

# CHABOT- LAS POSITAS COMMUNITY COLLEGE DISTRICT

Facilities Planning & Management Department

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February 14, 2008

## **Addendum No. 1 INVITATION FOR BID NO.: 08-18 Instructional Office Building - Chabot College**

All Prospective Bidders:

This Addendum modifies the original Bid Documents for the above Bid. Acknowledge receipt of this addendum in the space provided on the BID PROPOSAL FORM. Failure to do so may subject Bidder to disqualification.

The original Bid Documents are modified by the revision as follows:

### **Clarifications and Additional Items:**

- a. Bid Proposal Document: Added a line item allowance on the bid form titled Building Security System in the amount of one hundred thousand dollars. (\$100,000) Use the revised form in Attachment I Bid Proposal Documents
- b. Modify or Replace in their entirety the following specifications sections as noted and provided in Attachment II Specifications. Changes in each section are clouded and the paragraphs are renumbered accordingly where applicable.
  - Section 00010 Table of Contents, replace in its entirety.
  - Section 01351 Environmental Procedures, completely new
  - Section 01353 Leed Requirements, added Leed Credit Scorecard attachment
  - Section 06400 Architectural Woodwork, added 2.02 Sustainability Goals
  - Section 06412 Transparent-Finish Wood Cabinets, modified paragraphs 2.02, 2.03 and 2.04
  - Section 06415 Countertops, corrected paragraph 2.01.b and modified 2.02
  - Section 08211 Flush Wood Doors, modified paragraph 1.01.C, 1.01.D, and 2.02
  - Section 09511 Acoustical Ceilings, replace in its entirety
  - Section 09653 Linoleum Flooring, modified paragraphs 1.03, 2.02, 2.03, 2.04 and added 2.05
  - Section 09654 Rubber Flooring, modified paragraph 2.03, 3.03.D, 3.03.E

- Section 09656 Vinyl Flooring, replace in its entirety
- Section 09658 Resilient Base and Accessories, modified paragraphs 2.02 and 2.03
- Section 09682 Carpet Tiles, modified paragraph 2.02 and carpet tile shall be changed to broad loom goods, color to be selected.
- Section 09726 Tackable Wall Covering, modify paragraph 2.02
- Section 09910 Paints, replace in its entirety
- Section 10178 Reinforced Composite Toilet Compartments, modified paragraph 2.02
- Section 12493 Window Shading Systems, modified paragraph 2.02
- Section 12511 Modular Casework, completely new
- Section 14241 Hydraulic Holeless Elevators: Revise the footer from summary of project section 01010 to Holeless Elevators 14241 on all pages.
- Section 15400 Plumbing, added paragraph 2.17.16 Area Drain (AD-1)
- Section 15800 Heating Ventilating and Air-conditioning, added paragraphs 1.03 and 3.21

**Clarifications and Modifications to the Drawings:**

- a. Sheet C1.0: Building 400 shown to be demolished will be demolished by the owner under a separate contract. All other demolition shown remains in the contract.
- b. Sheet A2.1: Change the wall type @ the wall between rooms 402E & 402F to BA 6" stud wall type to accommodate the roof drain line.
- c. Sheet A2.2: Change the wall type @ the wall between rooms 403E & 403F to BA 6" stud wall type to accommodate the roof drain line.
- d. Sheet A2.4 and A2.5: Make the following finish revisions
  - Replace carpet tile for C1, C2, C3 with broad loom product of the same line. Colors to be determined.
  - Replace Lionseal Resilient Flooring RF1, RF2 with Forbo Marmoleum colors to be determined
  - Replace Nora Resilient Flooring RF3, RF4, RF5, RF6 with Forbo Marmoleum colors to be determined.

### **Clarifications and Modifications to the Drawings (Continued)**

- e. Sheet A2.6 & A2.7: Make the following product revisions
  - Change the 2x2 acoustical ceiling tile to Armstrong Georgian tiles #1752 beveled tegular edge. The suspension grid shall be Armstrong 15/16” Prelude XL Heavy duty.
- f. Sheet A5.6 detail 03A&C: Additional detail information provided for casework see Attachment III Architectural Sketches 01, 02 & 03
- g. Sheet P2.1: Revised the location of the roof drain line see Attachment IV Plumbing Mechanical Sketches P2.1B
- h. Sheet P2.2: Revised the run and location of the roof drain line see Attachment IV Plumbing Mechanical Sketches P2.2B
- i. Sheet M.01: The following changes and clarifications have been added. Please refer to Attachment IV Plumbing Mechanical Sketches MSK1 & MSK2
  - Clarified air handling unit supply/return fan sizes and coil performance.
  - Revised SF/RF horse power for AH-1. Revised SF horsepower for AH-2
  - Clarified coil data for CRAC-1/2 and filter type.
  - Added note to Condensing Unit schedule indicating contractor shall verify final refrigerant pipe sizes with manufacturer.
  - Clarified scope of vibration isolation at air handling units.
- j. Sheet L204.1 detail 6: The size of the pavers has been clarified as “Narrow Modular Pavers” 24”x3”x4” See Attachment VI Landscape Sketches
- k. Sheet L401 Planting Plan: Change (1) MET GLY reloc from CSSC to (1) AES Cal. See Attachment VI Landscape Sketches

### **Responses to Bidder’s Request For Information:**

- 01. The SE drawings show devices, some of which are not on the symbols legend. They do not show a conduit and/or a cable schedule. In addition, there are no specifications for this work. The drawings also have notes referring to a security vendor. Will this vendor be working directly with the Owner? If so, will they provide all of the conduit, cabling devices and equipment for the Security/Access Control and CCTV Systems? If not, please provide conduit and cabling details and specifications that outline the requirements of this system.

*Response: Conduits and junction boxes are to be provided by the contractor as part of the base bid and noted on the revised sketches in Attachment V Electrical Sketches. The contractor shall provide an allowance of \$100,000 for the Building Security System which will include the cabling, devices and equipment to be specified at a later date. See item (a) under Clarifications and Additions of this addendum.*

02. Do the panels needed for the 25 pair Cat 3 Cables have to be Cat 6A or can they be a 1100G53 Cat 3 Panel?

Response: *Yes. Patch panels may be Category 3 to match rating of cable. Terminate 1-pair per port on pins 4-5.*

03. The SE drawings show devices, some of which are not on the symbols legend. They do not show a conduit and/or a cable schedule. In addition, there are no specifications for this work. The drawings also have notes referring to a security vendor. Will this vendor be working directly with the owner? If so, will they provide all of the conduit, cabling devices and equipment for the Security Access control and CCTV systems? If not, please provide conduit and cabling details and specifications that outline the requirements of this system?

Response: *See the response to RFI 01 above, this is the same question.*

04. Intentionally Blank

Response: *Not applicable*

05. Are the electrical contractors bringing conduit all the way to the tray or stubbing it out in the ceiling?

Response: *Electrical Contractor will stub conduit above the ceiling per symbol list sheet E0.01. SCS Contractor will be responsible for supporting cable from stub-up to the tray. See SKE5.2 through SKE5.5 for changes to the tray layout and conduit across hard lid ceilings in Attachment V Electrical Sketches*

Is it the responsibility of the SCS contractor to provide & install the wire basket Tray?

Response: *The cable tray shown on sheets T2.01 and T2.02 shall be provided and installed by the SCS Contractor. See changes to the cable tray (2<sup>nd</sup> floor only) on SKE5.1 through SKE5.5 in Attachment V Electrical Sketches*

There are rooms (ex. 428M, 402K) that have a "C" but it is not at the station location. Are these locations a "C" or an "A" style face plate?

Response: *All telecommunications drops (half shaded triangles) in rooms 426M, 420K, 420J, 420Q, 402K, 402L, 406C, 406N, 429L, 429K, 421J, 403K 403L and 407N shall be designated as "C" type outlets corresponding to sheet T4.01. See SKE4.1 through SKE4.5 and SKE 5.1 through SKE5.5 in Attachment V Electrical Sketches.*

Is there an estimated distance or drawing for the OSP cables?

Response: *Reference site plan E1.02A for pathway to existing buildings 200 and 300. The contractor is responsible for estimating quantities and distances based on field verification of the contract documents.*

Drawing T4.01 calls out for 8 each LC to SC fiber patch cables. In the RFP 16600-15 it calls out for LC to LC duplex patch cables. Which would the client prefer?

Response: *Please provide LC to SC patch cables per sheet T4.01*

06. Detail 3/L204.2 callout for “4” Diam. Perforated pipe” points to generic sub-grade. Please confirm that this is extraneous and can be deleted?

Response: *This note does not apply at this detail and should be removed.*

07. Reference specification 02870. We cannot find recycling /trash receptacles on A or L drawings. Please advise location & quantity or confirm where required?

Response: *Provide 5 each of item 2.02.A and 10 each of item 2.02B. Location to be determined by the Architect & District in the field at time of placement.*

08. We cannot find a detail for the curved benches adjoining the stairs?

Response: *Refer to interior elevation 24/A5.6 and 07/A9.6 for the construction of the benches.*

09. Detail 3/L204.2 no horizontal spacing shown for anti-skateboard plate. Assume one per seatwall, please confirm?

Response: *On straight seat walls provide one per wall centered on the length of the wall. On curved seat walls provide plates as indicated in Attachment VI Landscape Drawings.*

10. Please clarify the type receptacle shown in the floor boxes a column line 9.10 / B.C. They do not appear to match any shown on the symbol list?

Response: *Sheet E3.01, use Walker RFB4-C1-1. Sheet E3.02 use Walker RFB4-SS. See note 15.*

11. Note 4 on sheet E3.03 requires 21#10 & 1#6 wire in each of the two (2) 2” conduits. The symbol for conduits indicates to cap ends. How many feet of wire will be required at the end of each conduit & how would you like it (the wire) to be secured?

Response: *Provide junction box at each end. Provide five feet of wire at each end.*

12. Shall MC cable be acceptable for power & lighting branch circuits?

Response: *MC cable is to be used only for final connections to lighting fixtures and fractional HP motors*

13. Shall concrete encasement be required for under slab conduits? Specification section 16010 3.01.A.38.C page 25 and 3.01.A.38.D page 26 require clarification.

Response: *Concrete encasement is not required for under slab conduits*

14. Specification section 16010 3.01A.40 mentions the use of ENT (Electrical Non-Metallic Tubing) where allowed by the specification Deviations section or Alternate pricing section. I cannot find either of these sections. Can ENT be used on this project as part of the base bid? Can it be installed in the pour in place concrete walls throughout the project and in the building slabs?

Response: *ENT is not allowed to be used on this project.*

15. Specification Sections 16010 2.01T 6&7 and 16010 3.01.A.39 mention the use of MC cable for this project, but these sections state it's use is acceptable when allowed in the specification deviations section. I cannot find this section. Is MC Cable allowed on this project? If so, please clarify exactly where and when it can be used.

Response: *MC cable is to be used only for final connection to lighting fixtures and fractional HP motors.*

16. Will there be a security specification coming out soon?

Response: *The contractor is to provide junction boxes and conduits with an allowance per Clarifications and Additions item (a) in this addendum. See the response to RFI 01 as well.*

**Attachments:**

I.	Bid Proposal Documents	3	pages
II.	Specifications	79	pages
III.	Architectural Drawings	3	Pages
IV.	Plumbing / Mechanical Drawings	4	Pages
V.	Electrical Drawings	27	Pages
VI.	Landscape Drawings	3	Pages

If you have any questions regarding this Addendum No.1, please contact the Office of the Facilities Planning & Management in **writing, via facsimile or email**. All other terms and conditions of BID No. 08-18 to remain the same.

Sincerely,



James Raver Associate  
LPA Inc

C: Bid File

# **Attachment I**

## **Bid Proposal Documents**

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Bib Proposal Revised

# BID PROPOSAL (Revised)

TO: **CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT**, a California Community College District, acting by and through its Board of Trustees (“the District”).

FROM:

(Name of Bidder)
(Address)
(City, State, Zip Code)
(Telephone/Fax)
(E-Mail Address of Bidder’s Representative(s))
(Name(s) of Bidder's Authorized Representative(s))

**1. Bid Proposal**

1.	Based Bid Amount	\$
2.	Owner’s Unspecified Allowance	\$ 700,000.00
3.	Owner’s Specified Allowance: Building Security System	\$ 100,000.00
4.	Total (sum of Lines 1 thru 3)	\$

- a. **Bid Proposal Amount.** The undersigned Bidder proposes and agrees to perform the Contract including, without limitation, providing and furnishing any and all of the labor, materials, tools, equipment and services necessary to complete in a workmanlike manner all of the Work and other obligations required by the Contract Documents for the sum of

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) (Line 4 of Table above). The Bidder confirms that it has checked all of the above figures and understands that neither the District nor any of its agents, employees or representatives shall be responsible for any errors or omissions on the part of the undersigned Bidder in preparing and submitting this Bid Proposal. The Bidder confirms that the bid proposal includes the Owner’s Non-Specified Allowance in the amount of Seven Hundred Thousand Dollars and No Cents (\$700,000.00) and the Owner’s Specified Allowance in the amount of One Hundred Thousand Dollars and No Cents (\$100,000.00).

- b. **Owner's Unspecified Allowance.** Bidder shall include in Bid Proposal the stipulated sum of Seven Hundred Thousand Dollars (\$700,000.00) for unspecified work to be performed ONLY at the determination and direction of the District. Work performed at the determination and direction of the District under this Allowance shall be documented by Contractor and submitted to Construction Manager per the requirements specified in Article 9 of the General Conditions. Contractor shall include a separate line item in Contractor's Schedule of Values as "Allowance" with the value of Seven Hundred Thousand Dollars (\$700,000.00). At closeout of Contract, any funds remaining in the Allowance shall be credited to Owner through a Change Order.
- c. **Owner's Specified Allowance.** Bidder shall include in Bid Proposal the stipulated sum of One Hundred Thousand Dollars (\$100,000.00) for specified work to be performed ONLY at the determination and direction of the District. Work performed at the determination and direction of the District under this Allowance shall be documented by Contractor and submitted to Construction Manager. Contractor shall include a separate line item in Contractor's Schedule of Values as "Building Security System" with the value of One Hundred Thousand Dollars (\$100,000.00).
- d. **Acknowledgment of Bid Addenda.** The Bidder confirms that this Bid Proposal incorporates and is inclusive of, all items or other matters contained in Bid Addenda issued by or on behalf of the District.

\_\_\_\_\_ **Addenda Nos.** \_\_\_\_\_ received, acknowledged  
(initial) and incorporated into this Bid Proposal.

- e. **Alternate Bid Items.** The Bidder's price proposal(s) for Alternate Bid Items is/are set forth in the form of Alternate Bid Item Proposal included herewith. Specific Alternate Bid Item will be incorporated into the scope of Work of the Contract at the District's discretion.
2. **Documents Accompanying Bid.** The Bidder has submitted with this Bid Proposal the following: (a) Bid Security; (b) Subcontractors List; (c) Statement of Qualifications; (d) Certification of Pre-Bid Site Visit; (e) Non-Collusion Affidavit; and (f) Letter of Assent. The Bidder acknowledges that if this Bid Proposal and the foregoing documents are not fully in compliance with applicable requirements set forth in the Call for Bids, the Instructions for Bidders and in each of the foregoing documents, the Bid Proposal may be rejected as non-responsive.
  3. **Award of Contract.** If the Bidder submitting this Bid Proposal is awarded the Contract, the undersigned will execute and deliver to the District the Contract in the form attached hereto within ten (10) days after notification of award of the Contract. Concurrently with delivery of the executed Agreement to the District, the Bidder awarded the Contract shall deliver to the District: (a) Certificates of Insurance evidencing all insurance coverages required under the Contract Documents; (b) the Performance Bond; (c) the Labor and Material Payment Bond; (d) the Certificate of Workers' Compensation Insurance; and (e) the Drug-Free Workplace Certificate. Failure of the Bidder awarded the Contract to strictly comply with the preceding may result in the District's rescission of the award of the Contract and/or forfeiture of the Bidder's Bid Security. In such event, the District may, in its sole and exclusive discretion

elect to award the Contract to the responsible Bidder submitting the next lowest Bid Proposal, or to reject all Bid Proposals.

4. **Contractor's License.** The undersigned Bidder is currently and duly licensed in accordance with the California Contractors License Law, California Business & Professions Code §§7000 et seq., under the following classification(s) \_\_\_\_\_ bearing License Number(s) \_\_\_\_\_, with expiration date(s) of \_\_\_\_\_. The Bidder certifies that: (a) it is duly licensed, in the necessary class(es), for performing the Work of the Contract Documents; (b) that such license shall be in full force and effect throughout the duration of the performance of the Work under the Contract Documents; and (c) that all Subcontractors providing or performing any portion of the Work shall be so properly licensed to perform or provide such portion of the Work.
5. **Acknowledgment and Confirmation.** The undersigned Bidder acknowledges its receipt, review and understanding of the Drawings, the Specifications and other Contract Documents pertaining to the proposed Work. The undersigned Bidder certifies that the Contract Documents are, in its opinion, adequate, feasible and complete for providing, performing and constructing the Work in a sound and suitable manner for the use specified and intended by the Contract Documents. The undersigned Bidder certifies that it has, or has available, all necessary equipment, personnel, materials, facilities and technical and financial ability to complete the Work for the amount bid herein within the Contract Time and in accordance with the Contract Documents.

By: \_\_\_\_\_  
(Signature)

(Corporate Seal)

\_\_\_\_\_  
(Typed or Printed Name)

Title: \_\_\_\_\_

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## ENVIRONMENTAL PROCEDURES

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### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Section Includes: Practical procedures for achieving an environmentally conscious Project within the limits of the Construction Schedule, Contract Sum, and available materials, equipment, and products.
  - 1. Participate in promoting efforts of Owner and Architect to create an energy-efficient and environmentally sensitive project.
  - 2. Use recycled-content, toxic-free, and environmentally sensitive materials, equipment, and products.
  - 3. Use environmentally sensitive procedures.
    - a. Protect the environment, both on-site and off-site, during demolition and construction operations.
    - b. Prevent environmental pollution and damage.
    - c. Effect optimum control of solid wastes.
  - 4. Install products in a manner that ensures optimum indoor air quality.
- B. Referenced Sections:
  - 1. Section 01330 - Submittal Procedures
  - 2. Section 01340 - Design-Build Submittals Procedures
  - 3. Section 01520 - Construction Facilities
  - 4. Section 01630 - Product Substitution Procedures

#### 1.02 DEFINITIONS

- A. **Adequate Ventilation:** Ventilation, including air circulation and air changes, required to cure materials, dissipate humidity, and prevent accumulation of dust fumes, vapors, or gases.
- B. **Construction and Demolition Waste:** Includes solid wastes, such as building materials, packaging, rubbish, debris, and rubble resulting from construction, remodeling, repair, and demolition operations.
  - 1. **Rubbish:** Includes both combustible and noncombustible wastes, such as paper, boxes, glass, crockery, metal and lumber scrap, metal cans, and bones.
  - 2. **Debris:** Includes both combustible and noncombustible wastes, such as leaves and tree trimmings that result from construction or maintenance and repair work.
- C. **Chemical Waste:** Includes paints, adhesives, sealants, coatings, petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.

- D. **Environmental Pollution and Damage:** The presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances or the environment of neighboring buildings and environmental areas; or degrade the utility of the environment for aesthetic, cultural, or historical purposes.
- E. **Hazardous Materials:** Includes pesticides, biocides, carcinogens, and "wet products" as listed by recognized authorities, such as the Environmental Protection Agency (EPA), International Agency for Research on Cancer (IARC), the City of Hayward, the County of Alameda, and State of California.
- F. **Interior Final Finishes:** Materials and products that will be exposed at interior, occupied spaces, including flooring, wall covering, finish carpentry, and ceilings.
- G. **Municipal Solid Waste Landfill:** A permitted facility that accepts solid, non-hazardous waste such as household, commercial, and industrial waste, including construction and demolition waste.
- H. **Packaged Dry Products:** Materials and products that are installed in dry form and are delivered to the site in manufacturer's packaging, including carpets, resilient flooring, ceiling tiles, and insulation.
- I. **Sediment:** Soil and other debris that has been eroded and transported by storm or well production runoff water.
- J. **Sanitary Wastes:**
  - 1. **Garbage:** Refuse and scraps resulting from preparation, cooking, distribution, or consumption of food.
  - 2. **Sewage:** Domestic sanitary sewage.
- K. **Solutions:** Materials and products existing in solution form including solvents, cleaning agents, fuels, and pesticides.
- L. **Wet Products:** Materials and products installed in wet form, including paints, sealants, adhesives, coatings, caulking, grout, and acid etching.

### 1.03 SUBSTITUTIONS

- A. The substitution requirements described here apply only to the environmental and recycled content products identified in this Section.
- B. Notify Owner when Contractor wishes to substitute materials, equipment, or products that meet the aesthetic and programmatic intent of Contract Documents and offer equivalent or increased environmental sensitivity to materials, equipment, or products specified or indicated in the Contract Documents.
- C. Substitutions will not be considered when indicated on shop drawings or product data submittals without separate formal request, when requested directly by subcontractor or supplier, or when acceptance will require substantial revision of Contract Documents.

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- D. Comply with the requirements of Section 01630, except as follows:
1. Limitations on Substitutions:
    - a. Requests for substitutions of products will be considered only during bidding up to 14 days prior to the date of bid opening. Requests received after receipt of bids will be considered only in case of product unavailability or other conditions beyond control of Contractor, his or her subcontractors, or suppliers. Contractor shall order products sufficiently in advance of date they will be needed on project to avoid necessity for submission of a substitution request.
    - b. Only one request for substitution for each product will be considered. When substitution is not accepted, provide specified product.
    - c. Prior to submitting detailed information required under Section 01630, submit the following for initial review by the Architect:
      - 1) Product data including manufacturer's name, address, and phone number.
      - 2) Description of the differences of the proposed substitution from specified product. Include description of environmental advantages of proposed substitution over specified product.
    - d. Architect will determine acceptability of substitutions.
    - e. Substitute products shall not be ordered or installed without written acceptance by the Architect.
  2. Requests for Substitutions:
    - a. Submit separate request for each substitution. Document each request with complete data substantiating compliance of proposed substitution with requirements of Contract Documents. Submit on form in Appendix C of this Section.
    - b. Identify product by Specifications section and Article numbers. Provide manufacturer's name and address, trade name of product, and model or catalog number. List fabricators and suppliers as appropriate.
    - c. Attach product data as specified in Section 01330 – Submittal Procedures.
    - d. List similar projects using product, dates of installation, and names of Architect and Owner.
    - e. Give itemized comparison of proposed substitution with specified product, listing variations, and reference to Specifications section and Article numbers.
    - f. Give quality and performance comparison between proposed substitution and the specified product.
    - g. Give cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
    - h. List availability of maintenance services and replacement materials.
    - i. State effects of substitution on construction schedule and changes required in other work or products.

3. Contractor Representation:
  - a. Request for substitution constitutes a representation that Contractor has investigated proposed product and has determined that it is equal to or superior in all respects to specified product.
  - b. Contractor will provide the same warranty for substitution as for specified product.
  - c. Contractor will coordinate installation of accepted substitute, making such changes as may be required for Work to be complete in all respects.
  - d. Contractor certifies that cost data presented is complete and includes all related costs under this Contract.
  - e. Contractor waives claims for additional costs related to substitution, which may later become apparent.

#### **1.04 PRECONSTRUCTION MEETING**

- A. After award of Contract and prior to the commencement of the Work, schedule and conduct kickoff meeting with Owner and Architect to discuss the proposed Construction Solid Waste Management, Construction Indoor Air Quality Management, and Construction Environmental Protection Plans and develop a mutual understanding relative to details of the required environmental protection procedures.

#### **1.05 PROGRESS MEETINGS**

- A. Conduct quarterly meetings to discuss topics relating to LEED requirements as determined by Architect.

#### **1.06 SUBMITTALS**

- A. Environmental Procedures Compliance Plans: Not more than 10 days after the Pre-construction Meeting, prepare and submit plans for complying with the Construction Solid Waste Management, Construction Indoor Air Quality Management, and Construction Environmental Protection Plans.
- B. Revise and resubmit Environmental Procedures Compliance Plans as required by Owner or Architect.
  1. *Approval of the Contractor's Environmental Procedures Compliance Plans will not relieve the Contractor of responsibility for adequate and continuing control of pollutants and other environmental protection measures required by federal, state, county or local agencies.*
- C. Environmental Procedures Compliance Plans shall include, but are not limited to, the following:
  1. List of federal, state, and local laws, regulations, and permits concerning environmental protection, environmental pollution and damage, hazardous materials, construction and demolition waste, chemical waste, sanitary waste, sediment, water, air, and noise pollution that are applicable to the Contractor's proposed operations.
  2. List species of any fish and wildlife that require specific attention, along with measures for their protection.
  3. Procedures to be implemented to provide the required environmental protection and to comply with the applicable laws and regulations.

4. Document existing conditions.
  5. List of the recycling facilities, reuse facilities, municipal solid waste landfills, and other disposal areas to be used. Include:
    - a. Name, location, and phone number.
    - b. Copy of permit or license for each facility.
    - c. Procedures for Recycling/Reuse Program including worker education and use of descriptive signage at waste collection locations.
    - d. Schedule for application of interior finishes including timeframes for application of wet materials onto dry materials, dry materials onto wet materials, and expected curing times for applied wet materials.
      - 1) Wet materials include all paints, adhesives, sealants, coatings, finishes and spray-applied materials, such as structural fireproofing.
  6. Revise and resubmit Environmental Procedures Compliance Plans as required by Owner or Architect.
    - a. Approval of Contractor's Environmental Procedures Compliance Plans will not relieve the Contractor of responsibility for adequate and continuing control of pollutants and other environmental protection measures.
- D. On a monthly basis, submit the following:
1. Updated Summary of Solid Waste Disposal and Diversion. Submit on form in Appendix A of this Section. Include manifests, weight tickets, receipts, and invoices specifically identifying the Project and waste material for:
    - a. Municipal solid waste landfills.
    - b. Recycling centers.
    - c. Nonprofit organizations.
    - d. Reuse materials and location of reuse.
  2. Status of compliance with the Construction Environmental Protection Plan. Provide updates or changes to the plan or plans to correct deficiencies in the specified control measures or when site maintenance and repairs are required.
  3. Status of compliance with Construction Indoor Air Quality Management Plan. Include issues related compliance with the schedule for application of interior finishes, meeting temporary ventilation requirements, and maintenance of environmental protection of HVAC equipment, ducting and plenums.
- E. Together with design-build submittal procedures specified in Section 01340, submit the following:
1. Final Summary of Solid Waste Disposal and Diversion: Submit on form in Appendix A of this Section.
  2. Recycled Content Materials Usage Project Summary: Submit on form in Appendix B of this Section.
  3. Approved Substitution Request Forms.

## PART 2 - PRODUCTS

*Not Applicable*

## PART 3 - EXECUTION

### 3.01 CONSTRUCTION SOLID WASTE MANAGEMENT

- A. Complying with the requirements of this section helps the City of Hayward comply with the requirements of California's Solid Waste Reduction Law requiring every city in California to reduce solid wastes.
- B. Recyclable materials shall include wastes of the following types:
  - 1. Asphalt.
  - 2. Concrete.
  - 3. Ceramics.
  - 4. Metal, ferrous and nonferrous.
  - 5. Wood, nails, and staples.
  - 6. Glass, clear and colored.
  - 7. Cardboard.
  - 8. Gypsum board.
  - 9. Other materials as identified by waste hauler.
- C. Collection and Handling of Solid Waste Materials:
  - 1. Recyclable materials will be separated from waste or non-recyclable materials.
  - 2. Recyclable materials can be co-mingled.
  - 3. Hazardous wastes encountered as part of the construction process will be processed separately from solid wastes in compliance with state hazardous waste disposal statutes. A firm specializing in hazardous waste disposal shall be contracted to handle these materials.
  - 4. Two solid waste bins should be available at all times--at least one for recyclables and one for waste materials.
  - 5. Collection bins will be located at designated construction locations. A centralized staging area for recycling operations will be created.
  - 6. Store all recyclable materials in a secure area prior to market transportation.
  - 7. The contract waste hauler will be employed to rotate bins as needed. An on-site coordinator will ensure efficient bin replacement and quality control. To avoid bin overflows, extra bins (or more frequent pick-up) will be provided during waste surge periods.
  - 8. Construction schedules will be analyzed to identify the timing of specific phases of work and the associated generation of materials such as drywall, insulation, etc. thereby allowing for the provision of an appropriate number of collection bins.
  - 9. Clean contaminated materials prior to placing in collection containers. Deliver materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process.
  - 10. Arrange for collection by or delivery to the appropriate recycling or reuse facility.
- D. Recycling/Reuse Centers: For information on qualified local solid waste haulers contact the California Integrated Waste Management Board, 8800 Cal Center Drive, Sacramento, California 95826, (916)255-2200.

### 3.02 CONSTRUCTION ENVIRONMENTAL PROTECTION

- A. Protection of Natural Resources: Preserve the natural resources within the project boundaries and outside the limits of permanent work performed under this Contract in their existing condition or restore to an equivalent or improved condition as approved by Owner, upon completion of the work.
- B. Land Resources:
  - 1. Construction Activities: Confine demolition and construction activities to work area limits indicated on the Drawings.
  - 2. Land Resources: Prior to construction, identify land resources to be preserved within the Work area. Do not remove, cut, deface, injure, or destroy land resources, including trees, shrubs, vines, grasses, topsoil, and land forms without permission of the Owner.
- C. Erosion and Sedimentation Control: Coordinate activities with Division 02 Sections:
  - 1. Comply with the requirements of all Federal, Environmental Protection Agency (EPA), state, county and local regulations for pollution prevention, and erosion and sedimentation control.
  - 2. In addition to complying with the City of Hayward's erosion control plan, comply with the additional requirements of the EPA's Storm Water Management for Construction Activities that includes, but is not limited to:
    - a. Identification of the name and location of the body of water receiving the site runoff.
    - b. A description of the construction activities planned.
    - c. Identification of the site disturbed areas.
    - d. Area measure of the site and the disturbed area on it.
    - e. Determination of the drainage areas.
    - f. Calculation of the runoff coefficient.
    - g. Certification by all contractors and subcontractors that they understand and agree to comply with the plan requirements.
    - h. Addition of a method to prevent offsite tracking of sediments and generation of dust.
    - i. Requirement for on-site inspections every 7 days or within 24 hours of a storm of 0.5 inches or greater in depth.
    - j. Identification of maintenance and repairs, or deficiencies in the control measures used.
    - k. Maintenance of construction activity records.
    - l. Updating and changing of the Erosion Control Plan to correct deficiencies during the construction activities.
    - m. Retention of records for 3 years following completion of construction activities.
    - n. Filing a Notice of Intent (NOI) to Grade (48 hours prior to grading) with the City and/or the EPA.
    - o. Filing a Notice of Termination (NOT) to Grade (end of construction) with the City and/or the EPA.
  - 3. Protection of Erodable Soils: Plan and conduct earthwork to minimize the duration of exposure of unprotected soils, except where the con-

structed feature obscures burrow areas, quarries, and waste material areas. Clear areas in reasonably sized increments only as needed to use the areas developed. Form earthwork final grade as specified. Immediately protect side slopes and back slopes upon completion of rough grading.

### 3.03 CONSTRUCTION INDOOR AIR QUALITY MANAGEMENT

- A. Construction Phase Indoor Air Quality (IAQ) Management Plan: Prevent creation of dust, air pollution, and odors that may contaminate the air or the materials in the building.
1. Provide certification by contractors and subcontractors that they understand and agree to comply with the plan requirements.
  2. Use water sprinkling, temporary enclosures, and other appropriate methods to limit to lowest practical level dust and dirt rising and scattering in air.
    - a. Do not use water when it may create hazardous or other adverse conditions such as flooding and pollution, or where it may come into contact with absorptive materials, such as dry-wall, insulation and wood.
  3. Store volatile liquids, including fuels and solvents, in closed containers. Keep containers closed when not in use.
  4. Properly maintain equipment to reduce gaseous pollutant emissions.
  5. Interior final finishes: Schedule construction operations involving wet products prior to packaged dry products to the greatest extent possible, in accordance with approved Solid Waste Management and Environmental Protection Plan.
  6. Temporary Ventilation: As specified in Section 01520, and as follows:
    - a. Provide adequate ventilation during and after installation of interior wet products and interior final finishes.
    - b. Provide adequate ventilation of packaged dry products prior to installation. Remove from packaging and ventilate in a secure, dry, well-ventilated space free from strong contaminant sources and residues. Provide a temperature range of 60 degrees F minimum to 90 degree F maximum continuously during the ventilation period. Do not ventilate within limits of Work unless otherwise approved by Architect.
  7. Protect stored on-site and installed absorptive materials from moisture damage.
  8. Replace all filtration media immediately prior to occupancy. Filtration media shall have a Minimum Efficiency Reporting Value (MERV) of 13 as defined by ASHRAE 52.2-1999.
  9. Protect all air handling and distribution equipment, and air supply and return ducting during construction.
    - a. Adequately cover and protect (taped plastic or similar method) all exposed air inlets and outlets openings, grilles, ducts, plenums, etc. to prevent water, moisture, dust, and other contaminate intrusion.
    - b. Apply protection immediately after installation of equipment and ducting.

- c. Ducting runs that require more than a single day to install shall be protected at the end of each days Work.
  10. Inspect all air inlets, air outlets, grilles, diffusers, plenums, and ducts upon completion of the Work and clean where needed.
- B. Pre-Occupancy Phase Indoor Air Quality (IAQ) Management Plan: This plan determines the environmental quality of indoor air prior to building occupancy, and establish remediation procedures as determined by the qualified Indoor Air Quality Testing Services Firm's Test Conductor, and agreed to by the Owner.
1. The Owner will provide the services of a qualified Indoor Air Quality Testing Services Firm.
  2. The Contractor will support the Indoor Air Quality Testing Services Firm by coordinate scheduling of the required testing, and providing services during the IAQ remediation process if necessary.
  3. The Indoor Air Quality testing will be consistent with the current EPA (Environmental Protection Agency) protocol for Environmental Requirements, Baseline IAQ and Materials.
  4. Pre-Occupancy IAQ Remediation Procedure: This remediation procedure will be required only if so determined by the Indoor Air Quality Testing Services Firm and agreed to by the Owner.
    - a. Provide adequate ventilation for the minimum number of days specified by the Indoor Air Quality Testing Services Firm and the Owner.
    - b. Use supply air fans and ducts only.
    - c. Temporarily seal exhaust ducts.
    - d. Temporarily disable exhaust fans.
    - e. Provide exhaust through operable windows or temporary openings.
    - f. Provide temporary exhaust fans as required to pull exhaust air from deep interior locations. Stair towers may be used for exhausting air from the building during the temporary ventilation.
    - g. After preoccupancy ventilation and prior to final testing and balancing of HVAC system, replace air filters and make HVAC system fully operational.

### 3.04 ENVIRONMENTAL AND RECYCLED CONTENT MATERIALS

- A. General: Based on the Project objective for achieving as environmentally responsible a project as possible, there will be a preference for materials selection based on the following criteria:
1. Low-emitting materials with minimal chemical emissions and reduced volatile organic compounds (VOCs).
  2. Materials that can be installed with minimal chemical emissions or VOCs.
  3. Materials with recycled content with a preference for a minimum of 20% post-consumer recycled content or 40 percent post-industrial recycled content or an identifiable combination thereof.
  4. Building materials that are recyclable at the end of useful life.
  5. Materials that contain sustainable or renewable resources.

6. Durable building materials.
  7. Local building materials manufactured or processed from within 500 miles of the building site.
- B. **Third-Party Verification:** There will be a preference for third-party certification of products or independent laboratory tests data that verifies manufacturer claims regarding the above noted environmental criteria.
  - C. **Concrete:** Concrete shall contain a minimum of 20% recycled fly ash content where structurally feasible as determined by the structural engineer.
  - D. **Steel:** Rigid structural steel such as beams and columns shall contain the industry average of nearly 100% post-consumer and post-industrial content as indicated by the Steel Recycling Institute. Flexible steel such as studs and light framing members shall contain the industry average of over 25% post-consumer and post-industrial content as indicated by the Steel Recycling Institute.
  - E. **Fiberglass Insulation:** Fiberglass insulation shall contain a minimum of 25% post-consumer and post-industrial recycled content with a preference for higher recycled content amounts. Fiberglass insulation with a protective wrap and/or no formaldehyde emissions is also preferred.
  - F. **Cellulose Insulation:** Cellulose insulation shall contain a minimum of 75% post-consumer and post-industrial recycled content with a preference for post-consumer recycled content. Cellulose insulation without ammonia-based additives is also preferred.
  - G. **Roofing Materials:** Exposed roof covering materials shall meet the EPA Energy Star Roof Products definition for reflective roofs. Roof covering materials with recycled content and that are recyclable at the end of useful are also preferable.
  - H. **Gypsum Board:** Gypsum board shall be comprised of a face-fiber with 100% post-consumer and post-industrial recycled content with a preference for recycled gypsum in the board.
  - I. **Acoustical Ceiling Tiles:** Acoustical ceiling tiles shall contain a minimum of 25% post-consumer and post-industrial recycled content with a preference for higher recycled content and no formaldehyde emissions. Alternatives to ceiling tiles with man-made mineral fibers that have no chemical emissions will also be considered.
  - J. **Ceramic Tile:** Ceramic tiles shall contain a minimum of 50% post-consumer and post-industrial recycled content with a preference for higher recycled content.
  - K. **Resilient Flooring:** Resilient linoleum flooring shall contain sustainable and renewable resource content. Rubber flooring shall contain 75% post-consumer and post-industrial content. A preference for other vinyl flooring alternatives shall include chlorine-free, low-VOC, recycled content products that are recyclable at the end of useful life.
  - L. **Carpet:** Nylon carpet shall meet the indoor air quality requirements of the Carpet and Rug Institute Green Label Program or the equivalent

thereof as indicated by independent laboratory indoor air quality small chambers testing. There shall also be a preference for carpet with recycled content in the face fiber and backing, and that is recyclable at the end of useful life.

- M. *Architectural Coatings:* Architectural coatings shall comply with South Coast Air Quality Management District Rule # 1113. Products not meeting the minimum requirements of this rule shall not be used.
- N. *Adhesives:* Adhesive materials and applications shall comply with South Coast Air Quality Management District Rule # 1168. Products not meeting the minimum requirements of this rule shall not be used.

**END OF SECTION**

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**- APPENDIX A -**

**SUMMARY OF SOLID WASTE DISPOSAL  
AND DIVERSION FORM**

Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

Contractor Name: \_\_\_\_\_ License Number: \_\_\_\_\_

Contractor Address: \_\_\_\_\_

<b>CONSTRUCTION WASTE MATERIALS SUMMARY</b>					
<b>Solid Waste Material</b>	<b>Date Material Disposed/ Diverted</b>	<b>Amount Disposed/ Diverted (ton or cu. yd)</b>	<b>Municipal Solid Waste Facility (name, address, &amp; phone number)</b>	<b>Recycling/Reuse Facility (name, address, &amp; phone number)</b>	<b>Comments (if disposed, state why not diverted)</b>
Asphalt					
Concrete					
Ceramics					
Metal, Ferrous					
Metal, Nonferrous					
Wood					
Glass					
Cardboard					
Plastic					
Gypsum / Drywall					
Other:					

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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**1. SOLID WASTE PREVENTION SUMMARY**

- A. Total dollar amount of solid waste disposed (landfill) for this project:  
\$ \_\_\_\_\_
- B. Total weight of solid waste disposed (landfill) for this project:  
Pounds \_\_\_\_\_

**2. RECYCLING SUMMARY**

- A. Total dollar value of solid waste diverted from landfill and recycled or re-used for this project. (Express as total dollar amount for solid waste disposal in landfill for equivalent type and amount of diverted waste.):  
\$ \_\_\_\_\_
- B. Total weight of solid waste diverted from landfill and recycled or reused for this project. (Express as total weight for solid waste disposal in landfill for equivalent type and amount of diverted waste.):  
Pounds \_\_\_\_\_

**3. COMMENTS**

- A. Comments and suggestions for increasing amount of recycled materials used in construction materials:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- B. Comments and suggestions for improving solid waste prevention and recycling efforts during construction.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**END OF FORM**

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**- APPENDIX B -**

# RECYLCED CONTENT MATERIALS USAGE PROJECT SUMMARY FORM

Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

Contractor Name: \_\_\_\_\_ License Number: \_\_\_\_\_

Contractor Address: \_\_\_\_\_

## 1. FLY ASH

A. Total dollar amount of concrete and cement provided for this project.

\$ \_\_\_\_\_

B. Total dollar amount of concrete and cement containing fly ash provided for this project.

\$ \_\_\_\_\_

C. Were there any technical impediments to increasing the amount of concrete and cement containing fly ash provided for this project?

Yes \_\_\_\_ No \_\_\_\_ If yes, fully explain:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 2. FIBERGLASS INSULATION PRODUCTS

A. Total dollar amount of fiberglass insulation products provided for this project.

\$ \_\_\_\_\_

B. Total dollar amount of fiberglass insulation products containing the required amount of recycled materials provided for this project.

\$ \_\_\_\_\_

- C. Were there any technical impediments to increasing the amount of fiber-glass insulation products containing recycled materials provided for this project?

Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, fully explain:

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**3. CELLULOSE INSULATION PRODUCTS**

- A. Total dollar amount of cellulose insulation products provided for this project.

\$ \_\_\_\_\_

- B. Total dollar amount of cellulose insulation products containing the required amount of recycled materials provided for this project.

\$ \_\_\_\_\_

- C. Were there any technical impediments to increasing the amount of cellulose insulation products containing recycled materials provided for this project?

Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, fully explain:

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**4. GYPSUM BOARD**

- A. Total dollar amount of gypsum board provided for this project

\$ \_\_\_\_\_

- B. Total dollar amount of gypsum board containing the required amount of recycled materials provided for this project.

\$ \_\_\_\_\_

- C. Were there any technical impediments to increasing the amount of gypsum board containing recycled materials provided for this project?

Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, fully explain:

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**5. ACOUSTICAL CEILING TILE**

- A. Total dollar amount of acoustical ceiling tile board provided for this project

\$ \_\_\_\_\_

- B. Total dollar amount of acoustical ceiling tile containing the required amount of recycled materials provided for this project.

\$ \_\_\_\_\_

- C. Were there any technical impediments to increasing the amount of acoustical ceiling tile containing recycled materials provided for this project?

Yes \_\_\_\_ No \_\_\_\_ If yes, fully explain:

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**6. CERAMIC TILE**

- A. Total dollar amount of ceramic tile provided for this project

\$ \_\_\_\_\_

- B. Total dollar amount of ceramic tile containing the required amount of recycled materials provided for this project.

\$ \_\_\_\_\_

- C. Were there any technical impediments to increasing the amount of ceramic tile containing recycled materials provided for this project?

Yes \_\_\_\_ No \_\_\_\_ If yes, fully explain:

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**7. RESILIENT FLOORING**

- A. Total dollar amount of resilient flooring provided for this project

\$ \_\_\_\_\_

- B. Total dollar amount of resilient flooring containing the required amount of recycled materials provided for this project.

\$ \_\_\_\_\_

- C. Were there any technical impediments to increasing the amount of resilient flooring containing recycled materials provided for this project?

Yes \_\_\_\_ No \_\_\_\_ If yes, fully explain:

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**8. CARPET**

A. Total dollar amount of carpet provided for this project  
\$ \_\_\_\_\_

B. Total dollar amount of carpet containing the required amount of recycled materials provided for this project.  
\$ \_\_\_\_\_

C. Were there any technical impediments to increasing the amount of carpet containing recycled materials provided for this project?

Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, fully explain:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**END OF FORM**

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# BIDDER / GENERAL CONTRACTOR SUBSTITUTION REQUEST FORM

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To: \_\_\_\_\_

Project Name: \_\_\_\_\_

*WE HEREBY SUBMIT FOR YOUR CONSIDERATION THE FOLLOWING PRODUCT INSTEAD OF THE SPECIFIED ITEM FOR THE ABOVE PROJECT:*

Drawing No.: \_\_\_\_\_ Drawing Title: \_\_\_\_\_

Section: \_\_\_\_\_ Paragraph: \_\_\_\_\_ Specified Item: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_

Attach complete technical data, including laboratory tests, if applicable. Include complete information on changes to Drawings and/or Specifications the proposed substitution will require for its proper installation.

A. Does the substitution affect dimensions shown on Drawings?

Yes \_\_\_\_ No \_\_\_\_ If yes, fully explain:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?

Yes \_\_\_\_ No \_\_\_\_ If no, fully explain:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

C. What effect does substitution have on other Contracts or trades? (Use separate sheet if necessary)

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D. Manufacturer's guarantees of the proposed and specified items are:

Same \_\_\_\_ Different \_\_\_\_ Explain on attached sheet.

E. Itemized comparison of specified item(s) with the proposed substitution; list significant variations: (Use separate sheet if necessary)

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F. Accurate cost data comparing proposed substitution with product specified: (Use separate sheet if necessary)

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G. Reasons for substitution: (Use separate sheet if necessary)

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H. What effect does substitution have on construction schedule?

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(Use separate sheet if necessary)

I. Designation of maintenance services and sources: (Attach additional sheets if required)

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**CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY FOR EQUAL PERFORMANCE, EQUAL DESIGN, AND COMPATIBILITY WITH ADJACENT MATERIALS.**

The undersigned states that the function, appearance, and quality are equal or superior to the specified item.

Signature shall be by person having authority to legally bind their firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

**FOR USE BY CONTRACTOR:**

Firm (Contractor): \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Signature & Title: \_\_\_\_\_

Date: \_\_\_\_\_

**FOR USE BY ARCHITECT:**

Accepted                       Accepted As Noted

Not Accepted                   Received Too Late

By: \_\_\_\_\_

Date: \_\_\_\_\_

Remarks: \_\_\_\_\_

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**END OF FORM**

B. Credit EQ 3.2:

1. Air-Quality Testing:

- a. Conduct baseline indoor-air-quality testing, after construction ends and prior to occupancy, using testing protocols consistent with the EPA's *"Compendium of Methods for the Determination of Air Pollutants in Indoor Air,"* and as additionally detailed in the USGBC's *"LEED-NC: Reference Guide."*
- b. Demonstrate that the contaminant maximum concentrations listed below are not exceeded:
  - 1) Formaldehyde: 50 ppb.
  - 2) Particulates (PM10): 50 micrograms/cu. m.
  - 3) Total Volatile Organic Compounds (TVOC): 500 micrograms/cu. m.
  - 4) 4-Phenylcyclohexene (4-PH): 6.5 micrograms/cu. m.
  - 5) Carbon Monoxide: 9 ppm and no greater than 2 ppm above outdoor levels.
- c. For each sampling point where the maximum concentration limits are exceeded, conduct additional flush-out with outside air and retest the specific parameter(s) exceeded to indicate the requirements are achieved. Repeat procedure until all requirements have been met. When retesting noncomplying building areas, take samples from same locations as in the first test.
- d. Air-sample testing shall be conducted as follows:
  - 1) All measurements shall be conducted prior to occupancy but during normal occupied hours, and with building ventilation system starting at the normal daily start time and operated at the minimum outside air flow rate for the occupied mode throughout the duration of the air testing.
  - 2) Building shall have all interior finishes installed including, but not limited to, millwork, doors, paint, carpet, and acoustic tiles. Nonfixed furnishings such as workstations and partitions are encouraged, but not required, to be in place for the testing.
  - 3) Number of sampling locations will vary depending on the size of building and number of ventilation systems. For each portion of building served by a separate ventilation system, the number of sampling points shall not be less than one per 25,000 sq. ft. or for each contiguous floor area, whichever is larger, and shall include areas with the least ventilation and greatest presumed source strength.
  - 4) Air samples shall be collected between 3 and 6 feet from the floor to represent the breathing zone of occupants, and over a minimum four-hour period.

ATTACHMENT: LEED Credit Scorecard

**END OF SECTION**

### MY ACTION ITEMS

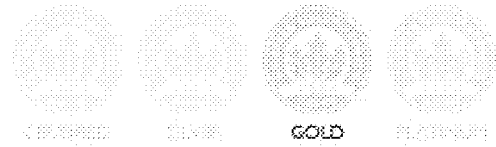
Displays the next steps for the project. Depending on your project role, the project status and number of points anticipated or awarded; different action items will appear.

Please provide documentation for any points or Prerequisites as directed by your Project Administrator.

**You have 0 new Notifications**

### POTENTIAL LEED RATING

Displays LEED level which is based on number of points attempted. \*



This Project has attempted enough points for Gold Rating.

\* Actual Certification Level will be based on the number of points awarded and successful completion of all Prerequisites.

### ATTEMPTED CREDIT SUMMARY

Displays attempted points for the project by status.

Status	Points		
	Design	Construction	Total
Not Awarded:	28	14	42
Total Attempted:	28	14	42

### APPEALED CREDIT SUMMARY

Displays your appealed Credits.

This Project is not currently under appeal.

### CREDIT SCORECARD

Displays all credits and points per LEED sections. Depending on project access, one can attach team members, view attempted credits or click credits to display template.

Collapse All Credit Categories

design  
construction












✓ = Marked Complete  
✗ = Not Marked Complete

⚠ = Needs Attention  
★ = Credit Assigned to You

0 Points Documented						Points Available: 69
0	▼	Sustainable Sites				Possible Points: 14
No	SS	Prerequisite 1	🔗	<a href="#">Construction Activity Pollution Prevention</a>	Architect	⚠ Attempted 0
0	SS	Credit 1	🔗	<a href="#">Site Selection</a>	Landscape Architect	✓ Attempted 1
0	SS	Credit 2	🔗	<a href="#">Development Density &amp; Community Connectivity</a>	★ Project Coordinator	✓ Attempted 1
0	SS	Credit 3	🔗	<a href="#">Brownfield Redevelopment</a>	Not Attempted	1
0	SS	Credit 4.1	🔗	<a href="#">Alternative Transportation: Public Transportation Access</a>	★ Project Coordinator	✓ Attempted 1
0	SS	Credit 4.2	🔗	<a href="#">Alternative Transportation: Bicycle Storage &amp; Changing Rooms</a>	★ Project Coordinator	✓ Attempted 1
0	SS	Credit 4.3	🔗	<a href="#">Alternative Transportation: Low-Emitting &amp; Fuel Efficient Vehicles</a>	Project Team Administrator	✓ Attempted 1
0	SS	Credit 4.4	🔗	<a href="#">Alternative Transportation: Parking Capacity</a>	★ Project Coordinator	✓ Attempted 1

0	SS	Credit 5.1	Site Development: Protect or Restore Habitat	Landscape Architect	Attempted	1
0	SS	Credit 5.2	Site Development: Maximize Open Space	Landscape Architect	Attempted	1
0	SS	Credit 6.1	Stormwater Management: Quantity Control	Civil Engineer	Attempted	1
0	SS	Credit 6.2	Stormwater Management: Quality Control	Civil Engineer	Attempted	1
0	SS	Credit 7.1	Heat Island Effect: Non-Roof	Landscape Architect	Attempted	1
0	SS	Credit 7.2	Heat Island Effect: Roof	★ Project Coordinator	Attempted	1
0	SS	Credit 8	Light Pollution Reduction	Electrical Engineer	Attempted	1
0		Water Efficiency			Possible Points:	5
0	WE	Credit 1.1-1.2	Water Efficient Landscaping	Landscape Architect	Attempted	2
0	WE	Credit 2	Innovative Wastewater Technologies	Plumbing Engineer	Attempted	1
0	WE	Credit 3.1-3.2	Water Use Reduction	Plumbing Engineer	Attempted	2
0		Energy & Atmosphere			Possible Points:	17
No	EA	Prerequisite 1	Fundamental Commissioning of the Building Energy Systems	HVAC Engineer	Attempted	0
No	EA	Prerequisite 2	Minimum Energy Performance	HVAC Engineer	Attempted	0
No	EA	Prerequisite 3	Fundamental Refrigerant Management	HVAC Engineer	Attempted	0
0	EA	Credit 1	Optimize Energy Performance	HVAC Engineer	Attempted	10
0	EA	Credit 2	On-Site Renewable Energy	Project Team Administrator	Attempted	3
0	EA	Credit 3	Enhanced Commissioning	Project Manager	Attempted	1
0	EA	Credit 4	Enhanced Refrigerant Management	Not Attempted		1
0	EA	Credit 5	Measurement & Verification	Not Attempted		1
0	EA	Credit 6	Green Power	Not Attempted		1
0		Materials & Resources			Possible Points:	13
0	MR	Prerequisite 1	Storage & Collection of Recyclables	Interior Designer	Attempted	0

No	MR	Prerequisite 1	<u>Storage &amp; Collection of Recyclables</u>	Interior Designer		Attempted	0
	MR	Credit 1.1-1.2	Building Reuse	Not Attempted			2
	MR	Credit 1.3	Building Reuse, Non-Structural	Not Attempted			1
0	MR	Credit 2	<u>Construction Waste Management</u>	Project Manager		Attempted	2
	MR	Credit 3	Resource Reuse	Not Attempted			2
0	MR	Credit 4	<u>Recycled Content</u>	Project Coordinator		Attempted	2
0	MR	Credit 5	<u>Regional Materials</u>	Project Coordinator		Attempted	2
	MR	Credit 6	Rapidly Renewable Materials	Not Attempted			1
0	MR	Credit 7	<u>Certified Wood</u>	Interior Designer		Attempted	1
0		Indoor Environmental Quality				Possible Points:	15
No	EQ	Prerequisite 1	<u>Minimum IAQ Performance</u>	HVAC Engineer		Attempted	0
No	EQ	Prerequisite 2	<u>Environmental Tobacco Smoke (ETS) Control</u>	Project Coordinator		Attempted	0
0	EQ	Credit 1	<u>Outdoor Air Delivery Monitoring</u>	HVAC Engineer		Attempted	1
0	EQ	Credit 2	<u>Increased Ventilation</u>	HVAC Engineer		Attempted	1
0	EQ	Credit 3.1	<u>Construction IAQ Management Plan: During Construction</u>	HVAC Engineer		Attempted	1
0	EQ	Credit 3.2	<u>Construction IAQ Management Plan: Before Occupancy</u>	HVAC Engineer		Attempted	1
0	EQ	Credit 4.1	<u>Low-Emitting Materials: Adhesives &amp; Sealants</u>	Project Manager		Attempted	1
0	EQ	Credit 4.2	<u>Low-Emitting Materials: Paints &amp; Coatings</u>	Project Manager		Attempted	1
0	EQ	Credit 4.3	<u>Low-Emitting Materials: Carpet Systems</u>	Interior Designer		Attempted	1
0	EQ	Credit 4.4	<u>Low-Emitting Materials: Composite Wood &amp; Agrifiber</u>	Project Coordinator		Attempted	1
0	EQ	Credit 5	<u>Indoor Chemical &amp; Pollutant Source Control</u>	HVAC Engineer		Attempted	1
0	EQ	Credit 6.1	<u>Controllability of Systems: Lighting</u>	Electrical Engineer		Attempted	1

0	EQ	Credit 6.2	Controllability of Systems: Thermal Comfort	Not Attempted		1
0	EQ	Credit 7.1	Thermal Comfort: Design	HVAC Engineer		Attempted 1
0	EQ	Credit 7.2	Thermal Comfort: Verification	HVAC Engineer		Attempted 1
0	EQ	Credit 8.1	Daylighting & Views: Daylight 75% of Spaces	Project Team Administrator		Attempted 1
0	EQ	Credit 8.2	Daylighting & Views: Views for 90% of Spaces	Project Team Administrator		Attempted 1
0		Innovation & Design Process			Possible Points:	5
0	ID	Credit 1.1	Innovation in Design	Interior Designer		Attempted 1
0	ID	Credit 1.2	Innovation in Design	 Project Coordinator		Attempted 1
0	ID	Credit 1.3	Innovation in Design	Project Team Administrator		Attempted 1
0	ID	Credit 1.4	Innovation in Design	Project Team Administrator		Attempted 1
0	ID	Credit 2	LEED Accredited Professional	Project Team Administrator		Attempted 1

## PART 2 - PRODUCTS

### 2.01 MANUFACTURERS

- A. Acceptable Manufacturers:
1. Eco-Smart, (954)336-9545, Contact: Bryan Dugas.
  2. Howard Manufacturing Company, Kent, WA (253)395-7170, with manufacturing facilities in City of Industry, CA.
  3. Rulon Company, St. Augustine, FL (800)227-8566, (904)584-1400, *www.rulonco.com*, with representation in California at (626)622-3007.
  4. SierraPine Composite Solutions, Roseville, CA (800)676-3339, *www.sierrapine.com*. Smith and Fong Company, South San Francisco, CA (866)835-9859, Contact: Bryan Dugas-Eco Smart, Inc., *www.plyboo.com*.
- B. Acceptable manufacturers of solid polymer fabricated products:
1. 3Form, Inc., Salt Lake City, UT (801)649-2500, (800)726-0126, *www.3-form.com*, with representation in Newport Coast, CA (949)375-1318, *www.3-form.com*.
- C. Like materials shall be the products of one manufacturer and shall be either the ones upon which the design is based or the products of other manufacturers accepted in advance in accordance with Section 01630.

### 2.02 SUSTAINABILITY GOALS

- A. LEED Goals: For information on LEED goal requirements, refer to Section 01353. Contractor shall provide a narrative for the following LEED goals:
1. MR Credit 4: Use materials with recycled content that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes 20% of the total value of the materials in the project.
  2. MR Credit 5: Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for 20% of the total materials value.
  3. MR Credit 7: Use a minimum of 50% of wood-based materials and products in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria for wood building components.
  4. EQ Credit 4.1: All interior adhesives and sealants shall comply with the requirements of the following reference standards:
    - a. Adhesives, Sealants, and Sealant Primers: South Coast Air Quality Management District (SCAQMD) Rule No. 1168.
    - b. Aerosol Adhesives: Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.
  5. EQ Credit 4.2: Paints and coatings used on the interior shall comply with criteria laid out in the LEED Reference Guide.

6. EQ Credit 4.4: Composite wood and agrifiber products used on the interior shall contain no urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies shall contain no added urea-formaldehyde resins.
  - a. Composite wood and agrifiber products are defined as particleboard, medium density fiberboard (MDF), plywood, wheatboard, strawboard, panel substrates, and door cores.

## 2.03 MATERIALS

### A. Wood:

1. Conform to the applicable requirements of the following sections of the *WI Manual*:
  - a. Section 3 - Lumber - Hardwood & Softwood.
  - b. Section 4 - Plywood - Hardwood & Softwood.
  - c. Section 5 - Finishing.
  - d. Section 9 - Interior Trim, Jambs & Millwork.
2. Softwood For Opaque (Paint) Finish: In accordance with *WI Manual* for Premium Grade.
  - a. Species: Douglas fir, hemlock, or Ponderosa pine.
3. Hardwood For Opaque (Paint) Finish: In accordance with *WI Manual* for Premium Grade.
  - a. Species: Natural maple, birch, poplar, or ash.
4. Hardwood For Transparent (Stain or Clear) Finish: In accordance with *WI Manual* for Premium Grade.
  - a. Species and Grain: FSC-certified maple.

### B. Hardwood Veneer:

1. Grade: HPVA Grade AA.
2. Species and Cut: Carbonized bamboo, as described below.
3. Veneer Thickness: 1/40-inch at time of cutting.
4. Veneer and Assembly Matching: Uniform in appearance.
5. Construction:
  - a. Panel Back: Sound veneer of same species.
  - b. Panel Edges: Veneer all edges with same species and cut.
  - c. Panel Core: Medium density fiberboard (MDF).
6. Provide veneer in sufficient quantities to allow for waste and veneer matching.

### C. Panels, Particleboard:

1. Non-Fire Retardant Type: Composite panel, ANSI 208.1, Grades M-2 and M-3, composed of wood chips matrix bound with high-moisture resistant urea-free resin binders per LEED EQ 4.4, and passing requirements of ASTM D 1037.
  - a. Panels: Medium density fiberboard (MDF), nominal 48 pcf for 3/4-inch and less thickness, and nominal 46 pcf for 13/16-inch and greater thickness, equal to Medite II,, as manufactured by Medite Corporation.

4. Garco Corporation, Chicago, IL (312)235-5600.
  5. Knape & Vogt Manufacturing Company (K&V), Grand Rapids, MI (616)459-3311.
  6. Julius Blum, Inc. (Blum), Cabinet and Furniture Hardware Manufacturing, Stanley, NC (704)827-1345, (800)438-6788.
  7. Stanley Hardware, Division of The Stanley Works, New Britain, CT (203)225-5111.
  8. Häfele America Company, Arlington Heights, IL (847)364-4073.
  9. Trimco Inc, Los Angeles, (323)262-4191, [www.trimcobbw.com](http://www.trimcobbw.com).
  10. Smith and Fong Company, South San Francisco, CA (866)835-9859, Contact: Bryan Dugas-Eco Smart, Inc., [www.plyboo.com](http://www.plyboo.com).
- B. Architectural Casework Hardware: Guidelines to Casework Hardware References as listed in WI Manual.
- C. Like materials shall be the products of one manufacturer and shall be either the ones upon which the design is based, or the products of another manufacturer accepted in advance in accordance with Section 01630.

## 2.02 SUSTAINABILITY GOALS

- A. LEED Goals: For information on LEED goal requirements, refer to Section 01353. Contractor shall provide a narrative for the following LEED goals:
1. EQ Credit 4.1: All interior adhesives and sealants shall comply with the requirements of the following reference standards:
    - a. Adhesives, Sealants, and Sealant Primers: South Air Quality Management District (ACAQMD) Rule No. 1168.
    - b. Aerosol Adhesives: Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.
  2. EQ Credit 4.4: Composite wood and agrifiber products used on the interior shall contain no urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies shall contain no added urea-formaldehyde resins.
    - a. Composite wood and agrifiber products are defined as particleboard, medium density fiberboard (MDF), plywood, wheatboard, strawboard, panel substrates, and door cores.

## 2.03 MATERIALS

- A. Wood: Hardwood veneers in accordance with Section 06400.
1. Interior Finish: Kortron, or equal.
- B. Solid Stock: Premium Grade lumber to match veneer.
- C. Panels and Particleboard: In accordance with Section 06400.
- D. Bamboo Plywood: 3-ply flat grain vertical cross core natural color bamboo plywood manufactured by Smith and Fong Plyboo, or equal by Eco-Smart.
1. Performance Criteria:
    - a. Burning characteristics shall comply with ASTM E 84 for Class A rating.
    - b. Formaldehyde Emission: Maximum 0.02 ppm tested in accordance with ASTM E 1333.

2. Thickness: As indicated in Contract Documents.
  - a. 1/4-Inch Thick: 3-ply, amber edge grain.
  - b. 3/4-Inch Thick: 3-ply edge grain cross core, amber edge grain.
3. Bamboo veneer shall retain original bamboo grain and nodes. Provide thin cellulose fleece backing.
4. Color:
  - a. Natural color.
  - b. Provide carbonized type produced by the process of caramelization without topically applied stain.
5. Provide 0.60 mm natural flat grain edge banding as required.

## 2.04 CUSTOM UNITS

- A.** Casework and cabinets shall be fabricated in accordance with Premium Grade standards of *WI Manual*. Refer to WI Supplement 2 for construction details. Fasten together with Type I multiple units or Type II single section, at Contractor's option.
1. Drawers: Dovetail all joints.
  2. Fillers shall be flush with face of doors.
  3. Joints between cabinet units shall be concealed joint, tight type.
  4. Underside of cabinets shall be flush, laminated in individual units.
  5. Face frame members in modular casework are not permitted.
  6. Woodgrain patterns shall run and match vertically.
  7. Interior color of all cabinets shall be white, unless otherwise indicated on Contract Drawings.
  8. Provide solid stock edge of sufficient depth to accommodate integral finger pulls where indicated on Contract Drawings.
- B.** Casework Fabrication:
1. Casework Fabrication, General: Shop fabricate casework in compliance with *WI Manual* for grade specified.
  2. Construction Details: Comply with referenced standards, with details and notes indicated on the Drawings, and the following:
    - a. Cabinet Cases: 3/4-inch thick specified panel core, with bamboo at exposed and semi-exposed faces and cabinet liner at concealed faces. Where casework is located in room or space subject to high humidity, use 3/4-inch exterior grade plywood.
    - b. Doors: 3/4-inch thick panel core, with high-pressure bamboo at exposed and concealed faces.
    - c. Drawer Fronts: 3/4-inch thick panel core.
    - d. Drawer Sides, Backs and Sub-Fronts: 1/2-inch thick 7-ply hardwood plywood per *WI Manual*.
    - e. Drawer Bottoms: 1/4-inch thick plywood, faced with cabinet liner material on upper face, except provide 3/8-inch thick bottoms at drawers 30 inches and wider.
    - f. Shelves: Support with specified shelf pins.
    - g. Dust Panels: 1/4-inch thick plywood or hardboard, above compartments and drawers except where located directly under tops, to vertically secure spaces at locked cabinets.
    - h. Base and Sleepers: Unfaced particleboard 3/4-inch by net 4 inches.

## PART 2 - PRODUCTS

### 2.01 MANUFACTURERS

- A. Acceptable Manufacturers of Solid Surface Countertop Products:
1. Aristech Acrylics LLC, Belen, NM (505)864-3800, (800)866-8324, [www.avonitesurfaces.com](http://www.avonitesurfaces.com) (Avonite).
  2. E.I. DuPont de Nemours Co., Inc., Wilmington, DE, represented by Stanline, Inc., Norwalk, CA (213)921-0966 (Corian, Zodiac).
  3. Formica Corporation, Cincinnati, OH (513)786-3400, (800)367-6422 (Surell).
  4. Nevamar Corporation, Odenton, MD (301)569-5001, (800)638-4380 (Fountainhead).
  5. Wilsonart International, Inc., Temple, TX (817)778-2711, (800)433-3222, with offices in Santa Fe Springs, CA (714)423-1200 (Gibraltar).
- B. Like materials shall be the products of one manufacturer and shall be either the ones upon which the design is based or the products of other manufacturers accepted in advance in accordance with Section 01630.

### 2.02 SUSTAINABILITY GOALS

- A. LEED Goals: For information on LEED goal requirements, refer to Section 01353. Contractor shall provide a narrative for the following LEED goals:
1. MR Credit 4: Use materials with recycled content that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes 20% of the total value of the materials in the project.
  2. EQ Credit 4.4: Composite wood and agrifiber products used on the interior shall contain no urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies shall contain no added urea-formaldehyde resins.
    - a. Composite wood and agrifiber products are defined as particle-board, medium density fiberboard (MDF), plywood, wheatboard, strawboard, panel substrates, and door cores.

### 2.03 MATERIALS

- A. Panels, Plywood:
1. Softwood Plywood: PS 1, Standard Sheathing Grade, Group 1, Appearance Quality, Douglas fir, with face veneer rotary cut, minimum 3/4-inch thick, intermediate glue.
    - a. At countertop locations with plumbing fixtures, provide panels with exterior glue.

**- SECTION 08211 -**

**FLUSH WOOD DOORS**

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**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes: Flush wood doors decorative laminate finish.
- B. Referenced Sections:
  - 1. Section 01330 - Submittal Procedures.
  - 2. Section 01352 - Construction Waste Management Procedures.
  - 3. Section 01353 - LEED Requirements.
  - 4. Section 01630 - Product Substitution Procedures.
  - 5. Section 08114 - Custom Steel Frames.
  - 6. Section 08118 - Prefinished Steel Frames.
  - 7. Section 08710 - Door Hardware.
  - 8. Section 08715 - Door and Hardware Installation.
  - 9. Section 08810 - Glass.
- C. Coordinate with construction waste management requirements specified in Section 01352.
- D. Comply with applicable procedural requirements of Section 01353.

**1.02 REFERENCED STANDARDS**

- A. ASTM International (ASTM):
  - 1. E 90-02 - Method for Laboratory Measurement of Airborne-Sound Transmission Loss of Building Partitions.
- B. California Building Standards Code (CBSC):
  - 1. California Building Code [CCR Title 24, Part 2] (CBC), 2001 edition:
    - a. Chapter 35 - Uniform Building Code Standards (UBC):
      - 1) 7-2 - Fire Tests of Door Assemblies [*Part 1 based on UL 10C*]
- C. Woodwork Institute (WI):
  - 1. *Manual of Millwork*, 2003 edition, including amendments.
    - a. Section 1 - General Information:
      - 1) Article 11 - Care and Storage of Architectural Woodwork.
    - b. Section 5 - Factory Finishing.
    - c. Appendix, Miscellaneous:
      - 1) Guidelines for Preservative & Water Repellent Treatment.
      - 2) Guidelines for WI Casework Installation Requirements.
- D. Composite Panel Association [formerly American Hardboard Association]/American National Standards Institute (CPA/ANSI):
  - 1. A135.4 - Basic Hardboard Product Standard.

2. Eggers Industries, Two Rivers, WI (920)793-1351, with sales offices in Escondido, CA (619)432-8100, *www.eggersindustries.com*.
  3. Marshfield DoorSystems, Inc., (formerly Weyerhaeuser Architectural Door Products), Marshfield, WI (715)384-2141, (800)869-3667, *www.marshfielddoors.com*.
  4. Marlite, Dover, OH (330)343-6621.
- B. Like components shall be the products of one manufacturer and shall be either the ones upon which the design is based or the products of another manufacturer accepted in advance in accordance with Section 01630.

## 2.02 SUSTAINABILITY GOALS

- A. LEED Goals: For information on LEED goal requirements, refer to Section 01353. Contractor shall provide a narrative for the following LEED goals:
1. MR Credit 7: Use a minimum of 50 percent of wood-based materials and products in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria for wood building components.
  2. EQ Credit 4.1: All interior adhesives and sealants shall comply with the requirements of the following reference standards:
    - a. Adhesives, Sealants, and Sealant Primers: South Air Quality Management District (ACAQMD) Rule No. 1168.
    - b. Aerosol Adhesives: Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.
  3. EQ Credit 4.2: Paints and coatings used on the interior shall comply with criteria laid out in the LEED Reference Guide.
  4. EQ Credit 4.4: Composite wood and agrifiber products used on the interior shall contain no urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies shall contain no added urea-formaldehyde resins.
    - a. Composite wood and agrifiber products are defined as particleboard, medium density fiberboard (MDF), plywood, wheatboard, strawboard, panel substrates, and door cores.

## 2.03 DESCRIPTION

- B. Regulatory Requirements: Comply with pertinent recommendations contained in referenced standards required by this Section.
1. Comply with positive pressure testing requirements of UBC Standard 7-2 and UL 10C.
    - a. Fire endurance test shall establish neutral pressure level at 40 inches above finished floor after 5 minutes and maintain that condition during remainder of entire test period.
    - b. Provide doors tested with frames as an assembly.

## 2.04 MATERIALS

- A. Solid Core Materials:
1. Particleboard: Type I density (32 to 33 pounds per cubic foot), Class 1, Commercial Standard CS 236, and conforming to ANSI A208.1, Grade 1-LD-2. Particleboard shall be urea-formaldehyde-free.

**- SECTION 09511 -**

**ACOUSTICAL CEILINGS**

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**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes: Acoustical panels for installation in ceiling suspension systems.
- B. Referenced Sections:
  - 1. Section 01330 - Submittal Procedures.
  - 2. Section 01351 - Environmental Procedures.
  - 3. Section 01352 - Construction Waste Management Procedures.
  - 4. Section 01353 - LEED Requirements.
  - 5. Section 01650 - Product Substitution Procedures.
  - 6. Section 09130 - Ceiling Suspension.
- C. Refer to Section 09130 for grid type and custom perimeter trim.
- D. Coordinate with indoor air quality management requirements specified in Section 01351.
- E. Coordinate with construction waste management requirements specified in Section 01352.
- F. Comply with applicable procedural requirements of Section 01353.

**1.02 REFERENCES**

- A. ASTM International (ASTM):
  - 1. C 423-02a - Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - 2. E 84-05 - Test Method for Surface Burning Characteristics of Building Materials.
  - 3. E 119-00a - Method for Fire Tests of Building Construction and Materials.
  - 4. E 413-04 - Classification for Determination of Sound Transmission Class.
  - 5. E 662-03 - Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
  - 6. E 1264-98(2005) - Classification of Acoustical Ceiling Products.
  - 7. E 1414-00a - Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling and Plenum.
- B. Acoustical Manufacturer's Association (AMA):
  - 1. 1-II - Ceiling Sound Transmission Test by Two-room Method.

