



Johnson Student Center

1530 W. 17TH STREET, SANTA ANA, CA 92706

04-116810-1 INCREMENT 1
DEMOLITION & EARTHWORK



Technical Specifications

100% Construction Documents Submittal
December 11, 2017



Santa Ana College
Johnson Student Center – Increment 1
1530 W. 17th Street, Santa Ana, CA 92706
Signature Sheet

ARCHITECT

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Lyn Padilla, Project Manager



CIVIL ENGINEER

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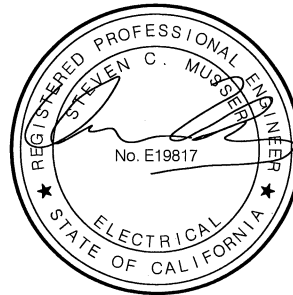
Contacts: Eric Swanson, PE Project Manager
Stuart Szuck, PE Project Engineer



PLUMBING-MECHANICAL-ELECTRICAL

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Chris Weixelman, Sr. Mechanical Engineer



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

04 1108 10

ACS SS FLS RF SS RF
DATE FEB 20 2018

FLS: R. FERRER
ACS: S. LYCE

SS: V. GARCIA

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TABLE OF CONTENTS

DIVISION 1 - GENERAL REQUIREMENTS

011100 Summary of Work	RSCCD
011216 Phasing of Work	RSCCD
012100 Allowances	RSCCD
012300 Alternates	RSCCD
012613 Request for Information Procedures	RSCCD
012973 Schedule of Values	RSCCD
012976 Progress Payment Procedures	RSCCD
013113 Project Coordination	RSCCD
013119 Project Meetings	RSCCD
013213 Construction Schedule	RSCCD
013229 Project Forms	RSCCD
013300 Submittal Procedures	RSCCD
013502 Community and Student Workforce Project Agreement (CSWPA)	RSCCD
014100 CEQA EIR Mitigation Measures	RSCCD
014523 Testing and Inspections	RSCCD
015000 Construction Facilities and Temporary Controls	RSCCD
017329 Cutting and Patching	RSCCD
017419 Construction Demolition and Waste Management	HPI
017419 Construction Demolition and Waste Management	RSCCD
017700 Contract Closeout	RSCCD
017836 Warranty Procedures	RSCCD
018113 Sustainable Design Requirements	RSCCD

DIVISION 2 - SITE CONSTRUCTION

022623 Asbestos & Hazardous Materials Abatement	civil
022626 Stabilization / Removal of Lead Containing Components	civil
024000 Demolition	civil

DIVISION 31 EARTHWORK

311000 Site Preparation	civil
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DIVISION 32 - EXTERIOR IMPROVEMENTS

321313 Concrete Paving	civil
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END OF TABLE OF CONTENTS

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 11 00 - SUMMARY OF WORK

PART 1 – GENERAL

1.01 SUMMARY

- A. The Project consists of the demolition of the existing Johnson Center Building, foundation, including piles and pile caps, existing underground utility lines, and surrounding site and earthwork, over-excavation, recompaction of soil, and placement of engineered fill material in preparation for the new building for Rancho Santiago Community College District, in compliance with the Contract Documents and Code requirements.

1.02 The furnishing of all labor, materials, equipment, services, and incidentals necessary for Work of the Johnson Student Center Demolition, 1530 W. 17th Street, Santa Ana, California 92706.

- A. Drawings
- B. Specifications

1.03 USE OF PREMISES

- A. Contractor shall sequence, coordinate, and perform the Work to impose minimum impact on the operation and use of the 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 District Representative.
- C. Contractor to coordinate with District Representative to obtain keys. Contractor will be required to sign a release form. Key requests need to be made three (3) days in advance. If Contractor loses a key or fails to return a key to the District, Contractor shall be fined \$1,000 for each key lost.
- D. Obtain and pay for the use of field offices, storage, work areas, or parking needed for operations or Contractor's employees. Obtain and pay for all public right of way fees associated with utility connections, street use permits and protective canopies over public right of ways.
- E. Provide and maintain unimpeded access for police, fire fighting, or rescue equipment.
- F. Contractor is advised school may be in session during performance of the Work. Contractor shall utilize all available means to prevent generation of unnecessary noise/vibrations and maintain noise/vibration levels to a minimum. When required by the District Representative, 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 determined by District Representative and/or District Representative. When applicable, District Representative will provide a testing schedule to indicate when work may not occur.
- G. 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.
- H. Contractor shall secure site, and Work areas with locking devices in an acceptable manner to District Representative.
- I. Contractor shall not permit the use of portable and/or fixed radio's or other types of sound producing devices including Walkman's, iPod's, and similar devices.

1.04 EXISTING CONDITIONS

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

- A. Contractor shall document the existing site and produce still photographs or video recording on DVD, sufficiently detailed, of existing conditions of adjoining construction, roads, and site improvements that might be misconstrued as damage caused by construction operations.
- B. Contractor shall protect items indicated to remain against damage and soiling during construction.
- C. Contractor shall replace any items damaged during construction.

1.05 WORK NOT IN CONTRACT

- A. The term "NIC" shall be construed to mean that portions of the Project are not to be furnished, installed or performed by the Contractor. The term shall mean "Not in Contract" or Not a Part of the Work to be performed by the Contractor" except that coordination and installation of certain NIC items specified shall be the Contractor's responsibility. District will award separate contracts for products and installation for the following work and other work as may be indicated on Drawings as NIC (Not in Contract), including:
 - a. Performing tests and inspections specified in the Contract Documents.
- B. When the work of this Contract requires the Contractor to make allowance for the above in his work, and to provide supports, power, conduits, stub-outs and other services to these items, the drawings, manufacturer's data and other information necessary for the Contractor's work will be provided by the District Representative upon request.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION (Not applicable)

END OF SECTION 01 11 00

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 12 16 - PHASING OF THE WORK

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Requirements for phasing of the Work include logistics, phasing, and completion of designated phases prior to commencement of subsequent phases.

1.02 RELATED SECTIONS

- A. Section 01 11 00: Summary of Work.
- B. Section 01 31 13: Project Coordination.
- C. Section 01 32 13: Construction Schedule.
- D. Section 01 33 00: Submittal Procedures.
- E. Section 01 50 00: Construction Facilities and Temporary Controls.
- F. Section 01 77 00: Closeout Procedures.

1.03 SUBMITTALS

- A. Contractor shall submit a Project site logistics plan in accordance with and as required by this Section.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION

3.01 LOGISTICS

- A. Prior to commencement of the Work, Contractor shall prepare and submit to the District Representative, a detailed Project site logistic plan, in the same size and scale of the Drawings, setting forth Contractor plan of the Work relative to the following, but not limited to, items:
 - 1. In accordance with local ordinances a truck access route to and from the Project site.
 - 2. The identification of any overhead wire restrictions for power, street lighting, signal, and/or cable.
 - 3. Local sidewalk access and street closure requirements.
 - 4. Protection of sidewalk pedestrians and vehicular traffic.
 - 5. Project site fencing and access gate locations.
 - 6. Construction parking.
 - 7. Material staging and/or delivery areas.
 - 8. Material storage areas.
 - 9. Temporary trailer locations.
 - 10. Temporary service location and proposed routing of all temporary utilities.
 - 11. Location of temporary and/or accessible fire protection
 - 12. Trash removal and location of dumpsters.
 - 13. Concrete pumping locations.
 - 14. Crane locations.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

15. Location of portable sanitary facilities.
 16. Mixer truck wash out locations.
 17. Traffic control signage.
 18. Perimeter and site lighting.
 19. Stockpile and/or lay down areas.
 20. Emergency Vehicle Access Routes.
- B. A revised Project site logistic plan may be required by the District Representative for separately identified phases of the Work as set forth in this Section.
- C. Contractor is responsible for securing and obtaining all approvals and permits from authorities having jurisdiction relative to logistic plan activities.

3.03 PHASING OF THE WORK

- A. Project will be constructed in separate Milestone increments, as identified or as described in this Section and/or the Contract Documents. Phasing will also delineate Work to be completed in each designated phase. Unless otherwise approved or directed by the District Representative, each phase shall be completed according to the approved Construction Schedule prior to the commencement of the next subsequent phase. Contractor shall incorporate and coordinate the Work of Separate Work Contracts relative to this Project into the Phasing and Construction Schedule.
- B. Contractor shall install all necessary Work for phased Work before completion of the designated phase.

3.04 PHASING OF THE WORK – GENERAL

- A. Contractor shall prepare the Milestone Schedule in order to complete the Work and related activities in accordance with the phasing plan. Contractor shall include all costs to complete all Work within the Milestones and Contract Time.
- B. Owner will be seriously damaged by not having all Work completed within the Milestones and/or Contract Time. It is mandatory the Work be complete within the Milestones and Contract Time.

3.05 PHASING OF THE WORK – SPECIFIC

1. Refer to The Supplementary General Conditions.

END OF SECTION 01 12 16

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 21 00 - ALLOWANCES

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. This Section specifies administrative and procedural requirements governing Contract allowances.
 - 1. Allowances as set forth in the Master Facilities Lease are to be used as compensation for items as set forth in this Section. When applicable, the amount listed for each allowance is to be included in the Guarantee Maximum Price and shall be listed separately in the Schedule of Values and Application for Payment.

1.02 RELATED SECTIONS

- A. Section 01 29 73: Schedule of Values Procedures.
- B. Section 01 29 76: Progress Payment Procedures.
- C. Section 01 32 13: Construction Schedule.
- D. Section 01 50 00: Construction Facilities and Temporary Controls.

1.03 ALLOWANCES

- A. Use the allowances only as authorized for Owner purposes and only by submitting a form that indicates the amounts to be charged to the respective allowance amount to the District Representative.
- B. District Representative and Architect will review Contractor's basis for its use of any Allowance costs included in Contract Sum as required, and prior to the execution of Work described in Allowances.
- C. At Final Completion of the Work or at any time designated by the District Representative, credit unused amounts remaining in the allowances to the Owner via Change Order.
- D. This Contract may include an allowance for unforeseen and unanticipated conditions that the District solely determines should be charged as an Allowance. If directed by the District in the Request for Proposal, the Contractor shall include an Allowance in its proposal in the amount prescribed by the District for the exclusive use by the District for Unforeseen Conditions not otherwise defined or included in the Drawings and Specifications. Any unused allowance shall be returned to the District using a credit change order for the full amount of the value unused.

1.04 ALLOWANCE DISBURSEMENT

- A. Contractor shall submit a request for allowance disbursement to the District Representative. Include all substantiating and/or required data along with the request. The Contractor shall use the form provided by the District.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

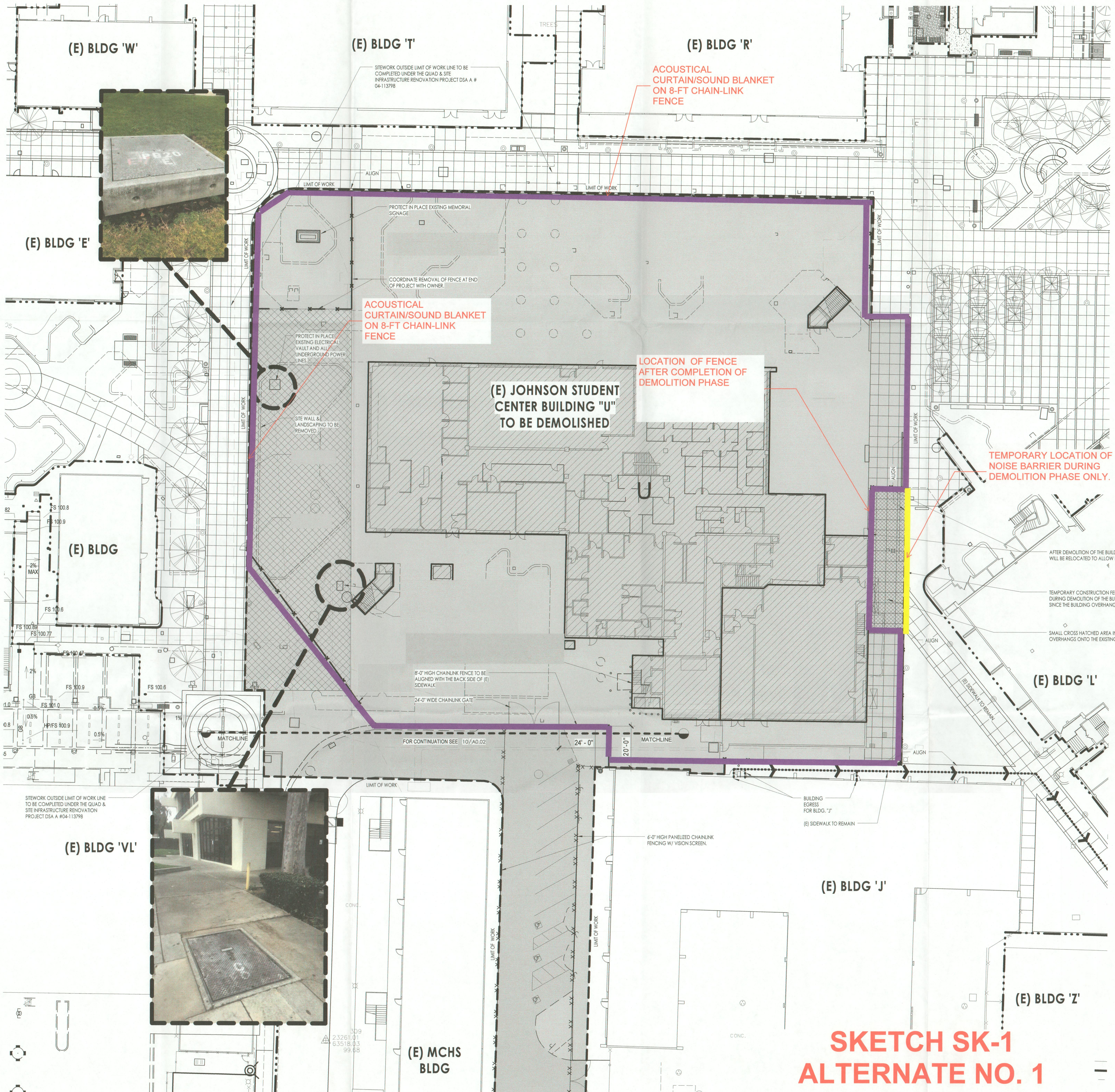
3.01 SCHEDULE OF ALLOWANCES

Schedule of Allowances shall be as shown on the Master Facilities Lease

END OF SECTION 01 21 00

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SITWORK OUTSIDE LIMIT OF WORK LINE TO BE COMPLETED UNDER THE QUAD & SITE INFRASTRUCTURE RENOVATION PROJECT DSA # 04-113798

ACOUSTICAL CURTAIN/SOUND BLANKET ON 8-FT CHAIN-LINK FENCE

ACOUSTICAL CURTAIN/SOUND BLANKET ON 8-FT CHAIN-LINK FENCE

LOCATION OF FENCE AFTER COMPLETION OF DEMOLITION PHASE

TEMPORARY LOCATION OF NOISE BARRIER DURING DEMOLITION PHASE ONLY.

AFTER DEMOLITION OF THE BUILDING, THE CONSTRUCTION FENCING WILL BE RELOCATED TO ALLOW PEDESTRIAN ACCESS.

TEMPORARY CONSTRUCTION FENCING DURING DEMOLITION OF THE BUILDING SINCE THE BUILDING OVERHANGS ABOVE THE EXISTING SIDEWALK.

SMALL CROSS HATCHED AREA INDICATES WHERE THE BUILDING OVERHANGS ONTO THE EXISTING SIDEWALK

(E) BLDG 'E'

(E) BLDG 'W'

(E) BLDG 'T'

(E) BLDG 'R'

(E) JOHNSON STUDENT CENTER BUILDING "U" TO BE DEMOLISHED

(E) BLDG

(E) BLDG 'L'

(E) BLDG 'VL'

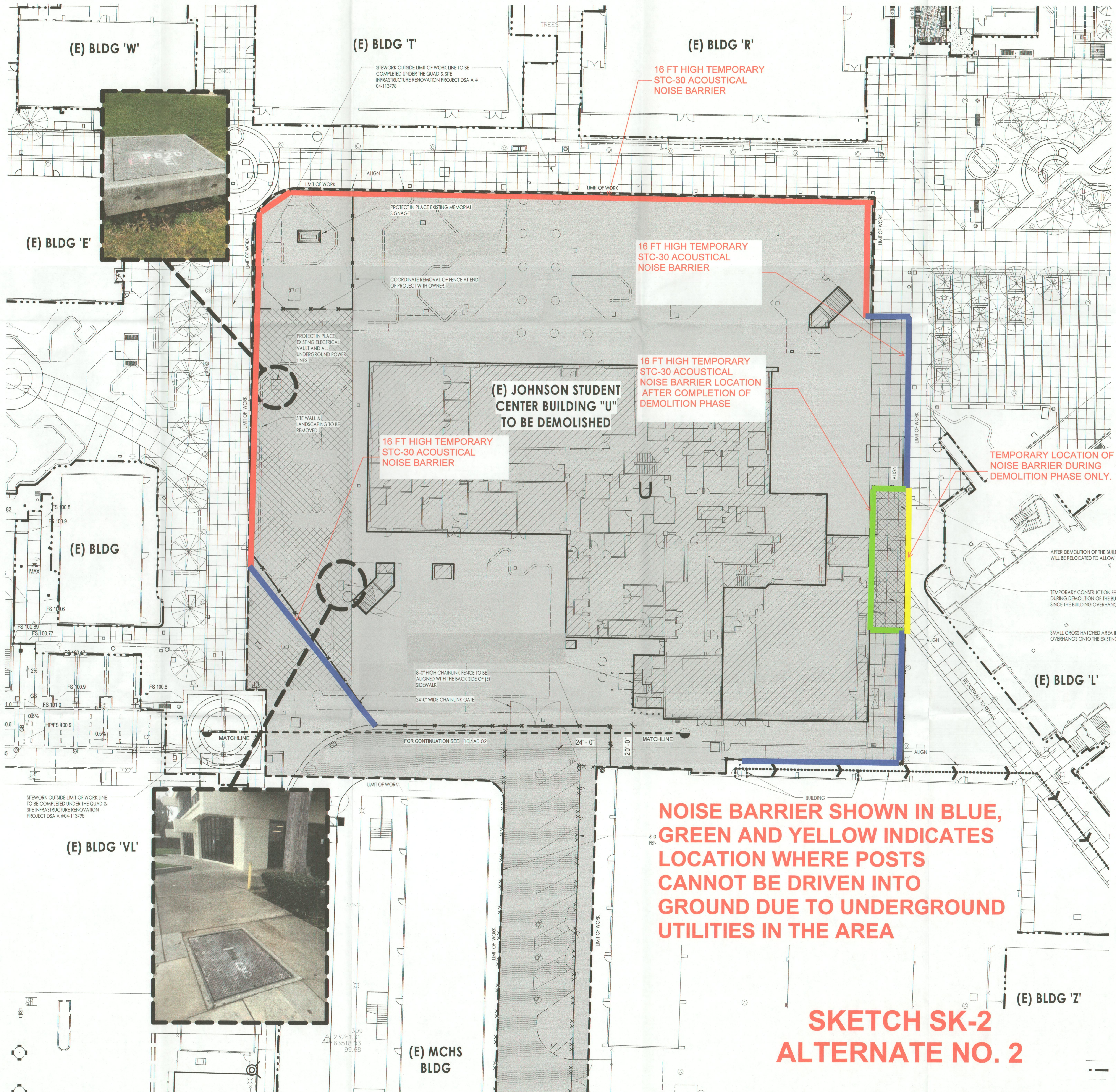
(E) BLDG 'J'

(E) BLDG 'Z'

(E) MCHS BLDG

**SKETCH SK-1
ALTERNATE NO. 1**





(E) BLDG 'W'

(E) BLDG 'T'

(E) BLDG 'R'

(E) BLDG 'E'

(E) BLDG 'G'

(E) JOHNSON STUDENT CENTER BUILDING "U" TO BE DEMOLISHED

(E) BLDG 'VL'

(E) BLDG 'L'

(E) BLDG 'Z'

(E) MCHS BLDG

16 FT HIGH TEMPORARY STC-30 ACOUSTICAL NOISE BARRIER

16 FT HIGH TEMPORARY STC-30 ACOUSTICAL NOISE BARRIER

16 FT HIGH TEMPORARY STC-30 ACOUSTICAL NOISE BARRIER LOCATION AFTER COMPLETION OF DEMOLITION PHASE

16 FT HIGH TEMPORARY STC-30 ACOUSTICAL NOISE BARRIER

TEMPORARY LOCATION OF NOISE BARRIER DURING DEMOLITION PHASE ONLY.

NOISE BARRIER SHOWN IN BLUE, GREEN AND YELLOW INDICATES LOCATION WHERE POSTS CANNOT BE DRIVEN INTO GROUND DUE TO UNDERGROUND UTILITIES IN THE AREA

SKETCH SK-2 ALTERNATE NO. 2



SECTION 01230

ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Construction Drawings, Technical Specifications, Addenda, and general provisions of the Contract, including Contract General Conditions and Supplementary General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Requirements and descriptions for products and scopes of Work identified as Alternate in the Drawings and Specifications and listed as "Alternate " on the Bid Proposal Form.

1.3 RELATED DOCUMENTS AND SECTIONS

- A. Refer to product Specification Sections indicated in Alternate descriptions and as may be affected by alternate products and scope descriptions.

1.4 GENERAL REQUIREMENTS FOR ALTERNATES

- A. To enable the District to compare total costs where alternative materials and methods might be used or where scope of Work might be altered, Alternates have been established as described in this Section.
 - 1. Unless otherwise specifically provided, the work described in Alternates shall be completed with no increase in Contract Time.
 - 2. Alternates will be accepted based on District's needs and budget.
 - 3. Pursuant to Public Contract Code Section 20103.8, the Basis of Award does not preclude the District from using any of the additive or deductive alternates from the contract after the lowest responsible responsive bidder has been determined.
- B. Contract Amount included in Base Bid and as stated in executed Agreement shall include all costs for Work described in Contract Documents.
- C. Bid Proposal Form or other means prescribed for submission of proposed cost of Work shall include line items for each Alternate described in this Section. No Alternates other than as described in this Section shall be submitted, except in accordance with product options and substitutions provisions specified in General Conditions.
- D. Each Alternate is identified herein by number. This identification shall be used whenever referring to Work described in Alternate and when submitting cost proposals and payment requests.
- E. Alternate construction described in Alternates and revised scopes of Work shall be performed only when such Alternate is made a part of the Work by specific provision in the Construction Services Agreement, if selected by the District prior to execution of the Agreement, or by Change Order or Change Directive if selected subsequent to execution of the Agreement.
- F. Costs for Alternates shall be valid for no less than ninety (90) calendar days from date of Agreement, and District may select any or all Alternates during that time. Once an Alternate is selected and the Contract modified for Work as described in the Alternate(s), changes to return to original scope of Work will be made only by Change Order or Change Directive in accordance with provisions of the Contract General Conditions for changes.

1.5 PRODUCTS AND EXECUTION

- A. If District elects to proceed on the basis of one or more of the described Alternates, Contractor shall make all modifications to Work as required to provide complete products, in place and fully

functional, including all labor, equipment, services and incidental consumables necessary to apply, install and finish Work described in Alternate in accordance with requirements specified in related product Sections of these Specifications.

- B. Cost for Alternates shall be complete and include all net increases and decreases in Contract Amount for Work described in Alternate and for all changes in related Work. No claims for additional costs to District will be honored other than as stated in cost proposal for each Alternate.

1.6 ALTERNATES

A. Alternate No. 1 (ADD) – Furnish and Install Acoustical Curtain/Sound Blanket.

- (1) Contractor shall furnish and install acoustical curtain/sound blanket on 8-foot chain link fence in lieu of privacy screen, as shown on attached Sketch SK4-2.
- (2) Product shall be exterior grade, UV resistant heavy-duty faced quilted fiberglass absorber bonded to a reinforced loaded vinyl barrier.
- (3) The quilted blanket shall be configured as hanging panels.
- (4) Curtain panels shall be constructed with grommets across the top and bottom and exterior grade Velcro seals along the vertical edges.
- (5) Panel size: 46” (w) x 96” (h) nominal.
- (6) Blankets shall meet the following minimum criteria:
 - NRC: 0.75
 - STC: 25
 - Temperature range: -20 degrees to 180 degrees Fahrenheit
 - ASTM E84 Class 1 or A Fire Rating
- (7) Panels shall be secured on fence with zip-ties.

B. Alternate No. 2 (ADD) – Design, Furnish and Install Temporary Noise Barrier.

- (1) Contractor shall design, furnish and install temporary noise barrier as shown on attached Sketch SK4-1. The temporary noise barrier shall have a Sound Transmission Class of STC-30, or greater, based on certified sound transmission loss data taken according to ASTM Test Method E90.
- (2) Contractor shall omit 8-foot fence and screen in areas where temporary noise barrier is being installed.
- (3) The temporary barrier shall be lined with glass fiber, mineral wool, or other similar noise curtain type noise-absorbing material at least 1-1/2-inches thick and have a Noise Reduction Coefficient rating of NRC-0.85, or greater, based on certified sound absorption coefficient data taken according to ASTM Test Method C423. The curtain material shall be meet ASTM E84 Class “A” fire resistance.
- (4) The materials used for the temporary noise barrier shall be sufficient to last three years, and shall be maintained in good repair during the construction period.

SECTION 01230 ALTERNATES

- (5) The design and details for the temporary noise barrier framework and supports shall be prepared and stamped by a Registered Professional Engineer licensed in the state of California. The Contractor shall be responsible for the design, detailing, and adequacy of the framework and supports, ties, attachment methods, and other appurtenances required for the proper installation of the noise control barrier. The Contractor shall submit the design and detailed engineering drawings to the Architect of Record for review in accordance with Specifications Section 013300.
- (6) The barrier shall be at least 16-foot tall, secured above, at the ground, and at intermediate points by framework and supports designed to withstand 80 mph wind loads plus a 30 percent gust factor.
- (7) When barrier units are joined together, the mating surfaces of the barrier sides shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that will completely fill the gaps, and be dense enough to attenuate noise.
- (8) The acoustical curtains shall be properly attached to support frames and shall be installed in vertical and horizontal segments with the vertical segments extending the full curtain height to the ground. All seams and joints shall have a minimum overlap of 2 inches and be sealed using Velcro or double grommets spaced 12 inches on center.
- (9) Contractor shall review available utilities As-builts and perform underground utilities survey prior to excavating or drilling for the posts.
- (10) The temporary noise barrier shall remain in place after the completion of the project and be turned over to the District.

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

Not Applicable to this Section.

END OF SECTION 01230

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 26 13 - REQUEST FOR INFORMATION PROCEDURES

PART 1 – GENERAL

- 1.01 SECTION INCLUDES
- A. Procedure for requesting information of the intent of the Contract Documents.

- 1.02 RELATED SECTIONS
- A. Master Facilities Lease.
 - B. Section 01 11 00: Summary of Work.
 - C. Section 01 31 13: Project Coordination.
 - D. Section 01 32 13: Construction Schedule.
 - D. Section 01 77 00: Contract Closeout.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION

- 3.01 PROCEDURE
- A. Contractor shall prepare a Request for Information. Refer to Appendix A for a sample RFI form. Contractor shall transmit the Request for Information to Architect with sketches, pictures and a suggested solution (if applicable) with a concurrent copy to the District Representative.
 - B. Architect response is a clarification of the intent of the Contract Documents and does not authorize changes in the Contract Amount, Milestones, and/or Contract Time.
 - C. A Request for Information may be returned with a stamp or notation "Not Reviewed," if:
 - 1. The requested information is ambiguous or unclear.
 - 2. The requested information is equally available to the requesting party by researching and/or examining the Contract Documents.
 - 3. Contractor has not reviewed the Request for Information prior to submittal.
 - D. Review Time: After receipt by Architect and District Representative, allow **five (5)** calendar days for response time by Architect. Contractor shall verify and is responsible for verifying Architect and District Representative receipt of a Request for Information.
 - E. Subcontractor-Initiated and Supplier-Initiated RFIs: RFIs from subcontractors and material suppliers shall be submitted through, be reviewed by and be attached to an RFI prepared, Signed and submitted by Contractor. RFIs submitted directly by subcontractors or material suppliers will be returned unanswered to the Contractor.
 - 1. Contractor shall review all subcontractor and supplier initiated RFIs and take actions to resolve issues of coordination, sequencing, and layout of the Work.
 - 2. RFIs submitted to request clarification of issues related to means, methods, techniques and sequences of construction or for establishing trade jurisdictions and scopes of subcontracts will be returned without interpretation. Such issues are solely the Contractor's responsibility.
 - 3. Contractor shall be responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

- F. RFI Log: Contractor shall prepare and maintain a log of RFIs, and at any time requested by the Architect, Project Inspector, or District Representative, the Contractor shall furnish copies of the log showing all outstanding RFIs.

END OF SECTION 01 26 13

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 29 73 – SCHEDULE OF VALUES PROCEDURES

PART 1 – GENERAL

- 1.01 SECTION INCLUDES
- A. Procedure for submission of a Schedule of Values for review and approval by the District Representative.
- 1.02 RELATED SECTIONS
- A. Master Facilities Lease.
 - B. Section 01 21 00: Allowances.
 - C. Section 01 29 76: Progress Payment Procedures.
 - D. Section 01 31 13: Project Coordination.
 - E. Section 01 32 13: Construction Schedule.
 - F. Section 01 32 29: Project Forms.
 - G. Section 01 33 00: Submittal Procedures.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION

- 3.01 PREPARATION
- A. In accordance with the General Conditions, Contractor shall commence preparation of a Schedule of Values on the form included in Section 01 32 29.
 - B. Contractor shall coordinate the preparation of a Schedule of Values with preparation of the Construction Schedule as set forth in Section 01 32 13.
 - C. Round amounts to the nearest whole dollar; the total shall equal the Contract Amount.
 - D. Provide a breakdown of the Contract Amount in enough detail acceptable to District Representative to facilitate continued evaluation of Application for Payment and progress reports. Coordinate with the Project Manual table of contents and Schedule of Values form under Section 01 32 29. Provide breakdown of all subcontract amounts.
 - E. Provide separate line items for items in the Schedule of Values for total installed value of that part of the Work.
 - F. Provide separate line item for labor and material when applicable.
 - G. 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 as indicated under Schedule of Values form.
 - H. Temporary facilities and other cost items that are not direct cost of actual work-in-place shall be shown as separate line items as indicated under Schedule of Values form.
 - I. If at any time, District Representative 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 District Representative approval, a revised Schedule of Values, which then shall be used as the basis for future progress payments. Without changing the Contract Amount, District Representative reserves the right to require Contractor:

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

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.

END OF SECTION 01 29 73

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 29 76 - PROGRESS PAYMENT PROCEDURES

PART 1 – GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED SECTIONS

- A. Master Facilities Lease.
- B. Section 01 21 00: Allowances.
- C. Section 01 29 73: Schedule of Values Procedures.
- D. Section 01 32 13: Construction Schedule.
- E. Section 01 32 29: Project Forms.
- F. Section 01 74 19: Construction and Demolition Waste Management.
- G. Section 01 77 00: Contract Closeout.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION

3.01 APPLICATION FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as reviewed by Project Inspector, Architect, and District Representative. The following Applications for Payment involve additional requirements:
 - 1. The Initial Application for Payment
 - 2. The Final Application for Payment
- B. Payment Application Times: The period of Work covered by each Application for Payment is the payment date for each progress payment as specified in the General Conditions. The period covered by each Application for Payment is the previous month.
- C. Contractor shall submit a draft Application for Payment seven (7) days prior to the first of each month, to be reviewed by the Architect, District Representative, and Project Inspector.
- D. Payment Application Checklist: Use required form for the Application for Payment per Section 01 32 29.
- E. Application Preparation: Complete every entry on the form. Include execution by a person authorized to sign legal documents on behalf of Contractor.
- F. Transmittal: Submit a minimum of five (5) wet signature originals of each Application for Payment to the District Representative. All copies shall be complete, including releases and similar attachments.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to District Representative.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

- G. *Initial Application for Payment:* Administrative actions and submittals, that must precede or coincide with submittal for the first Application for Payment include, but are not limited to, the following:
1. Schedule of Values.
 2. Construction Schedule.
 3. Submittal Schedule.
 4. Emergency Contact List.
 5. OCIP Enrollment.
 6. Cal/OHSA Trenching Permit and Named Competent Person.
 7. Storm Water Pollution Prevention Plan (SWPPP).
 8. CSWPA forms.
 9. Local Hire Policy Forms.
 10. Releases.
 11. Resume of Contractor's Project Manager, Job Site Superintendent, and Land Surveyor.
- H. *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 Consultant in electronic format as specified by District Representative).
 2. Updated and current Project Record Drawings (as-built). Visual verification necessary only.
 3. Monthly Construction Schedule (updated, submitted and approved).
 4. Approved Schedule of Values.
 5. List of Subcontractors (Payments Summary).
 6. Storm Water Pollution Prevention Plan (SWPPP) – Site Monitoring Report, if applicable.
 7. Waste Management Progress Report.
 8. Waivers and Releases. (Conditional Waiver and Release Upon Progress Payment, and Unconditional Waiver and Release Upon Progress Payment)
 9. Updated Submittal Schedule.
 10. Material invoices, evidence of equipment purchases, rentals, and other backup materials to support cost as requested by the District Representative.
- I. *Final Payment Application:* Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include, but are not limited to, the following:
1. Project Inspector's sign-off and final approval of Project's DSA Form(s) 152.
 2. Contractor's submission of Contractor's Verified Report DSA Form 6-C.
 3. Completion of Contract Closeout requirements.
 4. Updated and Final As-Built drawings – in accordance with General Conditions or Construction Services Agreement.
 5. Completion and acceptance of final punch list items.
 6. Delivery of extra materials, products, and/or stock.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

7. Identification of unsettled claims.
 8. Proof that taxes, fees, and similar obligations are paid.
 9. Operating and maintenance instruction manuals.
 10. Consent of surety to final payment.
 11. Waivers and releases (Conditional Waiver and Release Upon Final Payment, and Unconditional Waiver and Release Upon Final Payment).
 12. Warranties, guarantees and maintenance agreements.
 13. Removal of temporary facilities and services.
 14. Removal of surplus materials, rubbish, and similar elements.
 15. Deductive items pursuant to the General Conditions or Construction Services Agreement.
 16. Completion and submission of all final change orders for the project.
 17. Disabled Veteran Business Enterprise (DVBE) Contractor close-out statement.
- J. Any payments made to Contractor where criteria set forth above have not been met shall not constitute a waiver of said criteria by District Representative. Instead, such payment shall be construed as a good faith effort by District Representative to resolve differences so Contractor may pay its Subcontractors and suppliers and that Contractor agrees that failure to submit such items may constitute a breach of contract by Contractor and may subject Contractor to termination.

END OF SECTION 01 29 76

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 31 13 - 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 SECTIONS

- A. Section 01 12 16: Phasing of the Work.
- B. Section 01 31 19: Project Meetings.
- C. Section 01 32 13: Construction Schedule.
- D. Section 01 33 00: Submittal Procedures.
- E. Section 01 45 23: Testing and Inspection.
- F. Section 01 73 29: Cutting and Patching.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION

3.01 COORDINATION

- A. It is the Contractor's responsibility to coordinate the Work to minimize conflicts and optimize efficiency.
- B. School occupancy will remain in session during the school year.
- C. 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.
- D. 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 District Representative and Separate Work Contract where coordination of their Work is required.
- E. 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, the 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.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

- F. 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

- 1. As required by Architect.

END OF SECTION 01 31 13

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 31 19 - PROJECT MEETINGS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. This Section specifies administrative and procedural requirements for Project meetings, including but not limited to, the following:
 - 1. Preconstruction meeting.
 - 2. Pre-installation conferences.
 - 3. Progress meetings.
 - 4. Meetings as required by District Representative.

1.02 RELATED SECTIONS

- A. Section 01 12 16: Phasing of the Work.
- B. Section 01 31 13: Project Coordination.
- C. Section 01 32 13: Construction Schedule.
- D. Section 01 33 00: Submittal Procedures.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION

3.01 PRECONSTRUCTION MEETING

- A. District Representative will schedule a preconstruction meeting before starting the Work, at a time and date determined by District Representative. Meeting shall be held at the Project site or another location as determined by District Representative. Meeting will be held in order to review responsibilities, procedures, and other administrative requirements contained within the Contract Documents. Major trades may attend.
- B. Authorized representatives of District, Project Inspector, Architect, Contractor and other parties shall attend the meeting. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda items shall include significant items which could affect progress of the Work, including, but not limited to the following:
 - 1. Identification of District Representative, key team members, and roles/responsibilities
 - 2. Preliminary Construction Schedule.
 - 3. Critical work sequencing and coordination of other work on campus.
 - 4. Designation of responsible personnel and emergency contacts.
 - 5. Procedures for processing field decisions.
 - 6. Request for Proposal.
 - 7. Request for Information.
 - 8. Construction Change Directive, Immediate Change Directive, and Change Order.
 - 9. Procedures for processing Applications for Payment.
 - 10. Labor Compliance and Wage Determinations.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

11. Submittal and review of Shop Drawings, Product Data, material lists, and Samples.
 12. Preparation of project record documents.
 13. Use of the Project site and/or premises, staging plan, trucking routes, haul routes, etc.
 14. Parking availability.
 15. Office, work, and storage areas.
 16. Equipment deliveries and priorities.
 17. Safety procedures.
 18. Emergency response.
 19. First Aid.
 20. Security.
 21. Housekeeping.
 22. Working hours.
 23. Insurance Services including OCIP.
 24. Environmental Health and Safety / Import and Export Testing Requirements.
 25. Administrative Closeout and Contract Completion requirements and procedures.
 26. Storm Water Pollution Prevention Plan (SWPPP).
 27. CEQA Compliance.
 28. Local Hire.
 29. CSWPA.
- D. District Representative shall prepare and issue meeting minutes to attendees and interested parties no later than three (3) calendar days after the meeting date.

3.02

PROGRESS MEETINGS

- A. Progress meetings will be held at the Project site at regular intervals, typically bi-weekly or weekly, as determined by the District Representative. **These progress meetings do not replace other coordination meetings between the general contractor and its subcontractors that are necessary for the proper coordination and progress of the construction work.**
- B. In addition to representatives of Contractor, District Representative, and Architect, each Subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of the Work shall, if requested by District Representative, be represented at these meetings. All participants at the meeting shall be familiar with the Project and authorized to conclude all matters relating to the Work.
- C. Failure of Contractor to be so represented at any progress meeting which is held at a mutually agreed time or for which a written notice is given, shall not relieve Contractor from abiding by any and all District Representative determinations or directives issued at such meeting.
- D. District Representative will review and correct or approve minutes of the previous progress meeting and will review other significant items affecting progress. Topics for discussion as appropriate to the status of the Project include but are not limited to:
 1. Safety (OCIP).
 1. Interface requirements.
 2. Construction Schedule.
 3. Sequence and coordination.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

4. Status of submittals / RFIs.
 5. Deliveries.
 6. Access.
 7. Site utilization.
 8. Temporary Construction Facilities and Controls.
 9. Hours of work.
 10. Hazards and risks.
 11. Housekeeping.
 12. Unforeseen conditions.
 13. Testing and Inspection.
 14. Defective Work.
 15. Construction Change Directive.
 16. Request for Proposal.
 17. Change Order Proposals and Change Orders.
 18. Documentation of information for payment requests.
 19. Application for Payment.
 20. Other items as required or as brought forth.
 21. Initial Notice of Start of Issue.
 22. Final Notice of End of Issue.
 23. Storm Water Pollution Prevention Plan.
 24. CEQA Compliance.
- A. No later than three (3) calendar days after each progress meeting, District Representative will prepare and distribute minutes of the meeting to each present and absent party. Include a brief summary, in narrative form, of progress, decisions, directives, actions taken, and all other issues since the previous meeting and report.
1. Schedule Updating: Contractor shall revise the Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized, and issue the revised schedule at the next scheduled progress meeting.

3.04 ADDITIONAL MEETINGS

- A. District Representative, upon giving notice to the intended parties and without further obligation, may require additional meetings to discuss Work and/or Project related activities.

END OF SECTION 01 31 19

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 32 13 - CONSTRUCTION SCHEDULE

PART 1 – GENERAL

- 1.01 SECTION INCLUDES
- A. Construction Schedule procedures, preparation, submittal, updates, and revisions.
- 1.02 RELATED REQUIREMENTS
- A. Master Facilities Lease.
 - B. Section 01 11 00: Summary of Work.
 - C. Section 01 12 16: Phasing of the Work.
 - D. Section 01 29 73: Schedule of Values Procedures.
 - E. Section 01 29 76: Progress Payment Procedures.
 - F. Section 01 31 13: Project Coordination.
 - G. Section 01 33 00: Submittal Procedures.
 - H. Section 01 45 23: Testing and Inspection.
 - I. Section 01 50 00: Construction Facilities and Temporary Controls.
 - J. Section 01 78 36: Warranty Procedures.
- 1.03 PROCEDURES
- A. Within **seven (7)** calendar days after date of Notice to Proceed, Contractor shall submit to District Representative for review, a detailed Construction Schedule (“Preliminary Baseline Schedule”) setting forth all requirements for complete execution of the Work.
 - B. Within **three (3)** calendar days after receipt of the District Representative’s review comments, submit a final Construction Schedule acceptable to District Representative (“Approved Baseline Schedule”).
 - C. Include a written summary narrative sufficiently comprehensive to explain basis of Contractor’s approach to work.
 - D. If a Construction Schedule is considered by District Representative to not be in compliance with any requirement of the Contract, Contractor will be notified to review and revise the Construction Schedule and bring it into compliance. Failure of Contractor to submit a Construction Schedule in full compliance with the Contract Documents will result in withholding of progress payment in accordance with the General Conditions or Construction Services Agreement. The Construction Schedule is to be used in evaluating progress for payment approval.
 - E. Subsequently with each Progress Payment Request, Contractor shall deliver to District Representative an updated Construction Schedule reflecting Work progress to the end of the Progress Payment Request period. Each such Construction Schedule shall indicate actual progress to date in execution of the Work, together with a projected schedule for completion of all the Work.
- 1.04 SCHEDULE SUBMITTAL PREPARATION GUIDELINES
- A. The Contract Work shall be scheduled and progress monitored using a Critical Path Method (CPM) network type scheduling system. Schedule shall be broken into sub-activities which shall, as a minimum, include all submittal approvals, all major trades, mobilization, temporary fencing,

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

temporary utilities, hazardous material abatement, demolition work. Scheduling system shall indicate all inter-relationships between construction activities.

- B. Contractor shall utilize the Critical Path Method (CPM) in the development and maintenance of the construction schedule network.
- C. Duration and events indicated on schedule shall conform to phasing set forth in Section 01 12 16: Phasing of the Work and shall show any area or building within a particular phase. Schedule shall indicate any and all Contract "milestone events" and other milestones agreed to by District Representative, but no other manually-imposed dates will be accepted unless approved by District Representative.
- D. Construction Schedule shall represent a practical plan to complete the Work within the Contract time requirement.
 - 1. A schedule extending beyond Contract time or less than Contract time will not be acceptable.
 - 2. A schedule found unacceptable by District Representative shall be revised by Contractor and resubmitted.
- E. Construction schedule shall clearly indicate sequence of construction activities, grouped by applicable phase and sorted by areas, buildings, or facilities within phase, and shall specifically indicate:
 - 1. Start and completion of all Work items, their major components, and interim milestone completion dates, as determined by Contractor and District Representative.
 - 2. Activities for procurement, delivery, installation of equipment, materials, and other supplies, including:
 - a. Time for submittals, resubmittals, and reviews. Include decision dates for selection of finishes.
 - b. Time for manufactured products for the Work fabrication and delivery.
 - c. Interdependence of procurement and construction activities.
 - d. As applicable, dates for testing, balancing equipment, and final inspection.
- F. Schedule shall be in sufficient detail to assure adequate planning and execution of the Work.
 - 1. Each task activity shall range in duration from a 1 workday minimum to a ten (10) workday maximum and shall be total of actual days required for completion. The activity duration shall include consideration of weather impact on completion of that activity.
 - 2. Schedule shall be suitable, in judgment of District Representative, to allow monitoring and evaluation of progress in performance of the Work; it shall be calendar time-scaled.
 - 3. Activities shall include:
 - a. Description; what is to be accomplished and where.
 - b. Workday duration.
 - c. Scheduled activities shall indicate continuous flow, from left to right.
 - 4. Contractor shall setup up the schedule calendar to identify workdays per week and shifts per day worked, non-work days, weekends and holidays.
- G. Failure to include any element of Work required for performance of this Contract shall not excuse Contractor from completing Work required to comply with the Contract Documents, notwithstanding acceptance of Construction Schedule.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

- H. Submittal of Construction Schedule shall be understood to be Contractor's confirmation that the schedule meets requirements of the Contract Documents, and that the Work will be executed in sequence indicated in schedule.
- I. All Construction Schedule submittals shall be transmitted with a Letter of Transmittal and shall include three (3) copies and one reproducible copy of a sufficient agreed upon size and the electronic file of the schedule in the format as required by District Representative.

1.05 REVIEWS, UPDATES, AND REVISIONS

- A. District Representative will review and return the initial submittal of Contractor's Construction Schedule, with summary comments. If revisions are required, Contractor shall resubmit Schedule within three (3) calendar days following receipt of District Representative's comments.
- B. After Contractor and District Representative agree to a baseline schedule, it will become the Project Construction Schedule (Approved Baseline Schedule). No changes to the Baseline Schedule will be allowed unless approved by District Representative in writing.
- C. Contractor shall analyze and update the Project Construction Schedule:
 - 1. As part of monthly payment application, Contractor shall submit to and participate with District Representative in a schedule review to include:
 - a. Actual start dates for Work items started during report period.
 - b. The percent complete on activities that have actual start dates.
 - c. Actual completion dates for Work items completed during report period.
 - d. Estimated remaining duration for Work items in progress, which will not exceed original duration for activity.
 - e. Estimated start dates for Work items scheduled to start during month following report period, if applicable.
 - f. Changes in duration of Work items.
 - 2. In case of a change to Contractor's planned sequence of Work, Contractor shall include a narrative report with updated progress schedule which shall include, but not be limited to, a description of problem areas, current and anticipated delaying factors, and any proposed revisions for a recovery plan.
 - 3. Change Orders affecting the scheduled completion date shall be clearly identified as separate and new activities integrated into the schedule at the appropriate time and in the appropriate sequence as reviewed and approved by District Representative.
 - 4. The Project Construction Schedule Review will not relieve Contractor of responsibility for accomplishing all Work in accordance with the Contract Documents.
- D. Updates: Contractor shall submit to District Representative, with each payment application, an up-to-date Project Construction Schedule. Contractor submission of the Monthly Updated Project Construction Schedule is a condition precedent to District Representative's approval of Progress Payments. The Update Project Construction Schedule shall include the following:
 - 1. Work Item Report: Detailing Work items and dependencies as indicated on the Schedule.
 - 2. Actual Start and End Dates of Activities under construction
 - 3. Separate listing of activities completed during reporting period.
 - 4. Separate listing of activities which are currently in progress, indicating their remaining duration and percentages completed.
 - 5. Separate listing of activities which are causing delay in Work progress.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

6. Narrative report to define problem areas, anticipated delays, and impact on the Project Construction Schedule. Contractor shall report corrective action taken, or proposed, and its effect, including effect of changes on schedules of separate contractors.
 7. Resolution of conflict between actual Work progress and schedule logic: when out-of-sequence activities develop in the Schedule because of actual construction progress, Contractor shall submit a revised schedule to conform to current job sequence and direction.
- E. If, according to current updated Project Construction Schedule, District Representative determines Contractor is behind schedule or any interim milestone completion dates will not be met, considering all time extensions to which Contractor is entitled, Contractor shall submit a revised construction schedule, or recovery schedule, showing a workable plan and a narrative description to complete the project on time. Refer to General Conditions.
- F. Scheduling of change or extra Work orders is responsibility of Contractor.
1. Contractor shall revise the Project Construction Schedule to incorporate all activities involved in completing change orders or extra Work orders and submit it to District Representative for review.
- G. If District Representative finds Contractor is entitled to extension of any completion date, under provisions of the Contract, District Representative's determination of total number of days of extension will be based upon an analysis of the current Project Construction Schedule, and upon data relevant to the extension.
- H. Contractor acknowledges and agrees that delays to non-critical activities will not be considered a basis for a time extension unless activities become critical. Non-critical activities are those activities which, when delayed, do not affect an interim or Substantial Completion date.
- I. Contractor shall allow Float time for inclement weather, Government Delay, and Project Float in the Baseline Schedule in accordance with the General Conditions. The Inclement Weather Float and the Government Delay Float shall each be identified as a Critical Activity in the Baseline Schedule. No other activities may be concurrent with them. When rainfall at the Project site impacts Critical Path activities, Contractor may provide District Representative 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 seventy-five percent (75%) decrease in the normal field labor workforce hours on Critical Path activities on the day in question as indicated by Contractor's Daily reports from the day in question and the scheduled Work days prior to the day in question. Upon District Representative's independent confirmation of the amount of rainfall and impact, District Representative 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.

1.06 CONTRACTOR'S RESPONSIBILITY

- A. Nothing in these requirements shall be deemed to be an usurpation of Contractor's authority and responsibility to plan and schedule Work as Contractor sees fit, subject to all other requirements of Contract Documents.
- B. Contractor shall provide at all times sufficient competent labor, materials, and equipment to properly carry on Work and to insure completion of each part in accordance with Construction Schedule and within time allowed in the Contract.
- C. Contractor shall be responsible for ensuring that all submittals to the District Representative are accurate and consistent. Damage, including extra time and cost, caused by inaccuracies from Contractor will be compensated by Contractor.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

1.07 SUSPENSION OF PAYMENTS

- A. Initial Submittal: If Contractor fails to comply with the specified requirements, District Representative reserves the right to engage an independent scheduling consultant to fulfill these requirements. Upon additional notice to Contractor, District Representative shall retain against Contractor all incurred costs for additional services.
- B. Update Submittals: District Representative has the right to withhold progress payments if Contractor fails to update and submit the Project Construction Schedule and reports as required by District Representative.

1.08 RECORD COPY

- A. Prior to the Contract Completion, Contractor shall submit the Project Construction Schedule showing the as-built sequence. The as-built schedule shall have all activities with actual start and end dates.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 01 32 13

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 32 29 - PROJECT FORMS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. The following, but not limited to, District administrative forms and documents listed in this Section to be utilized in the administration of the Work.
- B. Electronic versions of these forms are available if requested from the District Representative.
- C. From time to time, Owner may release new revisions and new Project Forms. At any time during the Project, if requested by District Representative, Contractor shall use the newly released Project Form(s).

1.02 RELATED DOCUMENTS

- A. Master Facilities Lease.
- B. Division 01.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION

3.01 PROCEDURES: Contractor to utilize the following District standard forms (refer to Appendix A for a copy of the forms listed below)

- A. Application for Payment/Schedule of Values: This form is used in requesting a progress payment and to establish the basis of the certified application for payment.
- B. Change Order: This form is used to adjust the Contract Amount, Milestones and/or the Contract Time.
- C. Conditional Waiver and Release Upon Progress Payment: Use this form when the claimant is required to execute a waiver and release in exchange for or in order to induce the payment of a progress payment and the claimant has not been paid.
- D. Conditional Waiver and Release Upon Final Payment: Use this form when the claimant is required to execute a waiver and release in exchange for or in order to induce the payment of the Final Payment and the claimant has not been paid.
- E. [RESERVED]
- F. Immediate Change Directive: This form is used to issue an Immediate Change Directive.
- G. Unconditional Waiver and Release Upon Progress Payment: Use this form when the claimant is required to execute a waiver and release in exchange for or in order to induce payment of a progress payment and the claimant asserts in the waiver that he or she has in fact been paid the progress payment.
- H. Unconditional Waiver and Release Upon Final Payment: Use this form when the claimant is required to execute a waiver and release in exchange for or in order to induce payment of the Final payment and the claimant asserts in the waiver that he or she has in fact been paid the Final Payment.
- I. [RESERVED]

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

- J. Construction Waste Management Plan: This form is used to provide a Waste Management Plan, submitted in accordance with Specification Section 01 74 19 and prior to any waste removal.
- K. Construction Waste Management Progress Report: This form is used to provide a Waste Management Monthly Progress Report, summarizing waste generated by Project and submitted monthly with Application for Payment.
- L. Letter of Assent: This form is to be signed by all Contractors awarded work covered by the Community and Student Workforce Project Agreement (CSWPA).
- M. CSWPA Craft Request Form: This form is to be used to request Craft Workers from the applicable union that will fulfill all hiring requirements for the project.
- N. Core Employee List: This form is to be completed by All Prime Contractors/Consultants, Subcontractor/Sub-consultants intending to employ core workers. Complete this list and then forward to the District's Labor Compliance Consultant.
- O. Monthly Employee Utilization Form: This form is to be completed monthly and then to be forwarded to the District's Labor Compliance Consultant.
- P. Modified Certified Payroll Form: This form is to be completed monthly and then to be forwarded to the District's Labor Compliance Consultant in addition to the electronic Certified Payroll.
- Q. Checklist of Labor Law Requirements: This form is to be completed by all Contractors, acknowledging and understanding the Federal and State Labor Law.
- R. Request for Import Material Testing: This form is to be completed and provided to District Representative in accordance with Specification Section 01 45 24.
- S. Request for Export Material Testing: This form is to be completed and provided to District Representative in accordance with Specification Section 01 45 24.
- T. Certificate of Substantial Completion: This form is to be completed and signed by all parties once project has been determined to be substantially complete.
- U. Warranty Guarantee Form: This form shall be filled out and signed by Contractor and Subcontractors prior to completion of closeout activities.

END OF SECTION 01 32 29

01 32 29 – PROJECT FORMS

APPENDIX A

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 33 00 - 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 as required by the Contract Documents.
- B. Wherever possible, throughout the Contract Documents, the minimum acceptable quality of workmanship and products has 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, Facility Design Standards and procedures have been established for submittal of design data and for its review by District Representative, Architect, and/or others.

1.02 RELATED SECTIONS

- A. Master Facilities Lease.
- B. Section 01 12 16: Phasing of the Work.
- C. Section 01 29 73: Schedule of Values Procedures.
- D. Section 01 29 76: Progress Payment Procedures.
- E. Section 01 31 13: Project Coordination.
- F. Section 01 32 13: Construction Schedule.
- G. Section 01 45 23: Testing and Inspection.
- H. Section 01 50 00: Construction Facilities and Temporary Controls.
- I. Division 2 through Division 32.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION

3.01 GENERAL REQUIREMENTS AND PROCEDURES

- A. Contractor shall package each submittal appropriately for transmittal and handling and will then send Architect, and District Representative submittal for review per the Project plans and specifications. Submittals will not be accepted from sources other than from Contractor.
- B. Contractor shall clearly identify any deviations from the Contract Documents on each submittal. Any deviation not so noted, even if stamped reviewed, is not acceptable.
- C. After Architect review, Architect shall transmit submittals to Contractor, District Representative, and Project Inspector. Contractor shall further distribute to Subcontractors and others as required. Work shall not commence, unless otherwise approved by District Representative, and/or Architect until approved submittals are transmitted to Contractor.
- D. Contractor's Review and Approval: Every submittal upon which proper execution of the Work is dependent shall bear the Contractor's review and approval stamp, dated and signed by Contractor. Certifying that Contractor (a) has reviewed, checked, and approved the submittal and has coordinated

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

the submittal contents with requirements of Work and Contract Documents including related Work, (b) Contractor coordinated with all other shop drawings received to date and this duty of coordination has not been delegated to subcontractors, material suppliers, the Architect, or the engineers on this project, (c) determined and verified quantities, field measurements, construction criteria, materials, equipment, catalog numbers and identifications, and similar data, or will do so, and (d) states the Work illustrated or described in the submittal is recommended by Contractor and the Contractor's warranty will fully apply thereto.

- E. Contractor shall coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities requiring sequential activity.
- F. Timing of Submittals:
1. Submittals shall not delay the construction schedule and shall be submitted in timely manner in accordance with General Conditions.
 2. The Contractor shall submit within seven (7) calendar days of the Notice to Proceed, an itemized listing of required submittals with a scheduled date for each submittal. The schedule of submittals shall provide adequate time between submittals in order to allow for proper review without negative impact to the Construction Schedule.
 3. Schedule of submittals shall be related to Work progress, and shall be so organized as to allow sufficient time for transmitting, reviewing, corrections, resubmission, and re-reviewing.
 4. 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.
 5. Contractor shall revise, update and submit submittal schedule to District Representative and Architect on the first of each month, or as required by the District Representative.
 6. Contractor shall allow in the Construction Schedule, at least five (5) calendar days for Architect review following Architect receipt of submittal. Submittals will be reviewed with reasonable promptness, but Architect reserves the right of additional time where required based on but limited to submittal size, complexity, etc.
 7. No adjustments to the Contract Time and/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.
 8. In case of product substitution, Shop Drawing preparation shall not commence until such time Architect and District Representative reviews said submittal relative to the General Conditions.
- 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. Architect, or authorized agent, will stamp each submittal with a uniform, action stamp. Architect, or authorized agent, will mark the stamp appropriately to indicate the action taken, as follows:
1. Final Unrestricted Release: When Architect, or authorized agent, 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 "FURNISHED AS CORRECTED" 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" AND "REVISE AND RESUBMIT" do not proceed with Work covered by

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

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" AND "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, the Architect, or authorized agent, will return the submittal marked "REVIEWED".
- I. Review of Submittals by the Architect: Submittals will be reviewed but only for conformance with the design concept of the Project and with the information indicated on the Drawings and stated in the Specifications. Review of a separate item as such will not indicate approval of the assembly in which the item functions. Review of submittals shall not relieve the Contractor of responsibility for any deviations from requirements of the Contract Documents or any revisions in resubmittals unless Contractor has given written notice of such deviation or revision at the time of submission or resubmission and written approval has been given to the specific deviation or revision, nor shall approval relieve the Contractor of responsibility for error or omissions in the submittals or for the accuracy of dimensions and quantities, the adequacy of connections, and the proper and acceptable fitting, execution, functioning, and completion to the Work.
- J. All costs for the preparation, correction, delivery, and return of the submittals shall be borne by the Contractor.

3.02 SHOP DRAWINGS

- A. Shop Drawings are original drawings prepared by Contractor, Subcontractor, supplier, or distributor illustrating some portion of Work by showing fabrication, layout, setting, or erection details. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Copies of the Contract Drawing marked to show Shop Drawing information are not acceptable and will be not be reviewed and will be promptly returned to the Contractor.
- B. Produce Shop Drawings to an accurate scale that is large enough to indicate all pertinent features and methods. Submit Shop Drawings in PDF format, and full-size drawing (five copies).
- C. Shop Drawings shall include, at a minimum, 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.
- C. Provide two (2) spaces, 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. Project number.
 3. Date.
 4. Name and address of Architect.
 5. Name and address of Contractor.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

6. Name and address of Subcontractor.
 7. Name and address of supplier.
 8. Name and address of manufacturer.
 9. Name and title of appropriate Specification section.
 10. Drawing number and detail references, as appropriate.
- E. Submit a sufficient number to allow for adequate Contractor, Subcontractor, supplier, manufacturer and fabricators distribution plus two (2) sets to be retained by Architect, one (1) set to Project Inspector, and one (1) set for the District Representative.

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.
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.
- C. Required Copies and Distribution: Same as denoted in Section 3.02, E.

3.04 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.
- B. When other sections of the Contract Documents require manufacturer's certification of a product, material, and/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.

3.05 CERTIFICATES

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

- A. Submit all certificates in triplicate to Project Inspector, in accordance with requirements of each Specification Section.

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 35 02 - COMMUNITY AND STUDENT WORKFORCE PROJECT AGREEMENT (CSWPA)

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. This Section specifies administrative and procedural requirements governing CSWPA.
- B. Appendix A: Community and Student Workforce Project Agreement

1.02 RELATED SECTIONS

- A. Master Facilities Lease
- B. Section 01 29 73: Schedule of Values Procedures.
- C. Section 01 29 76: Progress Payment Procedures.
- D. Section 01 32 29: Project Forms.

1.03 COMMUNITY AND STUDENT WORKFORCE PROJECT AGREEMENT (CSWPA)

- A. The CSWPA applies to this Project that is being funded by the District's Measure Q bond program.
- B. The Contractor (as defined in the CSWPA, which includes subcontractors of whatever tier) shall comply with the CSWPA attached hereto.
- C. Letter of Assent
 - 1. The Contractor and all entities or persons covered by the CSWPA shall execute and deliver to the District an original of the Letter of Assent (Attachment A of the CSWPA) prior to commencing any work. Any entity or person covered by the CSWPA that fails to execute and provide the Letter of Assent shall not be allowed to work on the Project or allowed onto the Project site. Any delays resulting from providing the Letter of Assent as required shall be the responsibility of the Contractor.
- D. Certified Payroll
 - 1. The Contractor and all subcontractors (of any tier) shall submit, at least monthly, electronic certified payroll records directly to the District's Labor Compliance Consultant. The submission to the District's Labor Compliance Consultant shall include the Modified Certified Payroll Form, included in Section 01 32 29 Project Forms.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

- A. Refer to Appendix A of this section for a copy of the CSWPA.

END OF SECTION 01 35 02

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

01 35 02 - CSWPA

APPENDIX A

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**RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT
COMMUNITY AND STUDENT WORKFORCE PROJECT AGREEMENT
FOR CONSTRUCTION AND MAJOR REHABILITATION
FUNDED BY MEASURE Q**

Effective Date: _____

**RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT
COMMUNITY AND STUDENT WORKFORCE PROJECT AGREEMENT
FOR CONSTRUCTION AND MAJOR REHABILITATION
FUNDED BY MEASURE Q**

This Community and Student Workforce Project Agreement (hereinafter, "CSWPA") is entered into by and between the Rancho Santiago Community College District, its successors or assigns, (hereinafter "District") and the Los Angeles/Orange Counties Building and Construction Trades Council (hereinafter "Council"), affiliated with the Building and Construction Trades Department ("AFL/CIO") and the signatory Craft Councils and Unions signing this CSWPA, (hereinafter, together with the Council, collectively, the "Union" or Unions"). The District, Council and Unions are herein collectively referred to as the "Parties" and individually as a "Party."

**ARTICLE 1
RECITALS**

WHEREAS, the District undertakes and anticipates undertaking large expenditures of Measure Q Funds for the demolition, construction, alteration, repair and maintenance of District properties; and

WHEREAS, the District desires of assuring the completion of the construction projects and the related facilities in a professional, confident, and economical manner, without undue delay or work stoppage; and

WHEREAS, the successful completion of the District's Measure Q Projects is of the utmost importance to the general public and the District; and

WHEREAS, the Parties have pledged their full good faith and trust to work towards a mutually satisfactory completion of the Measure Q Projects; and

WHEREAS large numbers of workers of various skills will be required in the performance of the construction work on the Measure Q Projects, including workers affiliated with and/or represented by the Unions; and

WHEREAS, it is recognized that on construction projects with multiple Contractors and bargaining units on the job site, at the same time over an extended period of time, the potential for work disruption is substantial without an overriding commitment to maintain continuity of work; and

WHEREAS, the Parties agree that by establishing and stabilizing wages, hours and working conditions for the workers employed on Measure Q Projects, a satisfactory, continuous and harmonious relationship will exist among labor and management that will lead to the efficient and economical completion of said Measure Q Projects; and

WHEREAS, the Parties believe that this CSWPA provides the District with the opportunity to establish a partnership with the local construction labor community respecting the District's Measure Q Projects, the benefits of which are expected to be: project cost containment,

the efficient and economical completion of projects to secure optimum productivity, a boost to the economy by generating local construction jobs and related jobs, partnering with responsible companies and contractors, and providing for the peaceful settlement of labor disputes and grievances without work interruptions such as strikes, slowdowns or lockouts, thereby promoting the public interest in assuring the timely and economical completion of projects contracted under the CSWPA; and

WHEREAS, the Parties believe it is desirable that this CSWPA apply to contracts for capital improvement work respecting Measure Q Projects awarded after the Effective Date in Section 2.2, and are paid for, in whole or in part, with Measure Q Funds (hereinafter, "Covered Contracts");

WHEREAS, it is understood by the Parties to this CSWPA that if this CSWPA is acceptable to the District, it will become the policy of the District for the Project Work to be contracted exclusively to Contractors who agree to execute and be bound by the terms of this CSWPA, directly or through the Letter of Assent ("Attachment A"), and to require each of its Subcontractors, of whatever tier, to become bound. The District shall include, directly or by incorporation by reference, the requirements of this CSWPA in the advertisement of and/or specifications for each and every contract for Project Work to be awarded by the District; and

WHEREAS, it is further understood that the District shall actively administer and enforce the obligations of this CSWPA to ensure that the benefits envisioned from it flow to all signatory Parties, the Contractors and craft persons working under it, and the ratepayers, residents and students of the District. The District shall, therefore, designate a "Project Labor Coordinator," either from its own staff or an independent contractor acting on behalf of the District, to monitor compliance with this CSWPA; assist, as the authorized representative of the District, in the development and implementation of the programs referenced herein, all of which are critical to fulfilling the intent and purposes of the Parties and this CSWPA; and to otherwise implement and administer the CSWPA.

NOW, THEREFORE, IT IS AGREED BETWEEN AND AMONG THE PARTIES AS FOLLOWS:

The above Recitals are a part of the terms of the CSWPA and are incorporated herein by reference.

ARTICLE 2 DEFINITIONS

Capitalized terms utilized in this CSWPA which are not otherwise defined herein shall have the meanings ascribed to said terms below. To the extent of any conflict between the definition of a term in this Article and the meaning ascribed to said term in the Recital paragraphs hereof, the definition of said term in this Article shall prevail.

Section 2.1 The term "Apprentice" as used in this CSWPA shall mean those employees registered and participating in Joint Labor/Management Apprenticeship Programs approved by the California Apprenticeship Council and the Department of Industrial Relations of the State of California.

Section 2.2 The term "Contractor" as used in this CSWPA includes any Contractor to whom the District awards a construction contract for Project Work, and also to Subcontractors of whatever tier utilized by such Contractors for Project Work. The term "Contractor" includes any individual, firm, partnership, or corporation, or combination thereof, including joint ventures, which as an independent Contractor has entered into a contract with the District with respect to the Project Work, or with another Contractor as a Subcontractor for Project Work.

Section 2.3 "Covered Contract" means a contract (and related subcontracts) for capital improvement work respecting a Measure Q Project awarded during the term of this CSWPA, as listed on Appendix A, and is paid for, in whole or in part, with Measure Q Funds.

Section 2.4 "Covered Project or Project Work" means a Project that is the subject of a Covered Contract.

Section 2.5 "District Residents" for purposes of this Agreement are defined as those residents living within the zip codes within the jurisdictional boundary of the District, as well as any veterans of the U.S. Armed Forces, apprentices currently enrolled and participating in their Joint Labor Management Apprenticeship Committee classroom training through the District or graduates of the District's construction Joint Labor Management Apprenticeship Committees, regardless of their residence.

Section 2.6 The term "Joint Labor/Management Apprenticeship Program" as used in this CSWPA means a joint Union and Contractor administered apprenticeship program certified by the Division of Apprenticeship Standards, Department of Industrial Relations of the State of California.

Section 2.7 The term "Responsible Contractor" as used in this CSWPA shall be defined as one that has a record of complying with federal, state and local government requirements for the determination of workplace wages, hours and conditions, including prevailing wages, apprenticeship, safety, workers' compensation, and Contractor licensing.

Section 2.8 The term "Schedule A Agreements" as used in this CSWPA means the local Master Labor Agreements of the signatory Unions having jurisdiction over the Project Work and which have signed this Agreement.

Section 2.9 "Signatory Contractors" as used in this CSWPA means contractors independently obligated to one or more collective bargaining agreements with the Unions.

Section 2.10 The term "Small Business Enterprise" as used in this CSWPA shall be defined in the same manner as a small business enterprise under California state guidelines and has its primary place of business in Orange County.

Section 2.11 The term "Subscription Agreement" means the contract between a Contractor and a Union's Labor/Management Trust Fund(s) that allows the Contractor to make the appropriate fringe benefit contributions in accordance with the terms of Schedule A Agreements.

Section 2.12 "Union" or "Unions" means any labor organization signatory to this CSWPA acting in their own behalf and on behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have, through their officers, executed this Agreement.

ARTICLE 3 INTENT AND PURPOSE

Section 3.1 Background. The District's construction and major rehabilitation projects funded by Measure Q will affect school buildings and offices that are owned, leased or controlled by the District. The goal is to provide construction and major rehabilitation of the District's facilities so as to provide sufficient facilities and technologies to properly educate the students. The District, therefore, wishing to utilize the most modern, efficient and effective procedures for construction, including assurances of a sufficient supply of skilled craft persons, and the elimination of disruptions or interference with Project Work, adopts this CSWPA in the best interests of the students, parents, District staff, and the taxpayers of the District to meet the District's goal that the Project Work be completed on time and within budget.

Section 3.2 Identification and Retention of Skilled Labor and Employment of District Residents. The vast amount of school construction, substantial rehabilitation, and capital improvement work scheduled to be performed pursuant to Measure Q will require large numbers of craft personnel and other supporting workers. It is therefore the explicit understanding and intention of the Parties to this CSWPA to use the opportunities provided by the extensive amount of work to be covered by this CSWPA to identify and promote, through cooperative efforts, programs and procedures (which may include, for example, employment of District's students enrolled in District's approved Apprenticeship Programs, to assist persons for entrance into formal apprenticeship programs, or outreach programs to the community describing opportunities available as a result of the CSWPA), the interest and involvement of District residents and students in the construction industry, such as assisting residents in entering the construction trades, and through utilization of District's Apprenticeship Programs, providing training opportunities for those residents and students wishing to pursue a career in construction. Further, with assistance of the Project Labor Coordinator, the District, the Contractors, the Unions and their affiliated regional and national organizations, will work jointly to promptly develop and implement procedures for the identification of craft needs, the scheduling of work to facilitate the utilization of available craft workers, and the securing of services of craft workers in sufficient numbers to meet the high demands of the Project Work to be undertaken.

Section 3.3 Encouragement of Small Business Enterprise. The Project Work will provide many opportunities for Small Business Enterprises to participate as Contractors or suppliers, and the Parties therefore agree that they will cooperate with all efforts of the District, the Project Labor Coordinator, and other organizations retained by the District for this purpose, to encourage and assist the participation of Small Business Enterprises in Project Work. Specifically, all Parties understand that the District has established and quantified goals which place a strong emphasis on the utilization of local small businesses on the Project. Each Party agrees that it shall employ demonstrable efforts to encourage utilization in an effort to achieve such goals. This may include, for example, participation in outreach programs, education and assistance to businesses not familiar with working on projects of this scope, and the encouragement of local residents to participate in Project Work through programs and

procedures jointly developed to prepare and encourage such local residents for apprenticeship programs and formal employment on the Project Work through the referral programs sponsored and/or supported by the Parties to this CSWPA. Further, the Parties shall ensure that the provisions of this CSWPA do not inadvertently establish impediments to participation of such Small Business Enterprises and residents of the District.

Section 3.4 Project Cooperation. The Parties recognize that the construction to take place under this CSWPA involves unique and special circumstances which dictate the need for the Parties to develop specific procedures to promote high quality, rapid and uninterrupted construction methods and practices. The smooth operation and successful and timely completion of the work is vitally important to the District and the students of the District. The Parties therefore agree that maximum cooperation among all Parties involved is required; and that with construction work of this magnitude, with multiple Contractors and crafts performing work on multiple sites over an extended period of time, it is essential that all Parties work in a spirit of harmony and cooperation, and with an overriding commitment to maintain the continuity of Project Work.

Section 3.5 Peaceful Resolution of All Disputes. In recognition of the special needs of the Project and to maintain a spirit of harmony, labor-management, peace and stability during the term of this CSWPA, the Parties agree to establish effective and binding methods for the settlement of all misunderstandings, disputes and grievances; and in recognition of such methods and procedures, the Unions agree not to engage in any strike, slowdowns or interruptions or disruption of Project Work, and the Contractors agree not to engage in any lockout.

Section 3.6 Binding CSWPA on Parties and Inclusion of District Residents and Businesses. By executing this CSWPA, the District, Council, Unions and Contractors agree to be bound by each and all of the provisions of this CSWPA, and pledge that they will work together to adopt, develop and implement processes and procedures which are inclusive of the residents and businesses of the District.

ARTICLE 4 SCOPE OF THE AGREEMENT

Section 4.1 General. This CSWPA shall apply to all construction, rehabilitation and capital improvement work as described in Section 4.2 of this Article, performed by those Contractor(s) of whatever tier, where such work is funded in whole or in part by Measure Q Funds. Notwithstanding the foregoing: (i) each Covered Contract shall be awarded in accordance with the applicable provisions of California's Public Contract Code, (ii) the District has the absolute right to award Covered Contracts to the lowest responsible and responsive bidder, and (iii) the District has the absolute right to combine, consolidate or cancel contract(s) or portions of contract(s) for work on Measure Q Projects.

Section 4.2 Specific. The Covered Projects are defined and limited to:

(a) All construction, major rehabilitation and renovation work related to the Projects described in Appendix A are covered by the terms and conditions of this CSWPA.

(b) It is understood by the Parties that the District may at any time, and at its sole discretion, determine to build segments of the Project under this CSWPA which were not currently proposed, or to modify or not to build any one or more particular segments proposed to be covered.

Section 4.3 Exclusions. Items specifically excluded from the Scope of this CSWPA include the following:

(a) The CSWPA shall be limited to Covered Work, undertaken pursuant to Covered Contracts which are awarded by the District on or after the Effective Date, and is not intended to, and shall not govern, any construction contracts entered into prior to the Effective Date of this CSWPA, or after the expiration or termination of the CSWPA.

(b) This CSWPA is not intended to, and shall not affect or govern the award of contracts by the District, which are outside the approved scope of a Covered Project. Determination by the District respecting the intended scope of a Covered Project shall be final and binding on all Parties; and

(c) Work of non-manual employees, including but not limited to: superintendents, supervisors, staff engineers, quality control and quality assurance personnel except as to those covered by a Schedule A agreement, time keepers, mail carriers, clerks, office workers, messengers, guards, safety personnel, emergency medical and first aid technicians, and other professional, engineering, administrative, supervisory and management employees; and

(d) Equipment and machinery owned or controlled and operated by the District; and

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

(f) All employees of the District, Project Labor Coordinator, design teams (including, but not limited to architects, engineers and master planners), or any other consultants for the District (including, but not limited to, project managers and construction managers and their employees where not engaged in Project Work) and their sub-consultants, and other employees of professional service organizations, not performing manual labor within the scope of this CSWPA; provided, however, that it is understood and agreed that Building/Construction Inspector and Field Soils and Material Testers (Inspectors) are a covered craft under the CSWPA (This inclusion applies to the scope of work defined in the State of California Wage Determination for said craft). Every Inspector performing under the Wage classification of Building/Construction Inspector and Filed Soils Material Testers under a professional services agreement of a construction contract shall be bound to all applicable requirements of the CSWPA). Covered Work as defined by this Agreement shall be performed pursuant to the terms and conditions of this Agreement regardless of the manner in which the work was awarded. Nothing in this section will be construed to include Department of State Architects-certified inspectors employed by the District as included under the scope of this CSWPA; and

(g) Any work performed on or near or leading to or into a site of work covered by this CSWPA and undertaken by state, county, city or other governmental bodies, or their contractors; or by public utilities, or their contractors, and/or by the District or its contractors (for work for which is not within the scope of this CSWPA); and

(h) Off-site maintenance of leased equipment and on-site supervision of such work; and

(i) Warranty and service work;

(j) Non-construction support services contracted by the District, Project Labor Coordinator, or Contractor in connection with this Project; and

(k) Laboratory work for testing.

Section 4.4 Awarding of Contracts.

(a) The District has the absolute right to award contracts or subcontracts on this Project to any Contractor notwithstanding the existence or non-existence of any agreements between such Contractor and any Union Parties, provided only that such Contractor is willing, ready and able to execute and comply with this CSWPA should such Contractor be awarded work covered by this CSWPA.

(b) It is agreed that all Contractors and Subcontractors of whatever tier, who have been awarded contracts for Covered Work by this CSWPA, shall be required to accept and be bound by the terms and conditions of this CSWPA, and shall evidence their acceptance by the execution of the Letter of Assent as set forth in Attachment A hereto, prior to the commencement of work. At the time that any Contractor enters into a subcontract with any subcontractor of any tier providing for the performance on the construction contract, the Contractor shall provide a copy of this Agreement to said subcontractor and shall require the subcontractor, as a part of accepting the award of a construction subcontract, to agree in writing in the form of a Letter of Assent to be bound by each and every provision of this Agreement prior to the commencement of work on the Project. No Contractor or Subcontractor shall commence Project Work without first providing a Letter of Assent as executed by it to the Project Labor Coordinator and to the Council forty-eight (48) hours before the commencement of Project Work, or within forty-eight (48) hours after the award of Project Work to that Contractor (or Subcontractor), whichever occurs later.

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

Section 4.5 Coverage Exception. The Parties agree and understand that this CSWPA shall not apply to any work that would otherwise be covered Project Work except when a governmental agency or granting authority partially or fully funding such work determines that it will not fund if such Project Work is covered by this CSWPA; or a law regulation, proposition or

measure prohibits such coverage or the use by the District, or for its benefit, of particular funds if such coverage exists. The District agrees that it will make every effort to establish the enforcement of this CSWPA with any governmental agency or granting authority.

Section 4.6 Schedule A's.

(a) The provisions of this CSWPA, including the Schedule A's, (which are the local Master Labor Agreements of the signatory Unions having jurisdiction over the work on the Project, as such may be changed from time-to-time consistent with Section 21.3, and which are incorporated herein by reference) shall apply to the work covered by this CSWPA, notwithstanding the provisions of any other local, area and/or national agreement which may conflict with or differ from the terms of this CSWPA. However, such does not apply to work performed under the National Cooling Tower Agreement, the National Stack Agreement, the National Transit Division Agreement (NTD), work within the jurisdiction of the International Union of Elevator Constructors, and all instrument calibration and loop checking work performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians except that Articles dealing with Work Stoppages and Lock-Outs, Work Assignments and Jurisdictional Disputes, and Settlement of Grievances and Disputes shall apply to such work. It is specifically agreed that no later agreement shall be deemed to have precedence over this Agreement unless signed by all Parties signatory hereto who are then currently employed or represented at the Project. Where a subject covered by the provisions of this CSWPA is also covered by a Schedule A, the provisions of this CSWPA shall apply. Where a subject is covered by a provision of a Schedule A and not covered by this CSWPA, the provisions of the Schedule A shall prevail. Any dispute as to the applicable source between this CSWPA and any Schedule A for determining the wages, hours of working conditions of employees on this Project shall be resolved under the procedures established in Article 11.

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

Section 4.7 The Parties agree that this CSWPA will be made available to, and will fully apply to, any successful bidder for Project Work, without regard to whether that successful bidder performs work at other sites on either a union or non-union basis. This CSWPA shall not apply to any work of any Contractor other than that on Project Work specifically covered by this CSWPA.

Section 4.8 Binding Signatories Only. This CSWPA and Letter of Assent shall only be binding on the signatory Parties hereto, and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any such party.

Section 4.9 Other District Work. This CSWPA shall be limited to the construction work within the Scope of this CSWPA including, specifically, site preparation and related demolition work, and new construction and major rehabilitation work for new or existing facilities referenced in Section 4.2 above. Nothing contained herein shall be interpreted to prohibit, restrict, or interfere with the performance of any other operation, work or function not covered by this CSWPA, which may be performed by District employees or contracted for by the District for its own account, on its property or in and around a Project site.

Section 4.10 Separate Liability. It is understood that the liability of the Contractor(s) and the liability of the separate Unions under this CSWPA shall be several and not joint. The Unions agree that this CSWPA does not have the effect of creating any joint employment status between or among the District or Project Labor Coordinator and/or any Contractor.

Section 4.11 Completed Project Work. As areas of Covered Work are accepted by the District, this CSWPA shall have no further force or effect on such items or areas except where the Contractor is directed by the District or its representatives to engage in repairs, modification, check-out and/or warranties functions required by its contract(s) with the District.

ARTICLE 5 UNION RECOGNITION AND EMPLOYMENT

Section 5.1 Recognition. The Contractor recognizes the Unions as the exclusive bargaining representative for the employees engaged in Project Work. Such recognition does not extend beyond the period when the employee is engaged in Project Work.

Section 5.2 Contractor Selection of Employees. The Contractor shall have the right to determine the competency of all employees, the number of employees required, the duties of such employees within their craft jurisdiction, and shall have the sole responsibility for selecting employees to be laid off, consistent with Section 5.6 and 6.3, below. The Contractor shall also have the right to reject any applicant referred by a Union for any reason, subject to any reporting time requirements of the applicable Schedule A; provided, however, that such right is exercised in good faith and not for the purpose of avoiding the Contractor's commitment to employ qualified workers through the procedures endorsed in this CSWPA.

Section 5.3 Referral Procedures.

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

and utilization of Small Business Enterprises on the Project, and to facilitate the ability of all Contractors to meet their employment needs.

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

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

Section 5.4 Non-Discrimination in Referral, Employment, and Contracting. The Unions and Contractors agree that they will not discriminate against any employee or applicant for employment on the basis of race, color, religion, gender, national origin, age, union status, sex, sexual orientation, marital status, political affiliation, or membership in a labor organization, or disability. Further, it is recognized that the District has certain policies, programs, and goals for the utilization of Small Business Enterprises. The Parties shall jointly endeavor to assure that these commitments are fully met, and that any provisions of this CSWPA which may appear to interfere with a Small Business Enterprises successfully bidding for work within the scope of this CSWPA shall be carefully reviewed, and adjustments made as may be appropriate and agreed upon among the Parties, to ensure full compliance with the spirit and letter of the District's policies and commitment to its goals for the significant utilization of Small Business Enterprises as direct contractors or suppliers on Covered Work.

Section 5.5 Employment of District Residents.

(a) In order to encourage the utilization of graduates of the District's Joint Apprenticeship and Training Committee programs, apprentices currently enrolled and participating in their Joint Labor Management Apprenticeship Committee classroom training through the District and veterans of the U.S. Armed Forces, those individuals will be considered residents within the meaning of this section regardless of their place of residence. In recognition of the District's mission to serve the District and its residents, the Unions and Contractors agree that, to the extent allowed by law, and as long as they possess the requisite skills and qualifications, District Residents shall be first referred for Project Work, including journeyman, apprentice, or other positions which may be established under a Schedule A and covered by the applicable prevailing wage for utilization on Project Work.

It is the Parties goal that sixty-six percent (66%) of the positions for Project Work for a particular Contractor (including the Contractor's "core employees") by craft, have been filled with residents of Orange County and fifty percent (50%) of the positions should be District Residents. To

facilitate the dispatch of local residents all Contractors will be required to utilize the Craft Employee Request Form for Covered Projects, a sample of which is attached as Attachment B.

(b) Only if:

(1) sixty-six percent (66%) of the positions for any one Contractor, by individual craft, are filled by residents of Orange County and fifty percent (50%) of the positions are filled by District Residents; or

(2) such individuals are not available, may others be referred to Contractor for Project Work.

(c) The Project Labor Coordinator shall work with the Unions and Contractors in the administration of this local residency goal. The Unions shall, upon request of the Project Labor Coordinator, provide their response(s) to the Craft Request Form submitted to them by the Contractors. The Unions will also respond in writing, if requested, if they, or any of them, are unable to fill the dispatch request. As part of this process, and in order to facilitate the contract administration procedures, as well as appropriate benefit fund coverage, all Contractors shall require their "core work force" and any other persons employed other than through the Union referral process, to register with the appropriate hiring hall, if any, prior to their first day of employment at a project site.

(d) Notwithstanding the transfer or portability provisions of the Schedule A agreements, Contractors which are directly signatory to a Schedule A agreement shall comply with subsection (a) second paragraph in transferring and employing workers on Project Work.

Section 5.6 Core Employees. Except as otherwise provided in separate collective bargaining agreement(s) to which the Contractor is signatory,

(a) Contractors, including Subcontractors, may employ, as needed, first, a member of his core workforce, then an employee through a referral from the appropriate Union hiring hall, then a second core employee, then a second employee through the referral system, and so on until a maximum of five (5) core employees are employed. Once a maximum of five (5) core employees are employed, all further employees shall be employed pursuant to the dispatch provisions of this Article. It is agreed that of the five (5) core employees at least fifty percent (50%) be District Residents and sixty-six percent (66%) reside within the County and meet the requirements of subsection (b).

(b) The core work force is comprised of those employees:

(1) whose names appeared on the Contractor's active payroll for at least thirty (30) of the last one-hundred eighty (180) working days before award of the Project Work to the Contractor; and

(2) who possess any license required by state or federal law for the Project Work to be performed; and

(3) who have the ability to safely perform the basic functions of the applicable trade; and

(4) who are residents of the District or County on the effective date of this CSWPA, or have been residents of the District or County for one-hundred eighty (180) days prior to the award of Project Work to the Contractor.

(c) If there are any questions regarding a core employee's eligibility under this provision, the Project Labor Coordinator, at the Council's request, shall obtain appropriate proof of such from the Contractor. For proof of employment eligibility, quarterly tax records or payroll records normally maintained by the Contractor (or officially recognized substitutes) shall be utilized; and for residency, adequate proof thereof through driver's license, voter registration, postal address, or other official acknowledgements.

(d) The provisions of this section 5.6 shall only apply to employees working for employers not signatory to a Schedule A at the time of their transfer to work covered under this Agreement and is not intended to limit the transfer provisions of the Schedule A Agreements of any of the Unions signatory hereto.

Section 5.7 Time for Referral. If any Union's registration and referral system does not fulfill the requirements for specific classifications of covered employees requested by any Contractor within forty-eight (48) hours (excluding Saturdays, Sundays and holidays), that Contractor may use employment sources other than the Union registration and referral services, and may employ applicants meeting such standards from any other available source. The Contractor shall promptly inform the Union of any applicants hired from other sources, and such applicants shall register with the appropriate hiring hall, if any, within twenty-four (24) hours after being hired.

Section 5.8 Lack of Referral Procedure. If a signatory local Union does not have a job referral system as set forth in Section 5.3 above, the Contractors shall give the union equal opportunity to refer applicants. The Contractors shall notify the Union of employees so hired, as set forth in Section 5.7.

Section 5.9 Union Membership. No employee covered by this CSWPA shall be required to join any Union as a condition of being employed, or remaining employed, for the completion of Project Work; provided, however, that any employee who is a member of the referring Union at the time of referral shall maintain that membership in good standing while employed under this CSWPA. All employees shall, however, be required to comply with the union security provisions of the applicable Schedule A for the period during which they are performing on-site Project Work to the extent, as permitted by law, of rendering payment of an amount equal to the applicable monthly window and working dues.

Section 5.10 Individual Seniority. Except as provided in Article 6, Section 6.3, individual seniority shall not be recognized or applied to employees working on the Project; provided, however, that group and/or classification seniority in a Union's Schedule A as of the Effective Date of this CSWPA shall be recognized for purposes of layoffs.

Section 5.11 Foremen. The selection and number of craft foremen and/or general foremen shall be the responsibility of the Contractor. All foremen shall take orders exclusively from the designated Contractor representatives. Craft foremen shall be designated as working foreman at the request of the Contractors.

ARTICLE 6 UNION ACCESS AND STEWARDS

Section 6.1 Access to Project Sites. Authorized representatives of the Union shall have access to Project Work, provided that they do not interfere with the work of employees and further provided that such representatives fully comply with posted visitor, security and safety rules.

Section 6.2 Stewards.

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

(b) In addition to his/her work as an employee, the steward should have the right to receive, but not to solicit, complaints or grievances and to discuss and assist in the adjustment of the same with the employee's appropriate supervisor. Each steward should be concerned only with the employees of the steward's Contractor and, if applicable, Subcontractor(s), and not with the employees of any other Contractor. The Contractor will not discriminate against the steward in the proper performance of his/her union duties.

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

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

Section 6.3 Steward Layoff/Discharge. The Contractor agrees to notify the appropriate Union twenty-four (24) hours before the layoff of a steward, except in the case of disciplinary discharge for just cause. If the steward is protected against such layoff by the provisions of the applicable Schedule A, such provisions shall be recognized when the steward possesses the necessary qualifications to perform the remaining work. In any case in which the steward is discharged or disciplined for just cause, the appropriate Union will be notified immediately by the Contractor, and such discharge or discipline shall not become final (subject to any later filed grievance) until twenty-four (24) hours after such notice have been given.

Section 6.4 Employees on Non-Project Work. On work where the personnel of the District may be working in close proximity to the construction activities covered by this CSWPA, the Union agrees that the Union representatives, stewards, and individual workers will not interfere with the District personnel, or with personnel employed by any other employer not a party to this CSWPA.

ARTICLE 7 WAGES AND BENEFITS

Section 7.1 Wages. All employees covered by this CSWPA shall be classified in accordance with work performed and paid the hourly wage rates for those classifications in compliance with the applicable prevailing wage rate determination established pursuant to the California Labor Code by the Department of Industrial Relations. If a prevailing rate increases under state law, the Contractor shall pay that rate in accordance with the California Labor Code. If the prevailing wage laws are repealed during the term of this CSWPA, the Contractor shall pay the wage rates established under the Schedule A's, except as otherwise provided in this CSWPA. Notwithstanding Section 4.6 (a), Signatory Contractor to one or more of the Schedule A Agreements are required to pay all of the wages set forth in such Agreements.

Section 7.2 Benefits.

(a) Contractors shall pay contributions for all employees to the established employee benefit funds in the amounts designated in the appropriate Schedule A; and make all employee - authorized deductions in the amounts designated in the appropriate Schedule A: provided, however, that the Contractor and Unions agree that only such bona fide employee benefits as accrue to the direct benefit of the employees (such as pension and annuity, health and welfare, vacation, apprenticeship, and training funds) shall be included in this requirement and required to be paid by the Contractor on the Project; and provided further, however, that such contributions shall not exceed the contribution amounts set forth in the applicable prevailing wage determination. Notwithstanding Section 4.6 (a), Signatory Contractor to one or more of the Schedule A Agreements are required to make all contributions set forth in those Schedule A Agreements without reference to the forgoing.

(b) Benefits designated in the Schedule A will be paid on all employees dispatched by the Union.

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

(d) Each Contractor and Subcontractor is required to certify to the Project Labor Coordinator that it has paid all benefit contributions due and owing to the appropriate Trust(s) or fringe benefit programs prior to the receipt of its final payment and/or retention. Further, upon timely notification by a Union to the Project Labor Coordinator, the Project Labor Coordinator

shall work with any Contractor or Subcontractor who is delinquent in payments to assure that proper benefit contributions are made, to the extent of requesting the District or the prime Contractor to withhold payments otherwise due such Contractor, until such contributions have been made or otherwise guaranteed.

Section 7.3 Wage Premiums. Wage premiums, including but not limited to pay based on height of work, shift premiums, hazard pay, scaffold pay and special skills shall not be applicable to work under this CSWPA, except to the extent provided for in any applicable prevailing wage determination.

Section 7.4 Compliance with Prevailing Wage Laws. The Parties agree that the Project Labor Coordinator shall monitor the compliance by all Contractors and Subcontractors with all applicable federal and state prevailing wage laws and regulations, and that such monitoring shall include Contractors engaged in what would otherwise be Project Work but for the exceptions to CSWPA coverage in Section 4.2. All complaints regarding possible prevailing wage violations shall be referred to the Project Labor Coordinator for processing, investigation and resolution, and if not resolved within thirty (30) calendar days, may be referred by any party to the State Labor Commissioner.

ARTICLE 8 WORK STOPPAGES AND LOCKOUTS

Section 8.1 No Work Stoppages or Disruptive Activity. The Council and the Unions signatory hereto agree that neither they, and each of them, nor their respective officers, or agents or representatives, shall incite or encourage, condone or participate in any strike, walk-out, slowdown, picketing, observation of picket lines or other activity of any nature or kind whatsoever, for any cause or dispute whatsoever with respect to or any way related to Project Work, or which interferes with or otherwise disrupts, Project Work, or with respect to or related to the District or Contractors or Subcontractors, including, but not limited to, economic strikes, unfair labor practice strikes, safety strikes, sympathy strikes and jurisdictional strikes whether or not the underlying dispute is arbitrable. Any such actions by the Council, or Unions, or their members, agents, representatives or the employees they represent shall constitute a material violation of this CSWPA. The Council and the Union shall take all steps necessary to obtain compliance with this Article.

Section 8.2 Employee Violations. The Contractor may discharge any employee violating Section 8.1 above and any such employee will not be eligible for rehire under this CSWPA.

Section 8.3 Standing to Enforce. The District, the Project Labor Coordinator, or any Contractor affected by an alleged violation of Section 8.1 shall have standing and the right to enforce the obligations established therein.

Section 8.4 Expiration of Schedule A's. If the Schedule A Agreement, or any local, regional, and other applicable collective bargaining agreements expire during the term of the Project, the Union(s) agree that there shall be no work disruption of any kind as described in Section 7.1 above as a result of the expiration of any such agreement(s) having application on this Project and/or failure of the involved Parties to that agreement to reach a new contract.

Terms and conditions of employment established and set at the time of bid shall remain established and set. Otherwise to the extent that such agreement does expire and the Parties to that underlying agreement have failed to reach concurrence on a new contract, work will continue on the Project on one of the following two (2) options, both of which will be offered by the Unions involved to the Contractors affected:

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

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

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

Section 8.5 No Lock-Outs. Contractors shall not cause, incite, encourage, condone or participate in any lock-out of employees with respect to Project Work during the term of this CSWPA. The term "lock-out" refers only to a Contractor's exclusion of employees in order to secure collective bargaining advantage, and does not refer to the discharge, termination or layoff of employees by the Contractor for any reason in the exercise of rights pursuant to any provision of this CSWPA, or any other agreement, nor does "lock-out" include the District's decision to stop, suspend or discontinue any Project Work or any portion thereof for any reason.

Section 8.6 Best Efforts To End Violations.

(a) If a Contractor contends that there is any violation of Section 9.3 or the provisions of Section 21.3, it shall notify, in writing, the Council of the involved Union(s) and the Project Labor Coordinator. The Council and the leadership of the involved Union(s) will immediately instruct, order and use their best efforts to cause the cessation of any violation of the relevant Article.

(b) If the Union contends that any Contractor has violated this Article, it will notify that the Contractor and the Project Labor Coordinator, setting forth the facts which the Union contends violate the CSWPA, at least twenty-four (24) hours prior to invoking the procedures of Section 8.7. The Project Labor Coordinator shall promptly order the involved Contractor(s) to cease any violation of the Article.

Section 8.7 Expedited Enforcement Procedures. Any party, including the District, which is an intended beneficiary of this Article, or the Project Labor Coordinator, may institute the following procedures, in lieu of or in addition to any other action at law or equity, when a breach of Section 8.1 or 8.5, above, or Section 9.3, or Section 21.3, is alleged.

(a) The party invoking this procedure shall notify Walt Daugherty, who has been selected by the negotiating Parties, and whom the Parties agree shall be the permanent arbitrator under this procedure. If the permanent arbitrator is unavailable at any time, the party invoking this procedure shall notify one of the alternates selected by the Parties, in that order on an alternating basis. Notice to the arbitrator shall be by the most expeditious means available, with notices to the Parties alleged to be in violation, and to the Council if it is a Union alleged to be in violation. For purposes of this Article, written notice may be given by telegram, facsimile, hand delivery or overnight mail and will be deemed effective upon receipt.

(b) Upon receipt of said notice, the arbitrator named above or his/her alternate shall sit and hold a hearing within twenty-four (24) hours if it is contended that the violation still exists, but not sooner than twenty-four (24) hours after notice has been dispatched to the Council of the involved Union(s) and/or Contractor as required by Section 8.6, above.

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

(d) The sole issue at the hearing shall be whether or not a violation of Sections 8.1 or 8.5, above, of Section 9.3, or Section 21.3, has in fact occurred. The arbitrator shall have no authority to consider any matter in justification, explanation or mitigation of such violation or to award damages. The Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without an opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The arbitrator may order cessation of the violation of the Article and other appropriate relief, and such Award shall be served on all Parties by hand or registered mail upon issuance.

(e) Such Award shall be final and binding on all Parties and may be enforced by any court of competent jurisdiction upon the filing of this CSWPA and all other relevant documents referred to herein above in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other party. In any judicial proceeding to obtain a temporary order enforcing the arbitrator's Award as issued under Section 8.7(d) of this Article, all Parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any Party's right to participate in a hearing for a final order of enforcement. The court's order or orders enforcing the arbitrator's award shall be served on all Parties by hand or by delivery to their address as shown on this CSWPA (for a Union), as shown in their business contract for work under this CSWPA (for a Contractor) and to the representing Union (for an employee), by certified mail by the Party or Parties first alleging the violation.

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

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

ARTICLE 9 WORK ASSIGNMENTS AND JURISDICTIONAL DISPUTES

Section 9.1 Assignment of Work. The assignment of work will be solely the responsibility of the Contractor performing the work involved; and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") currently in effect, or any successor plan.

Section 9.2 The Plan. All jurisdictional disputes between or among Building and Construction Trades Unions and Contractors, shall be settled and adjusted according to the Plan, or any other plan or method of procedures that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractors and Union.

(a) For the convenience of the parties, and in recognition of the expense of travel between Southern California and Washington D.C., at the request of any party to a jurisdictional dispute under this Agreement an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsh, and Thomas Pagan, and the Arbitrator's hearing on the dispute shall be held at the offices of the Council. All other procedures shall be as specified in the Plan.

Section 9.3 No Work Disruption Over Jurisdiction. All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, disruption, or slowdown of any nature, and the Contractor's assignments shall be adhered to until the dispute is resolved. Individuals violating this section shall be subject to immediate discharge.

Section 9.4 Pre-job Conference. In order to avoid jurisdictional disputes, it is required that a pre-job conference be held prior to the start of work by the Contractor for the Covered Project covered by this CSWPA. The Subcontractors and Owner Operators will be advised in

advance of such conferences and may participate if they wish. The purpose of the conference will be to, among other things, determine craft and manpower needs, schedule of work for the Contract and Project Work rules/owner rules. As provided in Article 16, each Contractor will conduct a pre-job conference with the appropriate affected Union(s) prior to commencing work. The Council and the Project Labor Coordinator shall be advised in advance of all such conferences and may participate if they wish.

ARTICLE 10 MANAGEMENT RIGHTS

Section 10.1 Contractor and District Rights. The Contractors and the District have the sole and exclusive right and authority to oversee and manage construction operations on Project Work without any limitations unless expressly limited by a specific provision of this CSWPA. In addition to the following and other rights of the Contractors enumerated in this CSWPA, the Contractors expressly reserve their management rights and all the rights conferred upon them by law. The Contractor's rights include, but are not limited to, the right to:

- (a) Plan, direct and control operations of all work; and
- (b) Hire, promote, transfer and layoff their own employees, respectively, as deemed appropriate to satisfy work and/or skill requirements; and
- (c) Promulgate and require all employees to observe reasonable job rules and security and safety regulations; and
- (d) Discharge, suspend or discipline their own employees for just cause; and
- (e) Utilize, in accordance with District approval, any work methods, procedures or techniques, and select, use and install any types or kinds of materials, apparatus or equipment, regardless of source of manufacture or construction; assign and schedule work at their discretion; and
- (f) Assign overtime, determine when it will be worked and the number and identity of employees engaged in such work, subject to such provisions in the applicable Schedule A(s) requiring such assignments be equalized or otherwise made in a nondiscriminatory manner.

Section 10.2 Specific District Rights. In addition to the following and other rights of the District enumerated in this CSWPA, the District expressly reserves its management rights and all the rights conferred on it by law and contract. The District's rights (and those of the Project Labor Coordinator on its behalf) include but are not limited to the right to:

- (a) Inspect any construction site or facility to ensure that the Contractor follows the applicable safety and other work requirements; and
- (b) Require Contractors to establish a different work week or shift schedule for particular employees as required to meet the operational needs of the Project Work at a particular location or in order to accommodate the instructional programs at various Project sites where school may be in session during periods of construction activity; and

(c) At its sole option, terminate, delay and/or suspend any and all portions of the Covered Work at any time; prohibit some or all work on certain days or during certain hours of the day to accommodate the ongoing operations of the District's educational facilities and/or to mitigate the effect of ongoing Project Work on businesses and residents in the neighborhood of the Project site; and/or require such other operational or schedule changes it deems necessary, in its sole judgment, to effectively maintain its primary mission and remain a good neighbor to those in the area of its facilities. (In order to permit the Contractors and Unions to make appropriate scheduling plans, the District will provide the Project Labor Coordinator, and the affected Contractor(s) and Union(s) with reasonable notice of any changes it requires pursuant to this section); and

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

(e) Investigate and process complaints, through its Project Labor Coordinator, in the matter set forth in Articles 10 and 12.

Section 10.3 Use of Materials. There should be no limitations or restrictions by Union upon a Contractor's choice of materials or design, nor, regardless of source or location, upon the full use and utilization, of equipment, machinery, packaging, precast, prefabricated, prefinished, or preassembled materials, tools or other labor saving devices, subject to the application of the California Public Contract and Labor Codes. Generally, the onsite installation or application of such items shall be performed by the craft having jurisdiction over such work.

Section 10.4 Special Equipment, Warranties and Guaranties.

(a) It is recognized that certain equipment of a highly technical and specialized nature may be installed at Project Work sites. The nature of the equipment, together with the requirements for manufacturer's warranties, may dictate that it be prefabricated, pre-piped and/or pre-wired and that it be installed under the supervision and direction of the District's and/or manufacturer's personnel. The Unions agree that such equipment is to be installed without incident. The use of this provision requires written approval by District. The District will provide the result to the Council.

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

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

consult over the matter. If the disagreement is not resolved, the affected Union(s) shall have the right to proceed through the procedures set forth in Article 11.

Section 10.5 No Less Favorable Treatment. The Parties expressly agree that Project Work will not receive less favorable treatment than that on any other project which the Unions, Contractors and employees work.

ARTICLE 11 SETTLEMENT OF GRIEVANCES AND DISPUTES

Section 11.1 Cooperation and Harmony on Site.

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

(b) The Project Labor Coordinator, the Contractors, Unions, and employees collectively and individually, realize the importance to all Parties of maintaining continuous and uninterrupted performance of Project Work, and agree to resolve disputes in accordance with the grievance provisions set forth in this Article or, as appropriate, those of Article 8 or 10.

(c) The Project Labor Coordinator shall observe the processing of grievances under this Article and Articles 8 and 9, including the scheduling and arrangements of facilities for meetings, selection of the arbitrator from the agreed-upon panel to hear the case, and any other administrative matters necessary to facilitate the timely resolution of any dispute; provided, however, it is the responsibility of the principal Parties to any pending grievance to insure the time limits and deadlines are met.

Section 11.2 Processing Grievances. Any questions arising out of and during the term of this CSWPA involving its interpretation and application, but not jurisdictional disputes or alleged violations of Section 8.1, 8.4 and 8.5 and similar provisions, shall be considered a grievance and subject to resolution under the following procedures. Questions between or among parties arising out of or involving the interpretation of a provision in a Schedule A Agreement, which is not provided for in this CSWPA, shall be resolved under the grievance procedure provided in that Schedule A Agreement.

Step 1. (a) **Employee Grievances.** When any employee subject to the provisions of this CSWPA feels aggrieved by an alleged violation of this CSWPA, the employee shall, through his local Union business representative or job steward, within ten (10) working days after the occurrence of the violation, give notice to the work site representative of the involved Contractor stating the provision(s) alleged to have been violated. A grievance should be considered null and void if notice of the grievance is not given within the ten (10) day period. A business representative of the local Union or the job steward and the work site representative of the involved Contractor shall meet and endeavor to adjust the matter within ten (10) working days after timely notice has been given. If they fail to resolve the matter within the prescribed period, the grieving party may, within ten (10) working days thereafter, pursue Step 2 of this grievance

procedure provided the grievance is reduced to writing, setting forth the relevant information, including a short description thereof, the date on which the alleged violation occurred, and the provision(s) of the applicable agreement alleged to have been violated.

Grievances and disputes settled at Step 1 shall be non-precedential except as to the Parties directly involved.

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

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

Step 3.

(a) If the grievance shall have been submitted but not resolved under Step 2, either the Union or Contractor party may request in writing to the Project Labor Coordinator (with copy(ies) to the other Party(ies)) within seven (7) calendar days after the initial Step 2 meeting, that the grievance be submitted to an arbitrator selected from the agreed-upon list below, on a rotational basis in the order listed. Those arbitrators are: (1) Michael Prihar; (2) Robert Steinberg; (3) Mike Rappaport; (4) Louis Zigman; (5) Walt Daugherty; and (6) Fred Horowitz. The decision of the arbitrator shall be final and binding on all Parties and the fee and expenses of such arbitrations shall be borne equally by the involved Contractor(s) and the involved Union(s).

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

Section 11.3 Limit on Use of Procedures. Procedures contained in this Article shall not be applicable to any alleged violation of Article 8 or 9.3, with a single exception that any employee discharged for violation of Section 8.2, or Article 9.3, may resort to the procedures of this Article to determine only if he/she was, in fact, engaged in that violation.

Section 11.4 Notice. The Project Labor Coordinator (and the District, in the case of any grievance regarding the Scope of this CSWPA), shall be notified by the involved Contractor of all actions at Steps 2 and 3, and further, the Project Labor Coordinator shall, upon its own request, be permitted to participate fully as a party in all proceedings at such steps.

**ARTICLE 12
REGULATORY COMPLIANCE**

Section 12.1 Compliance with All Laws. The Council and all Unions, Contractors, Subcontractors and their employees shall comply with all applicable federal and state laws, ordinances and regulations including, but not limited to, those relating to safety and health, employment and applications for employment. All employees shall comply with the safety regulations established by the District, the Project Labor Coordinator or the Contractor. Employees must promptly report any injuries or accidents to a supervisor.

Section 12.2 Monitoring Compliance. The Parties agree that the District shall require, and that the Project Labor Coordinator and Council shall monitor, compliance by all Contractors and Subcontractors with all federal and state laws and regulations that, from time to time may apply to Project Work. It shall be the responsibility of both the Council and the Project Labor Coordinator (on behalf of the District) to investigate or monitor compliance with these various laws and regulations. The Council may recommend to the Project Labor Coordinator and/or the District procedures to encourage and enforce compliance with these laws and regulations.

Section 12.3 Prevailing Wage Compliance. The Council or Union shall refer all complaints regarding any potential prevailing wage violation to the Project Labor Coordinator, who on its own, or with the assistance of the District's Labor Compliance Program, shall process, investigate and resolve such complaints, consistent with Section 7.4. The Council or Union, as appropriate, shall be advised in a timely manner with regard to the facts and resolution, if any, of any complaint. It is understood that this Section does not restrict any individual rights as established under the State Labor Code, including the rights of an individual to file a complaint with the State Labor Commissioner or to file a grievance for such violation, under this CSWPA.

Section 12.4 Violations of Law. Based upon a finding of violation by the District of a federal and state law, and upon notice to the Contractor that it or its Subcontractors is in such violation, the District, in the absence of the Contractor or Subcontractor remedying such violation, shall take such action as it is permitted by law or contract to encourage the Contractor to come into compliance, including, but not limited to, assessing fines and penalties and/or removing the offending Contractor from Project Work.

**ARTICLE 13
SAFETY AND PROTECTION OF PERSON AND PROPERTY**

Section 13.1 Safety.

(a) It shall be the responsibility of each Contractor to ensure safe working conditions and employee compliance with all applicable safety laws and regulations and any safety rules contained herein or established by the District, the Project Labor Coordinator or the Contractor. It is understood that employees have an individual obligation to use diligent care to perform their work in a safe manner and to protect themselves and the property of the Contractor and the District.

(b) Employees shall be bound by the safety, security and visitor rules established by the Contractor, the Project Labor Coordinator and/or the District. These rules will be published

and posted. An employee's failure to satisfy his/her obligations under this Section will subject him/her to discipline, up to and including discharge.

(c) The Project Labor Coordinator may, at the request of the District, establish and implement, after negotiation with the Union, reasonable substance abuse testing procedures and regulations, which may include pre-hire, reasonable cause, random and post-accident testing to the extent permitted by federal and state law. Should the Project Labor Coordinator approve an established program to which signatory Union(s) are currently a party, it shall become the project-wide substance abuse testing program, after consultation with the Unions. Until there is such a project-wide substance abuse testing procedure negotiated and/or otherwise adopted by the Project Labor Coordinator, the Parties agree that the Labor/Management Memorandum of Understanding ("MOU") on Drug Abuse Prevention and Detection negotiated with the various General Contractors Association and the Basic Trades Unions (titled Memorandum of Understanding testing policy for drug abuse; International Union of Operating Engineers Local Union 12; revised June 2009 as shown in Attachment C) shall be utilized under this CSWPA.

Section 13.2 Inspection. The inspection of shipments of equipment, machinery, and construction materials of every kind shall be performed at the discretion of the Contractor by individuals of its choice.

ARTICLE 14 TRAVEL AND SUBSISTENCE

Section 14.1 Travel expenses, travel time, subsistence allowances and/or zone rates and parking reimbursements shall not be applicable to work under this CSWPA, except to the extent provided for in any applicable prevailing wage determination. Parking for employees covered by this CSWPA shall be provided by the Contractor(s) according to the provision of the Schedule A(s) existing on the Effective Date of this CSWPA, and upon presentation of proof of any expense incurred.

ARTICLE 15 APPRENTICES

Section 15.1 Importance of Training. The Parties recognize the successful construction apprenticeship programs maintained by the District and to the greatest extent allowed by law agree to employ apprentices from these programs on Project Work. The Parties further recognize the need to maintain continuing support of the programs designed to develop adequate numbers of competent workers in the construction industry, the obligation to capitalize on the availability of the local work force in the area served by the District, and the opportunities to provide continuing work under the construction program funded by Measure Q. To these ends, and consistent with any laws or regulations, the Parties will facilitate, encourage, and assist local residents to commence and progress in Joint Labor/Management Apprenticeship Programs in the construction industry leading to participation in such Apprenticeship Programs. The District, the Project Labor Coordinator, other District consultants, the Contractors and the Council and Unions, will work cooperatively to identify, or establish and maintain, effective programs and procedures for persons interested in entering the construction industry and which will help prepare them for the entry into Apprenticeship Programs. Apprentices, if utilized, must be enrolled in a Joint Labor/Management Apprenticeship Program.

Section 15.2 Use of Apprentices.

(a) The Unions agree to cooperate with the Contractor in furnishing apprentices as requested up to the maximum percentage. The apprentice ratio for each craft shall be in compliance, at a minimum, with the applicable provisions of the Labor Code relating to utilization of apprentices. The District, unless otherwise required by law, shall encourage such utilization, and, both as to apprentices and the overall supply of experienced workers, the Project Labor Coordinator will work with the Council, Union(s), District's Apprenticeship Programs and other, Apprenticeship Programs and Contractors to assure appropriate and maximum utilization of apprentices and the continuing availability of both apprentices and journey persons.

(b) The Parties agree that all Contractors will comply with all applicable laws and regulations in the request for dispatch and employment of apprentices.

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

Section 15.3 Joint Subcommittee on Training and Apprenticeship. To carry out the intent and purposes of this Article, a subcommittee of the Labor Management Committee established pursuant to Article 17 shall be established, jointly chaired by a designee of the District and a designee of the Council, to oversee the identification and/or effective development of procedures and programs leading to the full utilization of District's Apprenticeship Programs, and to work with representatives of each apprenticeship committee and representatives of the District's Apprenticeship Programs to establish appropriate criteria for recognition by Joint Labor Management Apprenticeship Programs of the educational and work experience possessed by District students and graduates toward qualifying for entry or advanced level in the Joint Labor Management Apprenticeship Programs. The Joint Subcommittee will cooperate with and assist the District to facilitate students' entrance into the Joint Labor Management Apprenticeship Programs. The Subcommittee will meet as necessary at the call of the joint chairs to promptly facilitate its purposes in an expeditious manner as soon as this CSWPA becomes effective. In addition to the joint chairs, the membership of the committee will consist of at least three representatives of the signatory local Unions and three representatives of Contractors signatory to this CSWPA and experienced in overseeing and participating in Apprenticeship Programs.

**ARTICLE 16
PRE-JOB CONFERENCE**

Section 16.1 Work Assignments. Consistent with Section 9.4, all work assignments should be disclosed by the Contractor at a pre-job conference held in accordance with industry practice. The Contractor shall notify the Project Labor Coordinator at least two weeks before starting work under this CSWPA, and the Project Labor Coordinator shall coordinate the scheduling of a pre-job conference with the Council, the Contractor(s) and the affected Union(s). Should there be any formal jurisdictional dispute raised under Article 9, the Project Labor Coordinator shall be promptly notified. At the pre-job conference, the Project Labor Coordinator shall review the District's employment and contracting programs and goals with the participants.

The Council and Union(s) failure to participate in the pre-job conference may be considered by the District as a breach of the Agreement.

ARTICLE 17
LABOR/MANAGEMENT AND COOPERATION

Section 17.1 Joint Committee. The Parties to this CSWPA shall establish a six (6) person Joint Administrative Committee (JAC). This JAC shall be comprised of three (3) representatives selected by the Project Labor Coordinator and three (3) representatives selected by the Council. The purpose of the Committee shall be to promote harmonious and stable labor management relations on this Project, to ensure effective and constructive communication between labor and management Parties, to advance the proficiency of work in the industry, and evaluate and ensure an adequate supply of skilled labor for all Project Work. Representatives of the District may participate upon its request. Any JAC member wishing to call a meeting of the JAC shall contact the Project Labor Coordinator who shall schedule a meeting of the JAC if the Project Labor Coordinator believes such a meeting would be beneficial for the Parties or Contractors.

Section 17.2 Functions of Joint Committee. The Committee shall meet on a schedule to be determined by the Committee or at the call of the joint chairs, to discuss the administration of the CSWPA, the progress of the Project, general labor management problems that may arise, and any other matters consistent with this CSWPA. Substantive grievances or disputes arising under Articles 8, 9, or 11 shall not be reviewed or discussed by this Committee, but shall be processed pursuant to the provisions of the appropriate Article.

The Project Labor Coordinator shall be responsible for the scheduling of the meetings, the preparation of the agenda topics for the meetings, with input from the Unions, the Contractors, and the District. Notice of the date, time and place of meetings, shall be given to the Committee members at least three (3) days prior to the meeting. The District should be notified of the meetings and invited to send a representative(s) to participate.

The Project Labor Coordinator shall prepare quarterly reports on apprentice utilization and the training and employment of District residents, and a schedule of Project work and estimated number of craft workers needed. The Committee, or an appropriate subcommittee, may review such reports and make any recommendations for improvement, if necessary, including increasing the availability of skilled trades, and the employment of local residents or other individuals who should be assisted with appropriate training to qualify for apprenticeship programs.

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

**ARTICLE 18
SAVINGS AND SEPARABILITY**

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

Section 18.2 Effect of Injunctions or Other Court Orders. The Parties recognize the right of the District to withdraw, at its absolute discretion, the utilization of the CSWPA as part of any bid specification should a Court of competent jurisdiction issue any order, or any applicable statute which results, temporarily or permanently in delay of the bidding, awarding and/or construction on the Project.

**ARTICLE 19
WAIVER**

Section 19.1 Waiver. A waiver of or a failure to assert any provisions of this CSWPA by any or all of the Parties hereto shall not constitute a waiver of such provision for the future. Any such waiver shall not constitute a modification of the CSWPA or change in the terms and conditions of the CSWPA and shall not relieve, excuse or release any of the Parties from any of their rights, duties or obligations hereunder.

**ARTICLE 20
AMENDMENTS**

Section 20.1 The provisions of this CSWPA can be renegotiated, supplemented, rescinded or otherwise altered only by mutual agreement in writing, hereafter signed by the Parties.

**ARTICLE 21
DURATION OF THE CSWPA**

Section 21.1 Duration. This CSWPA shall be effective _____, 2014 for purposes of Project Work funded under Measure Q and advertised for bid ninety (90) days thereafter ("Effective Date") and shall remain in effect for three (3) years after the Effective Date or three (3) years from the first award of the Covered Project or Covered Contract whichever is

later (provided, however, it shall continue in effect for all work awarded prior to such termination date until the completion of such Project Work). The CSWPA will automatically renew for another three (3) year term unless either party provides written notice of its intent to terminate sent no earlier than ninety (90) days or later than sixty (60) days prior to the Termination Date or Successor Termination Date. The District shall determine the Termination Date(s) within its sole and exclusive discretion and Termination Date(s) will not be subject to challenge. The District will provide the Termination Date to the Council within three (3) months of the first award of a Covered Project or Covered Contract. It is agreed that all notices shall be provided to the District at:

Raul Rodriguez, Ph.D.
Chancellor
Rancho Santiago Community College District
2323 North Broadway, Suite 410
Santa Ana, California 92706-1640

Notices to the Council, on behalf of the Council and the Local Unions, will be provided to:

Ron Miller
Executive Secretary
Los Angeles/Orange Counties Building and Construction Trades Council
1626 Beverly Blvd.
Los Angeles, California 90026

The Parties agreed to discuss extensions and/or modifications of the CSWPA based on the District's determination as to whether the CSWPA achieved its intent and goal.

Section 21.2 Turnover and Final Acceptance of Completed Work.

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

(b) Notice of each final acceptance received by the Contractor will be provided to the Council with the description of what portion, segment, etc. has been accepted. Final acceptance may be subject to a "punch" list, and in such case, the CSWPA will continue to apply to each such item on the list until it is completed to the satisfaction of the District and Notice of Acceptance is given by the District or its representative to the Contractor.

Section 21.3 Continuation of Schedule A's. Schedule A's incorporated as part of this CSWPA shall continue in full force and effect, as previously stated, until the Contractor and Union Parties to the collective bargaining agreement(s), which are the basis for such Schedule A's, notify the Project Labor Coordinator of the mutually agreed upon changes in such agreements and their effective date(s).

The Parties agree to recognize and implement all applicable changes on their effective dates, except as otherwise provided by this CSWPA; provided, however, that any such provisions negotiated in said collective bargaining agreements will not apply to work covered by this CSWPA if such provisions are less favorable to the Contractor under the CSWPA than those uniformly required of Contractors for construction work normally covered by those agreements; nor shall any provision be recognized or applied if it may be construed to apply exclusively or predominately to work covered by this CSWPA. Any disagreement between the Parties over the incorporation into a Schedule A of any such provision agreed upon in a negotiation of the local collective bargaining agreement which is the basis for a Schedule A shall be resolved under the procedures established in Article 11.

Section 21.4 Final Termination. Final termination of all obligations, rights, and liabilities, and disagreements shall occur upon receipt by the Council of a Notice from the District saying that no work remains within the scope of the CSWPA.

ARTICLE 22 WORK OPPORTUNITIES PROGRAM

Section 22.1 Work Opportunity Programs. The Parties to this CSWPA support the development of increased numbers of skilled construction workers from among residents of the District and Orange County to meet the labor needs of covered projects specifically and the requirements of the local construction industry generally. Towards that end the Parties agree to cooperate respecting the establishment of a work opportunities program for District residents, the primary goals of which shall be to maximize (1) construction work opportunities for County and District residents, and (2) business opportunities for traditionally underrepresented members of the community, minority and women-owned business, and disabled veteran-owned businesses in the construction industry, the latter goal being consistent with the Government Code requirement that public agencies promote and encourage the use of these organization on public projects. In furtherance of the foregoing, the Unions specifically agree to:

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

(b) Work cooperatively with the District, the Project Labor Coordinator, and other District consultants to identify, or establish and maintain, effective programs, events and procedures for persons interested in entering the construction industry; and

(c) Participate in District based job fairs, career days and outreach events; and

(d) Provide speakers to speak at District programs and Academies as requested; and

(e) Assist District residents in contacting the Apprenticeship Training Committee for the crafts and trades they are interested in. The Unions shall assist District residents who are seeking Union jobs on the Project and Union membership in assessing their work experience and giving them credit for provable past experience in their relevant craft or trade, including

experience gained working for non-union Contractors. The Unions shall put on their rolls qualified bona fide District residents for work on this Project; and

(f) Allow tours of their JACs as requested; and

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

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

ARTICLE 23 HELMETS TO HARDHATS

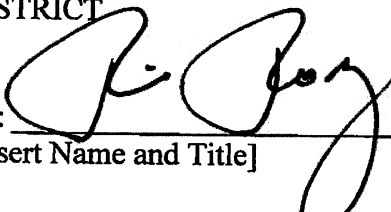
Section 23.1 Veterans Entry into Building and Construction Trades. The Parties recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in the building and construction industry. The Contractors and Unions agree to utilize the services of the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment and construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the Parties.

Section 23.2 Integrated Database. The Unions and Contractors agree to coordinate with the Center to create and maintain an integrated database of veterans interested in working on this Covered Project and of apprenticeship and employment opportunities for this Covered Project.

In witness whereof the Parties have caused this Community and Student Workforce Project Agreement for Rancho Santiago Community College District Construction and Major Rehabilitation Funded by Measure Q to be executed as of the date and year below stated.

Dated: 6/10/2014

RANCHO SANTIAGO COMMUNITY COLLEGE
DISTRICT


By: 
[Insert Name and Title]


Dated: 6/6/14


LOS ANGELES/ORANGE COUNTIES
BUILDING AND CONSTRUCTION TRADES
COUNCIL

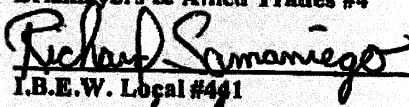
By: 
Executive Secretary

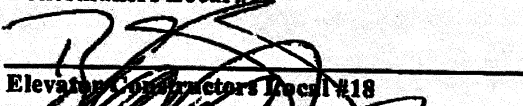
LOS ANGELES/ORANGE COUNTIES BUILDING AND CONSTRUCTION TRADES COUNCIL'S
AFFILIATED CRAFT LOCAL UNIONS/COUNCILS:

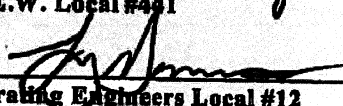
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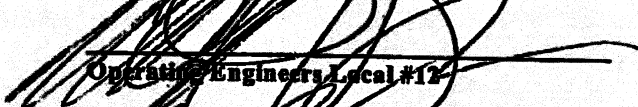
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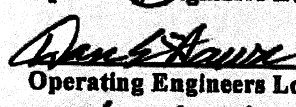
Bricklayers & Allied Trades #4 |
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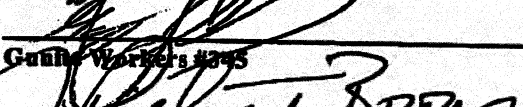
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I.B.E.W. Local #441 |
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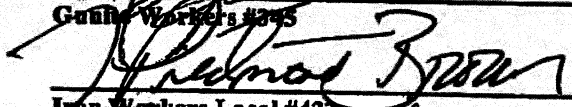
Elevator Constructors Local #18 | 


Operating Engineers Local #12 |
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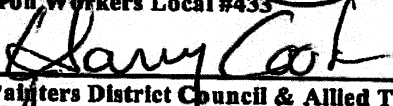
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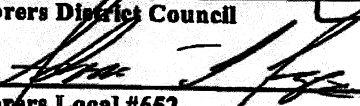
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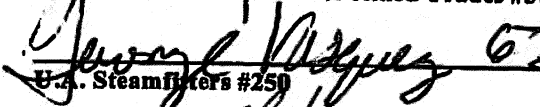
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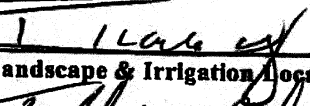
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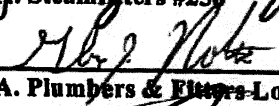
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Laborers District Council |
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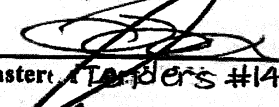
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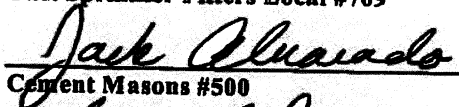
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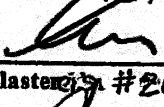
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U.A. Landscape & Irrigation Local #345 |
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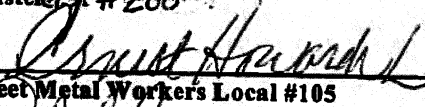
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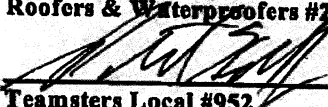
U.A. Sprinkler Fitters Local #709 |
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Plasterers Local #1414 | 

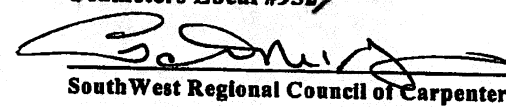
Cement Masons #500 |
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Plasterers #200 | 

Roofers & Waterproofers #220 |
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Sheet Metal Workers Local #105 | 

Teamsters Local #952 |
| 

Tile Layers Local #18 | 

South West Regional Council of Carpenters |

APPENDIX A
MEASURE Q PROJECTS

1. **Central Chiller Plant - \$40.1 million**
2. **Johnson Center Renovation - \$10 million**
3. **New Science (STEM) Center - \$40 million**
4. **New Health Science Center - \$30.3 million**

ATTACHMENT A - LETTER OF ASSENT

To be signed by all Contractors awarded work covered by the Community and Student Workforce Project Agreement prior to commencing work.

[CONTRACTOR'S LETTERHEAD]

DATE

Project Labor Coordinator

Address

Address

Address

Attention: _____

Re: Rancho Santiago Community College District Community and Student Workforce Project Labor Agreement

Dear Sir:

This is to confirm [Name of Company] agrees to be party to and bound by the Rancho Santiago Community College District Community and Student Workforce Project Agreement - for School Construction Major Rehabilitation Funded by Measure Q effective _____, as such Agreement may from time to time be amended by the negotiating parties or interpreted pursuant to its terms. Such obligation to be a party and bound by this Agreement shall extend to all work covered by the Agreement undertaken by this Company on the Project pursuant to [Contract No. _____ and Name of Project/School], and this Company shall require all of its subcontractors of whatever tier to be similarly bound for all work within the scope of the Agreement by signing and furnishing to you an identical Letter of Assent prior to their commencement of work.

Sincerely,

[Name of Construction Company]

By:

[Name and Title of Authorized Executive]

[Copies of this Letter must be submitted to the Project Labor Coordinator and to the Council consistent with Article 4, Section 4.4(b)]

ATTACHMENT B - CSWPA CRAFT REQUEST FORM

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

The Rancho Santiago Community College District (District) Community and Student Workforce Project Agreement sets the goal that 66% of all of the labor and craft positions shall be from workers residing in the County of Orange and 50% of the positions are filled by residents of the District's service area which covers the following zip codes:

92602	92606	92610	92612	92614	92618 92620	92626	92627	92660
92675	92676	92679 92688	92701	92703	92704	92705	92706	92707
92707	92708	92780	92782	92802	92805 92806	92807	92808	92840
92843	92861	92862	92865	92866	92867	92868	92869	92883 92887

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

CONTRACTOR USE ONLY

To: Union Local # _____ **Fax#** () _____ **Date:** _____
Cc: Project Labor Coordinator
From: Company: _____ **Issued By:** _____
Contact Phone: () _____ **Contact Fax:** () _____

PLEASE PROVIDE ME WITH THE FOLLOWING UNION CRAFT WORKERS.

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

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

Project Name: _____ **Site:** _____ **Address:** _____

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

Comment or Special Instructions: _____

UNION USE ONLY

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

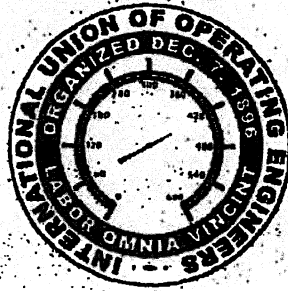
WORKER REFERRED

Name:		
Date worker was dispatched:		
Is the worker referred a:		(check all that apply)
District (zip code) resident	(See zip code list above)	Yes _____ No _____
Veteran		Yes _____ No _____
Graduate of District's JATC	(Carp, Elect & O.E., only)	Yes _____ No _____
Current District JATC apprentice	(Carp, Elect & O.E., only)	Yes _____ No _____
Orange County resident		Yes _____ No _____
Regular dispatch from out of work list		Yes _____ No _____

[This form is not intended to replace a Local Union's Dispatch or Referral Form normally given to the employee when being dispatched to the jobsite.]

ATTACHMENT C
DRUG TESTING LANGUAGE

**MEMORANDUM
OF
UNDERSTANDING**



**TESTING POLICY FOR
DRUG ABUSE**

Revised June 2009

**International Union of
Operating Engineers
Local Union No. 12**

-INTRODUCTION-

At the June 1991 General Membership Meeting, the members in attendance acknowledged the need of some form of drug testing that would keep the jobsite safe while at the same time protect each member's individual rights under the constitution.

When signatory contractors were not being allowed to bid on projects because they had no official drug testing policy, it became obvious that we were going to have to develop a test to remedy that problem. We feel that within the confines of this addendum the best and fairest for all has been accomplished.

This Memorandum of Understanding is actually an addendum to Local 12's Master Labor Agreement. All the provisions in this shall be adhered to and enforced by Local 12. No member shall be subjected to any provision outside of this memorandum. If any employer asks a member to test for substance abuse and asks for any procedures outside of what is outlined here or in the Side Letter of Understanding on page 11 - that employer is in violation of the Master Labor Agreement and you are not required to comply.

Substance abuse has become a national problem. While jobsite safety has always been a priority in Local 12, it is not the intent of this policy to subject any member to a test that all members on a project are not subjected to.

You, as a member working under these conditions have rights as well as obligations. If you have any questions please contact this office or your business representative.

Sincerely,

A handwritten signature in black ink, appearing to read "Wm. C. Waggoner", written in a cursive style.

Wm. C. Waggoner, Business Manager &
General Vice President

This Memorandum of Understanding shall be considered as an addendum to the Master Labor Agreement currently in effect between the parties. It shall be effective as of the date it is signed and shall thereafter run concurrently with the Master Labor Agreement.

The parties recognize the problems which drug abuse has created in the construction industry and the need to develop drug abuse prevention programs. Accordingly, the parties agree that in order to enhance the safety of the workplace and to maintain a drug free work environment, individual Employers may require applicants or employees to undergo drug testing. The parties agree that if a testing program is implemented by an individual Employer, the following items have been agreed upon by the Labor and Management and will apply.

1. It is understood that the use, possession, transfer or sale of illegal drugs, narcotics, or other unlawful substances is absolutely prohibited while employees are on the Employer's job premises or while working on any jobsite in connection with work performed under the Master Labor Agreement.

2. No Employer may implement a drug testing program which does not conform in all respects to the provisions of this Agreement.

3. No Employer may implement drug testing at any jobsite unless written notice is

given to the Union setting forth the location of the jobsite, a description of the project under construction, and the name and telephone number of the Project Supervisor. Said notice shall be addressed to the International Union of Operating Engineers, 150 East Corson Street, Pasadena, California 91103. Said notice shall be delivered in person or by registered mail before the implementation of drug testing. Failure to give such notice shall make any drug testing engaged in by the Employer a violation of the Master Labor Agreement, and the Employer may not implement any form of drug testing at such jobsite for the following six months.

4. An Employer who elects to implement drug testing pursuant to this Agreement shall require all employees on the project to be tested. With respect to individuals who become employed on the project subsequent to the proper implementation of a valid drug testing program, such test shall be administered upon the commencement of employment on the project, whether by referral from a Union Dispatch Office, transfer from another project, or another method. Individuals who were employed on the project prior to the proper implementation of a valid drug testing program may only be subjected to testing for the reasons set forth in paragraph 5(f)(1) through 5(f)(3) of this Agreement. Refusal to undergo such testing shall be considered sufficient grounds to deny employment on the project.

5. The following procedure shall apply to all drug testing:

a. The Employer may request urine samples only. The applicant or employee shall not be observed when the urine specimen is given. An applicant or employee, at his or her sole option, shall, upon request, receive a blood test in lieu of a urine test. No employee of the Employer shall draw blood from a bargaining unit employee, touch or handle urine specimens, or in any way become involved in the chain of custody of urine or blood specimens. A Union Business Representative, subject to the approval of the individual applicant or employee, shall be permitted to accompany the applicant or employee to the collection facility to observe the collection, bottling, and sealing of the specimen.

b. The testing shall be done by a laboratory approved by the Substance Abuse & Mental Health Services Administration (SAMHSA), which is chosen by the Employer and the Union.

c. An initial test shall be performed using the Enzyme Multiplies Immunoassay Technique (EMIT). In the event a question or positive result arises from the initial test, a confirmation test must be utilized before action can be taken against the applicant or employee. The confirmation test will be by Gas Chromatography/Mass Spectrometry (GC/MS). Cutoff levels for both the initial test and confirmation test will be those established by the SAMHSA. Should these

SAMHSA levels be changed during the course of this agreement or new testing procedures are approved, then these new regulations will be deemed as part of this existing agreement. Confirmed positive samples will be retained by the testing laboratory in secured long-term frozen storage for a minimum of one year. Handling and transportation of each sample must be documented through strict chain of custody procedures.

d. In the event of a confirmed positive test result the applicant or employee may request, within forty-eight (48) hours, a sample of his/her specimen from the testing laboratory for purposes of a second test to be performed at a second laboratory, designated by the Union and approved by SAMHSA. The retest must be performed within ten (10) days of the request. Chain of custody for this sample shall be maintained by the Employer between the original testing laboratory and the Union's designated laboratory. Retesting shall be performed at the applicant's or employee's expense. In the event of conflicting test results the Employer may require a third test.

e. If, as a result of the above testing procedure, it is determined that an applicant or employee has tested positive, this shall be considered sufficient grounds to deny the applicant or employee his/her employment on the project.

f. No individual who tests negative for drugs pursuant to the above procedure and becomes employed on the project shall

again be subjected to drug testing with the following exceptions:

1. Employees who are involved in industrial accidents resulting in damage to plant, property or equipment or injury to him/herself or others may be tested pursuant to the procedures stated hereinabove.

2. The Employer may test employees following thirty (30) days advance written notice to the employee(s) to be tested and to the Union. Notice to the Union shall be as set forth in Paragraph 3 above and such testing shall be pursuant to the procedures stated hereinabove.

3. The Employer may test an employee where the Employer has reasonable cause to believe that the employee is impaired from performing his/her job. Reasonable cause shall be defined as being aberrant or unusual behavior, the type of which is a recognized and accepted symptom of impairment (i.e., slurred speech, unusual lack of muscular coordination, etc.). Such behavior must be actually observed by at least two persons, one of whom shall be a supervisor who has been trained to recognize the symptoms of drug abuse or impairment and the other of whom shall be the job steward. If the job steward is unavailable or there is no job steward on the project the other person shall be a member of the Operating Engineers bargaining unit. Testing shall be pursuant to the procedures stated hereinabove. Employees who are tested pursuant to the exceptions set forth in this paragraph and who test positive will be

removed from the Employer's payroll.

a. Applicants or employees who do not test positive shall be paid for all time lost while undergoing drug testing. Payment shall be at the applicable wage and benefit rates set forth in the Master Labor Agreement. Applicants who have been dispatched from the Union and who are not put to work pending the results of a test will be paid waiting time until such time as they are put to work. It is understood that an applicant must pass the test as a condition of employment. Applicants who are put to work pending the results of a test will be considered probationary employees.

6. The Employers will be allowed to conduct periodic jobsite drug testing on construction projects under the following conditions:

a. The entire jobsite must be tested, including any employee or subcontractor's employee who worked on that project three (3) working days before or after the date of the test;

b. Jobsite testing cannot commence sooner than thirty (30) days after start of the work on the project;

c. Prior to start of periodic testing, a Business Representative will be allowed to conduct an educational period on company time to explain periodic jobsite testing program to affected employees;

d. Testing shall be conducted by a SAMHSA certified laboratory, pursuant to the provisions set forth in Paragraph 5 hereinabove.

e. Only two periodic tests may be performed in a twelve month period.

7. It is understood that the unsafe use of prescribed medication, or where the use of prescribed medication impairs the employee's ability to perform work, is a basis for the Employer to remove the employee from the jobsite.

8. Any grievance or dispute which may arise out of the application of this Agreement shall be subject to the grievance and arbitration procedures set forth in the applicable Master Labor Agreement.

9. The establishment or operation of this Agreement shall not curtail any right of any employee found in any law, rule or regulation. Should any part of this Agreement be found unlawful by a court of competent jurisdiction of a public agency having jurisdiction over the parties, the remaining portions of the Agreement shall be unaffected and the parties shall enter negotiations to replace the affected provision.

10. Present employees, if tested positive, shall have the prerogative for rehabilitation program at the employee's expense. When such program has been successfully completed the Employer shall not discriminate in any way against the employee. If

work for which the employee is qualified exists he/she shall be reinstated.

11. The Employer agrees that results of urine and blood tests performed hereunder will be considered medical records held confidential to the extent permitted or required by law. Such records shall not be released to any persons or entities other than designated Employer representatives and the Union. Such release to the Union shall only be allowed upon the signing of a written release and the information contained therein shall not be used to discourage the employment of the individual applicant or employee on any subsequent occasion.

12. The Employer shall indemnify and hold the Union harmless against any and all claims, demands, suits, or liabilities that may arise out of the application of this Agreement and/or any program permitted hereunder.

13. Employees who seek voluntary assistance for substance abuse may not be disciplined for seeking such assistance. Requests from employees for such assistance shall remain confidential and shall not be revealed to other employees or management personnel without the employee's consent. Employees enrolled in substance abuse programs will be subject to all Employer rules, regulations and job performance standards with the understanding that an employee enrolled in such a program is receiving treatment for an illness.

14. The parties agree to develop and implement a drug abuse prevention and testing program for all apprentices entering the industry.

15. This Memorandum of Understanding shall constitute the only Agreement in effect between the parties concerning drug abuse, prevention and testing. Any modifications thereto must be accomplished pursuant to collective bargaining negotiations between the parties.

**DRUG ABUSE PREVENTION AND DETECTION
APPENDIX A - CUTOFF LEVELS**

DRUG	SCREENING METHOD	SCREENING LEVEL**	CONFIRMATION METHOD	CONFIRMATION LEVEL
Amphetamines	EMIT	1000 ng/ml*	GC/MS	500 ng/ml*
Barbiturates	EMIT	300 ng/ml	GC/MS	200 ng/ml
Benzodiazepines	EMIT	300 ng/ml	GC/MS	300 ng/ml
Cocaine	EMIT	300 ng/ml*	GC/MS	150 ng/ml*
Methadone	EMIT	300 ng/ml	GC/MS	100 ng/ml
Methaqualone	EMIT	300 ng/ml	GC/MS	300 ng/ml
Opiates	EMIT	2000 ng/ml*	GC/MS	2000 ng/ml*
PCP (Phencyclidine)	EMIT	25 ng/ml*	GC/MS	25 ng/ml*
THC (Marijuana)	EMIT	50 ng/ml*	GC/MS	15 ng/ml*
Propoxyphene	EMIT	300 ng/ml	GC/MS	100 ng/ml

* SAMHSA specified threshold

** A sample reported positive contains the indicated drug at or above the cutoff level for that drug.

A negative sample either contains no drug or contains a drug below the cutoff level.

EMIT - Enzyme Immunoassay

GC/MS - Gas Chromatography/Mass Spectrometry

**SIDE LETTER
OF
UNDERSTANDING**

In regard to the Memorandum of Understanding on Drug Abuse Prevention and Detection agreed to by the parties, it is agreed that if, as a condition of contract award or due to Federal, State or Governmental Agency requirements, an individual Employer is required to abide by or implement more stringent requirements than set forth in the Memorandum of Understanding, the individual Employer will notify the Union in writing of those requirements. The Union reserves the right, upon receiving notification, to require the individual Employer to meet to negotiate any changes.

Agreed to this 18th day of June, 1991.

**ASSOCIATED GENERAL
CONTRACTORS OF CALIFORNIA, INC.**

**INTERNATIONAL UNION OF
OPERATING ENGINEERS,
LOCAL UNION NO. 12**

Wm. C. Waggoner
Business Manager

Mickey J. Adams
President

Ronald J. Sikorski
Vice President

**SIDE LETTER
OF
AGREEMENT
TESTING POLICY
FOR DRUG ABUSE**

It is hereby agreed between the parties hereto that an Employer who has otherwise properly implemented drug testing, as set forth in the Testing Policy for Drug Abuse, shall have the right to offer an applicant or employee a "quick" drug screening test. This "quick" screen test shall consist either of the "ICUP" urine screen or similar test or an oral screen test. The applicant or employee shall have the absolute right to select either of the two "quick" screen tests, or to reject both and request a full drug test.

An applicant or employee who selects one of the "quick" screen tests, and who passes the test, shall be put to work immediately. An applicant or employee who fails the "quick" screen test, or who rejects the "quick" screen tests, shall be tested pursuant to the procedures set forth in the Testing Policy for Drug Abuse. The sample used for the "quick" screen test shall be discarded immediately upon conclusion of the test. An applicant or employee shall not be deprived of any rights granted to them by the Testing Policy for Drug Abuse as a result of any occurrence related to the "quick" screen test.

Agreed to this 5th day of November, 2004.

**ASSOCIATED GENERAL
CONTRACTORS OF CALIFORNIA, INC.**

**INTERNATIONAL UNION OF
OPERATING ENGINEERS,
LOCAL UNION NO. 12**

Wm. C. Waggoner
Business Manager

Mickey J. Adams
President

Ronald J. Sikorski
Vice President

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 45 23 - TESTING AND INSPECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Testing and inspection services to meet requirements of California Building Standards Code, Title 24, California Code of Regulations.
- B. Tests of materials are required by a DSA certified Testing Agency as set forth in Section 4-335 of the California Building Standards Commission's California Administrative Code.

NOTE TO ARCHITECT: IF THE PROJECT REQUIRES A DSA FORM 103, THE FINAL T&I FORM MUST BE INSERTED INTO THE SPECIFICATION AND SCANNED WITH THE FINAL DSA APPROVED SPECIFICATION. IF NO T&I SHEET IS REQUIRED DELETE ITEM C BELOW.

- C. Appendix A: DSA Form 103, Structural Testing & Inspections

1.02 RELATED SECTIONS

- A. Section 01 31 13: Project Coordination.
- B. Section 01 32 13: Construction Schedule.
- C. Section 01 33 00: Submittal Procedures.
- D. Section 01 50 00: Construction Facilities and Temporary Controls.
- E. Section 01 73 29: Cutting and Patching.
- F. Section 01 78 36: Warranty Procedures.

1.03 COORDINATION OF TESTS AND INSPECTIONS

- A. Contractor shall establish a protocol for requesting inspections and special inspections so as to not delay the progress of the work. Contractor shall review General Conditions or Construction Services Agreement for additional requirements.

1.04 TESTING COSTS

- A. District Representative will pay special inspections and testing identified in the Statement of Structural Tests and Special Inspections (DSA FORM 103) except Contractor shall reimburse the District Representative for retesting costs caused by failure of materials to pass initial tests. Contractor shall arrange and pay for all other testing that are specified in other specification sections.
 - 1. Reimbursement of Inspection Costs: The Contractor shall reimburse to the District Representative all or any part, as the District Representative may deem just and proper, of the actual excessive inspection costs incurred by the District Representative due to any or all of the following:
 - i. Contractor's failure to complete the Work within the Contract Time stated in the Agreement, and any previously authorized extensions thereof.
 - ii. Claims between separate contractors
 - iii. Covering of any of the Work before the required inspections of tests are performed.
 - iv. Extra inspections required for Contractor's correction of defective Work.
 - v. Overtime costs for acceleration of Work done for Contractor's convenience.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

1.07 CONTRACTOR-FURNISHED ASSISTANCE

- A. When requested, Contractor shall furnish access, facilities, and labor assistance as necessary for duties to be performed at the site by Test Laboratory, and Inspector, including ladders, hoisting, temporary lighting, water, and like services.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION

3.01 SCHEDULES FOR TESTING

- A. Establishing Schedule:
 - 1. By advance discussion with the testing laboratory selected by the District Representative, determine the time required for the laboratory to perform its tests and to issue each of its findings.
 - 2. Provide required time within the construction schedule.
- B. Revising Schedule: When changes of construction schedule are necessary during construction, coordinate such changes of schedule with the testing laboratory as required.
- C. Adherence to Schedule: When the testing laboratory is ready to test according to the determined schedules, but is prevented from testing or taking specimens due to incompleteness of the work, extra charges for testing attributable to the delay may be back-charged to the Contractor and may be deducted by the District Representative from the contract sum.

3.02 REQUESTING TESTING

- A. Contractor shall request testing and inspection through the Project Inspector. Contractor shall provide Project Inspector a minimum of twenty-four (24) hour notice prior to Project Inspector inspections being required and a minimum of forty-eight (48) hour notice prior to special testing and inspections being required.

3.03 TESTS

- A. District Representative will select and provide an independent DSA certified testing agency (Testing Agency) to conduct tests, sampling, and testing of materials. Selection of material to be tested shall be by the Testing Agency and not by Contractor.
- B. The Contractor shall not incorporate into the work any material shipped from the source of supply prior to having satisfactorily passed the required testing and inspection, or prior to the receipt of notice from Project Inspector that the testing and inspection is not required.
- C. District Representative will select, and directly reimburse, the Testing Agency for costs of all DSA required tests and inspections; however, the District Representative 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 Testing Agency shall not perform any duties of Contractor.

3.04 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

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

the material (or materials) 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.

3.05 VERIFICATION OF TEST REPORTS

- A. Each Testing Agency shall submit to the Division of the State Architect a verified report covering all tests required to be performed by that Testing Agency during the progress of the Work, in accordance with DSA PR 13-01.

3.06 INSPECTION BY DISTRICT REPRESENTATIVE

- A. District Representative, 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. District Representative 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 District Representative. 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, District Representative 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.

3.07 PROJECT INSPECTOR

- A. A Project Inspector shall be employed by District Representative in accordance with requirements of Title 24 of the California Code of Regulations with their duties specifically defined therein. Additional DSA certified inspectors may be employed and assigned to the Work by District Representative in accordance with the requirements of California Building Standards Commission's, California Administrative Code with their duties as specifically defined in Section 4-333, 4-342, and in DSA IR A-8.
- 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.

3.08 TESTS AND INSPECTIONS

- A. Refer to attached DSA Form 103.

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 50 00 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities, construction facilities and controls to be provided, maintained, relocated, and removed by Contractor.

1.02 RELATED SECTIONS

- A. Master Facilities Lease.
- B. Section 01 11 00: Summary of Work.
- C. Section 01 29 73: Schedule of Values Procedures.
- D. Section 01 32 13: Construction Schedule.
- E. Section 01 45 23: Testing and Inspection.
- F. Section 01 57 23: Storm Water Pollution Prevention Plan.
- G. Section 01 74 19: Construction and Demolition Waste Management.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION

3.01 QUALITY ASSURANCE

- A. Contractor shall comply with applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
 - 1. Building Code requirements.
 - 2. Division of State Architect.
 - 3. Health and safety regulations.
 - 4. Utility company regulations.
 - 5. Police, fire department and rescue squad requirements.
 - 6. Environmental protection regulations.
- B. Contractor shall arrange for the inspection and testing of each temporary utility prior to use. Obtain required certifications and permits and transmit to District Representative.
- C. Contractor shall provide site layout to District Representative for District review and approval prior to installation.

3.02 TEMPORARY UTILITIES

- A. Contractor shall submit to District Representative reports of tests, inspections, meter readings and similar procedures performed on temporary utilities.
- B. Contractor shall coordinate with the appropriate utility company to install temporary services. Where the utility company provides only partial service, Contractor shall provide and install the remainder with matching compatible materials and equipment.
- C. Temporary Water:

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

1. Contractor shall furnish, install and pay for all necessary permits, inspections, move ins/out, temporary water lines, connections and fees, extensions and distribution, metering devices and use charges, deliveries/pick-ups, rentals, storage, transportation, taxes, labor, insurance, bonds, material, equipment and all other miscellaneous items for the temporary water system, and upon Substantial Completion of the Work, removal of all such temporary water system devices and appurtenances.
2. Contractor shall provide and maintain temporary water service, including water distribution piping and outlet devices of the size and required flow rates in order to provide service to the Project site for Contractor use.
3. DISTRICT will pay for all water usage. Contractor shall assist the District in obtaining a separate meter for the water source.
4. Contractor shall at their expense and without limitation, remove, extend and/or relocate temporary water systems as rapidly as required in order to provide for progress of the Work.

D. Temporary Electric:

1. Contractor shall furnish, install, maintain and pay for all necessary permits, inspections, temporary wiring, metering devices, move ins/outs, connections and fees, service, extension and distribution, deliveries/pickups, rentals, storage, transportation, taxes, labor, insurance, bonds, materials, equipment and all other required miscellaneous items for the temporary electric systems and upon Substantial Completion of Work, removal of all such temporary electric systems and appurtenances.
2. Contractor shall furnish, install, maintain, extend and distribute temporary electric area distribution boxes, so located that individual trades can obtain adequate power and artificial lighting, at all points required for the Work, for inspection and for safety.
3. Contractor shall provide temporary electric for construction, temporary facilities, and connections for construction equipment requiring power or lighting, at all points required for the Work, for inspection and safety.
4. Contractor shall ensure welding equipment is supplied by electrical generators.
5. Contractor shall at their expense and without limitation remove, extend and/or relocate temporary electric systems as rapidly as required in order to provide for progress of the Work.
7. Contractor to provide temporary power plan indicating source and power pole locations, for District review.

E. Temporary Gas:

1. NOT USED.

F. Temporary Heating, Ventilation and Air Conditioning:

1. NOT UED.

G. Temporary Telephone and Data:

1. NOT UED.

3.03 CONTRACTOR PROVIDED FACILITIES

- A. Contractor shall provide temporary offices, utilities, storage units, fencing, barricades, chutes, elevators, hoists, scaffolds, railings and other facilities or services as required. Contractor shall be responsible for providing/supplying, installing and maintaining all items indicated under this specification Section 01 50 00.

B. Temporary Offices:

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

1. Contractor shall provide a temporary field office with furnishing and equipment as needed for its management personnel for the duration of construction of the project. Field office shall be removed at the completion of the project.
2. Furniture, equipment, and related ancillary devices shall remain property of Contractor. Contractor shall remove such property upon Substantial Completion of Work or as otherwise determined in writing by District Representative.
3. At Contractor's expense and without limitation remove and/or relocate temporary office(s) and related facilities as rapidly as required in order to provide for progress of the Work.

C. Temporary Sanitary Facilities:

1. Contractor shall provide portable chemical toilet facilities, hand wash facilities, and trash receptacles. Quantity of units shall be based on total number of workers and shall be in accordance with Cal/OSHA standards and in compliance with SWPPP.
2. Portable chemical toilet facilities, hand wash facilities, and trash receptacles shall be maintained with adequate supplies and in a clean and sanitary condition and shall be removed from the Project site upon Substantial Completion of the Work. Contractor shall maintain District Representative trailer restroom clean and operational at all times.
3. Contractor employees shall not use school toilet facilities.
4. At Contractor's expense and without limitation remove and/or relocate portable chemical toilet facilities as rapidly as required in order to provide for progress of the Work.
5. Contractor will contain their breaks and lunch periods to the areas designated by District Representative or any public area outside the Project site. Contractor shall provide a suitable container within the break/lunch area for the placement of trash. Areas used for break/lunch must be maintained clean and orderly. Once finish flooring has been installed in a particular area, no food or beverages will be permitted in that area.

D. Temporary Security Fence/Barricade:

1. Contractor shall remove and relocate portion of existing construction fence and noise barrier as needed to allow for completion of the work. Contractor shall reinstall construction fence/noise barrier where directed by the District Representative.
2. Since the Work of this Project is immediately adjacent to existing occupied structures and vehicular and pedestrian right of ways, Contractor shall, in accordance with applicable safety standards, provide and maintain temporary facilities, additional barricades, protection and care to protect existing structures, occupants, property, pedestrians and vehicular traffic. Contractor is responsible for any damage, which may occur to the property and occupants of the property of District Representative or adjacent private or public properties which in any way results from the acts or neglect of Contractor.
3. Contractor shall be responsible for cleaning up all areas adjacent to the construction site which have been affected by the construction; and for restoring them to at least their original condition- including landscaping; planting of trees, sod, and shrubs damaged by construction; and raking and disposal of debris such as roofing shingles, paper, nails, glass sheet metal, bricks, and waste concrete. Construction debris shall be removed and properly disposed of. Culverts and drainage ditches with sediment from the construction area shall be cleared routinely to maintain proper drainage and re-cleaned prior to completion of the contract.
4. Contractor shall ensure sediment does not block storm drains. Contractor shall be responsible for cleaning storm drains blocked due to erosion or sediment from the work area.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

5. Contractor shall provide temporary shade for all break areas as required by Cal/OSHA's Heat Safety Regulations.
- E. Temporary Storage Yards:
1. Contractor shall fence and maintain storage yards in an orderly manner.
 2. Provide storage units for materials that cannot be stored outside.
 3. At Contractor's expense and without limitation remove and/or relocate storage yards and units as rapidly as required in order to provide for progress of the Work.
- F. Temporary De-watering Facilities and Drainage:
1. Contractor shall be responsible for, but not limited to, de-watering of excavations, trenches and below grade areas of buildings, structures, the Project site and related areas.
- G. Temporary Protection Facilities Installation:
1. NOT UED.
- H. Temporary Security and Safety Measures:
1. During performance of the Work in existing facilities and/or on a Project Site occupied by students, Contractor shall provide, install and maintain substantial temporary barriers and/or partitions separating all Work areas from areas occupied by students, faculty and/or administrative staff.
 2. During performance of the Work, Contractor shall provide an employee meeting the requirements of Education Code Section 45125.2.(2) to continually supervise and monitor all employees of Contractor and Subcontractor. For the purposes of this Section, Contractor employee shall be someone whom the Department of Justice has ascertained has not been convicted of a violent or serious felony as listed in Penal Code Section 667.5(c) and/or Penal Code Section 1192.7(c). To comply with this Section, Contractor shall have his employee submit his or her fingerprints to the Department of Justice pursuant to Education Code Section 45125.1(a).
 3. Penal Code Sections 290 and 290.4 commonly known as "Megan's Law", require, among other things, individuals convicted of sexually oriented crimes, to register with the chief of police where the convicted individual resides or with a county sheriff or other law enforcement officials. Contractor shall check its own employees and require each Subcontractor to check its employees and report to Contractor if any such employees are registered sex offenders. Contractor shall check monthly during the life of the Contract to ascertain this information and report same to District Representative. Before starting the Work, and monthly thereafter during the life of Contract, Contractor shall notify District Representative in writing if any of its employees and/or if any Subcontractor's employees is a registered sex offender. If so, the DISTRICT may elect and request to have such individuals removed from project and replaced.
 4. Contractor shall employ and maintain sufficient security and safety measures to effectively prevent vandalism, vagrancy, theft, arson, and all other such negative impacts to the Work. Any impacts to the progress of the Work of Contractor, District Representative, or District Representative's forces, due to loss from inadequate security, will be the responsibility of Contractor.
- I. Temporary Access Roads and Staging Areas:
1. Due to the limited amount of on and off Project site space for the parking of staff and campus visitor vehicles there will be no parking of Contractor vehicles in areas designated for campus use only. Contractor shall provide legal access to and maintain Contractor designated areas for the legal parking, loading, off-loading and delivery of all

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

vehicles associated with the Work. Contractor shall be solely responsible for providing and maintaining these requirements whether on or off the Project site.

2. Temporary access roads are to be installed and maintained by Contractor to all areas of the Project site.
3. Contractor will be permitted to utilize existing facility campus roads as designated by District Representative. Contractor shall only utilize those entrances and exits as designated by District Representative and Contractor shall observe all traffic regulations of District Representative.
4. Contractor shall maintain roads and walkways in a clean condition including removal of debris and/or other deleterious material on a daily basis.

3.04 PROJECT SIGNAGE & CONSTRUCTION TRAFFIC CONTROL

- A. No signs shall be displayed without approval of District Representative. At Contractor's expense and without limitation remove and/or relocate Project signage and related facilities as rapidly as required in order to provide for progress of the Work.
- B. Contractor shall remove any approved signage at Substantial Completion of the Work.
- C. Contractor shall employ appropriate means to remove all graffiti from buildings, equipment, fences and all other temporary and/or permanent improvements on the Project site within twenty-four (24) hours from the date of report or forty-eight (48) hours of each occurrence.
- D. Contractor shall provide and install signage to provide directional identification, safety, and contact information to construction personnel and visitors as follows and as reviewed by District Representative.
 1. For construction traffic control/flow at entrances/exits, and as designated by District Representative.
 2. To direct visitors.
 3. For construction parking.
 4. To direct deliveries.
 5. For Warning Signs as required.
 6. For trailer identification and Project site address.
 7. For "No Smoking" safe work site at designated locations.
 8. Emergency contact information and phone number of Contractor.
 9. Emergency contact information and phone number of local police, fire, and emergency personnel.
 10. For Labor Compliance Program (LCP) as required by the DIR (Prevailing wage rates and Notice of LCP).
 11. Employee benefits payments paid to trust funds are required under the General Conditions/CSA.
- E. Contractor shall provide personnel at construction gates to safely direct and manage construction traffic.

3.05 TRENCHES

- A. All open trenches for installation of utility lines (water, gas, electrical and similar utilities) and open pits shall be barricaded at all times in a legal manner, as required by Cal/OSHA and determined by Contractor. Trenches shall be backfilled and patch-paved within twenty-four (24) hours after approval of installation by authorities having jurisdiction or shall have "trench plates"

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

installed. Required access to buildings shall be provided and maintained. Contractor shall comply with all applicable statutes, codes and regulations regarding trenching and trenching operations.

3.06 DUST CONTROL

- A. 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.

3.07 WASH OUT

- A. Contractor shall provide and maintain wash out boxes of sufficient size and strength to provide for concrete mixer wash out. Contractor shall locate and relocate both the wash out boxes and wash out areas in order to accommodate the progression of the Work. Contractor shall legally dispose of the contents of the wash out boxes and area on an as needed basis or as required by District Representative.

3.08 WASTE DISPOSAL

- A. Contractor shall provide and maintain trash bins on the Project site and in compliance with SWPPP requirements. 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.

3.09 ADVERSE WEATHER CONDITIONS

- A. Should warnings of adverse weather conditions such as heavy rain and/or high winds be forecasted, Contractor shall provide every practical precaution to prevent damage to the Work, Project site and adjacent property. Contractor precautions shall include, but not be limited to, enclosing all openings, removing and/or securing loose materials, tools, equipment and scaffolding.
- B. Contractor shall provide and maintain drainage away from buildings and structures.
- C. Contractor shall implement all required storm water mitigation measures as required under related Sections.

3.10 DAILY AND MONTHLY REPORTS

- A.. By the end of each workday, Contractor shall submit to District Representative and Project Inspector a daily construction report denoting the daily manpower counts and a brief description/location of the workday activities. The daily report shall reference the Construction Activity Number per the Approved Baseline Schedule being worked on. Manpower shall be broken down by trade classification such as foreman, journeyman or apprentice. The report shall also note the date, day of the week, weather conditions, deliveries, equipment on the Project site whether active and/or idle, visitors, inspections, accidents and unusual events, meetings, stoppages, losses, delays, shortages, strikes, orders and requests of governing agencies, Construction Directive and/or Change Orders received and implemented, services disconnected and/or connected, equipment start up or tests and partial use and/or occupancies. Contractor shall also include on the daily construction report the above information for all Subcontractors at whatever tier.

END OF SECTION 01 50 00

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 73 29 - CUTTING AND PATCHING

PART 1 – GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED SECTIONS

- A. Master Facilities Lease.
- B. Section 01 29 73: Schedule of Values Procedures.
- C. Section 01 31 13: Project Coordination.
- D. Section 01 31 19: Project Meetings.
- E. Section 01 32 13: Construction Schedule.
- F. Section 01 33 00: Submittal Procedures.
- G. Section 01 71 23: Field Engineering.
- H. Section 01 78 36: Warranty Procedures.

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 work plan 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 work plan:
 - 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. Review by Architect and DSA prior to proceeding with cutting and patching does not waive Architect right to later require complete removal and replacement of defective Work.

1.04 QUALITY ASSURANCE

- A. Obtain review of the cutting and patching work plan before cutting and patching.
- B. Visual Requirements: 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.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

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. 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.
- B. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

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. Curb, gutters, and flat work: Saw cut joint to nearest joint.
- C. Patching: Patch with durable seams that are as invisible as possible. Comply with required tolerances.
 - 1. 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.
 - 2. Non-Structural Concrete Flatwork: 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.

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 01 73 29

SECTION 01 7419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Salvaging nonhazardous construction waste.
 - 2. Recycling nonhazardous construction waste.
 - 3. Disposing of nonhazardous construction waste.
- B. Related Requirements:
 - 1. Division 2 Section "Site Clearing" for disposition of waste resulting from site clearing and removal of above- and below-grade 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.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Achieve end-of-Project rates for salvage/recycling of 75 percent by weight of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials, including the following:

1. Construction Waste:

- a. Masonry and CMU.
- b. Lumber.
- c. Wood sheet materials.
- d. Wood trim.
- e. Metals.
- f. Roofing.
- g. Insulation.
- h. Carpet and pad.
- i. Gypsum board.
- j. Piping.
- k. Electrical conduit.
- l. Packaging: Regardless of salvage/recycle goal indicated in "General" Paragraph above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
 - 1) Paper.
 - 2) Cardboard.
 - 3) Boxes.
 - 4) Plastic sheet and film.
 - 5) Polystyrene packaging.
 - 6) Wood crates and palettes.
 - 7) Plastic pails.
 - 8) Glass, aluminum, and plastic beverage containers.
- m. Concrete, plaster, and grout.
- n. Asphalt concrete paving
- o. Paint.
- p. Metal ductwork.

1.5 SUBMITTALS

- A. Waste Management Plan: Submit plan within 30 days of date established for commencement of the Work. A sample is provided in Appendix A of this Section.
- B. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. A sample report is provided in Appendix B of this Section. Include the following information:
1. Material category.
 2. Generation point of waste.
 3. Total quantity of waste in tons.

4. Quantity of waste salvaged, both estimated and actual in tons.
 5. Quantity of waste recycled, both estimated and actual in tons.
 6. Total quantity of waste recovered (salvaged plus recycled) in tons.
 7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- C. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
- D. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- E. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- F. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- G. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

1.6 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, with a record of successful waste management coordination of projects with similar requirements, that employs a waste management coordinator.
- B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Waste Management Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "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 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.

1.7 WASTE MANAGEMENT PLAN

- A. General: Develop a waste management plan according to requirements in this Section. Plan shall consist of waste identification and waste reduction work plan. 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 site-clearing and construction waste generated by the Work. Use Form generated by Contractor and approved by the University. 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. Use Form generated by Contractor and approved by the University. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
 - 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 - 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
 - 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
 - 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 - 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
 - 6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. 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 operation, termination, and removal requirements in Division 1 Section "Construction Facilities and Temporary Controls."
- B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan. Coordinator shall be present at Project site full time for duration of Project.

- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
 - 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.

- D. 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 "Construction Facilities and Temporary Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 RECYCLING CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.

- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.

- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.

- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until 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 from Owner's property and transport to recycling receiver or processor.

3.3 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.
 - 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. Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.
- D. Disposal: Remove waste materials and dispose of at designated spoil areas on Owner's property.
- E. Disposal: Remove waste materials from Owner's property and legally dispose of them.

END OF SECTION 01 7419

Santa Ana College Johnson Student Center Construction Waste Management Plan

Introduction

The Rancho Santiago Community Colleges District is beginning construction of a new student center facility in Santa Ana, California. This building has been chosen by the owner as a candidate for LEED Silver equivalence under the US Green Building Council's LEED program. Credit 2.1 of the Materials and Resources Credit section require a Construction and Demolition Waste Management Plan be established for the construction phase of the project. It is the intent of this document to establish the requirements to be implemented during construction to divert construction and demolition waste materials from disposal in a landfill.

Objectives

The purpose of this Construction and Demolition Waste Management Plan is primarily to define practices for the reduction of construction waste, and secondly for the diversion of non-hazardous construction waste from disposal in a landfill, with a goal of diverting a minimum of 75% by weight. To implement these objectives, this report describes five requirements as follows:

1. Training and Communication
2. Enforcement and Progress Reports
3. Waste Minimization
4. Sorting and Collecting
5. Scheduling

This Plan will also designate persons responsible for communication and implementation of the plan to ensure that all tradesmen involved in the construction are aware of the plan and are cognizant of their responsibilities and the benefits received by proper implementation.

1. Training and Communication

GOAL:

To educate all workers on the jobsite about the Plan and expectations of compliance with it.

MEASURES:

- 1.1. This Plan will be displayed at the jobsite trailer at all times.
- 1.2. A copy of this Plan will be provided to all workers on the jobsite, in both English and Spanish.
- 1.3. Compliance requirements will be presented to all project personnel at Monday morning jobsite safety meetings.

2. Enforcement and Progress Reports

GOAL:

To monitor progress towards meeting the goals of the Plan and to encourage compliance.

MEASURES:

- 2.1. Construction waste reports will be provided by the waste hauler updated as dumpsters are hauled offsite, weighed, and documented. These reports will be displayed at the jobsite trailer.

3. Waste Minimization

GOAL:

To reduce the amount of construction waste by reducing the amount of material entering the jobsite requiring eventual disposal.

MEASURES:

- 3.1. Contractors shall limit material quantities to only those necessary for the project. If material overruns occur, deliver excess material back to the manufacturer for credit, or donate materials to the Habitat for Humanity of Orange County (714-434-6200). Provide Construction Manager with the estimated weight and type of donated materials.
- 3.2. Limit the use of excessive disposable packaging.
- 3.3. Wooden pallets shall be reclaimed by a local pallet remanufacturer.
- 3.4. Formwork shall be reused to the maximum extent possible.

4. Sorting and Collecting

GOAL:

To separate recoverable material from general construction waste, and to prevent contamination of recoverable material.

MEASURES:

- 4.1. The construction and demolition waste hauler will accept co-mingled construction and demolition waste for hauling to an approved Material Recovery Facility (MRF). Materials will be floor sorted, weighed, and documented. Documentation of diversion rates will be provided back to the Contractor. The following materials will be diverted from landfill, at minimum:
 - a. **Land clearing debris.**
 - b. **Soil.**
 - c. **Wood material.** Includes formwork, pallettes, temporary blocking, scraps.
 - d. **Concrete.** Includes concrete washout, demolished concrete, scrap, loose materials, plaster rebound, grout.
 - e. **Masonry.**
 - f. **Asphalt concrete paving.**
 - g. **Paper.** Includes bond, newsprint, cardboard, and other packaging materials.

- h. Metals.** Includes steel, aluminum, copper, brass, lead, stainless.
- i. Paint.**
- j. Rigid foam.**
- k. Glass.**
- l. Plastics.**
- m. Carpet and flooring materials.**
- n. Beverage containers.**
- o. Insulation.**
- p. Ceiling tile.**
- q. Gypsum board.**
- r. Electrical fixtures.**
- s. Mechanical fixtures and ductwork.**
- t. Porcelain plumbing fixtures.**
- u. General waste.** All other materials.

5. Scheduling

GOAL:

To sequence construction waste management activities.

MEASURES:

- 5.1. Co-mingled construction and demolition waste dumpsters will be located on site for the duration of the project.
- 5.2. Pick-up will occur on a monthly basis, or more frequently, if needed.
- 5.3. Documentation of waste diversion rates will be provided by the waste hauler for each load.

Construction and Demolition Waste Management Personnel:

CDWM Coordinator _____

Summary

The following items will be submitted to the Green Building Certification Institute prior to final occupancy.

- LEED letter template, declaring that this Construction and Demolition Waste Management Plan has been implemented for the project.

- A Pre-Construction Waste Estimate describing anticipated waste materials, estimated quantities, and anticipated diversion rates.
- Construction and Demolition Waste Reports describing waste materials, weighed quantities, and diversion rates. This report will be updated as dumpsters are hauled offsite.

All questions and comments regarding this plan should be forwarded to the Construction and Demolition Waste Management Coordinator above.

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SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

SECTION 01 74 19 - CONSTRUCTION DEMOLITION AND WASTE MANAGEMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Preparation and implementation, including reporting and documentation, of a Waste Management Plan for reusing, recycling, salvage or disposal of non-hazardous waste materials generated during demolition and new construction (Construction and Demolition (C&D) Waste), to foster material recovery and re-use and to minimize disposal in landfills.

1.02 RELATED SECTIONS

- A. Master Facilities Lease.
- B. Section 01 32 29: Project Forms.
- C. Section 01 33 00: Submittal Procedures.
- D. Section 01 50 00: Construction Facilities and Temporary Controls.

1.03 REFERENCES

- A. California Integrated Waste Management Act (IWMA) of 1989 (AB 939).
- B. California Code of Regulations Title 14, Section 18700 et seq.
- C. California Green Building Standards Code, Part 11 of Title 24.

1.04 SYSTEM DESCRIPTION

- A. Collection and separation of all C&D waste materials generated on-site, reuse or recycling on-site, transportation to approved recyclers or reuse organizations, or transportation to legally designated landfills, for the purpose of recycling salvaging and reusing a minimum of 75% of the C&D waste generated.

1.05 SUBMITTALS

- A. Per Section 01 32 29, Contractor to provide a C&D Waste Management Plan within ten (10) calendar days after the Notice to Proceed and prior to any waste removal. Submit the following to the District Representative for review and approval:
 - 1. Materials to be recycled, reused, or salvaged, either onsite or offsite.
 - 2. Estimates of C&D waste quantity (in tons) by type of material. (If waste is measured by volume, give factors for conversion to weight in tons.)
 - 3. Procedures for recycling and reuse program.
 - 4. Permit or license and location of Project waste-disposal areas.
 - 5. Site plan for placement of waste containers.
- B. Per Section 01 32 29, Contractor to provide a C&D Waste Management Monthly Progress Report, summarizing waste generated by Project and submitted monthly with Application for Payment. Include:
 - 1. Firm(s) accepting the recovered or waste materials.
 - 2. Type and location of accepting facilities (landfill, recovery facility, used materials yard, etcetera). If materials are reused or recycled on the Project site, location should be designated as "on-site reuse and recycling".
 - 3. Type of materials and net weight (tons) of each.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION (INCREMENT 1)

4. Value of the materials or disposal fee paid.
 5. Attach weigh bills and other documentation confirming amount and disposal location of waste materials.
- C. C&D Waste Management Final Compliance Report: Final update of Waste Management Plan to provide summary of total waste generated by Project.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 IMPLEMENTATION

- A. Implement approved Waste Management Plan including collecting, segregating, storing, transporting and documenting each type of waste material generated, recycled or reused, or disposed in landfills.
- B. Designate an on-site person to be responsible for instructing workers and overseeing the sorting and recording of waste/recyclable materials.
- C. Include waste management and recycling in worker orientation and as an agenda item for regular Project meetings.
- D. Recyclable and waste bin areas shall be limited to areas approved on the Waste Management Plan. Keep recycling and waste bins neat and clearly marked to avoid contamination of materials.

END OF SECTION 01 74 19

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

SECTION 01 77 00 - 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 SECTIONS

- A. Section 01 29 76: Progress Payment Procedures.
- B. Section 01 32 13: Construction Schedule.
- C. Section 01 32 29: Project Forms.
- D. Section 01 33 00: Submittal Procedures.
- E. Section 01 50 00: Construction Facilities and Temporary Controls.
- F. Section 01 74 19: Construction Demolition and Waste Management.
- G. Section 01 78 36: Warranties.

1.03 REQUIREMENTS FOR PREPARATORY FINAL INSPECTION

- A. All contract work completed.
- B. Remove temporary facilities from the Project site.
- C. Thoroughly clean the Buildings and Project site.
- D. Job Record specifications and prints “as built” shall be completed, signed, and submitted to the District Representative as specified in respective Specification Sections.
- E. Submit to the District Representative, all warranties, guarantees, and bonds, as specified in the body of the Specification Sections.
- F. When requested, submit certificates indicating payment of all debts and Claims arising from the Work.
- G. Grounds cleared of Contractor’s equipment, raked clean of debris, and trash removed from Site.
- H. Final cleanup complete.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION

3.01 SUBSTANTIAL COMPLETION

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

- A. Inspection Procedures: After all requirements preparatory to the final inspection have been completed, as herein specified in the Specification Sections, the Contractor will notify the District Representative, Architect, and Project Inspector to perform the final inspection.
 - 1. If after inspection of the Work, District Representative does not consider the Work complete, District Representative will notify Contractor.
 - 2. If after inspection, District Representative considers the Work complete, Architect shall prepare a Punch List of items to be corrected.
- B. Re-inspection Procedures: Project Inspector, District Representative, Contractor and Architect will inspect the Work upon notice the Work, including final inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to District Representative.
 - 1. Upon completion of inspection, District Representative will recommend Final Completion. If the Work is incomplete, District Representative will advise Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for Final Completion.
 - 2. If necessary, 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.

3.02 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, Project Inspector, and District Representative reference during normal working hours. Project record document shall be updated on a daily basis prior to work being concealed. Prior to submitting each application for payment, secure Project Inspector 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 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. Note related Change Order or Construction Directive numbers where applicable. RFI submissions shall be referenced on each affected sheet, Drawing and Shop Drawing.
 - 4. 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.
 - 5. Prior to Contract Completion of the Work, review of the project record drawings by Architect; prepare a final set of project record drawings and submit to Architect.
- C. Record Specifications: Maintain one (1) complete copy 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.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

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 one (1) copy 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.
- E. 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.
- F. Verified Reports: Construction progress of the Work shall be reported to DSA 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.
- G. Provide one (1) electronic version of all documents listed above on one (1) flash drive to the District Representative.
- 3.03 Notice of Termination: Contractor shall submit a Notice of Termination (NOT) to the District for District issuance to the local Regional Water Quality Control Board (RWQCB). Provide a copy of NOT to District Representative.
- 3.04 FINAL CLEANING
- A. General: The Contractor shall be solely responsible for all cleaning operations during the Project.
- 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.
1. Complete the following cleaning operations before requesting inspection for a certificate of Substantial Completion.
 - a. 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 01 77 00

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SANTA ANA COLLEGE JOHNSON STUDENT CENTER

SECTION 01 8113 - SUSTAINABLE DESIGN REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general requirements and procedures for compliance with certain USGBC LEED prerequisites and credits needed for Project to obtain LEED Silver equivalence based on USGBC's "LEED 2009 for New Construction & Major Renovations."
 - 1. Other LEED prerequisites and credits needed to obtain LEED certification depend on product selections and may not be specifically identified as LEED requirements. Compliance with requirements needed to obtain LEED prerequisites and credits may be used as one criterion to evaluate substitution requests and comparable product requests.
 - 2. Additional LEED prerequisites and credits needed to obtain the indicated LEED certification depend on Architect's design and other aspects of Project that are not part of the Work of the Contract.
 - 3. A copy of the LEED Project checklist is attached as Appendix A of this Section.
 - 4. Specific requirements for LEED are included in greater detail in other Sections.

1.3 DEFINITIONS

- A. Chain-of-Custody Certificates: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship." Certificates shall include evidence that manufacturer is certified for chain of custody by an FSC-accredited certification body.
- B. Regional Materials: Materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value.
- C. Recycled Content: The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.
 - 1. "Post-consumer" material is defined as waste material generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product, which can no longer be used for its intended purpose.

SANTA ANA COLLEGE JOHNSON STUDENT CENTER

2. "Pre-consumer" material is defined as material diverted from the waste stream during the manufacturing process. Excluded is reutilization of materials such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Respond to questions and requests from Architect and the USGBC regarding LEED credits that are the responsibility of the Contractor, that depend on product selection or product qualities, or that depend on Contractor's procedures until the USGBC has made its determination on the project's LEED certification application. Document responses as informational submittals.

1.5 SUBMITTALS

- A. General: Submit additional LEED submittals required by other Specification Sections.
- B. LEED submittals are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated LEED requirements.
- C. Qualification Data: For LEED coordinator.
- D. LEED Documentation Submittal Format:
 1. All LEED documentation submittals for credits MR 2, MR 4, MR 5, MR 7, IEQ 4 shall be submitted under a fully completed LEED Product Submittal Cover Sheet. A blank cover sheet is provided as Appendix B of this Section.
- E. LEED Documentation Submittals:
 1. Credit EA 5: Product data and wiring diagrams for sensors and data collection system used to provide continuous metering of building energy-consumption performance over a period of time of not less than one year of post-construction occupancy.
 2. Credit MR 2: Comply with Section 01 7419 "Construction Waste Management and Disposal."
 3. Credit MR 4: Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating cost for each product having recycled content.
 4. Credit MR 5: Product data for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material, the fraction by weight that is considered regional, and the straight line distance from point of manufacture to job site and from point of extraction, harvest, or recovery to jobsite.
 5. Credit MR 7: Product data and chain-of-custody certificates for products containing certified wood. Include invoice indicating cost for each wood product, both certified and non-certified.
 6. Credit IEQ 3.1:

SANTA ANA COLLEGE JOHNSON STUDENT CENTER

- a. Construction indoor-air-quality management plan.
 - b. Product data for temporary filtration media.
 - c. Product data for filtration media used during occupancy.
 - d. Construction Documentation: Six photographs at three different times during the construction period, along with a brief description of the SMACNA approach employed, documenting implementation of the indoor-air-quality management measures, such as protection of ducts and on-site stored or installed absorptive materials.
7. Credit IEQ 4.1: Product data for adhesives and sealants used inside the weatherproofing system indicating VOC content of each product used.
 8. Credit IEQ 4.2: Product data for paints and coatings used inside the weatherproofing system indicating VOC content of each product used.
 9. Credit IEQ 4.3: Product data for carpet and flooring systems used inside the weatherproofing system indicating compliance with specified product certifications.
 10. Credit IEQ 4.4: Product data for products containing composite wood or agrifiber products or wood glues indicating that they do not contain urea-formaldehyde resin.
- F. Project Materials Cost Data:
1. Provide statement indicating total cost for materials used for Project. Materials costs include expenses to deliver the material to the construction site, taxes, and transportation costs incurred. Costs exclude labor, equipment, overhead, and profit.
 2. If the requested material cost represents part of a larger assembly such that the actual material cost cannot be isolated from the total assembly cost, determine material cost using this formula: $\text{cost of material} = \text{weight of material} \div \text{weight of total assembly} \times \text{cost of total assembly}$
 3. Include breakout of costs for the following categories of items:
 - a. Furniture
 - b. Plumbing.
 - c. Mechanical.
 - d. Electrical.
 - e. Specialty items such as elevators and equipment.
 - f. Non-recycled wood-based construction materials.
- G. LEED Coordinator: Engage an experienced LEED-Accredited Professional to coordinate LEED requirements. LEED coordinator may also serve as waste management coordinator.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Provide products and procedures necessary to obtain LEED credits required in this Section. Although other Sections may specify some requirements that contribute to LEED credits, the Contractor shall determine additional materials and procedures necessary to obtain LEED credits indicated.

SANTA ANA COLLEGE JOHNSON STUDENT CENTER

2.2 RECYCLED CONTENT OF MATERIALS

- A. Credit MR 4: Building materials shall have recycled content such that post-consumer recycled content plus one-half of pre-consumer recycled content for Project constitutes a minimum of 10 percent of cost of materials used for Project.
 - 1. Cost of post-consumer recycled content plus one-half of pre-consumer recycled content of an item shall be determined by dividing weight of post-consumer recycled content plus one-half of pre-consumer recycled content in the item by total weight of the item and multiplying by cost of the item.
 - 2. Do not include furniture, plumbing, mechanical and electrical components, and specialty items such as elevators and equipment in the calculation.

2.3 REGIONAL MATERIALS

- A. Credit MR 5: Not less than 10 percent of building materials (by cost) shall be regional materials.

2.4 CERTIFIED WOOD

- A. Credit MR 7: Not less than 50 percent (by cost) of non-recycled wood-based materials shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
 - 1. Wood-based materials include, but are not limited to, the following materials when made from wood, engineered wood products, or wood-based panel products:
 - a. Rough carpentry.
 - b. Miscellaneous carpentry.
 - c. Heavy timber construction.
 - d. Wood decking.
 - e. Metal-plate-connected wood trusses.
 - f. Structural glued-laminated timber.
 - g. Finish carpentry.
 - h. Architectural woodwork.
 - i. Wood paneling.
 - j. Wood veneer wall covering.
 - k. Wood flooring.
 - l. Wood lockers.
 - m. Wood cabinets.
 - 2. Wood-based materials may be labeled FSC Pure, FSC Mixed, or FSC Mixed (XX)% to qualify for compliance with this requirement.
 - 3. Sustainable forestry certifications other than FSC (such as Sustainable Forestry Initiative [SFI]) will not qualify for compliance with this requirement.

SANTA ANA COLLEGE JOHNSON STUDENT CENTER

2.5 LOW-EMITTING MATERIALS

- A. Credit IEQ 4.1: For field applications that are inside the weatherproofing system, adhesives and sealants shall comply with the following VOC content limits when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
1. Wood Glues: 30 g/L.
 2. Metal-to-Metal Adhesives: 30 g/L.
 3. Adhesives for Porous Materials (Except Wood): 50 g/L.
 4. Subfloor Adhesives: 50 g/L.
 5. Plastic Foam Adhesives: 50 g/L.
 6. Carpet Adhesives: 50 g/L.
 7. Carpet Pad Adhesives: 50 g/L.
 8. VCT and Asphalt Tile Adhesives: 50 g/L.
 9. Cove Base Adhesives: 50 g/L.
 10. Gypsum Board and Panel Adhesives: 50 g/L.
 11. Rubber Floor Adhesives: 60 g/L.
 12. Ceramic Tile Adhesives: 65 g/L.
 13. Multipurpose Construction Adhesives: 70 g/L.
 14. Fiberglass Adhesives: 80 g/L.
 15. Contact Adhesive: 80 g/L.
 16. Structural Glazing Adhesives: 100 g/L.
 17. Wood Flooring Adhesive: 100 g/L.
 18. Structural Wood Member Adhesive: 140 g/L.
 19. Single-Ply Roof Membrane Adhesive: 250 g/L.
 20. Special-Purpose Contact Adhesive (contact adhesive that is used to bond melamine-covered board, metal, unsupported vinyl, rubber, or wood veneer 1/16 inch or less in thickness to any surface): 250 g/L.
 21. Top and Trim Adhesive: 250 g/L.
 22. Plastic Cement Welding Compounds: 250 g/L.
 23. ABS Welding Compounds: 325 g/L.
 24. CPVC Welding Compounds: 490 g/L.
 25. PVC Welding Compounds: 510 g/L.
 26. Adhesive Primer for Plastic: 550 g/L.
 27. Sheet-Applied Rubber Lining Adhesive: 850 g/L.
 28. Aerosol Adhesive, General-Purpose Mist Spray: 65 percent by weight.
 29. Aerosol Adhesive, General-Purpose Web Spray: 55 percent by weight.
 30. Special-Purpose Aerosol Adhesive (All Types): 70 percent by weight.
 31. Other Adhesives: 250 g/L.
 32. Architectural Sealants: 250 g/L.
 33. Non-membrane Roof Sealants: 300 g/L.
 34. Single-Ply Roof Membrane Sealants: 450 g/L.
 35. Other Sealants: 420 g/L.
 36. Sealant Primers for Nonporous Substrates: 250 g/L.
 37. Sealant Primers for Porous Substrates: 775 g/L.
 38. Modified Bituminous Sealant Primers: 500 g/L.
 39. Other Sealant Primers: 750 g/L.
- B. Credit IEQ 4.2: For field applications that are inside the weatherproofing system, paints and coatings shall comply with the following VOC content limits when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

SANTA ANA COLLEGE JOHNSON STUDENT CENTER

1. Flat Paints and Coatings: VOC not more than 50 g/L.
 2. Nonflat Paints and Coatings: VOC not more than 150 g/L.
 3. Dry-Fog Coatings: VOC not more than 150 g/L.
 4. Primers, Sealers, and Undercoaters: VOC not more than 100 g/L.
 5. Anticorrosive and Antirust Paints Applied to Ferrous Metals: VOC not more than 250 g/L.
 6. Zinc-Rich Industrial Maintenance Primers: VOC not more than 100 g/L.
 7. Pretreatment Wash Primers: VOC not more than 420 g/L.
 8. Clear Wood Finishes, Varnishes: VOC not more than 350 g/L.
 9. Clear Wood Finishes, Lacquers: VOC not more than 550 g/L.
 10. Floor Coatings: VOC not more than 100 g/L.
 11. Shellacs, Clear: VOC not more than 730 g/L.
 12. Shellacs, Pigmented: VOC not more than 550 g/L.
 13. Stains: VOC not more than 100 g/L.
- C. Credit IEQ 4.3: Carpet and carpet systems shall meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus program. Resilient flooring and wall base shall meet the testing and product requirements of either the Resilient Floor Covering Institute's FloorScore program or the Greenguard Children and Schools program.
- D. Credit IEQ 4.4: Composite wood, agrifiber products, and adhesives shall not contain urea-formaldehyde resin.

PART 3 - EXECUTION

3.1 CONSTRUCTION WASTE MANAGEMENT

- A. Credit MR 2: Comply with Section 01 7419 "Construction Waste Management."

3.2 CONSTRUCTION INDOOR-AIR-QUALITY MANAGEMENT

- A. Credit IEQ 3: Comply with Section 01 8119 "Indoor Air Quality Requirements."
- B. Credit IEQ 3.1: Comply with SMACNA's "SMACNA IAQ Guideline for Occupied Buildings under Construction."
1. If Owner authorizes use of permanent heating, cooling, and ventilating systems during construction period as specified in Section 01500 "Construction Facilities and Temporary Controls," install filter media having a MERV 8 according to ASHRAE 52.2 at each return-air inlet for the air-handling system used during construction.
 2. Replace all air filters immediately prior to occupancy.

END OF SECTION 01 8113

LEED PRODUCT SUBMITTAL COVER SHEET
PLEASE USE SEPARATE SHEET FOR EACH PRODUCT

If you need assistance completing this form in full, please call Ecotype Consulting at (909) 307-8987.

Material: _____ Spec Section: _____ Date: _____	<p>Cost of Material: _____</p> (Cost equals materials, delivery charges, and taxes, but does not include labor.)
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Submittal will not be accepted as complete without Cost of Material indicated. (excluding IEQ 4 submittals) Contractors must return this cover sheet, along with required attachments, completed for each LEED product as required by specification sections. Attach documentation backing up all claims made below. Check specific product requirements below as required by specification sections.

Contractor	Company: _____ Name: _____ Address: _____ Phone, Fax, Email: _____
Product Vendor	Company: _____ Name: _____ Address: _____ Phone, Fax, Email: _____

- MR 4: RECYCLED CONTENT** (All percentages are by weight. Steel may use the LEED default)

% virgin:	% pre-cons:	% post-cons:	Total: 100%
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- MR 5: REGIONAL MATERIALS** (Distances to jobsite in miles (straight line).)

Dist from final assembly:	Dist from mat'l source:
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- MR 7: CERTIFIED WOOD** (Percentage by weight. Include invoice with FSC COC # clearly identified.)

% FSC certified wood:	FSC COC No:
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- IEQ 4: LOW-EMITTING MATERIALS**

<input type="checkbox"/>	Attached Proof of Compliance: <input type="checkbox"/> MSDS <input type="checkbox"/> Cut Sheet <input type="checkbox"/> Letter <input type="checkbox"/> Other
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<input type="checkbox"/>	IEQ 4.1: Interior adhesives and sealants, VOC content in g/L:
<input type="checkbox"/>	IEQ 4.2: Interior paints and coatings, VOC content in g/L:
<input type="checkbox"/>	IEQ 4.3: Flooring systems complies with one of the following: <input type="checkbox"/> Floorscore <input type="checkbox"/> Green Label Plus <input type="checkbox"/> Green Label <input type="checkbox"/> CA Dept. of Health Standard
<input type="checkbox"/>	IEQ 4.4: Interior composite wood products are free of added urea-formaldehyde resins Y/N:

END OF SUBMITTAL FORM

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SECTION 022623
ASBESTOS & HAZARDOUS MATERIALS ABATEMENT

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The work under this section includes the furnishing all labor, equipment and materials necessary to remove asbestos-containing materials from the Johnson Student Center prior to the demolition of this building by others. The work will also include the decontamination of suspended ceiling system components within the ground floor bookstore below spray applied fireproofing. All work shall be performed in accordance with applicable federal, state, and local requirements and statutes. The work will be performed by persons knowledgeable, qualified, trained, and experienced in the removal, treatment, handling, transportation, and disposal of asbestos-containing material.

1.2 SCOPE OF WORK

- A. General Requirements: Work of this section includes but is not limited to the following:
1. Obtaining all notifications and permits required to perform the work.
 2. Developing a detailed asbestos removal work plan, including: work sequence; work area isolations; decommissioning HVAC and Electrical systems within the building; installing a temporary power system with ground-fault interruption/protection to be used in the removal areas; removal methods; and transport/disposal procedures. This work shall be coordinated with the lead-related abatement work plan I Section 02 26 26.
 3. Removing and legally disposing of the identified asbestos-containing materials, and asbestos-contaminated materials, to allow building demolition by others.
 4. Removing and legally disposing of all asbestos-containing materials (ACM) and asbestos contaminated materials disturbed by the project and removed from the project site.
 5. Removing and legally disposing of the identified light ballasts and florescent light tubes
 6. Thoroughly cleaning the area of work and obtaining final visual inspection approval from the RSCCD's Representative. Clearance air monitoring performed by Phase Contrast Microscopy (PCM) (NIOSH Method 7400) will be performed for negative pressure enclosures.
 7. The Contractor shall retain a third party asbestos consulting firm to perform an exposure assessment and perform exposure monitoring. The third party consulting firm shall perform monitoring for a minimum of two days while asbestos-related demolition is being performed.
 8. The Contractor shall perform employee exposure monitoring as required by CalOSHA during the project.
- B. The Contractor shall remove, transport, and properly dispose the following material associated with the Johnson Student Center. The estimated quantities shall be field verified:
1. 12” tan floor tile/mastic in the Bookstore and adjacent support spaces. The estimated quantity is 3,800 sq. ft.
 2. 9” tan floor tile/mastic in the Bookstore stairwell/storage room and several rooms in Financial Services Dept. - Floor 2. The estimated quantity is 1,300 sq. ft.

3. Thermal System Insulation on water lines above the Bookstore restroom ceilings. Eight pieces of insulation have been confirmed, but additional pieces may exist.
4. Sprayed fireproofing on structural steel beam above the main ceiling in the Bookstore. Debris was observed on the tops of the lay-in ceiling panels. The estimated quantity is 4,000 sq. ft. of material.
5. Floor tile mastic below carpet in Classrooms 106/107. The estimated quantity is 1,100 sq. ft.
6. 12" rose floor tile/mastic in the west end of the ground floor main corridor. The estimated quantity is 800 sq. ft.
7. 12" white floor tile/mastic in the floor 2 food serving area, dining area and corridor. The estimated quantity is 5,500 sq. ft.
8. Flashing cement applied to the roof penetrations and curbs. The estimated quantity is 60 – 100 sq. ft.
9. Fire-rated door cores associated with storage rooms. The estimated quantity is five doors.
10. 725 light ballasts that potentially contain PCB fluids
11. 1,325 four-foot light tubes throughout the building.

1.3 REQUIRED LICENSURE

- A. Contractor shall be licensed by the State of California, Contractors State License Board and be registered to perform asbestos related work with the Division of Occupational Safety and Health, Department of Industrial Relations. At a minimum, Contractor shall hold the following license classifications:
 1. ASB -Asbestos Certification Supplement
- B. Transportation of Friable and Non-Friable Asbestos-Containing Materials: Contractor shall itself be, or have a subcontractor that is, a registered hazardous waste transporter with the State of California, Department of Toxic Substances Control.

1.4 APPLICABLE DOCUMENTS AND REGULATIONS

- A. It is the responsibility of the Contractor to know the current regulations controlling work and to perform all related work in accordance with such regulations that provide for worker and public safety against asbestos exposure.
- B. The publications listed below form a part of this specification to the extent referenced. The current issue of each document shall govern. Where conflict among requirements or with these Specifications exists, the more stringent requirements shall apply.
- C. CODE OF FEDERAL REGULATIONS (CFR)

29 CFR Part 1910	Occupational Safety and Health Standards for General Industry
29 CFR 1910.1200	Hazard Communication
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.145	Specifications for Accident Prevention Signs and Tags
29 CFR 1910.1020	Access to Employee Medical Records
29 CFR Part 1926	Occupational Safety & health for Construction
29 CFR 1926.1101	Construction Standards for Asbestos, Tremolite, Anthophyllite and Actinolite
- D. U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

- 40 CFR 61 Sub A & B General Provisions
- 40 CFR 61 Sub M National Emissions Standard for Hazardous Air Pollutants (NESHAP)
- 40 CFR 260 Hazardous Waste Management Systems: General
- 40 CFR 261 Identification and Listing of Hazardous Waste
- 40 CFR 262 Standards Applicable to Generators of Hazardous Waste
- 40 CFR 263 Standards Applicable to Transporters of Hazardous Waste
- 40 CFR 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
- 40 CFR 265 Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
- 40 CFR 268 Land Disposal Restrictions
- 40 CFR 763 Sub G Worker Protection Rule
- 40 CFR 763 Asbestos Hazard Emergency Response Act (AHERA)

- E. U.S. DEPARTMENT OF TRANSPORTATION (DOT)
 - 49 CFR 171 & 172 Transportation of Hazardous Waste

- F. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
 - NFPA 701 (1989) Methods of Fire Test for Flame Resistant Textiles and Films

- G. UNDERWRITERS LABORATORIES (UL)
 - UL 586 (1990) High-Efficiency Particulate Air Filter Units

- H. CALIFORNIA CODE OF REGULATIONS (CCR)
 - Title 8 5208 General Industry Safety Orders -Asbestos
 - Title 8 Article 2.5 Registration -Asbestos Related Work
 - Title 8 5194 Hazard Communication
 - Title 81529 Construction Industry Safety Orders -Asbestos
 - Title 22 Div. 4 Cpt. 30 Hazardous Waste Handling

- I. CALIFORNIA LABOR CODE
 - Section 6501.5-6505.5

- J. SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD)
 - Rule 1403 Asbestos Emissions From Demolition/Renovation Activities

- 1.5 NOTIFICATIONS AND PERMITS
 - A. Contractor shall make all required written notifications or applications to regulatory agencies including the following:
 - 1. South Coast Air Quality Management District SCAQMD Notification shall be in accordance with Rule 1403.
 - 2. California Division of Occupational Safety and Health
 - B. Notification shall be in accordance with Section 341.9 of Title 8 of the California Code of Regulations

- 1.6 SUPERVISOR/COMPETENT PERSON, FOREPERSON, AND WORKERS

- A. The Contractor shall have an Asbestos Supervisor/Competent Person present at all times while asbestos-related work on this Contract is in progress.
- B. The Asbestos Supervisor/Competent Person shall have successfully completed a five (5) day EPA-approved Asbestos Abatement Contractor/Supervisor training course, and be thoroughly familiar and experienced with asbestos removal and related work, and shall be familiar with and enforce the use of all safety procedures and equipment. He/she shall be knowledgeable of all EPA, OSHA, and NIOSH requirements and guidelines.
- C. In addition to the Asbestos Supervisor/Competent Person, the Contractor shall furnish one (1) or more forepersons who have successfully completed a five (5) day EPA-approved Asbestos Abatement Contractor/Supervisor training course, and who are familiar and experienced with asbestos abatement and its related work, safety procedures, and equipment.
- D. It shall be a requirement of this Contract that the Contractor's Asbestos Supervisor/Competent Person and one or more of the foremen be onsite at all times while work is in progress. A foreman will be required to conduct inspections of the work practices, and enclosure condition inside the work area at least three (3) times during each work shift.
- E. All workers shall, at a minimum have successfully completed a four (4) day EPA approved Asbestos Abatement Worker training course.

1.7 SUBMITTALS

- A. Within 10 working days of receiving the notice to proceed, submit to the RSCCD representative the following documents:
 - 1. Copies of the written notification to the following regulatory agencies:
 - a. SCAQMD Rule 1403
 - b. California Division of Occupational Safety and Health
 - 2. Copies of waste haulers Hazardous Waste Transporter Registration and Environmental Protection Agency Acknowledgment of Notification of Hazardous Waste Activity.
 - 3. Identification of the landfill to be used for the disposal of the asbestos-containing waste generated at the project site and the landfill disposal and packaging requirements.
 - 4. A written asbestos abatement work plan identifying work sequence, abatement duration, dust control measures, work area preparation, personal protection equipment to be utilized, asbestos-containing materials removal procedures, asbestos-containing/contaminated debris cleanup and disposal procedures, and waste handling, storage, and disposal procedures.
 - 5. Manufacturer's certification that HEPA vacuums, differential pressure air filtration devices and other local exhaust ventilation equipment conform to ANSI Z9.2-79.
 - 6. Current SCAQMD registration of all HEPA vacuums, differential pressure air filtration devices.
 - 7. Manufacturers product data and material safety data sheet(s) for all chemical products to be used on the site.
 - 8. Identification of the project's Asbestos Supervisor/Competent Person who meets the requirements of 29 CFR Part 1926.1101 and 8 CCR Part 1529 and is experienced in administration and supervision of asbestos abatement projects, including work practices, protective measures for building and personnel, disposal procedures, etc.
 - 9. Documentation that the Contractor's employees performing asbestos removal, disposal, and air sampling operations have received training which meets the criteria of the Federal EPA Model Accreditation Plan (40 CFR Part 763, Subpart E, Appendix C).
 - a. Training certification shall be provided prior to the start of work involving asbestos

abatement, for all of the Contractor's workers, forepersons, and Asbestos Supervisors/Competent Persons. Training shall meet the requirements of 29 CFR Part 1926.1101 and 8 CCR Part 1529 and the criteria of the Federal EPA Model Accreditation Plan (40 CFR Part 763, Subpart E, Appendix C). Training shall be provided prior to the time of job assignment and, at least, annually.

10. Documentation from a physician that employees or agents who may be exposed to airborne asbestos fibers in excess of the Permissible Exposure Limit have received medical monitoring to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects. Contractor shall be aware of and provide information to the examining physician about unusual conditions in the workplace environment (e.g. high temperatures, humidity, and chemical contaminants) that may impact on the employee's ability to perform work activities. Medical monitoring shall be performed in accordance with the requirements of 29 CFR Part 1926.1101 and 8 CCR Part 1529.
 11. Documentation of respirator fit-testing for Contractor employees and agents who must enter the work area. This fit-testing shall be in accordance with qualitative procedures as required by OSHA regulations or be quantitative in nature.
 12. Documented NIOSH approvals for respiratory protective devices utilized on site, including manufacturer's certification of HEPA filtration capabilities for cartridges and filters.
- B. Upon completion of all asbestos abatement activities, submit to the RSCCD's Representative, documentation that includes, without limitation, the following:
1. Work area entry/exit logbook. The logbook must record the name, affiliation, time in, and time out for each entry into the work site.
 2. Material Safety Data Sheets (MSDS) for solvents, encapsulants, wetting agents and replacement materials, as necessary.
 3. OSHA required personal air monitoring results.
 4. Accident/ incident reports where injury or damage has occurred on or to the RSCCD's property.
 5. Hazardous waste manifests, non-hazardous waste data forms, trip tickets and disposal receipts for asbestos waste materials removed from the work area within 72 hours of transport. Send the information to:

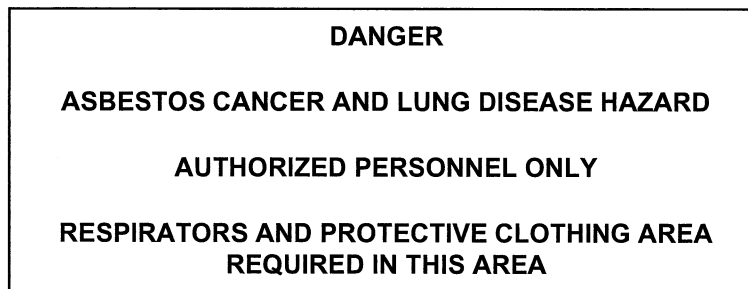
Rancho Santiago Community College District
Facility Planning, District Construction and Support Services
2323 N. Broadway, Suite 112, Santa Ana, CA 92706
Attention: Steve Marshall, Facilities Project Manager

1.8 NOTICES AND POSTINGS

- A. Post in the decontamination unit, a list containing the names, addresses, and telephone numbers of the Contractor, RSCCD's Representative, Project Environmental Manager, and emergency contact numbers.
- B. Additional postings shall include:
 1. Visitor entry and exit log.
 2. Employee daily sign in/out log.
 3. Work area entry and exit procedures.
 4. Emergency procedures.
- C. One copy of the Cal-OSHA regulations.
- D. Posted Warnings and Notices: The following regulations, warnings, and notices shall be posted at the work site in accordance with 29 CFR Part 1926.1101 and 8 CCR Part 1529.

1. Warning Signs and Labels: Warning signs shall be provided at building entrances and approaches to asbestos abatement areas. Signs shall be located at a sufficient distance from the asbestos control areas that will allow personnel to read the sign and take the necessary protective actions required before entering the asbestos control area.
2. Post at least two (2) safety warning signs, in English and Spanish, which follow the "Sample Format Warning Sign" shown below:

Sample Format Warning Sign Minimum Size -24" x 36" Material
-Aluminum or Fiberglass Script:



Color -Black Letters on Red Background

1.9 WORK AREA SECURITY

- A. The asbestos work control area shall be restricted only to authorized personnel, including Contractor, Contractor's employees, RSCCD's Representative(s), and state, and local inspectors.
- B. Entry into the asbestos work control area by unauthorized individuals shall be reported immediately to the RSCCD's Representative.
- C. Contractor shall be responsible for Project site security during asbestos-related demolition operations in order to protect work efforts and equipment.

1.10 WORK SEQUENCE

- A. Work Sequence: The following is the work sequence for the project:
 1. The building will be vacant; therefore, there are no restrictions on how the work is completed. Lead-related removal work identified in Section 02080 may be performed in conjunction with the asbestos-related.

1.11 PERSONAL PROTECTION AND SAFETY

- A. The Contractor alone shall be responsible for the safety, efficiency, and adequacy of his/her appliances, methods, and for any damages which may result from his/her operations, improper construction practices, or maintenance. He shall erect and properly maintain at all times as required by the conditions and progress of the work, proper safeguards for the protection of workmen and the public and shall post warning signs around the job site.
- B. Respiratory protection requirements:
 1. All respiratory protection programs shall be established in accordance with the respiratory protection requirements of 29 CFR Part 1910.134, 8 CCR Part 5144, 29 CFR Part 1910.1001, and 29 CFR Part 1926.1101. Copies of these regulations are included herein by reference and shall be considered as a requirement of these Specifications.
 2. All respirators used shall be selected from those approved by NIOSH for use in atmospheres containing asbestos fibers.
 3. Work activities associated with the removal of non-friable asbestos-containing materials (i.e., floor tile and roofing material) shall be conducted in a minimum of half-face air purifying respirators with P-100 filters.
 4. Respirators shall be quantitatively fit-tested a minimum of every 12 months. Either the standard Irritant Smoke Protocol or the Isoamyl Acetate Protocol may be used.

- C. Provide workers and authorized visitors with sufficient sets of protective full body impervious protective clothing. Such clothing shall consist of full body coveralls and headgear. Provide eye protection and hard hats as required by applicable safety regulations. Reusable type protective clothing and footwear shall be left in the equipment room until the end of the asbestos abatement work, at which time such items shall be disposed of as asbestos waste, or shall be thoroughly cleaned of all asbestos or asbestos-containing material. Disposable type protective clothing, headgear, and footwear may be provided.
- D. Provide and post, in the equipment room and the clean room, the decontamination and work procedures to be followed by workers and authorized visitors as described in these Specifications.
- E. Provide and post, in the equipment room and the clean room, the decontamination and work procedures to be followed by workers and authorized visitors as described in these Specifications.
- F. Worker Protection Procedures:
 - 1. Each worker and authorized visitor shall, upon entering the job site remove street clothes in the clean room and put on a respirator and clean protective clothing before entering the equipment room or the work area.
 - 2. All workers and authorized visitors shall, each time they leave the work area; remove gross contamination from clothing before leaving the work area; proceed to the equipment room and remove all clothing except respirators; still wearing the respirator proceed to the showers, clean the outside of the respirator with soap and water while showering; remove the respirator; thoroughly shampoo and wash themselves.
 - 3. Following showering and drying off, each worker and authorized visitor shall proceed directly to the clean room and dress in clean clothes at the end of each day's work, or before eating, smoking, or drinking. Before reentering the work area from the clean room each worker and authorized visitor shall put on a clean respirator and shall dress in clean protective clothing.
 - 4. Contaminated work footwear shall be stored in the equipment room when not in use in the work area. Upon completion of asbestos abatement, the footwear will either be disposed of as contaminated waste, or will be bagged and sealed for use at another abatement project.
 - 5. Workers removing waste containers from the equipment decontamination enclosure shall enter the holding area from outside wearing a respirator and dressed in clean disposable coveralls. No worker shall use this system as a means to leave or enter the washroom or the work area.
 - 6. Workers shall not eat, drink, smoke, or chew gum or tobacco while in the work area.
 - 7. Workers shall be fully protected with respirators and protective clothing from the time of first disturbance of asbestos-containing or contaminated materials prior to commencing actual asbestos abatement and until final cleanup is completed.
- G. If evacuation of the work area is required by contaminated personnel due to an emergency, all work efforts shall stop, and all forces shall be directed at minimizing the area contamination, cleanup operations, and first-aid procedures. These activities shall be noted in the daily logbook.
- H. During work activities requiring decontamination procedures, the Contractor shall provide a means of communication for the workers inside the work area without requiring personnel to enter or leave the work area. The method of communication shall be a two-way radio, localized wire-connected telephone, or similar system. This communication system shall remain intact until the final isolation plastic is removed. Then all equipment shall be wiped down; HEPA vacuumed or disposed of as asbestos- contaminated material.
- I. Adequate shower facilities shall be provided by the Contractor. An employee leaving the work area shall follow all decontamination procedures necessary or as described herein.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Handling and Storage:

1. Deliver all materials to the project in the original package(s), container(s), or bundle(s) bearing the name of the manufacturer, brand name and the model number.
2. Store all materials subject to damage off the ground, away from wet or damp surfaces, and under cover sufficient to prevent damage or contamination.
3. Damaged or deteriorating materials shall not be used and shall be removed from the premises. Material that becomes contaminated with asbestos shall be disposed of in accordance with the applicable regulations.

B. Plastic (Polyethylene) Sheeting: Provide 6-mil thickness or greater polyethylene sheeting as specified in sizes to minimize the frequency of joints. Fire retardant polyethylene sheeting is required.

C. Tape: Provide two inch or wider duct tape capable of sealing joints of adjacent sheets of polyethylene and for attachment of polyethylene sheets to finished or unfinished surfaces of dissimilar materials. Duct tape shall be capable of adhering under both dry and wet conditions, including use of amended water.

D. Spray Cement: Provide aerosol based spray adhesive specifically formulated to stick tenaciously to sheet polyethylene.

E. Surfactant: Provide a 50 percent polyoxyethylene ether and 50 percent polyoxyethylene ester, or equivalent and mix with water to provide a concentration of one ounce surfactant to 5 gallons of water.

F. Impermeable Containers: Provide impermeable containers suitable to receive and retain any asbestos-containing or contaminated materials until disposal at Disposal Site labeled in accordance with OSHA Regulation 29 CFR 1910.1101, DOT 49 CFR 171-177, Title 8 CCR and SBACPD. Containers must be both air and watertight and must be resistant to damage and rupture. Plastic bags shall be a minimum of 6-mil thick.

G. Warning Labels and Signs: Provide warning labels and signs as required by OSHA Regulation 29 CFR Part 1910.1101, Title 8 CCR Part 1529 and SBAPCD Rule 1001.

H. Other Materials: Provide all other materials, such as lumber, nails and hardware, which may be required to construct and dismantle the decontamination area and the barriers that isolate the work area.

I. Solvents used for the removal of resilient flooring mastics shall be low-odor.

2.2 TOOLS AND EQUIPMENT

A. Provide all tools and equipment necessary to perform the required asbestos removal/abatement.

B. Air Filtration Equipment: High Efficiency Particulate Air (HEPA) filtration systems shall be equipped with filtration equipment in compliance with ANSI Z9-2-79, local exhaust ventilation. No air movement system or air filtering equipment shall discharge unfiltered air outside the work area. A pressure differential system shall be established in the work area continuously (24 hours per day) from the start of the work in the area until the area has been decontaminated and certified as such by the required testing. The system shall produce a minimum of four filtered air changes per hour in the work area and maintains a pressure differential of 0.020-inches water gauge between the inside and outside of the work area. All filtered, exhausted air shall be discharged outside the building away from any building air-intake devices (unless stated otherwise).

C. Manometer: A continuous recording monitor shall measure and record the difference in air pressure between that inside the work area from that outside the work area. The recording system shall be accurate to the nearest 0.001 inches of water pressure differential and be equipped with an alarm that sounds if the difference becomes less than 0.020-inches water gauge.

PART 3 – EXECUTION

3.1 ASBESTOS REMOVAL PREPARATION PROCEDURES

- A. General Work Area Preparation: Contractor shall perform the following general work area preparation procedures prior to commencement of any abatement activities:
1. Danger signs meeting the specifications of 29 CFR Part 1926.1101 and 8 CCR 1529 shall be posted at any location and approaches to locations where airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from the work area to permit an employee to read the sign and take the necessary protective measures to reduce or avoid exposure. Additional signs may need to be posted following construction of workplace enclosure barriers. The signs shall be in accordance with Article 1.09.0.2 of this Section.
 2. Asbestos handlers shall don personnel protective equipment as required in Article 2.02 of this Section.
 3. Contractor shall shut down and lock out electric power to work areas, where necessary, to provide a safe work environment. Contractor shall provide temporary power source and equipment, including ground faulting, in compliance with all applicable electrical code requirements and Cal-OSHA requirements for temporary electrical systems. The Contractor shall utilize a licensed electrician to perform all electrical power shut down and temporary power installation. All electrical equipment used during the removal of asbestos-containing materials shall be connected to a Ground Fault Interrupted (GFI) circuit.
 4. Heating, ventilating, and air-conditioning (HVAC) system components that supply, return, or that pass through the work area shall be shut down and locked out.
 5. The Contractor shall isolate the various asbestos removal work areas from areas where no asbestos related work is required. Windows, doorways, corridor entrances, drains, ducts, grilles, grates, diffusers, and other openings will be considered “critical barriers” and sealed with two layers of polyethylene sheeting and duct tape.
 6. Emergency and fire exits from the work areas shall be maintained and adequately marked. Alternative exits shall be established that are satisfactory to the RSCCD and local fire regulations.
 7. Contractor shall construct and maintain at least one three-stage decontamination unit. This decontamination unit shall be constructed in accordance with the requirements set forth in Article 3.02 of this Section. The asbestos worker wash/decontamination station may be used as the lead worker wash/decontamination station.
- B. Resilient Flooring Removal Preparation: In addition to the requirements of Article 3.01A above, the following preparation procedures shall be used in areas where asbestos-containing resilient flooring and mastic will be removed:
1. Wall surfaces are not required to be covered, however, the walls shall not be allowed to be contaminated with asbestos-containing mastic residue.
 2. Install worker decontamination unit described in Article 3.02 or as agreed upon with the Project Environmental Manager.
 3. A pressure differential system shall be established that produces a minimum of four filtered air changes per hour in the work area and maintains a pressure differential of 0.02-inch water gauge between the inside and outside of the work area. The pressure differential system shall not be exhausted into occupied areas of the building.
- C. Fireproofing and Thermal System Insulation Removal: In addition to the requirements of Article 3.01A, the following preparation procedures shall be used in areas where a fully contained regulated work area is required to remove friable asbestos containing material:

1. Floors shall be covered with one layer of 6-mil polyethylene sheeting.
 2. The area around where pipe fitting insulation will be removed using glove bags shall be isolated with a full containment or mini-enclosure. The walls or the full containment or the walls of the mini-enclosure shall be constructed with one layer of 6-mil polyethylene sheeting.
 3. Install worker decontamination unit described in Article 3.02 or as agreed upon with the Project Environmental Manager.
 4. A pressure differential system shall be established that produces a minimum of four filtered air changes per hour in the work area and maintains a pressure differential of 0.02-inch water gauge between the inside and outside of the work area. The pressure differential system shall not be exhausted into occupied areas of the building.
 5. Glove bags shall be installed in accordance with the procedures outlined in 29 CFR 1926.1101.
- D. Flashing Cement Removal: In addition to the requirements of Article 3.01A, the following preparation procedures shall be used where non-friable asbestos-containing roofing materials will be removed:
1. Isolate the asbestos removal work area below the roof with "DANGER ASBESTOS HAZARD" warning ribbon.
 2. Prior to starting work on the roof, clear and remove trash from the base of the exterior walls (ground level) extending 15 feet out from the walls. If bushes are present, these shall be covered with
 3. Place a drop cloth consisting of one layer of 6-mil polyethylene sheeting at the base of the exterior walls and extend the drop cloth 15 feet out from the walls.
 4. Seal rooftop penetrations, skylights, ventilator equipment, and all other openings with two layers of 6-mil polyethylene sheeting.

3.2 WORKER DECONTAMINATION ENCLOSURE SYSTEMS

- A. At least one worker decontamination enclosure system shall be provided on the site that is easily accessible from each of the asbestos removal work areas. The asbestos worker decontamination enclosure system may also be used for the lead worker decontamination system.
- B. Worker decontamination enclosure systems constructed at the worksite shall utilize 6-mil Opaque black or white polyethylene sheeting or other acceptable materials for privacy.
- C. The worker decontamination enclosure system shall consist of at least a clean room, a wash station, and an equipment room, each separated from the other by curtained doorways.
- D. Entry to and exit from all decontamination enclosure system chambers shall be through curtained doorways consisting of two sheets of overlapping polyethylene sheeting. One sheet shall be secured at the top and left side, the other sheet at the top and right side. Both sheets shall have weights attached to the bottom to ensure that they hang straight and maintain a seal over the doorway when not in use. Doorway designs, providing equivalent protection and acceptable to the RSCCD, may be utilized.
- E. Pathways into (from clean to contaminated) and out of (contaminated to clean) the work area shall be clearly designated.
- F. The clean room shall be sized to adequately accommodate the work crew. The clean room shall also provide shelves for storing respirators and a location for posting notices.
- G. The wash station shall have water and soap for washing away asbestos contamination. The wash station shall have a drain pan to collect wastewater.
- H. The equipment room shall be used to disrobe for washing at the wash station. A drum lined with a labeled 6-mil polyethylene bag for collection of disposable clothing shall be located in this room.

3.3 EMERGENCY EXITS

- A. Emergency exits shall be established and clearly marked with duct tape arrows or other effective designations to permit easy identification and location by the workers from anywhere within the work area. Emergency exits shall be secured to prevent access from uncontaminated areas and still permit emergency exiting. Emergency exits shall be properly sealed with 6-mil polyethylene sheeting that can be cut to permit egress, if needed. These exits may be the worker decontamination enclosure, the waste pass-out airlock, and/or other alternative exits satisfactory and in compliance with local fire regulations. Where emergency exits are sealed, an instrument capable of cutting the polyethylene barrier shall be installed on both sides of the barrier, to allow for immediate exit from the work area in the event of an emergency.

3.4 MAINTENANCE OF WORKPLACE BARRIERS

- A. Following completion of the construction of polyethylene barriers and decontamination system enclosures, adequate settling time shall be required to ensure that barriers will remain intact and secured to walls and fixtures before beginning actual abatement activities.
- B. Workplace barriers shall be visually inspected at the beginning of each work period or shift by the Supervisor/Competent Person.
- C. Damage and defects in the enclosure system shall be repaired immediately upon discovery. This information shall also be noted in the Contractor's daily log.
- D. At any time during the abatement activities after barriers have been erected, if visible material is observed outside of the work area or if damage occurs to barriers, work shall immediately stop, repairs made to barriers, and debris/residue cleaned up using appropriate HEPA-vacuuming and wet-mopping procedures. This information shall also be noted in the Contractor's daily log.

3.5 COMMENCEMENT OF WORK SHALL NOT OCCUR UNTIL

- A. Enclosure systems have been constructed and tested.
- B. At least one three-stage decontamination unit with wash station is operational. This decontamination unit can be the same as the lead-related demolition decontamination unit.
- C. Pressure differential systems are functioning adequately.
- D. Pre-abatement submissions, notifications, and permits have been provided and are satisfactory to the RSCCD's Representative.
- E. Equipment for abatement, cleanup, and disposal are available.
- F. Worker training, medical examination, and respirator fit testing (and certification) is completed or applicable, current documentation of this information is provided.
- G. This information shall also be provided for new workers on the first day they arrive at the work site.
- H. Glove bags have been smoke tested.
- I. Contractor receives permission from the RSCCD to commence asbestos-related demolition work.

3.6 WORKPLACE ENTRY AND EXIT PROCEDURES

- A. General: The following procedures shall be followed prior to entrance into any regulated asbestos work area:
 - 1. Personnel who enter the work area shall sign the entry log upon entry and exit.
 - 2. Personnel, before entering the work area, shall read and be familiar with posted regulations, personal protection requirements (including workplace entry and exit procedures), and emergency procedures.

3. Personnel shall wear appropriate respiratory protection and disposable coveralls, head covering, and foot covering. Hardhats, eye protection, and gloves shall also be utilized, as required. Clean respirator filter cartridges and protective clothing shall be provided and utilized by each person for each separate entry into the work area.
4. Personnel wearing designated personal protective equipment shall proceed to the work area.
5. To exit the work area, personnel shall proceed to the equipment room where they shall remove protective equipment, except respirators, and deposit disposable clothing into appropriately labeled containers for disposal.
6. Clothing or footwear worn into a regulated work area will not be permitted out of the regulated work area.
7. Reusable, contaminated footwear shall be stored in the equipment room when not in use in the work area. Upon completion of abatement, it shall be disposed of as asbestos-contaminated waste. (Rubber boots may be decontaminated at the completion of the abatement for reuse).

B. Roofing Material Removal Work Area and Exit Procedures:

1. Asbestos handlers involved in roofing material removal procedures shall wear two disposable spunbound suits, including gloves, hood and footwear, and appropriate respiratory protective equipment. Hard hats, eye protection, and gloves shall also be utilized as required. Clean respirators and protective clothing shall be provided and utilized by each person for each separate entry into the work area.
2. The double layer personal protective equipment shall be used throughout the procedure if a decontamination unit with a shower room is not contiguous to the work area. Upon exiting the work area and entering the change room, the worker shall HEPA vacuum and wet clean the outer suit and dispose of it as asbestos-contaminated waste. Workers shall then proceed to an operational three-stage decontamination unit to remove and dispose of the second suit, shower, and change into street clothes.

3.7 ASBESTOS-CONTAINING MATERIAL REMOVAL PROCEDURES

A. General

1. Work area shall be cleaned and isolated in accordance with the procedures set forth in Article 3.01 of this Section.
2. Waste containers for floor tile and mastic and roofing material shall be sealed when full. Bags shall not be overfilled. Bags shall be securely sealed to prevent accidental opening and leakage by tying the tops of bags in an overhand knot or by taping in gooseneck fashion. Bags shall not be sealed with wire or cord.

B. Resilient Floor Tile/Mastic Removal Procedures:

1. Asbestos-containing floor tile/mastic shall be sprayed with amended water, or chemical remover using spray equipment capable of providing a low-pressure application. Solvent vapors shall be exhausted in a manner that does not create a fire hazard, health hazard or nuisance, and complies with applicable SCAQMD regulations.
2. Wetted asbestos resilient floor tile/mastic shall be removed using methods to minimize the breakup of the material. The resilient flooring shall not be rendered friable during the removal. Waste materials shall be packed in 6-mil plastic bags as it is removed and placed in labeled containers for transport. Material shall not be allowed to dry out prior to insertion into the container.
3. Mastic shall be removed using solvent and rags. The mastic residue and rags shall be placed into properly labeled waste containers.

4. Cleanup shall proceed in accordance with Article 3.08 -Cleanup Procedures.
5. After the work area surfaces have been rendered free of visible residues, a thin coat of an approved encapsulating agent shall be applied to seal in nonvisible residue.
6. Dispose of all asbestos containing/contaminated waste in accordance with Article 3.10 -Disposal Procedures.

C. Pipe Insulation Removal Procedures:

1. Glove bags shall be installed so that they completely cover the piping and other structures where asbestos work is to be done. Glove bags shall be installed by cutting the sides of the glove bag to fit the size of pipe or opening from which asbestos is to be removed. The glove bag is attached to the pipe by folding the open edges together and securely sealing them with tape. All openings in the glove bag must be sealed with duct tape or equivalent material. The bottom seam of the glove bag must also be sealed with duct tape or equivalent to prevent any leakage from the bag that may result from a defect in the bottom seam.
2. Asbestos-containing pipe insulation shall be thoroughly wet with amended water.
3. Asbestos-containing pipe insulation contained within the glove bag shall be removed manually, utilizing appropriate hand tools.
4. The removed asbestos waste and other structures that have fallen into the enclosed bag must be maintained in a wet state.
5. After removal of the asbestos-containing pipe insulation, the piping and other structures from which the asbestos has been removed must be thoroughly cleaned with a polyethylene brush and wet wiped until no traces of asbestos debris can be seen. Non-asbestos insulation, if present, must be cut back a minimum of three inches from where it comes into contact with any asbestos containing material.
6. When the asbestos removal and encapsulation have been completed, a vacuum hose from a HEPA-filtered vacuum must be inserted into the glove bag through the appropriate port to remove any air in the bag that may contain asbestos fibers. When the air has been removed from the bag, the bag should be squeezed tightly (as close to the top as possible), twisted, and sealed with dust tape in order to keep the asbestos-containing materials safely in the bottom of the bag. The HEPA vacuum can then be removed from the bag, and the glove bag itself can be removed from the work area to be disposed of properly.
7. After the work area surfaces have been rendered free of visible residues, a thin coat of a satisfactory encapsulating agent shall be applied to seal in nonvisible residue.
8. Cleanup shall proceed in accordance with Article 3.08 -Cleanup Procedures.
9. Dispose of all asbestos containing/contaminated pipe fitting waste as hazardous waste in accordance with Article 3.10 -Disposal Procedures.

D. Sprayed Fireproofing Removal

1. Completely isolate the work area to prevent dust or debris from passing beyond the fully contained envelope. Place the contained work area under negative pressure and provide four complete air changes per hour.
2. Thoroughly wet the fireproofing and debris with amended water.
3. HEPA vacuum and wet wipe all visible debris from the areas below the fireproofing and overspray. Remove fireproofing using appropriate hand tools. Continue to wet material until all visible material is removed.
4. After removal, all surfaces from fireproofing has been removed must be thoroughly cleaned with a polyethylene brush and wet wiped until no traces of asbestos debris can be seen.

5. After all work area surfaces have been rendered free of visible residue, apply a thin coat of encapsulating agent to those surfaces to seal non-visible residue.
6. Cleanup shall proceed in accordance with Section 3.8-cleanup procedures.
7. Dispose of all asbestos containing/contaminated wastes as hazardous waste in accordance with Section 3.10-Disposal Procedures.

3.8 CLEANUP PROCEDURES

A. General

1. Visible accumulations of ACM and asbestos-contaminated debris shall be removed and containerized utilizing nonmetallic tools (squeegees, shovels, and the like). Surfaces in the work area shall then be wet cleaned. Equipment used in the work area shall be included in the cleanup, and shall be removed from work areas via the decontamination enclosure system or waste load-out, at appropriate times in the cleaning sequence.
2. None of the procedures described in this Article relieve the Contractor of the responsibility to meet the final clearance criteria as established by this Section.

B. Resilient Flooring and Mastic Removal Cleanup Procedures:

1. The windows, doors, and HVAC vents shall remain sealed, and any HEPA filtered pressure differential systems, waste load-out, and decontamination enclosure systems shall remain in service.
2. The work area and other contaminated areas shall be cleaned utilizing HEPA filtered vacuum equipment and wet-wiping techniques. After completion of the cleaning operation, a complete visual inspection of the work shall be conducted with the RSCCD to ensure that the work area is free of visible asbestos debris. A final check shall be made for asbestos debris, and further cleaning will be conducted as necessary. The RSCCD shall be notified 24 hours in advance of the requirement for a visual inspection.
3. Upon completion of the cleaning operation, Contractor shall notify the RSCCD that the negative pressure enclosure work areas are ready for review and clearance air monitoring. The negative pressure enclosure areas shall be cleaned until they pass the Clearance Air Monitoring Standard. The RSCCD will require up to one 8-hour shift to complete clearance air monitoring following successful completion of the visual inspection.
4. Upon notification from the RSCCD that the negative pressure enclosure work area have passed the standard for clearance air monitoring, the Contractor shall remove remaining polyethylene sheeting, isolation and/or critical barriers, decontamination unit, dismantle negative air pressure devices, and remove asbestos warning signs/ribbon.

C. Pipe Insulation and Fire-proofing Procedures:

1. All critical barriers shall remain sealed, and any HEPA-filtered pressure differential systems, waste load-out, and decontamination enclosure systems shall remain in service.
2. The work area and other contaminated areas shall be cleaned utilizing HEPA filtered vacuum equipment and wet-wiping techniques. After completion of the cleaning operation, a complete visual inspection of the work shall be conducted with the RSCCD to ensure that the work area is free of visible asbestos debris. A final check shall be made for asbestos debris, and further cleaning will be conducted as necessary. The RSCCD shall be notified 24 hours in advance of the requirement for a visual inspection.

3.9 CLEARANCE AIR MONITORING

- A. The following clearance air monitoring procedures will be used in negative pressure enclosure work areas.
- 1 After completion of cleanup operations, Contractor shall notify the RSCCD that the work areas are ready for clearance air monitoring. Notification shall be a minimum of 24 hours prior to the need for clearance air monitoring. Final clearance air monitoring shall be conducted only after the procedures set forth in Article 3.08 of this Section have been completed, the area has been satisfactorily cleaned and encapsulated, and the abatement area has been thoroughly dried.
 - 2 The RSCCD shall conduct post-abatement clearance testing by collecting and analyzing air samples using Phase Contrast Microscopy using NIOSH Method 7400.
 - 3 Clearance of a work area shall be achieved when each sample indicates airborne fiber concentrations are less than or equal to 0.01 fiber/CC.
 - 4 Abatement areas not achieving clearance shall be recleaned using procedures set forth in Article 3.08 of this Section, and retested until clearance is achieved. The cost of additional samples, consultant air monitoring fees, and labor for recleaning the work areas that fail final air clearances shall be paid for by the Contractor.

3.10 DISPOSAL PROCEDURES

- A. As the work progresses, to prevent exceeding available storage capacity on site, sealed and labeled containers of asbestos-containing waste shall be removed and transported to the prearranged disposal location.
- B. Unless other arrangements are made satisfactory to the RSCCD, bagged or wrapped material shall be removed from the work areas and placed in a Contractor-supplied dumpster a minimum of every day. The dumpster shall be marked with asbestos warning signs and be locked at all times when not in use. When a dumpster is full, it shall be removed from RSCCD property by the end of the next business day.
- C. Disposal shall occur at an authorized site, in accordance with regulatory requirements of NESHAPs and applicable state and local guidelines and regulations, including the California State Department of Health Services, Toxic Substances Control Division.
- D. Uniform hazardous waste manifests, non-hazardous waste date forms, dump receipts; trip tickets, transportation manifests, or other documentation of disposal shall be delivered to the RSCCD Representative for their records.

3.11 OSHA PERSONNEL AIR MONITORING

- A. Air monitoring required by OSHA for asbestos exposure determination is work of the contractor. The contractor is responsible for providing daily OSHA compliance monitoring as per 8 CCR 1529 and 29 CFR 1926.1101.
1. At minimum, Contractor shall conduct representative (25% of crew) breathing zone personal air monitoring of its employees twice each shift and repeated daily.
 2. Monitoring shall be conducted by a qualified air professional experienced and knowledgeable about the methods of air monitoring and in accordance with 8 CCR 1529 and CFR 1926.1101.
 3. Monitoring results and appropriate laboratory analysis work shall be submitted to the RSCCD within twenty-four (24) hours of the monitoring work.

3.12 ALTERNATE PROCEDURES

- A. The procedures described in this Section shall be utilized at all times.
- B. If specified procedures cannot be utilized, a request shall be made in writing to the RSCCD providing

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

details of the problem encountered and proposed alternatives.

- C. Alternative procedures shall provide equivalent or greater protection than the procedures that they replace.
- D. Alternative procedure shall be approved in writing by the RSCCD prior to implementation.

END OF SECTION 02 26 23

SECTION 022626

STABILIZATION / REMOVAL OF LEAD CONTAINING COMPONENTS

A. INTRODUCTION:

These specifications have been designed in favor of Rancho Santiago Community College District for the removal or management of all surfaces containing lead or lead based paint that will be impacted during the demolition of Building U at the Santa Ana College Campus. These specifications shall apply to all areas constructed before January 1, 1993. According to Title 17, Code of Regulations, Division 1, Chapter 8, §35043, all painted surfaces that have not been tested by a State Certified Lead Inspector I Assessor are presumed lead-based paint.

B. SCOPE OF WORK:

1. The preparation of work under this contract covers materials that contain lead and/or lead based paint, including but not limited to wall sinks, floor sinks and ceramic tile walls.
2. The Contractor shall provide all labor, materials, equipment, services, testing, supervision and incidentals necessary to perform work of lead paint abatement/stabilization under this contract in accordance with the following specifications. After preparation, the areas disturbed shall be cleaned and tested in accordance with the procedures outlined below.
3. All surfaces that are only prepped and not abated during site preparation shall be primed or encapsulated using any latex paint or primer on each type of surface or substrate that has been disturbed (wood, metal, stucco etc) prior to demolition. All components that tested positive for the presence of lead at or above the HUD action level and any similar untested components should be considered lead-laden. Any work activities on these components must be performed in an abatement/containment environment as required by Cal/OSHA Construction and Safety Orders, Lead Section 1532.1. Any component that is below the HUD action level but still contains lead requires personal exposure level (PEL) testing be performed to determine the workers skill or certification required to perform the activity if an outside contractor will do the work.
4. Refer to lead based paint inspection reports to determine whether lead based paint is present at penetration or attachment locations.

Building U Abatement

Exterior	None of the components tested positive for the presence of lead based paint
Interior First Floor Room 104-2	Remove 1 floor sink
Room 120-6	Remove 1 water basin
Room 120-4 RR	Remove 1 water basin
Room 128 Custodian	Remove 1 water basin
Room 128 Custodian	Remove approximately 350 square feet of ceramic tile walls
Room 129 Men's RR	Remove approximately 350 square feet of ceramic tile walls
Room 130 Women's RR	Remove approximately 350 square feet of ceramic tile walls
2nd Floor Custodian (off hall)	Remove 1 floor sink
Room 206 Men's RR	Remove 1 water basin

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

Kitchen Storage	Remove 1 floor sink
Room 208 RR	Remove 1 water basin
Room 216	Remove ceramic tile wall at drinking fountain
Room 224 Custodian	Remove water basin Room 224 Custodian
Room 225 Men's RR	Remove approximately 441 square feet of tile wall
Room 226 Women's RR	Remove approximately 441 square feet of tile wall

C. GENERAL REQUIREMENTS:

1. All workers who perform the lead paint abatement and / or stabilization (including clean up) described herein shall be State Certified Workers with current State issued "certificates" and have prior training in lead abatement as required by Title 17, CCR, Division 1 Chapter 8, §35009 & §35001 as well as other required training including safe and proper use of equipment.
2. Contractor is to have a State Certified Lead Supervisor with a current State issued "certificate" referenced above by Title 17 CCR, as part of his staff during the lead paint abatement/stabilization. The State Certified Lead Supervisor will be designated the "competent person". A "competent person" is a DPH "certified supervisor" who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions who has authorization to take prompt corrective measures to eliminate them.
3. A minimum of one RRP certified worker shall be on job site at all times. The RRP certified worker is responsible to train the other DPH Certified Workers, worker lead safe practices as taught in the RRP class.
4. Prior to commencement of lead abatement activities, the contractor is to provide AAA Lead Consultants and Inspections, Inc. with copies of current lead in blood, medical release to use respirator, respirator fit test and proof of DPH certification for each worker.
5. AAA LEAD Consultants and Inspections, Inc. will perform Project Monitoring and final clearance testing for this project as requested by Rancho Santiago College District.
6. Contractor must provide proof of delivery of DPH form 8551 to DPH (Department of Health Services) five days prior to commencement of abatement activities as required by Title 17, CCR, Div 1, Chapter 8.
7. Contractor must provide proof of delivery of Cal/OSHA notification of lead related work as required as of January 25, 2002 in Title 8, Construction Safety Orders, Chapter 4, Subchapter 4, Article 4, Section 1532.1.
8. Contractor must notify AAA Lead Consultants and Inspections, Inc. of the intent to perform lead abatement activities a minimum of 48 hours prior to the commencement of work. Lead related activities may not commence without written authorization of the building owner / owner representative.

D. RECORDS:

1. The contractor shall provide a copy of his current California Department of Health Services "Supervisor Certificate" or California Department of Health Services photo identification card prior to commencement of work.
2. The contractor or "supervisor" shall provide before the commencement of any work, copies of all "certified workers" current documentation including, "worker certificate", lead in blood test results within last six months, Dr.'s statement for each workers ability to wear NIOSH approved respirator and a respirator fit test.
3. The contractor shall provide the location and description of all presumed lead based paint locations and substances that are abated through removal, paint film stabilization or encapsulation.
4. The contractor shall provide starting and completion dates of the prep and/or abatement work.

5. The contractor shall submit a detail summary of the techniques used to comply with these regulations.
6. The contractor shall mark on as-built drawings a note in bold letters that all surfaces with lead paint have been encapsulated, stabilized or removed under this contract, describing such locations and method used.
7. The contractor shall submit to Rancho Santiago College District copies of all records that the abatement and site preparation has been performed in compliance with the lead paint abatement procedures.

E. WORK AREA PREPARATION:

1. Decontamination Units:

One decontamination unit will be required at each lead control area.

- a) Cover the floor where the decontamination unit will be placed with 2-layers of 6-mil polyethylene (poly) prior to setting up of unit.
- b) Provide single entry and exit to each work area.
- c) Provide a 1-stage decontamination unit with a wash station. This area must be constructed of 6-mil "poly" sheeting and PVC piping at a minimum.

2. Lead Control Area Isolation Procedures:

- a) Post signs and barrier tape in compliance with Cal/OSHA, Title 8, CCR Section 1532.1. Barrier tape shall be at a minimum of 25 feet around all lead abatement areas. Contractor shall insure that the signs required are at least 20" by 14" and states the date and place of the lead abatement project. The sign must include the phrase "CAUTION LEAD HAZARD. KEEP OUT" in bold lettering at least 2 inches high. Signs to be in English or Spanish.
- b) Install suitable ground protection to prevent rupturing of plastic sheeting by ladders, scaffolding, nails, falling debris, etc. Install a minimum of two layers of 6-mil poly sheeting to base of building with duct tape or other anchoring system so that no gaps exist between the base of the building and the plastic sheeting. Poly sheeting is to extend a minimum of 10 feet from the farthest exterior portion of the area or building being disturbed. Seal overlapping sections of plastic with duct tape to provide a leak proof surface. Weight the ends of plastic sheeting to prevent blowing from the wind and breezes. All edges of the plastic sheeting shall be elevated to create a trough and prevent runoff of excess water and debris. Cover all plants and shrubs within 15 feet of the perimeter of the building with one layer plastic sheeting.
- c) In the event of rain, all work on the exterior of any structure shall be suspended or shall not begin until such time that weather conditions change more favorably.
- d) In the event of strong winds that create a condition whereby containment of airborne lead dust and or debris become infeasible, work shall be suspended or shall not begin on the exterior of the structure until notified by project monitor.
- e) The decision to suspend work due to wind or rain will be made by the project monitor or a Rancho Santiago College District representative.

F. METHODS OF ABATEMENT/STABILIZATION:

1. Removal of wall and floor tiles is to be performed by striking with hammers and chisels or mechanical means (jack hammers / chipping hammers).
2. Floor sinks and water basins shall be unbolted and removed after all plumbing connections have been severed.

G. PERSONAL PROTECTION:

1. The contractor shall insure that its employees are protected in accordance with all applicable Federal, State and Local standards, in particular, those set forth in the OSHA regulations governing occupational health and environmental controls in Subpart D of Title 29 CFR (Code of Federal Regulations) Section 1926.62 containing employee protection requirements for construction workers exposed to lead.
2. All lead paint abatement workers shall have received lead paint medical screening and will have been physician certified to work while wearing a respirator along with all other regulations as required by CCR, (California Code of Regulations) Title 8, Section 1532.1.
3. All persons when, present at the work site, shall wear disposable protective suits with attached hoods and shoe coverings designed for lead abatement. All personnel entering the lead control area shall wear rubber or latex gloves beneath their work gloves. Gloves are to be taped to the suit sleeves with duct tape.
4. Contractor shall provide gloves, eye protection, disposable protective suits and other recommended safety equipment for use by all workers.
5. All persons entering the work area are to wear a minimum of a half faced air-purifying respirator equipped with HEPA cartridges for protection from airborne lead particles.
6. Personal sampling is to be done using an air sampling pump to determine overall exposure in each work area and to monitor PEL (permissible exposure limits) for workers.
7. A separate decontamination area as noted in SECTION§1, is to be located adjacent to the work area. All personnel will complete decontamination upon exit of the work areas in the decontamination area. Decontamination area shall contain a minimum of a HEPA vacuum, wash station (soapy water and rinse water or pre-moistened towelettes) and dressing area. All disposable clothing, wash supplies and discarded equipment is to be placed directly into 6 mil plastic bags and then stored in locked 55-gallon metal drums as per specifications under Clean Up of Work Area.

H. WORKER SAFETY:

1. Ladders:
 - a) Refrain from using ladders with broken, missing or defective parts.
 - b) Ladder feet must be on substantial base.
 - c) Top and bottom of ladder must be kept clear.
 - d) No job made ladders.
 - e) No metal ladders shall be used on project.
 - f) Ladders shall not be used in a horizontal position.
 - g) Always face ladder.
 - h) Do not step higher than third rung on straight ladder and second step on stepladder.
 - i) Always inspect ladder before use.
 - j) Do not attempt to move ladder while in use. Worker must fully egress ladder before moving ladder to a different location.

2. Scaffolding:

- a) All scaffolding shall utilize guardrails, mid rails and toe boards.
- b) No persons shall be permitted to remain on scaffold while it is being moved or rolled.
- c) Lock scaffold wheels when location is achieved. d)
Scaffold height shall not exceed four times the base dimension.
- e) Use scaffold grade lumber for planking.
- f) Use scaffold capable of supporting at least four times the intended load.
- g) Climbing of any scaffold braces or supports not specifically designed for access is prohibited.

3. Personal Protective Equipment:

- a) Follow guidelines as stated above in Section G, paragraphs 1 through 7.

4. Training, Fit Testing and Medical Surveillance:

- a) Current Medical Surveillance Records for all employees required to enter the contaminated area. All workers on this project must have baseline and post abatement blood lead level and zinc protoporphyrin (zpp) measurements made before and after the work of the contract begins and ends respectively.

5. Housekeeping:

- a) Throughout the abatement process the work areas will be kept free from a buildup of removed components or paint chip debris. On an ongoing basis, all components shall be wrapped or placed in two layers of 6-mil plastic sheeting or bags. Loose paint chip dust and debris shall be collected with HEPA vacuums and / or wet wiping and placed in six mil plastic bags and sealed with duct tape.

I. CONTROL OF ACCESS:

- 1. Each work area to be secured with barrier warning tape at least 25 feet from the work location and posted as a lead abatement project and potential hazard site.
- 2. A person may not enter the work area unless that person is authorized to do so by the "competent person" or project monitor.
- 3. Contractor to post caution signs and barrier tape in each work area containing lead based paint before removing or encapsulating lead paint.
- 4. Contractor shall keep the signs posted and barrier tape intact during abatement and clean up as described in this specification.
- 5. Contractor shall insure that the signs required are at least 20-inches by 14-inches and states the date and place of the lead abatement project. The sign must include the phrase "**CAUTION LEAD HAZARD, KEEP OUT**" in bold lettering at least 2 inches high along with DO NOT ENTER WORK AREA, AUTHORIZED PERSONNEL ONLY, NO EATING, DRINKING, OR SMOKING IN THIS AREA in at least 1 inch high lettering. The signs are to be in English and Spanish.

J. CLEAN UP OF WORK AREA:

- 1. Preliminary clean up shall be performed by certified-trained workers as follows:

- a) After the abatement / preparation work has been completed, or at the end of the work day, remove all debris and provide the interim clean-up as described below:
- b) Deposit all lead waste, including sealing tape, plastic sheeting, mop heads, sponges, filters and disposable clothing etc. in double plastic bags, of at least 6 mils thick. Bags are then to be deposited and stored in locked 55 gallon metal drums labeled "DANGER LEAD HAZARD" and secured on site.
- c) Vacuum clean all surfaces in the work area including woodwork, metal work, walls, windows, window wells, polyethylene, steps etc. with a HEPA vacuum.
- d) After vacuum cleaning, using phosphate free or detergent wash all polyethylene coverings that are to be reused in the work area with at least 1-ounce of 5 percent phosphate free solution (or similar lead removal product) to each gallon of water.
- e) After polyethylene washing has dried, vacuum clean polyethylene, with a HEPA vacuum until no visible residue remains.
- f) Final clean up to be performed prior to wipe testing when abatement I preparation work is finished.

K. FINAL CLEANUP:

1. Procedures:

- a) After removal of all plastic sheeting, except critical barriers, final cleaning can proceed. Begin with a thorough HEPA vacuuming of all surfaces starting at the ceilings, proceeding down the walls to the floor. The floors shall be vacuumed by starting from the farthest corners of the entrance of the work areas. HEPA vacuuming is to be performed as described in the previous section before and after detergent wash as shown below.
- b) Wet wipe and mop the same surfaces with a 5% solution of Phosphate free Lead cleansing detergent and allow the surfaces to dry.
- c) Thoroughly HEPA vacuum and wet wipe tools and other equipment before removing from work area. Any power tools that cannot be completely de-contaminated shall be placed in pre-labeled plastic bags and sealed with duct tape before removing from work area.
- d) Hand tools such as, scrappers, broad knives, etc., shall be cleaned by wet wiping prior to removal from the work area.
- e) All personnel will follow strict decontamination procedures, including use of soap and shower facilities to wash hands, face and body as well as respirators before exiting shower.

L. WASTE DISPOSAL:

1. The contractor shall be responsible for determining whether any of the waste materials are hazardous waste. This includes not only solid waste, but also wastewater generated from interim and final clean up. All test results are to be submitted to AAA Lead Consultants and Inspections, Inc. or a representative of the

Rancho Santiago College District prior to the disposal of lead containing debris.

2. The contractor shall remove, within 10 days, all lead waste materials from the site after final completion of lead abatement and preparation in compliance with applicable waste requirements.
3. The contractor shall transport and dispose of lead waste in a legal manner as described in 22CCR, chapter 12 (beginning with section 66262.10).
4. All lead containing components removed for disposal shall be burrito wrapped in six mil plastic or double bagged in six-mil plastic bags and sealed with duct tape prior to being placed in roll off container.

M. TESTING:

1. Prior to commencement of site abatement and preparation Project Monitor will take baseline samples to establish existing lead dust levels.
2. At time of final clearance, the Project Monitor shall conduct wipe tests at and around abatement and preparation work areas.
3. The Project Monitor shall submit the test results to Rancho Santiago College District and the Contractor indicating that lead dust levels are at or below baseline levels.
4. If wipe test exceeds baseline levels, contractor is to reclean areas using the above criteria and new wipe tests shall be taken until at which time the test do pass. Cost associated with retesting will be billed to the district and deducted from abatement contractor at \$125 per return visit and \$50 per sample retaken.

N. PEL MONITORING:

1. Personal air monitoring shall be performed at one or more sites to determine the PEL and worker qualifications for performing similar tasks at each location.
2. Employees involved in personal exposure monitoring to determine worker protection and certification requirements will be required to have:
 - A) Recent medical release to wear a respirator.
 - B) Biological Testing (blood draw within last 6 months)
 - C) Recent respirator fit test.
 - D) Dress out in protective clothing including gloves, shoe covers, eye protection, head cover and hepa equipped respirator as outlined in Section G.
3. Worker is to wear a personal air-monitoring pump equipped with a 37mm cassette for testing lead content in air. The air flow rate is to be set between 2 and 4 liters of air per minute and be worn for eight hours while performing abatement / remediation tasks.
4. Air sample(s) to be collected by Project Monitor and sent to state accredited laboratory for analysis.

O. SUBMITTALS:

1. The Contractor shall inform AAA Lead Consultants and Inspections or a representative of the Rancho Santiago College District of where all waste materials are disposed of by State Certified hauler and provide AAA Lead Consultants and Inspections with the EPA number and a copy of the transportation manifest
2. Certificates of training, for all abatement and clean-up personnel who will be performing the work under this contract, must be submitted to AAA Lead Consultants and Inspections, Inc., or a Rancho Santiago College District representative two days prior to commencement of abatement activities.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

3. Contractor to provide proof of lead paint medical screening for lead in blood on all workers prior to commencement of abatement activities and again within 7 days of completion of all abatement projects.
4. Contractor to provide medical release for use of respirator for all workers prior to commencement of abatement activities.
5. Contractor to provide respirator fit test documentation prior to commencement of abatement activities.
6. Final payment to abatement contractor shall be held until all submittals have been made to AAA Lead Consultants and Inspections or Rancho Santiago College District.

P. SITE SPECIFIC LEAD LOCATIONS:

1. Not every component on the building was tested, therefore any similar component to those identified as lead containing are to be assumed to also contain lead based paint unless otherwise noted. All lead laden components must be worked on in an abatement / containment environment.

END OF SECTION 022626

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SECTION 022626

STABILIZATION / REMOVAL OF LEAD CONTAINING COMPONENTS

A. INTRODUCTION:

These specifications have been designed in favor of Rancho Santiago Community College District for the removal or management of all surfaces containing lead or lead based paint that will be impacted during the demolition of Building U at the Santa Ana College Campus. These specifications shall apply to all areas constructed before January 1, 1993. According to Title 17, Code of Regulations, Division 1, Chapter 8, §35043, all painted surfaces that have not been tested by a State Certified Lead Inspector I Assessor are presumed lead-based paint.

B. SCOPE OF WORK:

1. The preparation of work under this contract covers materials that contain lead and/or lead based paint, including but not limited to wall sinks, floor sinks and ceramic tile walls.
2. The Contractor shall provide all labor, materials, equipment, services, testing, supervision and incidentals necessary to perform work of lead paint abatement/stabilization under this contract in accordance with the following specifications. After preparation, the areas disturbed shall be cleaned and tested in accordance with the procedures outlined below.
3. All surfaces that are only prepped and not abated during site preparation shall be primed or encapsulated using any latex paint or primer on each type of surface or substrate that has been disturbed (wood, metal, stucco etc) prior to demolition. All components that tested positive for the presence of lead at or above the HUD action level and any similar untested components should be considered lead-laden. Any work activities on these components must be performed in an abatement/containment environment as required by Cal/OSHA Construction and Safety Orders, Lead Section 1532.1. Any component that is below the HUD action level but still contains lead requires personal exposure level (PEL) testing be performed to determine the workers skill or certification required to perform the activity if an outside contractor will do the work.
4. Refer to lead based paint inspection reports to determine whether lead based paint is present at penetration or attachment locations.

Building U Abatement

Exterior	None of the components tested positive for the presence of lead based paint
Interior First Floor Room 104-2	Remove 1 floor sink
Room 120-6	Remove 1 water basin
Room 120-4 RR	Remove 1 water basin
Room 128 Custodian	Remove 1 water basin
Room 128 Custodian	Remove approximately 350 square feet of ceramic tile walls
Room 129 Men's RR	Remove approximately 350 square feet of ceramic tile walls
Room 130 Women's RR	Remove approximately 350 square feet of ceramic tile walls
2nd Floor Custodian (off hall)	Remove 1 floor sink
Room 206 Men's RR	Remove 1 water basin

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

Kitchen Storage	Remove 1 floor sink
Room 208 RR	Remove 1 water basin
Room 216	Remove ceramic tile wall at drinking fountain
Room 224 Custodian	Remove water basin Room 224 Custodian
Room 225 Men's RR	Remove approximately 441 square feet of tile wall
Room 226 Women's RR	Remove approximately 441 square feet of tile wall

C. GENERAL REQUIREMENTS:

1. All workers who perform the lead paint abatement and *I* or stabilization (including clean up) described herein shall be State Certified Workers with current State issued "certificates" and have prior training in lead abatement as required by Title 17, CCR, Division 1 Chapter 8, §35009 & §35001 as well as other required training including safe and proper use of equipment.
2. Contractor is to have a State Certified Lead Supervisor with a current State issued "certificate" referenced above by Title 17 CCR, as part of his staff during the lead paint abatement/stabilization. The State Certified Lead Supervisor will be designated the "competent person". A "competent person" is a DPH "certified supervisor" who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions who has authorization to take prompt corrective measures to eliminate them.
3. A minimum of one RRP certified worker shall be on job site at all times. The RRP certified worker is responsible to train the other DPH Certified Workers, worker lead safe practices as taught in the RRP class.
4. Prior to commencement of lead abatement activities, the contractor is to provide AAA Lead Consultants and Inspections, Inc. with copies of current lead in blood, medical release to use respirator, respirator fit test and proof of DPH certification for each worker.
5. AAA LEAD Consultants and Inspections, Inc. will perform Project Monitoring and final clearance testing for this project as requested by Rancho Santiago College District.
6. Contractor must provide proof of delivery of DPH form 8551 to DPH (Department of Health Services) five days prior to commencement of abatement activities as required by Title 17, CCR, Div 1, Chapter 8.
7. Contractor must provide proof of delivery of Cal/OSHA notification of lead related work as required as of January 25, 2002 in Title 8, Construction Safety Orders, Chapter 4, Subchapter 4, Article 4, Section 1532.1.
8. Contractor must notify AAA Lead Consultants and Inspections, Inc. of the intent to perform lead abatement activities a minimum of 48 hours prior to the commencement of work. Lead related activities may not commence without written authorization of the building owner / owner representative.

D. RECORDS:

1. The contractor shall provide a copy of his current California Department of Health Services "Supervisor Certificate" or California Department of Health Services photo identification card prior to commencement of work.
2. The contractor or "supervisor" shall provide before the commencement of any work, copies of all "certified workers" current documentation including, "worker certificate", lead in blood test results within last six months, Dr.'s statement for each workers ability to wear NIOSH approved respirator and a respirator fit test.
3. The contractor shall provide the location and description of all presumed lead based paint locations and substances that are abated through removal, paint film stabilization or encapsulation.
4. The contractor shall provide starting and completion dates of the prep and/or abatement work.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

5. The contractor shall submit a detail summary of the techniques used to comply with these regulations.
6. The contractor shall mark on as-built drawings a note in bold letters that all surfaces with lead paint have been encapsulated, stabilized or removed under this contract, describing such locations and method used.
7. The contractor shall submit to Rancho Santiago College District copies of all records that the abatement and site preparation has been performed in compliance with the lead paint abatement procedures.

E. WORK AREA PREPARATION:

1. Decontamination Units:

One decontamination unit will be required at each lead control area.

- a) Cover the floor where the decontamination unit will be placed with 2-layers of 6-mil polyethylene (poly) prior to setting up of unit.
- b) Provide single entry and exit to each work area.
- c) Provide a 1-stage decontamination unit with a wash station. This area must be constructed of 6-mil "poly" sheeting and PVC piping at a minimum.

2. Lead Control Area Isolation Procedures:

- a) Post signs and barrier tape in compliance with Cal/OSHA, Title 8, CCR Section 1532.1. Barrier tape shall be at a minimum of 25 feet around all lead abatement areas. Contractor shall insure that the signs required are at least 20" by 14" and states the date and place of the lead abatement project. The sign must include the phrase "CAUTION LEAD HAZARD. KEEP OUT" in bold lettering at least 2 inches high. Signs to be in English or Spanish.
- b) Install suitable ground protection to prevent rupturing of plastic sheeting by ladders, scaffolding, nails, falling debris, etc. Install a minimum of two layers of 6-mil poly sheeting to base of building with duct tape or other anchoring system so that no gaps exist between the base of the building and the plastic sheeting. Poly sheeting is to extend a minimum of 10 feet from the farthest exterior portion of the area or building being disturbed. Seal overlapping sections of plastic with duct tape to provide a leak proof surface. Weight the ends of plastic sheeting to prevent blowing from the wind and breezes. All edges of the plastic sheeting shall be elevated to create a trough and prevent runoff of excess water and debris. Cover all plants and shrubs within 15 feet of the perimeter of the building with one layer plastic sheeting.
- c) In the event of rain, all work on the exterior of any structure shall be suspended or shall not begin until such time that weather conditions change more favorably.
- d) In the event of strong winds that create a condition whereby containment of airborne lead dust and or debris become infeasible, work shall be suspended or shall not begin on the exterior of the structure until notified by project monitor.
- e) The decision to suspend work due to wind or rain will be made by the project monitor or a Rancho Santiago College District representative.

F. METHODS OF ABATEMENT/STABILIZATION:

1. Removal of wall and floor tiles is to be performed by striking with hammers and chisels or mechanical means (jack hammers / chipping hammers).
2. Floor sinks and water basins shall be unbolted and removed after all plumbing connections have been severed.

G. PERSONAL PROTECTION:

1. The contractor shall insure that its employees are protected in accordance with all applicable Federal, State and Local standards, in particular, those set forth in the OSHA regulations governing occupational health and environmental controls in Subpart D of Title 29 CFR (Code of Federal Regulations) Section 1926.62 containing employee protection requirements for construction workers exposed to lead.
2. All lead paint abatement workers shall have received lead paint medical screening and will have been physician certified to work while wearing a respirator along with all other regulations as required by CCR, (California Code of Regulations) Title 8, Section 1532.1.
3. All persons when, present at the work site, shall wear disposable protective suits with attached hoods and shoe coverings designed for lead abatement. All personnel entering the lead control area shall wear rubber or latex gloves beneath their work gloves. Gloves are to be taped to the suit sleeves with duct tape.
4. Contractor shall provide gloves, eye protection, disposable protective suits and other recommended safety equipment for use by all workers.
5. All persons entering the work area are to wear a minimum of a half faced air-purifying respirator equipped with HEPA cartridges for protection from airborne lead particles.
6. Personal sampling is to be done using an air sampling pump to determine overall exposure in each work area and to monitor PEL (permissible exposure limits) for workers.
7. A separate decontamination area as noted in SECTION§1, is to be located adjacent to the work area. All personnel will complete decontamination upon exit of the work areas in the decontamination area. Decontamination area shall contain a minimum of a HEPA vacuum, wash station (soapy water and rinse water or pre-moistened towllets) and dressing area. All disposable clothing, wash supplies and discarded equipment is to be placed directly into 6 mil plastic bags and then stored in locked 55-gallon metal drums as per specifications under Clean Up of Work Area.

H. WORKER SAFETY:

1. Ladders:
 - a) Refrain from using ladders with broken, missing or defective parts.
 - b) Ladder feet must be on substantial base.
 - c) Top and bottom of ladder must be kept clear.
 - d) No job made ladders.
 - e) No metal ladders shall be used on project.
 - f) Ladders shall not be used in a horizontal position.
 - g) Always face ladder.
 - h) Do not step higher than third rung on straight ladder and second step on stepladder.
 - i) Always inspect ladder before use.
 - j) Do not attempt to move ladder while in use. Worker must fully egress ladder before moving ladder to a different location.

2. Scaffolding:

- a) All scaffolding shall utilize guardrails, mid rails and toe boards.
- b) No persons shall be permitted to remain on scaffold while it is being moved or rolled.
- c) Lock scaffold wheels when location is achieved. d)
Scaffold height shall not exceed four times the base dimension.
- e) Use scaffold grade lumber for planking.
- f) Use scaffold capable of supporting at least four times the intended load.
- g) Climbing of any scaffold braces or supports not specifically designed for access is prohibited.

3. Personal Protective Equipment:

- a) Follow guidelines as stated above in Section G, paragraphs 1 through 7.

4. Training, Fit Testing and Medical Surveillance:

- a) Current Medical Surveillance Records for all employees required to enter the contaminated area. All workers on this project must have baseline and post abatement blood lead level and zinc protoporphyrin (zpp) measurements made before and after the work of the contract begins and ends respectively.

5. Housekeeping:

- a) Throughout the abatement process the work areas will be kept free from a buildup of removed components or paint chip debris. On an ongoing basis, all components shall be wrapped or placed in two layers of 6-mil plastic sheeting or bags. Loose paint chip dust and debris shall be collected with HEPA vacuums and / or wet wiping and placed in six mil plastic bags and sealed with duct tape.

I. CONTROL OF ACCESS:

- 1. Each work area to be secured with barrier warning tape at least 25 feet from the work location and posted as a lead abatement project and potential hazard site.
- 2. A person may not enter the work area unless that person is authorized to do so by the "competent person" or project monitor.
- 3. Contractor to post caution signs and barrier tape in each work area containing lead based paint before removing or encapsulating lead paint.
- 4. Contractor shall keep the signs posted and barrier tape intact during abatement and clean up as described in this specification.
- 5. Contractor shall insure that the signs required are at least 20-inches by 14-inches and states the date and place of the lead abatement project. The sign must include the phrase "CAUTION LEAD HAZARD, KEEP OUT" in bold lettering at least 2 inches high along with DO NOT ENTER WORK AREA, AUTHORIZED PERSONNEL ONLY, NO EATING, DRINKING, OR SMOKING IN THIS AREA in at least 1 inch high lettering. The signs are to be in English and Spanish.

J. CLEAN UP OF WORK AREA:

- 1. Preliminary clean up shall be performed by certified-trained workers as follows:

- a) After the abatement / preparation work has been completed, or at the end of the work day, remove all debris and provide the interim clean-up as described below:
- b) Deposit all lead waste, including sealing tape, plastic sheeting, mop heads, sponges, filters and disposable clothing etc. in double plastic bags, of at least 6 mils thick. Bags are then to be deposited and stored in locked 55 gallon metal drums labeled "DANGER LEAD HAZARD" and secured on site.
- c) Vacuum clean all surfaces in the work area including woodwork, metal work, walls, windows, window wells, polyethylene, steps etc. with a HEPA vacuum.
- d) After vacuum cleaning, using phosphate free or detergent wash all polyethylene coverings that are to be reused in the work area with at least 1-ounce of 5 percent phosphate free solution (or similar lead removal product) to each gallon of water.
- e) After polyethylene washing has dried, vacuum clean polyethylene, with a HEPA vacuum until no visible residue remains.
- f) Final clean up to be performed prior to wipe testing when abatement I preparation work is finished.

K. FINAL CLEANUP:

1. Procedures:

- a) After removal of all plastic sheeting, except critical barriers, final cleaning can proceed. Begin with a thorough HEPA vacuuming of all surfaces starting at the ceilings, proceeding down the walls to the floor. The floors shall be vacuumed by starting from the farthest corners of the entrance of the work areas. HEPA vacuuming is to be performed as described in the previous section before and after detergent wash as shown below.
- b) Wet wipe and mop the same surfaces with a 5% solution of Phosphate free Lead cleansing detergent and allow the surfaces to dry.
- c) Thoroughly HEPA vacuum and wet wipe tools and other equipment before removing from work area. Any power tools that cannot be completely de-contaminated shall be placed in pre-labeled plastic bags and sealed with duct tape before removing from work area.
- d) Hand tools such as, scrappers, broad knives, etc., shall be cleaned by wet wiping prior to removal from the work area.
- e) All personnel will follow strict decontamination procedures, including use of soap and shower facilities to wash hands, face and body as well as respirators before exiting shower.

L. WASTE DISPOSAL:

1. The contractor shall be responsible for determining whether any of the waste materials are hazardous waste. This includes not only solid waste, but also wastewater generated from interim and final clean up. All test results are to be submitted to AAA Lead Consultants and Inspections, Inc. or a representative of the

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

Rancho Santiago College District prior to the disposal of lead containing debris.

2. The contractor shall remove, within 10 days, all lead waste materials from the site after final completion of lead abatement and preparation in compliance with applicable waste requirements.
3. The contractor shall transport and dispose of lead waste in a legal manner as described in 22CCR, chapter 12 (beginning with section 66262.10).
4. All lead containing components removed for disposal shall be burrito wrapped in six mil plastic or double bagged in six-mil plastic bags and sealed with duct tape prior to being placed in roll off container.

M. TESTING:

1. Prior to commencement of site abatement and preparation Project Monitor will take baseline samples to establish existing lead dust levels.
2. At time of final clearance, the Project Monitor shall conduct wipe tests at and around abatement and preparation work areas.
3. The Project Monitor shall submit the test results to Rancho Santiago College District and the Contractor indicating that lead dust levels are at or below baseline levels.
4. If wipe test exceeds baseline levels, contractor is to reclean areas using the above criteria and new wipe tests shall be taken until at which time the test do pass. Cost associated with retesting will be billed to the district and deducted from abatement contractor at \$125 per return visit and \$50 per sample retaken.

N. PEL MONITORING:

1. Personal air monitoring shall be performed at one or more sites to determine the PEL and worker qualifications for performing similar tasks at each location.
2. Employees involved in personal exposure monitoring to determine worker protection and certification requirements will be required to have:
 - A) Recent medical release to wear a respirator.
 - B) Biological Testing (blood draw within last 6 months)
 - C) Recent respirator fit test.
 - D) Dress out in protective clothing including gloves, shoe covers, eye protection, head cover and hepa equipped respirator as outlined in Section G.
3. Worker is to wear a personal air-monitoring pump equipped with a 37mm cassette for testing lead content in air. The air flow rate is to be set between 2 and 4 liters of air per minute and be worn for eight hours while performing abatement / remediation tasks.
4. Air sample(s) to be collected by Project Monitor and sent to state accredited laboratory for analysis.

O. SUBMITTALS:

1. The Contractor shall inform AAA Lead Consultants and Inspections or a representative of the Rancho Santiago College District of where all waste materials are disposed of by State Certified hauler and provide AAA Lead Consultants and Inspections with the EPA number and a copy of the transportation manifest
2. Certificates of training, for all abatement and clean-up personnel who will be performing the work under this contract, must be submitted to AAA Lead Consultants and Inspections, Inc., or a Rancho Santiago College District representative two days prior to commencement of abatement activities.

SANTA ANA COLLEGE
JOHNSON STUDENT CENTER DEMOLITION

3. Contractor to provide proof of lead paint medical screening for lead in blood on all workers prior to commencement of abatement activities and again within 7 days of completion of all abatement projects.
4. Contractor to provide medical release for use of respirator for all workers prior to commencement of abatement activities.
5. Contractor to provide respirator fit test documentation prior to commencement of abatement activities.
6. Final payment to abatement contractor shall be held until all submittals have been made to AAA Lead Consultants and Inspections or Rancho Santiago College District.

P. SITE SPECIFIC LEAD LOCATIONS:

1. Not every component on the building was tested, therefore any similar component to those identified as lead containing are to be assumed to also contain lead based paint unless otherwise noted. All lead laden components must be worked on in an abatement / containment environment.

END OF SECTION 022626

SECTION 024000

DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Removing above-grade site improvements within limits indicated.
- B. Disconnecting, capping or sealing, and abandoning site utilities in place.
- C. Disconnecting, capping or sealing, and removing site utilities.
- D. Disposing of objectionable material.
- E. Protecting in Place existing low voltage underground lines and above ground vault.

1.2 RELATED SECTIONS

- A. Section 31100 – Site Preparation.

1.3 DEFINITIONS

- A. ANSI: American National Standards Institute.
- B. CAL-OSHA: California Occupational Safety and Health Administration.

1.4 SUBMITTALS

- A. Follow Submittal procedure outlined in Section 01 33 00 – Submittal Procedures.

1.5 PROJECT CONDITIONS

- A. Except for materials indicated to be stockpiled or to remain the Owner's property, cleared materials are the Contractor's property. Remove cleared materials from site and dispose of in lawful manner.
- B. Salvable Improvements: Carefully remove items indicated to be salvaged and store where indicated on plans or where designated by the Owner. Avoid damaging materials designated for salvage.
- C. Unidentified Materials: If unidentified materials are discovered, including hazardous materials that will require additional removal other than is required by the Contract Documents, immediately report the discovery to the Owner. If necessary, the Owner will arrange for any

testing or analysis of the discovered materials and will provide instructions regarding the removal and disposal of the unidentified materials.

- D. For any utility lines which are to be partially demolished, the Contractor shall provide new operable service re-connection all the way to the extent of the utility source if needed to maintain service. This includes the lowering of any utilities lines to achieve minimum cover requirements.

PART 2 PRODUCTS

2.1 SOIL MATERIALS

- A. Backfill excavations resulting from demolition operations with on-site or import materials conforming to structural backfill which is defined as soil materials approved by the Geotechnical Consultant and used to fill excavations resulting from removal of existing below grade facilities, including trees. See Section 31 23 33 – Trenching and Backfill.

PART 3 EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points during construction.
- B. Protect existing site improvements to remain during construction.

3.2 RESTORATION

- A. Restore damaged improvements to their original condition, as acceptable to the Owner.

3.3 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed or abandoned.
- B. Arrange to shut off indicated utilities with utility companies or verify that utilities have been shut off. Coordinate all service interruptions with College Staff.
- C. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless authorized in writing by the Owner, and then only after arranging to provide temporary utility services according to requirements indicated.
- D. Coordinate utility interruptions with utility company affected.
- E. Do not proceed with utility interruptions without the permission of the Owner and utility company affected. Notify Owner and utility company affected two working days prior to utility interruptions.

- F. Excavate and remove underground utilities that are indicated to be removed.
- G. Securely close ends of abandoned piping with tight fitting plug or wall of concrete minimum 6-inches thick.

3.4 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, and gutters, and any associated reinforcement/rebar, as indicated. Where concrete slabs, curb, gutter and asphalt pavements are designated to be removed, remove bases and sub-base to surface of underlying, undisturbed soil. Joint to Joint removal of hardscape must be met.
- C. Unless the existing full-depth joints coincide with line of pavement demolition, neatly saw-cut to full depth the length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
- D. Remove driveways, curbs, gutters and sidewalks by saw cutting to full depth. If saw cut falls within 60-inches of a construction joint, expansions joint, score mark or edge, remove material to joint, mark or edge.
- E. Any tree designated to be removed shall have its root mass completely removed by excavation. The use of a stump grinder may be used in conjunction with excavation methods.

3.5 BACKFILL

- A. Place and compact material in excavations and depressions remaining after site clearing in conformance with Section 31 00 00 and to the satisfaction of the Geotechnical Consultant.

3.6 DISPOSAL

- A. Remove surplus obstructions, demolished materials, and waste materials, including trash and debris, and legally dispose of them off the Owner's property.

END OF SECTION 024000

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SECTION 311000

SITE PREPARATION

PART 1 - GENERAL

1.1 SECTION INCLUDED

- A. All labor, materials, tools, equipment, transportation, and temporary construction of any nature necessary for a complete operational installation of all work shown on the Plans and/or specified hereinafter.

1.2 RELATED DOCUMENTS

- A. Section 014524, Environmental Import & Export
- B. Section 024000, Demolition
- C. Consult all other Specification sections, determine the extent and character of related work, and properly coordinate work specified herein with that specified elsewhere to produce a complete operational installation.

1.3 REFERENCES

- A. California Department of Transportation (CDT):
 - 1. Standard Specifications: Sections 16.
- B. National Arborists Association:
 - 1. Pruning Standards and Practices.
- C. Geotechnical Report:
 - 1. A geotechnical report has been provided by the District, however the Contractor shall perform sufficient tests and inspections and the Inspector of Record is to be available during grading to verify compliance with the plans and code. Engineered fill shall be tested for structural capacity per the provided geotechnical report and the Increment no. 2 Structural Engineer of Record.
- D. Storm Water Pollution Prevention Plan:
 - 1. A SWPPP report will be provided by the District.

1.4 SITE CONDITIONS

- A. General:
 - 1. Clearing work shall not begin until temporary fences, barricades, warning signs and other pedestrian control devices are installed. Temporary fencing around the perimeter of the site shall be paid for and provided by the Contractor for the duration of the project.
 - 2. All trees, plants, utilities and existing improvements that are not to be removed shall be protected from injury or damage resulting from the Contractor's operation. The Contractor shall replace all damaged landscaping, improvements or utilities either in kind, or as stipulated in the landscape

plans or specifications, whichever is more severe. Such repair and/or replacement work shall be considered as included in other items of work, and no additional compensation will be allowed.

- B. Salvage: Contractor shall take care when removing salvageable material to avoid damaging the material itself or the adjacent or adjoining structures that are to remain.
- C. Existing Subsurface Utilities:
 - 1. Existing subsurface facilities are shown on the Plans to help the Contractor avoid damage to essential utilities which must remain in service. The accuracy or completeness of existing utility information cannot be guaranteed.
 - 2. The Contractor shall ascertain the exact location of all underground facilities prior to doing work that may damage such facilities. If the Contractor discovers underground facilities not indicated on the Plans or in a location different from what is indicated on the Plans, the Contractor shall protect such facilities from damage and notify the Construction Manager immediately if a conflict exists.
 - 3. Although irrigation lines smaller than 3" in diameter are typically not shown on the Plans, all landscaped areas are served by automatic irrigation systems. Unless otherwise indicated on the Plans, the Contractor remove and cap irrigation lines.
- D. Existing Building(s) Foundation:
 - 1. Contractor to provide survey of piles and document exact location and dimension fo existing piles, pile caps and grade beams.. Contractor to provide as-builts of caps/piles/grade beam with horizontal/vertical dimensions.
- E. Protection of Existing Trees:
 - 1. All trees greater than or equal to 6 inches in diameter not specifically designated for removal are to remain and shall be protected. Unless otherwise noted, all trees less than 6 inches in diameter located more than 3 feet from a utility trench or surfaced area under construction are to remain and shall be protected.
 - 2. Trees to remain shall be safeguarded during construction by implementing the following restrictions:
 - a. No storage of oil, gasoline, or chemicals within tree driplines.
 - b. Minimal grading within tree driplines.
 - c. No dumping of liquid or solid wastes within the dripline of or uphill from any tree.
 - d. Construction of barricades around tree trunks to protect them from injury.
 - 3. The following shall not be permitted:
 - a. Using trees as support posts; power poles; sign post; anchorage for ropes, guy wires, and power lines; or other similar functions.
 - b. Poisoning items by disposing of paint, petroleum products, dirty water, soil sterilants, or other deleterious material on or around roots.

- c. Excessive water or heat from equipment, utility line construction, or burning of trash under or near shrubs or trees.
- d. Unnecessary compaction of root area by moving trucks; grading machines; storage of equipment, materials, or supplies; etc.
- e. Damage to trunk or limbs caused by maneuvering of vehicles or equipment, or stacking of materials and equipment.
- f. Damage to root system from flooding, erosion, excessive wetting and drying resulting from de-watering and other operations.

PART 2 PRODUCTS

2.1 NOT USED.

PART 3 EXECUTION

3.1 DEMOLITION, REMOVAL, ABANDONMENT, STRIPPING, AND GRUBBING

A. Demolition:

1. Existing asphalt concrete paving, concrete curbs and walks shall be broken up and removed where shown on the plans for new construction, including any associated concrete reinforcement or rebar. In addition, the baserock material underneath paved areas shall be removed.
2. Existing on-site underground utilities conflicting with construction shall be cut off and capped, removed entirely, or relocated as indicated on the plans.
3. Existing concrete structures or portions of structures extending below new structures shall be removed entirely. In all other areas, existing concrete structures or portions of structures below grade shall be removed to a depth of at least 3 feet below finished grade and broken in a manner that will prevent water entrapment.
4. Explosives shall not be used.

B. Removal:

1. Traffic stripes and pavement markings shall be removed by any method that does not materially damage the existing pavement. Pavement marking images shall be removed in such a manner that the old message cannot be identified. Where grinding is used, the pavement-marking image shall be removed by grinding a rectangular area. The minimum dimensions of the rectangular area shall be the height and width of the pavement marking. Residue resulting from removal operations shall be removed from pavement surfaces by sweeping or vacuuming before the residue is blown by the action of traffic or wind, migrates across lanes or parking areas, or enters into drainage facilities. Traffic stripes shall be removed before any change is made in the traffic pattern.

C. Stripping:

1. Existing topsoil shall be stripped to a depth of 2" to 4" (or deeper where directed by the Soils Engineer) as necessary to remove all vegetation, organic matter, or other objectionable material in those areas to be graded.
 2. Topsoil not containing vegetation may be stockpiled on-site for later use as topsoil backfill.
- D. Grubbing and Trimming:
1. Trees designated for removal shall be removed to a point at least one foot below the lowest level of subgrade upon which fill will be placed.
 2. Tree branches which extend over the line of construction and which hang within 15 feet of finished grade shall be cut off under the direction of the Owner's representative.
 3. Pruning operations shall be extended to restore the natural shape of entire tree as directed by the Owner's representative.
- E. Excavation Around Trees:
1. Where trenching for utilities is required within drip lines, tunneling under and around roots shall be by hand digging. Main lateral roots and tap roots shall not be cut. Roots smaller than 3" that interfere with installation of new work may only be cut if approved by the project Arborist.
 2. Where excavation for new construction is required within drip line of trees, hand excavation shall be employed to minimize damage to root systems. Roots shall be relocated in backfill areas wherever possible. If large, main lateral roots are encountered, they shall be exposed beyond excavation limits as required to bend and relocate without breaking.
 3. Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or roots shall be packed with wet peat moss or 4 layers of wet untreated burlap and temporarily supported and protected from damage until permanently relocated and covered with backfill.
 4. Branching structure shall be thinned in accordance with National Arborists Association "Pruning Standards and Practices" to balance loss to root system caused by damage or cutting of root system. Thinning shall not exceed 30% of existing branching structure.

3.2 FILLING AND BACKFILLING

- A. Pits or depressions resulting from the above operations shall be filled and compacted prior to performing any earthwork.
- B. Material to be used for filling shall be select on-site or imported fill material approved by the Soils Engineer. Cement slurry may also be used as approved by the Soils Engineer.
- C. Fill material shall be compacted to 90% maximum density. Relative compaction will be tested in accordance with Section 02 30 00.

3.3 DISPOSAL

- A. All debris, site strippings, and objectionable material shall be the property of the Contractor and shall be removed and disposed of in a legal manner off the Owner's property.

- B. Disposal shall be performed as promptly as possible after removal of the material and shall not be left until the final clean-up period.

END OF SECTION 311000

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SECTION 321313

CONCRETE PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - B.
 - 1. Walks.
- C. Related Sections:
 - 1. Section 311000, Site Preparation.

1.3 REFERENCES

- A. Organization and Trade Standards
 - 1. Standard Specifications for Public Works Construction, latest edition, as adopted by local jurisdictional authority, including amendments.
 - 2. Regional Standard Drawings, current edition, with all local agency amendments.

1.4 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash and other pozzolans, and ground granulated blast-furnace slag.

1.5 SUBMITTALS

A. Mix Design/Materials List:

1. Submit concrete mix design prepared by a certified batch plant or laboratory, selected by Contractor and acceptable to Owner, for review and approval.
2. Accompanying mix design, submit materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements. For the following, from manufacturer:
 - a. Cementitious materials.
 - b. Steel reinforcement and reinforcement accessories.
 - c. Admixtures.
 - d. Curing compounds.
 - e. Joint fillers.

B. Other Action Submittals:

1. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

C. Mock-up

1. Prior to installing any concrete paving, construct, at an approved location on-site, an individual mock-up showing each concrete paving finish specified and shown on drawings. Mock-up shall include sealant joint preparation. Each finish shall be 4' x 4' minimum. Obtain Architect's approval of mock-up.
2. All concrete paving shall match approved mock-up.
3. Remove mock-up after completion of work and dispose off-site.

1.6 QUALITY ASSURANCE

A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control Manual - Section 3, "Plant Certification Checklist").

B. Testing Agency Qualifications: Qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.

1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.

C. Concrete Testing Service: Engage a qualified testing agency to perform material evaluation tests and to design concrete mixtures.

D. ACI Publications: Comply with ACI 301 (ACI 301M) unless otherwise indicated.

1.7 PROJECT CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.
- B. Pavement-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F (4.4 deg C) for oil-based materials or 55 deg F (12.8 deg C) for water-based materials, and not exceeding 95 deg F (35 deg C).

PART 2 - PRODUCTS

2.1 DESIGN CRITERIA

- A. General
 - 1. All improvements shall be constructed per the referenced standards, the contract documents, and as specified in this section.
 - 2. Where criteria shown on drawings or specified in this specification exceed that of the referenced standards, the more stringent criteria shall apply.
 - 3. All concrete is to be batched in a certified plant capable of achieving DSA Waiver of continuous batch plant inspection.
 - 4. All concrete to be produced by the same batch plant.

2.2 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, and smooth exposed surfaces.
 - 1. Use flexible or uniformly curved forms for curves with a radius of 100 feet (30.5 m) or less. Do not use notched and bent forms.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and that will not impair subsequent treatments of concrete surfaces.

2.3 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420); deformed.
- B. Plain-Steel Wire: ASTM A 82/A 82M.
- C. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 (Grade 420) plain-steel bars; zinc coated (galvanized) after fabrication according to ASTM A 767/A 767M, Class I coating. Cut bars true to length with ends square and free of burrs. Provide polyethylene closed-end sleeve or approved alternate at expansion joint dowels
- D. Where deformed bar reinforcing not shown, provide welded wire fabric, flat sheet stock, 12x12-W2.8x2.8 or approved equivalent, per ASTM A-185, at all concrete paving conditions.
- E. Tie Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.

- F. Hook Bolts: ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6), internally and externally threaded. Design hook-bolt joint assembly to hold coupling against paving form and in position during concreting operations, and to permit removal without damage to concrete or hook bolt.
- G. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete specified, and as follows:
 - 1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.
- H. Zinc Repair Material: ASTM A 780.

2.4 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of same type, brand, and source throughout Project:
 - 1. Portland Cement: ASTM C 150, gray portland cement Type V, produced in the United States. Supplement with the following:
 - a. Fly Ash: ASTM C 618, Class C.
 - b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
- B. Normal-Weight Aggregates: ASTM C 33, uniformly graded. Provide aggregates from a single source with documented service-record data of at least 10 years' satisfactory service in similar paving applications and service conditions using similar aggregates and cementitious materials.
 - 1. Maximum Coarse-Aggregate Size: 1 inch (25 mm) nominal.
 - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Water: Potable and complying with ASTM C 94/C 94M.
- D. Chemical Admixtures: Admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.
 - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 - 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
 - 3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
 - 4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.

2.5 CURING MATERIALS

- A. Water: Potable.
- B. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete.
- C. Clear, Type 1, per Section 201-4 of Standard Specifications.

1. Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following recommendations:
 - a. ChemMasters; Safe-Cure Clear.
 - b. Dayton Superior Corporation; J-18 Safe Cure & Seal
 - c. SpecChem, LLC; PaveCure Rez.
 2. Cure and Sealing Compound
 - a. Products: Basis of Design - Provide Burke Spartan-Cote WB, complying with ASTM C309, Type 1-A and B, at natural color exterior concrete paving.
- 2.6 PAVING BASE
- A. Where shown on drawings, provide crushed aggregate base per Section 200-2.2.1 of the Standard Specification for Public Works Construction "Greenbook".
- 2.7 RELATED MATERIALS
- A. Joint Fillers: ASTM D 1751, asphalt-saturated cellulosic fiber in preformed strips.
 - B. Expansion Joint Material: W. R. Meadows or equal, Sealtight Fiber filler, full depth of slab, matching profile, 1/2 inch thickness or as shown on drawings.
 - C. Expansion Joint Material - Radius Conditions: W. R. Meadows or equal, Sealtight Ceramar flexible foam resilient filler, full depth of slab, 3/8 inch thickness or as shown on drawings.
- 2.8 PAVEMENT MARKINGS
- A. Glass Beads: AASHTO M 247, Type 1.
- 2.9 CONCRETE MIXTURES
- A. Prepare design mixtures, proportioned according to ACI 301 (ACI 301M) and Public Works Construction Standard Specifications (Green Book), for each type and strength of normal-weight concrete, and as determined by either laboratory trial mixtures or field experience.
 1. Use a qualified independent testing agency for preparing and reporting proposed concrete design mixtures for the trial batch method.
 2. When automatic machine placement is used, determine design mixtures and obtain laboratory test results that meet or exceed requirements.
 - B. Product Characteristics: Paving/flatwork/ramps/stairs:
 1. Compressive Strength: 3250 psi. Strength selected for durability. Concrete is non-structural, and does not require special inspection.
 2. Combined Aggregate Grading:
 - a. Class C per Standard Specification for Public Works Construction "Greenbook" Section 201-1.3.2

- b. Aggregate shall be non-reactive per ASTM C 289, and shall comply with ASTM C33, Table 3, Class 4M.
 3. Cement Content: 560 pounds per cubic yard concrete
 4. Slump: 4 inch maximum
 5. Finish:
 - a. Broom finish natural concrete paving.
 - b. Broom finish integral color concrete paving.
 6. Water-Cement Ratio: 0.45 maximum.
 7. Integral Color Admixture: Scofield Chromix or equal.
 8. Surface Retarder: Scofield Lithotex Top Surface Retarder or equal.
- C. Product Characteristics: Curbing, gutters, related drainage components.
 1. Compressive Strength: 3250 psi
 2. Combined Aggregate Grading:
 - a. Class C per Standard Specification for Public Works Construction "Greenbook" Section 201-1.3.2
 3. Cement Content: 520 pounds per cubic yard concrete
 4. Slump: 4 inch maximum
 5. Finish: Per Section 303-5.5.2 of Standard Specifications for Public Works Construction, "Greenbook," and with flatwork finishes as defined in this Section and per Drawings.
- D. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.
- E. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.
 1. Use water-reducing admixture in concrete as required for placement and workability.
 2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
- F. Cementitious Materials: Limit percentage by weight of cementitious materials other than portland cement according to ACI 301 (ACI 301M) requirements for concrete exposed to deicing chemicals. As follows:
 1. Fly Ash or Pozzolan: 25 percent.
 2. Ground Granulated Blast-Furnace Slag: 50 percent.
 3. Combined Fly Ash or Pozzolan, and Ground Granulated Blast-Furnace Slag: 50 percent, with fly ash or pozzolan not exceeding 25 percent.

2.10 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M and ASTM C 1116/C 1116M. Furnish batch certificates for each batch discharged and used in the Work.
 1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.
- B. Proof-roll prepared subbase surface below concrete paving to identify soft pockets and areas of excess yielding.
 - 1. Completely proof-roll subbase in one direction and repeat in perpendicular direction. Limit vehicle speed to 3 mph.
 - 2. Proof-roll with a pneumatic-tired and loaded, 10-wheel, tandem-axle dump truck weighing not less than 15 tons.
 - 3. Correct subbase with soft spots and areas of pumping or rutting exceeding depth of 1/2 inch according to requirements in Division 31 – Earth Moving.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Verify sub-grade, base material, conduit, and all other embedded items are properly located in relation to concrete paving. Secure all embedded items against displacement during pour.
- B. Verify all grades for pitch and fall prior to pouring pavements.
- C. Verify that all cross-fall and ramp criteria comply with all accessibility regulations, including Title 24 requirements.
- D. Verify compaction of existing subgrade complies with criteria specified in Division 31 – Earth Moving.
- E. Notify inspector 48 hours prior to placing concrete. Obtain inspectors approval of subgrade, forming and embedded items prior to placing.
- F. Remove loose material from compacted subbase surface immediately before placing concrete.

3.3 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage. Coat forms with approved bond breaker, suitable for use on integral colored concrete without staining or discoloration. Place sand bed over existing paving receiving new concrete paving.

3.4 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Zinc-Coated Reinforcement: Use galvanized-steel wire ties to fasten zinc-coated reinforcement. Repair cut and damaged zinc coatings with zinc repair material.

3.5 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.
 - 1. When joining existing paving, place transverse joints to align with previously placed joints unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.
 - 1. Continue steel reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of paving strips unless otherwise indicated.
 - 2. Provide tie bars at sides of paving strips where indicated.
 - 3. Keyed Joints: Provide preformed keyway-section forms or bulkhead forms with keys unless otherwise indicated. Embed keys at least 1-1/2 inches (38 mm) into concrete.
 - 4. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.
- C. Isolation (Expansion) Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.
 - 1. Provide expansion joints at intervals of 50 feet (15.25 m) unless otherwise indicated.
 - 2. Provide where paving is adjacent to walls, bollard or column penetrations, light pole, utility box or footings.
 - 3. Provide at pavement plazas and fields, approximately 20 feet on center each way, and as necessary to limit area to a maximum of 400 square feet.
 - 4. Extend joint fillers full width and depth of joint and terminate not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
 - 5. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
 - 6. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together
 - 7. Tool all edges adjacent to expansion material with maximum 1/8 inch radius tool..
 - 8. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint and provide bondbreaker tape at surface of joint material cover cap.
 - 9. Provide sealant and backer rod assembly per Division 2, "Pavement Joint Sealants" when provided, if not see Division 7, "Joint Sealants" and as shown on drawings
- D. Contraction (Control) Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows, to match jointing of existing adjacent concrete paving:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.
 - a. Tolerance: Ensure that grooved joints are within 3 inches either way from centers of dowels.
 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.
 - a. Tolerance: Ensure that sawed joints are within 3 inches either way from centers of dowels.
 3. Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.
 4. Provide at curbs, curb and gutter assemblies, and cross gutters at 20 feet on center maximum. Where concrete pavement occurs adjacent to curb, align curb and pavement joints.
 5. Provide at pavement plazas and fields, approximately 10 feet on center each way, and as necessary to limit area to a maximum of 100 square feet.
 6. Provide at pavement areas at all re-entrant corners and at changes in direction.
 7. Provide control (weakened plane) joints by saw cutting method, hand held jointing tools, or by use of SOF-CUT equipment. Use of zip-strip not acceptable.
- E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 1/4-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.

3.6 CONCRETE PLACEMENT

- A. Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast-in.
- B. Remove snow, ice, or frost from subbase surface and steel reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- D. Comply with ACI 301 (ACI 301M) requirements for measuring, mixing, transporting, and placing concrete.
- E. Do not add water to concrete during delivery or at Project site. Do not add water to fresh concrete after testing.
- F. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- G. Consolidate concrete according to ACI 301 (ACI 301M) by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.
 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced

shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels and joint devices.

- H. Screed paving surface with a straightedge and strike off.
- I. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- J. Slip-Form Paving: Use design mixture for automatic machine placement. Produce paving to required thickness, lines, grades, finish, and jointing.
 - 1. Compact subbase and prepare subgrade of sufficient width to prevent displacement of slip-form paving machine during operations.
- K. Cold-Weather Placement: Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing, or low temperatures. Comply with ACI 306.1 and the following:
 - 1. When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in design mixtures.
- L. Hot-Weather Placement: Comply with ACI 301 (ACI 301M) and as follows when hot-weather conditions exist:
 - 1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated in total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 - 2. Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
 - 3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.7 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
 - 1. Medium-to-Fine-Textured Broom Finish: Draw a soft-bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.
 - 2. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

3.8 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure concrete by curing compound as follows:
 - 1. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas that have been subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating, and repair damage during curing period.

3.9 PAVING TOLERANCES

- A. Comply with tolerances in ACI 117 and as follows:
 - 1. Level: 3/16 inch plus or minus, at any point, measured along a 10 foot straight edge.
 - 2. Adjacent surfaces: 1/8 inch maximum difference at any point between adjacent concrete pours or between paving and adjacent paving materials.
 - 3. Joint Alignment: 1/16 inch deviation from adjacent joint.
 - 4. Line: 1/4 inch, plus or minus, deviation from a straight line in any 10 foot length, non-cumulative.
 - 5. Final elevations shall comply with grades as shown on drawings, to a tolerance of plus or minus 0.25 inch.
 - 6. Tolerances do not permit violation of dimensions or grade and slopes relationships required by code or jurisdictional authority. Adjust work as required to comply with such requirements.

3.10 PAVEMENT MARKING

- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.
- B. Allow concrete paving to cure for a minimum of 28 days and be dry before starting pavement marking.
- C. Sweep and clean surface to eliminate loose material and dust.
- D. Apply paint with mechanical equipment to produce markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.
 - 1. Apply graphic symbols and lettering with paint-resistant, die-cut stencils, firmly secured to concrete surface. Mask an extended area beyond edges of each stencil to prevent paint application beyond stencil. Apply paint so that it cannot run beneath stencil.
 - 2. Broadcast glass beads uniformly into wet markings at a rate of 6 lb/gal.

3.11 WHEEL STOPS

- A. Install wheel stops in bed of adhesive applied as recommended by manufacturer.

- B. Securely attach wheel stops to paving with not less than two galvanized-steel dowels located at one-quarter to one-third points. Install dowels in drilled holes in the paving and bond dowels to wheel stop. Recess head of dowel beneath top of wheel stop.

3.12 FIELD QUALITY CONTROL

A. Flood Test

- 1. Provide flood test of all gutters and paving as directed by Architect.
- 2. Where ponding occurs, or where drainage rate is less than that established by original design, replace all defective concrete. Remove concrete to the nearest joint line.

B. Appearance

- 1. Remove and replace concrete not matching approved mock-up, concrete not complying with specified tolerances, and concrete with the following defects.
 - a. Inconsistent texture.
 - b. Irregular or misaligned direction of texture.
 - c. Concrete with spalled or raveled control or expansion joints.
 - d. Concrete exhibiting splotching or discoloration in surface including discoloration due to "carbonation".
 - e. Concrete exhibiting cracking, including shrinkage cracking, where cracks are located between joint pattern.
- 2. Use of patching mortar for repair of edge defects is subject to acceptance of final color and texture by Architect. Use of patching mortar not acceptable for repair of defective exposed aggregate finished concrete.

C. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

- 1. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. or fraction thereof of each concrete mixture placed each day.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
- 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
- 3. Air Content: ASTM C 231, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
- 4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F (4.4 deg C) and below and when it is 80 deg F and above, and one test for each composite sample.
- 5. Compression Test Specimens: ASTM C 31/C 31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
- 6. Compressive-Strength Tests: ASTM C 39/C 39M; test one specimen at seven days and two specimens at 28 days.

- a. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at 28 days.
- D. Strength of each concrete mixture will be satisfactory if average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
- E. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- F. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
- G. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.
- H. Concrete paving will be considered defective if it does not pass tests and inspections.
- I. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- J. Prepare test and inspection reports.

3.13 REPAIRS AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.
- B. Use of patching mortar for repair of edge defects is subject to acceptance of final color and texture by Architect. Use of patching mortar not acceptable for repair of defective exposed aggregate finished concrete.
- C. Drill test cores, where directed by Architect, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory paving areas with portland cement concrete bonded to paving with epoxy adhesive.
- D. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- E. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 321313

