such materials, products, and equipment. Manufacturer's disclaimers and limitations on warranties do not relieve suppliers, manufacturers, installers, and Subcontractors of the requirement to countersign special warranties with CONTRACTOR.
- B. Standard warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to OWNER.
- C. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for OWNER.
- D. Related Damages and Losses: When correcting failed or defective warranted Work, remove and replace Work that has been damaged as a result of such failure or which must be removed and replaced to provide access for correction of warranted Work.
- E. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement with the reinstated warranty equal to the original warranty.

## **SECTION 017836 - WARRANTIES**

- F. Replacement Cost: Upon determination the Work covered by a warranty has failed and/or is defective, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. CONTRACTOR is responsible for the cost of replacing or rebuilding defective Work regardless of whether OWNER has benefited from use of the Work through a portion of its anticipated useful service life.
- G. OWNER Recourse: Expressed warranties made to OWNER are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which OWNER can enforce such other duties, obligations, rights, or remedies.
- H. Rejection of Warranties: OAR reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- I. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, OAR reserves the right to refuse to accept the Work until CONTRACTOR presents evidence the entities required to countersign such commitments have done so.

### **3.02 SUBMITTALS**

- A. Submit written preliminary warranties prior to Substantial Completion and final warranties prior to Contract Completion. If the certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, submit written warranties as set forth in the certificate of Substantial Completion.
  - 1. When a designated portion of the Work is partially used and/or occupied by OWNER, submit properly executed warranties to ARCHITECT within fifteen days of the Partial Use or Occupancy of the designated portion of the Work.
- B. When the Contract Documents require CONTRACTOR, or CONTRACTOR and a Subcontractor, installer, supplier or manufacturer to execute a special warranty, prepare a written document containing appropriate terms and identification, ready for execution by the required parties. Submit a draft to OAR, through the ARCHITECT, for approval prior to final execution.
  - 1. Refer to Divisions 02 through 49 for specific content requirements and particular requirements for submitting special warranties.
- C. Form of Submittal: Prior to Contract Completion, compile two copies of each required final warranty properly executed by CONTRACTOR, or by CONTRACTOR and Subcontractor, installer, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the Specifications.

## **SECTION 017836 - WARRANTIES**

- D. Bind warranties and bonds in heavy-duty, commercial-quality, durable three ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½ by 11 paper.
1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the item or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the installer.
  2. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project title and/or name, and name of CONTRACTOR.
  3. When warranted Work requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

**END OF SECTION**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes: Furnishing labor, materials and equipment necessary for demolition, dismantling, cutting and alterations as indicated, specified, or required for completion of the Work. Includes items such as the following:
  - 1. Protection of existing improvements to remain.
  - 2. Cleaning existing improvements to remain.
  - 3. Disconnecting and capping utilities.
  - 4. Removing debris, waste materials, and equipment.
  - 5. Removal of items for performance of the Work.
  - 6. Salvageable items to be retained by the Owner.
- B. Related Requirements:
  - 1. Division 01 - General Requirements.
  - 2. Section 011100 - Summary of Work.
  - 3. Section 015000 - Construction Facilities and Temporary Controls.
  - 4. Section 017329 - Cutting and Patching.
  - 5. Section 017419 - Construction and Demolition Waste Management.

**1.02 SUBMITTALS**

- A. Shop Drawings: Submit Shop Drawings indicating the extent of items and systems to be removed. Indicate items to be salvaged or items to be protected during demolition. Indicate locations of utility terminations and the extent of abandoned lines to be removed. Include details indicating methods and location of utility terminations.

**1.03 QUALITY ASSURANCE**

- A. Perform the Work of this section by workers skilled in the demolition of buildings and structures. Perform the Work of this section under direct superintendence at all times.
- B. Prior to commencement of Work, schedule a walkthrough with the OAR, to confirm Owner property items have been removed from scheduled Work areas. Identify and mark remaining property items and schedule their removal.

## **024116 – DEMOLITION**

- C. Coordinate demolition for the correct sequence, limits, and methods. Schedule demolition Work to create least possible inconvenience to the public and facility operations.
- D. Related Standard: ANSI/ASSE A10.6.

### **1.04 PROJECT CONDITIONS**

- A. Drawings may not indicate in detail all demolition Work to be performed. Examine existing conditions to determine the full extent of required demolition.
- B. Repair damage to existing improvements or damage due to excessive demolition.
- C. Provide all measures to avoid excessive damage from inadequate or improper means and methods, improper shoring, bracing or support.
- D. If conditions are encountered that varies from those indicated, promptly notify the Architect for clarification before proceeding.

## **PART 2 - PRODUCTS**

### **2.01 HANDLING OF MATERIALS**

- A. Items scheduled for salvage by the Owner shall be delivered to a location designated by the OAR. Items shall be cleaned, packaged and labeled for storage.
- B. Items scheduled for reuse shall be stored on the Project site and protected from damage, theft and other deleterious conditions.

## **PART 3 - EXECUTION**

### **3.01 GENERAL**

- A. Protection:
  - 1. Do not commence demolition until safety partitions, barricades, warning signs and other forms of protection are installed. Refer to Section 01 5000 - Construction Facilities and Temporary Controls.
  - 2. Provide safeguards, including warning signs, lights and barricades, for protection of workers, occupants, and the public.
- B. If safety of existing construction appears to be endangered, take immediate measures to correct such conditions; cease operations and immediately notify the OAR.

### **3.02 DEMOLITION**

- A. Do not throw or drop materials. Furnish ramps or chutes as required by the Work.
- B. Remove existing construction only to extent necessary for proper installation of Work and interfacing with existing construction. Cut back finished surfaces to straight, plumb or level lines as required for a smooth transition.
- C. Where openings are cut oversize or in improper locations, replace or repair to required condition.

### **3.03 CUTTING EXISTING CONCRETE**

- A. Cutting of existing concrete shall be performed by skilled workers familiar with the requirements and space necessary for placing concrete. Perform concrete cutting with concrete cutting wheels and hand chisels. Do not damage concrete intended to remain.
- B. Extent of cutting of structural concrete shall be as indicated on Drawings. Cutting of non-structural concrete shall be as indicated on Drawings or as reviewed by the Architect or structural engineer. Replace concrete demolished in excess of amounts indicated.
- C. Prior to cutting or coring concrete, determine locations of hidden utilities or other existing improvements and provide necessary measures to protect them from damage.

### **3.04 REMOVAL OF EXISTING PLUMBING AND ELECTRICAL EQUIPMENT AND SERVICES**

- A. Remove existing plumbing and electrical equipment fixtures and services not indicated for reuse and not necessary for completion of the Work. Remove abandoned lines and cap unused portions of existing lines.

### **3.05 REMOVAL OF OTHER MATERIALS**

- A. Masonry: Cut back to joint lines and remove mortar without damaging units to remain. Allow space for repairs to backing where applicable.
- B. Woodwork: Cut or remove to a joint or panel line.
- C. Roofing: Remove as required, including accessory components such as insulation and flashings. At penetrations through existing roofing, trim cut edges back to sound roofing with openings restricted to the minimum size necessary to receive Work.
- D. Sheet Metal: Remove back to joint, lap, or connection. Secure loose and unfastened ends or edges and provide a watertight condition. Re-seal as required.

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- E. Glass: Remove broken or damaged glass and clean rebates and stops of glazing channels.
- F. Modular materials such as acoustical ceiling panels, resilient tile, or ceramic tile: Remove to a natural joint without leaving damaged or defective Work where joining new Work. After flooring removal, clean substrates to remove setting materials and adhesives.
- G. Gypsum Board: Remove to a panel joint line on a stud or support line.
- H. Plaster: Saw cut plaster on straight lines, leaving a minimum 2-inch width of firmly attached metal lath for installing new lath and plaster.
- I. Remove existing improvements not specifically indicated or required but necessary to perform Work. Cut to clean lines, allowing for installation of Work.

### **3.06 PATCHING**

- A. Patch or repair materials to remain when damaged by the performance of the Work of this section. Finish material and appearance of patch and/or repair Work shall match existing.

### **3.07 CLEANING**

- A. Clean existing materials to remain with appropriate tools and equipment.
- B. Protect existing improvements during cleaning operations.
- C. Debris shall be dampened by fog water spray prior to transporting by truck.
- D. Debris pick-up area shall be kept broom-clean and shall be washed daily with clean water.
- E. Remove waste and debris, other than items to be salvaged. Turn over salvaged items to Owner, or store and protect for reuse where required. Continuously clean up and remove items as demolition Work progresses.
- F. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

**END OF SECTION**



## **SECTION 061000 - ROUGH CARPENTRY**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

- A. Under this Section furnish all labor, materials, and equipment to construct wood work in accordance with the plans, specifications and directions of the Engineer.
- B. Work included: Including, but not limited to, the following.
  - 1. Wood framing and furring.
  - 2. Wood grounds, nailers and blocking.
  - 3. Plywood sheathing, sub flooring and underlayment.
  - 4. Rough hardware and fasteners.

#### **1.02 QUALITY ASSURANCE**

- A. Reference Standards: Comply with provisions of all applicable local, State and Federal codes, specifications, standards, and recommended practices, and in particular:
  - 1. ALSC, American Lumber Standards Committee: Softwood Lumber Standards.
  - 2. AWWPA, American Wood Preservers' Association.
  - 3. DFPA, Douglas Fir Protection Association
  - 4. NFPA, National Forest Products Association.
  - 5. WCLIB, West Coast Lumber Inspection Bureau, Standard Grading Rules for West Coast Lumber.
  - 6. WWPA, Western Wood Products Association.
  - 7. PS-I and PS-2, Plywood Grading Rules.

#### **1.03 SUBMITTALS**

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 01 Specification Sections.
- B. Certificate: Provide certificate from each manufacturer stating that material is first quality, meets or exceeds the properties of specified materials as specified herein, and is suitable for intended use on this Project. Where recycled lumber materials are used for structural applications or where otherwise noted, include lumber certification and quality grading.

## **SECTION 061000 - ROUGH CARPENTRY**

### **1.04 HANDLING**

- A. Materials shall be properly packed and handled while in transit so as to arrive at the job site in undamaged condition. Manufactured materials shall be delivered in suitable containers plainly marked with brand and manufacturer's name.
- B. Storage:
  - 1. Do not store materials in wet or damp areas. Keep materials dry. Protect against exposure to weather and contact with damp or wet surfaces.
  - 2. Stack lumber, plywood and other panels to provide for air circulation within and around stacks and under temporary coverings.
  - 3. Protect plywood from moisture by covering with waterproof coverings until the plywood has been covered with a finish material, or the building has been completely enclosed.
  - 4. Protect materials from damage during unloading and storage. Do not use damaged materials, nor plywood panels with damaged corners, except after removing damaged portion.
- C. Damaged or deteriorated materials or assemblies shall not be used in the work and shall be replaced at no extra cost to the Owner.

### **1.05 MATERIALS**

- A. General: Material shall conform to these specifications and to the applicable current editions of the Standard Specifications of ASTM and CBC.
- B. Framing Lumber:
  - 1. S4S grade-marked Douglas Fir/Larch, of the grades and sizes indicated on the Drawings, manufactured and graded according to WCLIB or WWPA rules.
  - 2. Sizes indicated are nominal. Actual sizes shall conform to NIST PS 20.
  - 3. Lumber up to 2 in. thick shall be seasoned to the moisture content of 19% or less and be stamped "S-Dry". Lumber over 2 in. thick can be shipped unseasoned and stamped "S-Green".
  - 4. Grade stamp: Provide lumber with each piece factory-marked with grade stamp of inspection agency evidencing compliance with grading rule requirements and identifying grading agency, grade, species, moisture content at time of surfacing, and mill.
- C. Plywood and OSB Sheathing:
  - 1. Provide APA grade-stamped Douglas Fir plywood or OSB of the grades indicated on the Drawings and complying with us Product standard PS-1 or

## SECTION 061000 - ROUGH CARPENTRY

PS-2, respectively. Refer to the Drawings for location of Plywood or OSB. Plywood used as a substrate for elastomeric coating must be minimum 3/4 in. thick, exterior grade, tongue and grooved.

2. Builder's rough hardware: Verify that fasteners for pressure-treated wood will not corrode due to treatment materials used in the manufacture or present at time of moisture. Use hot dip galvanized or stainless steel fasteners where carpentry will remain exposed to the weather.
  - a. Nails and staples: Size and type complying with Code unless otherwise indicated. All nails shall be common. Box nails not permitted on the jobsite.
  - b. Bolts, washers, lag bolts and wood screws: Galvanized or cadmium-plated steel of standard manufacture.

### D. Accessories:

1. Metal framing accessories: Code approved galvanized or cadmium-plated steel joist hangers, framing anchors, fasteners and other such connection devices of standard manufacture and of the types indicated on the Drawings. Use offset and skewed hangers as required.
  - a. Nails to be used with framing accessories shall be those furnished by the manufacturer with the framing accessories.
  - b. Anchor Bolts: ASTM A307, non-headed type with heavy hexagonal nuts unless otherwise specified.
2. Construction adhesive (sub floors): Franklin International Titebond, or equal.
3. Flashing paper: 6 in. wide Moistop Flashing by Fortifiber Corp., or equal reinforced laminated Kraft paper by Nical.
4. Flashing at perimeter of exterior openings: 6 in. wide Sealtight Air-Shield by WR Meadows. Ice and Water Shield by WR Grace or equal.
5. Building paper: Rosin-sized building paper 0.010 in. thick, or 1.5 lbs. unsaturated felt.
6. Sill sealer: Amofoam sill Sealer, Dow Chemical Co. Sill Seal Gap Filler or equal.

### E. Treatment of Lumber and Plywood:

1. Pressure treat lumber and plywood in contact with concrete or masonry, and at other locations required by Code, in compliance with AWPA C-2 for lumber, and AWPA C-9 for plywood, using water-borne preservatives (LP-2).

## SECTION 061000 - ROUGH CARPENTRY

2. Kiln-dry to 15% moisture content after treatment.
  3. Each piece of wood stamped by the wood preservative applicator to indicate and identify its treatment.
- F. Lumber Fastenings (Except for Preservative Pressure Treated Lumber Fastenings):
1. Nails and Spikes: Common Wire unless otherwise noted
    - a. Nailing of wood members shall conform to CBC and/or as indicated. Box nails are not permitted.
    - b. Penetration: half-length of nail into piece receiving point.
    - c. To connect pieces 2 inches (25 mm) net in thickness, 16d nails may be used.
    - d. Do not drive nails closer together than half their length, nor closer to edge of piece of lumber or timber than 1/4 their length.
    - e. Spacing and size of nails to be such that splitting will not occur. Pre-bore holes for nails wherever necessary to prevent splitting. Bore diameter of holes smaller than diameter of nail or spike (3/4 dia.).
    - f. For plywood nailing, barbed plywood nails, size and spacing as indicated. Nails shall have edge distances of not less than 3/8 inch (9.5 mm).
    - g. Use galvanized nails where exposed to weather or where members are built-in to roofing.
  2. Screws: Bright steel wood screws:
    - a. Screws are to be turned into place, not driven. Self-tapping where required for fastening to metal framing.
    - b. Countersink where heads will interfere or as required.
    - c. Screw bolt holes the same diameter and depth as shank; bore holes for threaded portion of screws with bit no larger than base of thread.
    - d. Use galvanized or cadmium plated screws on fastenings exposed to weather or where members are built-in to roofing.
  3. Bolts: Standard mild steel, square or hex head machine bolts with square nuts and malleable iron or steel plate washers, conforming to ASTM A307.
    - a. Drilled holes 1/32 inch (0.8 mm) to 1/16-inch (1.6 mm) over size.
    - b. Bolting of wood members shall conform to CBC requirements and as called for on the drawings.

## SECTION 061000 - ROUGH CARPENTRY

- c. Washers: Provide bolts bearing on wood, unless noted otherwise on the drawings, with malleable iron, or steel plate washers under heads and nuts. Do no final bolting until structure has been properly aligned.
  - d. Use galvanized bolts, nuts and washers where exposed to weather or where members are built-in to roofing.
- 4. Lag Screws: Conform to "National Design Specification for Stress Graded Lumber and Its Fastenings," NFPA, latest edition.
  - a. Lag screws shall be screwed and not driven into place. Penetration in each timber shall not be less than 2/3 of the length of the lag screw.
  - b. Hole shall be bored the same diameter and depth as the shank, after which the hole shall be continued to a depth equal to the length of the lag screw with a diameter no larger than 3/4 of the shank diameter.
  - c. Washers: Provide lag screws bearing on wood with malleable iron or steel plate washers under heads.
  - d. Use galvanized lag screws and washers where exposed to weather or where members are built-in to roofing
- G. Rough Hardware (Except for Preservative Pressure Treated Lumber Fastenings):
  - 1. Provide rough hardware related to carpentry work which is not specifically called out under other headings. This shall include, but not be limited to, the following:
    - a. General: Fastenings, devices, and other rough hardware not specifically indicated on drawings or specified herein shall be submitted for approval prior to installation. Conform to ASTM A7 or A36.
    - b. Framing clips, hangers, etc.: Simpson Strong-tie unless otherwise noted.
    - c. Sheet metal straps: Galvanized sheet steel of gauges and designs indicated.
    - d. Expansion anchors shall have a current ICC evaluation report and be size, number and type shown, installed as described in the evaluation report.
    - e. Powder Driven Fasteners: shall have a current ICC evaluation report and be size, number and type shown, installed as described in the evaluation report.

## SECTION 061000 - ROUGH CARPENTRY

### 1.06 INSPECTION

- A. Verify conditions and measurements affecting the work of this Section at site.
- B. Make sure that detrimental conditions are corrected before proceeding with installation.

### 1.07 GENERAL

- A. Install framing in strict accordance with the requirements of CBC Chapter 23 unless more stringent requirements are specified herein or shown on the Drawings.
- B. Rough carpentry shall produce joints true, tight, and well nailed with members assembled in accordance with the Drawings and with pertinent codes and regulations.
- C. Erect framing neatly and substantially to best trade standards, including preparatory work for subsequent trades and conditions not actually detailed.
- D. Selection of lumber pieces:
  - 1. Carefully select all members. Select individual pieces so that knots and defects will not interfere with placement of bolts, with nailing or making proper connections.
  - 2. Cut-out and discard pieces with defects that make the piece unable to serve its intended function. The Architect may reject lumber, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus or mold as well as for improper cutting or fitting.
  - 3. Shimming: Do not shim sills, joists, short studs, trimmers, headers, lintels and other framing members.
- E. On framing and furring members to receive a finished wall or ceiling, align the finish surface to vary not more than 1/8 in. from a theoretical plane or surfaces of the room or space unless more stringent tolerance is specified.
- F. Install wood screws and lag bolts with complete penetration up to head. Bore lead holes approximately 3/4 of diameter and same depth as shank; continue holes to a depth equal to length of the screw but with diameter approximately 3/4 of thread root.
- G. Drill holes in pieces where splitting may occur.
  - 1. Remove split lumber and replace with new members.
  - 2. Fasten framing anchors and steel bridging with galvanized special nails furnished with hardware in every nail hole, except where noted to be welded to structural steel supports in which case comply with AWS requirements.
- H. No penetrated nail points are allowed in exposed construction.

## SECTION 061000 - ROUGH CARPENTRY

- I. Install sill plates on continuous layer of "Sill Sealer" held in place temporarily with compatible adhesive.
- J. Tighten bolts and re-tighten shortly before being covered.
  - 1. Make bolt holes in wood the same diameter as the bolt. After tightening, nick bolt threads to prevent nut loosening.
  - 2. Provide bolts and lag screws with washers under heads and nuts that bear on wood.
  - 3. Where a finish material will be installed over the bolt, recess the bolt head or the nut so that they are recessed or flush with the face of the member being bolted.
- K. Anchor sills with fasteners of the size a spacing shown. Provide a minimum of 2 fasteners per piece.
- L. Do not cut or notch structural members, except as indicated or directed by the Architect. Reinforce interrupted members as detailed.
- M. Make joints accurately and neatly for a square, tight fit. Remove and replace defective work.
- N. Frame walls and partitions at corners and intersections so no wall material can extend from one room to another. Where 2 or more studs are cut, provide header beams over the opening.
  - 1. Extend wall and partition studs and mullions continuously from sill to plate, unless otherwise indicated. In stud walls and partitions, extend at least one stud from sill to plate on each side of interior openings and 2 studs on each side of exterior openings. In addition, place one stud trimmer to support each end of lintels over openings.
  - 2. Cut let-in bracing accurately into studs to maintain full bearing values.
  - 3. Double plates unless a lintel replaces the lower member. Stagger plate joints at least 4 ft.
  - 4. Frame stud partitions, furring or walls containing electrical panels, plumbing, or other pipes to give required clearance for piping and fixtures. Do not place pipes exceeding 1/3 of plate width in partitions used as bearing or shear walls. Locate in furring clear of studs unless detailed otherwise. Place approved piping in center of plates using a neat hole; no notching will be allowed pipes shall not pass through plates less than 5-1/2 in. wide.
- O. Install joists, lintels, beams and rafters with crown up, unless otherwise noted. Cut members making structural contact with bearings or each other for full bearing.
- P. No splices are permitted in structural members.

## **SECTION 061000 - ROUGH CARPENTRY**

- Q. Treat field cuts and penetration in pressure-treated lumber in compliance with AWP A M4.
- R. Provide flashing membrane, minimum of 6 in. wide at perimeter of exterior openings. Lap in the direction of water flow.
  - 1. Where no solid backing exists to support the flashing membrane, provide either tight, solid blocking between studs, or plywood. Membrane must be solidly supported at all locations.

### **1.08 PLYWOOD SHEATHING**

- A. Layout and nail as indicated on the Drawings.
  - 1. Install plywood with 1/16 in. space between panels for expansion and contraction. Do not force panels in place.
  - 2. Place joints over supports with face grain running perpendicular to supports except as otherwise shown.
  - 3. Solid block unsupported panel edges where indicated.
- B. Install floor sheathing with best side up. Fasten with construction adhesive and annular ring or screw nails.
  - 1. Comply with APA requirements for glued floor system.
  - 2. Where a double layer is indicated, cover first layer of plywood with building paper stapled, and joints lapped 2 in. Cover the building paper with a second layer of plywood with joints staggered at least 16 in. from first layer.
- C. Cover roof sheathing with roofing material as soon as possible after installation. Do not leave exposed to the elements longer than 2 days.

### **1.09 BLOCKING / FURRING / BRIDGING / NAILERS**

- A. Blocking:
  - 1. Solid block joists and rafters over all supports with blocking of the same size and material as the joist or rafter.
  - 2. Provide fire blocking where required by Code. Locate other blockings to facilitate installation of finishing materials, fixtures, trim and soffits.
- B. Furring:
  - 1. Continuous and space at 16 in. o.c. maximum.
  - 2. Install plumb and level. Shim where necessary to provide a true, even plane suitable to receive the finish required.



## **SECTION 061000 - ROUGH CARPENTRY**

3. Attach to concrete and masonry with shot pins in pre-drilled holes.
- C. Bridging:
  1. Use 2 in. by 3 in. cross bridging, 2 in. solid bridging or 16 gage galvanized metal bridging.
  2. Nail bottom ends of bridging only after sheathing has been nailed.

### **1.10 CLEAN-UP**

- A. Dispose of pressure-treated wood in an authorized disposal area. **DO NOT BURN TREATED WOOD.** Do not bury wood of any type on the jobsite.

### **PART 2 – PRODUCTS**

Not applicable

### **PART 3 - EXECUTION**

Not applicable

**END OF SECTION**

## **SECTION 072100 – THERMAL INSULATION**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

**A. Section Includes:**

1. Thermal batt insulation for exterior walls and under roof decks.
2. Thermal batt insulation in furring at concrete or masonry walls.
3. Extruded polystyrene board at horizontal waterproofing.
4. Continuous insulation at exterior walls.

**B. Related Requirements:**

1. Division 01 - General Requirements.

#### **1.02 SUBMITTALS**

**A. Product Data:**

1. Material List: Provide a list of materials for installation under this section.
2. Provide manufacturer's printed Product Data for each type insulation and accessory.

**B. Manufacturer's Instructions:** Submit manufacturer's printed installation instructions.

**C. Certification:** Provide certification that insulation materials conform to requirements of CBC Chapter 26.

**D. Recycled Content:** Provide certification that insulation materials contain a minimum 30 percent recycled materials.

#### **1.03 QUALITY ASSURANCE**

**A. Surface Burning Characteristics:** Flame spread rating shall not exceed 25 and smoke density shall not exceed 50 when tested in accordance with ASTM E84.

**B. Combustion Characteristics:** Rated as non-combustible when tested in accordance with ASTM E136.

**C. Comply with following as a minimum requirement:**

1. ASTM C209 – Standard Test Methods for Cellulosic Fiber Insulating Board.

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2. ASTM C553: Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications.
  3. ASTM C578: Specification for Rigid, Cellular Polystyrene Thermal Insulation.
  4. ASTM C1363 - Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus.
  5. ASTM D1621 – Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
  6. ASTM D1622 – Standard Test Method for Apparent Density of Rigid Cellular Plastics.
  7. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
  8. ASTM E 136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.
- D. CHP Low-Emitting Materials Table: Materials submitted for building insulation must be listed as low emitting on the CHPS website, [www.CHPS.net](http://www.CHPS.net), or must be tested by an independent laboratory to meet CHPS requirements. Components of an assembly must meet CHPS requirements individually or in an assembly.

### **1.04 DELIVERY, STORAGE AND HANDLING**

- A. Deliver materials to Project site and store in a safe, dry place, with labels intact and legible at time of installation.
- B. Protect building insulation materials from damage.

### **1.05 PROJECT CONDITIONS**

- A. Avoid exposure to humidity and moisture. Protect from exposure to sunlight.

## **PART 2 - PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Owens Corning.
- B. Johns Manville.
- C. CertainTeed Corporation.

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- D. The DOW Chemical Company.
- E. DiversiFoam Products.
- F. Or Approved Equal.

### 2.02 MATERIALS

#### A. General:

1. Provide Unfaced, friction-fit batt insulation where both sides of installation are enclosed.
2. Provide batt insulation with integral vapor barrier when one side of installation will be unenclosed.
3. Provide batt insulation with integral vapor barrier where at least one side of installation will be exposed to high humidity, such as showers.
4. Recycled content shall be a minimum of 30 percent.

#### B. Mineral Fiber Batt Insulation:

1. Unfaced Mineral Fiber Batt Insulation: Provide friction-fit, unfaced mineral fiber batts. Insulation shall consist of mineral fibers, glass or slag, and thermosetting resins complying with ASTM C665, Type I.
2. Faced Mineral Fiber Batt Insulation: Provide mineral fiber batts with vapor barrier consisting of mineral fibers, glass or slag, and thermosetting resins complying with ASTM C665, Type III, Class A, with vapor-retardant membrane facing.
3. Fasteners for Attaching Insulation to Wood Framing:
  - a. For faced batt insulation provide one of following types of staples: Stainless steel, monel, or copper-coated steel, size as required by manufacturer or applicable code.
  - b. For unfaced batt insulation provide 18 gage, minimum, galvanized steel wire where required to maintain proper insulation placement.
4. Fasteners for Attaching Insulation to Underside of Metal Roof Decks:
  - a. Spindle Anchors: Stic-Klip Mfg. Co., Type A or B as required, with Type S adhesive; Miracle Adhesives Corp. "Miracle StukUps" with Type HT994 adhesive; or Goodloe E. Moore Gemco or Tuff-Weld with G-P Improved or Tuff-Bond Quik-Set Type Adhesive as applicable; or equal. Provide adhesives of correct type for substrates and type of anchor.

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- b. String Wires: Minimum 18 gage galvanized steel wire.
- C. Extruded-Polystyrene (XPS) Board Insulation: ASTM C578, Type X, thickness as indicated on drawings.
  - 1. Manufacturers:
    - a. DiversiFoam Products, Certifoam.
    - b. Dow Chemical Company, Thermax.
    - c. Owens Corning, Foamular.
    - d. Or Approved Equal.
  - 2. Physical Properties:
    - a. Density, ASTM D1622: Not less than 1.35 pounds per cubic foot.
    - b. Surface Burning Characteristics, ASTM E84: Flame spread less than 25, smoke developed no greater than 50.
    - c. Compressive Strength, ASTM D1621: 25 psi minimum.
    - d. Thermal Resistance, ASTM C1363: R 5 minimum per inch of thickness.
    - e. Water Vapor Transmission, ASTM E96: Less than 0.03 perms.
    - f. Water Absorption by Volume, ASTM C209: Maximum 0.10 percent.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

- A. Examine Work to verify suitability to receive insulation. Do not proceed until unsatisfactory conditions have been corrected.

### **3.02 INSTALLATION**

- A. General:
  - 1. Fit batt insulation, of R-value indicated on Drawings, snugly between framing members.
  - 2. Maintain total insulation integrity over entire area to be insulated, including areas between closely spaced members.

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3. Extend full thickness insulation over entire area to be insulated. Furnish manufacturer's recommended clips to tightly fit batts at joints.
4. Cut and fit batt insulation tightly around pipes, conduits and penetrations.
5. Do not compress batt insulation in excess of 10 percent (R-19 may be installed in 2 by 6 stud walls).
6. Prevent batt insulation from sagging during and after installation by installing adequate wire.
7. Metal door and window frames in acoustically insulated walls shall be filled with insulation, unless otherwise indicated.
8. Where vapor barrier is provided, install with vapor barrier facing room.
  - a. Batts in Metal Framing: Provide friction-fit batts tightly fitted to stud webs and to metal furring.
  - b. Batts under Metal Roof Decks where underside of insulation will be exposed install foil-faced flanged-type insulation batts and staple flanges together at maximum 4-inch centers and seal joints at abutting vertical surfaces with a pressure-sensitive plastic tape. Where underside of insulation will be inaccessible, install secure with spindle anchors. Provide 18 gage galvanized string wires under batts wherever necessary to prevent sagging. Stretch wire taut.
  - c. Batts in Horizontal or Sloped Applications: Provide tightly stretched string wires along center of horizontal or sloping batts where support spacing exceed 16 inch on centers.
  - d. Batts in Ceiling Framing: Install batts between joists, so top of insulation is level with top of framing members. Do not install insulation over recessed lighting fixtures, speakers, or other heat producing elements in ceilings. At junction boxes, access panels, and other items requiring access from above or below ceiling, cut insulation on each side to fit item and install loosely on top. Fit insulation snugly around ducts, conduits, pipes, and other items projecting through ceiling construction.

### B. Continuous Insulation:

1. Continuous insulation shall be installed in accordance to manufacturer instructions. Fasten the insulation board to the exterior face of the steel stud wall framing using preassembled screw/stress plate fasteners, of type and length as recommended by the manufacturer. Fastener spacing shall be 12" on center at the board perimeter and 16" on center in the field of the board.

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2. Bottom row of insulation panels shall be mounted on foundation casing “J” mold, refer to Section 092423, Cement Plaster and Metal Lath. Fasten insulation boards with corrosion resistant fasteners through sheathing into studs. Use 3/8-inch head roofing nails for wood studs, and self-drilling tapping screws for metal studs, or to “Z” channels, as applicable. Fastener penetration into studs shall be not less than 3/4 inch.
3. Stagger vertical joints at least one stud from adjacent courses.

### **3.03 PROTECTION**

- A. Protect Work of this section until Substantial Completion.

### **3.04 CLEANUP**

- A. Remove rubbish, debris, and waste materials and legally dispose of off Project site.

END OF SECTION

## **SECTION 076000 - FLASHING AND SHEET METAL**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

- A. Section Includes:
  - 1. Sheet metal flashings in connection with roofing.
  - 2. Reglet and counter flashing assemblies.
  - 3. Coping caps.
  - 4. Gravel stops and metal edging.
  - 5. Gutters and downspouts.
  - 6. Splash pans where downspouts empty onto roofing.
  - 7. Conductor heads.
  - 8. Drip flashings.
  - 9. Sheet metal wall coverings.
  - 10. Roof pipe flashings.
  - 11. Roof expansion joint covers.
  - 12. Other sheet metal items, not necessarily specified herein or in other sections, but required to prevent penetration of water into building.
- B. Related Requirements:
  - 1. Division 01 - General Requirements.
  - 2. Section 079200 - Joint Sealants.

#### **1.02 SUBMITTALS**

- A. Shop Drawings: Submit for fabricated sheet metal indicating shapes, details, methods of joining, anchoring and fastening, thicknesses and gages of metals, concealed reinforcement, expansion joint details, sections, and profiles.
- B. Samples: Submit Samples for materials or assemblies as requested.
- C. Product Data: Submit brochures of manufactured items.

#### **1.03 QUALITY ASSURANCE**

- A. Drawings and requirements specified govern. Provide the Work of this section in conformance with the Architectural Sheet Metal Manual published by SMACNA for conditions not indicated or specified and for general fabrication of sheet metal items.
- B. Materials shall conform to following standards:
  - 1. ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip.



## **SECTION 076000 - FLASHING AND SHEET METAL**

2. ASTM A653 - Sheet Steel, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
3. ASTM B370 - Copper Sheet and Strip for Building Construction.

### **1.04 DELIVERY, STORAGE AND HANDLING**

- A. Do not install bent or otherwise damaged materials.

## **PART 2 - PRODUCTS**

### **2.01 MATERIALS**

- A. Galvanized Sheet Steel: ASTM A653, coating designation G90, hot-dip galvanized.
- B. Copper Plate, Sheet and Strip: ASTM B370, cold-rolled, tempered. Copper sheet and strip shall be cold-rolled-temper.
- C. Stainless Steel: Plate, sheet and strip shall conform to ASTM A167, Type 304 or Type 316, No. 4 finish on exposed surfaces and No. 2 finish on concealed surfaces unless otherwise specified or indicated. Furnish Type 304 for general applications and Type 316 where exposed to acidic or alkaline conditions.
- D. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required; with smooth, flat surface.
  1. As-Milled Finish: Standard one-side bright.
- E. Fastenings:
  1. Galvanized Steel: Nails, rivets, and other fastenings furnished in connection with galvanized sheet steel Work shall be sealed with rust resistive coating. Rivets shall be tinned. Nails and other fastenings shall be zinc-coated.
  2. Copper: Nails, rivets, and other fastenings furnished in connection with copper sheet metal Work, shall be manufactured from hard-temper copper or hard brass.
  3. Stainless Steel: Nails, rivets and other fastenings furnished in connection with stainless steel Work, shall be 300 series alloy to match alloy of stainless steel being fastened.
- F. Soldering Flux: Raw muriatic acid for galvanized steel; rosin for tin, lead and tinned copper; non-corrosive soldering salts for uncoated copper and acid-type flux formulated for soldering stainless steel.
- G. Solder: ASTM B32, Grade 5A, composed of 95-5 tin-antimony. Name of product manufacturer and grade designation shall be labeled, stamped or cast onto each coil or bar.

## SECTION 076000 - FLASHING AND SHEET METAL

### 2.02 FABRICATION

#### A. General:

1. Accurately form sheet metal Work to dimensions and shapes indicated and required. Cope finish molded and brake metal shapes with true, straight, sharp lines and angles and, where intersecting each other, to a precise fit. Unless otherwise specified, all galvanized sheet steel shall be 22 gage. Exposed edges of sheet metal shall have a ½ inch minimum hemmed edge.
2. Soldering of sheet steel or copper shall be performed with well-heated copper soldering iron or soldering torch, joints full flowing, neat and consistent. Fill joint completely with solder. Clean materials at joints before soldering, and tin coppers before soldering. Exposed soldering on finished surfaces shall be scraped smooth. Lock seam work shall be fabricated flat and true to line and soldered along its entire length. Acid-fluxed Work shall be neutralized after fabrication.
3. Form and install sheet metal Work to provide proper allowances for expansion and contraction, without causing undue stresses in any part of completed Work. Installation shall be water and weathertight.

#### B. Gutters and Downspouts:

1. Gutters: Fabricate from 22 gage galvanized steel to match existing size and design unless otherwise indicated. Maximum length of gutter shall be 40 feet between end or expansion joints unless the system is specially designed to accommodate the greater expansion, the larger flow and the need for special supports. Drain gutter towards nearest downspout and provide an expansion joint at mid-point between downspout outlets, but not to exceed 40 feet on center. Gutters shall not pond water. Rivet joints and ends with a minimum of 6 rivets per joint or maximum rivet spacing not to exceed 1 ½-inch on center and ½ inch from the edge of the metal, consisting of 3-inch overlap. Sweat solder from inside of gutter and in horizontal position where possible. Neatly fit downspouts to gutter using a slip joint. Provide expansion joints, consisting of 3-inch lap joints at not over feet.
2. Form and install sheet metal Work to provide allowance for expansion and contraction without causing undue stresses in the completed Work.
3. Downspouts: Fabricate downspouts from 3-inch round, or 3-inch by 4-inch rectangular shapes, 16 gage steel tubing with butt joints and mitered elbows, sized as indicated. Downspouts shall be constructed with conductor heads every 40 feet to admit air and prevent vacuum. Keep downspouts offsets to a maximum of 10 feet. Downspout shall be fabricated with elbows at bottom discharge or connected to drains as indicated. Joints, except expansion joints shall be sealed with a continuous weld. Galvanize downspouts after fabrication.
4. Outlets: Fabricate outlets of 22 gage galvanized sheet steel with a 1/4 inch rolled flanged soldered continuously to gutter. Outside diameter shall be 1/8 inch less than the inside diameter of the downspout and extend into

## SECTION 076000 - FLASHING AND SHEET METAL

downspout 4 inches. Install a removable wire "bulb type" strainer to outlet opening. Strainer shall be fabricated of 22 gage galvanized steel and ½ inch hardware cloth.

- C. Conductor Heads:
  - 1. Fabricate conductor heads and outlets from 22 gage galvanized sheet steel. Cover tops of the conductor heads with 22 gage galvanized ¼ inch wire mesh soldered securely to separately fabricated frame and mechanically fastened to top conductor head with a minimum of two fasteners.
- D. Gravel Stops: Provide 24 gage galvanized sheet steel gravel stops wherever roof area drops to a lower level; at the eaves and rake of roof, where roof comes to an abrupt edge, and where indicated. Stops shall be of height indicated and shall be fabricated with two flanges. Horizontal flange shall be not less than 4 inches wide, and vertical flange shall extend down over vertical surfaces of trim or gutter. Gravel stops shall lap 4 inches at ends and corners, and shall be fabricated by notching and interlocking vertical face flanges. Contact surfaces of lapped flanges, including raised areas, vertical face and corners, shall be completely covered with flashing compound. Fabricate lap joints so that they will be in the direction of water flow. Where flanges are over five inches wide, provide 20 gage continuous cleats fastened at 24 inches on center.
- E. Overflow Outlets: Provide galvanized sheet steel overflow outlets at locations and of sizes indicated. Outlets shall extend through full thickness of wall in one continuous piece and completely line the opening. On outside face of wall, top and sides of outlet shall finish 1/2 inch on surface of wall. Bottom of outlet shall project 1 ½ inches beyond face of wall, and shall be bent down slightly. Outlets shall be sealed on the surface of the building. On inside face, side and bottom flanges shall extend not less than 8 inches beyond edge of opening, and not less than 6 inches at top. Outlets shall be installed at time roof is being installed.
- F. Reglet Type Counterflashing: Where roof comes in contact with vertical surfaces, provide counterflashing. Set top of counter flashing 8 inches above roof deck unless otherwise indicated, and extend down at least 5 inches or to top of cant strip. Counterflashing and reglet shall be 22 gage galvanized sheet steel. Lap counter flashing and reglet 3 inches minimum at splices and miter at angles, or supply special metal corner fittings. Reglet and method of securing flashing shall be so constructed that flashing is firmly locked in place, but may be readily removed for replacement.
- G. Splash Pans: Provide splash pans for all downspouts, which empty onto lower roofs. Pans shall be galvanized sheet steel 12-inch by 18-inch, unless otherwise indicated, and turned up 2 inches on at least three sides.
- H. Roof Expansion Joint Covers: Fabricate of 22 gage galvanized sheet steel, as detailed. One side of joint shall be zee shaped, with 3-inch standing leg extended over the joint and turned down. The other side shall be box shaped, fabricated to extend over the joint, over the standing leg, and turn down to form a water barrier. Prefabricated bellows type joint covers are not permitted.

## SECTION 076000 - FLASHING AND SHEET METAL

- I. Miscellaneous Flashing: Unless otherwise indicated, miscellaneous flashing shall be fabricated of galvanized steel. Exterior doors and windows, unless covered by overhangs shall be provided with 22 gage galvanized steel drip flashing as detailed. At wood construction, nail flashing to framing before paper backed lath is installed.
- J. Roof Pipe Flashings: Provide PVC flashings or prefabricated welded or seamless flashings.

### PART 3 - EXECUTION

#### 3.01 PREPARATION

- A. Concrete and masonry materials in contact with sheet metal shall be painted with alkali resistant coating, such as heavy-bodied bituminous paint. Wood in contact with sheet metal shall be painted with two coats of aluminum paint or one coat of heavy-bodied bituminous paint.

#### 3.02 INSTALLATION

- A. General: Coordinate with installation of underlayment indicated in the Drawings.
- B. Gutters and Downspouts:
  - 1. Anchor gutters to structure with 10 gage steel straps, galvanized after fabricating. Secure straps with galvanized fasteners at 3 feet on center. Drill pilot holes and use 12 by 2-inch pan head screws.
  - 2. Install 1/4-inch galvanized wire mesh continuous cover on gutter.
  - 3. Secure downspouts to walls with 1/8 inch by 2-inch galvanized steel straps. Straps shall be located at top, bottom, and at not over 10 feet on center. Block downspouts out 1/2 inch from the finish wall surfaces and 1 inch from the bottom of downspout grade. Secure straps to wall framing with 1/4 inch by 2-inch long galvanized anchors. Expansion type anchors shall be provided when anchoring to concrete and masonry. Provide toggle bolts for attachment to masonry or plaster. At steel columns, provide fasteners as indicated. Plastic anchors are not permitted.
  - 4. Anchor conductor heads to walls with 1/4-inch diameter by 2 1/2-inch long galvanized lag screws or 1/4-inch expansion type anchors.
- C. Reglets: Install reglets at constant height above cant or as indicated. Provide minimum 3-inch lap at end splices of reglets. Seal laps watertight.
- D. Counterflashing:
  - 1. Install at constant horizontal elevation across roof slope and slope at constant height above cant or as indicated.
  - 2. Provide minimum 3-inch lap at all end splices of counterflashing.
- E. Galvanized sheet steel parapet coping and flashing shall be continuous over top of parapet to form a watertight cap, with waterproof seams at approximately 10 feet on center, or as indicated. Anchor coping to outside of wall with a continuous cleat face nailed at 24-inch centers. Coping shall be fastened on inside wall with hex

## **SECTION 076000 - FLASHING AND SHEET METAL**

head screws and bonded sealing washers through oversized holes in the back of the coping. Corners and angles shall be lapped and soldered; do not install joint sealant.

### **3.03 TESTING**

- A. Perform field water testing to demonstrate installation is watertight. Continue testing with a continuous hose stream applied at base of installation for at least 30 minutes. If leaking is observed, discontinue test and repair installation, then test until satisfactory results are obtained.

### **3.04 PROTECTION**

- A. Protect the Work of this section until Substantial Completion.

### **3.05 CLEANING**

- A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

**END OF SECTION**

## SECTION 079200 - JOINT SEALANTS

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Section Includes:
  - 1. Joint sealants.
  - 2. Preparation for application of sealants.
- B. Related Requirements:
  - 1. Division 01 - General Requirements.
  - 2. Section 062000 - Finish Carpentry.
  - 3. Division 08 - Openings.
  - 4. Division 09 – Finishes.

#### 1.02 SUBMITTALS

- A. Shop Drawings: Submit Shop Drawings indicating sealant joint locations, with full-size sealant joint details.
- B. Product Data: Submit manufacturer's literature for each sealant material.
- C. Material Samples: Submit Samples indicating color range available for each sealant material intended for installation in exposed locations.
- D. Certifications: Submit manufacturer's certification materials comply with requirements specified.
- E. Site Samples: At locations required, provide a Sample of sealant for each typical installation, approximately 24 inches long, including joint preparation, backing, sealant and tooling. Allow backing to extend 6 inches beyond end of sealant for inspection of substrate.
- F. Test Reports: Submit manufacturer's adhesion compatibility test reports according to ASTM C794 for each substrate.

#### 1.03 QUALITY ASSURANCE

- A. Qualifications of Installer: The Work of this section shall be installed by a firm which has been in the business of installing similar materials for at least five consecutive years; and can show evidence of satisfactory completion of five

## **SECTION 079200 - JOINT SEALANTS**

projects of similar size and scope. Installer shall have applicators trained and approved by manufacturer for performing this Work.

### **1.04 DELIVERY, STORAGE AND HANDLING**

- A. Store in accordance with manufacturer's recommendations. Provide a uniform ambient temperature between 60- and 80-degrees F.

### **1.05 WARRANTY**

- A. Manufacturer: five-year material warranty.
- B. Installer: two-year installation/application warranty.

## **PART 2 - PRODUCTS**

### **2.01 GENERAL**

- A. Furnish sealants meeting following in-service requirements:
  - 1. Normal curing schedules are permitted.
  - 2. Non-staining, color fastness (resistance to color change), and durability when subjected to intense actinic (ultraviolet) radiation are required.
- B. Furnish the products of only one manufacturer unless otherwise required, sealant colors as selected to match the adjoining surfaces.

### **2.02 MATERIALS**

- A. Sealants:
  - 1. Sealant 1: Acrylic latex, one-part, non-sag, mildew resistant acrylic emulsion compound complying with ASTM C834, Type S, Grade NS, formulated to be paintable.
    - a. Tremco Inc., Acrylic Latex Caulk.
    - b. Pecora Corporation, AC-20.
    - c. Or Approved Equal.
  - 2. Sealant 2: Butyl sealant, one-part, non-sag, solvent-release-curing sealant complying with ASTM C1311, gun grade and formulated with a minimum of 75 percent solids.
    - a. Tremco Inc., Tremco Butyl Sealant.

## SECTION 079200 - JOINT SEALANTS

- b. Pecora Corp., BC-158.
- c. Or Approved Equal.
- 3. Sealant 3: Silicone sealant, one-part non-acid-curing silicone sealant complying with ASTM C920, Type S, Grade NS, Class 25.
  - a. Dow Corning Corp., Dow Corning 790, 791, 795.
  - b. General Electric Co., Silpruf.
  - c. Tremco, Inc., Spectrem 1.
  - d. Pecora Corp., 864.
  - e. Or Approved Equal.
- 4. Sealant 4: One-part mildew-resistant silicone sealant, complying with ASTM C920, Type S, Grade NS, Class 25.
  - a. Dow Corning Corp., Dow Corning 786.
  - b. General Electric Co., Sanitary 1700.
  - c. Tremco, Inc., Proglaze White.
  - d. Or Approved Equal.
- 5. Sealant 5: One-part non-sag urethane sealant, complying with ASTM C920, Type S, Grade NS, Class 25.
  - a. Sika Corporation, Sikaflex -221e.
  - b. Or Approved Equal.
- 6. Sealant 6: Multi-part pouring urethane sealant, complying with ASTM C920, Type M, Grade P, Class 25.
  - a. Sika Corporation, Sikaflex 2C NS/SL.
  - b. Or Approved Equal.
- 7. Sealant 7: Acoustical sealant, non-drying, non-hardening permanently flexible conforming to ASTM D217.
  - a. Pecora Corp., BA-98 Acoustical Sealant.
  - b. Or Approved Equal.



## **SECTION 079200 - JOINT SEALANTS**

- B. See 07 8413 - Penetration Firestopping for rated sealants.
- C. Joint Backing: ASTM D1056; round, closed cell Polyethylene Foam Rod; oversized 30 to 50 percent larger than joint width, reticulated polyolefin foam.
- D. Primer: Non-Staining Type. Provide primer as required and shall be product of manufacturer of installed sealant.
- E. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer.
- F. Sealants shall have normal curing schedules, shall be non-staining, color fast and shall resist deterioration due to ultraviolet radiation.

### **PART 3 - EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that joint openings are ready to receive Work and field tolerances are within the guidelines recommended by sealant manufacturer.

#### **3.02 SURFACE PREPARATION**

- A. Joints and spaces to be sealed shall be completely cleaned of all dirt, dust, mortar, oil, and other foreign materials which might adversely affect sealing Work. Where necessary, degrease with a solvent or commercial degreasing agent. Surfaces shall be thoroughly dry before application of sealants.
- B. If recommended by manufacturer, remove paint and other protective coatings from surfaces to be sealed before priming and installation of sealants.
- C. Preparation of surfaces to receive sealant shall conform to the sealant manufacturer's specifications. Provide air pressure or other methods to achieve required results. Provide masking tape to keep sealants off surfaces that will be exposed in finished Work.
- D. Etch concrete or masonry surfaces to remove excess alkalinity, unless sealant manufacturer's printed instructions indicate that alkalinity does not interfere with sealant bond and performance. Etch with 5 percent solution of muriatic acid; neutralize with dilute ammonia solution, rinse thoroughly with water and allow to dry before sealant installation.
- E. Perform preparation in accordance with ASTM C804 for solvent release sealants, and ASTM C962 for elastomeric sealants.
- F. Protect elements surrounding Work of this section from damage or disfiguration.

## SECTION 079200 - JOINT SEALANTS

### 3.03 SEALANT APPLICATION SCHEDULE

	<u>Location</u>	<u>Type</u>	<u>Color</u>
A.	Exterior door, entrance and window frames. Exterior and interior vertical joints in concrete and masonry metal flashing.	Sealant 3 or 5	To match adjacent material
B.	All interior joints not otherwise scheduled	Sealant 1	To Match Adjacent Surfaces
C.	Heads and sills, perimeters of frames and other openings in insulated partitions	Sealant 7	Match Adjacent Surfaces

### 3.04 APPLICATION

- A. Provide sealant around all openings in exterior walls, and any other locations indicated or required for structure weatherproofing and/or waterproofing.
- B. Sealants shall be installed by experienced mechanics using specified materials and proper tools. Preparatory Work (cleaning, etc.) and installation of sealant shall be as specified and in accordance with manufacturer's printed instructions and recommendations.
- C. Concrete, masonry, and other porous surfaces, and any other surfaces if recommended by manufacturer, shall be primed before installing sealants. Primer shall be installed with a brush that will reach all parts of joints to be filled with sealant.
- D. Sealants shall be stored and installed at temperatures as recommended by manufacturer. Sealants shall not be installed when they become too jelled to be discharged in a continuous flow from gun. Modification of sealants by addition of liquids, solvents, or powders is not permitted.
- E. Sealants shall be installed with guns furnished with proper size nozzles. Sufficient pressure shall be furnished to fill all voids and joints solid. In sealing around openings, include entire perimeter of each opening, unless indicated or specified otherwise. Where gun installation is impracticable, suitable hand tools shall be provided.
- F. Sealed joints shall be neatly pointed on flush surfaces with beading tool, and internal corners with a special tool. Excess material shall be cleanly removed. Sealant, where exposed, shall be free of wrinkles and uniformly smooth. Sealing shall be complete before final coats of paint are installed.

## **SECTION 079200 - JOINT SEALANTS**

- G. Comply with sealant manufacturer's printed instructions except where more stringent requirements are indicated on Drawings or specified.
- H. Partially fill joints with joint backing material, furnishing only compatible materials, until joint depth does not exceed 1/2 inch joint width. Minimum joint width for metal to metal joints shall be 1/4 inch. Joint depth, shall be not less than 1/4 inch and not greater than 1/2 inch.
- I. Install sealant under sufficient pressure to completely fill voids. Finish exposed joints smooth, flush with surfaces or recessed as indicated. Install non-tracking sealant to concrete expansion joints subject to foot or vehicular traffic.
- J. Where joint depth prevents installation of standard bond breaker backing rod, furnish non-adhering tape covering to prevent bonding of sealant to back of joint. Under no circumstances shall sealant depth exceed 1/2 inch maximum, unless specifically indicated on Drawings.
- K. Prime porous surfaces after cleaning. Pack joints deeper than 3/4 inch with joint backing to within 3/4 inch of surface. Completely fill joints and spaces with gun applied compound, forming a neat, smooth bead.

### **3.05 MISCELLANEOUS WORK**

- A. Sealing shall be provided wherever required to prevent light leakage as well as moisture leakage. Refer to Drawings for condition and related parts of Work.
- B. Install sealants to depths as indicated or, if not indicated, as recommended by sealant manufacturer but within following general limitations:
  - 1. For joints in concrete walks, slab and paving subject to traffic, fill joints to a depth equal to 75 percent of joint width, but not more than 3/4 inch deep or less than 3/8 inch deep, depending on joint width.
  - 2. For building joints, fill joints to a depth equal to 50 percent of joint width, but not more than 1/2 inch deep or less than 1/4 inch deep.

### **3.06 CLEANING**

- A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

### **3.07 CURING**

- A. Sealants shall cure in accordance with manufacturer's printed recommendations. Do not disturb seal until completely cured.

**SECTION 079200 - JOINT SEALANTS**

**3.08 PROTECTION**

- A. Protect the Work of this section until Substantial Completion.

**END OF SECTION**

## **SECTION 085213 - ALUMINUM-CLAD WOOD WINDOWS**

### **PART 1 GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Aluminum-clad wood direct set fixed and awning windows.

#### **1.2 RELATED SECTIONS**

- A. Section 072719 – Plastic Sheet Air Barriers: Water-resistant barrier.
- B. Section 079200 - Joint Sealants: Sealants and caulking.

#### **1.3 REFERENCES**

- A. American Architectural Manufacturers Association (AAMA):
  - 1. AAMA 502 - Voluntary Specification for Field Testing of Windows and Sliding Doors.
  - 2. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
  - 3. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- B. American Society for Testing and Materials (ASTM):
  - 1. ASTM B 117 - Operating Salt Spray (Fog) Apparatus.
  - 2. ASTM C 1036 - Flat Glass.
  - 3. ASTM C 1048 - Heat-Treated Flat Glass – Kind HS, Kind FT Coated and Uncoated Glass.
  - 4. ASTM D 1149 - Rubber Deterioration – Surface Ozone Cracking in a Chamber.
  - 5. ASTM D 2803 - Filiform Corrosion Resistance of Organic Coatings on Metal.
  - 6. ASTM D 3656 - Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Yarns.
  - 7. ASTM D 4060 - Abrasion Resistance of Organic Coatings by the Taber Abraser.

## **SECTION 085213 - ALUMINUM-CLAD WOOD WINDOWS**

8. ASTM E 283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Difference Across the Specimen.
9. ASTM E 330 - Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
10. ASTM E 547 - Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential.
11. ASTM E 1105 – Standard Test Method for Field Determination of Water Penetration of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
12. ASTM G 85 - Modified Salt Spray (Fog) Testing.
- C. Screen Manufacturers Association (SMA):
  1. SMA 1201 - Specifications for Insect Screens for Windows, Sliding Doors and Swinging Doors.
- D. Window and Door Manufacturers Association (WDMA):
  1. AAMA/WDMA/CSA 101/I.S.2/A440 – North American Fenestration Standard/Specification for windows, doors and skylights
  2. WDMA I.S.4 - Industry Specification for Preservative Treatment for Millwork.

### **1.4 PERFORMANCE REQUIREMENTS**

- A. Windows shall be Hallmark certified to a rating of CW-PG 40 specifications in accordance with ANSI/AAMA/WDMA 101/I.S.2/A440-08 or ANSI/AAMA/WDMA 101/I.S.2/A440-11.
- B. Window Unit Air Leakage, ASTM E 283, 1.57 psf (25 mph): 0.05 cfm per square foot of frame or less.
- C. Window Unit Water Penetration: No water penetration through window unit when tested in accordance with ASTM E 547, under static pressure of 7.5 psf (52 mph) after 4 cycles of 5 minutes each, with water being applied at a rate of 5 gallons per hour per square foot.
- D. Energy Efficiency Rating per Title 24 on Drawings as required.

### **1.5 SUBMITTALS**

- A. Comply with Division 1 requirements.

## **SECTION 085213 - ALUMINUM-CLAD WOOD WINDOWS**

- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, indicating dimensions, construction, component connections and locations, anchorage methods and locations, hardware locations, and installation details.
- D. Warranty: Submit manufacturer's standard warranty.

### **1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Delivery: Deliver materials to site undamaged in manufacturer's or sales branch's original, unopened containers and packaging, with labels clearly identifying manufacturer and product name. Include installation instructions.
- B. Storage: Store materials in an upright position, off ground, under cover, and protected from weather, direct sunlight, and construction activities.
- C. Handling: Protect materials and finish during handling and installation to prevent damage.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURER**

- A. Pella Corporation. (Basis of Design)
- B. Andersen Windows
- C. Marvin Windows
- D. Or Approved Equal.

### **2.2 ALUMINUM-CLAD WOOD WINDOWS**

- A. Aluminum-Clad Wood Awning Windows: Pella Reserve factory-assembled aluminum-clad wood windows with outward-opening sash installed in frame.
  - 1. Frame:
    - a. Select woods, water-repellent, preservative-treated with EnduraGuard® in accordance with WDMA I.S.-4. EnduraGuard includes water-repellency, three active fungicides and an insecticide applied to the frame.
    - b. Interior Exposed Surfaces: [Pine.

## SECTION 085213 - ALUMINUM-CLAD WOOD WINDOWS

- c. Exterior Surfaces: Clad with aluminum.
    - d. Overall Frame Depth: 5 inches (127 mm).
  - 2. Sash:
    - a. Select woods, water water-repellent, preservative-treated with EnduraGuard in accordance with WDMA I.S.-4. EnduraGuard includes water-repellency, three active fungicides and an insecticide applied to the sash.
    - b. Interior Exposed Surfaces: Pine.
    - c. Exterior Surfaces: Clad with aluminum, lap-jointed at corners.
    - d. Corners: Mortised and tenoned, glued and secured with metal fasteners.
    - e. Sash Thickness: 1-13/16 inches (46 mm).
  - 3. Weather Stripping:
    - a. Dual weather stripping.
    - b. Units shall have welded corners, compressed between frame and sash for positive seal on all 4 sides.
    - c. Secondary uPVC leaf-type weather strip between sash and frame for positive seals on all 4 sides.
- B. Aluminum-Clad Wood Fixed-Frame Windows: Pella factory-assembled, aluminum-clad wood, fixed-frame windows.
- 1. Frame:
    - a. Select woods, water-repellent, preservative-treated with EnduraGuard® in accordance with WDMA I.S.-4. EnduraGuard includes water-repellency, three active fungicides and an insecticide applied to the frame.
    - b. Interior Exposed Surfaces: Clear Pine.
    - c. Exterior Surfaces: Clad with aluminum.
    - d. Assembled with screws.
    - e. Overall Frame Depth: 5 inches (127 mm).



## SECTION 085213 - ALUMINUM-CLAD WOOD WINDOWS

### 2.3 GLAZING

#### A. Glazing:

1. Float Glass: ASTM C 1036, Quality 1.
  - a. Tempered Glass where required by code: ASTM C 1048.
2. Type: Silicone-glazed 1 1/16-inch dual-seal, [annealed] [tempered] insulating glass, [clear] [multi-layer Low-E coated with argon] [bronze air-filled multi-layer, Low-E coated] [gray air-filled multi-layer, Low-E coated] [green air-filled multi-layer, Low-E coated].

### 2.4 OPTIONS

#### A. Insect Screens: Standard.

1. Compliance: ASTM D 3656 and SMA 1201.
2. Screen Cloth: Vinyl-coated fiberglass, 18/16 mesh.
3. Set in aluminum frame fitted to inside of window.
4. Complete with necessary hardware.
5. Screen Frame Finish: Baked enamel Black.

### 2.5 HARDWARE

#### A. Awning

1. Awning Operator:
  - a. Steel worm-gear operator with hardened gears.
  - b. Operator Base: Zinc die cast with painted finish.
  - c. Operator Linkage, Hinge Slide, and Hinge Arms: Stainless steel.
  - d. Exposed Fasteners: Stainless steel.
  - e. External Hardware Salt Spray Exposure, ASTM B 117: Exceed 1,000 hours.
2. Awning Locking System: SureLock System.
  - a. Single-handle locking system.

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- b. Operate positive-acting arms that reach out and pull sash into locked position.
    - c. Awning Windows: One installed on sash 29 inches and smaller in frame width, 2 unison operating locks installed on sash over 29 inches in frame width.
  - 3. Awning Type and Style: Wash Hinge Hardware, Fold-Away Crank and Limited Opening Hardware.
- B. Hardware Finish
- 1. Matte Black. As approved by OWNER.

### **2.6 TOLERANCES**

- A. Windows shall accommodate the following opening tolerances:
- 1. Vertical Dimensions Between High and Low Points: Plus 1/4 inch, minus 0 inch.
  - 2. Width Dimensions: Plus 1/4 inch, minus 0 inch.
  - 3. Building Columns or Masonry Openings: Plus or minus 1/4 inch from plumb.

### **2.7 FINISH**

- A. Exterior Finish System: Per MFR'S. – As approved by OWNER. (Provide submittals for review as required.)
- 1. Exterior aluminum surfaces shall be finished with the following multi-stage system:
    - a. Clean and etch aluminum surface of oxides.
    - b. Pre-treat with conversion coating.
    - c. Topcoat with baked-on polyester enamel.
  - 2. Color: As approved by OWNER.
  - 3. Performance Requirements: Exterior aluminum finishes shall meet or exceed all performance requirements of AAMA 2603 and the following performance requirements of AAMA 2605:
    - a. Dry Film Hardness: Eagle Turquoise Pencil, H minimum.

## **SECTION 085213 - ALUMINUM-CLAD WOOD WINDOWS**

- b. Film Adhesion: 1 mm crosshatch, dry, wet, boiling water.
  - c. Impact Resistance: 1/10-inch distortion, no film removal.
  - d. Chemical Resistance: 10 percent Muriatic acid, 15 minutes. Mortar pat test, 24 hours.
  - e. Detergent Resistance: 3 percent at 100 degrees F, 72 hours.
  - f. Corrosion Resistance: ASTM G85-A5, 2000 hours. Humidity. 3,000 hours. Salt spray exceeds 3,000 hours.
- B. Interior Finish: Factory finished stain. Color: Black. As approved by OWNER.

### **2.8 INSTALLATION ACCESSORIES**

- A. Flashing/Sealant Tape: Pella SmartFlash or equivalent.
- 1. Aluminum-foil-backed butyl window and door flashing tape.
  - 2. Maximum Total Thickness: 0.013 inch.
  - 3. UV resistant.
  - 4. Verify sealant compatibility with sealant manufacturer.
- B. Exterior/interior Perimeter Closed Cell Backer Rod and Sealant: "Pella Window and Door Installation Sealant" or equivalent high quality, multi-purpose sealant as specified in the joints sealant section.

### **2.9 SOURCE QUALITY CONTROL**

- A. Factory Testing: Factory test individual standard operable windows for air infiltration in accordance with ASTM E 283, to ensure compliance with this specification.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine areas to receive windows. Notify Architect of conditions that would adversely affect installation or subsequent use. Do not proceed with installation until unsatisfactory conditions are corrected.

### **3.2 INSTALLATION**

- A. Install windows in accordance with manufacturer's instructions and approved shop drawings.

## **SECTION 085213 - ALUMINUM-CLAD WOOD WINDOWS**

- B. Install windows to be weather-tight and freely operating.
- C. Maintain alignment with adjacent work.
- D. Secure assembly to framed openings, plumb and square, without distortion.
- E. Integrate window system installation with exterior water-resistant barrier using flashing/sealant tape. Apply and integrate flashing/sealant tape with water-resistant barrier using watershed principles in accordance with window manufacturer's instructions.
- F. Place interior seal around window perimeter to maintain continuity of building thermal and air barrier using backer rod and sealant.
- G. Seal window to exterior wall cladding with sealant and related backing materials at perimeter of assembly.
- H. Leave windows closed and locked.

### **3.3 CLEANING**

- A. Clean window frames and glass in accordance with Division 1 requirements.
- B. Do not use harsh cleaning materials or methods that would damage finish.
- C. Remove labels and visible markings.

### **3.4 PROTECTION**

- A. Protect installed windows to ensure that, except for normal weathering, windows will be without damage or deterioration at time of substantial completion.

**END OF SECTION**

## SECTION 09 2423 - CEMENT PLASTER AND METAL LATH

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Section Includes:
  - 1. Lath and Portland cement plaster and stucco.
  - 2. Lath and scratch coat of Portland cement plaster as a substrate for ceramic wall tile.
- B. Related Requirements:
  - 1. Division 01 - General Requirements.
  - 2. Section 061000 - Rough Carpentry.
  - 3. Section 061643 - Gypsum Sheathing.
  - 4. Section 072100 - Thermal Insulation.
  - 5. Section 072719 - Plastic Sheet Air Barriers.

#### 1.02 SYSTEM DESCRIPTION

- A. Continuous Insulation Under Cement Plaster: Three coat 7/8" cement plaster with fiberglass reinforcing mesh on metal lath over rigid foam insulation with drainage channels over water resistive barrier over plastic sheet air barrier over sheathing over metal studs.
- B. Continuous Insulation on Z Channels Under Cement Plaster: Three coat 7/8" cement plaster with fiberglass reinforcing mesh on metal lath over water resistive barrier over plastic sheet air barrier over rigid foam insulation mounted on steel Z channels with foam tape over sheathing over metal studs.
- C. Three coat 7/8" cement plaster on metal lath over water resistive barrier over plastic sheet air barrier over sheathing over metal studs.
- D. Two coat 1/2" to 5/8" cement plaster on metal lath over CMU.
- E. Two coat 1/2" to 5/8" cement plaster over CMU.
- F. Two coat 1/2" to 5/8" cement plaster over concrete.
- G. Two coat 1/2" to 5/8" cement plaster over concrete.
- H. Soffits and ceilings: Three coat 7/8" cement plaster on metal lath over suspended metal framing.

## SECTION 09 2423 - CEMENT PLASTER AND METAL LATH

- I. One coat cement plaster base for ceramic tile installation.

### 1.03 REFERENCES

#### A. ASTM International (ASTM):

1. ASTM A153 – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
2. ASTM A510 - Standard Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel, and Alloy Steel.
3. ASTM A641 – Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
4. ASTM A653 – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
5. ASTM C150 – Standard Specification for Portland Cement.
6. ASTM C206 – Standard Specification for Finishing Hydrated Lime.
7. ASTM C841 - Standard Specification for Installation of Interior Lathing and Furring.
8. ASTM C847 - Standard Specification for Metal Lath.
9. ASTM C897 – Standard Specification for Aggregate for Job Mixed Portland Cement-Based Plasters.
10. ASTM C926 – Standard Specification for Application of Portland Cement-Based Plaster.
11. ASTM C932 - Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.
12. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness.
13. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
14. ASTM C1063 - Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster.
15. ASTM C1116 – Standard Specification for Fiber-Reinforced Concrete.

## **SECTION 09 2423 - CEMENT PLASTER AND METAL LATH**

16. ASTM E1190 – Standard Test Methods for Power-Actuated Fasteners Installed in Structural members.

**B. Federal Specifications (FS):**

1. FS FF-N-105: Nails, Brads, Staples and Spikes: Wire, Cut and Wrought.
2. UU-B-790A: Building Paper, Vegetable Fiber: (Kraft, Waterproofed, Water Repellent, and Fire Resistant).

**C. International Code Council (ICC):**

1. ICC-ES AC11: Acceptance Criteria for Cementitious Exterior Wall Coatings.
2. ICC-ES AC 191: Acceptance Criteria for Metal Plaster Bases (Lath).

### **1.04 SUBMITTALS – All products to match existing conditions.**

- A. Product Data: Submit manufacturer's product data for each material and component proposed for installation.
- B. Plaster Samples: Submit minimum 48-inch by 48-inch samples of each stucco and Portland cement plaster texture for review. Samples shall be representative of texture, color, and proposed fabrication and finish quality. Maintain reviewed Samples on Project site for reference.
- C. Accessories Samples: Submit 12 inch long samples of metal lath accessories: control joints, expansion joints, corner reinforcements, reveals and screeds.
- D. Certificates: Submit test reports or ICC Evaluation Reports indicating that materials are in compliance with CBC requirements. Cementitious materials shall meet the acceptance requirements of ICC AC11, and metal lath the acceptance requirements of ICC AC191.

### **1.05 QUALITY ASSURANCE**

- A. Mock-ups: - As requested by OWNER for review and approval.
  1. Constructed separately from the building but on Project site.
  2. Constructed as part of the building.
  3. Provide a mock-up at least 10-foot wide by 10-foot high. Include at least one control joint and, corner condition and one window opening flashing. Locate where indicated by the ARCHITECT.
  4. Mock-up shall be constructed by the same personnel who will be erecting the different components of the wall assembly on the project, overseen by the

## **SECTION 09 2423 - CEMENT PLASTER AND METAL LATH**

same personnel who will be acting as acting as supervisors during actual construction, and built with the same construction techniques and materials that will be used on the project.

5. Wall/window assembly will be tested by a lab retained by the OWNER for air and water infiltration in accordance to ASTM E1105 and ASTM E783.

- B. Pre-Installation Conference: CONTRACTOR shall coordinate and conduct pre-installation conference in accordance to Section 013119, Project Meetings, to review the progress of construction activities and preparations for the installation of metal lath and cement plaster and other related work of this Section.

### **1.06 DELIVERY, STORAGE AND HANDLIN**

- A. Store weather sensitive materials under cover, off the ground, and kept in a dry condition until ready for use.
- B. Deliver materials to the Project site in manufacturer's sealed and labeled packages.

## **PART 2 - PRODUCTS**

### **2.01 METAL LATH AND WEATHER RESISTIVE BACKING**

- A. Metal Lath:

1. Walls and Ceilings: Diamond mesh expanded metal lath, in conformance to ASTM C847, without paper backing. 3.4 pounds per square yard, hot-dip galvanized coating G60 in accordance with ASTM A653. Alabama Metal Industries Corporation (AMICO), California Expanded Metal Products Company (CEMCO), ClarkDietrich, Marino-Ware, or equal.
  - a. 3.4 Expanded Metal Lath V-grooved self-furring type for installation over sheathing. Lath shall be furred out a minimum of 1/4 inch when installed over a solid surface in accordance to DSAIR 25-4.
  - b. Flat type for installation over spaced framing.
2. Walls: Self-furring Welded Wire Lath: Weight 1.95 pounds per square yard, with Class 1 galvanized coating in conformance to ASTM A641. Structa Mega Lath per ICC ESR-2017, as manufactured by Structa Wire Corp, or equal.
3. Walls & Ceilings: Self-furring Welded Wire Lath: Weight 2.2 pounds per square yard, with Class 1 galvanized coating in conformance to ASTM A641 with heavy perforated Kraft paper. V-Truss per ICC ESR-2017, as manufactured by Structa Wire Corp, or equal.



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### B. Water Resistive Barrier Backing for Metal Lath:

1. One layer of asphalt saturated, water resistant Kraft paper backing conforming to Fed Spec UU-B-790A and ASTM E2556 Type II, manufactured by Fortifiber, Davis Wire, Leather back, or equal. Furnish for exterior plastering (except on soffits and ceilings), and for mortar-set ceramic wall tile.

### C. Self-Adhered Flashing:

1. Compatible with the Plastic Sheet Air Barrier, minimum 25 mils thick, self-sealing and waterproof.

## 2.02 METAL LATH ACCESSORIES

### A. Materials: Minimum 0.0172 inch galvanized steel or 0.0207 zinc alloy with expanded wings. PVC is not permitted. Furnish casing beads, expansion and control joints, weep and vent screeds.

### B. Manufacturers: Alabama Metal Industries Corporation (AMICO), California Expanded Metal Products Company (CEMCO), ClarkDietrich, Stockton Products, Marino-Ware, equal.

### C. Products:

1. Exterior Stress Relief Joints: Sizes and profiles, indicated or required. Control joints shall have expanded wings when attachment flange is installed above the primary water-resistant barrier.
2. Expansion Joints: Two piece sections designed to accommodate expansion, contraction and shear forces. Industry generic name: M-Slide Expansion Joint 2 piece joint.
3. Control Joints: One-piece sections, with flange designed to engage plaster. Grounds shall provide full 7/8 inch thickness of cement plaster. Industry generic name: XJ-15.
4. Soffit Drip Screed: Similar to Stockton Products No. 5, with key holes.
5. Casing Beads: Expanded or standard flange type with 7/8 inch grounds to establish plaster thickness. Industry generic names: J-Mold or # 66.
6. Welded Wire Corner Reinforcement: 2-5/8 inch wire wings square or bullnose. Industry generic name: CornerAid.
7. Inner Corner Reinforcement: Shaped reinforcing expanded metal with 3 inch legs, for angle reinforcement. Industry generic name: Cornerite.

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8. Lath Reinforcement: Flat expanded metal lath reinforcing units. Industry generic name: Striplath.
9. Outside Corner Reinforcing: 2 1/2" legs Class 1 Galvanized Coating complying with ASTM A641. VTruss Straight Corner per ICC ESR-2017, as manufactured by Structa Wire Corp, or equal.
10. Ventilating Screeds: Soffit, attic, fascia, edge, channel and expansion channel vent screeds, perforated web type, with integral plaster grounds, of sizes indicated on drawings.
11. Foundation Weep Screeds: Integral plaster ground and weep screed; 3-1/2" minimum attachment flange. Industry generic name: #7 Weep Screed.
12. Foundation Casing at Walls with Continuous Insulation: Custom shaped galvanized steel "J" mold with weep holes. Width shall be sized to accommodate insulation thickness plus 7/8-inch plaster.

### 2.03 LATH FASTENERS

- A. Fasteners through Continuous Insulation: Fastener spacing as indicated on drawings.
  1. Wood Studs: Fasteners shall be corrosion resistant screws.
  2. Metal Studs: Corrosion resistant coated wafer head steel [#8] [#10] screws with length that penetrates framing steel thickness plus three threads minimum.
- B. Fasteners at Locations with no Continuous Insulation:
  1. Wood Studs: Fasteners shall be corrosion resistant.
    - a. Nails: In accordance to FS FF-N-105, 0.113 with a 3/8-inch diameter head with length that penetrates wood framing (exclusive of sheathing) 3/4 inch minimum.
    - b. Screws: Type A, in accordance to ASTM C1002, length that penetrates wood framing (exclusive of sheathing) 3/4 inch minimum.
    - c. Staples: In accordance to FS FF-N-105. Minimum 3/4 inch crown, 0.053 inch steel. Staples shall have sufficient length to penetrate studs at least 3/4 inch.
  2. Metal Studs: Wafer head type S or S-12, corrosion resistant, with length to penetrate framing steel thickness plus three threads minimum.
    - a. Screws for fastening to steel members from 0.033 inch to 0.112 inch in thickness shall be in accordance to ASTM C954.

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- b. Screws for fastening to steel members 0.033 inch in thickness and less shall be in accordance to ASTM C1002.
- C. Fasteners for Concrete and CMU Substrates: Power Actuated Fasteners: For attachment of lath to concrete and concrete masonry, recommended by manufacturer for the specific use intended. Minimum 3/4 inch long hardened drive style pin with a 1/2 inch diameter style washer. Fasteners shall be corrosion resistant and provide minimum withdrawal resistance of 50 pounds minimum.
- D. Wire: Wire for fastening lath to supports, tying ends and edges of lath sheets, and securing accessories to lath, 0.0475-inch diameter (# 18 wire). Galvanized soft-annealed steel wire in conformance to ASTM A641.

### 2.04 PLASTER MATERIALS

- A. Factory Blended Portland Cement Plaster Basecoats and Finish: Products as fabricated by California Stucco, La Habra, Parex, Shamrock Stucco, Merlex, Omega Stucco, Inc., Expo Stucco, Spec Mix, Quikrete, CTS, Sika, or other manufacturer member of the Stucco Manufacturer's Association (SMA).
  - 1. Material Standards: Shall conform to ASTM C920.
  - 2. Three Coat Systems:
    - a. Scratch and Brown Coats: Factory blended fiber reinforced plaster and sand mix conforming to ASTM C926, and requiring only the addition of water. Total thickness of coats: 3/4 inch.
    - b. Finish Coat: Factory blended cementitious stucco color coat, integrally colored with fade-resistant pigments. Coat thickness 1/8 inch.
      - 1) Finish: Match Existing.
      - 2) Color: As approved by OWNER.
  - 3. Two Coat Systems:
    - a. Brown Coat: Factory blended fiber reinforced plaster and pre-mixed with sand conforming to ASTM C926, and requiring only the addition of water. Coat thickness 3/8 to 1/2 inch.
    - b. Finish Coat: Factory blended cementitious stucco color coat, integrally colored with fade-resistant pigments. Coat thickness 1/8 inch.
      - 1) Finish: Match Existing.

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- 2) Color: As approved by OWNER.
4. Crack Isolation System:
  - a. Fiberglass Reinforcing Mesh (Lamina): 4.5 oz. Mesh, alkali resistant, compatible with plaster finish.
  - b. Base Coat: Polymer cement base/skim coat, compatible with plaster finish.
- B. Water: Clean, potable and from domestic source.
- C. Plaster Bonding Agent: In conformance to ASTM C932 and formulated for exterior use. "Weld-Crete", manufactured by Larsen Products Co., or equal.
- D. Bonding Agent: 100% acrylic emulsion additive, Parex USA Adacryl Admix & Bonder or equal.
- E. Flashing: Single ply self-adhesive waterproofing membrane as manufactured by W.R. Grace Company, Jiffy-Seal by Protecto Wrap, W.R. Meadows, Inc., or equal. Furnish for installation behind stress relief joints and backing on horizontal and vertical surfaces exposed to weather; under metal copings and flashings; and window jambs and sills.
- F. Continuous Insulation: Refer to Section 072100, Thermal Insulation.
- G. Miscellaneous Materials: Provide additional components and materials required for a complete installation.

### PART 3 - EXECUTION

#### 3.01 EXAMINATION

- A. Verify that installation of plastic sheet air barrier and flashings, per Section 07 2719, and continuous insulation per Section 072100 are complete before starting Work of this Section.

#### 3.02 INSTALLATION-OF WATER RESISTIVE BARRIER

- A. Install one layer of water resistant barrier over air barrier. Install Kraft paper horizontally with each course weather lapped 2 inches over layer below and 6 inches on ends.
- B. Repair and seal tears and holes in water resistive barrier prior to installing lath.
- C. Install single ply self-adhesive flashing per manufacturer's recommendations in areas indicated on the Drawings and at locations where the plaster will be in less than a 60

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degree plane or where water can pond, with a six inches extension onto the vertical wall surface. Apply self-adhesive flashing in a "shingle fashion".

### **3.03 INSTALLATION OF LATH AND LATH ACCESSORIES**

- A. Exterior Lathing, General: Install in conformance to ASTM C1063 and CBC Chapter 25.
- B. Install longest length of metal lath as possible. Do not use pieces shorter than six feet in length. Attach lath to framing supports not more than seven (7) inches apart along framing supports only.
- C. Apply metal lath with long dimension at right angles to framing or furring supports and lap lath a minimum 1/2 inch at sides and minimum 1 inch on ends. Lap wire lath minimum one mesh on sides and ends. Stagger vertical laps at least 16 inches. Lath shall lap flanges of solid flanged trim accessories by a minimum of 50%.
- D. Ends of lath on open framing (unsheathed) shall occur over supports. Where necessary, install additional studs to provide support for lath ends and support for separate flanges of stress relief joints.
- E. Install trim accessories plumb, level and straight, attachments should not exceed 24 inches on center.
- F. Lath shall not be continuous through control joints. Two-piece Expansion Joints shall have the lath cut, be attached to framing and lath lap the flanges. Place control joints as indicated on elevations. Water resistant barrier shall be continuous behind all control joints and vertical reveals.
- G. Install a weep screed at or below foundation plate line on exterior stud walls in conformance to CBC section 2512. Screed shall be of a type permitting water to drain to exterior of building. Weather-resistant barrier and exterior lath shall cover and terminate on attachment flange of screed.
- H. Powder Actuated Fasteners shall be used on concrete/masonry substrates when lath is applied. Fasteners shall be driven home and avoid spalling of concrete. Pattern shall simulate that of framed walls.
- I. Interior Lathing, General: Install in conformance to ASTM C841 and CBC Chapter 25.
- J. Metal lath shall be fastened to metal supports with specified fastener spaced not more than 6 inches apart or with other recognized fasteners.

### **3.04 PLASTER APPLICATION - GENERAL**

- A. Verify that installation of lath is complete prior to start plastering. Notify the Technical Service Information Bureau upon completion of lath and prior to start of

## SECTION 09 2423 - CEMENT PLASTER AND METAL LATH

plaster to schedule a lathing installation compliance meeting. TSIB will submit a written field observation report delineating any deficiencies. Site meeting shall be coordinated with OAR.

- B. Proportion, mix, apply, and cure plaster in conformance with ASTM C926 and CBC Chapter 25.
- C. Install each plaster coat to an entire wall or ceiling panel without interruption to avoid cold joints and abrupt changes in uniform appearance of succeeding coats. Wet plaster shall abut existing plaster at naturally occurring interruptions in plane of plaster (such as corner angles, openings and control joints) wherever possible. Cut joining, where necessary, square and straight and at least 6 inches away from a joining in preceding coat.
- D. Provide sufficient moisture or curing methods to permit continuous and complete hydration of cementitious materials, considering climatic and Project site conditions. If water cured, each basecoat shall be continuously damp for at least 48 hours, including weekends and holidays.
- E. Provide sufficient time between coats to permit each coat to cure or develop enough rigidity to resist cracking or other damage when next coat is installed.

### 3.05 EXTERIOR PLASTERING

- A. Concrete surfaces, except where noted as "Exposed Concrete" or "Painted Concrete," shall be finished with stucco finish coats, as specified and approved by OWNER.
- B. Preparation of Concrete and Masonry Surfaces:
  - 1. Exterior concrete and masonry surfaces to be plastered shall be free of oily or waxy substances, and loose or foreign material. Uniformly spray with nozzle-type water spray at least 12 hours before installation of plaster or as required to control suction.
  - 2. Concrete and masonry surfaces to receive two coat application of 5/8 inch thick Portland cement plaster shall be treated with bonding agent. This surface preparation shall not be installed instead of a brown coat of plaster.
  - 3. Concrete surfaces to receive stucco dash finish shall be lightly sandblasted to provide a roughened surface.
  - 4. Verify that lath has been installed securely and that grounds, screeds, casing beads and other accessories are straight, in correct position, and securely fastened in place.
- C. Mixing: Provide plaster mix: cementitious materials and aggregate in proportions specified, furnishing only sufficient water to obtain proper consistency before installation. Do not mix any more material at any time than can be installed within

## SECTION 09 2423 - CEMENT PLASTER AND METAL LATH

1/2 hour after mixing. Do not re-temper. Add only enough water to allow proper application of cement plaster.

### D. Application:

1. Bond Coat: on concrete or masonry surfaces, leave undisturbed, and maintain damp for at least 24 hours following installation. Dash bond coat may be omitted when liquid bonding agent is used.
2. Scratch Coat: Install with sufficient material to completely cover laths and scratch across supports.
3. Brown Coat: Rod to a straight, true, even within 1/4 inch tolerance in 5 feet of surface and consolidate surface with a wood or neoprene float. Surface shall be left open and course, suitable to receive finish coat.
4. Stucco Finish Coat: Install in two coats to a total thickness of 1/8 inch, each coat covering surface uniformly. First coat shall completely cover basecoat with uniform color. Second color shall provide a uniform texture.
  - a. First finish coat shall be installed adequately to cover surface and fill minor imperfection in the brown coat.
  - b. The second coat shall be installed by doubling back same day, when first coat is sufficiently dry.
  - c. Over concrete surfaces, second coat shall be installed 24 hours after installation of first coat. In warm weather, first coat shall be cured by light water spray after material has set.
  - d. Protection: Protect those surfaces, which are not to receive dash finish coats. Such surfaces shall be shielded and shall have any sand left from dashing operation removed.
  - e. Provide smoothed plaster finish to comply with ADA requirements behind handrails.

### E. Curing Exterior Plaster: Adhere to current edition of CBC for curing requirements.

### F. Option for Machine Application, Scratch and Brown Coats: Instead of hand installed plaster, the furnishing of plastering machines for interior or exterior scratch and brown coats or single base coat is permitted. Machine installation shall be in accordance with the following:

1. Qualifications: Provide proper equipment and apparatus.

## **SECTION 09 2423 - CEMENT PLASTER AND METAL LATH**

2. Apparatus: Pump shall be equipped with an air pressure gage or factory installed blow-off valve and required safety devices. Hoses and connections shall be tight and pressure shall be maintained constant.
3. Proportion and Application: Proportioning, mixing, number of coats and thickness shall be same as specified for hand application. Cement aggregate and water shall be mixed to plaster machine. Plaster mix shall be projected into and conveyed through a hose to the nozzle at end of hose and deposited by pressure in its final position ready for manual straightening and finishing.
4. Follow-Up: Perform scoring operation of plaster, based on settings and drying conditions at time of installation. Curing shall be as previously specified.
5. Protection: Before installing any plaster, thoroughly protect other adjacent Work.

### **3.06 INTERIOR PLASTERING**

- A. Portland Cement Plaster, Scratch Coat: Install to vertical lathed surfaces where ceramic tile is indicated, and install Portland cement plaster finishes where indicated.
- B. Preparation for Plastering:
  1. Verify that lath has been installed securely and that grounds, screeds, casing beads and other accessories are straight, in correct position, and securely fastened in place.
  2. Bonding Agent: Install to vertical concrete or masonry surfaces to receive ceramic tile.
  3. Concrete and masonry surfaces on which suction must be reduced shall be sufficiently moistened before plastering operations start.
  4. Install galvanized expanded metal lath on supports in conformance with requirements of ASTM C1063 and CBC.
- C. Number of Coats and Thickness: Interior plastering to receive paint shall consist of the following, with thickness measured from face of supports or surface:
  1. On Concrete or Masonry: two coats, brown and finish, 5/8 inch thick.
  2. On Metal Lath: three coats, scratch, brown and finish 7/8 inch thick.
- D. Proportions for Interior Plaster: Adhere to current edition of CBC for proportions and curing requirements.



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1. Admixtures shall be proportioned, mixed and installed in accordance with printed directions of manufacturer.
- E. Mix factory blended plaster using only sufficient water to obtain proper consistency before installation. Do not mix any more material at any time than can be installed within ½ hour after mixing. Do not allow material to remain in mixer or mixing boxes overnight.
- F. Application:
  1. Dash Bond Coat: Dash on surface, leave undisturbed, and maintain damp at least 24 hours following installation. Omit Dash bond coat when liquid bonding agent is used.
  2. Scratch Coat: Install with sufficient material to form good keys, thoroughly cover lath, and cross scratch.
  3. Brown Coat: Rod to a straight, true and even surface. Brown coat must be 1/16 inch below face of grounds to provide adequate space for finish coat. Float surface to increase density.
  4. Smooth Finishes: Install two coats for a thickness of 1/8 inch. Install second coat after finish coat begins to set. Install to a true, even plane and trowel to a smooth finish, free from blemishes.
  5. Float Finishes: Install to a thickness between 1/16 inch to 1/8 inch, install and uniformly float to true planes.
  6. Plaster Screeds: On metal lath or wire fabric lath, install plaster screeds wherever permanent grounds are too far apart to serve as guides for rodding.
- G. Curing Interior Plaster: Adhere to requirements of CBC.

### 3.07 QUALITY CONTROL

- A. Finish interior and exterior plaster to a uniform texture, free of imperfections and flat within 1/4 inch in 5 feet. Form a suitable foundation for paint and other finishing materials. Avoid joining marks in finish coats.

### 3.08 REPAIR OF DAMAGED PLASTER

- A. Plaster Detached from Framing:
  1. Remove loose and broken plaster.
  2. Repair or replace damaged water-resistant backing and lath in compliance with specified standards.

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3. Remove stucco finish from surrounding area in the same plane by sandblasting.
  4. Install a scratch coat and a brown coat mixed with liquid bonding agent instead of water to the areas devoid of plaster.
  5. Install a coat of liquid bonding agent to entire wall plane.
  6. Install a 1/8 inch thick stucco finish coat to entire wall plane and match existing texture and color.
- B. Cracked Plaster 1/8 inch to 1/2 inch:
1. Remove loose material from crack with a wire brush.
  2. Fill crack with slurry of stucco and liquid bonding agent.
  3. Install a coat of liquid bonding agent to entire wall plane.
  4. Install 1/8 inch thick stucco finish to entire wall plane and match existing texture and color.
- C. Cracks Larger than 1/2 inch - Painted:
1. Remove loose material from crack with a wire brush.
  2. Fill crack with slurry of one part Portland cement to three parts masonry or stucco sand and liquid bonding agent to match existing texture of adjacent surface.
  3. Paint entire wall plane, color to match existing.
  4. Where patching of plaster over existing lath is feasible, fasten loose lath and install new lath with nails at 6 inch centers. Where metal is furnished, lap new lath over existing 6 inches and tie at 6 inch centers. Install paper backings as required, shingled into existing.
  5. Patching of Holes, Cracks, and Gouges: Holes, cracks, gouges, missing sections, and other defects in existing improvements shall be patched. For holes over 1 inch in size, cut small sections of lath and place in opening attached to existing material. Install 3 coats of plaster. For holes one inch and smaller, install bonding agent to existing surfaces and neatly fill hole with plaster, installing necessary coats to match adjacent surfaces, eliminate cracks and match existing surface texture. Cracks, gouges, and other defects shall be filled with plaster or spackle as required and neatly finished to match adjacent existing improvements.

**SECTION 09 2423 - CEMENT PLASTER AND METAL LATH**

**3.09 CLEANING**

- A. Remove rubbish, debris, and waste material and legally dispose of off the Project site.

**3.10 PROTECTION**

- A. Protect the Work of this section until Substantial Completion.

END OF SECTION

## **SECTION 092900 - GYPSUM BOARD**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

- A. Section Includes:
  - 1. Gypsum board, sheathing and tile backer systems and accessory.
- B. Related Requirements:
  - 1. Division 01 - General Requirements.
  - 2. Section 061000 - Rough Carpentry.
  - 3. Section 079200 - Joint Sealants.

#### **1.02 PROJECT REQUIREMENTS**

- A. Design Requirements: Provide systems capable of resisting deflection as required by CBC and authorities having jurisdiction.
- B. Regulatory Requirements: Comply with CBC requirements for design and installation.

#### **1.03 SUBMITTALS**

- A. Shop Drawings: Submit Shop Drawings indicating complete suspension system including connections, anchorage, and trim features.
- B. Material Samples: Submit 18 inch by 18-inch Samples of the texture coat of gypsum board panels with edges taped.
- C. Product Data: Submit manufacturer's catalog data for each product proposed for installation.

#### **1.04 QUALITY ASSURANCE**

- A. Comply with following as a minimum requirement:
  - 1. ASTM C474 - Standard Test Methods for Joint Treatment Materials for Gypsum Board Construction.
  - 2. ASTM C475 - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
  - 3. ASTM C514 - Standard Specification for Nails for the Application of Gypsum Board.

## **SECTION 092900 - GYPSUM BOARD**

4. ASTM C840 – Standard Specification for Application and Finishing of Gypsum Board.
5. ASTM C919 – Standard Practice for Use of Sealants in Acoustical Applications.
6. ASTM C954 – Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 inch to 0.112 inch in Thickness.
7. ASTM C1002 – Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
8. ASTM C1047 – Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base.
9. ASTM C1177 - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
10. ASTM C1178 – Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel.
11. ASTM 1325 – Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units.
12. ASTM C1396 – Standard Specification for Gypsum Board.
13. ASTM C1629 - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.
14. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
15. ASTM D3274 - Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation.
16. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
17. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
18. ASTM E695 - Standard Method for Measuring Relative Resistance of Wall, Floor, and Roof Construction to Impact Loading.

## **SECTION 092900 - GYPSUM BOARD**

19. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
  20. Underwriters Laboratories (ULI) requirements and listings for fire-rated materials and products classification.
  21. GA 214 - Gypsum wallboard finish shall conform to requirements of GA 214, Application and Finishing of Gypsum Panel Products, published by the Gypsum Association, and as specified herein.
  22. GA 600 - Gypsum wallboard shall conform to requirements of GA 600 Fire Resistance Design Manual, published by the Gypsum Association.
  23. American National Standards for the Installation of Ceramic Tile.
  24. ANSI A118.9 - Specification for Cementitious Backer Units.
- B. Qualifications: Installer shall have a minimum 5 years experience in installing and finishing gypsum board.
- C. CHPS Low-Emitting Materials table: Materials submitted must meet the CHPS Low-Emitting criteria and be listed as Low-Emitting on the following web site: [www.CHPS.net](http://www.CHPS.net).

### **1.05 DELIVERY, STORAGE AND HANDLING**

- A. Deliver materials in original, factory sealed packages, containers or bundles bearing brand name and name of manufacturer.
- B. Materials shall be kept dry. Gypsum wallboard shall be neatly stacked flat; avoid sagging and damage to edges, ends, and surfaces.
- C. Fire-rated materials shall have fire classifications numbers attached and legible.
- D. Provide all means necessary to protect gypsum board systems before, during, and after installation.
- E. Gypsum wallboard showing any evidence of water damage shall not be installed. Gypsum wallboard showing evidence of water damage after installation shall be removed and replaced.

## **PART 2 – PRODUCTS**

### **2.01 ACCEPTABLE MANUFACTURERS**

- A. Georgia-Pacific, National Gypsum Co., U.S. Gypsum Co., James Hardie, or approved equal.

## SECTION 092900 - GYPSUM BOARD

### 2.02 MATERIALS

- A. Gypsum Board Type X (fire-resistant): 5/8-inch-thick, 4-foot wide and up to 16-foot long conforming to ASTM C1396 with long edges tapered.

GYPSUM BOARD SYSTEM			
Panel	Fasteners	Joint Tape	Joint Treatment
United States Gyp. Co.: 5/8 inch Sheetrock regular, type X, Firecode Core, or Firecode C Core Gypsum panels, as required by UL design.	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4-inch Type S or S-12 drywall screw.	Sheetrock paper tape Heavy Duty to meet ASTM C 475.	Sheetrock Setting Type, Lightweight Setting, Sheetrock Taping, Topping, or All-Purpose, Sheetrock Ready-Mixed Taping, Topping, or All-Purpose, or Sheetrock Lightweight All-Purpose or Ready-Mixed - Plus 3
Georgia-Pacific: 5/8 inch ToughRock regular, Fireguard or Fireguard C gypsum, as required by UL design.	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4-inch Type S or S-12 drywall screw.	Sheetrock paper tape Heavy Duty to meet ASTM C475.	Same as above
National Gypsum Co. 5/8 inch Gold Bond regular, Fire-Shield or Fire-Shield C gypsum wallboard, as required by UL design.	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4-inch Type S or S-12 drywall screw.	ProForm Joint Tape, ProForm Multi-Flex Tape Bead, ProForm Fiberglass Mesh Tape to meet ASTM C 475.	ProForm Multi-Use, ProForm All Purpose, ProForm Lite, ProForm Ultra, ProForm Taping, ProForm Triple-T, ProForm Topping, or ProForm Sta-Smooth, Sta-Smooth Lite, Sta-Smooth HS Joint Compound.

- B. Impact Resistant Gypsum Board, Type X (fire-resistant): 5/8-inch-thick, 4-foot wide and up to 16-foot long complying with one of the following:
1. Fire resistant rated gypsum core with additives to enhance impact resistance, faced with moisture and mold resistant paper, and complying with ASTM C1396.
  2. Fire resistant, high density paperless gypsum with reinforcing fiber mesh.
  3. Fire resistant fiberglass-mat faced gypsum board panels

## SECTION 092900 - GYPSUM BOARD

GYPSUM BOARD IMPACT RESISTANT SYSTEMS			
Panel	Fasteners	Joint. Tape	Joint Treatment
United States Gyp. Co.: 5/8 inch Fiberock VHI Gypsum fiber panels.	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4-inch Type S-12 drywall screw.	Sheetrock paper tape Heavy Duty.	Sheetrock Setting compound.
Georgia-Pacific: 5/8 inch DensArmor Plus Impact Resistant Panels	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4-inch Type S-12 drywall screw.	Glass mesh.	Same as above.
National Gypsum Co.: 5/8 inch Hi-Impact XP gypsum wallboard.	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4-inch Type S-12 drywall screw.	ProForm joint tape	Proform XP all- purpose joint compound.

**Edit Note:** Provide Mold Resistant Shaftwall Liner Panels and Mold Resistant Gypsum Panel System at wall shafts.

- C. Mold and Water Resistant Gypsum Board, Type X (fire-resistant): (Use at elevator shaft interior), 5/8 inch thick 4-foot wide, up to 16-foot long conforming to ASTM C1396 with long edges tapered.
- Resistance to Mold Growth: Minimum score of "10" when tested in accordance to ASTM D3273 and evaluated in accordance with ASTM D3274.
  - Resistance to Fungi: Maximum score of "0" when tested in accordance to ASTM G21.

GYPSUM BOARD MOLD RESISTANT SYSTEM			
Panel	Fasteners	Joint Tape	Joint Treatment
United States Gyp. Co.: 5/8 inch Sheetrock Mold Tough, Firecode Core, or Firecode C Core Gypsum panels.	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4-inch Type S or S- 12 drywall screw.	Glass Mesh.	Setting-type joint compound rated 10 when tested in accordance with ASTM D3273 and evaluated in accordance with ASTM D3274.
Georgia-Pacific: 5/8 inch Dens Armor Plus Fireguard or Fireguard C Interior Panels (Fire-Rated).	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4-inch Type S or S- 12 drywall screw.	Same as above.	Same as above.
National Gypsum Co.: 5/8 inch Gold Bond XP regular, Fire-Shield or Fire- Shield C gypsum wallboard.	Wood: 1 1/4-inch Type W drywall screws. Steel: 1 1/4- inch Type S or S-12 drywall screw.	Same as above.	Same as above.



## SECTION 092900 - GYPSUM BOARD

- D. Gypsum Liner, Type X (fire-resistant): 1 inch thick 24-inch wide, up to 14-foot long, conforming to ASTM C1396 or C1658.
1. Resistance to Mold Growth: Minimum score of "10" when tested in accordance to ASTM D3273 and evaluated in accordance with ASTM D3274.
  2. Resistance to Fungi: Maximum score of "0" when tested in accordance to ASTM G21.

GYPSUM BOARD SHAFTWALL SYSTEMS			
Panel	Fasteners	Joint. Tape	Joint Treatment
United States Gyp. Co.: 5/8 inch Mold Tough Type X Firecode Core, Gypsum panels, ¼ inch Mold Tough Ultracode Core and 1 inch Mold Tough Liner panels.	1 ¼-inch, 1 5/8-inch, or 2 ¼-inch Type S or S-12 drywall screw.	Glass Mesh.	Setting-type joint compound rated 10 when tested in accordance with ASTM D3273 and evaluated in accordance with ASTM D3274.
Georgia-Pacific: 5/8 inch ToughRock Fireguard, or ToughRock Fireguard, C gypsum board or DensArmor Plus Fireguard or Fireguard C Interior Panels (Fire-Rated) and 1 inch DensGlass Ultra Shaftliners panels.	1 ¼-inch, 1 5/8-inch, or 2 ¼-inch Type S or S-12 drywall screw.	Same as above.	Same as above.
National Gypsum Co.: 5/8 inch Gold Bond regular, Fire-Shield or Fire-Shield C gypsum wallboard and 1 inch Gold Bond Fire-Shield Shaftliner.	1 ¼-inch, 1 5/8-inch, or 2 ¼-inch Type S or S-12 drywall screw.	ProForm XP all- purpose joint compound.	Same as above.

- E. Tile Backer Board, Type X (fire-resistant):
1. Water resistant panels, 5/8 inch thick, 4-foot wide and up to 8-foot long conforming to one of the following requirements:
    - a. Aggregated Portland cement board with polymer-coated, woven glass-fiber mesh embedded in front and back surfaces.
    - b. Fiberglass-mat faced gypsum backing board complying with ASTM C1178.
    - c. Cementitious board surfaced with fiberglass reinforcing mesh on front and back and complying with ANSI A118.9 and ASTM C1325.

## SECTION 092900 - GYPSUM BOARD

2. Tile backer boards shall meet the following requirements:
  - a. Resistance to Mold Growth: Minimum score of "10" when tested in accordance to ASTM D3273 and evaluated in accordance with ASTM D3274.
  - b. Resistance to Fungi: Maximum score of "0" when tested in accordance to ASTM G21.

TILE BACKER BOARD SYSTEMS			
Panel	Fasteners	Joint. Tape	Joint Treatment
United States Gyp. Co.: 5/8 inch DUROCK Cement Board.	Wood: 1 1/2-inch galvanized roofing nails or 1 1/4-inch 1 5/8 inch, or 2 1/4-inch DUROCK No. 8 wood screws. Steel: 1 1/4-inch or 1 5/8 inch DUROCK No. 8 screws.	DUROCK glassfiber tape.	ANSI A136.1 Type I: Organic adhesive or ANSI A118.1 acrylic latex modified dry-set mortar or ANSI A118.4 Latex Portland cement mortar.
Georgia-Pacific: 5/8 inch DensShield Fireguard Tile Backer.	Wood: 1 3/4-inch galvanized roofing nails or 1 5/8 inch Buglehead corrosion resistant, coarse thread, drywall screws. Steel: 1 1/4-inch Buglehead, corrosion resistant, fine thread, drywall screws.	2-inch wide fiberglass mesh tape.	ANSI A136.1 Type I: Organic adhesive or ANSI A118.1 acrylic latex modified dry-set mortar or ANSI A118.4 Latex Portland cement mortar.
National Gypsum Co.: 5/8 inch PermaBase Brand Cement Board.	Wood: 1 1/2-inch galvanized roofing nails or 1 1/4-inch or 1 5/8 inch, PermaBase corrosion resistant screws. Steel: 1 1/4-inch or 1 5/8 inch Type S-12 screws.	PermaBase mesh tape. 2-inch wide polymer- coated (alkali resistant) mesh tape for interior applications. 4-inch wide polymer coated (alkali resistant) mesh tape for exterior applications.	Treat joints and set facing material with latex-Portland cement mortar or dry-set (thin-set) mortar. Mortars shall comply with ANSI A118.1 or A118.4 standards. Type I organic adhesive meeting ANSI A- 136.1 for interior use only.
James Hardie Building Products Inc.: 1/2 inch or 3/4 inch Hardibacker 500 Cement Board (for floor and countertop application at existing schools only).	Wood: 1 1/2-inch galvanized roofing nails. Wood and Steel: 1 1/4-inch No. 8 by 0.375 HD self drilling, corrosion resistant ribbed wafer head screws.	2-inch Wide High Strength. Coated, alkali-resistant, glass fiber reinforcing tape.	ANSI A136.1 Type I: Organic adhesive or ANSI A118.1 acrylic latex modified dry-set mortar or ANSI A118.4 Latex Portland cement mortar.

- F. Sheathing, Type X (fire-resistant): 5/8 inch thick, 4-foot wide and up to 10-foot long fiberglass-mat faced gypsum backing board complying with ASTM C1177 or ASTM C1178.

## SECTION 092900 - GYPSUM BOARD

1. Resistance to Mold Growth: Minimum score of "10" when tested in accordance to ASTM D3273 and evaluated in accordance with ASTM D3274.
2. Resistance to Fungi: Maximum score of "0" when tested in accordance to ASTM G21.

GYPSUM BOARD SHEATHING SYSTEMS			
Panel	Fasteners	Joint. Tape	Joint Treatment
United States Gyp. Co.: 5/8 inch Securock Glass-Mat Sheathing.	Wood: 1 1/4-inch # 6 buglehead corrosion-resistant fasteners. Steel: 1 1/4-inch Type S-12 drywall screw.		
Georgia-Pacific: 5/8 inch Densglass Gold Type "X"	Wood: 1 1/4-inch # 6 buglehead corrosion-resistant fasteners. Steel: 1 1/4-inch Type S-12 drywall screw.		
National Gypsum Co.: Gold Bond Brand e2XP Fire-Shield Extended Exposure Gypsum Sheathing.	Wood: 1 1/4-inch # 6 buglehead corrosion-resistant fasteners. Steel: 1 1/4-inch Type S-12 drywall screw.		

### 2.03 ACCESSORIES

- A. Metal Trim: Paper-faced metal drywall beads and trim meeting ASTM C1047, as manufactured by USG/Beadex, National Gypsum, or equal. Trim units shall be of size and type to fit gypsum board construction and shall include corner beads, casings, edge trim and other shapes indicated and required.
- B. Mold Resistant Joint Compound: As recommended by board manufacturer, OnePass by CTS Cement Manufacturing Co., or equal, meeting the following requirements:
  1. Minimum score of "10" when tested in accordance with ASTM D3273 and evaluated in accordance with ASTM D3274.
  2. Shall conform to ASTM C475.
- C. Joint Tapes: Shall conform to ASTM C475.
- D. Finishing Materials:
  1. High solids primer shall be SHEETROCK Brand First Coat manufactured by USG or High-build primer by Sherwin Williams, or equal.
  2. Texture coat finish material shall be manufactured by U.S. Gypsum, Hamilton, or Highland Stucco and Lime Products, Inc., or equal.

## SECTION 092900 - GYPSUM BOARD

- E. Acoustical Sealant: Non-hardening, non-shrinking, for use in conjunction with gypsum board, as recommended by Board Manufacturer and conforming to ASTM C919.
- F. Fasteners:
  - 1. Self-drilling, self-tapping bugle-head drywall screws; in conformance to ASTM C1002. No. 6 Type S or S12, 1 1/4--inch long for metal framing,
  - 2. Wood framing:
    - a. Nails: Hot dip, 0.016 inch diameter galvanized nails with 7/16 inch head and 1 1/4-inch minimum length.
    - b. Screws: Type W 1 1/4-inch minimum length for single-layer panels. Screws shall be furnished with a corrosion-resistant treatment.
  - 3. Adhesive: as recommended by board manufacturer and in compliance to ASTM C557.

### PART 3 - EXECUTION

#### 3.01 INSTALLATION

- A. Metal Trim:
  - 1. Provide corner beads at outside corners and angles, metal casing where gypsum board terminates at uncased openings, metal edge trim where board edges abut horizontal and vertical surfaces of other construction.
  - 2. Install trim in accordance with manufacturer's directions with appropriate joint compound. Install trim in longest practical pieces.
- B. Gypsum Board:
  - 1. Install gypsum board in conformance with ASTM C840.
  - 2. Gypsum board shall be cut by scoring and breaking or by sawing, working from face side. Where board meets projecting surfaces it shall be scribed and neatly cut. Unless conditions require otherwise, gypsum board shall be installed first to ceilings, then to walls. End joints shall occur over a support. Install panels of maximum practical length so a minimum number of end joints occur.
  - 3. End joints shall be staggered and joints on opposite sides of a partition shall be arranged to occur on different studs. Joint layout at openings shall be installed so no end joints will align with edges of openings.

## SECTION 092900 - GYPSUM BOARD

4. Except where specified otherwise, fasteners shall be spaced not less than 3/8 inch from edges and ends of gypsum board. Do not stagger fasteners at adjoining edges and ends.
5. Install gypsum board vertically or horizontal as permitted by specific UL Design at walls. Fasten board with drywall screws spaced not to exceed 8 inches on centers around perimeter of boards and 8 inches on centers on intermediate studs. Space screws at 8 inches on centers along top and bottom runners. Screws shall be driven to provide screwhead penetration just below gypsum board surface without breaking surface paper. Where electrical outlet and switch boxes are indicated, provide adjustable attachment brackets between studs.
6. Install gypsum board to ceiling framing with long dimension at right angles to furring channels, or wood framing members, and fasten with specified drywall screws or nails spaced 6 inches to 7 inches on centers across board. Screws or nails shall be not less than 1/2 inch from side joints and 3/8 inch from butt end joints. Abutting end joints shall occur over furring channels and end joints of boards shall be staggered. Support cutouts or openings in ceilings with furring channels.
7. Install access doors, furnished under another section, in correct location, plumb, or level, flush with adjacent construction, and securely fastened to framing.

### 3.02 TOLERANCES

- A. Install gypsum board flat within 1/8 inch in 10 feet.

### 3.03 JOINT TREATMENT AND FINISHING

Level	Joints	Interior Angles	Accessories	Fasteners	Surface
1	Tape set in compound	Tape set in joint compound			Tool marks and ridges acceptable
2	Tape set in joint compound and one separate coat of joint compound	Tape embedded in joint compound and wiped to leave a thin coat of compound over tape, and one separate coat	Covered by one separate coat of joint compound	Covered by one separate coat of joint compound	Free from excess joint compound. Tool marks and ridges acceptable.
3	After taping, cover with two separate coats of joint compound	After taping, cover with one separate coat of joint compound	Covered by 3 separate coats of joint compound	Covered by 2 separate coats of joint compound	Smooth and free of tool marks and ridges *

## SECTION 092900 - GYPSUM BOARD

Level	Joints	Interior Angles	Accessories	Fasteners	Surface
4	After taping, cover with 2 separate coats of joint compound	After taping, cover with one separate coat of joint compound	Covered by 3 separate coats of joint compound	Covered by 3 separate coats of joint compound	Smooth and free of tool marks and ridges *
5	After taping, cover with 2 separate coats of joint compound	After taping, cover with one separate coat of joint compound	Covered by 3 separate coats of joint compound	Covered by 3 separate coats of joint compound	Skim coat of joint compound applied to entire surface. Surface free from tool marks and ridges. *

\*At completion of specified taping and finishing, install one coat of high solids primer as specified hereafter

- B. Levels: Install tape bedding compound, tape, and finishing cement on joints in wallboard as required for specified levels of finish.
- C. Levels 2 through 5:
  - 1. Install joint cement and finishing cement over screw heads. Treat all inside corners with joint cement, tape, and finishing cement. Treat outside corners with corner beads and finishing cement.
  - 2. Provide metal casing beads at all edges of gypsum wallboard, which abut ceiling, wall, or column finish, and elsewhere as required, such as openings, offsets, etc. Install all exposed joints, trims, and attachments non-apparent following installation of paint or other finishes. If joints and fasteners are visibly apparent, correct defects as required.
  - 3. Seal raw edges of plumbing openings and boards that have been cut to fit with sealing compound brushed on.
  - 4. When entire installation is completed, correct and repair broken, dented, scratched or damaged wallboard before installation of finish materials by other trades.
- D. Levels 3 and 4: Install one coat of high solids primer over entire surface.
- E. Level 5: Install one coat of skim coat over entire surface, followed by one coat of high solids primer over entire surface.

## **SECTION 092900 - GYPSUM BOARD**

### **3.04 REQUIRED LEVELS OF FINISH**

- A. Unless otherwise indicated or specified, levels of finish required shall be as follows:
  - 1. Level 1: Plenum areas above ceilings, insides of shafts, and other concealed areas. Taping to be as required for fire rated assemblies.
  - 2. Level 2: Water-resistant wallboard backing for high moisture areas to be covered with a water resistant surface other than tile, vinyl or paint, i.e stainless steel cladding etc.
  - 3. Level 3: Backing for vinyl wall covering and adhered acoustic tile. Also, provide where textured finish is indicated.
  - 4. Level 4: Exposed painted wallboard in classrooms, utility rooms, and similar spaces not requiring Level 5 finish.
  - 5. Level 5: Exposed, painted wallboard in offices and corridors.

### **3.05 TEXTURE COAT**

- A. Spray install texture coat to interior gypsum board surfaces where indicated on Drawings.
- B. Texture coat shall provide a uniform splatter pattern finish with an 80 percent minimum coverage of surface.
- C. Provide protection from spray for interior surfaces of electrical boxes and wiring.

### **3.06 CLEAN-UP**

- A. Remove rubbish, debris, and waste materials and legally dispose of off Project site.

### **3.07 PROTECTION**

- A. Protect Work of this section until Substantial Completion.

**END OF SECTION**

## **SECTION 099000 - PAINTING AND COATING**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This Section includes the following:
  - 1. Surface Preparation.
  - 2. Field application of paints, stains, varnishes, and other coatings.
  - 3. Patch and repairing of existing surfaces prior to painting.
  - 4. Prior paint application ALL products / colors must be reviewed and approved by

#### **1.2 WARRANTY**

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace paint that fails in materials or workmanship within specified warranty period.
  - 1. Warranty Period: 1 year.
- B. Installer Warranty: 1 year.
- C. Installer Qualifications: 5 years minimum experience.

#### **1.3 MANUFACTURERS**

- A. Paints: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
  - 1. Dunn-Edwards (Basis of Design)
  - 2. Glidden (ICI) Paints.
  - 3. Sherwin Williams.
  - 4. Frazee Paint.
  - 5. Vista Paint.
  - 6. Or approved equal.

#### **1.4 PAINTS AND COATINGS**

- A. Ready mixed, except field-catalyzed coatings.



## **SECTION 099000 - PAINTING AND COATING**

### **B. Prepare pigments:**

1. To a soft paste consistency, capable of being readily and uniformly dispersed to a homogenous coating.
2. For good flow and brushing properties.
3. Capable of drying or curing free of streaks or sags.

### **1.5 PAINT SYSTEMS – EXTERIOR**

Maintenance: Stock Items: Provide at least five gallons of each type, color and sheen of paint coating installed. Label containers with color designation indicated on Drawings or approved color board. Provide proof of purchase NOT to exceed two (2) months prior delivery of project.

#### **A. Concrete, Plaster, and Terracotta:**

1. Flat – Modified Copolymer / 100% Acrylic:
  - a. First Coat: EFF-STOP SELECT Interior /Exterior Primer Sealer (ESSL00).
  - b. Second Coat: SPARTASHIELD Exterior Flat Paint (SSHL10).
  - c. Third Coat: SPARTASHIELD Exterior Flat Paint (SSHL10).

#### **B. Wood – Paint Finish: / 100% Acrylic:**

1. Semi-Gloss:
  - a. First Coat: EZ-PRIME Premium, Exterior Wood Primer (EZPR00).
  - b. Second Coat: SPARTASHIELD, Exterior Semi-Gloss Paint (SSHL50).
  - c. Third Coat: SPARTASHIELD, Exterior Semi-Gloss Paint (SSHL50).

#### **C. Ferrous Metal:**

1. Semi-Gloss – 100% Acrylic / Alkyd Emulsion:
  - a. First Coat: BLOC-RUST Red Oxide or White (BRPR00-1-RO or BRPR00-1-WH)
  - b. Second Coat: ARISTOSHIELD, Rust Preventive Alkyd Emulsion Semi-Gloss Paint (ASHL50)

## **SECTION 099000 - PAINTING AND COATING**

- c. Third Coat: ARISTOSHIELD, Rust Preventive Alkyd Semi-Gloss Paint (ASHL50)
- D. Non-Ferrous (Galvanized) Metal:
  - 1. Semi-Gloss – 100% Acrylic / Alkyd Emulsion:
    - a. Pretreatment: SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01).
    - b. First Coat: ULTRASHIELD Galvanized Primer, Galvanized Metal Primer (GAPR00).
    - c. Second Coat: ARISTOSHIELD, Rust Preventive Alkyd Semi-Gloss Paint (ASHL50)
    - d. Third Coat: ARISTOSHIELD, Rust Preventive Alkyd Semi-Gloss Paint (ASHL50)

### **1.6 COLORS**

- A. To be selected by Architect from manufacturer's full range of colors or as indicated on Drawings.

### **PART 2 - PRODUCTS (Not Used)**

### **PART 3 - EXECUTION (Not Used)**

**END OF SECTION**

## **SECTION 099013 - PAINTING OF EXISTING FACILITIES**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

- A. Section Includes:
  - 1. Interior and exterior painting.
- B. Related Requirements:
  - 1. Division 01 - General Requirements.
  - 2. Section 061000 - Rough Carpentry.

#### **1.02 REGULATORY REQUIREMENTS**

- A. Paint materials shall comply with Food and Drug Administration's (FDA) Lead Law and current rules and regulations of local, state and federal agencies governing use of paint materials.
- B. Paint color requirements for CALOSHA: CALOSHA requires the following items be painted as prescribed:
  - 1. Gas Mains and Valves shall be painted "gun metal gray" (medium gray)
  - 2. Fire Valves and Raisers shall be painted OSHA's "safety red"

#### **1.03 SUBMITTALS**

- A. Submit in accordance with Section 013300: Submittal Procedures. ALL product / colors be reviewed and approved by OWNER prior paint application.
  - 1. Submit a complete list of materials to be furnished stating supplier and distributor's names with product recommendations.
  - 2. Submit manufacturer's standard color samples for each type of paint specified. Once colors have been selected, submit six samples of each color selected for each type of paint, on standard 8 ½ by 11 spray-out panel.
  - 3. Before any coating is applied, submit to IOR samples of each color to be used on contract. If more than one batch of material and color is to be used, samples from each batch shall be submitted.
- B. Paint and Enamel Spray-Outs
  - 1. Samples of Paint and Enamel shall be submitted on standard 8 ½ by 11 Leneta Opacity-Display Charts. Each display chart shall have color in full coverage. Sample shall be prepared using material from batch to be used on

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actual job. Identify school on which paint is to be used, batch number, color number, type of material, name of manufacturer and name of Contractor.

2. Furnish samples of colors to Project Inspector. Samples shall be kept on the job until painting is completed.
  3. Contractor shall be responsible for finish color on surface to be painted; where different materials of same color are specified to be applied on same, or adjoining surfaces, final color match shall match color sample on those surfaces.
- C. Elastomeric coating shall be submitted in duplicate samples of texture coating. Samples shall be not less than 2 ½-inch by 3 ½-inch in size and on adequate backing.
- D. Materials and color samples shall be approved before a job start meeting will be scheduled.
- E. Maintenance: Stock Items: Provide at least five gallons of each type, color and sheen of paint coating installed. Label containers with color designation indicated on Drawings or approved color board. Provide proof of purchase NOT to exceed two (2) months prior delivery of project.

### **1.04 QUALITY ASSURANCE**

- A. Certification of Materials: With every delivery of paint materials, manufacturer shall certify, on form supplied by Owner that materials comply with requirements of this Section.
- B. Paint materials shall comply with applicable requirements of Food and Drug Administration's (FDA) Lead Law and SCAQMD.
- C. Painters working on Lead related work shall be (DHS) Lead Certified by the State of California.
- D. Painter / Installer to provide 5 years of experience on application of product.

### **1.05 DELIVERY, STORAGE AND HANDLING**

- A. Materials shall be delivered to project site in original unbroken containers bearing manufacturer's name, brand number, batch number, and MSDS Sheets.
- B. Open and mix ingredients on premises in presence of Project Inspector. Immediately remove rejected materials from premises.

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### **1.06 METAL STORAGE CONTAINER**

- A. Storage and Mixing of Materials: Store materials and mix only in spaces designated for purpose by Project Inspector. Keep such spaces clean and take necessary precautions to prevent fire. Hang out oily rags singly in open air. Stack paint containers so that manufacturer's labels are clearly displayed.
- B. Paint, combustible materials, gasoline driven equipment, etcetera shall not be stored or left in any school building overnight.
- C. In event that equipment and material storage sheds must be placed on asphalt pavement less than six months old, each wheel, leg or other supporting member shall be centered on a 4-foot by 8-foot by  $\frac{3}{4}$  inch thick sheet of plywood. Shed shall be set down in such a manner as to prevent damage to pavement. Contractor shall be responsible for any damage to pavement caused by improper placement of shed.

### **1.07 ENVIRONMENTAL CONDITIONS**

- A. Temperature: Do not apply exterior paint in damp, rainy weather or until surface has dried from effects of such weather. Do not apply paint, interior or exterior, when temperature is below 50 degrees F., or above manufacturer's stated recommended temperature, or when dust conditions are unfavorable to proper workmanship.

### **1.08 WARRANTY**

- A. Manufacturer shall provide a three year material warranty from date of Substantial Completion.
- B. Contractor warrants work executed and materials furnished under contract shall be free from defects of materials and application for a period of three years from date of Substantial Completion.
- C. Elastomeric coating shall be warranted for a period of five years from date of Substantial Completion.

### **1.09 PROTECTION**

- A. Fire alarm boxes, fire sprinkler heads, smoke detectors and intrusion alarm systems shall be uncovered and available to perform function that it was designed for each and every night.
- B. Pressure relief grilles with barometric damper leading to a corridor or an exterior shall be masked off before spraying and then uncovered immediately after spraying.
- C. Conspicuously post sufficient "Wet Paint" signs continuously to alert public and school personnel to existing conditions until paint is completely dried.

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- D. Provide and maintain barriers, guards, lights, warning signs, etcetera for complete protection and as directed by the Project Inspector.
- E. Do not impede emergency egress.

### **1.10 MOVING EQUIPMENT**

- A. Perform handling and moving of furniture, equipment, casework, books, and supplies, or items impeding project and re-installing in their original location, except as otherwise directed by OAR. Library books shall be moved and re-shelved in same sequence and in same location from which they were removed, unless otherwise directed by OAR.

### **1.11 MISCELLANEOUS**

- A. Provide and maintain barriers, guards, lights, warning signs, etcetera for complete protection and as directed by the OAR. Provide access to doors and openings. Do not store equipment or material near openings or traffic lanes that could be hazardous during an emergency.

### **1.12 DEFINITION OF TERMS**

- A. Work shall include labor, material, equipment and scaffolding required for cleaning and preparation of surfaces to receive painters finish and for painting and varnishing, as herein specified. Perform work unless specifically noted otherwise.
- B. Painting shall include complete preparation and finish or refinishing in accordance with requirements specified herein. Drywall shall be treated same as specified for plaster.
- C. Wherever woodwork is specified to be refinished, it will include wood finish member (trim), movable cabinets with doors and center cut doors, windows and sash, screen doors, screens, sash poles, movable and fixed bulletin boards and chalkboards, etcetera.
- D. Plastic, impregnated plywood, hardwood, metal, asbestos board (if painted), and mastic coated wood surfaces shall be treated in same manner as specified for "woodwork".
- E. Whenever "Paint or Enamel" is referred to in these specifications, it shall be taken to mean types of waterborne materials and water reducible materials.
- F. Whenever "edges" are referred to in these specifications, it shall be taken to mean every edges, (which include tops and bottoms).
- G. Work shall be done by skilled and experienced painters in a professional manner. Painters must wear presentable white uniforms consistent with industry standard and personal ID Badges.

## **SECTION 099013 - PAINTING OF EXISTING FACILITIES**

1. Provide ID badges identifying the following:
  - a. Employee's name
  - b. Employee's photo
  - c. Company Position (i.e. apprentice, journeyman, foreman)
  - d. Company name and logo
  - e. Company phone number.

### **1.13 SCAFFOLDING**

- A. Scaffolding shall be made available to Owner, without cost, to make repairs. Owner will coordinate its work with that of Contractor's to avoid delays to the work.

### **1.14 SCHEDULING OF WORK**

- A. Schedule work through the OAR.

## **PART 2 - PRODUCTS**

### **2.01 PAINT MATERIALS**

- A. Factory mix paint materials to correct color, gloss, and consistency for installation to maximum extent feasible.
- B. Paint materials shall be by one manufacturer.
- C. Paint materials shall be "Premium Architectural Grade".
- D. Acceptable manufacturers, unless otherwise noted:
  1. Basis of design: Dunn Edwards Corporation Paints
  2. PPG
  3. Frazee Paints and Wall coverings
  4. Sherwin Williams
  5. ICI Paints
  6. Equal
- E. Gloss degree standards shall be as follows:

High Gloss	70 and above	Eggshell	30 to 47
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## SECTION 099013 - PAINTING OF EXISTING FACILITIES

Semi-Gloss

48 to 69

Satin

15 to 29

### 2.02 PAINT MATERIALS

- A. Manufacturer: Behr, Premium Plus Ultra Flat, or approved equal.

## PART 3 – EXECUTION

### 3.01 REMOVE AND REINSTALL

- A. Remove coat hooks, name plates, label frames, sash lifts, sash locks, pencil sharpeners, flag brackets, drawer handles and locks, window coverings, switch and receptacle plates, removable bulletin boards, mirrors, maps and thermometer. Reinstall all of the above after painting is completed.
- B. Remove exposed nails, hooks, tacks, screws, staples and pins in surface to be painted and patch holes with a matching material. Remove interior and exterior obsolete screens, grille hangers, fasteners and patch holes.
- C. Remove and reinstall Venetian blinds and channels, ensuring security latches are secure. When removed, blinds and channels shall be marked with its location and reinstalled in the same location.
- D. Contractor shall replace map and picture hooks as directed by the Project Inspector.
- E. Paper labels shall be soaked off and glue residue from tape removed.
- F. Remove metal or plastic room numbers, letters, signs, and, after painting is complete, clean and reinstall them neatly.
- G. Sash locks shall be reset in accordance with instructions for locking doors and windows each night.

### 3.02 REPLACEMENT SCREWS AND HARDWARE

- A. Hardware shall be replaced using new screws, of same diameter, but one size longer than those removed. Screws used must be of finish design and material to match hardware.
- B. Remove paint from hardware, including paint from previous painting.

### 3.03 GENERAL PREPARATION OF EXISTING PAINTED SURFACES

- A. Previously painted surfaces will be assumed to contain lead.
- B. Trenching: Before any cleaning or sandblasting operation is started, soil at base of building shall be trenched to a depth of six inches and eight inches wide. After



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completing painting application and allowing sufficient drying time, trench shall be refilled.

- C. Insure a consistently uniform horizontal, vertical and curved surface, with a maximum deformation of 1/8 inch in a five foot span. Apply a brown scrub coat and a fog coat.
- D. Glass, fiberglass and polycarbonate on exterior shall be traced neat and clean with approximately, but no more than 1/16 inch overlay. Paint specks, smears or splatters shall be immediately removed and surface cleaned.
- E. Miscellaneous Exterior Surfaces; Freestanding exterior school signs, windbreaks, baffles, benches, scoreboards, fences and gates (excluding chain link), decorative panels, interior and exterior surfaces of display cases, storage and supply cabinets, including both sides and edges shall be prepared and primed as specified under "Doors." They shall receive number of coats of paint as detailed under "Colors and Number of Paint Coats."
- F. Examine surfaces to receive paint finish. Surfaces which are not properly prepared, and cleaned or which are not in condition to receive finish specified, shall be corrected before paint is applied. Painting shall not be done on existing painted surfaces until surfaces are approved by the Project Inspector.
- G. Remove items fastened to existing painted surfaces and patch holes with a material, and re-fasten in original location upon completion of painting work.
- H. Existing painted surfaces indicated to be painted, shall be prepared as follows:
  - 1. Wood, plaster and metal surfaces shall be washed with TSP (tri-sodium phosphate) substitute to remove dirt, grease and other foreign materials and rinsed with clean water and then sand papered and dusted off. Surfaces shall have wax completely removed before washing, which includes base, shoe base, and concrete base.
  - 2.
    - a. Checked, cracked, blistered, scaled, peeling, and alligatored paint on wood and metal surfaces shall have paint removed down to original finished surface, then hand-sanded and dusted clean.
    - b. Surfaces shall then be considered as new work.
    - c. Woodwork must be hand sanded smooth after each and every coat, except last coat. Coats shall be free from dust, dirt or other imperfections.
    - d. Steel sash and aluminum sash to be painted must be steel-wooled and dusted off. Sash putty shall be hand sanded smooth and dusted off.

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- e. Remove lint and grease from screens, vents, hoods, etc. that are to be painted.

### 3.04 OTHER SURFACE PREPARATION REQUIREMENTS

- A. Existing painted surfaces shall be prepared and made ready to receive new coat of paint or other finish coating materials by any of following methods:
  - 1. H.E.P.A. machine sanding: Checked, cracked, blistered, scaled loose, and alligator paint on wood and metal surfaces on exterior or interior of facilities shall be machine sanded to a smooth solid surface, dusted clean and then painted as specified. Power sanding shall be done with a H.E.P.A. vacuum sander and shall be used only when school is not in session, and students and staff are not on site.
  - 2. Trenching: Before any cleaning or sandblasting operation is started, soil at base of building shall be trenched to a depth of six inches and eight inches wide. After completing painting application and allowing sufficient drying time, trench shall be refilled.
  - 3. Hydro-washing: Exterior masonry and plaster on buildings, bungalows, pavilions, and appurtenances must be washed with a cleaner using hydro-washing equipment, or as directed by Project Inspector, to remove grease, dirt and foreign materials and then rinsed with clean water to remove residue. Surfaces must be allowed to dry for at least five days or as determined by Project Inspector. Care shall be taken to prevent water from entering buildings through vents, etcetera immediately following hydro-washing, areas surrounding buildings must be rinsed down.
    - a. Exposed mastic, concrete, and/or plaster surfaces shall be cleaned with a cleaner, using hydro-cleaning equipment. This process is to remove dirt, foreign materials, grease, and oil and rinsed with clean water to remove residues.
    - b. Before hydro-washing efflorescence must be brushed off and surface treated with a 10 percent solution of Muriatic Acid, neutralized with a 10 percent solution of ammonia water and then rinsed with clean water.
    - c. Painted surfaces that will be directly or indirectly impacted by hydro-washing shall have paint stabilized to remove loose, flaky or peeling paint. Wood, metal, and other exterior non-masonry/stucco surfaces shall be primed where stabilization has occurred prior to application of cleaner and hydro-washing.
    - d. Hydro-washing is not intended to remove loose, flaky or peeling paint or paint chips. Water generated from cleaning and hydro-washing process that does not contain visible paint chips shall be

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directed to soil, such as a planted area, or collected and disposed in the sewer system.

- e. At no time shall water from hydro-washing process be directed to a storm drain, be allowed to flow off Owner property to adjoining public or private property, or to flow across asphalt or cement concrete and allowed to dry.
  - f. If, during hydro-washing process, paint chips are generated with waste water work shall stop. Contractor shall install a system under and around area requiring washing sufficient enough to collect waste water generated. Waste water shall be stored in DOT approved barrels and visible paint chips separated from waste water. Paint chips shall be characterized to determine if waste is hazardous or disposed of assuming it is hazardous. Waste water shall be characterized to determine if it is hazardous and disposed of according to code. If water tests non-hazardous, water shall be removed from Owner's property.
  - g. Hazardous waste generated by this process requires being transported under a Uniform Hazardous Waste Manifest. Contractor shall ensure manifest is completed as required by code. OAR will sign manifest once it is accurately completed and prior to transport of waste off site.
4. Sandblasting: Shall be performed when school is not in session and when students are not present. Premises shall be left in a clean condition and ready for use by occupants by end of any day prior to beginning of school session. Work shall be coordinated with Project Inspector and the OAR. Only wet blasting shall be allowed. Masonry or stucco surfaces shall be sandblasted to remove mastic, paint and other materials to original plaster brown coat or formed concrete surface. Rinse with clean water to remove residue. Adjacent surface, plants and shrubs shall be protected from damage due to sandblasting operations.
- a. Immediately upon completion of sandblasting operation, roof, gutters and areas around buildings, etcetera shall be cleaned of sand and debris resulting from sandblasting operation. No sand or debris shall be hosed or swept into drains.
  - b. Metal surfaces including decorative metal and fencing requiring sandblasting shall be sandblasted to white metal and primed same day with a metal primer per manufacturer's recommendation.

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### 3.05 CRACKS AND VOIDS

- A. Voids between wall and ceiling surfaces and wood or metal trim or scribed edges where finish exists or is specified to be applied and including picture molding, must be filled with putty, filler or latex sealing compound.
- B. Areas where finish plaster coat is loose must have that portion removed to a solid surface. Surfaces that are broken, cracked, or damaged and areas where finish plaster coat has been removed must be coated with compatible bonding agent. Surface will then be given a cement plaster finish coat consisting of one-part Plastic Portland Cement to three parts sand to match existing finish. Cracks shall be "V-ee'd" out, filled, finished flush with and textured to match adjoining surfaces, per Owner Representative's approval.
- C. Neutralize walls showing effects of alkali.

### 3.06 FILLER ON SIDING AND WOODWORK

- A. Checked and cracked portions of siding and woodwork (after surrounding areas have been prepared as specified above) shall be primed, smoothed with an exterior filling compound and then sanded smooth when dry. Filled areas must be spot primed. Filler shall not be used on handball walls or basketball backstops.

### 3.07 SEALING SASH, DOOR FRAMES

- A. Sealant that will interfere with proper application of waterproof coating shall be removed. Seal around door and window frames, flashing, vents, separations between masonry or plaster and adjoining surfaces, etcetera, with a sealant compound recommended by manufacturer of coating to be used. Sealing and filling shall be done with sufficient pressure to force material to base of opening.

### 3.08 MASTIC REPAIR AND ELASTOMERIC REPAIR

- A. Surface must be clean, firm and free of oil, wax and chalk. Mildew must be killed. Surface must be rinsed and allowed to dry.
- B. Use primers as recommended by manufacturer for each substrate.
- C. May be applied with airless spray equipment, using a 22 to 34 orifice tip and do not apply when surface or air temperature is below 50 degrees F.
- D. Apply elastomeric with a ½ inch to 1 ½-inch roller cover or an air-atomized spray texture pump system. Do not over-roll.
- E. Spreading rate:

Fine texture:	Approx. Mil thickness	Wet	18 Mils
	at 80 square feet per gallon	Dry	9 Mils

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Medium texture:	Approx. Mil thickness	Wet	18 Mils
	at 60 square feet per gallon	Dry	9 Mils
Heavy texture:	Approx. Mil thickness	Wet	39 Mils
	At 40 square feet per gallon	Dry	26 Mils

NOTE: Coverage will vary depending upon texture desired and surface. Direction will be given by an Owner representative.

- F. Dry time: To touch: 1 to 1 ½ hours  
To re-coat: 24 hours
- G. Finish will be uniform in texture and free of imperfections.
- H. Elastomeric coatings will receive at least two coats of paint.
- I. Hairline cracks: Two coats of elastomeric coating to bridge hairline cracks.
- J. Small to medium cracks and imperfections: elastomeric coating to fill and span cracks up to 1/32 inch. Cracks 1/32 inch width or greater shall be treated with an elastomeric sealant (recommended by paint manufacturer) prior to applying elastomeric coating.
- K. Medium to large cracks and imperfections: Cracks from 1/32 inch to 1/8 inch shall be treated with a brush-grade elastomeric sealant applied in a 2-inch wide band; crowned at center and feathered at edges to conceal repair.
- L. Large cracks: Cracks 1/8 inch to ½ inch shall receive a urethane sealant (recommended by paint manufacturer), "rake out" crack to conform to manufacturer's specifications and applied as directed for medium to large cracks.
- M. Cracks, holes and damaged spots larger than ½ inches: Damaged areas shall be given a cement plaster finish coat consisting of one-part plastic Portland cement to three parts plaster sand to match existing finish. When finished, it shall be flush with and match existing texture of adjoining surface.
- N. Texture match: Crack repairs shall be finished to match texture of adjoining surfaces, per Project Inspector's approval. Hand held plaster hopper guns may be used. Exercise care to ensure that areas finished by hand held plaster machines match in color, texture and thickness to adjoining surfaces. A compatible bonding agent shall be used.

### 3.09 REPAIR OF PLASTER

- A. Exterior areas, where finish plaster coat is loose, shall have that portion removed to a solid surface. Surfaces that are broken, cracked, or damaged and areas where finish plaster coat has been removed shall be coated with compatible bonding agent. Surface will then be given a cement plaster finish coat consisting of one-part Plastic Portland Cement to three parts plaster sand to match existing finish. Cracks shall

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be “veed-out”, filled, finished flush with and textured to match adjoining surfaces, per Project Inspector’s approval.

1. If existing plaster was a machine applied, dash coat, apply final application of finish coat over patched areas by machine to match existing adjacent machine texture. Use a finish plaster material with a bonding admixture mixed according to manufacturer's recommendation.
  2. Cracks, holes, and damaged spots larger than ½ inch, see 3.09.
- B. Exterior plaster designated to be painted shall receive three coats. First coat shall be sealer. Second and third coats shall 100 percent acrylic gloss enamel unless otherwise indicated.
- C. Interior plaster patching shall receive four coats. First coat shall be pigmented sealer. Second coat shall be enamel undercoat. Third and fourth coats shall gloss or semi-gloss enamel as indicated.

### **3.10 REPAIR OF SPALLING CONCRETE**

- A. Remove surface contamination, broken and spalled concrete to a sound concrete base. Concrete shall be removed to a depth of one-half inch minimum around rebar. Sides of areas to be repaired shall be straight, not tapered or sloped.
- B. Spalled or loose concrete shall be removed using an electric or compressed air chipping hammer.
- C. Clean exposed rebar by sandblasting, remove debris and dust and treat steel with a sealant compatible to patching materials same day. Project Inspector shall approve sealant application prior to any patching materials being applied.
- D. Repair concrete to match existing concrete surfaces using Sika Top 123 Gel Mortar, DAP Concrete Patch, Quikrete Fast-Setting Concrete, or equal.
- E. Sealant and patching materials shall be applied by qualified applicator.

### **3.11 SPRAYING MASONRY/CEMENT PLASTER**

- A. Masonry/plaster material must be a 100 percent acrylic flat paint, color as directed. Material must be applied in strict conformity to manufacturer’s directions. There must be at least 24 hours drying time between first coat which shall be factory tinted 10 percent to 15 percent lighter (or darker) in color than finish coat. Manufacturer shall be acquainted with conditions of surfaces to be refinished and provide written specifications for the job including special primers or additives needed for adhesion sealing of first coat of paint and general performance of materials. Finished surface must be uniform and free of imperfections. Each coat applied to surface must be sprayed using “Cross-Off” method of application by spraying horizontally with a

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50 percent overlap on returns and doubling back with a vertical stroke with a 50 percent overlap on returns.

- B. After painting of masonry/plaster, replace (stencil) security numbers per plot plan. See Owner representative for locations.

### **3.12 STAINED AND VARNISHED SURFACES**

- A. Where existing varnish has been removed and woodwork is to be enameled, woodwork shall be primed as specified under "Priming" and then given three coats. First coat of enamel undercoat, second and third coats of gloss or semi-gloss enamel.
- B. Interior woodwork having a stain and varnish finish shall have areas where painter's finish has been removed, build-up to match adjoining finish with stain, filler for open wood grained wood and varnish. Exposed surfaces of woodwork shall be given two coats of interior gloss varnish, and one coat of interior varnish, semi-gloss finish or as specified herein. Between coats of varnish, surfaces shall be sanded with #220 sandpaper or steel-wool and dusted clean.
- C. Where exterior gloss varnish for finish coat is specified, method of build-up shall be as specified above, however exterior gloss varnish shall be used in lieu of interior varnish. When following items are to receive varnish, three coats of exterior gloss varnish shall be used on: window stools, sash, screens, exterior doors/frames, wood handrails, balustrade caps, chalk rails, toilet stall doors, fixed benches, sash poles, stair treads, risers, bleachers, base and base shoe.
- D. Remove stains from varnished surfaces before refinishing.
- E. Colored varnish is prohibited.

### **3.13 SASH PUTTY**

- A. Loose sash putty must be removed and replaced. Rough, uneven or otherwise deteriorated sash putty shall be sanded smooth or re-puttied.
- B. Sash putty and sealing compound shall be painted with same number of coats as specified for woodwork.

### **3.14 PUTTY**

- A. Holes, open joints of siding, woodwork and sash glazing shall, after surrounding areas have been prepared as specified above, be knife puttied. On stained woodwork, putty must be colored to match stain. Puttying shall be done after first coat of paint or varnish has been applied. Latex sealant may be used on open joints and woodwork. Putty and/or sealant shall be spot primed before finish coat is applied. Putty or latex sealant shall not be used on handball walls or basketball backstops.

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### **3.15 FILLER ON SIDING AND WOODWORK**

- A. Checked and cracked portions of siding and woodwork (after surrounding areas have been prepared as specified above) shall be primed, smoothed with an exterior filling compound and then sanded smooth when dry. Filled areas must be spot primed. Filler shall not be used on handball walls or basketball backstops.

### **3.16 MIXING AND APPLICATION**

- A. Colors of coatings shall be as directed by Project Inspector.
- B. Three coats of paint shall be applied as follows:
  - 1. First coat: primer or undercoat, shall be white.
  - 2. Second coat shall be factory tinted in range of 10 percent to 15 percent lighter or darker than finish coat.
  - 3. Third coat shall be factory tinted to color selected, but allowing for tint variations in more than one color for application to different surfaces. Color combinations in rooms and for surfaces shall be varied in accordance with color letter.
- C. Any number of colors may be used on any portion of work. Owner reserves right to change colors before work is started in an area or on a particular surface.
- D. Various colors may require additional coats of paint complete coverage. No additional allowances will be made. Contractor is responsible for consulting color letter and knowing color and coverage.
- E. Surfaces to be finished and each coating shall be separately inspected by Project Inspector and checked for mill thickness. The requirements are two mils each coat wet and three mils dry after three coats. Notice that such work is ready for inspection shall be given to Project Inspector. Should such notice not be given before succeeding coat is put on, finish applied shall be removed or an additional coat shall be applied, as directed by Project Inspector. Allow at least one day drying time between coats for exterior work or as directed by Project Inspector for proper drying.
- F. Roof work to be painted Q8-38T Birch Gray.

### **3.17 PAINT ROLLERS, BRUSH AND SPRAY**

- A. Paint rollers may be used on interior plaster, drywall, masonry, stucco and plywood surfaces, nap not to exceed 1/2 inch in length.



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- B. First coat on wood overhang and ceilings must have material applied by roller and then must be brushed out in a professional manner to leave surface free of imperfections. Finish coat may be sprayed.
- C. Other surfaces shall have coatings applied with brushes of proper size.
- D. Spray work shall be permitted only on radiators, acoustic plaster, acoustic tile, fiberboard, wood fiber acoustical units, masonry and plaster or as directed by Project Inspector.

### **3.18 PRIMING**

- A. Surfaces from which paint finish have been removed down to original wood or metal surfaces shall be primed as follows:
  - 1. Wood shall be sealed or primed with a non-water borne material on both sides and edges. Wood completely sealed with a non-water borne material shall be top coated with a water borne material as specified herein. Finish material (water borne) shall be compatible with non-water borne primer per manufacturer's recommendations. Hardwood shall be filled and stained to an even color.
  - 2. Galvanized Metal: Clean oil and foreign material from surfaces. Apply vinyl wash pretreatment coating. Follow manufacturer's instructions for drying time, and then prime with one coat of metal primer.
  - 3. Ferrous and non-ferrous metal: Use a primer for ferrous and non-ferrous metal.

### **3.19 FIRE AND LIFE SAFETY EQUIPMENT**

- A. Cal-OSHA requires the following equipment be painted as follows:
  - 1. Gas Mains and Valves shall be painted "gun metal gray" (medium gray)
  - 2. Fire Valves and Raisers shall be painted OSHA's "safety red"

### **3.20 INTERIOR WOODWORK**

- A. Wood surfaces shall be prepared to receive new finish as specified under Preparation of Surfaces, 3.04 and Priming, 3.19

### **3.21 ENAMEL FINISH**

- A. Interior woodwork having an existing enameled finish must have areas where painter's finish has been removed and where spackling has been done in repairing defects in surface, built-up with undercoat. Wood surfaces shall then be given one

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coat of undercoat, a second coat and third coat of finish paint to match room finish. Paint shall be applied as specified under "Colors and Number of Coats."

- B. Unpainted plaster surfaces to receive an enamel finish, must receive four coats of paint. First coat of pigmented sealer, second coat of enamel undercoat, third and fourth coats of gloss or semi-gloss enamel as specified herein.
- C. Previously painted interior surfaces must have patching and places where painted finish has been removed, built up with one coat of a pigmented sealer. Then entire surface including patching shall be given one coat of an enamel undercoat, a second and third coat of gloss or semi-gloss enamel as specified herein.

### **3.22 PLYWOOD WALLS**

- A. Interior plywood walls having an existing stain finish must have exposed plywood joints machine sanded to remove projecting edges and prepared as follows:
- B. Voids between wall surfaces and wood or metal trim or battens, and nail holes must be filled with putty, sealant, or a exterior filler, sanded smooth when dry and dusted clean.
- C. Interior walls must be sanded smooth, brushed off and finished with three coats of paint. First coat of enamel undercoat, second and third coats of semi-gloss enamel.
- D. Exterior plywood shall be cleaned and finished with three coats. First coat shall be undercoat. Second and third coats shall be gloss enamel. Exterior plywood may be sprayed if it is then back-rolled.

### **3.23 INTERIOR PLASTER AND DRYWALL WORK - WALLS, CEILINGS, ETC.**

- A. Where ceilings are specified to be painted, beams, cornices, coves, ornamental features, staff work, plaster grilles, etcetera shall be included.
- B. Ceilings shall be white, unless otherwise noted. Includes classrooms, storage rooms, offices, arcades, etc. Boiler room and fan room ceiling color shall match adjacent walls.
- C. Where walls are specified to be painted, columns, staff work, piers, returns, reveals, soffits of stairs, both sides of stair railings, soffits and reveals of windows and other openings shall be included.
- D. Grease, ink spots and marks of indelible pencils shall be completely removed by use of water and abrasive soap powder without injury to finished surface.
- E. First coat may be thinned per paint manufacturer's recommendation with a thinner prepared specifically for material used. Coats shall be flowed on freely. First coat must be prepared so as to stop suction, and should any dead spots appear, they shall

## **SECTION 099013 - PAINTING OF EXISTING FACILITIES**

be touched up before next coat is applied. The last coat shall be a uniform surface, free of defects.

### **3.24 AREAS REQUIRING ENAMEL**

#### **A. Interior and Exterior Enamel – Gloss**

Woodwork, walls and ceilings (except acoustic tile or acoustic plaster or as otherwise specified herein) in following areas:

1. Shops.
2. Miscellaneous Rooms: Toilet rooms, custodian closets, storerooms, boiler and mechanical rooms.
3. Kitchen Complex: Color; Eastwind – Fill and seal cracks and voids.

#### **B. Interior and Exterior Enamel – Semi-Gloss**

Woodwork, walls and ceilings (except acoustic tile or acoustic plaster or as otherwise specified herein) in following areas:

1. Administrative offices.
2. Faculty lounges and auditoriums.
3. Walls and surfaces in rooms or areas specified to receive an enamel finish and not herein specified to receive a Gloss Enamel finish, shall have a finish coat of Semi-Gloss Enamel.

#### **C. Interior masonry, brick and concrete surfaces having an existing painter's finish shall be finished same as specified for interior plaster and drywall. Concrete pan ceilings may be sprayed as directed by Project Inspector.**

### **3.25 UNPAINTED METAL**

#### **A. Unpainted bronze, brass, copper work, window grilles, stairways, handrails, chain-link fences, stainless steel, open metal shelving, porcelain metal faced cabinets and aluminum will not be painted, unless otherwise specified.**

### **3.26 PAINTED METAL**

#### **A. Exposed structural steel, miscellaneous/ornamental iron, sheet metal work, guards, steel sash, gates, painted aluminum, basketball rims, etcetera shall have surfaces cleaned and prepared as specified. The areas from which original painter's finish has been removed shall be spot primed with metal primer to match adjoining surfaces and then surfaces shall be given a prime coat of metal primer, second and third coats as specified. Copper pipe shall be painted with one coat of enamel**

## **SECTION 099013 - PAINTING OF EXISTING FACILITIES**

undercoat per manufacturer's recommendation, a second and third coat of enamel as specified.

- B. Painted ornamental iron rails and gates, metal ceilings (metal decking, etcetera) stairs, pipe columns, and pipe rails shall be prepared and finished as specified herein. Metal decking and metal roll-up doors may be sprayed.
- C. Exterior surfaces (except bottom) of exterior metal storage container, including both sides of door(s) and edges shall be prepared, primed and painted. Exterior metal storage container(s) must be sprayed.

### **3.27 ELECTRICAL CABINETS**

- A. Front side of doors and exposed lip around doors to electrical cabinets in finished areas must be finished same as walls.

### **3.28 WINDOWS**

- A. Remove window coverings as required and salvage for re-installation. Replace all coverings damaged due to scope.

### **3.29 CLEANING**

- A. Glass, polycarbonate and fiberglass on interior and exterior where painting has been done shall be cleaned of paint and varnish. Glass, fiberglass and polycarbonate that are scratched or damaged by painting work, shall be replaced with material to match original.
- B. Finished bronze, copper, brass fittings, plated work, name plate and fusible links and chains shall be cleaned of paint.
- C. Before applying finish coat of material to exterior sash with security grilles, Contractor shall clean window panes with a cleaner.
- D. Dispose of debris, waste or unused materials, off site. Use of school dumpsters is strictly prohibited.
- E. Remove paint from hardware, including paint from previous painting.
- F. Contractor shall free sash and leave it in an easy operating condition.
- G. Glass, fiberglass and polycarbonate on exterior shall be traced neat and clean with no more than 1/16 inch overlay. Paint specks, smears or splatters shall be immediately removed and surface cleaned.
- H. Rooms, Buildings, and Campuses must be cleaned of paint debris, including dust caused by painting project to approval of Project Inspector and OAR.

## **SECTION 099013 - PAINTING OF EXISTING FACILITIES**

### **3.30 POST OCCUPANCY WORK**

- A. Two months after substantial completion, OAR will arrange a date and time when the Contractor must return to the site to check and free sashes that were painted so they are in proper operating condition.

**END OF SECTION**

## **SECTION 101400 - SIGNAGE**

### **PART 1 – GENERAL**

#### **1.1 SUMMARY**

- A. This Section includes the following:
  - 1. Panel signs (room signs).
  - 2. Exterior signs.
  - 3. Signage accessories.
  - 4. Directional Signage.

#### **1.2 QUALITY ASSURANCE**

- A. Supplier: Obtain all products in this section from a single supplier.
- B. Regulatory Requirements: Products shall meet requirements of the Americans With Disabilities Act Accessibility Guidelines (ADAAG) and local amendments and modifications.
- C. Installer: Installation shall be performed by installer specialized and experienced (5 years minimum) in work similar to that required for this project.

#### **1.3 SUBMITTALS**

- A. Submit in accordance with requirements of Division 1.
- B. Product Data: Submit product data for specified products. Include material details for each sign specified.
- C. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including dimensions, anchorage, and accessories.
- D. Samples: Submit supplier's standard color chart for selection purposes and selected colors for verification purposes.
- E. Installation: Submit supplier's installation instructions.
- F. Closeout Submittals:
  - 1. Submit operation and maintenance data for installed products, including precautions against harmful cleaning materials and methods.
  - 2. Submit warranty documents specified herein.

## **SECTION 101400 - SIGNAGE**

### **1.4 DELIVERY, STORAGE, AND HANDLING**

- A. Comply with requirements of Division 1.
  - 1. Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
  - 2. Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact.
  - 3. Store products protected from weather, temperature, and other harmful conditions as recommended by supplier.
  - 4. Handle products in accordance with manufacturer's instructions.

### **1.5 WARRANTY**

- A. Project Warranty: Comply with requirements of Division 1.
- B. Manufacturer's Warranty: Submit manufacturer's standard warranty document executed by authorized company official in which manufacturer agrees to repair or replace components of signage fails in materials or workmanship within specified warranty period.
  - 1. Warranty Period: 1 year.
- C. Installer Warranty: 1 year.

## **PART 2 – PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Signs: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
  - 1. Best Sign Systems Inc.
  - 2. ASI Sign Systems, Inc.
  - 3. Curcio Enterprises, Inc.
  - 4. Mohawk Sign Systems.
  - 5. Sign A Rama.
  - 6. Or approved equal.

## SECTION 101400 - SIGNAGE

### 2.2 PANEL SIGNS

- A. General: Provide panel signs that comply with requirements indicated for materials, thicknesses, finishes, colors, designs, shapes, sizes, and details of construction.
  - 1. Produce smooth panel sign surfaces constructed to remain flat under installed conditions within tolerance of plus or minus 1/16 inch measured diagonally.
- B. Signs:
  - 1. Unframed Panel Signs: Fabricate signs with edges mechanically and smoothly finished.
  - 2. Room, Occupancy, Wayfinding Signs: As selected from 4 standard copy size signs.
  - 3. Toilet Room Signs: As selected from manufacturer's standard.
  - 4. Symbols of Accessibility: Provide 6-inch- high symbol fabricated from opaque nonreflective vinyl film, 0.0035-inch nominal thickness, with pressure-sensitive adhesive backing suitable for both exterior and interior applications.
  - 5. Material:
    - a. 1/4 inch thick (thicker than standard) "MP", acrylic sheet, ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).
  - 6. Tactile and Braille Copy: Manufacturer's standard process for producing copy complying with CBC 11B-703.3 and 11B-703.3.1
  - 7. Text shall be accompanied by California Contracted Grade 2 Braille raised domed dots. Produce precisely formed characters with square cut edges free from burrs and cut marks, use dome dots.
  - 8. Directional Signage.
  - 9. Copy: As indicated on Drawings.

### 2.3 EXTERIOR SIGNS

- A. Material: Aluminum.
- B. Text: As indicated on Drawings.



## **SECTION 101400 - SIGNAGE**

### **2.4 ACCESSORIES**

- A. Mounting Methods:
  - 1. Use concealed fasteners fabricated from materials that are not corrosive to sign material and mounting surface.
  - 2. Use vinyl tape and silicone adhesive as recommended by sign manufacturer for specific mounting surface.
- B. Anchors and Inserts: Provide nonferrous-metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or lead expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.

### **2.5 FINISHES, GENERAL**

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within range of approved Samples and are assembled or installed to minimize contrast.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Site Verification of Conditions: Verify installation conditions previously established under other sections are acceptable for product installation in accordance with manufacturer's instructions.
- B. Scheduling of installation by Owner or its representative implies that substrate and conditions are prepared and ready for product installation. Proceeding with installation implies installer's acceptance of substrate and conditions.

### **3.2 INSTALLATION**

- A. Install product in accordance with supplier's instructions.

## **SECTION 101400 - SIGNAGE**

- B. Install product in locations indicated using mounting methods recommended by sign manufacturer and free from distortion, warp, or defect adversely affecting appearance.
- C. Install product level, plumb, and at heights indicated.
- D. Install product at heights to conform to Americans with Disabilities Act Accessibility Guidelines (ADAAG) and applicable local amendments and regulations.
- E. Install signs within the following tolerances and in accordance with manufacturer's recommendations:
  - 1. Interior Signs: Within 1/4 inch vertically and horizontally of intended location.

### **3.3 CLEANING, PROTECTION, AND REPAIR**

- A. Repair scratches and other damage which might have occurred during installation. Replace components where repairs were made but are still visible to the unaided eye from a distance of 3 feet.
- B. Remove temporary coverings and protection to adjacent work areas. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project in accordance with provisions in Division 1.

### **3.4 SIGN SCHEDULE**

- A. Schedule: Refer to signage schedule and Drawings for sizes, locations, and layout of signage types, sign text copy, and graphics.

**END OF SECTION**



**Bay Shore Library  
195 Bay Shore Avenue, Long Beach, California  
Asbestos and Lead Survey Findings**

**Pacific EH&S Report No. 19-1363A**

*Prepared for:*

**Ingrid Zubieta  
333 West Ocean Boulevard, 10<sup>th</sup> Floor  
Long Beach, California**

*Prepared by:*

**Pacific EH&S Services, Inc.  
2192 Martin, Ste. 245  
Irvine, California 92612**

**June 19, 2019**

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## **1.0 Introduction**

On June 10, 2019, Pacific EH&S Services, Inc. (Pacific EH&S), performed an asbestos and lead survey at the Bay Shore library located at 195 Bay Shore Avenue in Long Beach, California. Pacific EH&S's representatives involved with the survey included Kyle Phillips, State of California Certified Site Surveillance Technician (CSST No. 13-5128) and California Department of Public Health (CADPH) Lead Inspector/Assessor (CADPH No. 26060); Gabriela Solorio, Accredited Asbestos Building Inspector and Lead Sampling Technician; and Matt Durlene, State of California Certified Asbestos Consultant (CAC No. 96-2091).

## **2.0 Background Information**

This survey was performed at the request of Ms. Ingrid Zubieta of the City of Long Beach. Ms. Zubieta informed Pacific EH&S that an upcoming renovation project was slated for the interior bathrooms and exterior of building, and that a survey was requested to assess the materials that could be impacted during the project for asbestos and lead content prior to the commencement of planned work.

## **3.0 Scope of Services and Limitations**

### **3.1 Scope of Services**

This survey included the following services:

- A visual inspection of the building's restrooms and exterior walls and windows for the purpose of identifying materials or surface coatings suspected to contain asbestos and/or lead.
- The collection of representative bulk samples of observed suspect materials/surface coatings for the purpose of evaluating them for asbestos and/or lead content.
- Photo documentation of the surveyed materials/surface coatings and locations.
- The delivery of samples collected during the survey to qualified laboratories for appropriate analyses.

### **3.2 Limitations**

Our inspection and sampling efforts included intrusive techniques (i.e., pieces of existing material/surface coating were cut or chipped away at representative locations, efforts were made to inspect representative locations under/behind existing floor coverings, baseboards, etc.). It should be noted, however, that not all areas located under/behind existing materials/surface coatings were accessed for inspection/sampling, as extensive demolition would have been required to comprehensively inspect all such areas.

## **4.0 Visual Inspection Findings**

### **4.1 Identification of Suspected ACM**

Observed materials suspected to contain asbestos were grouped as homogenous materials (i.e., materials that were alike in color and texture and that were believed to have been installed at the same time), as outlined in Table IA provided as an attachment with this report.

### **4.2 Identification of Suspected Lead Containing Surface Coatings**

Observed surface coatings suspected to contain lead were grouped as functional groups (i.e., surface coatings that were alike in appearance and substrate and that were believed to have been installed at the same time), as outlined in Table IIA provided as an attachment with this report.

### **4.3 Photo Documentation**

Representative digital photographs were taken of the surveyed materials/surface coatings and are provided as an attachment with this report. References to the photographs are presented in the attached tables.

## **5.0 Sampling and Analytical Techniques**

### **5.1 Asbestos Sampling and Analyses**

In order to assess the suspect materials observed during our survey for asbestos content, representative bulk material samples were collected for asbestos analyses. Wet methods were used during sample collection and each bulk specimen was sealed in an airtight container and assigned a discrete sample identification number. The sampling strategy utilized was based on applicable State of California, Department of Industrial Relations, Division of Occupational Safety and Health (Cal-OSHA) and United States Environmental Protection Agency (EPA) recommended sampling protocols. The specific sample locations are depicted on the Sample Locations Site Plan provided as an attachment with this report.

Following our field survey, the samples were submitted for asbestos analyses to Forensic Analytical Laboratories (Forensic) located in Rancho Dominguez, California, which was accredited by the National Institute of Standards and Technology through participation in the National Voluntary Laboratory Accreditation Program (NVLAP No. 101459-1). The analyses were performed by polarized light microscopy (PLM) in accordance with EPA Method 600/M4-82-020.

### **5.2 Lead Sampling and Analyses**

In order to assess the suspected lead containing surface coating observed during our survey for lead content, a representative bulk sample was collected for lead analysis. The sample was sealed in an airtight container and assigned a discrete sample identification number. Generally speaking, our sampling strategy consisted of the collection of at least one representative sample from each functional group. The specific sample locations are depicted on the Sample Locations Site Plan provided as an attachment with this report.

Following our field survey, the samples were submitted for lead analyses to Forensic Analytical Laboratories, Inc. located in Rancho Dominguez, California, which was accredited by the American Industrial Hygiene Association (Laboratory ID No. 101762) and the State of California Department of Health Services Environmental Testing Laboratory (ELAP 1202). Analyses were performed by acid digestion and flame atomic absorption spectroscopy in accordance with EPA Method 3050B/7000B.

## **6.0 Asbestos Sample Results and Conclusions**

### **6.1 Interpretation of Sample Results**

Upon consideration of the asbestos sample results, which are presented in Table IA and in the Forensic Analytical report provided as attachments with this report, it should be noted that an ACM, as defined by Cal-OSHA in Title 8, California Code of Regulations, Section 1529 (T8, CCR, §1529), is any material containing more than one percent asbestos. In addition, Cal-OSHA defines asbestos containing construction material as any material containing more than 0.1 percent asbestos.

The PLM analytical method used to analyze the samples collected during this survey had a lower limit of quantification of one percent. Given that detection limit, the following criteria were used to interpret the sample data: a material would be considered an ACM if asbestos was detected at any concentration (including at concentrations of less than one percent) in any samples within the group of samples that represented the material, and a material would be considered non-asbestos-containing if asbestos was not detected in any samples within the corresponding group.

### **6.2 Asbestos Findings**

Asbestos was not detected in any of the materials samples in the interior restrooms or on the exterior walls and windows of the building. All such materials were therefore concluded to be non-ACM and non-ACCM.

## **7.0 Lead Sample Results and Conclusions**

### **7.1 Interpretation of Sample Results**

Upon consideration of the lead sample results, which are presented in Table IIA and in the Forensic Analytical report provided as attachments with this report, it should be noted that based on our sampling and analytical strategy, a surface coating type would be considered lead containing if lead was detected at a concentration at or above the laboratory's reported analytical detection limit in any of the samples representing the surface coating. Conversely, a surface coating type would be considered non-lead containing if lead was not detected at or above the laboratory's reported analytical detection limit in the corresponding sample(s).

### **7.2 Lead Findings**

The sample results indicated that lead was detected in the various paints ranged from non-detect up to 4,100 parts per million (ppm).

### **7.3 Physical Hazard Assessment**

The lead-containing paints sampled during this survey were generally in good condition, though peeling and flaking of the following paints were noted:

Brown paint over wood - Decorative exterior wall; front and back

White paint over metal - Flashing; trash enclosure

Brown paint over wood - Exterior window frames throughout

Brown paint over wood - Exterior door frames; patio fence

### **8.0 Recommendations**

#### **8.1 Work Involving Lead-Containing Surface Coatings and Materials**

Personnel and/or contractors performing such work, as well as any other work involving disturbances to the lead-containing surface coatings and materials identified in this report, should be informed of the presence (and concentrations) of lead in the surface coatings and of their responsibility to comply with any applicable worker protection and/or waste disposal regulatory requirements. Given the concentrations of lead in the paint, utilizing "lead safe work practices" during the removal of stucco along the subject wall should be sufficient to protect workers and the nearby areas from lead exposure/contamination. To that end, the stucco should be broken out using hand methods as opposed to mechanical cutting or chipping means; wet methods or HEPA-equipped vacuums should be utilized to prevent airborne emissions of concrete and lead-containing paint; and additional dust control measures should be utilized, such as placing 6-mil visqueen on the floor to collect debris, covering of any HVAC vents in the immediate vicinity, and all objects should either be removed from the area prior to work or they should be covered with visqueen.

#### **8.2 Waste Handling**

The City of Long Beach's Environmental Representative for the site should be consulted regarding the proper handling of any lead-containing waste generated during the planned work, though such materials are anticipated to be construction debris.

#### **8.3 Additional Asbestos and Lead Considerations**

If, during future work, materials or surface coatings suspected to contain asbestos or lead are encountered that were not specifically addressed during this survey (e.g., under/behind existing materials or in areas of the building that were not included in this survey), the newly discovered suspect materials/surface coatings should be appropriately evaluated for asbestos and/or lead content prior to initiating any work or activities involving their disturbance.



City of Long Beach  
Bay Shore Library  
195 Bay Shore Avenue, Long Beach, California  
Asbestos and Lead Survey Findings  
Pacific EH&S Report No. 19-1363A  
Page 5 of 5

If you have any comments or questions concerning the content of this report, or if we may be of further assistance, please contact our office at (949) 250-6396.

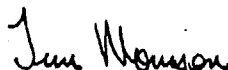
Sincerely,

**Pacific EH&S Services, Inc.**



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Matthew W. Durlene  
Principal  
Certified Asbestos Consultant No. 96-2091



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Timothy J. Morrison  
Certified Industrial Hygienist  
CADPH Lead Inspector/Assessor No. 4165



**Table IA**  
**Asbestos Survey Findings**  
**City of Long Beach, Bay Shore Library**  
**195 Bay Shore Ave., Long Beach, California**  
**June 10, 2019**

Material Description	Material Location(s)	Friability	Physical Damage	Quantity Estimate (ft <sup>2</sup> )	Sample No.(s)	Asbestos Results	Photo No.(s)
Gyplath plaster	Interior restrooms; walls and ceiling cap	NF	0	300 ft <sup>2</sup>	19-1363-0610-A1-A3	NAD	1
12x12" vinyl floor tile; tan and black speckled; and mastic	Floors and walls in restrooms	NF	0	150 ft <sup>2</sup>	19-1363-0610-A4-A6	NAD	2
4' vinyl cove base; and black mastic	Base of walls in restroom	NF	0	10 ft <sup>2</sup>	19-1363-0610-A7-A9	NAD	2
White stucco	Exterior walls throughout	NF	0	6,000 ft <sup>2</sup>	19-1363-0610-A10-A12	NAD	6
Concrete	Exterior stairs; walk way	NF	0	100 ft <sup>2</sup>	19-1363-0610-A13-A15	NAD	5

**Legend**  
0: No visible damage  
1: Visible damage – <5% overall  
2: Visible damage – 5-10% scattered or up to 25% localized  
3: Visible damage – >10% scattered or >25% localized  
F: Friable  
ft<sup>2</sup>: Square feet  
NAD: No asbestos detected  
NF: Non-friable

**Table IA**  
**Asbestos Survey Findings**  
**City of Long Beach, Bay Shore Library**  
**195 Bay Shore Ave., Long Beach, California**  
**June 10, 2019**

Material Description	Material Location(s)	Friability	Physical Damage	Quantity Estimate (ft <sup>2</sup> )	Sample No.(s)	Asbestos Results	Photo No.(s)
Textured concrete	East and north; exterior foundation	NF	1	200 ft <sup>2</sup>	19-1363-0610-A16-A18	NAD	4
Decorative rock concrete	East patio walk way	NF	1	300ft <sup>2</sup>	19-1363-0610-A19-A21	NAD	10
Ceramic tile with grout and mortar	East entry way wall	NF	1	200 ft <sup>2</sup>	19-1363-0610-A22-A24	NAD	15,16
Off-white stucco	Trash enclosure	NF	1	120ft <sup>2</sup>	19-1363-0610-A25-A27	NAD	14

**Legend**

0: No visible damage  
1: Visible damage – <5% overall  
2: Visible damage – 5-10% scattered or up to 25% localized  
3: Visible damage – >10% scattered or >25% localized  
F: Friable  
ft<sup>2</sup>: Square feet  
NAD: No asbestos detected  
NF: Non-friable

**Table IIA**  
**Lead Survey Findings**  
**City of Long Beach, Bay Shore Library**  
**195 Bay Shore Ave., Long Beach, California**  
**June 10, 2019**

Surface Coating Description	Surface Coating Location(s)	Sample No.(s)	Results (ppm)	Photo No.(s)
Off-white paint over gyplath plaster	Interior restrooms; ceiling cap	19-1363-0610-L1	130	1
White paint over stucco	Exterior walls throughout	19-1363-0610-L2	<60	6, 7
Manufactured tan paint over metal	Overhang flashing	19-1363-0610-L3	<300	7
Brown paint over wood	Decorative exterior wall; front and back	19-1363-0610-L4	1,600	9
Brown paint over metal	Exterior handrails	19-1363-0610-L5	<60	11
White paint over metal	Conduit cover west side	19-1363-0610-L6	<60	8
White paint over stucco	Trash enclosure	19-1363-0610-L7	200	14

**Legend**

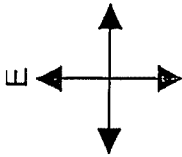
< Not detected at concentration at or above the reported analytical detection limit  
ppm: Parts per million

**Table IIA**  
**Lead Survey Findings**  
**City of Long Beach, Bay Shore Library**  
**195 Bay Shore Ave., Long Beach, California**  
**June 10, 2019**

Surface Coating Description	Surface Coating Location(s)	Sample No.(s)	Results (ppm)	Photo No.(s)
Brown paint over metal	Trash enclosure	19-1363-0610-L8	<70	14
White paint over metal	Flashing; trash enclosure	19-1363-0610-L9	3,400	13
Brown paint over wood	Exterior window frames throughout	19-1363-0610-L10	4,100	6
Brown paint over wood	Exterior door frames; patio fence	19-1363-0610-L11	330	9,12
Off-white tile over mortar	East wall entry wall	19-1363-0610-L12	<6	16
Blue tile over mortar	East wall entry wall	19-1363-0610-L13	13	15
Brown paint over textured concrete	Exterior patio	19-1363-0610-L14	220	3

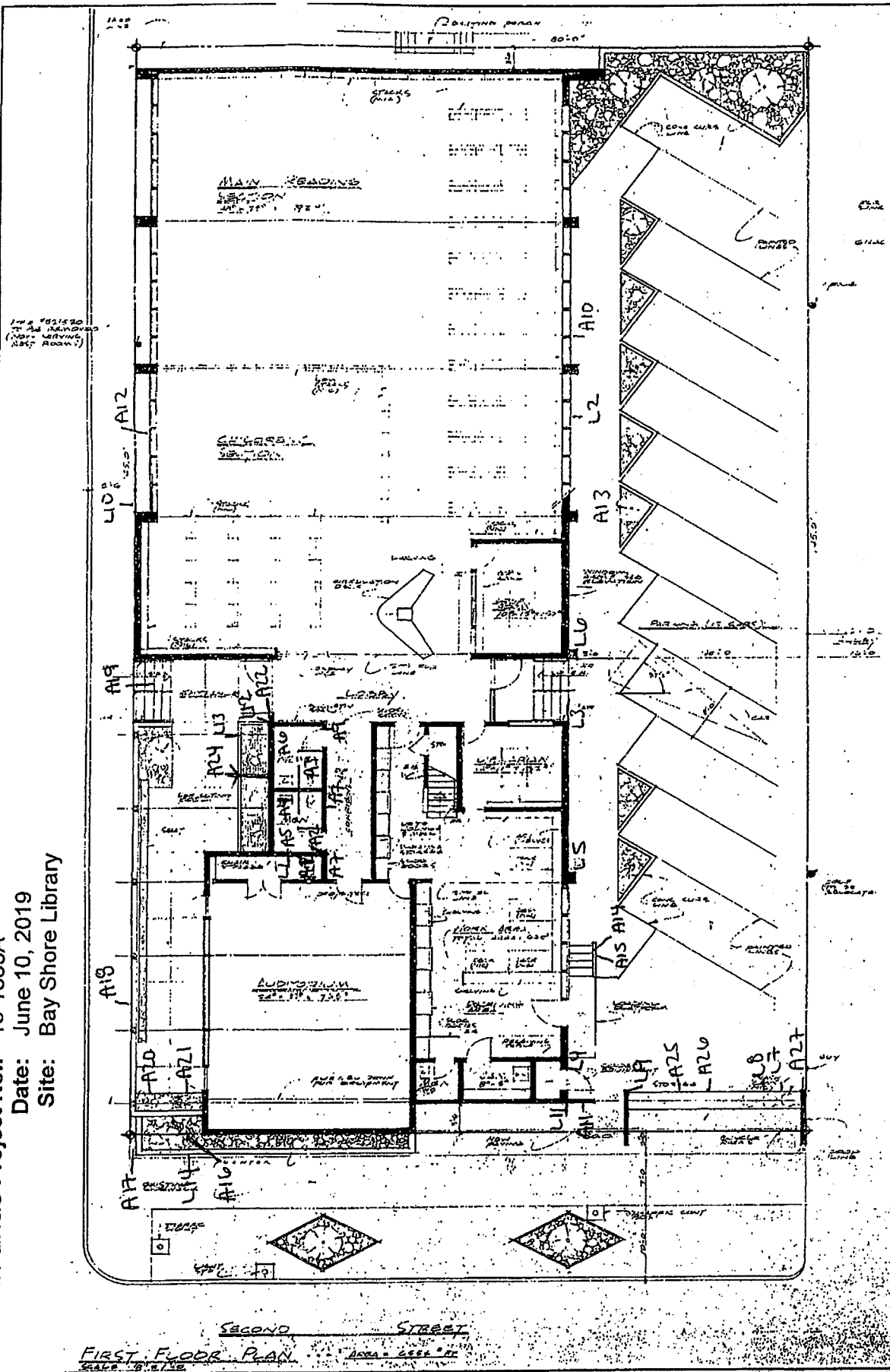
**Legend**

<: Not detected at concentration at or above the reported analytical detection limit  
 ppm: Parts per million



# SAMPLE LOCATIONS SITE PLAN

Client: City of Long Beach  
Pacific EH&S Project No.: 19-1363A  
Date: June 10, 2019  
Site: Bay Shore Library

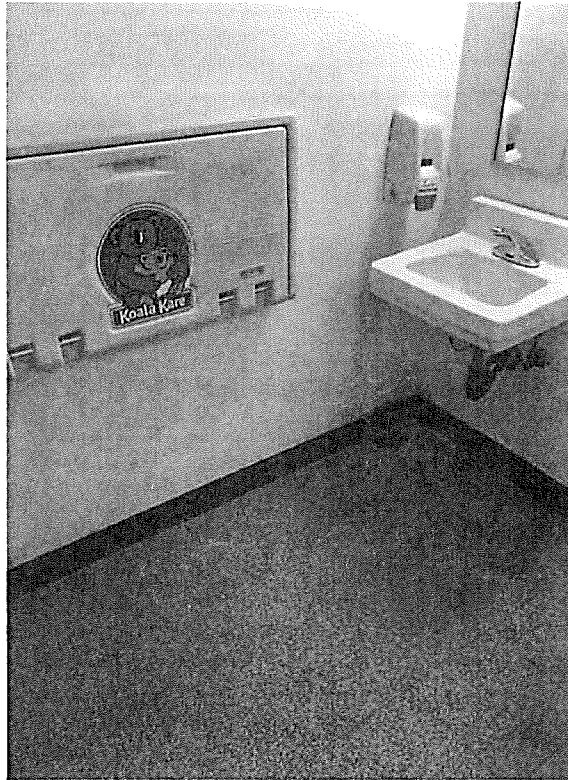


Pacific EH&S Services, Inc.  
2192 Martin, Suite 245, Irvine, CA 92612 • Phone: 949.250.6396 • Fax: 949.250.6398 • Website: [www.pacificehs.com](http://www.pacificehs.com)

June 10, 2019

City of Long Beach  
Bay Shore Library  
195 Bay Shore Ave.  
Asbestos and Lead Survey

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Project No. 19-1363A



1.Interior base of walls in restrooms.jpg

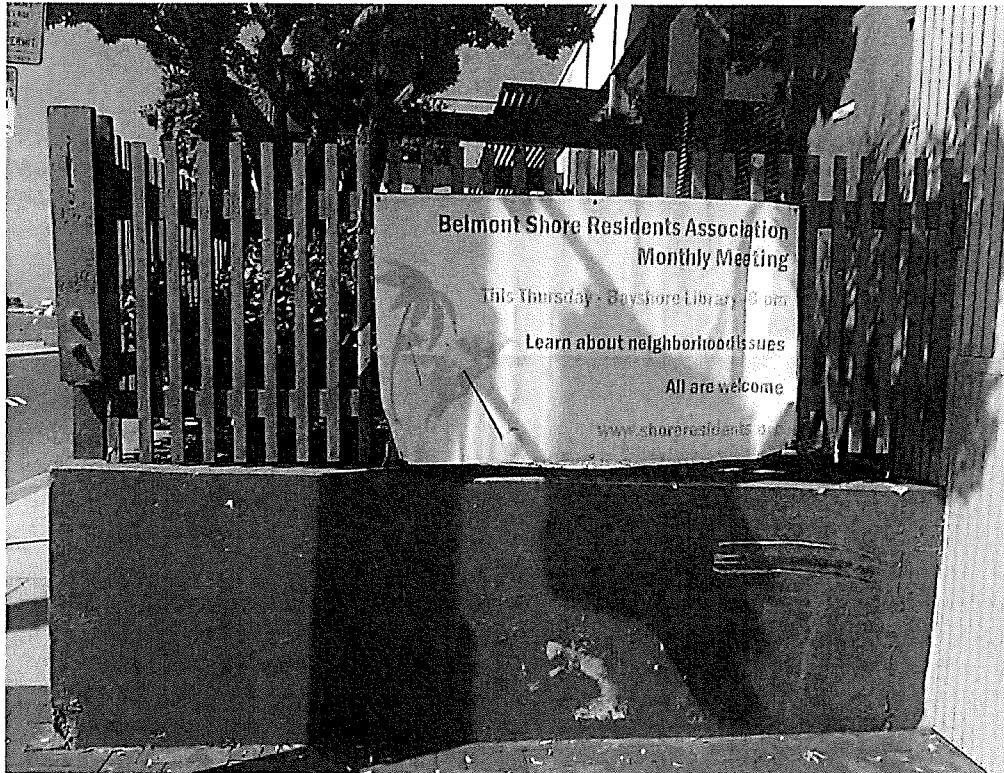


2.Interior restroom floors.jpg

June 10, 2019

City of Long Beach  
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Asbestos and Lead Survey

Pacific Eh&S, Inc.  
Project No. 19-1363A



3.Exterior textured concrete.jpg



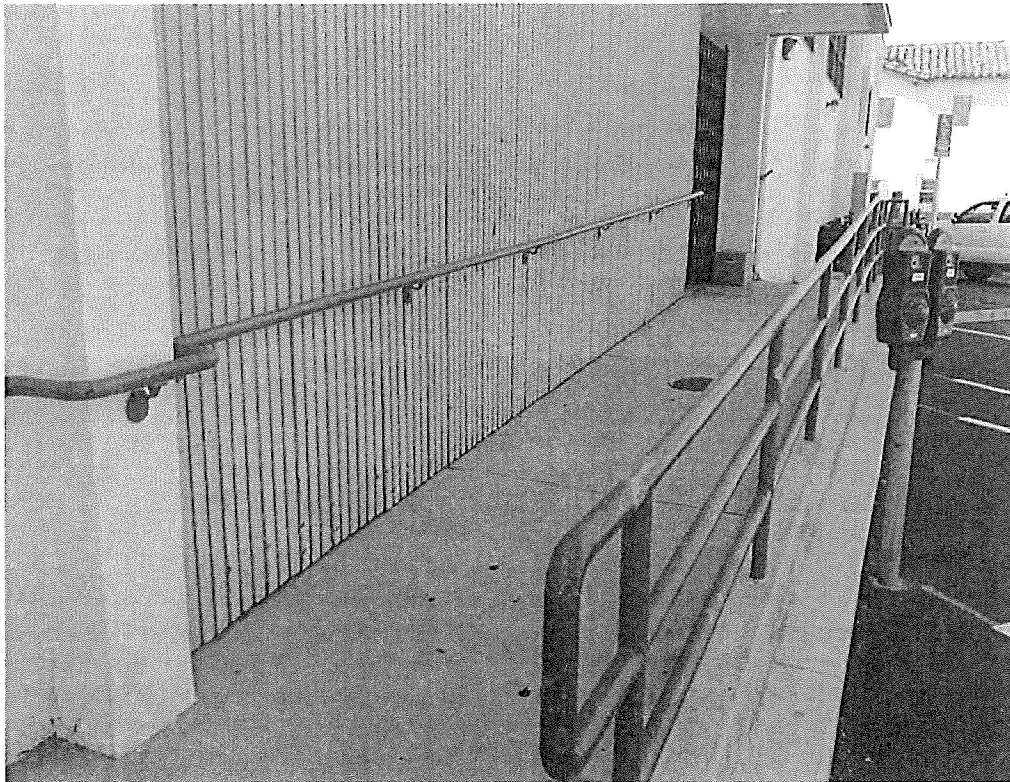
4.Exterior foundation.jpg



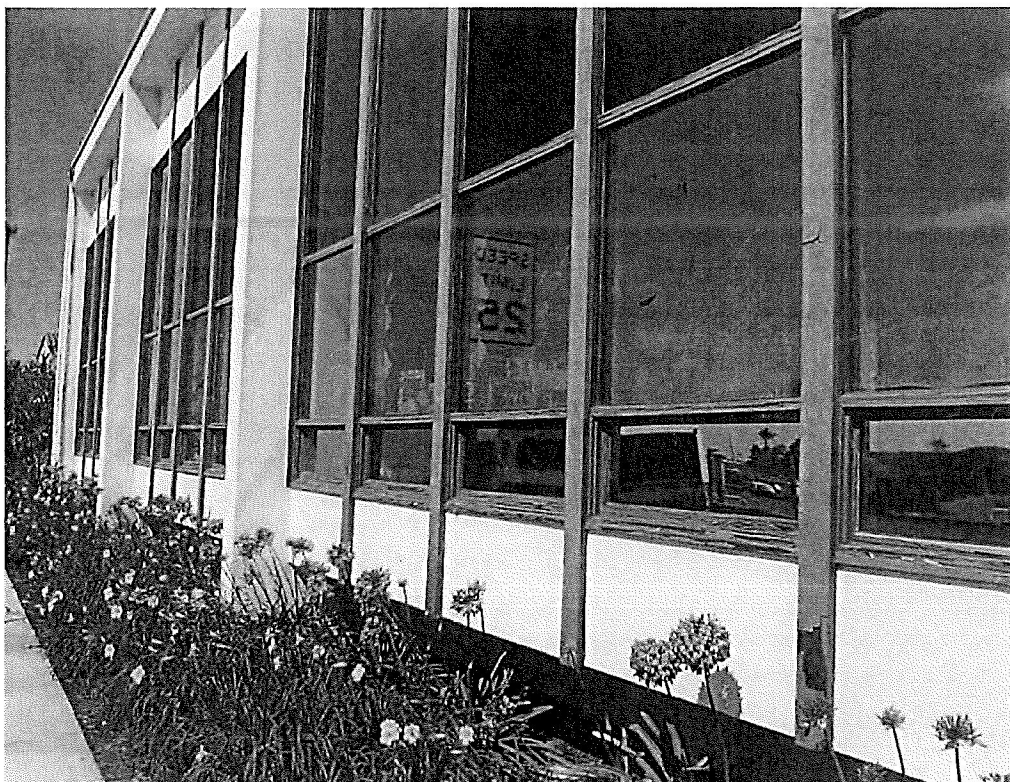
June 10, 2019

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Asbestos and Lead Survey

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Project No. 19-1363A



5.Exterior walk way-stairs.jpg



6.Exterior walls and window frames.jpg

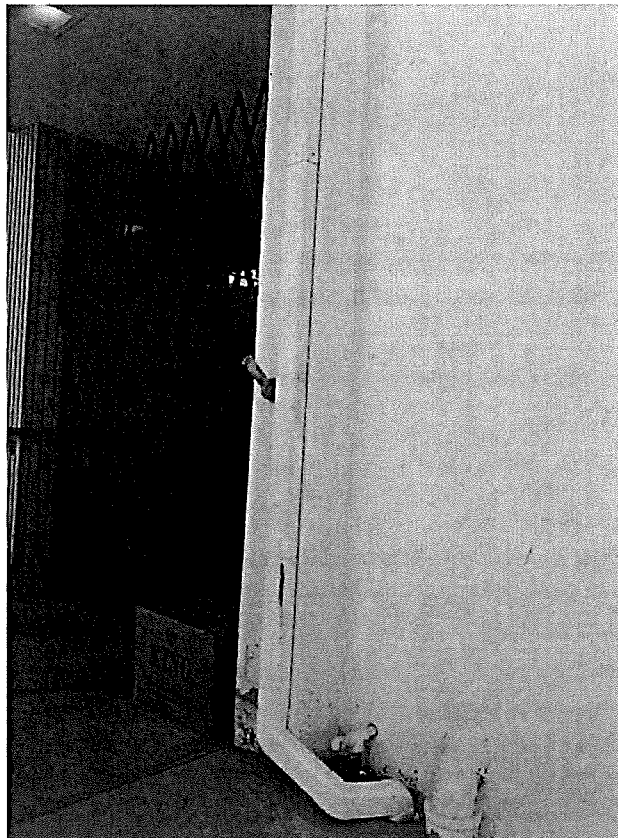
June 10, 2019

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7.Exterior west wall.jpg

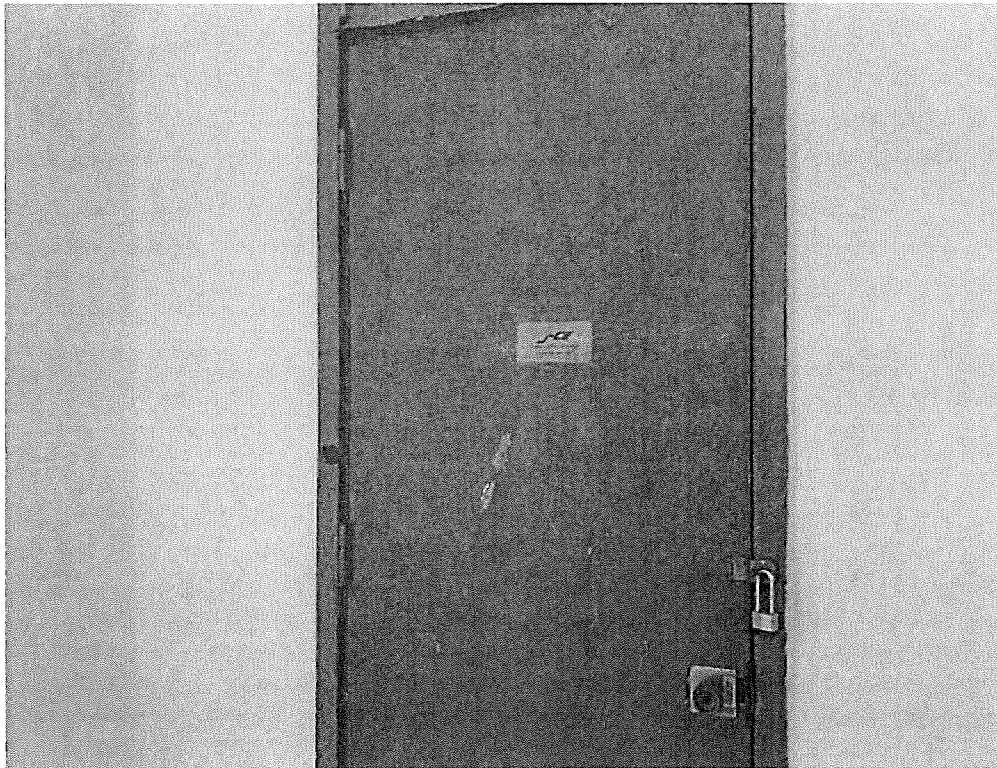


8.Conduit cover west side.jpg

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9.Door frames.jpg



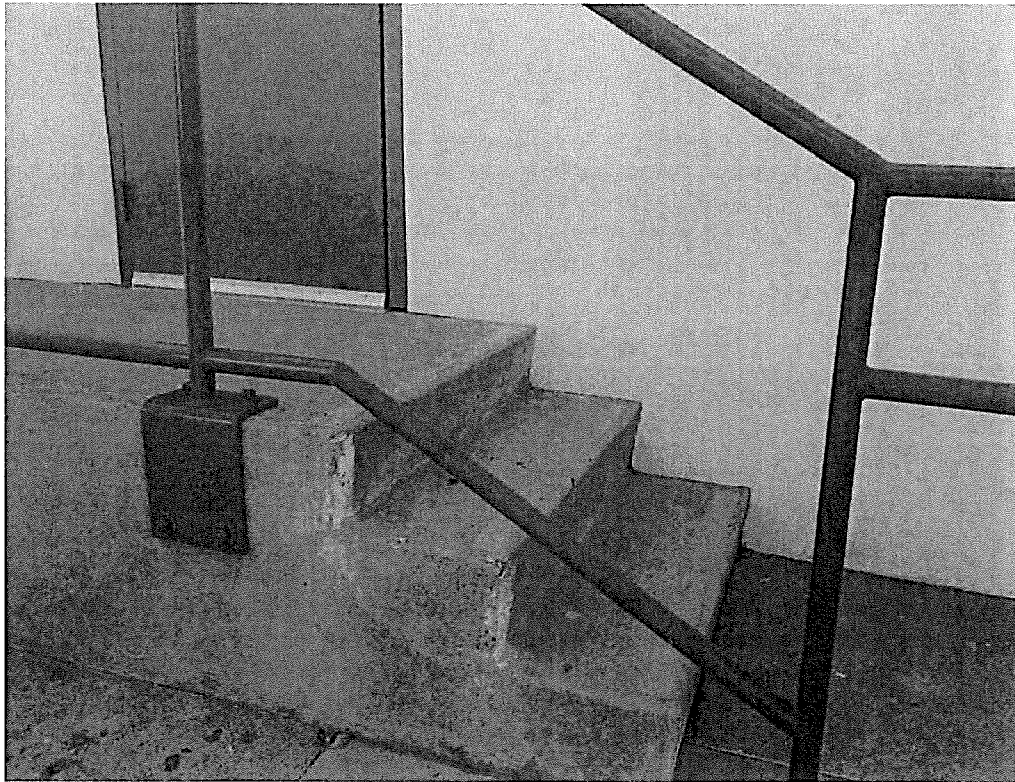
10.East walk way patio.jpg



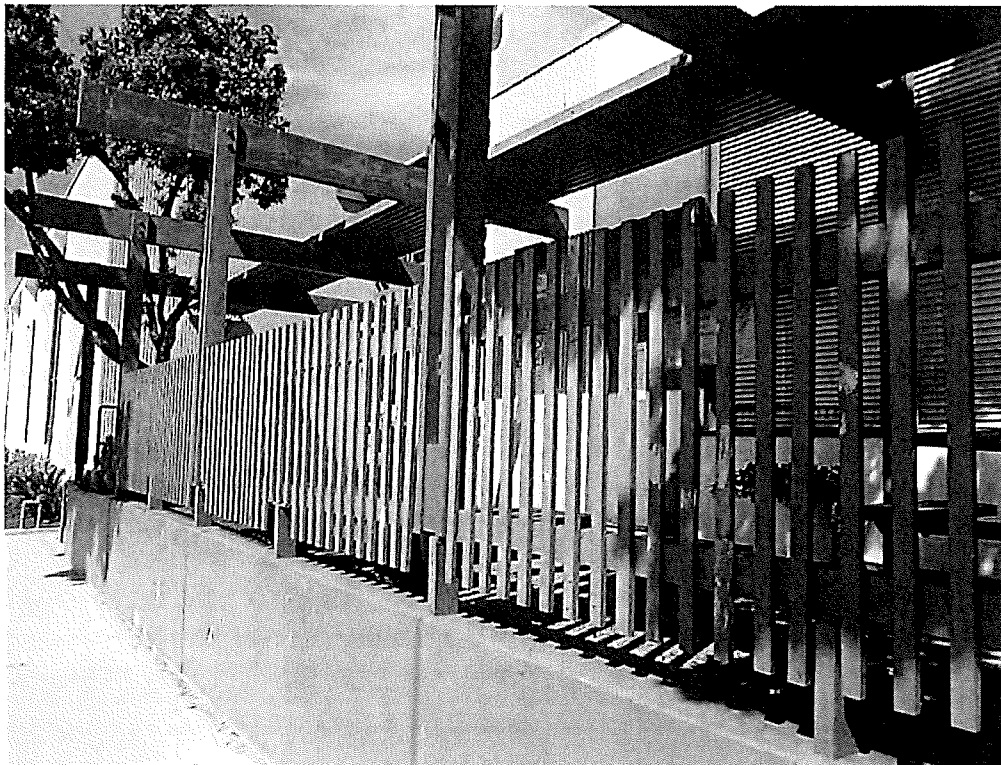
June 10, 2019

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Project No. 19-1363A



11.Stairs and railings.jpg

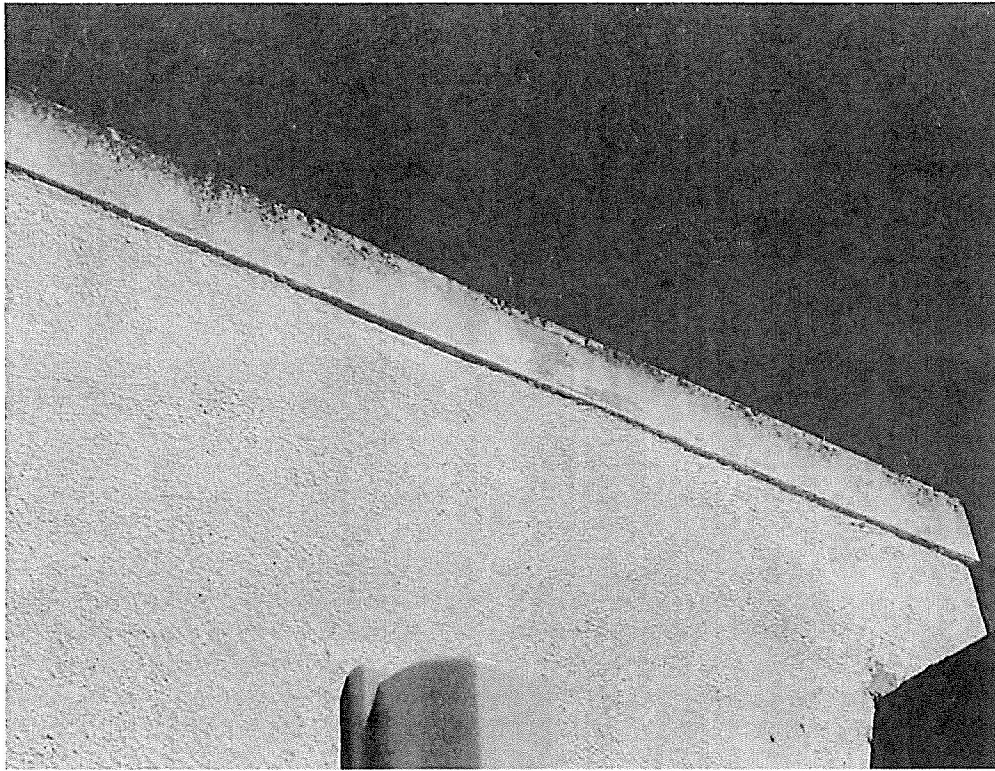


12.Patio fence.jpg

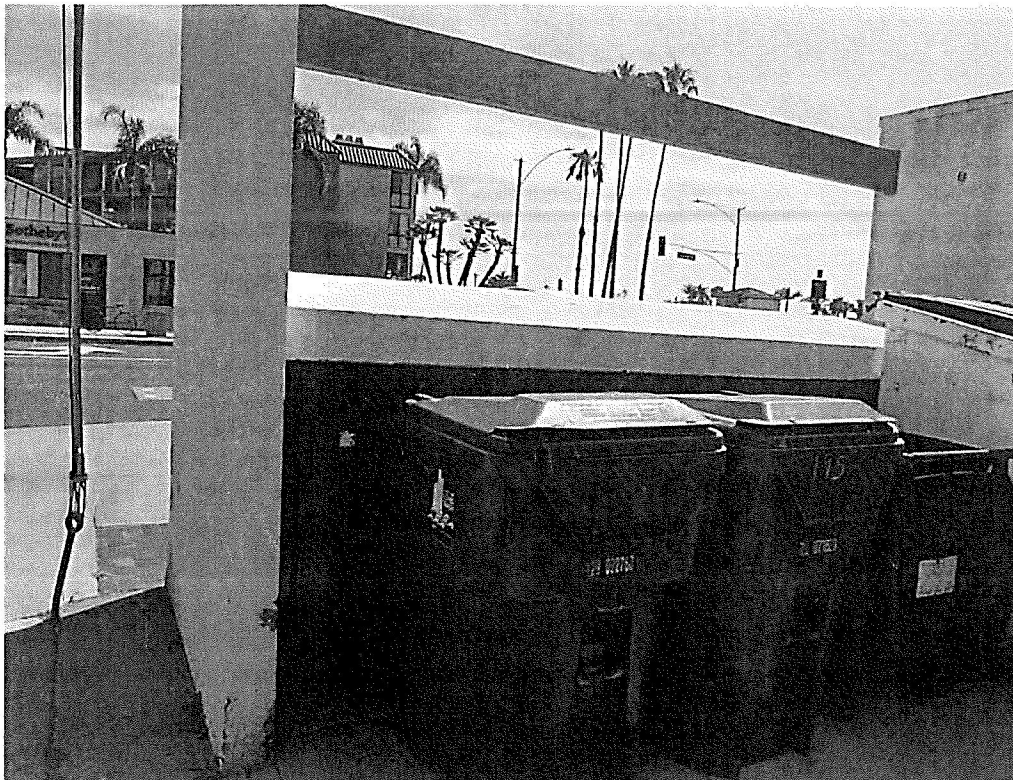
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13.Trash enclosure flashing.jpg

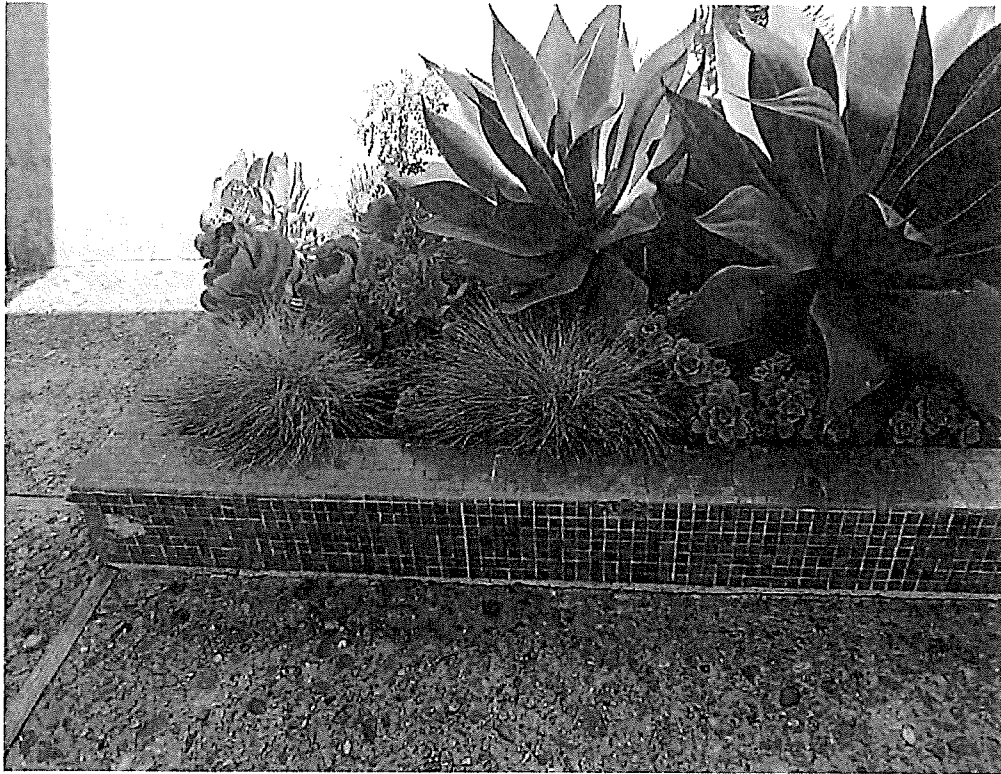


14.Trash enclosure.jpg

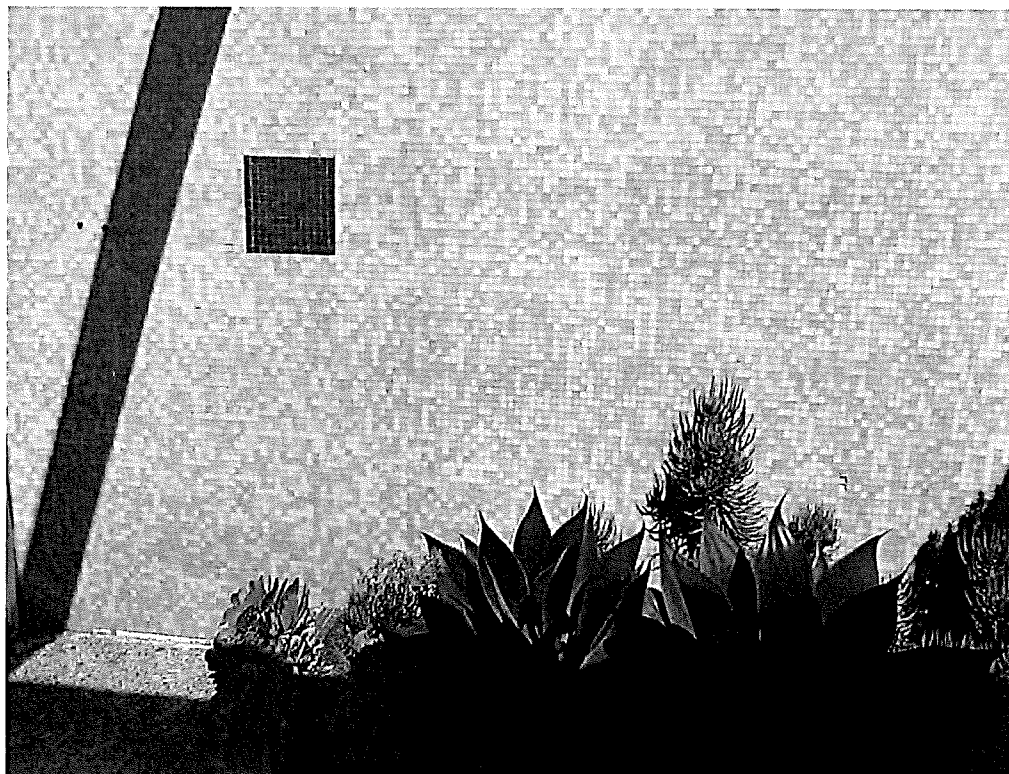
June 10, 2019

City of Long Beach  
Bay Shore Library  
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Project No. 19-1363A



15.Blue tile.jpg



16.Off-white tile.jpg





## Bulk Asbestos Analysis

(EPA Method 600/M4-82-020, Visual Area Estimation)\*  
NVLAP Lab Code: 101459-0

Pacific EH&S Services, Inc.  
Tim Morrison/Matt Durlene  
2192 Martin, Suite 245

Irvine, CA 92612

Client ID: 6030  
Report Number: B278450  
Date Received: 06/10/19  
Date Analyzed: 06/14/19  
Date Printed: 06/14/19  
First Reported: 06/14/19

Job ID/Site: 19-1363

FALI Job ID: 6030  
Total Samples Submitted: 27  
Total Samples Analyzed: 27

Date(s) Collected: 06/10/2019

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
19-1363-0610-A1	51236810						
Layer: Light Grey Plaster			ND				
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
19-1363-0610-A2	51236811						
Layer: Light Grey Plaster			ND				
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
19-1363-0610-A3	51236812						
Layer: Light Grey Plaster			ND				
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
19-1363-0610-A4	51236813						
Layer: Grey Tile			ND				
Layer: Yellow Mastic			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
19-1363-0610-A5	51236814						
Layer: Grey Tile			ND				
Layer: Yellow Mastic			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
19-1363-0610-A6	51236815						
Layer: Grey Tile			ND				
Layer: Yellow Mastic			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							

Client Name: Pacific EH&S Services, Inc.

Report Number: B278450

Date Printed: 06/14/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>19-1363-0610-A7</b>	51236816						
Layer: Brown Non-Fibrous Material			ND				
Layer: White Mastic			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A8</b>	51236817						
Layer: Brown Non-Fibrous Material			ND				
Layer: White Mastic			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A9</b>	51236818						
Layer: Brown Non-Fibrous Material			ND				
Layer: White Mastic			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A10</b>	51236819						
Layer: Grey Cementitious Material			ND				
Layer: Tan Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A11</b>	51236820						
Layer: Grey Cementitious Material			ND				
Layer: Tan Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A12</b>	51236821						
Layer: Grey Cementitious Material			ND				
Layer: Tan Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A13</b>	51236822						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A14</b>	51236823						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							



Report Number: B278450

Date Printed: 06/14/19

Client Name: Pacific EH&amp;S Services, Inc.

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>19-1363-0610-A15</b>	51236824						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A16</b>	51236825						
Layer: Grey Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A17</b>	51236826						
Layer: Grey Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A18</b>	51236827						
Layer: Grey Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A19</b>	51236828						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A20</b>	51236829						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A21</b>	51236830						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A22</b>	51236831						
Layer: White Ceramic Tile			ND				
Layer: White Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
<b>19-1363-0610-A23</b>	51236832						
Layer: Blue Ceramic Tile			ND				
Layer: White Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							

Client Name: Pacific EH&S Services, Inc.

Report Number: B278450

Date Printed: 06/14/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
19-1363-0610-A24	51236833						
Layer: Blue Ceramic Tile			ND				
Layer: White Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
19-1363-0610-A25	51236834						
Layer: Grey Cementitious Material			ND				
Layer: Tan Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
19-1363-0610-A26	51236835						
Layer: Grey Cementitious Material			ND				
Layer: Tan Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							
19-1363-0610-A27	51236836						
Layer: Grey Cementitious Material			ND				
Layer: Tan Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (ND)							



Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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\* Note: This report is in compliance with EPA method 600/R-93-116 and EPA Method 40CFR, Part 763, Appendix E to Subpart E.



2192 Martin, Suite 245, Irvine CA 92612  
Phone 949.250.6396  
Fax 949.250.6398  
www.pacificehs.com

## REQUEST FOR ANALYSIS

PROJECT NO.	19-1363	NOTES:
PURCHASE ORDER NO.	N/A	
DATE SUBMITTED	6/10/19	
LAB DESTINATION	Forensic	
TURNAROUND REQUESTED	314 day	

SAMPLE IDENTIFICATION	DATE SAMPLED	SAMPLE MEDIUM CATALOG # / LOT #	AIR SAMPLE VOLUME	ANALYSIS REQUESTED
19-1363-0610-A1	6/10/19	bulk	N/A	Asbestos by PLM
A2				
A3				
A4				
A5				
A6				
A7				
A8				
A9				
A10				
A11				
A12				
A13				
A14				
A15				
A16				
A17				
A18				
A19				
A20				
A21				
A22				
A23				
A24				
A25				
A26				
A27				

CHAIN OF CUSTODY	PRINT NAME	SIGNATURE	DATE & TIME
RELINQUISHED BY	Gabriela Solorio	Gaby Solorio	6/10/19 10:45
RECEIVED BY	A Anderson		6/10/19 10:45
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

# Metals Analysis of Paints

(AIHA-LAP, LLC Accreditation, Lab ID #101629)

Pacific EH&S Services, Inc.  
Tim Morrison/Matt Durlene  
2192 Martin, Suite 245

Irvine, CA 92612

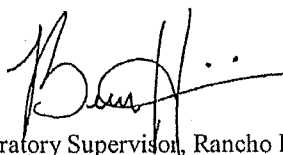
**Client ID:** 6030  
**Report Number:** M211999  
**Date Received:** 06/10/19  
**Date Analyzed:** 06/14/19  
**Date Printed:** 06/14/19  
**First Reported:** 06/14/19

**Job ID / Site:** 19-1363  
**Date(s) Collected:** 06/10/19

**FALI Job ID:** 6030  
**Total Samples Submitted:** 14  
**Total Samples Analyzed:** 14

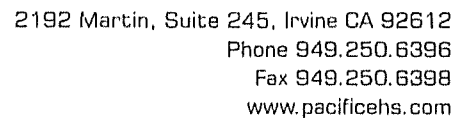
Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
19-1363-0610-L1	LM170929	Pb	130	ppm	60	EPA 3050B/7000B
19-1363-0610-L2	LM170930	Pb	< 60	ppm	60	EPA 3050B/7000B
19-1363-0610-L3	LM170931	Pb	< 300	ppm	300	EPA 3050B/7000B
Comment: Sample submission below 0.1 grams.						
19-1363-0610-L4	LM170932	Pb	1600	ppm	200	EPA 3050B/7000B
19-1363-0610-L5	LM170933	Pb	< 60	ppm	60	EPA 3050B/7000B
19-1363-0610-L6	LM170934	Pb	< 60	ppm	60	EPA 3050B/7000B
19-1363-0610-L7	LM170935	Pb	200	ppm	60	EPA 3050B/7000B
19-1363-0610-L8	LM170936	Pb	< 70	ppm	70	EPA 3050B/7000B
19-1363-0610-L9	LM170937	Pb	3400	ppm	200	EPA 3050B/7000B
19-1363-0610-L10	LM170938	Pb	4100	ppm	200	EPA 3050B/7000B
19-1363-0610-L11	LM170939	Pb	330	ppm	60	EPA 3050B/7000B
19-1363-0610-L12	LM170940	Pb	< 6	ppm	6	EPA 3050B/7000B
19-1363-0610-L13	LM170941	Pb	13	ppm	6	EPA 3050B/7000B
19-1363-0610-L14	LM170942	Pb	220	ppm	60	EPA 3050B/7000B

\* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.



Beatriz Hinojosa, Laboratory Supervisor, Rancho Dominguez Laboratory

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PROJECT NO.	19-1363	NOTES:
PURCHASE ORDER NO.	N/A	
DATE SUBMITTED	6/10/19	
LAB DESTINATION	Forensic	
TURNAROUND REQUESTED	3/4 day	

CHAIN OF CUSTODY	PRINT NAME	SIGNATURE	DATE & TIME
RELINQUISHED BY	Gabriela Solonio	Gaby Solonio	6/10/19 10:45
RECEIVED BY	A Anderson	[Signature]	6/10/19 10:45am
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

**Abatement Work Plan**  
**City of Long Beach – Bayshore Library**  
**Window Removal and Paint Abatement/Stabilization Project**

**Project Details**

Psomas PM:	Eric Gruber
Environmental Rep.:	Ingrid Zubieta, City of Long Beach Safety Department
Abatement Contractor:	
Abatement Contractor PM:	
Consultant:	Pacific EH&S Services, Inc. (Pacific EH&S)
Consultant PM:	Tim Morrison
Applicable Survey Report(s):	Pacific EH&S 19-16363A

**Background Information/Scope of Work**

The selected abatement contractor will be removing windows and stabilizing loose/flaking paint around windows at the City of Long Beach Bayshore Library. Past surveys have shown that paints contain lead at concentrations up to 4,100 parts per million (ppm). The specific locations for window removal and paint stabilization will be designated by Psomas in conjunction with the selected abatement contractor and the City of Long Beach.

Estimated quantities are as follows:

- stabilization and removal of loose and flaky paint on window sills and walls (approximately 7,290 square feet); and
- removal of windows (approximately 62 number of windows).

Pacific EH&S will have a representative on site during the abatement work to provide project oversight services (including visual oversight, perimeter air monitoring, and clearance inspections as appropriate) to verify compliance with applicable regulatory requirements and this work plan.

**Regulatory Notifications**

Agency/Type	Notification Needed (Yes/No?)	Submitted*
Cal-OSHA/Asbestos	No	No
SCAQMD/Asbestos	No	No
Cal-OSHA/Lead	Yes	Yes

\*Copy of notifications will be present at site over duration of work

**Schedule**

This project is scheduled to be completed commencing on Fall, 2022.

**Work Practices/Control Measures**

The following work practices/control measures will be implemented by the selected abatement contractor during the window removal and paint stabilization work:

- All work will be performed using "lead safe work practices."

- Work will be performed in regulated areas that are demarcated using caution/danger warning tape in a manner so as to limit access to authorized abatement personnel, and lead warning signage will be posted.
- The surface of the ground/asphalt/concrete/floor in regulated areas will be covered with poly sheeting out to 10 feet from working surfaces, both inside and outside the building.
- Work will cease if wind speeds are greater than 20 miles per hour or if paint chips and/or associated debris are blown off containment. Work must stop and cleanup must occur before rain begins.
- Window removal will be performed in a fashion so as to limit the disturbance to paints. Components will be removed whole and intact if possible. High efficiency particulate air (HEPA) equipped vacuums will be used to minimize airborne dust emissions continuously at the work surface. Wet methods will be further used to minimize and control dust emissions as necessary.
- Paint stabilization will be accomplished using hand tools to remove and stabilize paint from surfaces. High-efficiency particulate air (HEPA)-filtration vacuums will be utilized to prevent dust/emissions.
- LBC may be applied to stabilized areas at the request of the City of Long Beach.
- Paint chips/debris generated during work will be promptly cleaned up and containerized (in impermeable plastic bags which will be placed in 55-gallon drums with appropriate labels), and each work area will be subjected to a thorough final cleaning using wet-wiping and HEPA-vacuumping methods.
- Work tools, equipment, bagged waste, etc. will be properly decontaminated (using wet-wiping and/or HEPA-vacuumping methods such that items are free of visible dust/residue) prior to leaving a regulated work area to prevent the spread of lead/metals contamination.
- A visual clearance inspection will be performed upon the completion of all activities that disturb or remove paint and after visual inspection has revealed that no remaining visible paint contaminants are present in the regulated area.

### Personal Safety and Personal Protective Equipment

Measures to be Utilized During Paint Removal Work Are Marked Below					
X	Disposable suits and gloves	X	Half-mask air-purifying respirators with HEPA (P100) cartridges (past personal exposure monitoring data justifies this level of respiratory protection)		Full-face air-purifying respirators with HEPA and/or Organic Vapor / HEPA cartridges
	Powered air-purifying respirators	X	Personal hygiene (hand-washing, etc.)		Other:

### General Safety

Measures to be Utilized Are Marked Below					
X	First aid kits maintained on site	X	CPR and First-Aid trained supervisor on site		Emergency egress route to be marked
X	Fire extinguishers to be maintained on site	X	Daily tailgate safety meeting(s) to be conducted	X	Emergency phone numbers to be posted
X	Cell phones to be maintained on site for	X	SDSs to be maintained on site for any chemicals used	X	Fall protection systems with individual wall anchors as tie

	emergency communication			off points with retractable harnesses for workers within 6 feet of the parapet.
X	Other measures (specify): <ul style="list-style-type: none"><li>• Plastic sheeting materials utilized on the project will be fire retardant</li><li>• Site/project-specific Contractor Safety Notices will be present and will be reviewed and discussed at the outset of the project</li></ul>			

### **Air Monitoring/Clearance**

Exposure monitoring for lead will be conducted by the selected abatement contractor during paint removal work in accordance with applicable Cal-OSHA requirements, with sample analyses performed at an appropriately qualified laboratory.

Pacific EH&S will collect lead air samples at representative, stationary locations outside regulated areas during abatement work to verify the effectiveness of the work practices and control measures in preventing emissions. The samples will be analyzed at an appropriately qualified laboratory. Pacific EH&S will conduct a clearance inspection in each work area at the completion of abatement work and prior to releasing/de-regulating the area.

### **Waste Handling**

Paint waste generated during the project will be double bagged (using impermeable plastic bags), labeled, and placed into drums, which will be labeled (per the direction of the selected abatement contractor's Environmental Representative) and left on site for subsequent disposal by the City of Long Beach.

### **Worker Certification and Regulatory Compliance**

All abatement work will be performed by personnel who are properly trained and qualified to perform such work, and all such work will be performed in accordance with applicable local, state, and federal rules and regulations.



# EXHIBIT “A-1”

## Contractor’s Proposal



CA License # 605280 AZ License # 285689 NV License # 75007

Tel 909.599.0760  
Fax 909.599.7762  
SpectraCompany.com  
2510 Supply Street Pomona, CA 91767  
DIR Number:1000006472

## PROPOSAL / CONTRACT

Attention: Eric Gruber

Project Name: Bay Shore Branch Library

Psomas  
5 Hutton Centre Dr #300  
Santa Ana, CA 92707

195 Bay Shore Ave  
Long Beach, CA 90803

Work:  
Mobile: (714) 393-1617  
E-Mail: eric.gruber@psomas.com

Project # 108722

Date: 07/01/22

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## Scope of Work

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### GENERAL QUALIFICATIONS

#### QUALITY ASSURANCE

Work will comply with local, state, and federal governing agencies and/or the specifications/procedures outlined by the architect, structural engineer, and/or material supplier to ensure restoration is performed in compliance with established guidelines.

#### GENERAL INCLUSIONS

1. Maintain digital photo documentation for archival purposes.
2. Provide product submittals/samples.
3. AM Best Rated – Liability/Bonding/Workers Compensation Insurance.
4. Product specifications and material safety data sheets (MSDS).
5. Coordination with other trades.
6. Statement of Qualification - (see attached).
7. Proposal based on prevailing wage rates, one move-in and work to be performed during normal daytime hours, Monday thru Friday.

#### GENERAL EXCLUSIONS

Permits, fees, parking expenses, more than one move-in, scaffolding, unforeseen conditions, design, engineering, power, water, deputy inspections, traffic control, and window cleaning.

7/5/2022

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## **01. LEAD ABATEMENT OF EXISTING WINDOWS**

### **AREAS/SURFACES**

Provide lead abatement of the loose and flaky paint on the exterior windows (as required prior to removal/disposal of existing windows)

### **RESTORATION TREATMENT PROCEDURES - AS REQUIRED**

1. Prepare for restoration protecting adjacent surfaces.
2. Lead Based Paint Remediation - Scrape and Intact Method - scrape loose and flaky lead based paint with certified licensed abatement personnel.
3. Dispose lead based paint at OSHA approved hazardous waste site.
4. Provide one (1) sample mock-up for approval.

Specific Exclusions: Full paint removal (stripping).

**Sub Total - \$21,647.66**

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## **02. SELECTIVE REMOVAL/DEMO**

### **AREAS/SURFACES**

- A. Selective removal and dispose of the existing exterior windows
- B. Selective removal and salvage of the existing wood beams/mullions on the large south windows (unrepairable beams to be disposed of and replaced)

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C. Selective removal and salvage of cabinetry at south large windows. Cabinetry to be carefully removed, alpha numerically catalogued, protected, and stored at an onsite location for future reinstallation in the original location.

\* All openings to be secured prior stopping work. Windows to be removed one at a time as required to secure reinstall opening prior to leaving for the day.

Specific Exclusions: Hazardous material abatement, Minor damage during removal of cabinetry, and structural work.

**Sub Total - \$32,825.98**

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### **03. NEW EXTERIOR WINDOW INSTALLATION**

#### **AREAS/SURFACES**

Install factory glazed Pella wood windows at the exterior facade

Scope to specifically include:

- A. Onsite field measurements
- B. Unloading and installation of new factory glazed Pella Reserve, Traditional, Sash Set Windows. Windows to include:
  - 1. Insulated Dual Low-E SunDefense™ Low-E Insulating Glass W/Argon Gas
  - 2. Interior black stained finish (exterior primed)
  - 3. Putty glazed (to match original windows)
  - 4. Windows to be screwed to wood substrate
- C. Caulk and seal frame to wall connection with sealant
- D. Reinstall new/salvaged wood beams/mullions on south large windows

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E. Reinstallation of removed cabinetry

F. Reinstall removed window coverings

Window Performance Information:

\* U-Factor 0.26

\* SHGC 0.22

\* VLT 0.51

\* CPD PEL-N-41-37281-00002

\* Performance Class LC

\* PG 50, Calculated Positive DP Rating 50, Calculated Negative DP Rating 50

Specific Exclusions: Excludes cost of windows, removing existing windows, flashing, waterproofing, patching/preparation of existing openings, engineering, calcs, and structural work.

**Sub Total - \$124,804.82**

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**04. PROVIDE NEW PELLA WINDOWS**

**AREAS/SURFACES**

Provide new Pella Aluminum Clad retrofit block windows for the exterior facade per Pella quote #14712068

Actual window cost (with tax) -  $\$137,899 + 15\% = \$158,583.85$

**Sub Total - \$158,583.85**

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## **05. PLASTER INFILL**

### **AREAS/SURFACES**

Provide new plaster infill at removed south elevation awning windows to specifically include:

- A. 2x stud framing
- B. Densglass exterior
- C. Waterproofing at Densglass to wood beams.
- D. Lath and paper backing
- E. New three coat plaster system
- F. New 1/2" x 4" redwood trim around each opening (as required to cover exposed waterproofing)
- G. New Interior drywall finish

**Sub Total - \$19,856.80**

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## **06. LIFT EQUIPMENT**

### **AREAS/SURFACES**

Provide scissor lifts/boom lifts to access work area.

\* Floor to be protected under the interior scissor lifts with Ramboard

**Sub Total - \$8,470.00**

**PRESERVE ♦ PROTECT ♦ RESTORE**

7/5/2022

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**07. BONDING**

Provide Bonding

\* Bonding to be 2% of final contract price

**Sub Total - \$7,323.00**

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**SUMMARY OF ESTIMATES**

<b>01. LEAD ABATEMENT OF EXISTING WINDOWS .....</b>	<b>\$21,647.66</b>
<b>02. SELECTIVE REMOVAL/DEMO .....</b>	<b>\$32,825.98</b>
<b>03. NEW EXTEROR WINDOW INSTALLATION .....</b>	<b>\$124,804.82</b>
<b>04. PROVIDE NEW PELLA WINDOWS .....</b>	<b>\$158,583.85</b>
<b>05. PLASTER INFILL.....</b>	<b>\$19,856.80</b>
<b>06. LIFT EQUIPMENT.....</b>	<b>\$8,470.00</b>
<b>07. BONDING .....</b>	<b>\$7,323.00</b>

**Grand Total - \$373,512.11****CONDITIONS**

**Payment Terms:** 10% of total dollar volume accepted due upon receipt for commencement prior to scheduling. Progress billings to be billed monthly until project completion and due net 30 days from date of invoice. We propose to furnish material, equipment, supplies, labor and tax, complete in accordance with the above specifications.

***This proposal may be withdrawn if not accepted within 90 days.***

Respectfully submitted by: Reuben Lombardo - Senior Preservation Estimator

Mobile: 310-614-5592

Work: 909-599-0760 x115

E-mail: rlombardo@spectracompany.com

Authorized by: Ray Adamyk - President



Acceptance Signature: \_\_\_\_\_ Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_ Date of Acceptance: \_\_\_\_\_

**PRESERVE ♦ PROTECT ♦ RESTORE**



# EXHIBIT “B”

## WORKERS’ COMPENSATION CERTIFICATION

**WORKERS' COMPENSATION CERTIFICATION**

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

Contractor's Name:

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

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Title: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT "B"**

# EXHIBIT “C”

INFORMATION TO COMPLY WITH LABOR CODE  
SEC. 2810

## INFORMATION TO COMPLY WITH LABOR CODE SEC. 2810

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

- 1) Workers' Compensation Insurance:
  - A. Policy Number: \_\_\_\_\_
  - B. Name of Insurer (**NOT** Broker): \_\_\_\_\_
  - C. Address of Insurer: \_\_\_\_\_
  - D. Telephone Number of Insurer: \_\_\_\_\_
- 2) For vehicles owned by Contractor and used in performing work under this Contract:
  - A. VIN (Vehicle Identification Number): \_\_\_\_\_
  - B. Automobile Liability Insurance Policy Number: \_\_\_\_\_
  - C. Name of Insurer (**NOT** Broker): \_\_\_\_\_
  - D. Address of Insurer: \_\_\_\_\_
  - E. Telephone Number of Insurer: \_\_\_\_\_
- 3) Address of Property used to house workers on this Contract, if any: \_\_\_\_\_  
\_\_\_\_\_
- 4) Estimated total number of workers to be employed on this Contract: \_\_\_\_\_
- 5) Estimated total wages to be paid those workers: \_\_\_\_\_
- 6) Dates (or schedule) when those wages will be paid: \_\_\_\_\_  
\_\_\_\_\_  
(Describe schedule: For example, weekly or every other week or monthly)
- 7) Estimated total number of independent contractors to be used on this Contract: \_\_\_\_\_  
\_\_\_\_\_
- 8) Taxpayer's Identification Number: \_\_\_\_\_

### EXHIBIT "C"

# EXHIBIT “D”

List of Subcontractors:

## LIST OF SUBCONTRACTORS

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

Name \_\_\_\_\_ Type of Work \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Dollar Value of Subcontract \$ \_\_\_\_\_  
Phone No. \_\_\_\_\_ DIR Registration No. \_\_\_\_\_  
License No. \_\_\_\_\_

Name \_\_\_\_\_ Type of Work \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Dollar Value of Subcontract \$ \_\_\_\_\_  
Phone No. \_\_\_\_\_ DIR Registration No. \_\_\_\_\_  
License No. \_\_\_\_\_

Name \_\_\_\_\_ Type of Work \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Dollar Value of Subcontract \$ \_\_\_\_\_  
Phone No. \_\_\_\_\_ DIR Registration No. \_\_\_\_\_  
License No. \_\_\_\_\_

Name \_\_\_\_\_ Type of Work \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Dollar Value of Subcontract \$ \_\_\_\_\_  
Phone No. \_\_\_\_\_ DIR Registration No. \_\_\_\_\_  
License No. \_\_\_\_\_

Name \_\_\_\_\_ Type of Work \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Dollar Value of Subcontract \$ \_\_\_\_\_  
Phone No. \_\_\_\_\_ DIR Registration No. \_\_\_\_\_  
License No. \_\_\_\_\_

# APPENDIX “A”

BOE-400-DP (FRONT) REV 2. (8-05)  
**APPLICATION FOR  
USE TAX DIRECT PAYMENT PERMIT**

STATE OF CALIFORNIA  
BOARD OF EQUALIZATION

*Please type or print clearly. Read instructions on reverse before completing this form.*

**SECTION I - BUSINESS INFORMATION**

NAME OF BUSINESS OR GOVERNMENTAL ENTITY	SALES/USE TAX PERMIT NUMBER
BUSINESS ADDRESS (street)	CONSUMER USE TAX ACCOUNT NUMBER
CITY, STATE, & ZIP CODE	If applicant is applying for either a sales/use tax permit or a consumer use tax account in addition to a use tax direct payment permit check here <input type="checkbox"/>
MAILING ADDRESS (street address or po box if different from business address)	
CITY, STATE, & ZIP CODE	NAME UNDER WHICH BUSINESS IS TO BE TRANSACTED IF DIFFERENT THAN ABOVE

**SECTION II - MULTIPLE BUSINESS LOCATIONS**

LIST BELOW THE BUSINESS AND MAILING ADDRESSES OF ALL LOCATIONS WHERE PROPERTY PURCHASED UNDER A  
USE TAX DIRECT PAYMENT CERTIFICATE WILL BE USED. IF ADDITIONAL SPACE IS NEEDED, ATTACH A SEPARATE SHEET

1. BUSINESS ADDRESS	4. BUSINESS ADDRESS
MAILING ADDRESS	MAILING ADDRESS
2. BUSINESS ADDRESS	5. BUSINESS ADDRESS
MAILING ADDRESS	MAILING ADDRESS
3. BUSINESS ADDRESS	6. BUSINESS ADDRESS
MAILING ADDRESS	MAILING ADDRESS

**SECTION III - CERTIFICATION STATEMENT**

I hereby certify that I qualify for a *Use Tax Direct Payment Permit* for the following reason: (Please check one of the following)

☐ I have purchased or leased for my own use tangible personal property subject to use tax at a cost of five hundred thousand dollars (\$500,000) or more in the aggregate, during the calendar year immediately preceding this application for the permit. I have attached a "Statement of Cash Flows" or other comparable financial statements acceptable to the Board for the calendar year immediately preceding the date of application and a separate statement attesting that the qualifying purchases were purchases that were subject to use tax.

☐ I am a county, city, city and county, or redevelopment agency.

I also agree to self-assess and pay directly to the Board of Equalization any use tax liability incurred pursuant to my use of a *Use Tax Direct Payment Permit*.

*The above statements are hereby certified to be correct to the knowledge and belief  
of the undersigned, who is duly authorized to sign this application.*

SIGNATURE	TITLE
NAME (typed or printed)	DATE

(See reverse side for general information and filing instructions)



## USE TAX DIRECT PAYMENT PERMIT (General Information and Filing Instructions)

Revenue and Taxation Code section 7051.3 authorizes the State Board of Equalization to issue a *Use Tax Direct Payment Permit* to qualified applicants. This permit allows purchasers and lessees of tangible personal property (other than lessees of motor vehicles the lease of which is subject to the terms of section 7205.1 of the Sales and Use Tax Law) to self-assess and pay use taxes directly to the Board instead of to the vendor or lessor from whom the property is purchased or leased.

Permit holders will be provided with a *Use Tax Direct Payment Exemption Certificate* which they can issue to retailers and lessors when they purchase tangible personal property subject to use tax or make qualified leases of tangible personal property. Vendors who timely take the certificate in good faith from a permit holder are relieved of the duty to collect use taxes on the sales for which the certificate was issued. Permit holders who acquire property under a certificate must self-assess and report the use taxes directly to the Board on their tax returns, and allocate the local taxes to the county, city, city and county, or redevelopment agency in which the property is first used. Permit holders who fail to properly pay any use taxes that are due on property for which a certificate was given are subject to interest and penalties assessments in addition to their tax liability.

To qualify for a *Use Tax Direct Payment Permit*, an applicant must meet the following conditions:

- (1) The applicant must agree to self-assess and pay directly to the Board any use tax which is due on property for which a use tax direct payment exemption certificate was given; and
- (2) The applicant must certify to the Board either of the following:
  - (A) The applicant has purchased or leased for its own use tangible personal property subject to use tax which cost five hundred thousand dollars (\$500,000) or more in the aggregate, during the calendar year immediately preceding the application for the permit; or
  - (B) The applicant is a county, city, city and county, or redevelopment agency.

Persons wishing to obtain a use tax direct payment permit must be pre-qualified and either hold a California seller's permit or a consumer use tax account.

Persons other than governmental entities who currently hold either a California seller's permit or a consumer use tax account must complete the application for a *Use Tax Direct Payment Permit*, sign the certification statement attesting that they qualify for a permit under conditions of Part (2)(A) above, and submit a "Statement of Cash Flows" or other comparable financial statements acceptable to the board for the calendar year immediately preceding the date of application which discloses total purchases of property and equipment for own use and a separate statement under company letterhead certifying that five hundred thousand dollars (\$500,000) or more of such purchases were subject to use tax.

Persons other than governmental entities who are not required to hold a seller's permit and who do not currently hold a consumer use tax account must obtain a consumer use tax account and then complete the application for a *Use Tax Direct Payment Permit*, sign the certification statement attesting that they qualify for a permit under the conditions of Part (2)(A) above and submit a "Statement of Cash Flows" or other comparable financial statements acceptable to the board for the calendar year immediately preceding the date of application which discloses total purchases of property and equipment for own use and a separate statement under company letterhead certifying that five hundred thousand dollars (\$500,000) or more of such purchases were subject to use tax.

Governmental entities who currently hold either a California seller's permit or a consumer use tax account must complete the application for a *Use Tax Direct Payment Permit*, sign the certification statement attesting that they qualify for a permit under the conditions of Part (2)(B) above, and submit an additional statement to that effect under official letterhead and signed by an authorized governmental representative.

Governmental entities who do not hold a California seller's permit or a consumer use tax account must obtain a consumer use tax account and then complete the application for a *Use Tax Direct Payment Permit*, sign the certification statement attesting that they qualify for a permit under the conditions of Part (2)(B) above, and submit an additional statement to that effect under official letterhead and signed by an authorized governmental representative.

The completed *Application for Use Tax Direct Payment Permit*, certification statement, and qualifying documentation should be returned to the address shown below. Upon determination that the applicant qualifies, a *Use Tax Direct Payment Permit* and a *Use Tax Direct Payment Exemption Certificate* will be mailed to the applicant.

If you would like additional information regarding the *Use Tax Direct Payment Permit* or need assistance in completing this application, you can call 916-445-5167, or write to the Board of Equalization, Compliance Policy Unit, P.O. Box 942879, Sacramento, CA 94279-0040.